



# SCIENCE EDUCATION FP7 CONTRACTS



## Links between science education and research

217751 CarboSchools+ European network of regional projects for school partnerships on climate change research	
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Partners	UK - Teacher Scientist Network FR - Philippe Saugier International Educational Projects NL - Rijksuniversiteit Groningen - Centrum voor Isotopenonderzoek DE - Leibniz-Institut für Meereswissenschaften FR - Commissariat à L'Énergie NO - Universitetet I Bergen - Geophysical Institute & Bjerknes Centre FR - Institut National de la Recherche Agronomique IT - Consiglio Nazionale delle Ricerche - Istituto di Biometeorologia ES - Fundació Parc Científic de Barcelona - Laboratori de Recerca del Clima
Duration	36 months
EC contribution	982.396 €
<p>CarboSchools+ proposes to link carbon science laboratories with secondary schools to develop partnerships where young Europeans learn and conduct experiments about climate research and reduction of greenhouse gas emissions. In partnership projects, scientists and teachers co-operate over several months to give young people a practical experience of research through real-time experiments, site visits, debates etc. A final output (article, exhibition) shares the findings with parents, friends, community etc.</p> <p>Nine research institutes in 7 countries will explore how they can best motivate and support such partnerships at the regional level in a wide variety of contexts, approaches, topics and age-groups. European co-operation will allow a comparison of results, learn from each other and develop replicable good practice. Pupils will gain European experience by doing comparative measurements through a common "school CO2-web". An in-depth study of impacts on attitudes, beliefs and skills will allow a better understanding of the projects' level of effectiveness.</p> <p>Over 2 school years, partnerships will involve about 90 scientists, 140 teachers and more than 3000 students. Their direct interaction will support teachers in the highly complex, interdisciplinary and socially relevant field of global change, and improve the communication skills of scientists. Methods and materials will be jointly developed and shared with a broad range of players in science education via the internet, a European conference and regional dissemination activities.</p> <p>CarboSchools+ is proposed by institutes firmly rooted in two FP6 research projects on climate change on the basis of outstanding results from educational projects piloted since 2005. A field-tested concept, a first set of resources and an enthusiastic human network provides us with confidence and institutional support to make science learning more engaging and challenging for young people as future workers, consumers and citizens.</p>	

217792 CoReflect Digital support for Inquiry, Collaboration, and Reflection on Socio-Scientific Debates	
Coordinator	Cyprus University of Technology Department of Communication and Internet Studies Dr. Eleni Kyza CY - Limassol Tel : +35799374380 E-mail : elenakyza@gmail.com
Partners	CY - University of Cyprus - Learning in Science Group IL - Ben-Gurion University of the Negev Education, NL - Twente University - Faculty of Behavioural Sciences SE - Kristianstad University DE - Leibiz Universität Hannover - Naturwissenschaftliche Fakultät EL - University of Thessaly - Department of Primary Education UK - The Association for Science Education - Professional and Curriculum Innovation
Duration	36 months
EC contribution	768.942 €
<p>Citizens are increasingly being asked to deal with socio-scientific issues and make informed decisions on the basis of scientific data. At the same time, there is disconcert with the current status of science education, a disconcert that relates to issues such as student motivation, educational curricula, existing tools, as well as how to best support teachers in adopting new learning and teaching practices. There is a growing interest in university-school-educational authority partnerships developing web-based science inquiry environments as one way of addressing these challenges. Such environments can couple data rich scientific rigor with the flexibility and modifiability that is needed for widespread adoption and use.</p> <p>CoReflect proposes to develop a European-wide network of Local Working Groups (LWG), involving university researchers, practising teachers and educational authority administrators. These LWGs will develop web-based, inquiry learning environments and accompanying materials on data-rich, socio-scientific debates (e.g. global warming). The LWGs will pair up, and together they will develop two web-based learning environments first in English and then in their national language. During Knowledge Sharing Workshops, they will decide on a common research and design framework. Following a series of peer-review activities, each LWG will adopt and implement their two learning environments. Each LWG will conduct research to systematically investigate specific aspects (e.g. student motivation) of the classroom implementation of the web-based inquiry learning environments, by collecting comparable qualitative and quantitative data.</p> <p>An existing web-based learning and teaching platform, STOCHASMOS, will be used to develop and host the inquiry learning environments. The platform was developed with national support and a Marie Curie action, is publicly accessible and offers specific tools for designing student scaffolds for reflection and collaboration.</p>	

## Teaching Methods

217725 Mind the Gap Mind the Gap: Learning, Teaching, Research and Policy in Inquiry-Based Science Education	
Coordinator	University Of Oslo Department Of Teacher Education And School Development (Ils), Faculty Of Education Ms. Doris Jorde NO - Oslo Tel : + 47 22 85 44 09 Fax : + 47 22 85 41 54 E-mail : doris.jorde@ils.uio.no
Partners	FR - Centre National de la Recherche Scientifique DK - Department of Science Education, University of Copenhagen UK - University of Bristol - Graduate School of Education FR - Université Rennes 2 - Haute Bretagne DE - IPN - Leibniz Institute for Science Education at The University of Kiel HU - Hungarian Research Teachers' Association ES - Universidade de Santiago de Compostela - Dpt. Didactica das Ciencias Experimentais
Duration	24 months
EC contribution	780 276 €
<p>The key concept of this project is inquiry-based teaching of secondary school science. Research and development done in Europe in the area of inquiry-based science teaching (IBST) is abundant, however, the knowledge is spread and indistinct, and thereby not utilised to its full potential by teachers and educators throughout Europe. The project aims to gather, exchange, develop and disseminate ideas of good practices in IBST.</p> <p>The overall aim of Mind the Gap is to stimulate a more engaging and interesting science teaching based on principles of IBST so that more young people in general, and girls in particular, wish to pursue educations and careers in science and technology. We argue that if the science teaching shall succeed in meeting young people in their interests and concerns, we will need to examine and connect</p> <ul style="list-style-type: none"> <li>• The gap between theory and practice in inquiry based science</li> <li>• The gap between teaching and learning</li> <li>• The gap between research, policy and practice</li> <li>• The gap between educational policies and in-service training</li> <li>• The gap between instructional designs and preferable tools</li> <li>• The gap between cognitive demands and available tools</li> <li>• The gap between the culture of science and marginalized groups (including girls)</li> </ul> <p>The Mind the Gap project and network will focus on such gaps and aim to bridge them across different European contexts (Norway, Denmark, Germany, Hungary, United Kingdom, Spain, and France). The project design involves six work packages (WPs), including one management WP, each lead from different Europeans countries with relevant expertise. One of the WPs provides an overall background for IBST, three WPs go more in-depth into three specific themes (scientific literacy, ICT, and communication and argumentation). And the last WP will try out models for disseminating knowledge and ideas for best practice of IBST through teacher professional development (including SINUS) in different countries and contexts.</p>	

217805 HIPST History and Philosophy in Science Teaching	
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Partners	DE - University of Bremen - Institute of Science Education EL - Aristotle University of Thessaloniki - School of Primary Education PL - Uniwersytet Mikołaja Kopernika - Department of Physics Education, DE - Carl Von Ossietzky Universität Oldenburg - Institute of Physics PT - Fundação da Faculdade de Ciências da Universidade de Lisboa IT - Fondazione Scienza e Technica HU - Budapest University of Technology and Economics IL - The Hebrew University of Jerusalem - Science Teaching Center UK - The University of Reading - Institute of Education
Duration	24 months
EC contribution	998.211 €
<p>In order to develop a better integration of science in society and society in science the promotion of young people's interest in science, to encourage their critical and creative ways of thinking and to improve science education, and the uptake of scientific careers in general is of vital importance. Sustained learning of science implies many different dimensions. One often ignored, but important dimension is the way how scientific knowledge is generated.</p> <p>Moreover the objectives and motivations to do science, scientific methods, the empirical fundament, social and cultural aspects are as important as philosophical foundations of science, scientific concepts and their use. The acquisition of knowledge about the nature of science is essential for democratic societies which partly rest their decision-making on rational and scientific criteria.</p> <p>The HIPST project works with 10 partners from 8 countries covering R&amp;D, policy and implementation aspects of the acknowledgement. HIPST aims at the raising of understanding the relationship between science, technology, and society, and to foster science education and public understanding of science on a European level. The project approach has three specific objectives:</p> <p>To increase the inclusion of history and philosophy of science in science teaching for the benefit of scientific literacy.</p> <p>To improve strategies for development and implementation of domain-relevant materials and teaching techniques into educational practice.</p> <p>To strengthen the cooperation and establish a permanent infrastructure of sustainable network-ing of all involved stakeholders in the field of scientific literacy and public understanding of science (school science teachers, museum experts, researchers).</p> <p>HIPST establishes a sustainable network between the project partners for the development and exchange of know-how and experiences in the inclusion of historical and philosophical components in science teaching programmes.</p>	

## Images of Science

217810 EUCUNET European Children's Universities Network	
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Partner	DE - Universität - Department of Public Relations CH - Universität Basel - Kinderuni Basel SK - Divadlo Aréna Theatre FR - Université Louis Pasteur - Mission Culture Scientifique et Technique DE - Unsere Neue Couch
Duration	24 months
EC contribution	594.568 €
<p>Children's university is the most radical opening towards the general public that universities can undertake. If scientists provide lectures for children and children conquer auditoriums and laboratories, stereotyped images of science and scientists are knocked on the head immediately. New attractive and fascinating images of science and scientists appear.</p> <p>The first Children's university in Germany's Tubingen (2002), constituted a new format of science awareness activities, awarded with Descartes Prize for Science Communication. The successful idea of Children's universities spread out. Up to now 100 Children's Universities filled 1.000.000 places with children aged from 7 to 12 years.</p> <p>But a European wide network does not exist and most of the Children's Universities are situated in German speaking countries. Each of the 100 Children's universities works solitary, as a single player and with a strong regional focus. Guidelines and quality criteria of established Children's Universities does not exist. Some selective efficiency analyses let us assume, that children change their mind on science sustainably, but an overview of research result is missing.</p> <p>EUCUNET (European Children's University Network) will coordinate a network of Children's Universities preparing a knowledge base for present and future Children's Universities Providers in order to professionalize the Children's Universities movement. In conferences, through managed Development and Consultant Partnerships and on the community web portal a sustainable network should be established with the aim of knowledge sharing and capacity building.</p> <p>EUCUNET enables the European wide dissemination of the idea of Children's university, invites stakeholders from different fields to develop the idea (especially policy maker) and helps establishing new Children's universities.</p> <p>Hence more Children have the chance to participate in Children's universities and set fire to the fascination of science.</p>	

217728 YOSCIWEB Young people and the images of science on websites	
Coordinator	Conseil Général De L'Essonne Direction du Développement Économique et de La Recherche, Service Accès au Savoir Mrs. Laure Chemery FR - Evry Tel : + 33 1 60 91 95 62 Fax : + 33 1 60 91 95 35 E-mail : lchemery@cg91.fr
Partners	ES - Fundació Centre d'Iniciatives - Centre Barcelona UK - Glasgow Caledonian University EE - Youth in Science and Business Foundation IS - Icelandic Web of Science NL - Vrije Univ., Independent Entity of 'Vereniging voor Christelijk Hoger Onderwijs, Wetenschappelijk Onderzoek en Patiëntenzorg' BG - Forum Democrit Scicomms Group
Duration	24 months
EC contribution	489.122 €
<p>To face the issue of the declining interest of young people for studying and working in science and more generally to reduce the doubt in the population regarding the link progress/science, the public authorities as well as large companies and professional associations have developed initiatives and tools.</p> <p>Scientific websites play an important role as it is a new media, well adopted by the young people, easy to use and environmentally friendly. Nevertheless there is a lack of tools and methodology to analyse the quality and the orientation of the websites and to adapt them to the different publics (students, pupils, disabled, others) and to the different images of science.</p> <p>Seven organisations of national reputation from France, Spain, United Kingdom, Estonia, Iceland, Netherlands and Bulgaria have decided to combine their efforts in solving the above two issues. As the consortium consists in a mix of operators of scientific websites and/or researchers analysing websites, it will provide larger geographical coverage and set of competences.</p> <p>Yosciweb will be divided in 3 work packages in addition to those of management (WP1) and dissemination (WP5). WP2 will focus on assessing the current situation in terms of:</p> <ul style="list-style-type: none"> <li>• What are the different approaches already used in those matters?</li> <li>• What kind of public is addressed by the existing websites and on what images of sciences are they built?</li> <li>• How to classify the different scientific websites?</li> </ul> <p>WP3 will consist in a deeper analysis of a selected sample of websites, taking into account common parameters. WP4 will consist in defining best practices, in making recommendations for developers and managers of scientific websites and in preparing future actions to render the network sustainable and to increase the impact of the project.</p> <p>Yosciweb will provide the European population with tools and methods able to increase the impact and the efficiency of the scientific communication towards the youth.</p>	

217843 MOTIVATION Promoting positive images of SET in young people	
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Partners	AT - Universitaet Klagenfurt - Dpt of Science & Technology Studies FR - Ecole Normale Supérieure de Cachan SK - Technical University of Kosice - Faculty of Economics NL - Stichting Katholieke Universiteit ES - Centre d'Estudis Dona SE - Asbacka Ordttjanst Ab
Duration	24 months
EC contribution	499.888 €
<p>Aim of the project MOTIVATION is an exchange between partner countries in Europe about factors, which influence the image of science and technology under gender perspectives to attract young people. Adolescent often have obsolete and unattractive SET job images in their minds and combine these with outdated clichés. Socialisation agents peer groups, teachers, study and job advisors as well as media influence this image of SET and the attitudes of young people towards SET differently. MOTIVATION tries to improve the situation through interchange of facts about influence of socialisation agents, and to develop measures for changing attitudes towards SET in young people and socialisation agents with media. A website for presenting information for all relevant stakeholder groups will be developed. The project will culminate in a final international conference where the exchange process will be widened to a broader group of international experts in the field.</p> <p>MOTIVATION comprises four content work packages (WP) focussing on media (WP 2), teachers and advisors (WP 3), young people's self images connected to job decisions (wp4) and good practices. Exchange about existing research is the first objective, evaluation of content, methods and didactics of information about SET under gender aspects the second objective and understanding interdependencies with gendered job decisions is the third objective.</p> <p>Collecting measures of good practice, evaluating them and creating new effective methods for changing images of SET under gender aspects is the fourth objective.</p> <p>MOTIVATION will evaluate the information process of different socialisation media. For that content analyse, interviews and group discussions should illustrate, how SET and gender in SET are represented in TV and in magazines, with teenagers as target consumers. Good practice and dissemination measures will demonstrate media presentations which can contribute towards a gender equal image of SET.</p>	