Information from the ESO Educational Office

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The ESO Educational Office is involved in several on-going projects, some of which take place within ESO and others which are carried out in collaboration with some of the other European Intergovernmental Research Organisations (EIRO). In this connection, the co-ordination that is now taking place via the EIROforum Working Group on Outreach and Education is playing an increasingly important role. The close and efficient collaboration with the European Association for Astronomy Education (EAAE) continues.

Physics on Stage

Following the extremely successful "Physics on Stage" that took place during the year 2000, a second event in this series was organised in April 2002, mainly through the initiative of ESA, but again in full collaboration with CERN, ESO and some of the other EIROs. More than 300 participants met at ESTEC in Noordwijk (The Netherlands) during a one-week conference, also this time with active participation of high-level officials, among others the Dutch Minister for Research and also the European Commissioner for Research, Philippe Busquin (see photo). On this occasion, the European Science Teaching Award for outstanding education efforts was given for the first time.

There is an obvious and urgent need for continuation of this type of programme which has proven exceptionally stimulating for physics teachers from all over Europe. The EIROFORUM Working Group has therefore made a joint application to the European Commission (EC) for "Physics on Stage 3" in 2003, again under the auspices of the European Science and Technology Week. On this occasion, it is the intention to widen the programme towards other research disciplines, e.g. biochemistry and to increase the number of participating countries to approximately 30. A new element will be a thorough evaluation of the project impact.

For the future, plans are being developed by the EIRO Working Group for a longer-term collaborative project within the 6th Framework Programme of the European Union.

Catch a star!

Within this year's European Science Week, a joint project between ESO and the EAAE, known as "Catch a Star!", has been set up at short notice, following an idea by EAAE Vice-President Rosa Maria Ros (Spain). The central idea is that groups of up to three students and one teacher at a primary and secondary schools in Europe will "catch" a celestial object of their choice, which they must then describe in some detail in a corresponding report. Full details are available at the project website at: http://www.eso.org/outreach/eduoff/catchastar/

At the Final Event of "Physics on Stage 2" (ESTEC, Noordwijk, The Netherlands): European Commissioner Philippe Busquin (front row) listens to Danish physics teacher Mogens Winther.

"Catch a Star!" logo.

By mid-June, about 130 projects with more than 500 participants had been registered. To participate in the final round, the groups must send their reports to the organisers who will evaluate them; those which are accepted will be placed on the project website, ultimately representing a tremendous source of useful information, especially for educators. The winners will be drawn by lottery with the first prize being a trip to the Paranal Observatory. However, there will also be many other prizes and the first 1000 participants will also receive a "Catch a Star!" T-shirt.

Couldn't be without it

Parallel to that ESO/EAAE educational project, the seven EIROs are organising another Europe-wide programme, known as "Couldn't Be Without It" (cf. http://info.web.cern.ch/info/scitech/). It aims at explaining to the wide public how basic science is behind virtually all of the technology on which our daily lives depend. We are only able to enjoy mobile phones, fast and safe means of transport, effective household machines etc., because many generations of industrious scientists have worked hard to unravel nature's secrets. This programme involves the production of numerous teaching kits for schools and there will be a wide range of prizes to win for the participating public. It terminates with a final, spectacular webcast from CERN in November this year.

FAST 2002

15 European high-school teachers with a special affinity to astronomy will participate in the first teachers' training course organised by ESO (FAST 2002, cf. http://www.eso.org/outreach/eduoff/fast2002/). During one week in August 2002 they will listen to lectures by ESO scientists and participate in workshops mainly oriented towards new means and methods for astronomy courses at high-school level. Both the teachers and the ESO Educational Office will gain a lot of experience from this first event - and it is the intention to organise more such courses during the coming years. These courses supplement the more general EAAE Summer Schools that are also supported by ESO.

Also in this context, the ESO/ESA Astronomy Exercise Series (see Messenger 107, page 44) has been greatly appreciated by the teaching community. More than 500 requests have been received during the past months from teachers all over the world and many others have taken over these exercises from the dedicated website (http://www.astroex.org/). In view of this very encouraging development, it has been decided to translate these excercises into other languages; Dutch, French and Italian versions will soon become available.

Venus Transit 2004

Finally, and again in a close collaboration between ESO and the EAAE (and most likely with other future partners), another educational programme ("Venus Transit 2004") that also has the potential to develop into an exceptional public and media event is now in the process of being defined. It concerns the rare astronomical event that takes place on June 8, 2004, when the planet Venus will move in front of ("transit") the solar disk – the most recent such event was in 1882; the next will be in 2012 and 2117. It is the intention to involve the general public directly by providing easy-to-understand information about how this phenomenon can be observed with simple means. By means of numerous timing observations from different geographical locations, it is possible to deduce the solar parallax (with some uncertainty), in other words the distance to the Sun, and hence to climb the first step on the cosmic distance ladder. Look at http://www.eso.org/outreach/eduoff/vt-2004/ for more information, as this ambitious programme is being developed during the coming months, in consultation with collaborators at Europe's schools and planetaria.

ESO in the European Parliament

Astronomy and Astrophysics is not normally at the centre of attention at the highest political circles in Europe. However, the renaissance that our science is currently experiencing, not least based on the spectacular success of the VLT, has not gone unnoticed among the decision makers in Europe.

For ESO, both the entry of additional member-states and the new and future projects that aim at providing a solid base for the further development of European Astronomy and Astrophysics, have had considerable effects. At the same time, ESO's technological and scientific successes demonstrate the advantages and great capabilities of a focussed and concerted European effort within an important field of fundamental science.

Taking account of this, the Committee for Industry, Trade, Research and Energy (ITRE) of the European Parliament decided to organise a 90-min Mini-hearing under the title 'Cutting Edge Science – A New Epoch for European Astrophysics'. This important event took place on 27 May in the Paul-Henri Spaak building of the European Parliament in Brussels. It was chaired by Mr Carlos Westendorp y Cabeza, former Minister of Foreign Affairs for Spain and now chairman of the ITRE Committee. The prime goal of the meeting was to give information about the many aspects of contemporary astronomical research, from the current state of the science itself through the advanced technologies employed and on to the related, societal aspects. As could expected, the plans for future infrastructures and large facilities played a significant role in the discussion.

Addressing the committee members for ESO were Dr Catherine Cesarsky, Dr Roberto Gilmozzi and Dr Richard West, while Prof. Francisco Sanchez spoke on behalf of the Instituto de Astrofísica de Canarias (IAC). The deputies expressed strong interest in the comprehensive information presented and they followed up with their own views in a subsequent, lively debate. It was evident that both the aspect of European competitiveness in science and technology and the model function of Astronomy was fully registered by the parlamentarians.

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Obituary KURT HUNGER

On May 27, 2002 Prof. Kurt Hunger passed away at an age of 80. Kurt Hunger was a true European and a passionate and active supporter of the European Southern Observatory. He served on many ESO committees such as the OPC, which he chaired for several years, and the Council. He was President of the ESO Council from 1985 to 1987, a period extremely important for the organization. During this time Kurt Hunger together with Lo Woltjer as Director General became the driving forces in the promotion of the VLT project in the member countries. Their success provided the basis for the development of ESO into the next century as one of the most powerful observatories in the world and a focal point of astronomical research in Europe.

Kurt Hunger studied physics and astronomy as a student of Albrecht Unsoeld at Kiel University. His research focussed on quantitative stellar spectroscopy and the physics of stellar atmospheres. After several years of research in the USA he returned to Germany in 1968 to take on a professorship at the Technical University of Berlin, where he started to build up the Institute for Astrophysics. His work was extremely fruitful. He was very quickly able to form a group of active researchers and students and to establish astrophysics in Berlin in a very complicated period at the universities. In 1976 he accepted a chair of astrophysics at the University of Kiel. This was the beginning of the development of a new school of model atmospheres, radiative transfer and quantitative spectroscopy, which became one of the most successful groups in European astronomy. Many of his students pursued successful careers in astronomy and became professors or lecturers at German universities. They all met in September 2001 in Kiel to celebrate Kurt Hunger's 80th birthday in a two day science workshop dedicated to stellar spectroscopy. It was a deeply moving moment, when Kurt presented a science paper on the chemical composition of helium stars.

Those of us, who had the privilege to learn from him and to work with him, will remember Kurt Hunger as a teacher and as a colleague, who was always on our side, helpful and supportive. He was a man of great vision and of a great heart.

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