

# Collaboration Agreement concerning the NorduGrid Collaboration



## Preamble

This Agreement pertains to development, maintenance, support, use and distribution of the open source software product Advanced Resource Connector (ARC).

Advanced Resource Connector (ARC) is an open source software product for enabling computing and data management infrastructures over wide area distributed resources. ARC was originally developed by the NorduGrid project and released to the public domain in 2002. The development was primarily driven by the needs of the Nordic High Energy Physics community to create a distributed computing facility matching the requirements of the Large Hadron Collider experiments. The software was proven to be perfectly applicable in many other computing domains, and became a basis for a number of national and international distributed computing infrastructures (NorGrid, Swegrid, Swiss Multi-Science Computing Grid (SMSCG), Ukrainian National Grid, Hungarian high-performance computing initiatives, Baltic Grid, NDGF, EGI, etc). ARC represents a lightweight, flexible, portable, and highly reliable solution. This resulted in production deployments used by scientists from different fields.

The present NorduGrid Collaboration (referred to as Collaboration hereafter) was established by the five original ARC contributors in 2003 and formalized through a Memorandum of Understanding in 2005.

The present Collaboration Agreement supersedes and extends the original NorduGrid Memorandum of Understanding<sup>1</sup>, defining objectives of the Collaboration, its structure, and the rights and duties of the Collaboration Members. The initiators of this Collaboration Agreement are listed in Annex II.

## High level goals

The NorduGrid Collaboration coordinates the development of ARC and provides the best-effort support through community mechanisms. The Collaboration ensures that the minimal necessary infrastructure needed to support the open source code development is in place.

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<sup>1</sup> NorduGrid Memorandum of Understanding, August 15<sup>th</sup> 2005

NorduGrid also supports a test facility so that newly developed software components and new features can be tested as early as possible.

The Collaboration ensures that funds for ARC development and hosting for the necessary services are provided through a variety of sources, including national and international projects and grants. To achieve this, NorduGrid plays a coordinating role, representing ARC towards the society. The Collaboration ensures adequate dissemination and popularization of ARC.

NorduGrid aims at constantly improving ARC, following the latest technology developments and requirements for a standards-compliant distributed computing system, as well as stimulating innovative approaches. In order to achieve this goal, access to the ARC source code is open to the public.

On a best effort basis the Collaboration Parties plan to disseminate the merits of using ARC within their scope of activities and to promote its exploitation outside the academic field ARC was originally developed for. The Parties support the integration of ARC in educational programs in order to give future grid users exposure to the technology.

### **Article 1 Parties**

The following Agreement is established between organisations committed to form the NorduGrid Collaboration, hereafter collectively referred to as “the Parties” (listed in Annex I), expressing their firm commitment to Article 3 and Article 8 of this Agreement. The initiators of this Collaboration Agreement are the members of the Steering Board (listed in Annex II).

### **Article 2 Name and Headquarters**

The official address of the NorduGrid Collaboration follows the chair of the Steering Board.

The general entry point for the Collaboration is its Web site, <http://www.nordugrid.org>, which lists all contact information.

### **Article 3 Goals and Objectives**

The goals of the NorduGrid Collaboration are:

1. Act as a coordinator for the community around the ARC middleware
2. Coordinate the short, middle and long-term development of the middleware, prepare and follow a release plan, define and maintain the ARC development roadmap. Facilitate steady ARC evolution in line with modern technology trends and community standards.
3. Ensure the provision of best-effort maintenance and support of the ARC middleware
4. Ensure provision of resources for continuous and sustainable ARC development, maintenance, support and distribution
5. Coordinate the protection of intellectual property associated with ARC middleware
6. Popularize ARC and continuously increase its usage in distributed computing infrastructures worldwide

## Article 4 Steering Board

### 4.1 Representation and voting rules

The Steering Board is the ultimate decision-making body of the Nordugrid Collaboration. The Steering Board shall consist of one representative of each Party. The Parties appoint their respective representative.

Each Steering Board member shall be deemed to be duly authorised to deliberate, negotiate and decide on all matters listed in Article 4.2. In case of non-availability of its regular representative, the party appoints a deputy.

The Steering Board appoints the Chairperson of the Board (the *Spokesperson*) for a three-year period. A 2/3 majority is required. No limit on the number of consecutive terms is imposed. The chairperson appoints a deputy among the members of the Steering Board.

The Steering Board meets face to face twice a year, once during the annual conference of the Collaboration. Additional audio or videoconferences are organised when required, upon request of any member.

The Steering Board shall not deliberate and decide validly unless 2/3 of its members are present or represented. Decisions shall be taken by a majority of 2/3 of the votes. Each member has one vote.

Interested organizations may attend the Steering Board as “Observers” according to the provisions of Article 5.

### 4.2 Evolution and decisions

The Steering Board

- (i) represents, through The Chairperson, the Collaboration towards third parties and projects,
- (ii) coordinates resources available for Collaboration,
- (iii) manages any future funds to be granted to the Collaboration,
- (iv) negotiates entry of a new Party to the Collaboration and requests for observer status in the Steering Board,
- (v) is entitled to exclude any Party not fulfilling its duties and obligations according to Article 8,
- (vi) ensures adequate promotion of ARC
- (vii) appoints the Chairperson of the Technical Coordination Group (Technical Coordinator).

The Steering Board shall not be entitled to act or to make legally binding declarations on behalf of any member organisation.

The Steering Board may, with the explicit acceptance of 2/3 of the parties to this agreement, enter into a non-exclusive technical co-operation or licensing arrangement with a third party concerning ARC software (with the exception of source code), on terms and conditions to be agreed.

## **Article 5 Accession of new Parties and Observers**

The NorduGrid Collaboration welcomes new institutions to become a Party (i) or an Observer (ii) to the Collaboration.

- (i) A Party must sign the Collaboration Agreement and commit itself to the objectives of the Collaboration according to Article 3 and Article 8.
- (ii) An Observer status provides the possibility to follow the Collaboration activities without making strong commitments. Observers do not sign the Collaboration Agreement. The representatives of the Observer may attend the Steering Board meeting. Observers do not have the right to vote in the Steering Board.

A new candidate wishing to become a Party of the Collaboration must submit a letter of interest to the NorduGrid Chairperson, explicitly detailing the possible contributions to ARC. Once the contribution is acknowledged in consultation with the Technical Coordination Group (ref Article 7), the Steering Board takes the final decision. A new Party is first accepted conditionally, as an Observer, before becoming Party after a period of 3 to 6 months.

Observers are encouraged to become Parties of the Collaboration Agreement.

Partners of the NorduGrid-related projects, including future projects, are welcome to join the NorduGrid Collaboration provided they continue contributing to ARC.

## **Article 6 Parties leaving the Collaboration**

Any Party is free to leave the Collaboration with 3-month notice.

A Party not fulfilling its duties and obligations according to Article 8 of this Agreement and thus not contributing to the work of the Collaboration during a period of 4 months, may be excluded from the Collaboration or become Observer if a 2/3 majority of the Steering Board members decides so.

## **Article 7 Technical Coordination Group (TCG)**

### **7.1 Composition and appointments**

ARC development is coordinated by a core group of experts, the Technical Coordination Group (TCG), nominated by the Parties and appointed by the Chairperson of the TCG. TCG members must be associated with one of the Parties.

The TCG strives to ensure adequate representation from ARC developers' community and related projects. Membership in the TCG is not time limited. New members may also be proposed by any of the existing members and have to be accepted by a 2/3 majority of other members of the existing TCG.

Additional members can be adjudicated to the TCG according to the needs for additional competence. These additional experts will be appointed for a period of one year at a time after consultation with the Steering Board.

The Chairperson of the TCG (The *Technical Coordinator*) is appointed for a three-year period by the Steering Board. No limit on the number of consecutive terms is imposed. The Technical Coordinator appoints a deputy among the members of the TCG.

## 7.2 Duties and obligations

The TCG is responsible for the technical direction of the ARC development in accordance with the NorduGrid-related projects. In particular, the TCG

1. maintains the ARC code base by coordinating contributions, making decisions about integration of community code contributions, resolving potential conflicts emerging due to concurrent or overlapping developments;
2. takes measures to ensure the code is of high quality and is consistent;
3. proposes short, middle and longer term strategic directions for ARC development;
4. coordinates standard adoption and potential community contributions to standardization;
5. ensures that the reported software faults (bugs) are being timely addressed;
6. identifies problematic areas;
7. initiates discussions on open issues, motivates the developers community to take on problems, encourages community members to share their development plans as early as possible;
8. works out and enforces release policy and oversees the release procedure, ensuring availability of a well-documented high quality ARC distribution;
9. encourages community feedback and ensures it is taken into account during development.
10. organizes regular technical workshops and contributes to organization of the NorduGrid Conferences.

The Technical Group holds weekly coordination calls and arranges frequent face to face extended meetings where the technical representatives of the various ARC projects are invited.

The Technical Coordinator reports to the Chairperson of the NorduGrid Steering Board.

A member of the TCG is free to leave the TCG with 1-month notice.

Persons not contributing to the work of the TCG (ref Article 7.2 subparagraphs 1 to 10 above) during a period of 4 months – may be excluded from the TCG if a 2/3 majority of the TCG members decides so.

Disputes between members of the TCG which cannot be solved amicably, shall be presented to the Steering Board for discussion and settlement.

The Technical Group shall not be entitled to make strategic decisions without approval by the Steering Board.

## **Article 8 Duties and obligation of Parties**

A Party of the NorduGrid Collaboration

(i) commits itself to contribute to at least one of the following activities:

1. development, maintenance and support of the ARC middleware
2. provision and operation of the necessary tools and services (listed in Annex III)
3. promotion of the ARC middleware
4. extending the area of applicability of the middleware by introducing and supporting new application areas
5. support, maintenance and/or coordination of an ARC-based infrastructure (such as e.g. a regional or an application-specific infrastructure)
6. coordination of collaboration activities.

(ii) participates in day-to-day activities of the collaboration listed above under (i)

The Parties

(i) shall inform each other about mutually interesting activities, e.g. planned and running projects under the scope of this Collaboration Agreement,

(ii) shall inform each other about any changes to the main activities of the individual member organisation.

(iii) may inform third parties about this Collaboration Agreement.

An Observer member of the NorduGrid Collaboration:

- participates in deliberations, but has no voting rights,
- cannot be represented in the Technical Coordination Group,
- cannot represent NorduGrid to other organisations or projects

Individual member organisations are free to enter into separate Collaboration Agreements with independent third parties concerning software and middleware covered by this Collaboration Agreement.

### **Article 9 External Projects**

The Parties of the NorduGrid Collaboration Agreement are encouraged to represent ARC in various projects, infrastructures, forums and other initiatives through direct participation in such.

The Collaboration members coordinate such activities among themselves and assist each other in pursuing them (through e.g. letters of support etc).

The contact between the NorduGrid Collaboration and other Initiatives goes through the NorduGrid Chairperson.

### **Article 10 Common knowledge**

Knowledge generated jointly by the Parties of the NorduGrid Collaboration as contribution to its activities is jointly owned by the Parties of the Collaboration, unless specific exempts are negotiated. The use of this knowledge, such as in project backgrounds or publications, is subject of agreement by the Parties the Collaboration, except for the use of knowledge for internal research and teaching purposes.

### **Article 11 No representation, partnership or agency**

The Parties shall not be entitled to act or to make legally binding declarations on behalf of any other Party. Nothing in this Consortium Agreement shall be deemed to constitute a joint venture, agency, partnership, interest grouping or any other kind of formal business grouping or entity between the Parties.

### **Article 12**

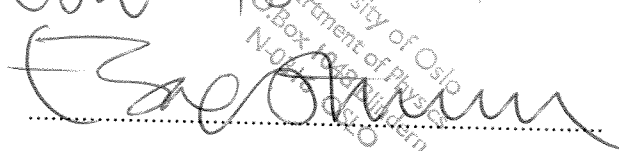
This agreement is subject to revisions, renewal or cancellation by mutual written consent.

### **Article 13**

This agreement becomes effective upon the date of the signatures.

**Department of Physics, Oslo University, Norway**

Date and signature

Oslo 6/5 2011  
  
University of Oslo  
Department of Physics  
P.O. Box 1048 Blindern  
N-0316 Oslo

*Prof. Einar Sagstuen, Head of Department*



**Department of Physics, Lund University, Sweden**

Date and signature

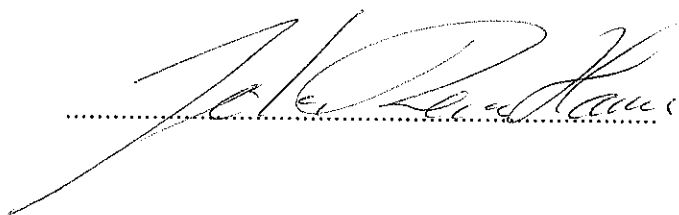
May 23, 2011 Stefan Kröll

*Prof. Stefan Kröll, Head of Department*



**DEPARTMENT OF PHYSICS**  
**Lunds University, Sweden**

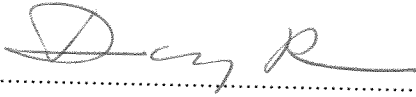
Date and signature 17/6-2011

A handwritten signature in cursive script, appearing to read 'John Renner Hansen', written over a horizontal dotted line.

*Prof. John Renner Hansen, Institute Director*

**Helsinki Institute of Physics, University of Helsinki, Finland**

Date and signature May 19<sup>th</sup>, 2011

A handwritten signature in black ink, appearing to read 'Dan-Olof Riska', written over a horizontal dotted line.

*Prof Dan-Olof Riska, Institute Director*

**Department of Physics and Astronomy, Uppsala University, Sweden**

Date and signature

2011-05-09

Göran Possnert

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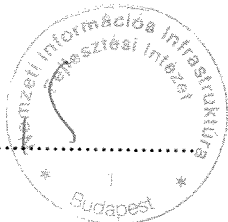
*Prof. Göran Possnert, Head of Department*

**Nemzeti Információs Infrastruktúra Fejlesztési Intézet, NIIF, Hungary**

Date and signature

11.05.2011.

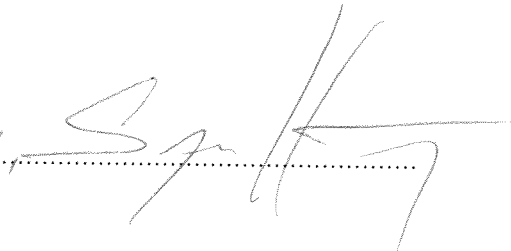
*Miklós Nagy*



*Miklós Nagy, General director*

**Swiss National Grid association (SwiNG), Switzerland**

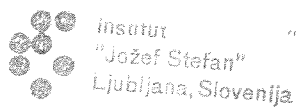
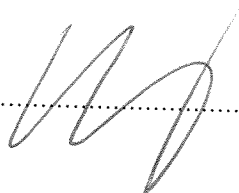
Date and signature

201-06-14, 

*Dr. Sigve Haug, SwiNG executive board*

**Institute Jozef Stefan, Ljubljana, Slovenia**

Date and signature 30-05-2011

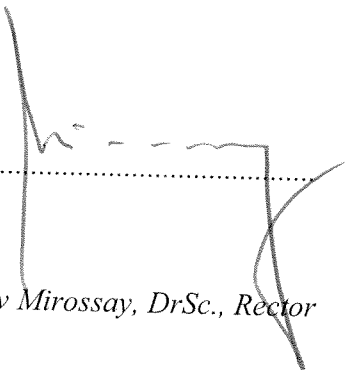


*Prof. Jadran Lenarčič, Institute Director*

**Pavol Jozef Šafárik University in Košice, UPJS, Slovakia**

Date and signature

27.05.2011

  
A handwritten signature in black ink, appearing to read 'L. Mirossay', is written over a horizontal dotted line. The signature is somewhat stylized and includes a vertical stroke on the left side.

*Prof. MUDr. Ladislav Mirossay, DrSc., Rector*

Univerzita Pavla Jozefa Šafárika  
Košice  
Šrobárova 2, 041 80 Košice  
-9-



**Ukrainian National Grid, Ukraine**

Date and signature

05/05/2011

*A. Zagrodny*



*Prof. Anatoly Zagrodny, Chief Secretary of National Academy of Sciences*

**Lithuanian National Grid (LitGrid), Lithuania**

Date and signature

 05.05.2011

*Prof. Algimantas Juozapavičius, LitGrid Chairperson, Vice-dean for information technologies, Vilnius University*

## **Annex I: The Parties**

University of Oslo – Department of Physics, Norway  
Lund University - Institute of Physics, Sweden  
Copenhagen University – Niels Bohr Institute (NBI), Denmark  
University of Helsinki – Helsinki Institute of Physics, Finland  
Uppsala University, Sweden  
National Information Infrastructure Development Institute (NIIF), Hungary  
Institute Jozef Stefan, Ljubljana, Slovenia  
Swiss National Grid association (SwiNG), Switzerland  
Pavol Jozef Šafárik University in Košice, UPJS, Slovakia  
Ukrainian National Grid, Ukraine  
LitGrid, Lithuania

## **Annex II: Initiators of this Collaboration Agreement**

The following people initiated this Collaboration Agreement

- Prof. Farid Ould-Saada, Prof. Alex Read, University of Oslo (Chair)
- Dr Oxana Smirnova, Dr. Balazs Konya, Lund University,
- Dr Anders Wäänänen, Dr. Martin Sko Andersen, University of Copenhagen,
- Prof. Paula Eerola, Dr. Miika Tuisku, University of Helsinki
- Prof. Tord Ekelöf, Dr. Mattias Ellert, Uppsala University
- Dr Tamas Maray, Dr. Peter Stefan, NIIF
- Prof. Andrej Filipcic, Jan Jona Javorsek, Institute Jozef Stefan, Ljubljana
- Dr Sigve Haug, Dr. Sergio Maffioletti, SwiNG
- Dr Jozef Cernak, RNDr. Marek Kocan, UPJS
- Prof. Evgenij Martynov, Dr. Sergej Svistunov, Bogolyubov Institute for Theoretical Physics, Ukraine
- Dr. Vaidas Giedrimas, Faculty of Mathematics and Informatics, Siauliai University, Prof. Algimantas Juozapavičius, Faculty of Mathematics and Informatics, Vilnius University

## **Annex III: Infrastructure**

The NorduGrid Collaboration operates the following infrastructure services necessary to carry out its activities

1. Source code repository
2. Build system
3. Test system
4. Test bed
5. Software repositories
6. Bug tracking system
7. Web site
8. User support system
9. Mailing lists
10. Teleconference facility
11. Community Wiki
12. Bootstrap resource indexing services
13. Instant Certificate Authority
14. Authorisation (Virtual Organisation) services

