



Thematic Cluster on Climate Change and Sustainable Solutions

February 2012 - February 2013

Higher education institutions play a crucial role in research and education on climate change, a topic of great interest to policy makers and business representatives. The aim of this cluster is to understand the challenges faced by Erasmus Mundus activities in this particular field of study, and identify good practice examples for the benefit of all stakeholders.

This cluster covers 78 out of the 224 Erasmus Mundus Action 1 Master Courses (EMMCs), Action 1 Joint Doctorates (EMJDs) and Action 3 Attractiveness Projects, all of which display a direct or indirect connection to the field of "Climate Change and Sustainable Solutions".

The Cluster on Climate Change and Sustainable Solutions is one of five "cluster projects", which respond to specific needs and focus on key items relevant for the success of the Erasmus Mundus programme. They have been organised around the following themes:

- Sustainability
- Employability
- Recognition of degrees
- Regional Cluster: Asia
- Thematic Cluster : Climate change

The overall objectives of the clusters are to bring together existing Erasmus Mundus Projects and their stakeholders, such as coordinators, students and alumni, employers and academics, and to identify and disseminate good practices through the exchange of experience.

Each cluster consists of four practical parts which help to gather knowledge of the topic and to find recommendations that can be addressed in order to ensure the sustainability of the Erasmus Mundus Programme:

- a **survey**;
- a **workshop** on the cluster theme;
- a handbook containing **practical guidelines** on good practice;
- a dedicated **thematic web page** on the Erasmus Mundus website:

http://eacea.ec.europa.eu/erasmus_mundus/clusters/index_en.php

The following pages outline the results of the thematic Cluster on Climate Change and Sustainable Solutions.



The Survey

The survey was implemented among the following target groups during a period of six weeks: Erasmus Mundus Action 1 Joint Programme coordinators, faculty staff, students, fellows and doctoral candidates and Erasmus Mundus Action 3 Attractiveness Project coordinators.

The survey consisted of an on-line questionnaire as well as qualitative interviews, aiming to identify activities and cooperation initiatives carried out within the following three sub-categories:

- Ecological and agricultural aspects of Climate Change
- Innovative and sustainable technological initiatives for Climate Change
- Climate Change and governance: socio-economic implications

Based on identified activities and cooperation/networking initiatives, the survey focused on future perspectives, recommendations regarding examples of good practice and challenges in the organisation of (joint) activities as well as perceived benefits of cooperation and assessed the target groups' general willingness to cooperate with different players.

The main conclusions highlighted by the survey were:

- “Climate Change and Sustainable Solutions” remains a relevant topic for Erasmus Mundus.
- The main perceived benefits of cooperation are the formation of research communities and networks, increased career and employment opportunities for students and graduates as well as access to additional resources.
- The main challenges in organising networking and cooperation efforts are primarily a lack of awareness of potential partners working in the field, followed by a lack of funding and time. In addition, interviewed Attractiveness Project coordinators particularly mentioned general difficulties related to the coordination of international projects as well as their long-term sustainability as challenging. Despite these perceived challenges, a significant number of respondents indicated that they are generally willing to engage in cooperation, as the benefits greatly outweigh the costs of cooperation.
- Given the relevance of this topic, the labour market demand in this thematic area is likely to increase in the future.

The results of the survey are available on the Erasmus Mundus website:

http://eacea.ec.europa.eu/erasmus_mundus/clusters/documents/survey_report_final.pdf

The Workshop

More than 65 participants from 22 different European and non-European countries attended the workshop, bringing together the Erasmus Mundus Action 1 Joint Programme Coordinators, faculty staff, students, alumni and graduates, Action 3 Coordinators as well as industry/research representatives, the European Commission and the Executive Agency.

Following introductory keynote speeches, case studies and good practice examples of activities undertaken by different Erasmus Mundus players as well as the views of employers were presented.



During the second day, participants were invited to take part in working groups aiming to provide a better understanding of the variety of socio-economic and environmental effects of climate change. Interactive discussions led to the identification of innovative and sustainable technological initiatives and concrete proposals for cooperation activities in the thematic field.

The workshop also presented the opportunity for participants to share examples of good practice and experiences in organising activities in the area of climate change as well as material for the development of the practical guidelines.

The agenda of the workshop, keynote speeches and contributions of the speakers are available via the following link:

http://eacea.ec.europa.eu/erasmus_mundus/events/cluster_climate_change_2012_en.php

Practical Guidelines

The survey and workshop served as a first step to collect information on the actors, the EM Joint Programme and Attractiveness Project contents, as well as their engagement in activities and cooperation efforts. In addition, they allowed for the gathering of good practice examples and challenges of cooperation efforts.

The survey and workshops resulted in the development of the following 10 general recommendations in order to ensure the implementation and sustainability of current and future joint measures and projects:

1. Education for Crisis, Change, Caution, Context and Communication

It is at university and especially in programmes like the international Erasmus Mundus Programmes, that young people need to be trained to tackle issues connected to climate change. This should be implemented by a curriculum focused on education for crisis, change, caution, context and communication through a process of combining individual strengths and talents with the group dynamic as well as the thematic context.

2. Increase opportunities for individualised studies

The individual course structures and models should be set up in a “from general to specific” pattern, allowing students to individualise their studies and choose a specialisation for specific sectors in the labour market.

3. Introduce Problem-Based Learning

In order to equip students with the analytical and soft skills demanded on the labour market, participants introduced the concept of a progressive curriculum including Problem-Based-Learning in small tutorial groups.

4. Set up a Green University Group

The promotion of Green University practices as well as a common platform for universities to share their experiences is a recommended element to promote environmentally sustainable practices.

5. Set up an Erasmus Mundus “Supervision Board” and/or “Professional Consultation Panel” for EM Joint Programmes

In order to consistently monitor and improve the design and quality of the Erasmus Mundus Joint Programmes and to improve the dialogue between all stakeholders, participants promoted the introduction of “Supervision Boards” or “Professional Consultation Panels” for individual EM Joint



Programmes. These should comprise representatives of all parties concerned: coordinators, associate partners from academia, business and policy as well as students and fellows.

6. Promote Erasmus Mundus Joint Programmes in the field of "Climate Change and Sustainable Solutions"

Projects such as the LEAN CC Attractiveness Project have the potential to take a significant role in the promotion of EM joint programmes. These projects are a vital part of the efforts to raise awareness of Erasmus Mundus in the European Union and third countries and thus should be supported and fostered.

7. Increase support for the professional experience of students

In order for the students to apply their theoretical knowledge, personal and analytical skills in a practical environment and increase their opportunities on the thematic labour market, it is particularly important for EM Joint Programmes to adopt an internship period into their curriculum as well as provide possibilities for professional networking.

8. Improve Cooperation between academia, business and policy

It is of high relevance for the Erasmus Mundus Joint Programmes to participate in the so-called knowledge triangle of education, research and innovation by engaging in cooperation with other academic institutions as well as the business and policy sectors.

9. Involve a facilitator for the organisation of joint activities and networking

The engagement of a facilitator to spark off thematic networking activities and events is an example of good practice to foster cooperation. In addition, the European Institute of Innovation and Technology (EIT) as well as the Erasmus Mundus Students and Alumni Association (EMA) display great potential for taking an intermediary role and providing a joint platform for networking and cooperation. Moreover, other regional and/or local institutions, with which the universities already have partnerships, can function as facilitators.

10. Ensure the sustainability of cooperation efforts and networking by including a few important measures from the beginning onwards

In order to ensure the sustainability of a project, it is vital to define a strategy including clear and visible structures, a starting and end point, and dedicated staff at its beginning. Furthermore, it is important that a project produces visible outcomes such as e-journals, a database of members, academic articles or a website, which remain accessible and updated beyond the official project phase.

A set of Practical Guidelines based on the survey results as well as the discussions and conclusions of the workshop are available at:

http://eacea.ec.europa.eu/erasmus_mundus/clusters/documents/practical_guidelines_final.pdf