

Report on the TERENA Workshop on Connecting Schools to NRENs **Valentino Cavalli 16 March 2005**

TERENA held a workshop on Connecting Schools to NRENs in Amsterdam on 22 February 2005.

The workshop was attended by 40 people from many European NRENs, vendors, organisations responsible for policies and funding regarding schools and the European Schoolnet.

The delegates were keen to put in place a mechanism for exchanging information and were very interested in promoting collaboration. It became clear from the discussions that the user requirements are largely common across the countries represented, however the financial and political situation varies significantly. A set of actions was agreed. These actions are detailed at the end of this report.

Some NRENs in Europe differentiate their service portfolio by providing connectivity to primary and secondary schools. Several NRENs have been doing this for years, whereas others have only recently started. A number of NRENs are now considering the provision of services and connectivity to schools in the near future.

The issue of connecting schools to NRENs was investigated by TERENA in the SERENATE study in 2003. The SERENATE report on the extension of research networks to education and other user communities¹ presented case studies on the Danish and the Portuguese experience. In the final report² SERENATE provided recommendations in support of the eEurope 2002 Action Plan concerning the very high speed trans-European network for electronic scientific communications that should link research institutions and universities, as well as scientific libraries, scientific centres and, progressively, schools.

In 2004, TERENA members identified connecting schools as a matter of interest. Following this, and after discussions in the Executive Committee, TERENA has organised the Amsterdam workshop.

The aim of the TERENA Workshop on Connecting Schools to NRENs was to provide best practice information and a basis for discussion of common issues and solutions that may be adopted by NRENs in the establishment and provision of connectivity and services to primary and secondary schools.

A number of consolidated experiences were presented, from UKERNA, FCCN, ARNES, UNI•C, GRNET, along with more experimental approaches like UNINETT as well as initiatives about the creation of school networks from HEAnet and GARR. All presentations are available on the website <http://www.terena.nl/schools.html>

¹ D15: Report on examples of extension of research networks to education and other user communities <http://www.serenate.org/publications/>

² D21: Summary report on the SERENATE studies <http://www.serenate.org/publications/>

Two panel sessions in the afternoon were devoted to discussion about open issues and ways of addressing them: the requirements of schools, the technical solutions available, organisation and management, resources needed, complexity of integrating the service offering to education sector and research customers.

When connecting schools NRENs face generally a number of political issues that often determine the extent of the service and the way it is provided. The political environment determines in turn the funding constraints and model. There are common user needs and issues related to last mile connectivity. Last but not least, when connecting schools NRENs may experience an issue of potential competition with commercial ISPs.

From a technical point of view there are common issues in the required level of outsourcing services, as well as the size and management complexity of a school network. Choices need to be made regarding centralised or distributed management models. There are technical aspects related to scalability, for instance about the need to aggregate a lot of users on one single infrastructure but still be able to deliver advanced services, like QoS or multicast.

The workshop clearly showed that there are many common issues and needs but the solutions require choices depending on the, political, technical, and organisational environment where an NREN operates.

The following actions were agreed:

1. To issue and distribute this workshop report.
2. Create an email distribution list for exchange of information, discuss common issues, ask/receive questions/advice. A moderated list called schoolnet@terena.nl has been created. It is possible to subscribe by sending an email to majordomo@terena.nl, with “subscribe schoolnet” in the text.
3. TERENA will provide a dedicated area on the TERENA web site with information from various sources:
 - proceeding of the schools workshop
 - additional information to be requested to NRENs
 - information from latest Compendium edition
4. Delegates agreed to send lists of open issues and FAQs to TERENA so that they can be consolidated and put on the connecting schools web pages.
5. TERENA will extract information regarding NRENs connecting schools from the Compendium and make it available on the connecting schools web pages. The community will be invited to review this information and make suggestions on how it could usefully be expanded.