



Approach to sustainable e-Infrastructures - The case of the Latin American Grid

Roberto Barbera (1,2), Ramon Diacovo (11), Francisco Brasileiro (3), Diego Carvalho (4), Inês Dutra (5), Marcio Faerman (6), Philippe Gavillet (7,8), Herbert Hoeger (9), Maria Jose Lopez Pourailly (10), Bernard Marechal (7,11), Rafael Mayo Garcia (7), Leandro Neumann Ciuffo (2), Paul Ramos Pollan (7), Diego Scardaci (2), and Michael Stanton (6)

(1) Dipartimento di Fisica e Astronomia dell'Università di Catania, Catania, Italy, (2) Istituto Nazionale di Fisica Nucleare, Sezione di Catania, Catania, Italy, (3) Universidade Federal de Campina Grande, Campina Grande, Brazil, (4) Centro Federal de Educação Tecnológica, Rio de Janeiro, Brazil, (5) Universidade do Porto, Porto, Portugal, (6) Rede Nacional de Ensino e Pesquisa, Brazil, (7) Centro de Investigaciones Energéticas Medioambientales y Tecnológicas, Spain, (8) CERN Centre Européen pour la Recherche Nucléaire, Genève, Switzerland, (9) Universidad de Los Andes, Mérida, Venezuela, (10) Cooperación Latino-Americana de Redes Avanzadas, (11) Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil

The EELA (E-Infrastructure shared between Europe and Latin America) and EELA-2 (E-science grid facility for Europe and Latin America) projects, co-funded by the European Commission under FP6 and FP7, respectively, have been successful in building a high capacity, production-quality, scalable Grid Facility for a wide spectrum of applications (e.g. Earth & Life Sciences, High energy physics, etc.) from several European and Latin American User Communities.

This paper presents the 4-year experience of EELA and EELA-2 in:

- Providing each Member Institution the unique opportunity to benefit of a huge distributed computing platform for its research activities, in particular through initiatives such as OurGrid which proposes a so-called Opportunistic Grid Computing well adapted to small and medium Research Laboratories such as most of those of Latin America and Africa;

- Developing a realistic strategy to ensure the long-term continuity of the e-Infrastructure in the Latin American continent, beyond the term of the EELA-2 project, in association with CLARA and collaborating with EGI.

Previous interactions between EELA and African Grid members at events such as the IST Africa'07, 08 and 09, the International Conference on Open Access'08 and EuroAfriCa-ICT'08, to which EELA and EELA-2 contributed, have shown that the e-Infrastructure situation in Africa compares well with the Latin American one. This means that African Grids are likely to face the same problems that EELA and EELA-2 experienced, especially in getting the necessary User and Decision Makers support to create NGIs and, later, a possible continent-wide African Grid Initiative (AGI). The hope is that the EELA-2 endeavour towards sustainability as described in this presentation could help the progress of African Grids.