SEEFIRE: South-East Europe Fibre Infrastructure for Research and Education

SUMMARY

Southeast European countries have a strategic geographical role in connecting southeast European, Caucasian and Mediterranean countries to GÉANT.
The SEEFIRE project builds on the results of previous IST projects (SEEREN, SERENATE and GN1) to produce studies on the options available for acquiring an optical fibre network infrastructure and strategies for the development of research and education networking in southeast Europe, with a specific emphasis on Western Balkan countries.
The project will ultimately provide countries in southeast Europe (SEE) with a set of useful reports and guidelines about (dark) fibre acquisition by National Research and Education Networks (NRENs), deployment of optical transmission technologies, regulatory, legal, economical and strategic issues of acquiring (dark) fibre by NRENs in the region.

OBJECTIVES

The SEEFIRE project aims to raise awareness among stakeholders of NRENs, governments, users and telecommunication operators, about providing interconnection facilities in southeast Europe to reduce the digital divide.
Specific goals of SEEFIRE will be to provide:

- a benchmark of existing and potentially available optical fibre for NRENs in the region;
- an analysis of the technical options available for the deployment of dark fibre and the management of optical transmission by NRENs in the region;
- reports on economic aspects and regulations;
- dissemination of information and increased awareness about dark-fibre deployment both at technical and policy-making levels.

ACTION PLAN

SEEFIRE, consistent with the nature of Specific Support Actions (SSA), plans to prepare for future collaboration in southeast Europe by exploiting the results of projects like GN1, SEEREN and SERENATE, which outlined fibre acquisition by NRENs as an option to be explored in order to decrease the digital divide.
SEEFIRE will provide the research and education community in southeast Europe with information about the availability of (dark) fibre, guidelines for deployment and political-managerial assessments of the regulatory and economic aspects of (dark) fibre deployment. The project will undertake studies to gather information about the availability of optical fibre in the SE region and other useful documents like templates for procurement, comparative evaluations of technologies, fibre availability database and a strategic report. This information will be transferred to the strategic players in the region via publications, online information a technical tutorial about (dark) fibre deployment and a policy workshop.

INTERNATIONAL ASPECTS

The current standard of research networking provision in southeast European countries varies from a very high degree to the lack of effective services in other countries. SEEFIRE will provide studies that address such a digital divide and contribute to increase research cooperation in the region and with the rest of Europe.

Developments in the acquisition of (dark) fibre by NRENs are ongoing in some countries in the region and in some case there are concrete plans being developed on exploiting network node terminations close to national borders and investigating the options for border hopping.

SEEFIRE supports the vision to create a southeast European fibre backbone fostering collaboration of researchers and students in a region where the development of research and education networking, as well as the information society as a whole have suffered from years of political unrest and relative isolation from the rest of the European continent.

The findings of the SEEFIRE reports will be also useful for emerging NRENs in other world regions.

USER COMMUNITIES

The findings of the SEEFIRE studies will provide input to the future planning of networks for research and education in southeast Europe, which will result in the availability of much larger network capacity to support the needs of researchers and students in the region and their collaboration with users across Europe.

The exploitation of the SEEFIRE project results will increase the opportunities of the research and education community in southeast Europe, by enabling researchers and students to better cooperate in their scientific endeavours.

Cost-effective higher bandwidth available for research and education networks will allow more users to obtain high-standard services also in remote areas, and will contribute significantly in building the Information Society in the region and in bringing it closer to the rest of Europe.

Increased network capacity will have a significant impact on existing and future project involving users of high-end applications like, for instance, Grids and biomedical applications, which need long-lasting flows of many Gigabits.

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Figure 1 – SEEFIRE partners

Project name:
SEEFIRE

Contract no.:
15817

Project type:
SSA

Start date:
1/03/2005

Duration:
12 months

Total budget:
416273 €

Funding from the EC:
350.000 €

Total effort in person-month:
47.5

Web site:
www.seefire.org

Contact person:
Valentino Cavalli
email: cavalli@terena.nl
tel.: +31 20 530 4488
fax.: +31 20 530 4499

Project participants:

TERENA	NL
GRNET	GR
CESNET	CZ
NIIF/ HUNGARNET	HU
AMREJ	CS
RoEduNet	RO
ISTF	BG
INIMA	AL
BIHARNET	BH
MARNET	MK
DANTE	UK

Key words:
Dark Fibre
Optical Transmission Technologies
Research and Education Networking
Policy and regulation

Collaboration with other EC funded projects:
GN2
SEE-Grid

EXPECTED IMPACT

SEEFIRE will contribute to introducing southeast European countries into the eInfrastructures community and stimulating the establishment of joint RTD projects by acting as a vehicle for the participating countries to pursue forthcoming FP6 projects and to become more technology competent.

The SEEFIRE studies will reveal the fibre distribution and ownership in the region and will provide information about the technology, the regulatory, management and economical aspects of deploying a cost-effective infrastructure for research and education at the local, inter-regional and international level.

SEEFIRE will play an important role in raising awareness about the technical feasibility, the cost-effectiveness and the strategic importance of (dark) fibre deployment among politicians and government officials responsible for funding research, education and telecommunication in the countries concerned.

SEEFIRE is expected to reinforce and provide incentives for dark-fibre deployment activities, even outside the scope of southeast European NRENs, by providing a model for emerging NRENs in other world regions.