*Helix EMBL.emfUser Flagship Application Form*

*Flagship title:*

*Acronym for the flagship:*

*Scientific Organisation sponsoring the flagship:*

*Contact person (name, affiliation, email):*

*Scientific Objective:*

Summarise the scientific objectives for the flagship in laymen’s terms.

*State-of-art in the use of computing in the scientific field:*

Position the flagship with respect to the currently most advanced use of computing in the field

*Expected Impact and Benefits:*

By implementing the flagship on a commercial cloud system what impact will the result have on the scientific field? What benefit will it bring to the scientific community? Provide details about the scientific community that will benefit from this flagship. Include an estimate the number and distribution of users that will need access to the system.

*Existing or potential partnership:*

Which partner(s) outside the user organisation, and in particular SME, would be participating in the flagship ?

*Technical Characteristics:*

Describe the computing characteristics of the flagship and estimate the cloud resources required, including but not limited to the following:

|  |  |
| --- | --- |
| Area | Requirements |
| CPU requirements (total CPU hours) |  |
| Peak requirements in terms of CPU, RAM, disk storage (GHz, GB, GB) |  |
| Data requirements (quantity of data, files/databases accessed/produced) |  |
| Single/multiple binaries (indicate dependencies between multiple binaries) |  |
| Peak server size required per resource (server size required in terms of the largest CPU configuration, largest RAM configuration etc.) |  |
| Programming model (serial, parallel, shared memory, threads, data parallel etc.) |  |
| Style of interaction with the user (interactive/batch) |  |
| External connections (e.g. data input/output rates and access to external databases) |  |
| Expected external connectivity volume (GB/TB per which time frame) |  |
| Peak expected bandwidth to/from a cloud server (Mbps/Gbps) |  |
| Security requirements (e.g. confidentiality of data, algorithms) |  |
| Licensing aspects (e.g. does the software make use of third party packages requiring licenses) |  |
| Operating environment (operating system and version, libraries etc.) |  |
| Other technical requirements |  |

*Current status of maturity:*

Indicate if the flagship is under development or already in production in a different environment.

*Proposer Resources:*

Indicate the level of resources (manpower and funds) your organisation is willing to contribute towards the cost of implementing your flagship during the 2 year pilot phase.

*Proposer Motivation:*

Explain which aspects (such as secure access, financial models, scalability of resources, portability between service suppliers, use of standardized interfaces etc.) you consider to be the most important to investigate in the porting and deployment of your flagship during the pilot phase.

*Proposer Long-term Objectives:*

Assuming your flagship is successfully ported and deployed during the pilot phase, what would be the long-term objectives of your organisation for the use of the cloud infrastructure?