

I-Ching Project

Involving China in european grid
research

- a Project Idea -

Project Identity Card

- Project name: **I-Ching**
- Coordinator : **Engineering Ingegneria Informatica SpA**
- Project instruments: **SSA/ STREP**
- Thematic areas:
 - **Creating Market opportunities** through joint solutions to Trustworthiness, IPR and Open-source based models of business
 - **Creating the critical mass on Grid-based applications** for Scientific Repositories and Audiovisual Archives and other market-driven applications;
 - **Fundamental research on grid computing** on Standards for Security interoperability, Quality Assurance and Certification Processes.
- Duration: **18-24 months**

China, some facts

- **Chinese economy** strenght in 2020 will be comparable to UE or NAFTA (Song Xinning, 2001);
- **China** is the most active emergent economy and is heavily investing in ITC. Two of the top10 scientific initiatives in 2005 are related to grid
 - the 10,000 Gigaflop supercomputer, and
 - the trunk net of the CERNET 2 of the China Next Generation Internet (CNGI);
- Several **Chinese projects** are on-going with interesting experimentations on grid computing (China National Grid, Shangai-Grid, VegaGrid,etc);
- **Chinese partnerships** have been already established at maximum level (EU-China Summit on InfSo).

European research on Grids

- Europe is becoming the mayor investor in Chinese companies: hi-tech against manpower (D.Shambaugh, 2004)
- **Europe** has the leadership in Grid architecture and middleware
 - more than 150M€ invested in grid related research through two EC units in the last IST/Research Infrastructures Calls.
 - The Nessi initiative involving Grid architecture and Services
 - The EGEE project lead the creation of a world grid-based infrastructure for e-Science
 - Nextgrid, Akogrimo, and other grid projects lead the research on new grid model and business opportunities

The context – China & Europe

China benefits from European research for a **sustainable new economy**,

while

Europe learn from Chinese bestcase to **improve and maintain the research leadership**

I-Ching Proposal

- **I-Ching main objective** is to enable the know-how exchange and to supply a virtual environment for joint research activities, including user communities involvement and training.
- Concretely **I-Ching will promote Virtual Labs supporting EU-China collaboration** in improving the state-of-the art of:
 - The Digital convergence of Scientific Repositories and Audiovisual Archives
 - Grid Security interoperability (Authentication, Authorization and Accounting) standards
 - Grid application testing and quality process certification
 - Creating the market conditions for a commercial exploitation of grid-based solutions

The I-Ching objectives

- The objectives of the proposal would be
 - To **build upon existing Chinese with European links** for development of collaborative opportunities;
 - To leverage and **collaborate together EU & China** in the selected areas;
 - To **attract greater interest from Chinese Industry & researchers** to use European Grid infrastructure & allow Europeans an opportunity for meeting new user communities
 - To execute on a **detailed communication scheme** that involves one major international event bringing on the European scene Chinese players and new user communities of grid-enabled applications

Links with existing projects and initiatives

- **ETICS** (creating integration, build and testing services and Grid Quality process)
- **EGEE** (the main grid infrastructure project in EU)
- **DILIGENT** (applying grid technology to DL)
- **OMII-Europe** (interoperability of european grid middleware)
- **Grid@Asia** (workshops and conference with Asia partners)
- **EUSouthEstAsia2006** (workshops and conferences with South Asia partners)
- **ICEAGE** (Training for Education, involving Chinese partners)
- **Belief** (Workshops and Conferences on eInfrastructures)
- **NESSI** (EU initiative on Software, Services and Grid)
- **On-going discussion with**
- **EUChina-IT** (Euro-China ICT cooperation)
- **EUChinaGrid** (extending to China the EGEE grid infrastructure)
- **EA-Grid** (Euro-Asia United Establishment of Double Degree Master Programme in Grid Computing)
- ...

References and bibliography

- **D.Shambaugh**, “*China and Europe: the emerging axis*”, “Current History”, 34, 9, Sept. 2004
- **Song Xinning**, “*China’s view on Asian regionalism*” in W. Pape ed., *Models of Integration in Asia and Europe: Generating Public Space for our Comon Futures*, European Community, Luxemburg, 2001
- **Maria Weber, et al.** “*La cina non è per tutti – Rischi ed opportunità del più grande mercato del Mondo*”, Olivares editions, 2005
- <http://www.eu-china-infso.org>
- <http://www.china.cn>

The logo and contacts

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