NGI H2020 Profile

**NGI-MD**

08-05-2014

# Target user communities

* *Provide information here about the* ***top three*** *target international user communities (Research Infrastructures of the ESFRI roadmap, other international research collaborations and projects) that are part of your NGI strategic user engagement roadmap*
* *Provide information about how resources (data, storage,…) will be made available in your NGI to the community and according to which policy*

|  |  |
| --- | --- |
|  | Research Community/Project description (list in order of descending priority) |
| Community 1 | Statistical and Nuclear Physics |
| Community 2 | Mathematical Modelling |
| Community 3 | Design of semiconductor devices and decision-making modelling |
| Other communities | Hydro-meteorological forecasts (State Hydrometeorological Service of Moldova), Modelling of aero-hydrodinamic effects in small power, DICOM (Digital Imaging and Communications in Medicine), SonaRes (computer-aided approach for advanced ultrasound medical diagnostics) |

# Resource provisioning for target communities

* *For each of the* ***top three*** *communities provide information on the resources that nationally will be available and the related policies and cost model, as applicable*

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| --- | --- | --- | --- | --- |
|  | **Compute and storage capacity currently available (or available in the future) to deal with the data growth** | **Access policy** | **Available funding or funding models (present and future)** | **What existing resources the e-infrastructures can offer, their current usage, the limitations and plans to deal with the data deluge** |
| **Community 1** | MD-04-RENAM: 5 QuadCore Intel Xeon E5310, 1.2 Tbyte HDD storage | Login/Password788, Certificate | National Science Foundation, Projects | Grid Site.  Plan: Unite (Share) resources with Joint Institute for Nuclear Research |
| **Community 2** | MD-02-IMI-RENAM: 7 QuadCore Intel Xeon E5310, MHz, 2 QuadCore Intel Xeon E5335, 3,6 Tbyte HDD storage | Login/Password, Certificate | National Science Foundation, Projects | Grid Site, MS Windows Compute Cluster 2003.  Plan: Unite (Share) GRID resources and make access to federated cloud |
| **Community 3** | MD-05-USM: 6xAMD 275 Dual-Core 2.2GHz and  4xAMD 280 Dual-Core 2.4GHz CPUs, parallel ROCKS-type cluster with 18 AMD 275 Dual-Core 2.2GHz CPUs, 2 Tbyte HDD storage | Login/Password, Certificate | National Science Foundation, Projects | Grid Site, + 2 AMD 280 Dual-Core 2.4GHz VCPUs  Plan: Unite (Share) Grid resources and make access to federated cloud |
| **Other communities** |  | Login/Password, Certificate |  | Plan: Unite (Share) all resources and make access to federated cloud, + 2 GPU Workstations |

# ser support skills

* *List and describe here your skills and user support competence that could be made available through a EGI Competence Centre with your participation as applicable*

|  |  |
| --- | --- |
|  | User support skills and related technical and disciplinary areas |
| Training and education | GRID access and job submit and planning |
| Technical skills | Programming language C/C++/Fortran, Linux shell scripting, distributed programming models (OpenMP) |
| Discipline/user-specific skills | Porting/Prepare tasks from the above mentioned community to lunch it on the grid |
| Other |  |

# Software development skills and experience

* *If interested in participating to software development/integration activities, list here the software development skills available in the organizations from your NGI and the experience*

|  |  |
| --- | --- |
| Skill | Description |
| Skill 1 | Jdl, bash, C/C++, |
| Skill 2 | Work with packages like PETs (for solving the systems of non-linear differential equations with partial derivatives), ScaLAPACK (for creation of parallel programs for solution of the linear models) |
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