The SkyWatch project is co-financed by the European Community, within the FP6 framework of Science and Society, The SkyWatch consortium is composed by the following partners: Q-PLAN (GR), EDEN—Open Classroom (UK), Astrophysics Research Institute—Liverpool John Moores University (UK), European Physical Society (FR), Ellinogermaniki Agogi (GR), Stockholm University (SE), SCIENCE PROJECTS (UK) and University of Duisburg—Essen (DE). The aim of the SkyWatch project is to build up the number of youngsters involved in a series of science projects to create a virtual community of prospective young researchers promoting scientific culture. The project will allow young people to access and use robotic telescopes remotely in real-time, perform observations, analyze data and results and finally to develop and suggest solutions to selected research/scientific topics, all achieved through an innovative web-based learning environment. The dissemination of the project’s activities is also served by a European Science Contest on science topics and projects, a series of popular science distance learning courses (Science Days) for European youth, promotion of concepts and ideas of science of a multidisciplinary nature: astronomy, physics, mathematics, chemistry, etc. The young participants are prompted to organize teams (school classes, groups of students, etc.) and to design, develop and implement projects and activities with the use of robotic telescopes under the guidance and the continuous support of a team of experts.

SkyWatch has an innovative approach to promoting increased public awareness of scientific and research culture. This approach is designed to cut across the boundaries between schools, research centres and science thematic parks and involve users in extended episodes of playful experience and scientific research. The project uses its advanced science and technology to create a ‘feel and interact’ user experience, promoting the development of an increased scientific culture open to societal changes and at the same time adequately modulated to the needs and capabilities of each user (Fig. 1 below).
The SkyWatch approach is engaging groups of young people all over Europe in a scientific quest by implementing a set of multidisciplinary scientific scenarios related to astronomy and astrophysics. Young people are given an opportunity to perform and experiment with scientific research and evaluate its impact on society and everyday life. SkyWatch is not simply acting as a science demonstrator but primarily as an interactive and vivid initiative where users are equipped with powerful real-scale research tools to become the researchers, the seekers and finally the leaders of the scientific quest.

The SkyWatch project’s objectives focus on raising public awareness for scientific and technological developments by motivating the general public to actively participate in the process of realizing the beneficial impact of science and technology on our day-to-day lives. One successful method, especially among young people, is to present science and scientific research through challenging activities that combine intelligence, existing knowledge and innovation. A scientific contest is to be held in the general field of astronomy and astronomical observations within this framework.

The SkyWatch contest addresses three age groups. The contest topics, evaluation criteria and presentation format will be common for each age group, but eventually there will be nine (9) final winners, three (3) from each group. The three age groups are students < 15 years old, between 15 and 18 years old, and adults. All participants are allowed to enter the contest either individually or in pairs.

During the first phase, the young participants will use a database of astronomical observations conducted by the telescopes of the SkyWatch network of observatories. Participants can select from a pool of 5 suggested contest topics, and are expected...
to design, develop and implement projects and activities with the use of the database in the telescope provided and under the guidance and the continuous support of a team of experts in the field. The contest participants will be asked to create scenarios and well-defined small projects to express these ideas and to seek for answers to scientific issues. All projects will be presented and assessed following specific criteria that will be applied by the project’s scientific committee. An initial selection procedure will be established that will lead to the creation of a pool of 30 projects. This evaluation / selection procedure will be followed independently for each of the three groups. The 10 best projects from each group will qualify for the 2nd phase of the contest, which lasts 1 month. These participants will be granted access to a network of the robotic telescopes in order to be provided with new research material comprising observations on demand. Based on these “ordered” observations, the participants will develop their submitted projects further or even create a new project on the same topic. These 30 integrated projects will be evaluated by the project’s scientific committee who will finally come up with the three best projects from each age defined category. All the projects will be presented in the closing event in Athens on November 2005.

Several interactive sessions on popular science will be organized based on (a) science topics and educational material related to the contest topics and (b) the results of the scientific – research scenarios that will be developed by the contest participants before and during the European Science Week 2005. The programme will include Contest Science Days and Public Science Days (e.g. Astronomy Days, Physics Days, Mathematics Day) during which the youngsters and the general public get additional information about the latest achievements in the relevant field and the contest results and the opportunity to ask questions. Young people will have the opportunity to become familiar with the process of scientific research and to find out more about the work of scientists and technologists.