



TEMPLATE FOR FP6 PROJECT REVIEWS

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Individual report
Consolidated report

Thematic Priority/Activity	Research Infrastructures Communication Network Development
Instrument type	Specific Support Action
Project no and acronym	RI-026546 OCCASION
Project full title	Organising Caucasus and Central Asian Services for Internet Offerings to NRENs
Project start date	1 November 2005
Project duration	24 months
Project coordinator name and organisation	Peter Kirstein, UCL
Period covered by report (from - to)	1 August 2006 – 31 May 2007
Date of (review) meeting	25 July 2007
Name(s) of reviewer(s)	Robin Arak; Hans-Peter Axmann; Rene Belsø

1. OVERALL ASSESSMENT

a. Executive summary

The **OCCASION Project** manages the **SILK Project**, provides additional features (e.g. network management, VoIP and videoconferencing tools), and services such as information, CSIRTs and operational support. The **SILK Project** provides connectivity to GEANT2 from the National Research and Education Networks (NRENs) of the 8 Newly Independent States (NISs) of the Caucasus and Central Asia, and Afghanistan. The **SILK Project** is supported by a number of organisations, with the largest funding coming from the *NATO Security through Science Programme*, with substantial contributions from Cisco and DESY. **OCCASION** and **SILK** helps researchers in the **SILK** countries to collaborate with their colleagues in the European Union. An aspect of the **OCCASION** project is to identify significant User Groups, active in both the **SILK** countries and the European Union, who need to use the **SILK** network for their collaborations. It then fosters the requisite training and joint workshops (co-funded with other bodies) to enable useful collaborations. Finally, it will assist the **SILK** NRENs to move towards an environment in which their networks will be self sustainable without continued large-scale financial contributions from the EC and NATO.

The **partners** to the project are:

- Three Western partners - UCL (Coordinating Partner, UK), DESY (Germany) and RUG (Netherlands).
- Three National Research and Education Networks of the Newly Independent States (NISs) of the Caucasus: ARENA (Armenia), GRENA (Georgia) and AZRENA (Azerbaijan).
- three of the NISs of Central Asia: KAZRENA (Kazakhstan), AKNET-KRENA (Kyrgyzstan) and TARENA (Tajikistan).

The project is closely linked to, and manages, the **SILK Project**, which includes also three other NRENs: TURENA (Turkmenistan), UZSCINET (Uzbekistan) and AFRENA (Afghanistan). For different contractual reasons none of these three are full partners in the project; nevertheless, they are all associated with the **OCCASION** project and are expected to provide input to it.

The **main objective** of **OCCASION** is to advance collaboration between European researchers and the *SILK countries* in the Caucasus and Central Asia, by helping to develop the National Research and Educational Networks (NRENs) in the **SILK** countries - both in technology and facilities. Specifically **OCCASION** will pursue the following themes:

1. to manage the network linking the **SILK** NRENs to GEANT2.
2. to coordinate the provision of information services by the **SILK** NRENs.
3. to deploy and operate a set of VoIP and multimedia conferencing end-stations to provide collaboration facilities between the researchers from the European Union and the **SILK** countries.
4. to deploy and assist in the operation of a Computer Emergency Response Team in each **SILK** country.
5. to facilitate training in relevant areas.
6. to set the scene for the **SILK** NRENs to move to a sustainable NREN infrastructure with good performance within its financial limitations.

The project consists of **six work packages**, with the following specific objectives:

- WP1 **OCCASION** Project Management
- WP2 **SILK** Project Management and Information Services
- WP3 Network Management
- WP4 Technical Work and Personal communications
- WP5 User Groups
- WP6 Liaison and Dissemination

The following **deliverables** were due within the period covered by this review report (1 August 2006 - 31 May 2007):

- D1.2 The impact of the SILK and OCCASION Projects during the first year of the project (M12).
- D2.1 The status of the SILK NRENs and their plans for connectivity. (update required - see previous review report)**
- D2.2 Co-funding to SILK during 1st year and agreed funding model for 2nd year. (update required - see previous review report)**
- D2.3 A transition strategy for SILK communications.
- D3.1 Description of technical facilities provided and requisite of statistics. (update provided but not formally required)
- D3.2 Description of the results of the caching configurations, and descriptions of the results of the split between file serving and caching from the Content engines.
- D4.3 Advanced network services
- D4.4 Extensions in VoIP and multimedia conferencing facilities for OCCASION users.
- D5.2 The potential User Groups within the SILK countries. (update required -see previous review report)**
- D5.3 Assessment of User Group and Training activities in Year 1.
- D6.1 Plan for using and disseminating knowledge.
- D6.2 Dissemination during 1st year and plans for 2nd year.

Comments:

The reviewers were provided with the relevant project's documentation and deliverables in due time but in some cases just ahead of the meeting - except for deliverables D1.2., D2.3, D3.2, D4.3 and D4.4 which were not delivered at all. The reason given for this was that these deliverables were mainly related to the reporting on services which are reliant on the effective and reliable implementation of SILK-2, which had been delayed, mainly due to the problem of an unsuccessful deployment of a satellite. This resulted in an alternative satellite being used, with various problems arising, mainly due to problems with modems and data compressors, which the supplier had not resolved in time for the planned delivery.

The review meeting was well organised, the presentations presented by the project were of reasonable quality and the presentations gave the reviewers a good overview of the project's activities and achievements. The reviewers during the course of the review changed the order of some of the planned presentations so as to focus on their concerns raised in the first project review.

As stated in the previous review report, the OCCASION project is very closely related to its predecessor, SPONGE as well as the SILK (-1) project. The OCCASION project is (like SPONGE was) an Accompanying Measure to the SILK project, financed by NATO. OCCASION continues to provide overall management for SILK, which via a satellite based ICT network infrastructure aims at connecting the *National Research and Educations Networks (NRENs)* of the 8 Newly Independent States (NISs) of the Caucasus and Central Asia, and of Afghanistan to GEANT - the collective European research and education network.

Hence, the success of OCCASION is very closely related to that of SILK, of which OCCASION though managing it, only has marginal direct control, making a review of OCCASION somewhat more complicated than normally is the case for EC project reviews. For this reason the reviewers found it disappointing that a representative from NATO (representing SILK funders) was not present at the OCCASION review.

Because of the intrinsic dependency on the effective deployment of SILK-2, OCCASION has still not yet fully achieved its projected goals for the reporting period.

The reviewers were well informed as to the history of the SILK project as well as the OCCASION predecessor project - SPONGE. The reviewers appreciated the run-through of all the recommendations made in the final SPONGE review, which were aimed at any possible follow-up project - now the OCCASION project. The reviewers took explicate note of the previous analysis and recommendations concerning manly the subject areas:

1. How NREN **sustainability** might be pursued and ensured in the longer run, and namely the apparent lack of any NREN status/strategy/action-plan documents to this end.
2. National **distribution and use** of SILK bandwidth within the research and education communities of the beneficiary countries.

The reviewers (as in the previous review) gave significant attention to the OCCASION goal of assisting the SILK NRENs to move towards an environment in which their networks will be self-sustainable, without continued external financial contributions. The subject areas of NREN sustainability, and distribution and use of SILK bandwidth, therefore, consumed a large part of the review time, and changes to the review agenda were made accordingly.

The reviewers expressed considerable concerns over the feasibility of recommending the EC to let the project continue, mainly because of the failure to meet deliverable deadlines and because the review panel still felt that not all project partners were fully committed to all the project aims, particularly when in meant committing resources to the project.

OCCASION NRENs are still expected to give more support to the preparation of project deliverables and the pursuit of sustainability. Not doing so, beyond what is financed from the outside, must be understood as lacking commitment from the NREN and bottom-up level.

Top-down commitment from governments and/or universities still seems rather limited, or even absent for some countries, though exceptions exist. However, for some NRENs progress is being made and the review panel would hope that this continues.

Many of the comments made at the last review still stand and will not be reiterated here.

It is clear that in some countries there has been commitment to improve NREN infrastructures, links with users and attempts to move towards sustainability. This is a good sign, which needs to be encouraged further, so that more positive moves towards sustainability, user focus and infrastructure and service improvements in each NREN are made.

The review panel concluded the review with:

1. Commending the project team members involved in getting SILK-2 into service despite the management and technical difficulties encountered after the failed deployment of the planned satellite
2. Recommending actions as described below in section b.

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | Good to excellent project (The project has fully achieved its objectives and technical goals for the period and has even exceeded expectations) |
| <input checked="" type="checkbox"/> | Acceptable project (The project has achieved most of its objectives and technical goals for the period with relatively minor deviations) |
| <input type="checkbox"/> | Unsatisfactory project (The project has failed to achieve critical objectives and/or is not at all on schedule) |

b. Recommendations

The reviewers were extremely concerned that approximately 80% of the recommendations made after the first project review had not been adequately addressed. The review panel therefore still think that the recommendations made as a result of the first review still should be addressed and acted on accordingly. In addition some further recommendations have been made to emphasize the importance of improving the planning within the NRENs and the development of strategies to improve sustainability. These additional recommendations are:

1. The plan to run a workshop for the NRENs to help them develop ICT strategies must be run with all the NRENs participating. This workshop should focus on:
 - a. Defining what OCCASION and SILK has achieved in terms of support for research and education in each NREN's country.
 - b. Development of an ICT and Network strategy for each NREN which contains an action plan addressing what is required over the next few years to support the country's research and education community and an analysis of what is required to move towards making the NREN sustainable without the need for continual reliance on EC funded projects or donations from other third parties from outside the NREN's country.
2. The availability of reliable statistics, will be important to convince existing and potential funders of the NRENs to provide funding for the NRENs, because statistics show the use of the NREN by the research and education communities. The reporting on that use of the network in terms of numbers and types of users, traffic levels, types of traffic etc. as demonstrated by a few of the NRENs should be extended to all of the NRENs. If this is not immediately possible for technical reasons these should be addressed, if necessary by providing some assistance to the NRENs.
3. Deliverable D1.2 which was not submitted should be submitted by November 2007.
4. The other deliverables which were due and not submitted (D2.3, D3.2, D4.3, D4.4) should be submitted as soon as possible. The review panel recommend that the project team define the submission dates in liaison with the project officer.
5. The project should be allowed to continue and the unused budget should be allowed to be used to continue the project beyond its planned end date so that support for SILK-2 is continued, providing the project improves on delivering the planned deliverables and project aims.

The recommendations from the first review are reproduced below so that the project team keep in mind their importance for the final phase of the project.

1. Each NREN produces regular reports highlighting amongst others the current status of, as well as future strategy/action-plans, securing economical **network sustainability**. The following points should be included:
 - Description of the national networks (NREN's), of which in most countries SILK/OCCASION is only a part, and their stakeholders (government agencies, universities, other user organisations and user communities),
 - Funding arrangements for the whole NREN, including an indicative relation (in %) between national funds and contributions from outside.
2. Each NREN produces regular reports highlighting amongst others the current status of as well as future strategy/action-plans, securing **project impact**. Outreach within the

country, and plans for inclusion/connection of further users committed to education and science, should be included.

3. The OCCASION management produces regular reports highlighting amongst others the current status of as well as a future strategy/action-plan for sustainable regional NREN cooperation. i.e. a short collective NREN strategy document, "*A Sustainability Roadmap*", arguing whether it might be feasible, and if so how, project partners might harvest the potential merits of joint purchase/ownership of an OCCASION backbone and a joint participation in GEANT.
4. The unaccepted deliverables D2.1, D2.2 and D5.2 should be updated, improved upon and should be resubmitted in three months time. These above mentioned data should go into the appropriate deliverables (D2.1 and D2.2), which may be declared confidential, due to the potential sensitivity of such data.

Note. It is acceptable to just update D2.2 rather than D2.1 and D2.2.

2. OBJECTIVES

a. Have the objectives for the period been achieved?

Yes

Partially

No

Comments:

The second part of the project was delayed, due to the failure of successful satellite deployment. This delayed the work on the effective deployment of various services such as VoIP, more use of video conferencing etc. The users of the NRENs experienced performance problems due to the problems of implementing services on two alternative satellites. This has led to a certain amount of “loss of faith” in the user base about the project, making it difficult for the project team to push many of the planned initiatives. Much effort has been expended by the project team in troubleshooting in order to solve the service delivery problems. Hence, effort that could have been focused on assisting the NRENs with strategic planning was not available. However, once the technical problems with the deployment of effective services have been resolved the review panel expect and insist that the project team should focus on ensuring that the objectives of the project including the production of deliverables, shaped by the recommendations are met.

b. Are the overall objectives (i) still relevant and (ii) still achievable within the time and resources available to the project?

(i)

Yes

Partially

No

(ii)

Yes

Partially

No

Comments:

The delays due to the problem with implementing effective reliable network services using the new satellite have caused further delays to the project, rendering it impossible for the project objectives to be achieved in the originally planned project time scales. The review panel had therefore two options: firstly to recommend to the EC to stop the project completely or, to alternatively to recommend to the EC to allow the project to be extended, subject to the budget being available to do so.

After careful consideration of the achievements of the project so far and analysis of the budget available, the review panel, despite serious concerns about the project achievements made so far, decided to recommend that the project should be extended, providing that the overall budget envelope for the project is not exceeded.

c. Do you recommend changes in objectives in order to keep up with the current state-of-the-art?

Yes

Partially

No

Comments:

Once the new infrastructure is fully functioning effectively the project team should focus on the delivery of services and also on ensuring that the recommendations made are implemented.

3. WORKPLAN AND RESOURCES

a. Has the project as a whole been making satisfactory progress in relation to the Description of Work (Annex I to the contract)?

Yes

Partially

No

Comments:

The project has made backwards progress in the implementation of services due to the deployment of an unreliable infrastructure. The technical problems must be resolved before the project can get back on track. The more strategic aspects of the project still require a lot more effort and it is likely that a lot of support from the European partners will be needed to support the other partners in helping them develop their strategies. The development of NREN strategies and action plans is very important and must be concentrated on, during the next phase of the project.

b. Has each work package (WP) been making satisfactory progress in relation to the Description of Work (Annex I to the contract)?

Yes

Partially

No

Comments:

The project consists of **six work packages**, with the following specific objectives, followed by the review panel's comments:

WP 1 - OCCASION Project Management

WP1 should manage the OCCASION project itself. Most SILK partners have little experience of the procedures for managing international projects like SILK or OCCASION despite having been partners already in the forerunner projects. Thus one objective is to bring the partners into the style of management of EC projects. Another objective is to use more modern methods in OCCASION management than is usual in EC projects - i.e. making more use of audio conferencing by VoIP and videoconferencing for day-to-day management.

The management of OCCASION followed closely the one for SILK, with the same people sitting on both boards, thus creating positive synergy effects. The same situation applies for the Executive Committee, which in addition has two members of each SILK NREN on board.

The project management as reported has been improved during the period, with the majority of the project partners now submitting reports of better quality although there are still some notable exceptions. The project partners seem to be improving on their reporting, although it appears that there is still considerable room for improvement.

WP 2 - SILK Project Management and Information Services

There are four objectives of this Work package. One is to manage the current SILK Project itself, to ensure that it operates efficiently, follows best practice, and meets the needs of the SILK NRENs and its funders. The second is to ensure the medium and longer-term viability of the SILK Project by making the correct arrangements with current funders, and having close links with potential future funders. There is a related activity of liaison with similar projects in other regions, but that is dealt with in WP6. The third is to provide information on the project both to inside participants and outside interested parties. Finally, the project should

evaluate and facilitate the best choices for the provision of Internet services during and after the end of OCCASION and SILK.

This work package has been subdivided into seven individual tasks:

- **SILK Project Management**
Apart from the management activities mentioned in WP1 the project manager has spent much time on SILK-2 project management including the negotiating of SLAs with the satellite service provider and also dealing with equipment export licences and other export issues.
- **SILK-2 Procurement**
OCCASION has continued to take a crucial and active role in the procurement and implementation of SILK-2. There have been considerable problems caused by the planned satellite service not being put into service as a result of the satellite blowing up on the launch pad. This resulted in the SILK2 service being provided by two satellites and three transponders, which has led to difficulties in deploying the planned bandwidth and has led to a reduced service. There have also been problems with compression equipment and modems, which are still under resolution. However, the project team have deployed a system and are to be commended on their efforts in doing this.
- **Transition Strategy and Liaison with Current and Potential Funders**
Work has continued in developing sustainability plans with algorithms for the funding of the SILK bandwidth being developed. It has been agreed that the project partners using the bandwidth will get half of the bandwidth available to the project free and pay for additional bandwidth. This is a step forward in moving towards the recognition that the service has to become sustainable.
- **SILK-wide Activities of the NRENS**
All the SILK NRENS took delivery of equipment needed for new Cisco Academy courses and SILK academy courses have been run in some countries.
NATO has funded a Computer Security Incident Response Team (CSIRT) in each SILK country under another NIG. The equipment has been delivered to the NRENS and training courses have been delivered.
NATO has funded a video-conferencing facility at each SILK NREN under a third NIG. This system has been used and the IP addresses and contact numbers documented.
- **Extensions of the NRENS**
NREN's have been reporting on the most significant changes and progress in the regular Quarterly Reports.
- **Measures towards Sustainability in the NRENS**
It was not possible to have serious discussions with the NRENS on the move towards sustainability in the absence of being able to deliver very effective services using SILK-2. The loss of credibility to deliver has hampered talks with the funders of the NRENS. However, thinking has continued and plans are being made about how NREN infrastructures might be developed, in some cases using fibre.

In the light of the previous review report a questionnaire was revised and sent to all NRENS who responded. The responses form the basis of the update of deliverable D2.2.

The report indicates that the answers to the questionnaires show that their have been movements towards improving sustainability as measured using the methodology developed by the project team.

On balance the deliverable D2.2, has shown some improvements in its redraft so the review panel have now accepted it.

- Information and Web Services

The OCCASION web site has been improved during the period adding more information. Various information in English has been added to all the NREN's web sites.

New versions of D2.2 and D5.2 were submitted and accepted.

WP 3 - Network Management

The objective of the SILK NOC is to manage the different components of the SILK network, ensuring that they are correctly and optimally configured for their purpose. The objective of WP3 is the configuration of those components of the SILK Network, which reflect directly on the provision of personal communications, IPv6 and caching which are required for the OCCASION project.

The SILK Network Operations Centre (SNOC) has been put in place for SILK-2 and despite some personality clashes initially between the satellite service provider's staff and the SILK NOC staff the SNOC appears to be working. There have been demarcation problems between the SILK equipment and the satellite service provider equipment making some technical issues difficult to resolve, but progress seems to have been made on this.

Work continues on bandwidth allocation and adjustment for different user communities and on caching, although software updates have not been provided for the caching equipment, which has hampered progress. It is not clear whether the caching put in place will have any advantage. This may be discovered in the future. A decision can then be taken whether caching is worth implementing on a "permanent" basis.

The reviewers find that the SILK-2 network, is managed well, and are confident that the actual technical network will be functioning well, despite some technical problems, as long as the project is funded from outside.

WP 4 - Technical Work and Personal Communications

Technical Developments, which are needed to take maximum advantage of the potential of the SILK Network include deployment of mechanisms for personal communication like Voice/IP, video and shared workspace, their use over IPv6 networks, and caching.

Work continues on improving the work and personal communications infrastructure. Priority is now being given to real time traffic by the satellite service provider, which has allowed good quality video conferences to be conducted. This has been an improvement over the previous period.

There are plans to deliver some second hand IP phones to the SILK NRENs as well as implement communications using standard PC type systems. It is suggested that this is reported on in the future.

The reviewers find the technical work and deployment of mechanisms for personal communications continue to be well managed and of good quality, despite the set-backs experienced on deploying SILK-2.

WP5 - User Groups

This WP should identify, set up and help maintain user groups spanning interests between the SILK country researchers and European ones.

Work has continued by the SILK NRENs in identifying user groups and their respective needs and requirements. Two NRENs have progressed this significantly, identifying areas of collaborative research and appropriate groups involved with these research areas. This best practice needs to be spread to the other SILK NRENs. However, not much progress has been made on setting up users groups at all. This, of course, could be difficult after the problems in deploying SILK-2 making it difficult to establish credibility as an effective service deliverer.

It is therefore important that once SILK-2 is stable and delivering effective services the progress to establishing user groups should be made.

Detailed information on the potential user groups within the SILK countries was to be provided in deliverable D5.2 for the last review. This deliverable was resubmitted as part of this review at the request of the review panel. The revised deliverable, although not as extensive as the review panel would have liked, is accepted as considerable progress has been made in documenting the user communities.

WP6 Liaison and Dissemination

It is important that not only are good things done in the SILK/OCCASION project, but that they are so seen to be done. It is the objective of this WP to ensure that such dissemination is carried out.

Deliverable D6.2 was submitted for the review. The deliverable shows that various dissemination activities have been carried out including dissemination at the SILK/OCCASION board, public presentations, the improvements made to the web site etc. The review panel accept the deliverable and recognise that considerable progress has been made on dissemination.

c. Have planned milestones and deliverables been achieved for the reporting period?

Yes

Partially

No

Comments:

Throughout the project milestones and deliverables were late. The extent of this can be seen as reported in the project activity report. The review panel accept that many problems have been caused by the failure of the deployment of the planned satellite to implement SILK-2, but also there is still a problem with some project partners not showing strong commitment to the project, which makes it difficult for progress to be made in all the planned areas.

During the current review period several deliverables were late and some were not delivered for the review. A summary of the deliverables that should be addressed during this review is given below.

D1.2 The impact of the SILK and OCCASION Projects during the first year of the project (M12).
Not delivered- delayed until next review.

D2.1 The status of the SILK NRENs and their plans for connectivity. (update required - see previous review report)

The deliverable is an update from the previous review. The main area of concern (sustainability) of the review panel was actually addressed in deliverable D2.2. The deliverable gave an update of the status of each NREN including the status of the infrastructure, the number of institutions connected and an estimate of the number of users and the usage of SILK bandwidth. **The deliverable is accepted.**

D2.2 Co-funding to SILK during 1st year and agreed funding model for 2nd year. (update required - see previous review report)

The deliverable attempted to measure the moves that the NRENs are making towards sustainability. This was done using a multi-dimensional mapping of different measures of sustainability, which are accepted as valid, based on answers to a questionnaire that was sent to each NREN. Narrative text was also given which documented some of the issues for each NREN in moving towards sustainability. This was a considerable improvement over the previous submission of the deliverable and although in some instances the review panel would have liked to have seen more movement towards sustainability the review panel accepted that there are some difficult issues to be resolved in some countries to get full government buy into the idea that NRENs are important.

The deliverable is accepted.

D2.3 A transition strategy for SILK communications. **Not delivered, needs to be delivered for the next review.**

D3.1 Description of technical facilities provided and requisite of statistics. (update provided but not formally required)

The deliverable effectively describes the technical facilities implemented in an understandable way. Statistics are also given which show the usage of SILK-2.

The deliverable is accepted.

D3.2 Description of the results of the caching configurations, and descriptions of the results of the split between file serving and caching from the Content engines. **Not delivered, needs to be delivered for the next review.**

D4.3 Advanced network services **Not delivered, needs to be delivered for the next review.**

D4.4 Extensions in VoIP and multimedia conferencing facilities for OCCASION users. **Not delivered, needs to be delivered for the next review.**

D5.2 The potential User Groups within the SILK countries. (update required -see previous review report)

The deliverable is mainly based on a questionnaire sent out to NRENs. The results show that all the NRENs (to a greater or lesser extent) are supporting some specific user groups including groups representing distance education, science, health, environmental and library communities of users. Regional users groups such as the University of the Mountains and the PALM project are also identified. The review panel would have liked to have seen more active involvement of NRENs in establishing NREN users groups, but accepts that this may be difficult in some instances until significant user buy-in to the NRENs has been achieved which will only be possible once services have been effectively and consistently delivered by the NRENs.

The deliverable is accepted.

D5.3 Assessment of User Group and Training activities in Year 1.

The deliverable describes what activity is occurring in various user groups and also shows that a reasonable number of training workshops are occurring which address such issues as organising NRENs, financial management, distance education, the Cisco academy programme, etc.

The deliverable is accepted.

D6.1 Plan for using and disseminating knowledge.

The plan for disseminating knowledge covers plans for public presentations, the building up of networks, the use of training events and the web-sites and the use of the personal communication facilities set up.

The deliverable is accepted.

D6.2 Dissemination during 1st year and plans for 2nd year.

The plans for the dissemination about the project include public presentations, the building up of networks, the use of training events and the web-sites and the use of the personal communication facilities set up. The main area of concern is how effective will the link to users of the NRENs be? It is hard to assess and the review panel feel that it may be impractical for the European project partners to get too involved with this as it is the responsibility of the NRENs, themselves to link with user groups and disseminate knowledge, The review panel would like to see more plans from NRENs for such dissemination activities or at least get reports of such dissemination activities.

The deliverable is accepted.

d. Have resources been deployed as foreseen in Annex I, overall and for each participant?

Yes

Partially

No

Comments:

The deployment of resources still continues to be very different from the original plan. There is a considerable under spend which the project partners wish to use to continue the project beyond its planned end date.

e. Have costs incurred, i.e., personnel costs and other major cost items, been 1) necessary for the implementation of the project and 2) economic. Note that both aspects 1) and 2) have to be covered in the answer.

Yes

Partially

No

Comments:

The project has not spent what was planned. However the amounts spent are justified.

4. WORK PLANNED FOR THE NEXT PERIOD

Is the proposed plan for the next period satisfactory?

a. from a scientific/technical point of view?

Yes

Partially

No

Comments:

The original objectives of the project are still valid. The planned activities as defined by the project team are supported by the review panel, subject to the recommendations made being implemented.

It is expected that, once the infrastructure is available to the NIS partners, they will also work actively toward achieving them.

The review panel still are concerned about the need to develop sustainability plans for each NREN. The plans for dissemination are adequate, but more links by the NRENs to users to help develop active user participation in helping NRENs gain credibility in some countries will be important.

b. from a management point of view including use of resources?

Yes

Partially

No

Comments:

The management structure is well established. There is no need for changes of the structure. The full availability and improvement of video-conferencing facilities should improve the management tasks significantly. However, as stated in the last review there is still a need for the management to shift its main focus from scientific/technical issues to issues of a more political and administrative nature. i.e. to put more effort into the non scientific/technical issues, elaborated below.

c. concerning non-scientific activities (dissemination, exploitation, training, science-society issues, further integration etc)?

Yes

Partially

No

Comments:

As emphasised in the review recommendations, there is a need for the management to shift its main focus from scientific/technical issues:

- to how the project aims to fulfil its main objective to “... *set the scene for the SILK NRENs to move to a sustainable NREN infrastructure with good performance within its financial limitations*”,
- to demonstrating how the project has any lasting impact on its target user groups (research and education institutions),
- and to demonstrating that the stakeholders/beneficiaries have real interest in the project, apart from as a source of income.

As can be seen from D2.2 NREN funding almost entirely comes from users' contributions with little or no funds from relevant government agencies. This suggests that in virtually all project partner countries direct government support seems to be low or indeed not present at all. Therefore, and in consideration of the political culture in these countries, it is suggested to engage in awareness raising activities at the highest government levels with possibly the help of EC officials, which would address the importance of networking for education and science and the issue of sustainability not only from a bottom-up but also from a top-down level. It seems to be pretty clear that without strong government support all other activities will yield, at best, only a very limited success.

The project team asked the reviewers if they would support the idea that the unused budget could be allocated to extend the life of the project so that on-going activities could continue to support SILK-2. Although the review panel found that there were still some very serious concerns about the SILK NRENs' move towards sustainability it was felt that some NRENs had made significant progress in improving their infrastructures, planning and attempts to get user support. On balance the project review panel is willing to support this proposal providing that significant progress is made in achieving the deliverables and major objectives of the project. So far the project has not been very effective at meeting its deliverables on time. The review panel accepts that in some instances this was beyond the control of the project, but in other instances was because not all project partners had sufficiently contributed to achieving the project aims. The OCCASION project board need to address this issue by agreeing the level of contribution expected by each partner and ensuring that it is delivered on time.

5. CONSORTIUM PARTNERSHIP

a. Has the collaboration between the participants been effective?

Yes

Partially

No

Comments:

The collaboration between the partners is still somewhat hampered by the fact that there does not exist a common language for communication. Everything has to be translated into/from Russian, although a wise decision was made to spend more funding on providing more translation services.

Collaboration between the participants has been effective when it comes to technical network building. But collaboration (understood as working together in pursuit of a common good) still suffers in some instances from a lack of a common understanding of project commitment.

b. Have the partners contributed as planned to the project and tasks assigned to them?

Yes

Partially

No

Comments:

The European partners seem to still have been the driving force so far, although some NRENS now seem to be taking the initiative, which is to be encouraged.

The review panel get the impression that some beneficiary partners do not put much effort into the project, except when receiving resources from the project to do so. Since the project aims at assisting beneficiary partners build their infrastructure, one would expect that all beneficiary partners demonstrate commitment to contributing to project deliverables. This is the case namely when the deliverables are crucial to securing continued support for the project from the EC side.

c. Do you identify any conflicts or evidence of underperforming partners, lack of commitment or change of interest of any partners? Do you recommend any changes in responsibilities?

Yes

Partially

No

Comments:

There are no detectable conflicts between partners. The main problem is ensuring that partners contribute effectively to the common aims of the project.

6. MANAGEMENT

a. Has the scientific/technical management been performed as required?

Yes

Partially

No

Comments:

This has been primarily the responsibility of the European partners who performed well, given the circumstances of the problems of deploying SILK-2. The members sitting on the SILK and the OCCASION Board are identical and include representatives from all partners.

b. Has the administrative and financial management been performed as required ((including proper handling of contractual matters, maintenance of the consortium agreement, intellectual property rights, technical collective responsibility, sub-contracting, competitive calls)?

Yes

Partially

No

Comments:

The administrative management has improved with most partners now submitting the necessary reports on time.

c. Have (electronic) information and communication networks been established as required to support interactive working between the teams involved (if relevant)?

Yes

Partially

No

Comments:

Video conferencing is being used effectively. This has been assisted by the implementation of effective QoS techniques to ensure that services are effectively delivered.

d. Is the consortium interacting in a satisfactory manner with other related 5th and 6th Framework projects or other R&D national/international programmes (if relevant)?

Yes

Partially

No

Comments:

There continues to be a great interest in GEANT, as well as in the education programmes of the Cisco Academy and the World Bank.

7. USE AND DISSEMINATION OF KNOWLEDGE

a. Does the project have significant use potential (if applicable)?

Yes

Partially

No

Comments:

The project should help to improve existing and create new scientific partnerships between NIS and European scientists. There is evidence that the project partners seem willing to work with each other and with others in Europe. However, there is a long way to go before the level of commitment and collaboration as seen in the GN2 project or in other projects supported by the EU.

b. Is the Plan for the Use and Dissemination of Knowledge developing in a satisfactory manner?

Yes

Partially

No

Comments:

A number of activities have been started to make the project known and attractive to other institutions outside the partner institutions in their respective countries. Work has continued to further develop the web sites of the NRENs including putting English text on the sites, which will improve dissemination to others in Europe and beyond.

c. Have the contractors disseminated project results and information as foreseen by the contract and the plan for dissemination and use of knowledge (publications, conferences...)?

Yes

Partially

No

Comments:

A reasonable number of dissemination actions have taken place.

d. Are potential users and other stakeholders (outside the consortium) suitably involved (if applicable)?

Yes

Partially

No

Comments:

An attempt has been made to identify new user groups and this needs to be taken forward so that collaboration can be improved.

8. OTHER ISSUES

a. Have policy-related and/or regulatory issues been properly handled (if applicable)?

NOT APPLICABLE

Yes

Partially

No

Comments:

Since the aim of the project is to establish an effective and efficient use of the SILK-2 infrastructure accepted standards will be applied.

b. Have ethical issues been appropriately handled (if applicable)?

NOT APPLICABLE

Yes

Partially

No

Comments:

c. Have safety issues been properly handled (if applicable)?

NOT APPLICABLE

Yes

Partially

No

Comments:

d. Has progress on the Gender Action Plan been satisfactory (if applicable for this reporting period)?

NOT APPLICABLE

Yes

Partially

No

Comments:

Name of the reviewer: Robin Graeme Arak

Date:

Signature(s):

Name of the reviewer: Hans-Peter Axmann

Date:

Signature(s):

Name of the reviewer: Rene Belsø

Date:

Signature(s):