Exchange of Experience Session I:

Interim phase between EC funded preparatory phase and implementation

1. An interim phase is most likely characterized by no or less budget, reduced labour capacity (and employed by different organisations, new people and temporary governance coming in. How did/do you deal with this situation? In particular: How do you take decisions if you move forward without a formal governance structure?

Lifewatch/ J. Konijn (Environment Sciences)

How to secure continuity?
We identified countries that are (in principle) willing to commit money to the new RI. Through a MoU we brought them together in a Stakeholders Board that meets on a regular basis.

Who is in charge and makes the decisions?
This Stakeholders Board takes decisions, but these decisions will need later confirmation once the ERIC starts. The fact that some countries already offered advance budget for the transition (startup) phase did of course influence the decision making process in such a way that the opinion of these leading countries is leading.

Who is paying?
Countries that were interested in having central ERIC facilities (LW is a distributed RI) were asked to pledge advance funding to overcome the gap between prep phase and ERIC. A total of 1.5 Meuro was offered by 3 countries for this transition phase.

Who is managing?
The 3 leading countries appointed country 3 provisional directors, plus an acting managing director. The 3 country directors started working on startup activities in each country. These startup activities are related to the part of the ERIC activities they will provide.
The directors report regularly to the Stakeholders Board, being the provisional governing body.

EATRIS/ A. Ussi (Medical Sciences)

Funding: The Netherlands had won the bid to host the coordination unit. With a small amount of the funds promised as part of this bid, a very small team (2 people, less than 1FTE overall) kept the coordination and communication alive for the 8 month period between fundings, while also establishing the beginnings of an operational plan for the implementation phase, based on the draft business plan arising from the preparatory phase.

New people: indeed there was virtually no one from the original phase in the coordination unit, thus in the little overlap time that there was, we conducted as extensive a handover programme as possible. However, this is never a perfect process, so often it took some effort to ascertain, reconfirm or even redesign ongoing activities.

Governance: there was no formal governance structure during this phase, but was run under the guidance of the current Business & Finance Director. The formal accounting for the period was then included in the next phase's first year accounting record and ratified by the Board of Governors.
Significant operational decisions during this period could not be made, and the organization was effectively in 'stand-by' mode.

ELI/ F. Gliksohn (Physical Sciences, distributed)

Background: The Preparatory Phase of ELI ended in December 2010. It had been decided in October 2009 that ELI would be implemented as a distributed research infrastructure based initially on three facilities to be located in the Czech Republic, Hungary and Romania and jointly operated under the umbrella of a pan-European consortium (preferably an ERIC). The mandate given to the three hosting countries included the responsibility to establish an inclusive "ELI Delivery Consortium", conceived as an interim structure leading to the ELI-ERIC. In April 2010, 8 months before the end of the Preparatory Phase, the three hosts signed a Memorandum of Understanding confirming their intention to work on the fulfilment of these two essential aspects of their mandate (establishment of the ELI Delivery Consortium and objective of setting up an ERIC for the joint operation of the ELI facilities).

Peculiarities of ELI's interim period between the preparatory and implementation phases: The use of structural funds in the case of a distributed research infrastructure such as ELI makes it extremely complex to manage and organise the transition between preparation and implementation. In the case of ELI, we encountered the following difficulties:

- Applying for structural funds is a very complex and demanding process which leaves the local project teams with very little capacity and time to deal with other activities, such as setting-up coordination or governance structures between the constituent facilities of the infrastructure
- The application procedures are organised at the national level, they are not synchronised and may suffer from the local political vicissitudes. This undermines the capacity of the hosting countries to commit on the establishment and funding of common governance structures, because they do not face the same risks and constraints
- At the time the Preparatory Phase of ELI ended, no structure was in place at the European level to preserve the pan-European character of the project and its continuity as a single pan-European initiative. The local project teams had very little staff available and qualified to define appropriate European structures for the project. No one had really foreseen at that time the complexity of defining a governance model combining the legitimate national interests of the hosting countries (including the objective of regional socio-economic development in particular) and the European character of the project.
- The absence of adequate structures at the European level resulted in two major threats: losing the momentum created during the Preparatory Phase within the scientific community; struggling to have partner countries on board.

In the case of ELI, the definition of a consensual governance model took almost two years. The three hosting countries shared the costs related to these activities according to their financial capacity. The governments of the three hosting countries appointed plenipotentiaries at a very early stage, thus clarifying who had to be involved in the discussions on the governance model.

2. What were/are the key issues you had to deal with in the transition phase?

Lifewatch/ J. Konijn (Environment Sciences)

a. The composition of the Stakeholders Board is regularly changing (partly a consequence of changing positions of countries).

b. Temporary staff in the transition phase is employed by different organisations. This implies that it is difficult to enforce a single authoritive management, also due to the separated funding.
c. Loss of collective memory of the outcomes of the Preparatory Phase. "Distributed" interpretations of the construction plan.
d. More limited scope of activities, due to temporary reduced funding. Danger for required outreach and communication activities with the scientific user community.
e. Activities in the transition phase are losing synchronisation.
f. Focus on 'in my own country' activities.
g. Too low efforts for keeping the non-key countries informed and in the loop of developments, bringing in new interested countries
h. No managerial decision in appointing people to jobs. This decision was made by the separate countries. Consequence was a lack of quality and professional capacity (especially on the project management level)

EATRIS/ A. Ussi (Medical Sciences)

The primary challenge was proceeding in a politically charged environment characterized by deadlock. Not all countries were on the same page on how to move forward with the initiative. . This resulted in many months of lost time and delayed the process to reach agreement to the conditions of the next phase.

We learned by that such consensus-based initiatives often do not have suitable structures for preventing deadlock and ensuring goal-directed leadership. It would be advisable to bear this in mind when drafting governance rules for any stage of such an initiative. The deadlock was eventually broken when it was clear that the vast majority of members were not interested in changing the result, and started to signal that a smaller group was willing to move forward.

ELI/ F. Gliksohn (Physical Sciences, distributed)

Main lessons: It is absolute vital to end the Preparatory Phase without basic structures in place (even in the form of a very light institutional framework) to represent the project and ensure continuity. This is particularly true in the case of a distributed infrastructure, where the absence of central management and coordination may undermine greatly the unity of the project and the involvement of partner countries.

All answers do not have to be answered (and cannot be answered) at the end of the Preparatory Phase. It is already very helpful to have a few key staff members dedicated full time to preserving and promoting the European character of the project. The appropriate structures can be developed and set up gradually, but, in the case of a distributed infrastructure, the representation of the project as a unique initiative is an essential objective. Here, communication is probably almost equally as important as finding the right answers in terms of governance.

3. Probably you had no influence on the duration of the interim phase. How did this affect the momentum of developments and how did you keep the scientific community interested/involved?

Lifewatch/ J. Konijn (Environment Sciences)

The interim phase was to last 1 year. It will most probably last about 2 years. In comparison with the preparatory phase, the interim processes are less well coordinated and tend to get connected to internal, national decision making. This results in delays, especially in the legal process (the ERIC process is very much a time restraint procedure, with months between each step).. It would be an important message for current or future prep. phase projects, or for the EC, to design preparatory phase projects differently. More focus on a firm go/no-go deliverable with a well endorsed (by countries with money) plan towards implementation.

Keeping the scientific community interested is a different process. LifeWatch already installed in the preparatory phase a group of scientific representatives from the countries and Networks of Excellence to discuss from time to time the progress and plans in the individual countries and common European activities. They still are meeting in order to promote coordination of national (in-kind) efforts since the scientific community involved is much more focussed on the in-country activities. Interested countries will invest 85% in own projects, and 15% on the European level. As such the separate countries have been working on plans to finance this with their national scientific networks.

EATRIS/ A. Ussi (Medical Sciences)

The momentum was almost completely lost. Among other consequences was quite a substantial change in the scientific composition of the initiative (members leaving and joining), meaning that much of the inventories' work from the preparatory phase has had to be repeated.

The scientific community has been re-engaged by face-to-face meetings in which EATRIS was able to show substantial progress and strong plans for a successful implementation, thanks to a new coordination team that has added substantial value in the recent period. The meetings were used to present progress, establish strategies together with the scientists and define identify areas of attention for the medium term (up to 2 years). The focus is on creating a viable and sustainable infrastructure that meets the needs of the ERA, is not dependent on political favor, and leverages the combined power of the major stakeholders involved. In so doing, we have managed to generate significant momentum and interest.

ELI/ F. Gliksohn (Physical Sciences, distributed)

As already highlighted above, keeping momentum within the scientific community has been very difficult in the case of ELI. By the time the Preparatory Phase ended, there was no clear framework for the involvement of the scientific community. The local project teams had generally little resources and staff to communicate on their progress and strategies and had different approaches to the involvement of the community. Some structures (scientific advisory committees) and workshops were organised by the local sites, but in a non-coordinated fashion, which added to the perception that ELI lacked unity.

Exchange of Experience Session II:

The learning curve: challenges we discovered since the beginning of the implementation phase

1. The actual cash flows, the construction planning and the implementation capacity are most probably different in the initial months/years. How did you manage this asynchrony?

PRACE/F. Berberich (e-infrastructure)

The PRACE AISBL is currently supported by an annual membership fee and additional in-kind contributions. The membership fee covers the running costs for the PRACE headquarters. The estimates costs of about 1 -1.2 Mio EUR per year for the PRACE headquarters turned out to be realistic. In addition to the cash contribution the in-kind contributions consist of the Tier-0 resources from each Hosting Member as well as other non-monetary contributions provided by Members to the association according to the rules defined for in-kind contributions.
This was determined to be a necessary model in order to get PRACE up and running in a timely fashion and is detailed in the Agreement for the Initial Period, which runs from 2010 to 2015. The scope of the work necessary to get a completely centralised financial system was significantly larger than what could be achieved across the 2.5 years of the PRACE preparatory phase project. Thus the Agreement for the Initial Period allowed PRACE to be operational far sooner than what could otherwise have happened. We are in the middle of the Initial Period and discussions / negotiations started for the next period.

CLARIN/S. Krauwer (distributed SSH infrastructure)

CLARIN distinguishes two levels: CLARIN ERIC is the governance and coordination level. The operational level has two sub-levels: the technical infrastructure level (consisting of data and service centres, spread over all participating countries), and the content creation level (consisting of centres creating new content and tools or enhancing existing resources). The focus is on language. Every member of CLARIN ERIC (i.e. country) is responsible for its own language.

Members pay an annual membership fee to cover the running costs of the CLARIN ERIC headquarters. Target budget for this is ca 1 Mio EURO (based on ca 20 members). With 9 founding members the current budget is ca 0.6 Mio. With fewer members the workload is less, and some activities will be scaled down until new countries join. No cash problems are foreseen.

The operations in the member countries are fully nationally funded, and creation of content is fully determined by national research priorities, and does not follow from any central planning at the CLARIN ERIC level. Members set up national CLARIN consortia to carry out the work. Members commit themselves to creating and making their material accessible to CLARIN at large through their centres, and interoperability between data and tools across centres and countries is ensured by the requirement to be compliant with common standards to be determined by CLARIN ERIC. The result is a jig-saw puzzle where the shapes of the pieces are centrally given, and have to fit together, but where different countries may design the picture locally (although CLARIN ERIC will encourage and support cross-border coordination).

The main consequence of the asynchrony will be that some parts (mostly languages) of the jig-saw puzzle may be filled in later than others or even never in the case of countries not joining CLARIN ERIC. Special collaboration agreements with individual institutions in countries not joining may help to at least partially fill the resulting language gaps (but with no funding attached). The ambition is to

cover all EU and associated countries, and to cover all languages relevant for our research community, both national languages and minority languages.

ICOS/M. Kaukolehto, S. Sorvari (Environmental Sciences, implementation just started)

The information given here is based on our experience on already started constructions of the decentralized facilities and on planned implementation. As the work continues we may need to make adjustments to these implementation plans. ICOS is aiming to move to full implementation phase in 2012/2013.

In the case of distributed infrastructure as ICOS, asynchrony of the actual cash flows and construction planning and implementation capacity can be tackled in a more flexible way. The construction and the implementation of the different ICOS components varies over time (see as an example appendix 1). The on-going construction of the station networks and the European level central facilities (CF) are being built on national resources and institutional level contributions. Thus there is no actual cash flow yet between countries and any legal organisation.

In addition to national investments on stations and CF construction, countries are devoting time and resources of their stakeholders to participate in the ISIC (ICOS Stakeholders' Interim Council, see below), working groups on statutes & legal issues and financial issues. Additionally Finland, as the forthcoming host country of ICOS ERIC, is investing resources in establishing European level organization of the ICOS RI.

2. How is the work power for initial implementation organized? Is the ERIC (or another new legal entity) directly operating as employer; or is staff hired by a hosting organisation; or is very construction work outsourced to third parties?

PRACE/F. Berberich (e-infrastructure)

In April 2010, PRACE, the Partnership for Advanced Computing in Europe was founded as a Belgian international non-profit association AISBL (Association Internationale Sans But Lucratif) in Brussels. The PRACE AISBL is a distributed European research infrastructure. In its current operational model, the procurement, deployment, and operation of each Tier-0 supercomputer is funded by the four Hosting Members. The PRACE HQ is staffed with one Managing Director, one secretary, two peer review officers, one communication officer and one legal / financial officer. The staff is employed directly by PRACE AISBL. In addition to the HQ, PRACE is supported by three implementation projects (PRACE-1IP, -2IP and -3IP coming soon) supported by EC (RI-261557, RI-283493). The implementation projects expedite the implementation of the PRACE services to enable European researchers to fully and effectively exploit the unprecedented resources of PRACE. Experts from the PRACE partners support users in porting, petascaling, and optimising their applications. An extensive education and training program familiarises current and future users with new methods, novel languages, and modern programming paradigms and a diversity of system architectures.

CLARIN/S. Krauwer (distributed SSH infrastructure)

CLARIN ERIC is the governing and coordinating body, but will not employ personnel directly. People work for CLARIN ERIC through contracts with their home institutions, whereby salary and other direct costs will be fully reimbursed in a way very similar to e.g. EC coordination actions.

The actual construction takes place in the member countries, following the usual national funding regimes. Countries submit their construction and operation plans to CLARIN ERIC on an annual basis. The plans will be checked for compliance with the CLARIN requirements, and if they are approved a CLARIN Agreement will be signed between CLARIN ERIC and the national consortium responsible for execution of the plans. Plans should also include training, education and transfer of knowledge.
We have no experience yet with administrative or operational integration of EC funded projects into the activities of CLARIN ERIC. Now that FP7 is running towards its end we don't expect to be confronted with such problems in the near future.

ICOS/M. Kaukolehto, S. Sorvari (Environmental Sciences, implementation just started)

Due to gradual construction of the ICOS RI components also the needed work power increases over time. The staff is hired by CF hosting organizations. They are already recruiting staff for construction and running the facilities. The implementation plans of CFs and HQ for becoming fully operational will be approved in autumn 2012 after which the implementation will be consolidated.

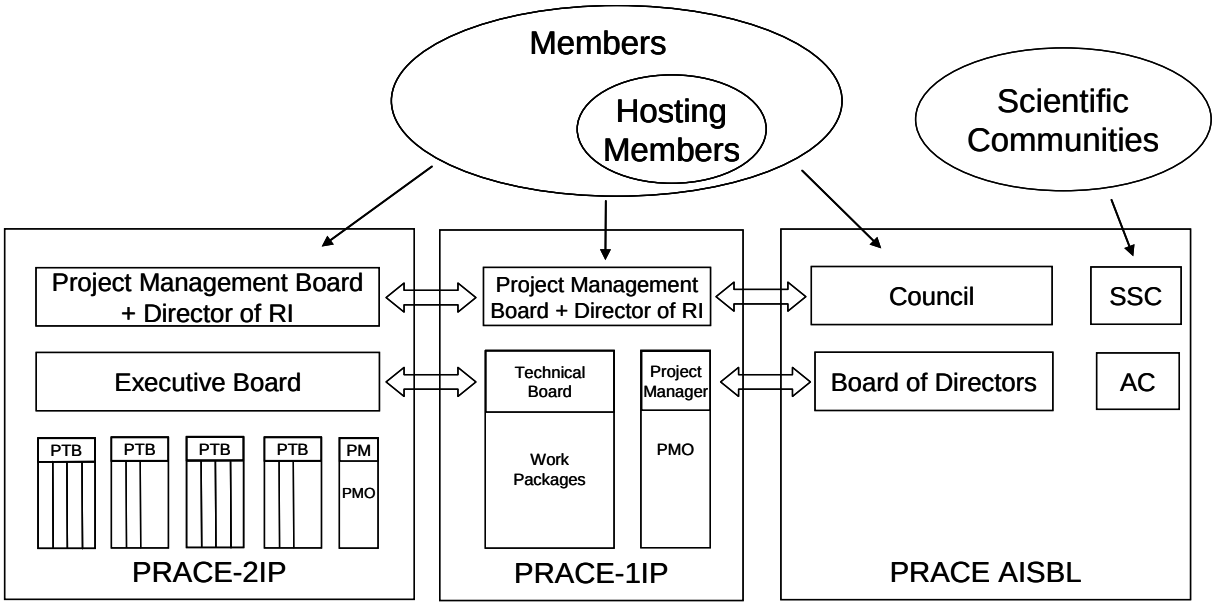
The implementation of the building blocks of the ICOS RI started already during the PPP (see appendix 1). The demonstration experiment during the PPP has been invaluable in demonstrating the functioning of the system, data flow from the selected set of observation stations to the thematic centres and testing their data processing chain. The plan for the demo experiment is that it will continue; the thematic centres increase their capacity as they are being accomplished and implemented, and at the same time the station network gradually extends setting the ICOS RI to the full operative mode.

Regarding the HQ of the ICOS ERIC in Finland, the set-up team hired by Finnish institutions and approved by ISIC (ICOS Stakeholders' Interim Council, see below) will manage the process of recruiting of the DG, legal representative of the ERIC. He/She will then take the lead for recruiting the HQ staff and overseeing the ERIC preparations with contract to the Finnish institute(s). This period, and setting up the HQ, is funded by Finland. There might be a political decision from the ISIC that the DG continues through the transition into the ERIC making a new contract with the ERIC. The set-up team ('caretaker staff') continues to support the DG until the HQ staff is being hired by the ERIC.

3. Does the new governance still agree with the plans as developed in the preparatory phase? How did you deal with different views? This question is also valid for the new management.

PRACE/F. Berberich (e-infrastructure)

The Governance structure of the PRACE-IP projects and the one of the PRACE Research Infrastructure including their relationship and communication paths is depicted below. It should be noted that the Partners in the Project and the Members in the PRACE Research Infrastructure are in general the same representatives of their countries, in fact in many cases the same persons. This will ensure a high level of consistency. Both the Association and the Project are governed by a single body each (the Council of the RI and the Project Management Board of the project) in which each partner/member has a single representative. As mentioned above the voting rules for decisions of the Project Management Board are defined in the Consortium Agreement in such a way that the same rules apply in both structures for the same kind of decisions. The same approach has proven already very effective and successful in the Preparatory Phase, project which had modelled its governing bodies and voting rules after the PRACE Initiative.



CLARIN/S. Krauwer (distributed SSH infrastructure)

The CLARIN Preparatory Phase ended less than a year ago, and CLARIN ERIC has been implemented fully in line with the findings and recommendations laid down in the final reports of the project. With the official creation of CLARIN ERIC just three months behind us, and a first meeting of the General Assembly in April we have not yet had the time to discover any significant flaws in the design of our governance structure (although we have no doubt that we will encounter some in the years to come). All (currently 3) members of the Board of Directors were in charge of key work packages in the preparatory phase project, which greatly helps to reduce the risk of different views across phases of CLARIN at this stage.

The governance structure is light, and comprises:

- the General Assembly as the main decision taking body (representatives of ministries of ERIC member countries, who may bring an expert each, 1 member/1 vote)
- an international Scientific Advisory Board
- a Board of Directors (1 full-time Executive Director, 3-4 part-time working from home institution for ca 0.2 fte each)
- Forum of National Coordinators (for creating consensus amongst coordinators and coordinating activities)
- Standing Committee of Heads of Centres (for creating consensus about technical matters amongst centres)
- Various thematic working groups and committees

ICOS/M. Kaukolehto, S. Sorvari (Environmental Sciences, implementation just started)

The PPP has been extended one year unfunded till March 2013 that allows the partners to continue working under the existing structure during the transition. The governance if the ICOS ERIC is being finalised during the negotiations towards ICOS ERIC statutes currently on the way. Therefore this question cannot be answered definitively. Some indications can be given. The PPP established the ISIC in April 2010 as a high-level council for country representatives to discuss and approve strategic issues such as legal, governance and financial implementations, site selection, and facilities locations (see figure 1). It meets 3 times per year to approve the work done in the legal and financial working

groups under its' mandate. The ISIC is considered as 'pre-Genaral Assembly', the highest decision making body of ICOS ERIC. The composition of the ISIC is probably more or less the same as will be that of the forthcoming GA. ISIC has adopted Rules of Procedure, which also supports the transition from PPP to ERIC. 13 countries have signed on high level the Letter of Intention (LoI) indicating willingness to support their countries' institutions in their work in ICOS, and to work towards ICOS ERIC, and their support for Finland to host the legal entity and lead the negotiations. Optimally there would be only few months gap between PPP and ERIC. The HQ will function together with the DG already during this period.

The scientific steering group of the PPP will most likely continue over the transition period at least until the establishment of the ERIC. Monitoring station assemblies representing the users in the atmospheric and ecosystem thematic areas are already partly functioning with regular meetings in the framework of the demonstration experiment (see above).

Figure 1. The process towards ICOS ERIC.