Computing Closeout

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Outline

- Manpower.
- Distributed Computing.
- Production.
- Collaborative Tools, SuperB Web Portal.
- Next Steps.

Core Computing Manpower

- FullSim:
  - A. Di Simone (Roma2), E. Paoloni (Pisa), A. Perez (Pisa)
- FastSim:
  - M. Rama (Frascati)
- Distributed Computing:
  - G. Donvito (Bari), A. Fella (Pisa), O. Dadoun (LAL), S. Luitz (SLAC), E. Luppi (Ferrara), S. Makarychev (ITEP), M. Manzali (Ferrara), A. Martin (QMUL), S. Pardi (Napoli), K. Raczka (PL-Grid), B. Santeramo (Bari), L. Tomassetti (Ferrara) + some Ferrara students
- Collaborative Tools:
  - M. Corvo (Padova), A. Gianoli (Ferrara), S. Longo(Padova), R. Stroili (Padova)
- R&D:
  - All of the above + V. Ciaschini (CNAF), D. DelPrete(Na), D. Diacono(Ba), F. Giacomini(CNAF), G. Russo(Na),

Data Distribution and Access

- CNAF has currently a central and unique role in SuperB computing effort.
  - But we need to exploit efficiently all resources available to SuperB
  - Starting with the next FastSim production the unique copy of the data will be distributed among different sites.
- Production job transfers the output where it is requested to be.
  - Production system includes now the "target site" selection feature per simulation request.
- Mass data transfer management via FTS
  - CNAF – IN2P3 and CNAF – RAL tested successfully.
- GANGA has been chosen as a tool permitting Grid resources exploitation by analysis jobs.
  - CNAF centralized GANGA installation and configuration is ready
  - The development of a specific SuperB plugin has started.
- **Tutorial will be organized in due time.**

Software and Data Validation Before Production

- Software preparation/validation:
  - A sensible amount of time before production, production software needs to go into feature freeze. Only critical bug fixes can be accepted
  - Memory leaks should be assessed, and either fixed or recognized as tolerable.
  - Estimate the expected CPU time per job, and the total disk space needed.

- Release validation:
  - Productions should be run on releases (+patches)
  - After a release is built, the software validation needs to be repeated on it.
  - Release deployment: if distributed resources are used, some level of release validation needs to available on remote sites as well.

- Pre-production: a (possibly small) fraction of the total events needs to be produced before launching the production.
  - Requesters should identify pre-production size and few key plots to be checked

FastSim Production (1)

- Requested: 134 billion events.
- Need to measure the time/event.
- Need to discuss resource allocation with Site Managers:
  - Will run in all the accessible sites.
  - Need to find new site.
- Code must be frozen during production or accept discontinuities in the data sample.
- SL5 -> SL6 at some time during production:
  - You will have a (minor ?) discontinuity into data sample.
- Do you need background frames ?

FastSim Production (2)

- Tentative plan:
  1. Release build.
  2. Pre-production with 1 billion events.
  3. Validation of pre-production.
  4. Production in bunches: 3 weeks of production plus 2 weeks of looking at the data (and using CPUs for FullSim etc.).

- Step 1,2 are in charge of the computing team
- Step 3,4 are in charge of people from outside the computing team.
  - Analysts + shifters.

- Will require ~ 6 months of actual running and a significant fraction of the time of many people.

- **Do you really need so many events ?**

Computing Administrative Support

- There is a mailing list to request administrative support: superb-comp-admin @lists.infn.it
  - To be used for lost password, difficulties in accessing collaborative tools, etc.
  - You don't need to subscribe to it.

- Every SuperB member has a LDAP account
  - Needed to access web site, Alfresco, the Wiki and the SVN software repository.
  - If you experience troubles in accessing any of the above tools, send an e-mail to that list and we'll fix your problem (typically by resetting your LDAP password)

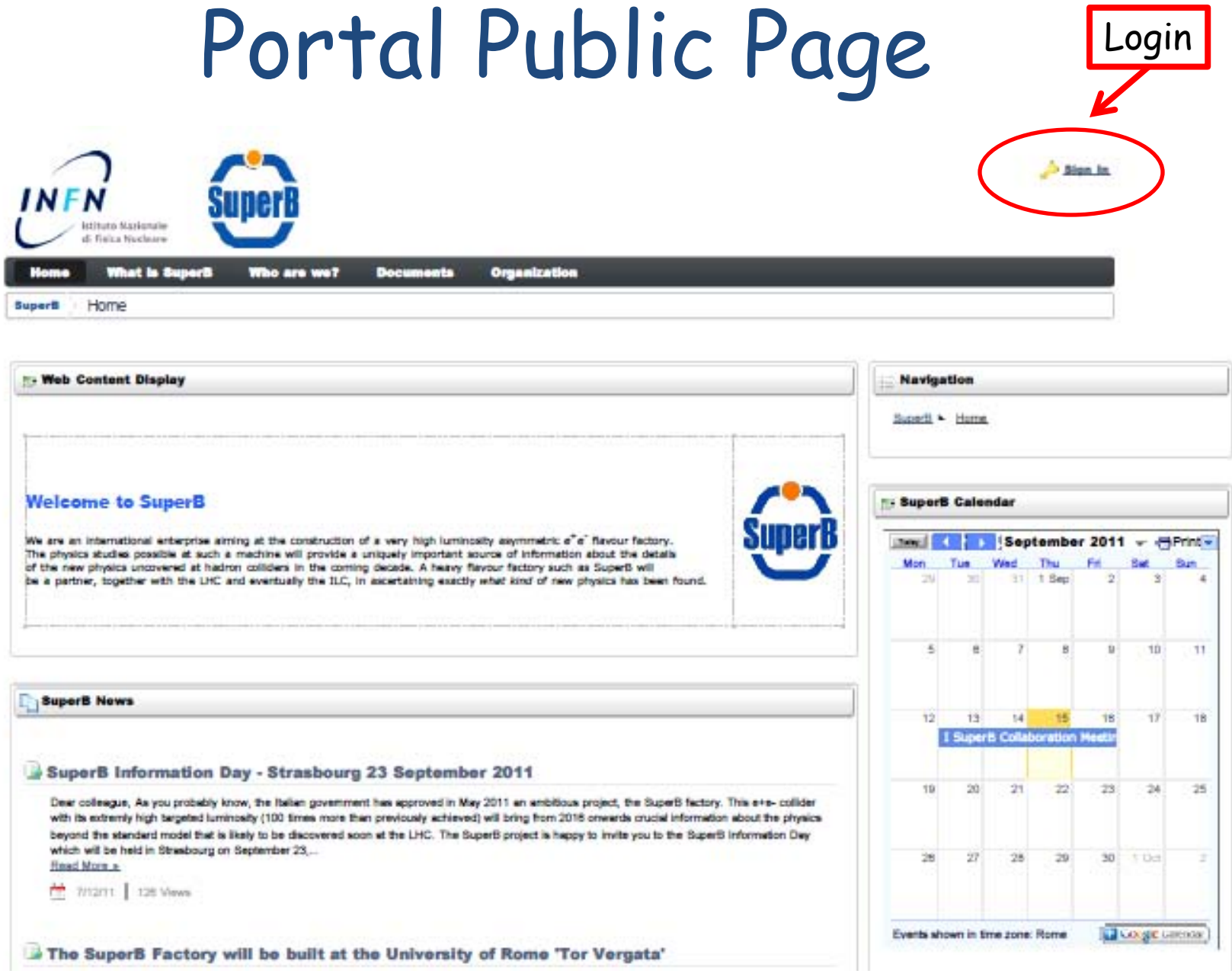
Collaborative Tools

- A suite of tools:
  - Web portal: http://superb.infn.it/
  - Alfresco Document Manager: http://sbdocserver.pd.infn.it:5210/alfresco
  - Wiki: http://mailman.fe.infn.it/superbwiki/index.php/Main_Page
  - Mailing lists: https://lists.infn.it/sympa/lists/csn1/SuperB
  - Indico: http://agenda.infn.it/categoryDisplay.py?categId=36
- Web portal, Alfresco, Wiki use LDAP authentication.
- Indico and Mailing list have independent authentication methods (i.e. different usernames/passwords).
- All services can be accessed from the portal

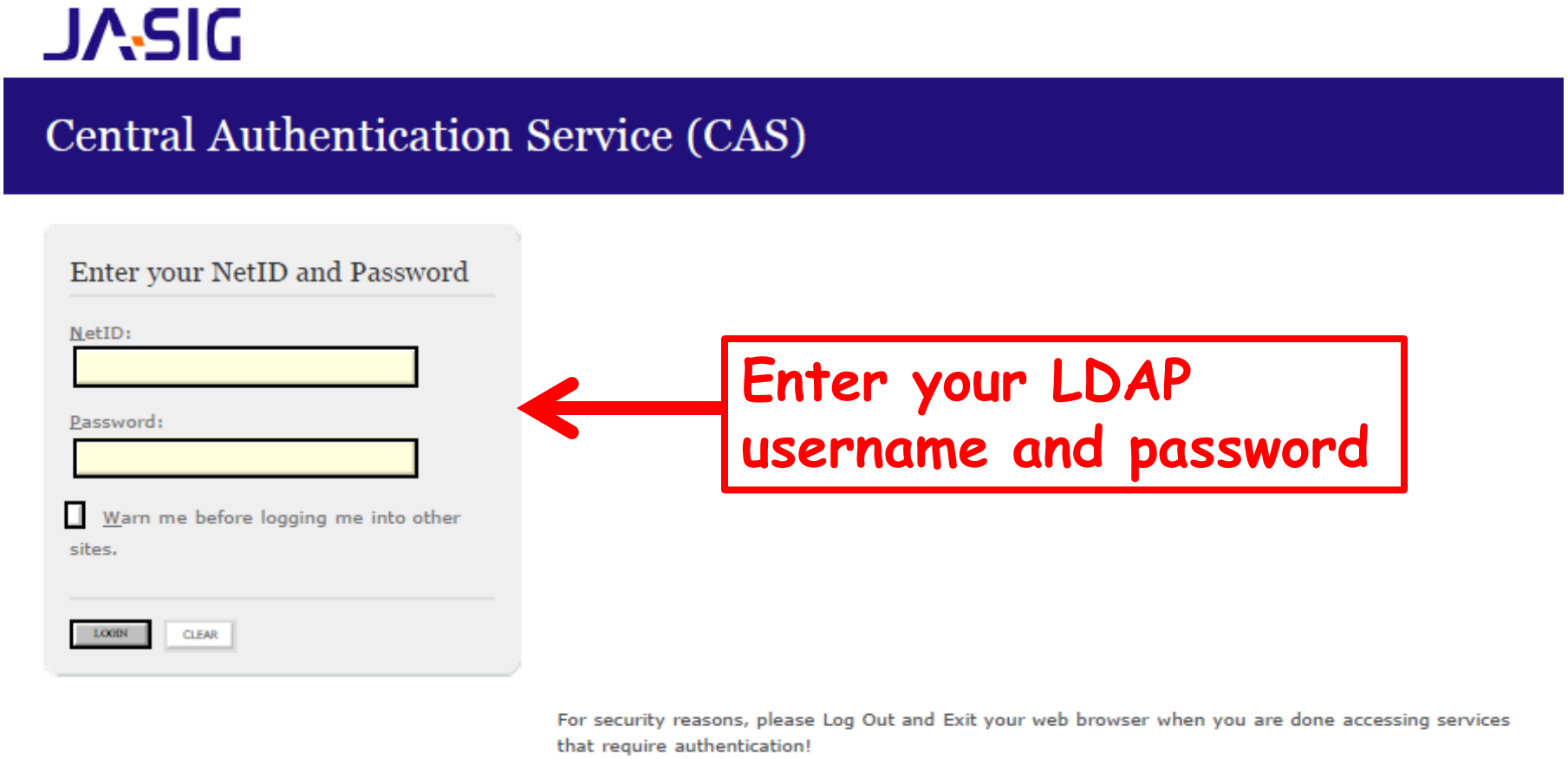
SuperB Web Portal

- Access is already granted for all SuperB users
  - Portal configured with roles for any SuperB division (Accelerator, Detector, etc.. but also Project Board,…)
- Old web sites are frozen:
  - http://www.pi.infn.it/SuperB/
  - http://web.infn.it/superb/
  - People accessing them will be redirected to web portal
- Few pages from the portal…

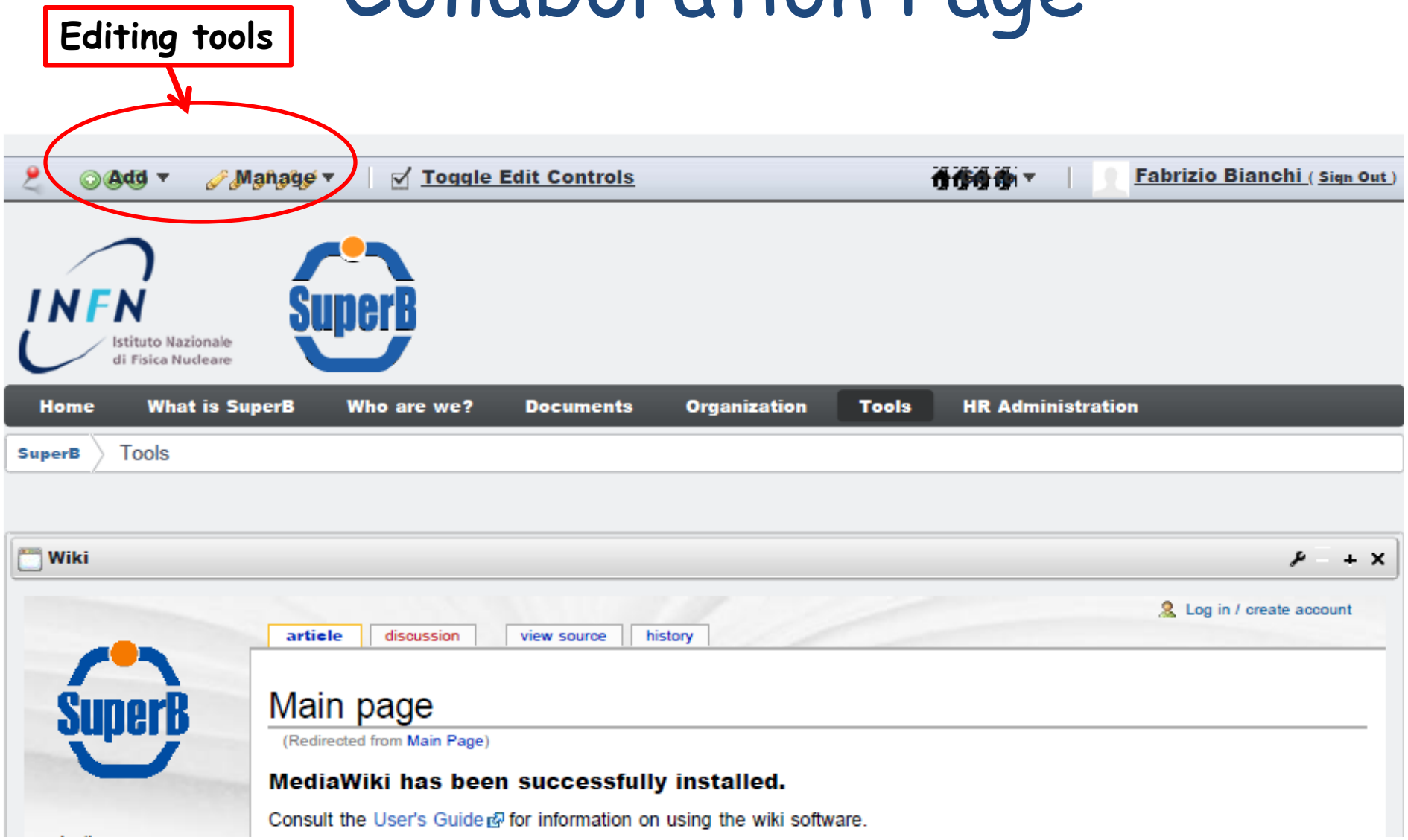
Portal Public Page



CAS Page


JA-SIG
Central Authentication Service (CAS)
Enter your NetID and Password
NetID:
Password:
Warn me before logging me into other sites.
LOGIN
CLEAR
Enter your LDAP username and password
For security reasons, please Log Out and Exit your web browser when you are done accessing services that require authentication!

Collaboration Page



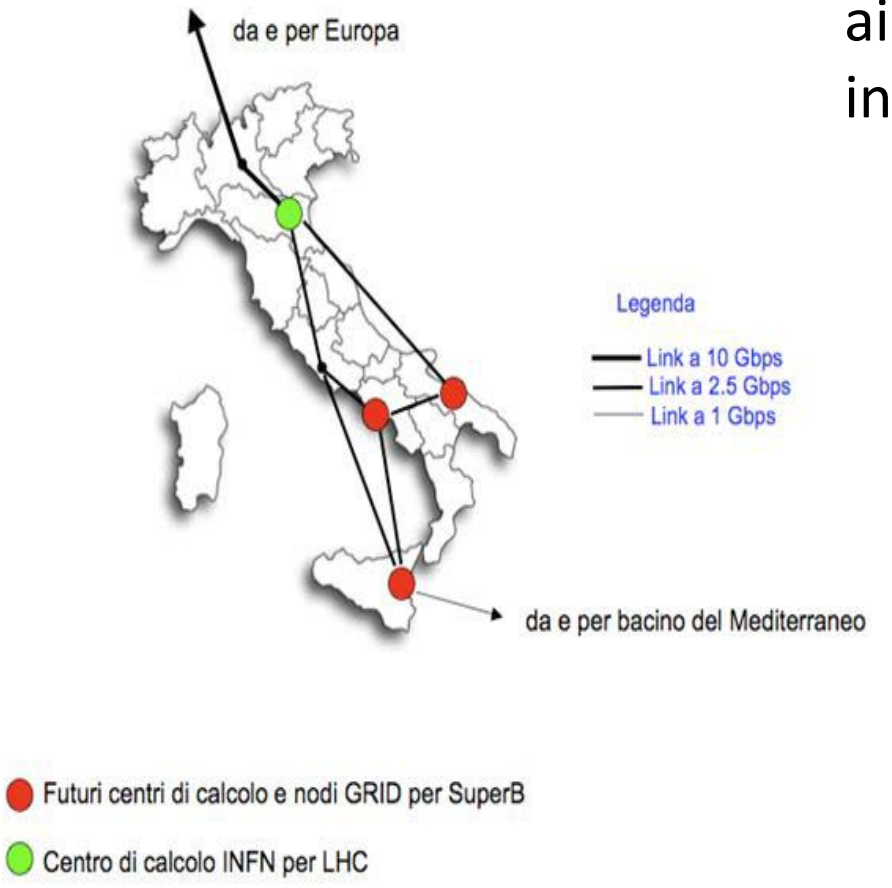
Computing Workshop, Ferrara July 4-7 2011

- Web Site: www.fe.infn.it/superb11
- Goal of the Workshop: identify and prioritize the R&D activities necessary for designing the SuperB computing model.
  - Define next steps and milestones.
- Plenary and parallel sessions with expert presentations and brainstorming.
  - Identify action items and people willing to contribute

R&D

- A stimulating parallel session (see slides for details) :
  - Experience of Lustre at QMUL: A. Martin, C. Walker
  - Dirac system evaluation: G. Donvito, A. Fella, S. Pardi + M. Manzali
  - Framework studies: V. Ciaschini, M. Corvo, P. Franchini, F. Giacomini, S. Longo
- Will have bi-weekly meeting to discuss progress and plan work.

The ReCas Project



The ReCaS Project is an initiative that aim to create a large computing infrastructure to support SuperB.

The project has been admitted to the evaluation phase

Expected timeline:

- Answer by december2011-Jan 2012
- Tenders to start by June 2012
- Tender duration: 18 months
- Installation: first semester 2014

Next Steps

- Keep supporting TDR activities:
  - Limited developments driven by user request and tools clean-up.
  - Productions upon request.
- Web Portal:
  - Improve content (need a webmaster & input from the community).
- Design of the SuperB computing model.
  - Working on the various R&D projects.
  - Computing TDR completed by end 2012.
- Need to attract more manpower in the computing.
  - There is plenty of interesting things to do.
  - New entries are much welcome to contact me for working opportunities.