Highlights of Astronomy, Vol. 13
International Astronomical Union, 2003
O. Engvold, ed.

Science Education for the New Century – A European Perspective

Claus Madsen
European Southern Observatory, Garching, Germany
E-mail: cmadsen@eso.org

This paper briefly discusses surveys of public interest in science (high: above politics, economics, and finance, but slightly below sports and culture), and the ways to stimulate interest in science among young people through improvements in the formal science teaching system. It emphasizes the need to develop programs of sufficient size to achieve a long-term impact, and obtain the necessary changes. It describes the strategy and individual activities which ESO has undertaken in the field of science education, and provides an outlook on the future EIROforum European Science Teachers' Initiative. Since 1993, ESO has been involved in 14 different programs for young people, and for teachers. Two programs are planned for 2004: *Venus Transit 2004*, and *Science on Stage.*

ESO's involvement in science education has been based on a fairly altruistic attitude, driven by a general concern about scientific literacy among the public (which is necessary for them to make informed decisions about major socio-scientific issues), and a realization of the potential for public exploitation of its rich collection of data and general experience. Nonetheless, the increasingly precarious recruitment situation for future scientists provides a strong additional driver for this engagement. In spite of the formal limitations as given by ESO's remit, ESO's willingness to open up for education initiatives and to engage with the education community has been welcomed by its member-states.

In addressing the problems of scientific literacy and public interest in science, we recognize the need for large, co-ordinated programs aimed at different groups in society, such as professional teachers and young people. Such programs require investments in money and manpower that exceed the capabilities of most science organizations. Therefore, co-operation between many partners, and the joint involvement of science and the education community is called for.

Astronomy is particularly well suited for such activities, thanks to its multidisciplinary character, and its natural attractiveness for young people. Our main partners have been: the European Union, the European Association for Astronomy Education, and the EIROforum (made up of the seven European Intergovernmental Research Organizations).

Through their consistency, the ESO-backed educational activities are increasingly seen as a "permanent" feature in the move to stimulate the interest in the natural sciences in general, and astronomy in particular. At the same time, the catalyst effect of the European Science Week, and the "Science and Society" program of the European Commission should be acknowledged for enabling such activities.

This is the SPS4 Editor's summary of a longer version of this paper.