

27.01.05

Deliverable DN4.0.2: Terms of Reference for Country Needs Assessment



Deliverable D4.0.2

Contractual Date: 31/12/04
Actual Date: 27/01/05
Contract Number: 511082
Instrument type: Integrated Infrastructure Initiative (I3)
Activity: NA4 – NREN Development and Support
Work Item: None
Nature of Deliverable: R (Report)
Dissemination Level: PU (Public)
Lead Partner: TERENA
Document Code: GN2-05-002v6

Authors: Valentino Cavalli

Abstract

This deliverable is a short document describing objectives and working methods for the assessments of the needs of research and education networking in focus countries of the action to support the development of research and education networking in less advanced regions.

Table of Contents

0	Executive Summary	iii
1	Introduction: NA4 and its Rationale	1
	1.1 Assistance to research and education networking in less advanced regions	1
2	The Development Support Activity Process	4
	2.1 Selection of focus countries	5
	2.1.1 Criteria for selection of focus countries and priority setting	5
	2.2 Forms of assistance	7
3	Country Needs Assessment	9
	3.1 Objectives of the Country Needs Assessment	9
	3.2 Working methods of the Country Needs Assessment	10
	3.2.1 Creating a team	10
	3.2.2 Desk study	11
	3.2.3 Country visit	12
	3.2.4 Analysis of findings and report	13
Appendix A	Long-list of Beneficiary Countries	14
Appendix B	Useful Indicators from the TERENA Compendium of NRENS	16
Appendix C	Agenda of Visit to Lithuania	18

0 Executive Summary

There is a significant disparity between different European countries and regions in the status and development of research and education networking. Wide gaps, spanning over multiple dimensions - technical, financial, political - exist between countries in Europe. Narrowing this gap is of the utmost importance for achieving the European Union's political goal of equal opportunities for researchers throughout the European Research Area.

TERENA has been producing annual editions of the Compendium of NRENs since the year 2000. The Compendium is a primary source of information about the status of research and education networking in Europe and neighbouring countries, and about its evolution over time. This information, together with information from other sources, has been a major input to the analysis of the Digital Divide between different parts of Europe carried out in the SERENATE project¹.

Through its NA4 activity, the GN2 project will contribute to narrowing the Digital Divide in research and education networking in Europe, by:

- a) monitoring the status and the evolution of National Research and Education Networks in different European countries, and
- b) actively providing support to countries and regions where networking services for the research and education community are less advanced.

This is reflected in the two distinct but interrelated parts of NA4:

- The production of annual editions of the TERENA Compendium of National Research and Education Networks
- Assistance to the development of research and education networking in less advanced regions.

The development support activities will focus on a number of selected countries. Assessments of the needs of research and education networking in the focus countries are an important step in the process that steers the second part of NA4. This report describes the objectives and working methods of these Country Needs

¹ SERENATE Report identifying issues related to geographic coverage of European research and education networking, Deliverable D.16, November 2003 <http://www.serenate.org>

Assessments. Sketching the context, the report also provides an overview of the process referred to above, from the selection of focus countries and the initial collection of information to the in-depth analysis of a country's needs to identify possible forms of support.

Project:	GN2
Deliverable Number:	DN4.0.2
Date of Issue:	27/01/05
EC Contract No.:	511082
Document Code:	GN2-05-002v7

1 Introduction: NA4 and its Rationale

Networking Activity 4 (NA4) of the GN2 project consists of two parts:

- a) the TERENA Compendium of NRENs, and
- b) assistance to research and education networking in less advanced regions.

This chapter summarises briefly the rationale for the latter part of NA4, as well as its components. This serves as an introduction to the primary topic of this report, the Country Needs Assessments, which are an important step in NA4's development support process that is described in more detail in the next chapter.

1.1 Assistance to research and education networking in less advanced regions

One of the major challenges facing European research and education networking is the disparity between developments in different countries and regions. There is a significant Digital Divide, where the networking services available to researchers, teachers and students in some countries are far below the level that is common in other parts of Europe. Similar gaps even exist within a single country. Narrowing this gap is of the utmost importance for achieving the European Union's political objective of equal opportunities for researchers throughout the European Research Area.

The goal of NA4 is to contribute to narrowing the divide in the development of research and education networking that exists between countries in and close to Europe that will be connected, directly or indirectly, to GÉANT2.

The Digital Divide in research and education networking has many aspects and is due to multiple factors. It manifests itself as the inability to provide researchers, teachers and students with services that allow them to work, study and collaborate at the same level as their counterparts who are served by networking organisations elsewhere in the European research and education community. This is often because the services provided are based on poor and obsolete technologies. Ultimately the development of research and education networking in a country is a function of the country's economy, political strategy, market regulations, and additionally, as far

as the national research and education networking organisation is concerned, the NREN's legal status, human and financial resources, and modern organisational and managerial methods in running the networking organisation and its services.

The development support activity addresses all these factors at various levels and with varying methods, depending on the specific status of research and education networking in individual countries.

Components of the development support activity

The main components of the activity can be summarised in the following three points:

- As a first step, and on the basis of the information collected in the TERENA Compendium of NRENs and the SERENATE reports, a limited number of countries will be selected on which the development support activities will be focused in particular. It should be noted that some countries that in general cannot be considered to offer less advanced research and education networking infrastructure and services, may still be in need of technical, managerial or policy support for developments in certain geographic areas or related to certain specific services. Support activities that are helpful to address such problems might therefore address opportunities and interesting synergies in any country and will not be limited to the selected focus countries only. The selection of focus countries will be reviewed annually.
- To provide a basis for the various activities to assist in the development of research and education networking, needs assessments will be carried out for each of the focus countries. The results of each needs assessment will be laid down in a report that includes recommendations and that will be made available to the relevant actors in the country as well as to the European Commission. It is expected that time will allow to produce 2-4 Country Needs Assessments per year. Through these assessments, an overall picture will develop that will be analysed to conclude which forms of support actions could be successfully undertaken to address the most important and/or urgent problems facing research and education networking in the less advanced countries.
- Finally, but arguably most importantly, there will be the actual actions to support the development of research and education networking in less advanced regions. Those actions can take different forms, including technical and managerial workshops and consultancy.

The actual work in these components of the development support activity will be carried out by TERENA staff and experts from NRENs as appropriate. These staff members will be assisted by a Development Support Advisory Panel², which will assist in the selection of focus countries and the priority setting for needs assessments. The Panel will advise on the actions to be undertaken, and it will act as a quality control panel for the Country Needs Assessment reports and individual support actions.

² Details on the Development Support Advisory Panel are provided in section 2 below.

The three components listed above can be seen as subsequent phases: theoretically the actual support actions would follow from the selection of focus countries and the assessment of their needs. However, it is neither advisable nor necessary to postpone the start of support actions until needs assessments have been carried out for a large number of countries. Where there is an obvious need and an opportunity to provide support, actions will be started already in the early part of the lifetime of the GN2 project.

2 The Development Support Activity Process

This chapter provides details about the process that steers the development support activity, as highlighted in the introduction: how the focus countries are selected, how this leads to the Country Needs Assessment, and what happens after the Country Needs Assessment.

The work is carried out by TERENA staff members and experts from other GN2 project partners as appropriate; they are assisted by a Development Support Advisory Panel which is composed of senior representatives of NRENs and is chaired by TERENA. The members of the panel are appointed by the TERENA Executive Committee. The initial composition of the panel is:

- Claudia Battista, GARR
- Marko Bonač, ARNES
- Valentino Cavalli, TERENA
- Sabine Jaume-Rajaonia, RENATER
- Jorge Sanchez-Papaspiliou, GRNET.

Through the SEEREN and EUMEDCONNECT projects and the CEENet organisation, the current members of the panel have direct contact with NRENs in the regions that are the target of the development support activity. The panel members have been chosen from the most appropriate experts in the NREN community to cover the relevant geographic areas as indicated in the Description of Work of the GN2 project.

The development support activity process can be divided in three stages:

1. before the Country Needs Assessment – selection of focus countries and priority setting among those countries
2. during the Country Needs Assessment
3. after the Country Needs Assessment – selecting and implementing specific actions in support of the focus countries.

The objectives and the methods of work of the Country Needs Assessments, stage 2 as mentioned above, are the subject of this report and will be described extensively in the next chapter. The subsequent sections of the current chapter will provide details about stage 1, the input to the Country Needs Assessment, and stage 3, the output of the Country Needs Assessment.

Collaboration of the concerned NREN in each of the stages is essential to success. If the NREN does not respond or does not provide the required information and collaboration during the needs assessment phase, the assessment activity for that country will be stopped, and attention will be turned instead to another country from among those of the highest-priority. If the NREN is unable or unwilling to collaborate after the Country Needs Assessment, when actual support activities should be implemented, the actions to follow up the assessment will be discontinued. However, in this case the information obtained will still be available in the Country Needs Assessment report, and can be put to good use in analysing the needs of similar countries and developing support actions for them.

2.1 Selection of focus countries

Based on the advice of the Development Support Advisory Panel, an initial long-list of beneficiary countries has been defined (see Appendix A), which includes a subset of the countries represented in the GN2 project, as well as all SEEREN and EUMEDCONNECT beneficiary countries (some of which are also represented among the GN2 project partners). Currently, EUMEDCONNECT countries are at very different stages of development in research and education networking; which of them will actually be chosen as focus countries for some support actions will depend on their development status and their plans for the future at the moment of revision of priorities.

TERENA will approach the NRENs of all countries in the long-list to explain the NA4 activity and to inform them that their country has been included in the long-list and could possibly be the object of some form of development support. The initial long-list of countries is provided in Appendix A.

With the assistance of the Development Support Advisory Panel, a number of countries from the long-list will be selected to be the focus of specific activities. The panel will also make recommendations about the choice of countries that will be the subject of a Country Needs Assessment.

2.1.1 Criteria for selection of focus countries and priority setting

As mentioned above, a number of focus countries will be selected from the long-list of beneficiary countries; this selection will be reviewed annually. The selection and the annual review will be based on an information gathering exercise and pre-defined selection criteria.

As a first step, an information base about the countries in the long-list will be created by extracting data from the Compendium; this will not be limited to the raw data, but will also include statistical analysis and trends over a number of years. Additional information will be obtained from the SERENATE studies and from other available sources.

Project:	GN2
Deliverable Number:	DN4.0.2
Date of Issue:	27/01/05
EC Contract No.:	511082
Document Code:	GN2-05-002v7

This information will be provided to the Development Support Advisory Panel, which will complement it with information available to its members via other projects, like SEEREN and EUMEDCONNECT, or from other sources. If no information is available about a specific country, panel members will advise about contact persons in the relevant country who can provide information.

The next step will be to derive a shortlist of focus countries. This will be done on the basis of three sets of criteria (dimensions):

- **How wide is the gap** between the status of research and education networking in the relevant country and in other European countries? That gap can be assessed on the basis of the following parameters:
 - Technical parameters, including development of infrastructure at the campus level and at the national level as well as international connections, type and quality of services provided, etc. These parameters identify in a certain sense a minimum expected standard for the service provided by an NREN and at the local level.
 - Managerial parameters, including the legal status of the NREN, its management and its staff size, available resources for research and education networking at local, national and international levels, etc.
 - Funding parameters, including size and sustainability of funding, the relation with funding authorities, etc.
- **What is the user demand** in the relevant country, concerning in particular, but without limitation, advanced research and education networking facilities and services? This demand can be assessed, for example, by looking at the level of research in the country generally and in fields of science with high networking requirements in particular, as well as at the level of international collaboration in research and education.
- Do any specific **opportunities** present themselves in the form of events, projects or circumstances that offer good chances for success and high impact of an initiative for a particular country at a specific moment?

This information gathering and assessment on the basis of the sets of criteria mentioned above will be repeated annually for the revision of the shortlist of focus countries.

It is intended that a Country Needs Assessment will be carried out for each of the focus countries. However, it is expected that time will allow to conduct only 2-4 such assessments per year. Therefore it will be necessary to set priorities for the choice of focus countries for which a needs assessment will be carried out. In principle these priorities will be set once a year, following the same criteria above. The procedure will involve the following steps:

1. reviewing the most recent data from the TERENA Compendium of NRENs
2. obtaining input from SEEREN, EUMEDCONNECT and/or similar follow-up projects

3. informal talks with managers of research and education networking organisations in the relevant countries
4. obtaining the recommendations of the Development Support Advisory Panel
5. defining a list of countries, in order of priority, of countries for which a Country Needs Assessment will be carried out in the next 12-18 months.

2.2 Forms of assistance

One of the goals of the Country Needs Assessment is to provide a basis for specific actions in the context of the GN2 project to support the development of research and education networking. These support actions will provide actual assistance to the persons and the organisations that are responsible for providing research and education networking infrastructure and services at the local and the national level in the focus countries.

It is known that the situation in research and education networking in different countries is very different. The total set of actions for development support to be undertaken in the GN2 project will therefore be a mixture of actions addressing problems that are common to a relatively large number of countries, and actions that focus particularly on the specific situation of perhaps only one or two countries. Some development support actions may even be targeted at individual countries. On the other hand, it is expected that, for example, training and information dissemination on technical subjects or on less technical ones (like, for instance, Acceptable Use(r) Policies) will be interesting for many countries in a specific region. In general, technical, managerial and policy workshops are potentially interesting for several countries at a time.

The development support actions can take many different forms. Some possible examples could be:

- Technical workshops on specific operational aspects of advanced network technologies
- Managerial workshops, addressing the management of research and education networks and their relations with government, funding bodies, connected institutions, end-users and telecommunications operators
- Consultancy to research and education networking organisations in less advanced countries, including for example the development of business plans
- Secondment of staff members from research and education networking organisations in less advanced regions with more advanced NRENs and universities.

It should be emphasised that this list of possible forms of development support actions is very preliminary and by no means exhaustive. Without any doubt, the information gathering in the first stage of the development support activity process and the in-depth analysis of the situation in individual countries through the Country Needs Assessments will point the way to specific forms of development support that had not been identified yet

at the start of the GN2 project. The advice of the Development Support Advisory Panel will be most useful in developing those new forms of development support.

For example, the support of a more policy-oriented nature may include contributions to meetings between management-level representatives of an NREN and of research and education institutions in a country, and national government officials and other decision makers who are responsible for research and education policy, telecommunications and market policies, or policies for the development of the Information Society.

This example illustrates that the output of a Country Needs Assessment cannot only be found in specific development support actions within the GN2 project. The financial means of the project on their own are by no means sufficient to make any substantial impact on the development of research and education networking in the less advanced regions in and around Europe. The responsibility for that development lies with the national stakeholders, and it is from there that the main policy impetus and the majority of the necessary resources will have to come. A very major output of a Country Needs Assessment will therefore be the recommendations to these stakeholders within the country, including several branches of the government, funding bodies for research and education, the management of universities and other research and education institutions, and the management of regional, metropolitan and national research networking organisations.

Project:	GN2
Deliverable Number:	DN4.0.2
Date of Issue:	27/01/05
EC Contract No.:	511082
Document Code:	GN2-05-002v7

3 Country Needs Assessment

3.1 Objectives of the Country Needs Assessment

There are several important objectives in carrying out Country Needs Assessments:

- Within the context of the Networking Activity NA4 of the GN2 project, the Country Needs Assessments will provide a basis for the various activities to assist in the development of research and education networking in less advanced regions. The findings of the assessments will be analysed in-depth individually and in relation to each other, and in that way an overall picture will develop that points the way to specific forms of support that can be successfully undertaken to address the most important and/or urgent problems facing research and education networking in the less advanced regions in and around Europe.
- However, those support actions can make only very limited contributions to the development of research and education networking in the countries concerned. The responsibility for that development lies with the national stakeholders. As the owners of the problem, they need to take initiatives and ensure that the necessary policies at the different levels are in place and that sufficient resources will be available. A very important objective of the Country Needs Assessments is therefore to provide recommendations to these national stakeholders – government authorities, funding bodies, research and education institutions, and networking organisations – on the policies that they should develop and the actions that they should take to narrow the Digital Divide in research networking between their country and the rest of Europe.
- The European Commission is also an important stakeholder. As the Summary Report of the SERENATE³ project has pointed out, the policies of the European Union are very influential. In principle, those policies can be expected to affect only the EU member states, and to a certain extent the countries that are candidates for EU membership and the other countries of the European Economic Area. However, there are strong messages that in the areas of telecommunications, networking and related fields any technical and organisational advice and recommendations provided by the European Commission carry much weight in other countries in Europe and around the Mediterranean as well. The European Commission is therefore in an excellent position to influence,

³ Summary Report of the SERENATE Studies, Deliverable D.21, December 2003, <http://www.serenate.org/>

directly and indirectly, the development of research and education networking in many regions. The reports on the Country Needs Assessments will be made available to the Commission, on a confidential basis, to assist them in the development of their policies.

- Finally, the Country Needs Assessments provide an opportunity to develop in-depth insight in the status of research and education networking in a particular country and to share the relevant information with the wider European research and education networking community as a mirror for other countries.

3.2 Working methods of the Country Needs Assessment

Each Country Needs Assessment consists of the following steps:

1. creating a Country Needs Assessment team
2. desk study
3. country visit
4. assessment – analysis of the findings
5. writing a Country Needs Assessment report.

3.2.1 Creating a team

The work in all steps of the Country Needs Assessment will be carried out by a team of 3-4 experts, including senior TERENA staff members and experts from European NRENs who have the most appropriate knowledge and expertise to carry out such work. In theory, one team could undertake the work for several different Country Needs Assessments. However, each time that a Country Needs Assessment is started, a separate decision will be taken on the composition of the team. That composition will depend on the initial expectations – as derived from the information gathered in the first stage of the development support activity process (see chapter 2) - about the country's needs and opportunities, and the expertise required to evaluate that particular situation.

As an example, if it is expected that a specific country has a need for very high network capacity and that there are opportunities for acquiring dark fibre, then an expert from an NREN that has experience with customer-owned dark fibre and the associated transmission technologies may be invited to take part in the team. Or, to mention a different example, if it is expected that regional political forces will have a strong influence on the opportunities for making progress in the development of research and education networking in a country, then an expert from the NREN community will be sought who is acquainted with the political environment in the region. In exceptional cases it might happen that the necessary expertise is not available in any partner in the GN2 consortium and will need to be found elsewhere.

3.2.2 Desk study

The Country Needs Assessment will start with a desk-study phase, which is aimed at gathering detailed and up-to-date information about the status of research networking in the country concerned.

The Compendium of NRENs, produced annually by TERENA since the year 2000, is considered the primary source for this information. On a yearly basis, TERENA collects data for the Compendium directly from the NRENs, ordered in six categories, including the customer basis of NRENs, network capacity, traffic load and services, NREN legal/organisation status, staffing and funding.

Appendix B identifies useful indicators from the data available in the Compendium. For each section of the Compendium one has to understand: what piece of relevant information is available from the Compendium data, what piece of relevant information is not available and should be gathered additionally as part of the needs assessment study, and what the implications are that can be derived from such a set of information in terms of NREN development and support.

The information from the Compendium will be complemented by information from other sources. Primarily, for regions like southeast Europe and the Mediterranean, important sources can be found in the requirements collected by recent and current projects in the region (for example, EUMEDCONNECT, SEEREN, SEEGRID). Other standard indicators will also be gathered from available sources, including, for example, economic indicators.

The analysis of Compendium indicators about a specific country and particularly the evolution of such indicators over time, integrated with the additional information from specific projects and other sources will provide a first input to drafting a fact sheet about the status of research and education in the country and to identifying the major issues, challenges, opportunities and threats for the development of research and education networking in the country. These will be laid down in a draft document. This exercise will also show which essential information is missing for a better understanding of the issues and formulation of possible solutions.

The information and issues resulting from the analysis of information sources will provide a basis for the last component of the desk study: a series of telephone interviews with relevant actors in the focus country. A delegate of the country's NREN will most likely be the primary contact for this work, but this person might not be the most appropriate one to respond to all questions. In some specific cases relevant persons from other institutions in the country may be interviewed as well.

The output of the desk-study phase of the Country Needs Assessment will be a fact sheet about the status of research and education in the country and the identification of the major issues, challenges, opportunities and threats for the development of research and education networking in the country. This will be an internal document that will be used in various ways in the following phases: as a tool in preparing the visit, during the visit as a piece of information that can be distributed during or before discussion with the decision makers in the country and, finally, as input to the analysis of findings and, as a consequence, to the information section of the Country Needs Assessment report.

Project:	GN2
Deliverable Number:	DN4.0.2
Date of Issue:	27/01/05
EC Contract No.:	511082
Document Code:	GN2-05-002v7

3.2.3 Country visit

The open issues, threats and opportunities highlighted in the document resulting from the desk study will be used as a guideline for preparing a visit of the Country Needs Assessment team to the focus country concerned.

The goals of the visit are:

- to obtain detailed information complementing the draft fact sheet about the networks, the services and the technologies in use, funding and management of the NREN, etc.
- to understand correctly what the difficulties and inhibitors are for the NREN and for the organisations responsible for research and education networking at a local level, and to discuss possible solutions with key actors
- to explore in-depth the areas that are identified as possible targets for assistance from the GN2 project, and to discuss these options with the stakeholders in the country; these areas may be of a technical, managerial, political, or financial nature.

The visit will last several days, during which the experts will gather additional information to complement and refine the knowledge acquired via the desk study and will hold intensive discussions with all relevant actors in the country.

The programme of the visit will be defined on the basis of suggestions from the team, as indicated by the outcome of the desk study, and in strict co-ordination with the representative of the country's NREN. Strong motivation and a high level of collaboration by the NREN will be essential for ensuring that well prepared and fruitful meetings are held with the people who are the most relevant for the success of the visit.

The programme of the visit will follow a general scheme, based on previous experience, which will need to be adjusted for each new Country Needs Assessment visit in order to match the specific situation of research and education networking in that country.

In general, the team of experts will be expected to meet the executive/ management board members and the staff members of the country's NREN, people involved in the provision of network services at the local level, university networks or MANs, users of research networks, management of research institutes and educational institutions, and authorities in the national government and funding bodies, telecom operators and ICT decision makers. An example of the type of meetings envisaged is given in Appendix C, which contains the agenda of a two-day visit of TERENA senior staff members to Lithuania in 2003.

The fact sheet may be used during the visit as a document to be distributed before or during the meeting to share a common position/view regarding the status of research and education networking in the country.

3.2.4 Analysis of findings and report

After the visit, the Country Needs Assessment team will take stock of the information acquired in the desk study, summarised in the fact sheet, the analysis of issues and opportunities and, most of all, of the direct knowledge obtained during the visit from the key actors, their views and plans (if any) regarding the evolution of research and education networking in the country. This phase will focus on the analysis of findings and formulation of recommendations to the stakeholders in the country themselves and to the European Commission.

The results of this phase will be laid down in a confidential report, not suitable for wide publication. It will be made available to the Development Support Advisory Panel, which will be responsible for evaluating the quality of the report and its relevance. The report is intended to provide input to the panel in advising about specific GN2 actions to support the development of research and education networking.

When the Advisory Panel has reviewed the report, it will be made available to the relevant stakeholders in the country and to the European Commission. The report will provide an input to the annual GN2/NA4 deliverable but is not a deliverable itself. Indeed, the "Annual Report on the Activities to Support Research Networking in Less Advanced Regions" is a public document that will only contain non-sensitive parts of the information obtained during the Country Needs Assessment.

Project:	GN2
Deliverable Number:	DN4.0.2
Date of Issue:	27/01/05
EC Contract No.:	511082
Document Code:	GN2-05-002v7

Appendix A Long-list of Beneficiary Countries

This appendix contains the long-list of beneficiary countries as identified in September 2004, based on the advice of the Development Support Advisory Panel. This list, which is subject to revision, is the basis for the priority setting in the development support actions. For the sake of clarity the list is broken down into three sub-lists: countries where the NREN is a partner in the GN2 project, countries where the NREN is a partner in the SEEREN project, and countries where the NREN is a partner in the EUMEDCONNECT project. The number (04) next to a country means that updated information about that country is available in the TERENA Compendium 2004. The number (03) means that information is available in the Compendium 2003 but not in the 2004 edition. No number means that no information is available from the TERENA Compendium.

GN2 Project Participants

This sub-list contains countries where the NREN is a partner in the GN2 project. Whenever that NREN is also involved in the SEEREN or EUMEDCONNECT project, this is indicated with a (SEE) or (MED) respectively.

- Bulgaria (04) (SEE)
- Cyprus (04) (MED)
- Estonia (04)
- Latvia (04)
- Lithuania (04)
- Malta (04) (MED)
- Romania (04)
- Turkey (04) (MED)

SEEREN Countries not in GN2

- Albania (04)
- Bosnia and Herzegovina (04)
- FYRoMacedonia (03)
- Moldova (04)
- Serbia and Montenegro (04)

Project:	GN2
Deliverable Number:	DN4.0.2
Date of Issue:	27/01/05
EC Contract No.:	511082
Document Code:	GN2-05-002v7

EUMEDCONNECT Countries not in GN2

The first list contains countries connected to GÉANT through EUMEDCONNECT in spring 2004:

- Algeria (04)
- Morocco (04)
- Tunisia

The following countries are planned to be connected through the EUMEDCONNECT project late in 2004:

- Egypt (03)
- Syrian Arab Republic (04)

And the last list mentions the EUMEDCONNECT countries that will be connected at a later stage:

- Jordan (04)
- Lebanon (04)
- Palestinian Authority

Appendix B Useful Indicators from the TERENA Compendium of NRENs

In this appendix a first attempt is made to identify useful indicators from the data available in the Compendium. In the following, for each section of the Compendium we highlight:

- what piece of relevant information is available from the Compendium data
- what piece of relevant information is not available and should be gathered additionally as part of the needs assessment study
- what the implications are that can be derived from such a set of information in terms of NREN development and support, and
- which topics need further study.

Section 1: Customer basis and "market share"

This section provides information on types of connected institutions, absolute and relative number of connected institutions, bandwidth of connected institutions, connection policies. It is especially interesting to know if NRENs connect secondary and/or primary schools and what their market share is in that area.

The percentage of connected institutions might serve as a clue to the need for further investigation about the relation/competition with other providers, especially commercial Internet Service Providers. An implication might be "Does the NREN understand its role or does it see itself as an ISP?"

The fact of connecting schools and the ratio of institutions connected over the total is an indicator, especially for smaller countries, of how effectively NREN resources are pooled together in the provision of services to a larger community.

The bandwidth of connected institutions is especially relevant for universities and for research institutes.

Project:	GN2
Deliverable Number:	DN4.0.2
Date of Issue:	27/01/05
EC Contract No.:	511082
Document Code:	GN2-05-002v7

Section 2: Network capacity, capacity of the international links and national backbone

The Compendium does not provide data about the capacity of the MAN and the campus networks. This additional information should be obtained during the Country Needs Assessment.

Section 3: Network traffic, traffic load, congestion

These are clear indicators of the type and quality of service provided. Interesting implications to be studied might be: is the NREN good at keeping track of traffic?, is there little traffic because there is little demand or because there is little supply?, etc.

Section 4: Staff and funding

This section gives indications about the adequacy or lack of human and/or financial resources, sources of funding, implications for the management and organisation of the NREN.

Whether resources are adequate or not cannot be derived simply from the Compendium data. This will be a major issue for investigation during the Country Needs Assessment.

Section 5: Services provided or planned, technologies used on the backbone, and research interests

The Compendium provides data about technology used in the backbone, and especially the percentage of dark fibre.

Section 6: Basic information: size and legal form

The information in this section provides some initial indications on the stability of the NREN and its autonomy, respectively dependency on political power. However, this is difficult to understand on the basis of the Compendium data only and it will therefore be a major item for the needs assessment study.

Appendix C Agenda of Visit to Lithuania

Day 1, Vilnius

- Visit to Ministry of Science and Education
- Visit in Lithuania Seimas (Parliament),
- Information Society Committee
- Meeting and share experience with LITNET users
- Lunch at Law University of Lithuania
- Meeting with representatives of Research institutes and Law University of Lithuania
- Visits to Vilnius University

Day 2, Kaunas

- Meeting with Rector of the Lithuanian University of Agriculture
- Meeting at Kaunas Medical University
- Lunch with Rector of Kaunas University of Technology
- Visit to Kaunas University of Technology , LITNET NOC
- Review of the LITNET resource usage at Kaunas regional distance education study centre
- Presentation of national projects
- Informal meeting with members of the LITNET board who assisted during the visit, open discussion, conclusions and action list.