Biomed community meeting

V. Breton , CNRS

Tuesday morning session

- Introduction (VB)
- Results of survey of the life sciences community (VB)
- Biomedical grid summer school (L. Milanesi)
- EGI (Diana Cresti)
- Perspective on EGI from life sciences (VB)

Other sessions

- **Tuesday afternoon: bioinformatics**
  - Christophe Blanchet
- **Thursday morning: medical imaging and drug discovery**
  - Johan Montagnat
- **Please make sure you upload your slides for these sessions on the conference programme**

Life sciences cluster

Partner name	Country	Person-Months
ASGC	Taïwan	24
CNR-ITB	Italy	18
CNRS	France	90
CNU	Korea	84
KISTI	Korea	39
UPV	Spain	18
TOTAL		273 PM

Status of cluster activities

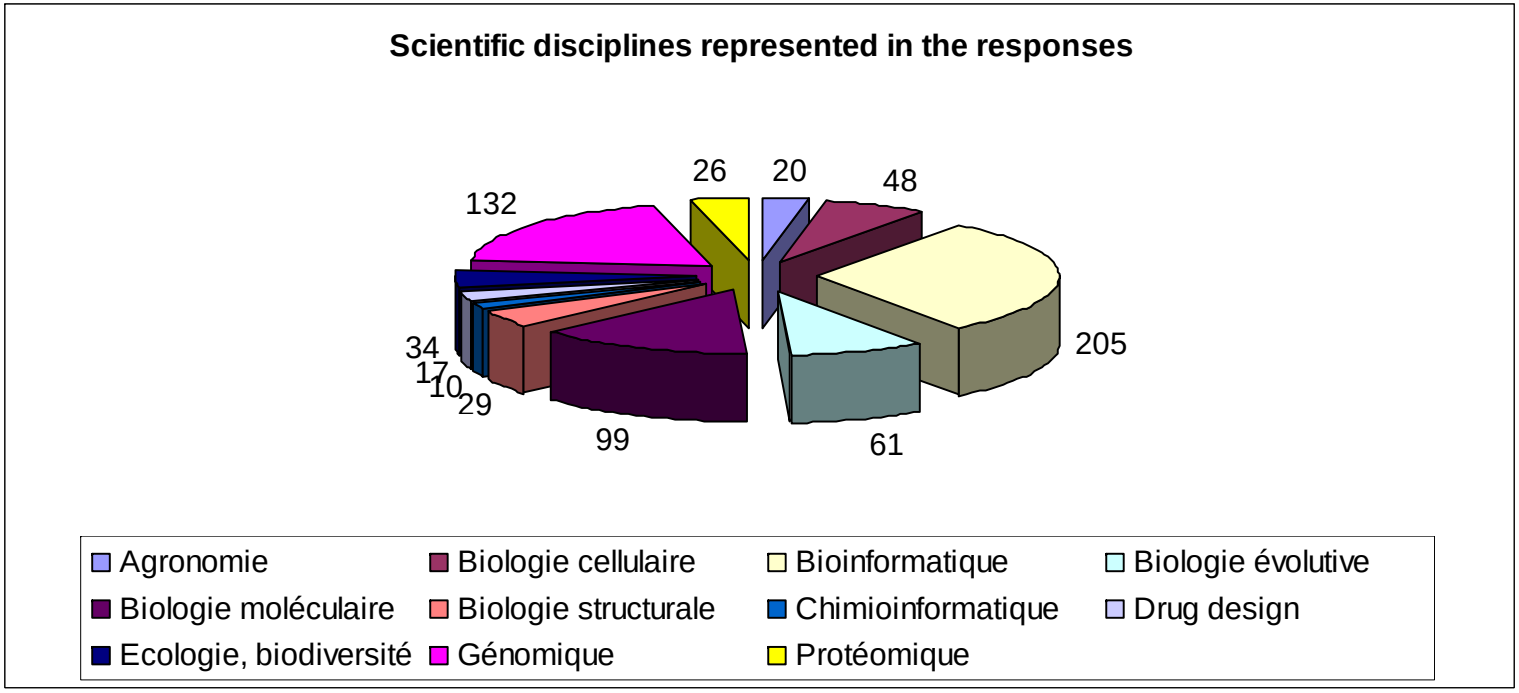
- **Support for selected services**
  - AMGA (KISTI, UPV)
  - Moteur (CNRS)
- **Preparation of the migration to EGI in the life sciences sector**
  - See D. Cresti talk
- **Support to application porting**
  - Bioinformatics
  - Medical imaging
  - Drug discovery
- **Cluster management**

Meeting with VPH NoE

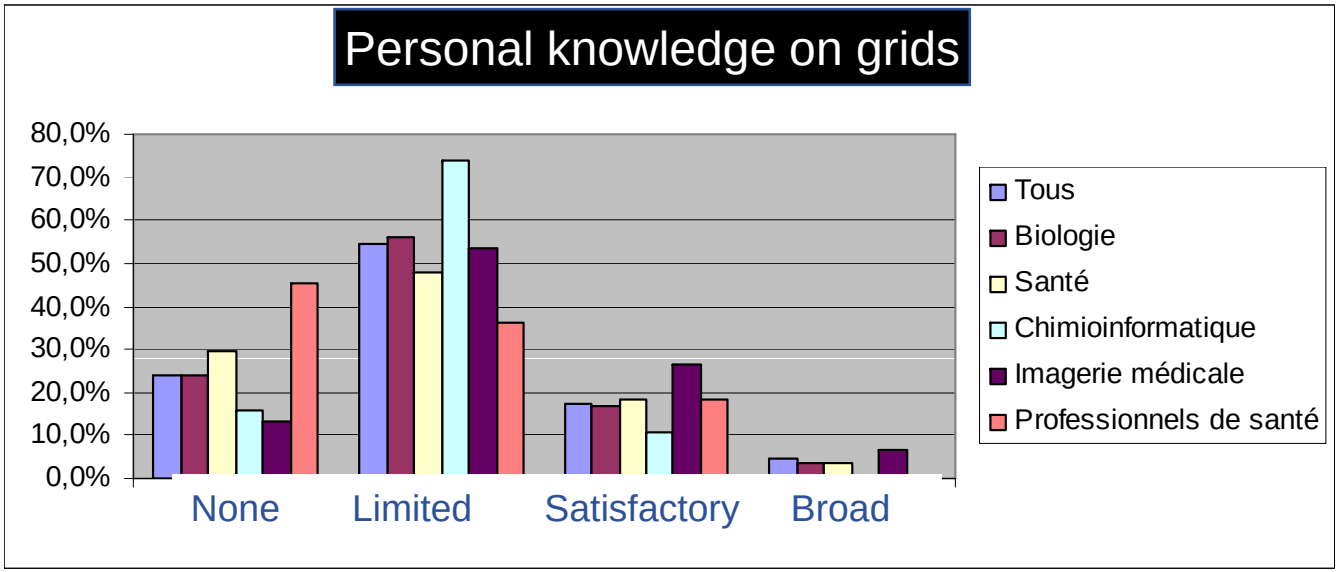
- **VPH = Virtual Physiological Human**
  - Initiative supported by EC (first call in 2008, second call in 2009)
  - EGEE, supporting project of VPH NoE
- **Meeting at UCL with P. Coveney's group**
  - V. Bloch, V.B., J. Salzemann, D. Sarramia (LPC Clermont-Fd)
  - UCL plays a leading role in VPH NoE WP3
    - Design of a toolkit to access grid resources
- **Discussions on possible collaboration between VPH NoE and EGEE**
  - Use of the biomed VO
  - Integration of a cluster on the biomed VO
  - Sharing of web services to access EGEE resources
  - Deployment of one VPH use case on EGEE
- **Next meeting this Thursday with H. Benoit-Cattin, P. Coveney, B. Jones and G. Sipos**

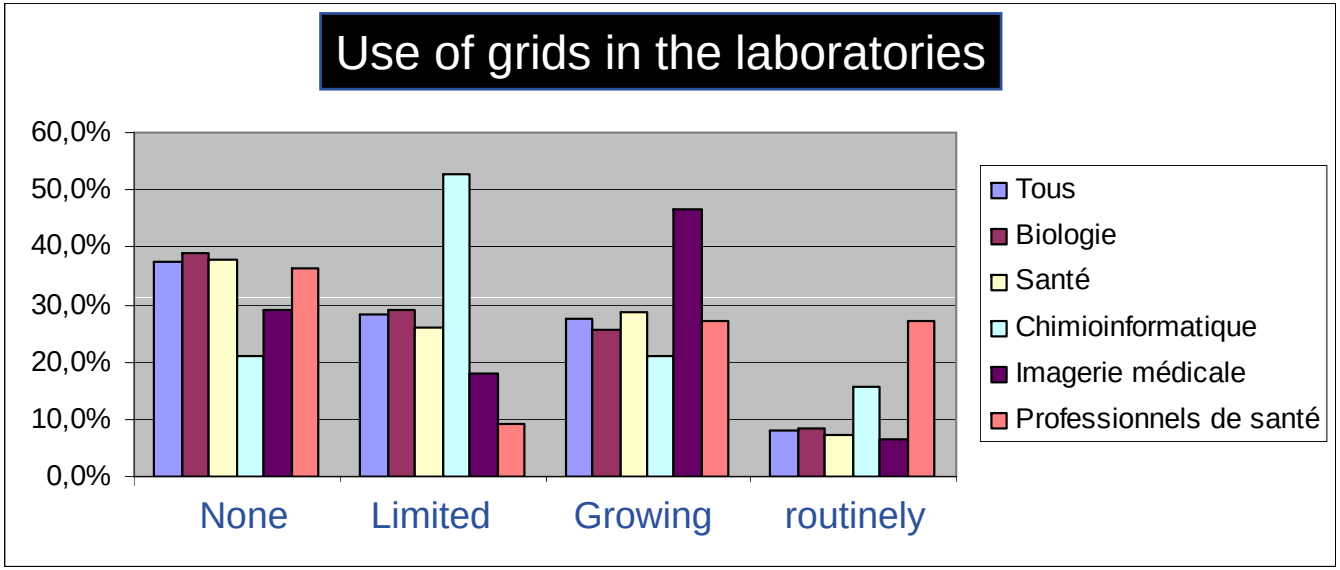
Analysis of the needs of the French life sciences community

- **Goal: participate to a multidisciplinary prospective for the national grid initiative**
- **Format: survey circulated in April and May 2008**
  - 12 questions
  - Available online at http://www.surveymonkey.com/s.aspx?sm=vuEQtHfQu_2fPs1UUyO2aWkQ_3d_3d
- **Very positive community feedback**
  - Over 400 responses
  - More than 60 laboratories in 24 cities



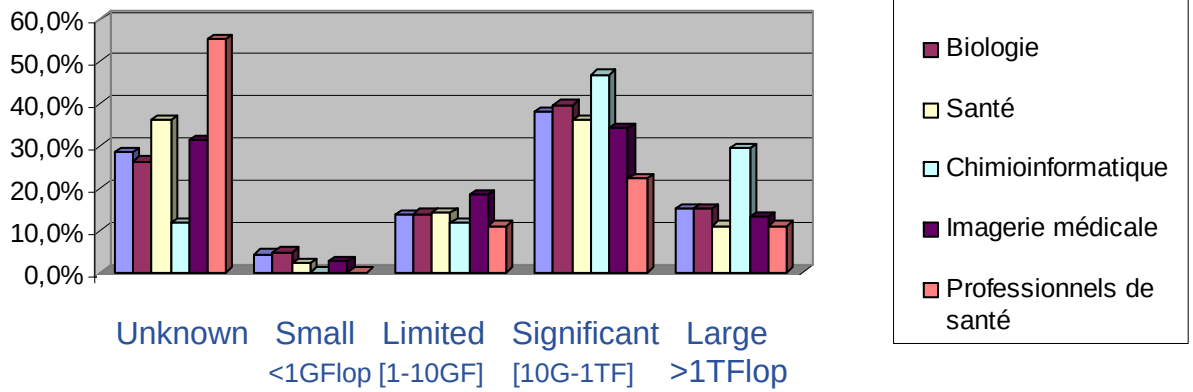
Survey results (I/IV)



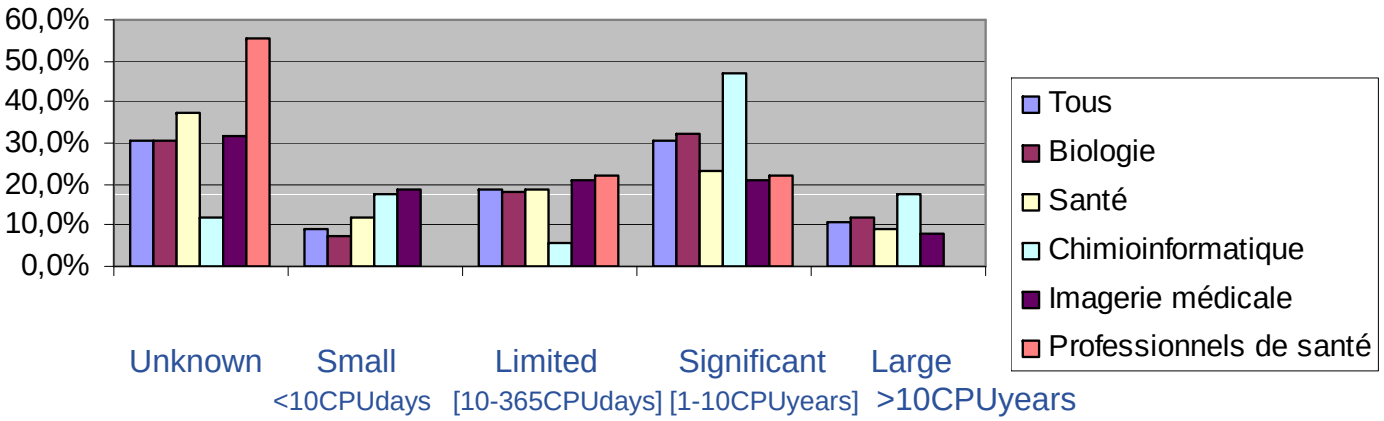


Survey results (II/IV)

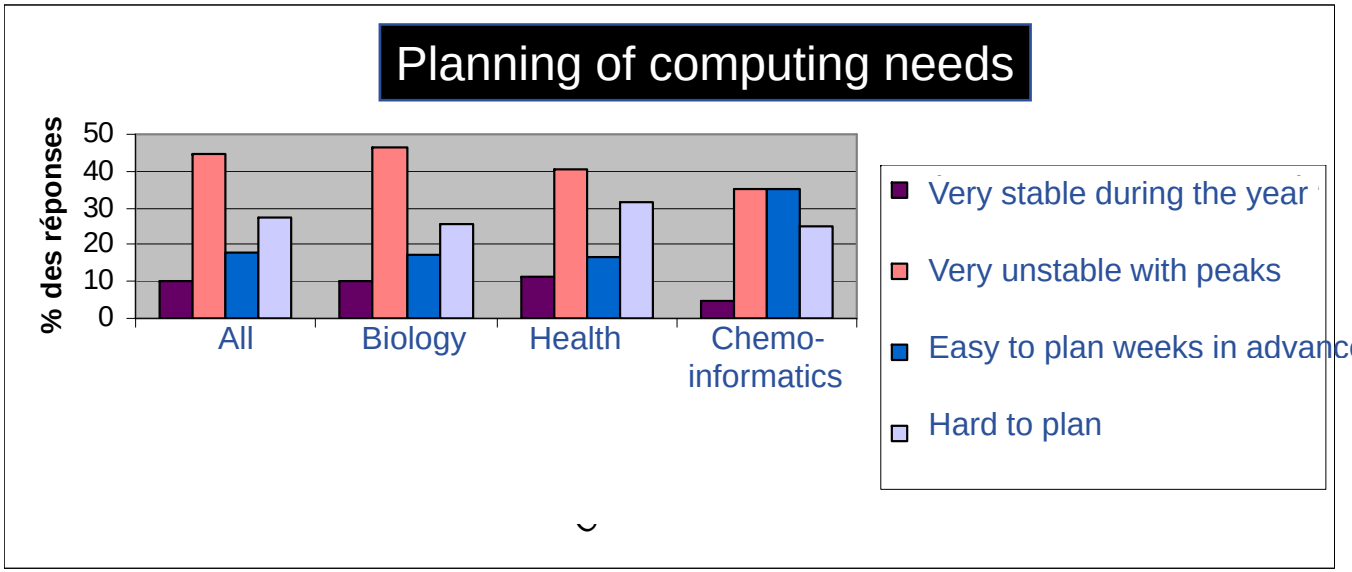
Personal need of supercomputer resources

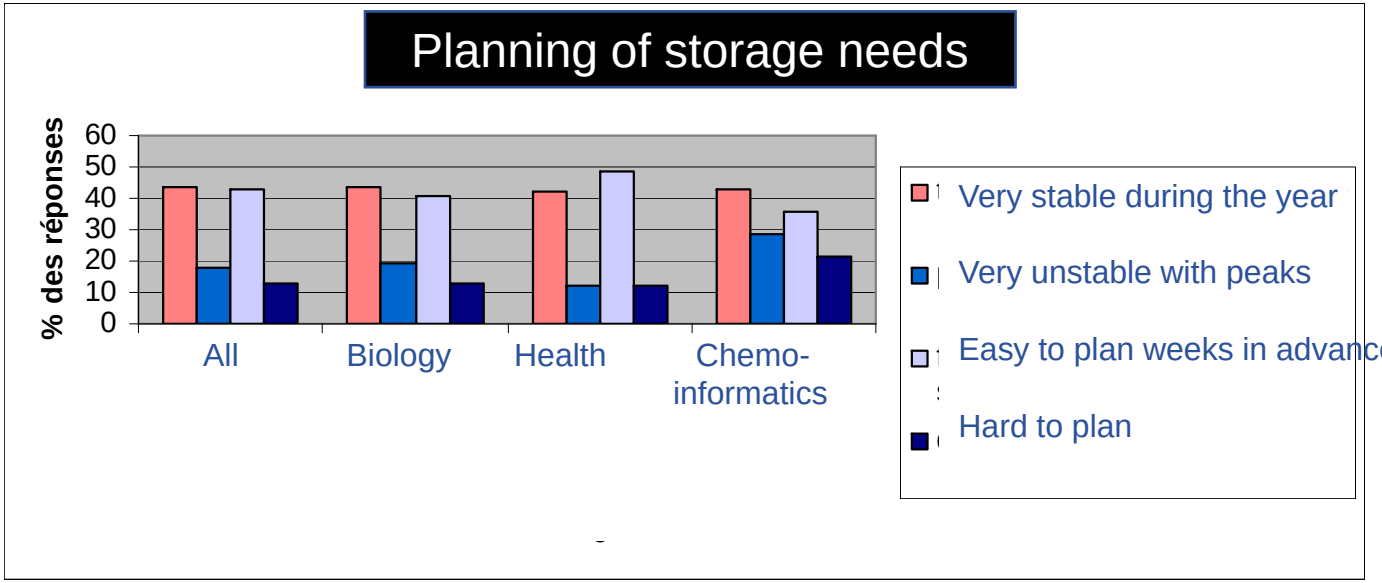


Personal need of cluster or grid resources

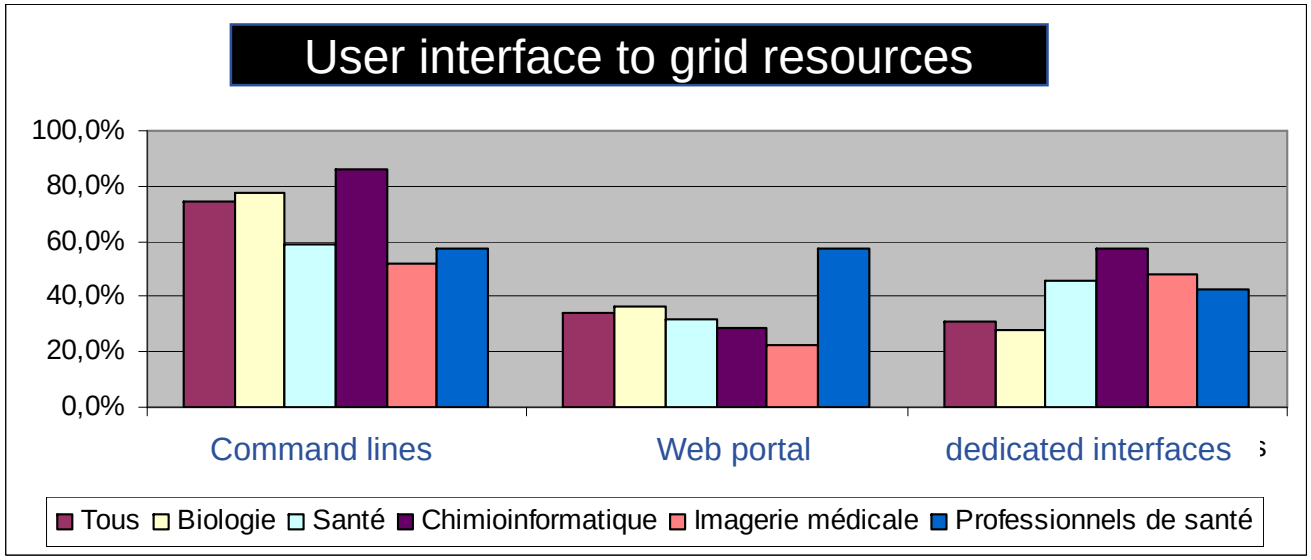


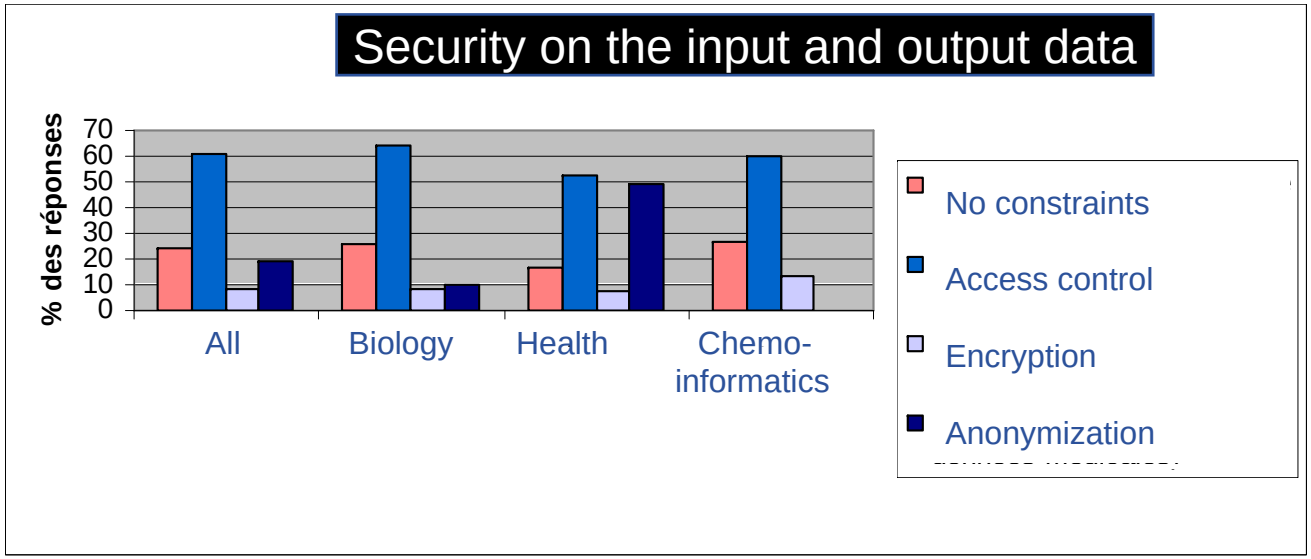
Survey results (III/IV)





Survey results (IV/IV)





Conclusions

- **The life sciences community has homogeneous needs**
  - Except for security, all sub-communities have very comparable answers
- **The life sciences community needs to access both cluster grids and supercomputers**
  - Comparable needs expressed for both infrastructures
  - on demand computing: significant fraction of the computing needs are difficult to plan in advance
- **Significant adoption of grids by the research community**
  - To be counterweighted by the targeted audience
- **Security**
  - 90% of the applications in biology require only access control
  - Only 50% for health applications, the other 50% requiring medical data anonymization

EGI: specific thoughts for the life science SSC

- **Adoption of the grid infrastructures is still in its infancy**
  - It is critical that the biomed VO is continuously operated for the pioneers already using the grid
- **The life science community is very heterogeneous**
  - Many sub-communities with similar requirements (see survey)
  - About 8 ESFRI design studies are related to life sciences
    - BBSRC: biobanking
    - ELIXIR: molecular biology
    - LIFEWATCH: biodiversity
    - …
  - Need to properly interface them to EGI

Life sciences proposed as guinea pigs of the EGI (with particle physics)

Comments on science gateways

- **Development of international gateways is the duty of the research communities using it.**
  - Interest/necessity to share some tools (workflow engines) and technologies (web services, semantic annotation).
- **SSC should coordinate the development of science gateways to guarantee interoperability and integration**
- **SSC should be in charge of the science gateway to the biomed VO**
  - template for the other gateways
  - Development started very early in the project to be able to distribute it to the communities

Questions

- **How should the biomed community get organized?**
  - Should there be one life sciences SSC or one per ESFRI?
  - If any, should biomed SSC be funded by EGI, the NGIs or the community?