

SEE-GRID Applicatons

www.see-grid.eu

Present and Future

Zorislav Šojat, Tomislav Ćosić
Ruđer Bošković Institute
Zagreb, Hrvatska (Croatia)





Application Deployment Aims



SEE-GRID
South Eastern European GRid-enabled
eInfrastructure Development

SEE-GRID is in the second phase of application deployment [SEE-GRID-2]

- *Collection of a wide range of data on all applications*
- *Identification of present day application groups*
- *Development of Regional e-Infrastructure for applications*
- *Selection of a specific set of application whose gridification will be actively supported*
- *Attainment of sustainability and high impact of SEE National Grid Initiatives with shared applications*
- *Installation of a number of inter-disciplinary applications running on the regional Grid*



Approach



- *Survey in the region for potential applications:*
 - *The data on each application that is used, or is planned to be used, in the SEE region was collected. More data on the listed applications can be found in the document "Present and Future SEE-GRID/SEE-GRID-2 Applications"*
- *Results of the survey and categorisation*
- *Plans towards the development of a gridification framework (appware)*

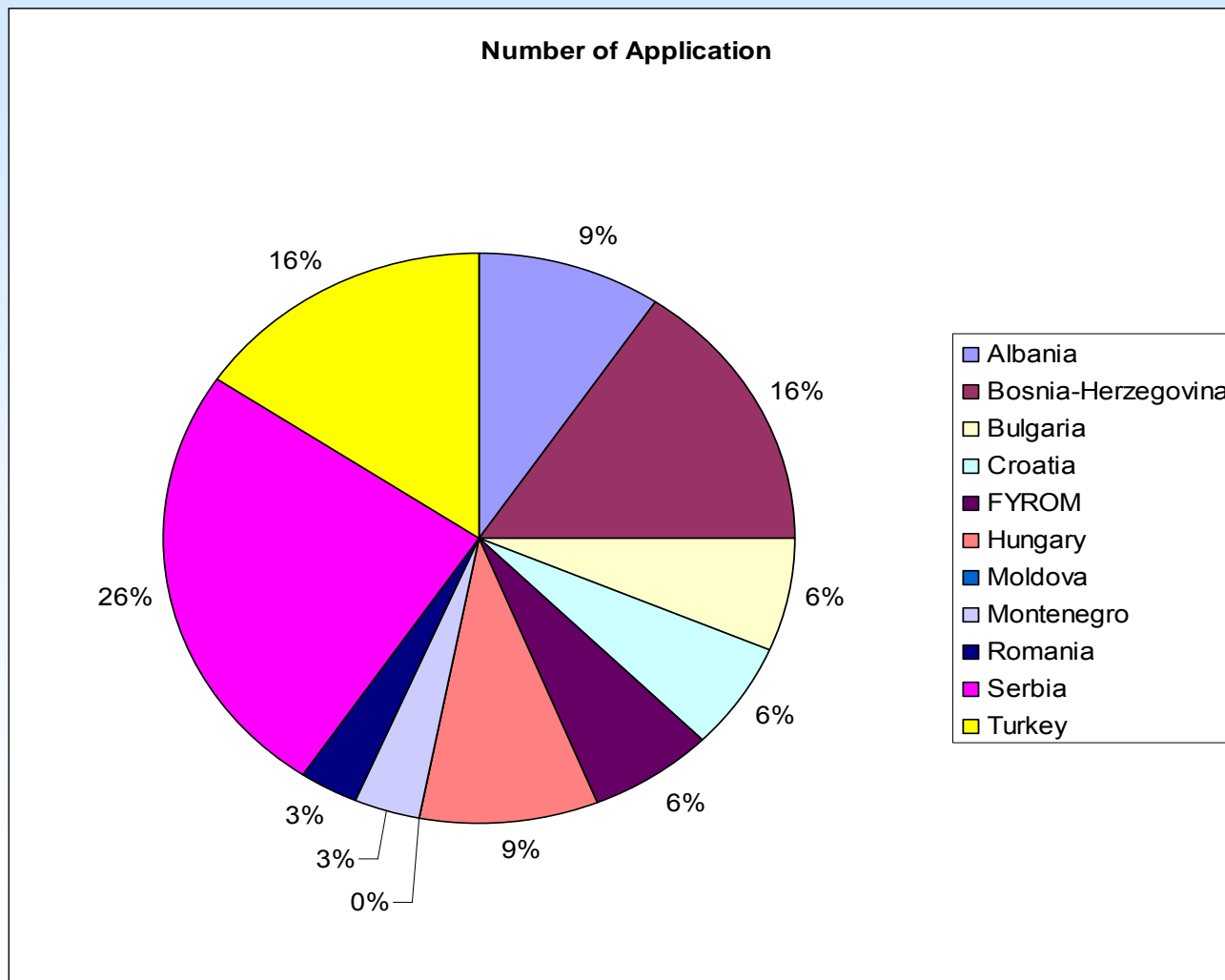


Present and Future Applications per Country



SEE-GRID
South Eastern European GRid-enabled
Infrastructure Development

Country	No. Appl.
Albania	3
Bosnia-Herzegovina	5
Bulgaria	2
Croatia	2
FYROM	2
Hungary	3
Moldova	0
Montenegro	1
Romania	1
Serbia	8
Turkey	5
Total	32





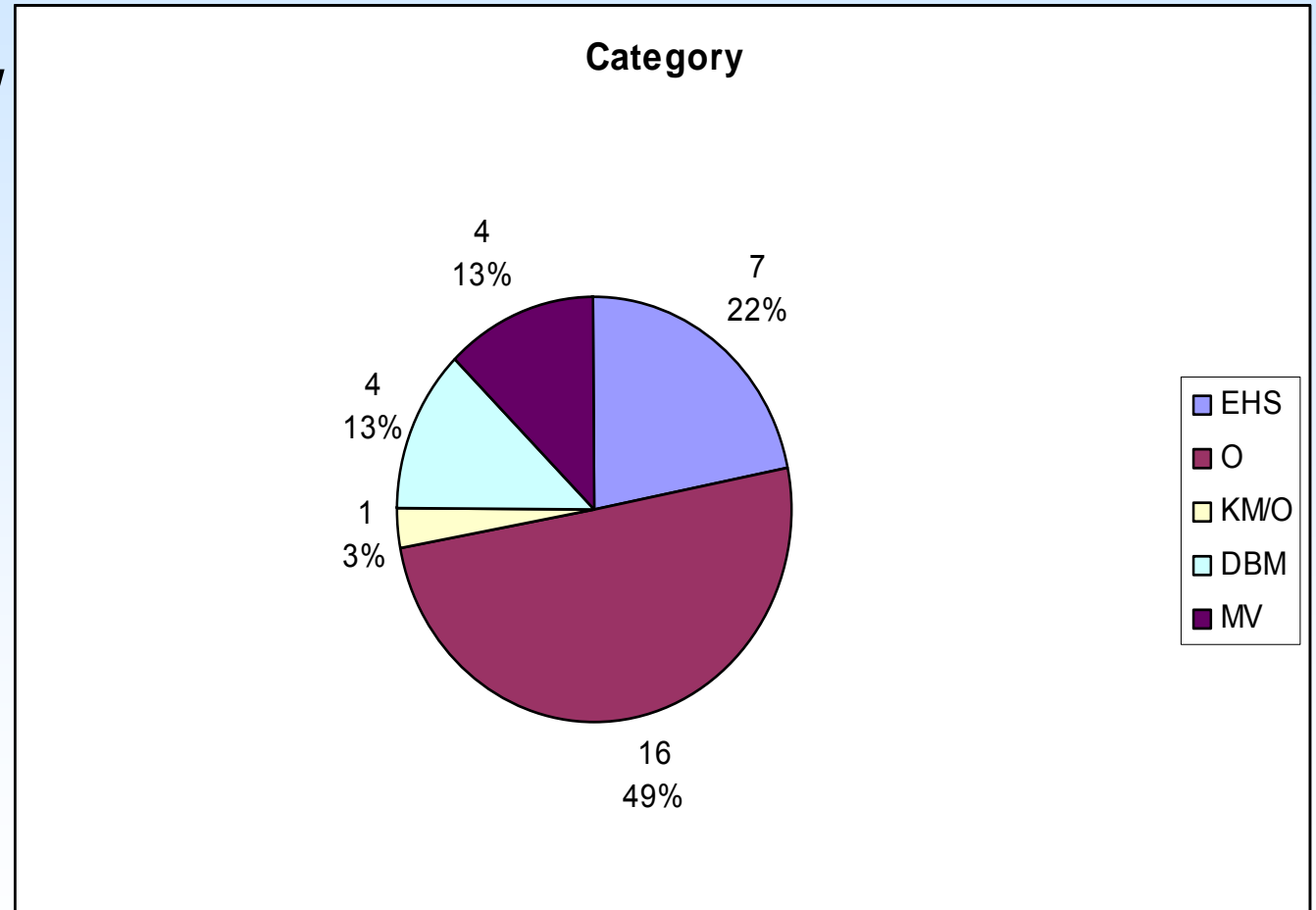
Scope of the Application Groups



SEE-GRID
South Eastern European GRid-enabled
Infrastructure Development

The applications are categorized into several domains:

- Knowledge repositories - **KR**;
- Data base and data mining – **DBM**;
- Multidimensional visualization - **MV**;
- Ecology and health sciences – **EHS**;
- Other – **O**;



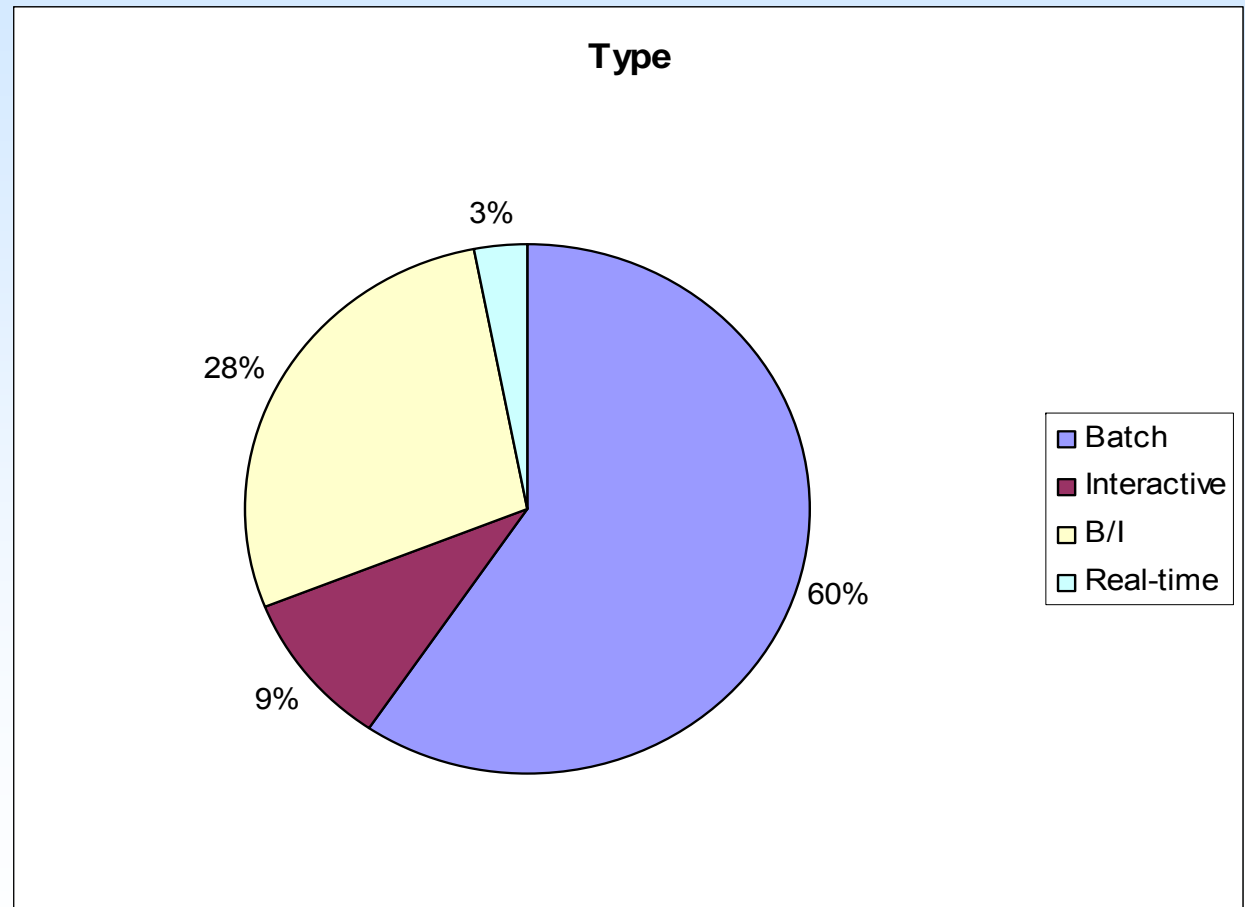


Considerations Regarding the Application Requirements



SEE-GRID
South Eastern European GRid-enabled
Infrastructure Development

Type	Number of App.
Batch	19
Interactive	3
B/I	9
Real-time	1





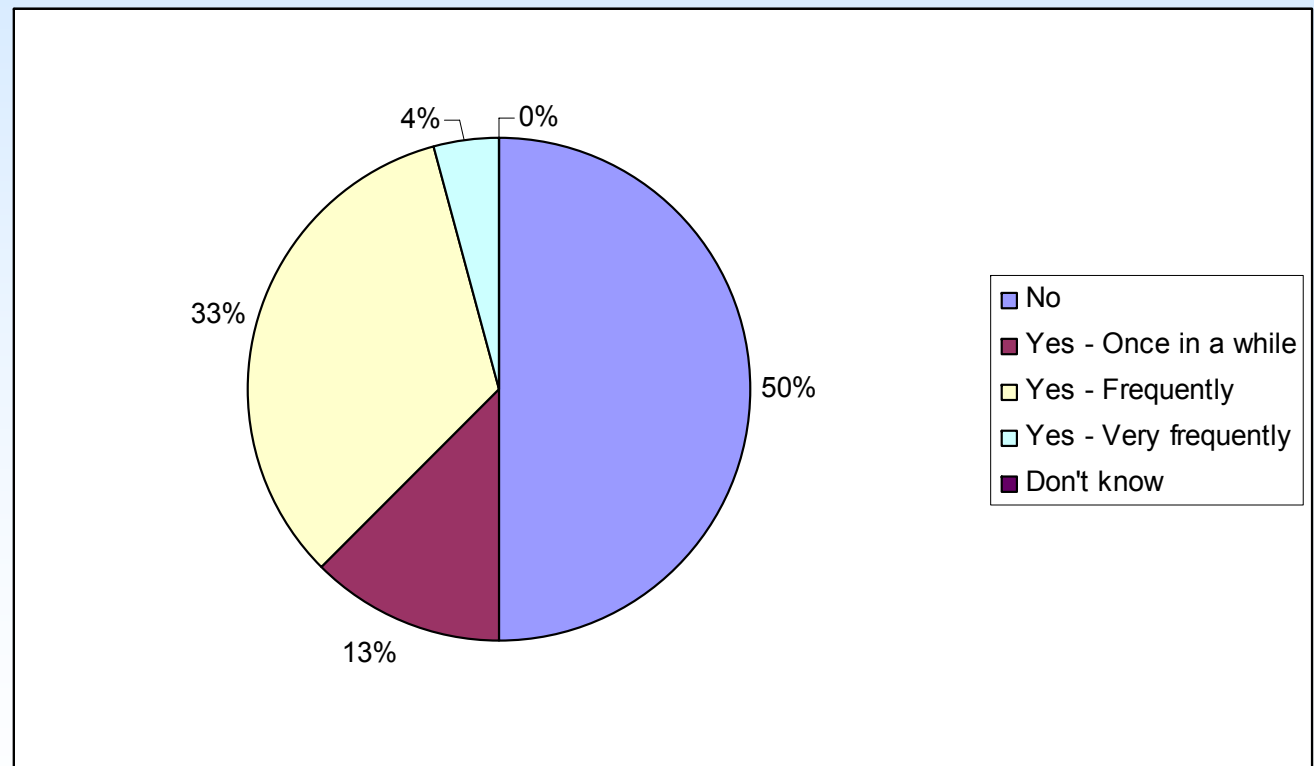
Considerations Regarding the Application Requirements



SEE-GRID
South Eastern European GRid-enabled
Infrastructure Development

Interactivity

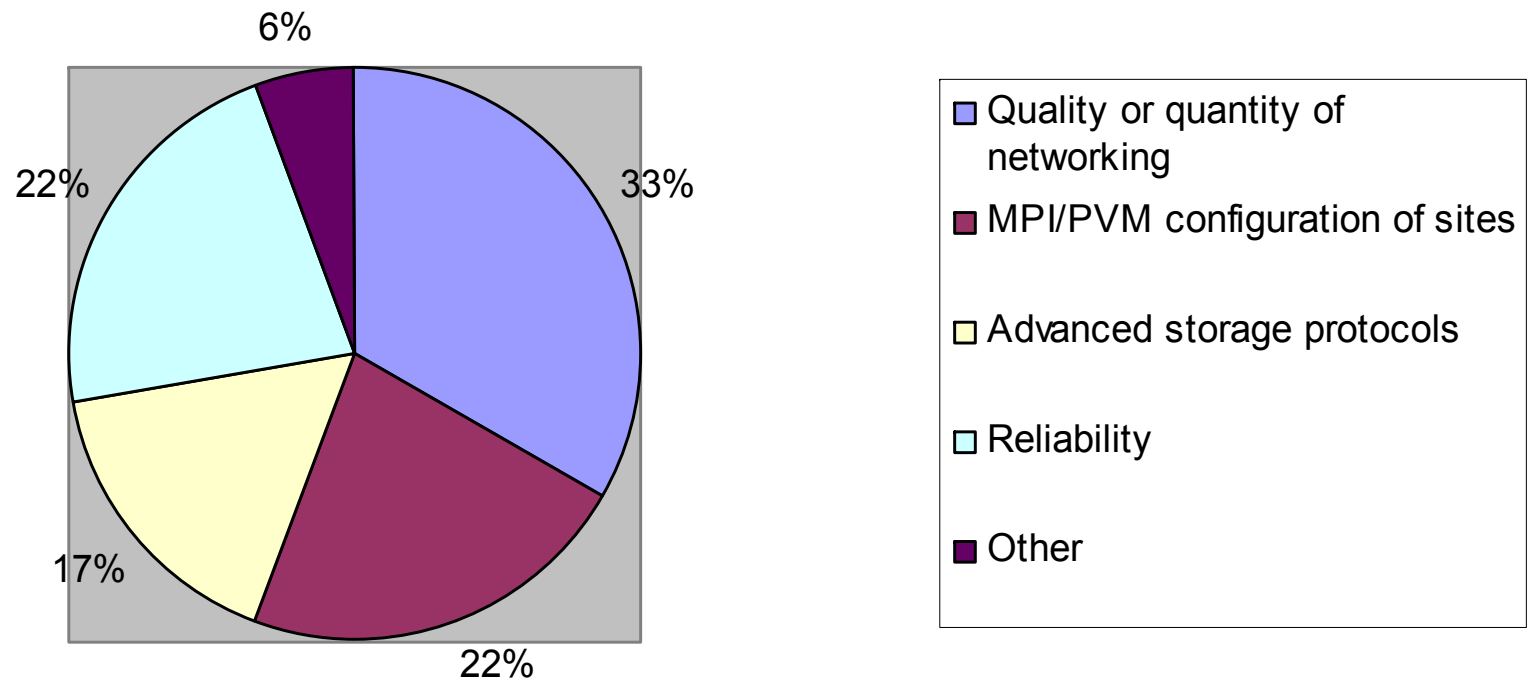
The application interactivity	Number of App.
No	12
Yes - Once in a while	3
Yes - Frequently	8
Yes - Very frequently	1
Don't know	0





Grid Infrastructure Aspects of Application Requirements

Aspects of the grid-infrastructure



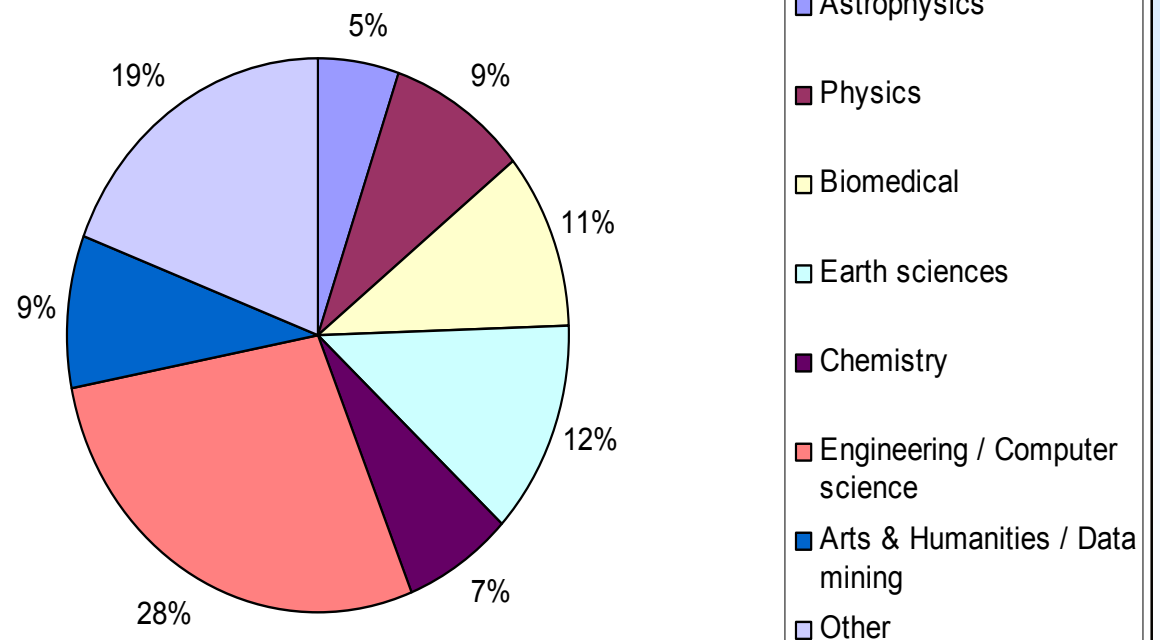


User community



SEE-GRID
South Eastern European GGrid-enabled
Infrastructure Development

Domain	Number of App.
Astrophysics	3
Physics	5
Biomedical	6
Earth sciences	7
Chemistry	4
Engineering / Computer science	16
Arts & Humanities / Data mining	5
Other	11



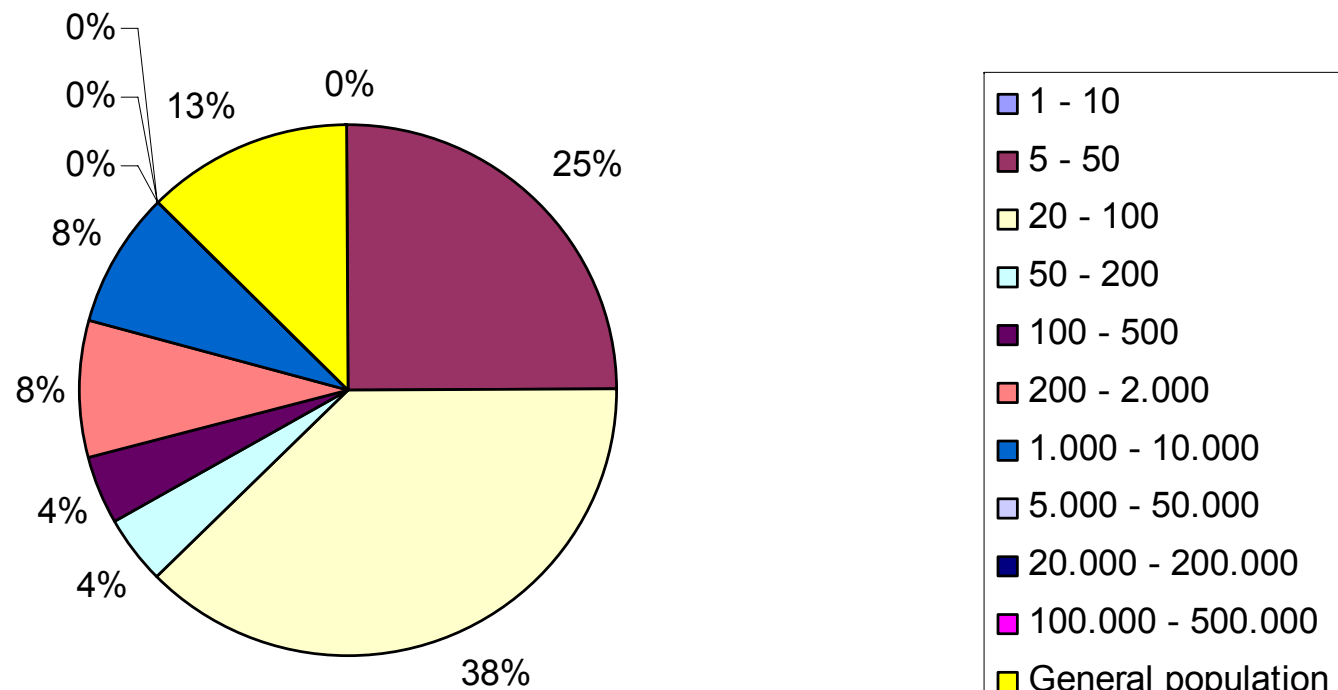


User community



SEE-GRID
South Eastern European GGrid-enabled
Infrastructure Development

User Community size %





Grid Infrastructure Requirements Perspective



- *From the statistical analyses of collected applications data it follows:*
 - *a number of socially and scientifically very important applications and application fields necessitate quite complex Grid behaviour*
 - *situations when the applications are used by many independent users are specially problematic*
 - *gridification of interactive (chronologically oriented) applications and real-time (linear time dependent) applications is presently very hard to achieve*



Towards the Gridification



SEE-GRID
South Eastern European GRid-enabled
Infrastructure Development

- *Development, based on the present and future application requirements analysis, of a structured approach and necessary SEE-GRID-2 **appware** (gridification framework) for the gridification of a large set of diverse applications, with special attention towards interactive and real-time dependant present and new applications.*



■ ■ ■ ■ ■ ■ ■ ■



SEE-GRID
South Eastern European GRid-enabled
Infrastructure Development



● ● ● ● ● ● ● ●

■ **Thank you...**