

Input

- We discussed the needs of young people (Monday morning)
 - We discussed the needs of scientists & teachers (Monday afternoon)
 - We learned from existing experiences (yesterday)
- > We can start to build something around the focus of CarboEurope/CarboOceans educational activity.

Focus 1

- Secondary schools teachers
- Project-based approaches based on human interaction rather than approaches based on website/materials
- Decentralised activities run by research institutions: local approaches within a European common frame / network

ULTIMATE GOAL: We need well-established local schemes and networking among them

Call for school projects

- “ CarboEurope and CarboOceans, two major European research projects on carbon cycle, invite secondary schools to engage interdisciplinary projects
- to raise young people awareness of local and global stakes of climate change,
 - discover scientific research on the topic
 - and act locally to reduce emissions of greenhouse gases.”

“To do this, you may propose various types of activity to your students:

- **asking yourself questions, and developing your own project focus**
- **fact-finding, checking of sources and analysis of information obtained** beside document-based sources (e.g. Internet) and resource persons (journalists, researchers, associations, elected representatives, technicians etc.)
- **doing measurements and other hands-on experiments** on physical phenomena, greenhouse effect, climate & weather etc.
- **organising information and developing a product:** website, booklet, CD-ROM, newspaper article, game, play, presentation, debate evening, etc.
- **disseminating your results** around your school, and at the European level through the CarboEurope and Young reporters for the environment websites
- **taking action**, i.e., thinking up and putting into practice solutions to contribute in reducing greenhouse gas emissions within your family, at your school or college, in your town, etc.”

“Such projects may be referred to science education, environmental education, sustainable education as well as citizenship education.

- **in scientific subjects**, they provide occasions for discovering and practising scientific method, for promoting the human dimension of science through meetings with researchers, and for strengthening disciplinary learning by putting in evidence the links with one of the major stakes of the 21st century.

- **in other school subjects**, they provide opportunities for articulating field investigations, analysis and production of documents, oral and written expression in mother and foreign tongue with scientific, economic, social and political issues.

- **in a general way**, they strengthen critical thinking and horizontal skills (autonomy, team work, initiative, oral & written communication etc.)”

We need

For school projects, basically:

- to review & finalise the call for projects
- To produce a short “suggestion list” for scientists willing to partner with such projects (eg. respective roles teacher/scientist)

Focus 2

- Secondary schools teachers
- Project-based approaches based on human interaction rather than approaches based on website/materials
- Decentralised activities run by research institutions: local approaches within a European common frame / network

ULTIMATE GOAL: We need well-established local schemes and networking among them

Decentralised / local support: THE KEY

We basically need

- To define what local schemes should ideally be.
- To convince as many CarboEurope/CarboOcean institutions as possible to do it.
- To sustain networking between actors in that field

1) What should be done to initiate school projects?

- informing schools

- Motivating scientists to take part

- Involving local partners: school authorities, teacher associations, teacher training institutes...

- ...

2) “Induction” when there is interest from teachers & scientist: how to develop a successful relationship between a scientist & a school?

- briefing of specific roles

- building-up of partnership

- partners sharing expertise (who is expert of what among teachers & scientists)

- support from external mediator / observation from outside

→development of the relationship : a process which needs support at the right moments.

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3) Support to projects: responding to needs

Needs of teachers

- Materials : not so much
- Training about Methodology : how to implement? How to evaluate?
- + specific to science teachers:
 - up-to-date knowledge / first-hand information from the scientist
 - Access to new instruments, equipments, experiments
 - key: time & money to meet & engage (flexibility with timetables)

Needs of scientists

- need to define precisely how much time he/she is willing to spend on project
- enthusiasm
- information about curriculum and how its science fits in
- Feedback from the schools
- Teachers who really participate & prepare students
- Communication skills (to raise interest & get in touch with students & broader public) → Training in communication. (involve young scientists!)
- Acknowledgement:
- Institutional support
- publicity from the project (invite journalists?)

So now :

Group 1: discuss final call + produce guidelines for teachers/scientist partnership within projects

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Group 2: produce draft workplan for local schemes / model for local fund-raising

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This afternoon:

proposal for EU science & society call

promotion within CE/CO networks

European teacher-scientist training project