SCIENTIFIC CASE TEMPLATE:

" WHAT THE UNIVERSE IS AND WHY IT IS THERE"

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# Summary (~1/4 pg)

*Once you know what the question actually is, you will know what the answer means: 42[[1]](#footnote-1)*

# Scientific Case (up to 2 pages including figures and/or photos)

(describe in this section your scientific project, state of the art, and what do you want to achieve)

## The Scientific Challenge (~1/2 page)

*There is a theory which states that if ever anyone discovers exactly what the Universe is for and why it is here, it will instantly disappear and be replaced by something even more bizarre and inexplicable. There is another theory which states that this has already happened. To find where we actually are a number of telescopes have to be placed on all planets.*

## State of the art (~1/2 page)

*Currently we only have telescopes only on Earth, where analysis is also done.*

## Going beyond the state of the art (~1 page)

*We need to place telescopes all around 10 galaxies in order gain insight on what really the Universe is, and do the analysis remotely in a distributed way.*

 

*Fig. 1. A prototype “magic” telescope allowing finding our position in space [1].*

# E-Infrastructure Challenges and computing requirements (~1.5 page)

(What are the major challenges in terms of computing, data analysis in order to run your project; what are your expected requirements in terms of computing infrastructure, eg. 1Petaflop / year on redundant databases accessible 24/7, 10M CPU hours per year, etc…)

*We need to collect data from a number of telescopes placed on all planets. The data need to be transferred to the datacenters located on the coldest five planets of each galaxy. This will decrease our power consumption and optimize resources from all galaxies.*

*Such data transfer requires both capacity and capability; Metadata replication is also a necessity in order to increase reliability and cover for eventual datacenter blackouts due to asteroid collisions or other galactic hazards (black hole passing by, etc…).*

*To undertake this challenge we need a stupendous computer of at least 1 PetaFlop, so amazingly intelligent that even before being configured it had started from “I think therefore I am” and got as far as the existence of Distributed Computing and even Grid Certificates before anyone managed to plug it into the Internet.*

## Services required

* *User authentication & Authorization should be done by iris recognition using the webcam of the user laptop.*
* *The Helpdesk system should be able to handle tickets faster than the speed of light, so that users are never actually troubled.*
* *Data migration from one galaxy to another should occur without service disruption.*

# Status of the Project (~1/2 – 1 page, including figures and/or photos)

 (In this section the current collaboration experience on Distributed Computing, first results – if applicable... will be described)

*Due to the impossibility of any planet to accomplish this task alone, the Galactic Federation was created. Each member of the federation represents an area of the Universe to be covered. The list of members in the collaboration goes as follows:*

* *North West ripple – in charge of hardware deployment*
* *Outer Eastern Rim – in charge of software deployment*
* *Western Spiral Arm, -- in charge of data tools and handling*
* *Galactic Sector ZZ9 Plural Z Alpha, -- in charge of user support*
* *Galactic Sector QQ7 Active J Gamma – in charge of scientific publications*

*"Share and Enjoy" is the company motto of the hugely successful Sirius Cybernetics Corporation, which now covers the major landmasses of three medium-sized planets and is the only Corporation to have shown a consistent success in recent years.*

  a.  b.

*Fig. 2. A prototype of space-time relationship (a) and expected improvements (b)*

# Timeline (max 1/2 page)

(In this section we ask you to give a very summarized review of the timeline of your project, crucial milestones, etc…)

*The Encyclopedia Galactica has much to say on the theory and practice of time travel, most of which is incomprehensible to anyone who has not spent at least four lifetimes studying advanced hyper-mathematics.*

* *Project Origin (year 20,000)*
* *Prototyping (year 25,000)*
* *Cooperation with “Distributed Computing ERIC” on data storage and software tools (year 30,000)*
* *First mission to other planet and installation of telescopes (year 30,010)*
* *Review of the progress in Brrrusssels (year 30,012)*
* *Installation of remaining telescopes, (year 30,014)*
* *Collection of 3 ExaByte of data & data analysis (year 30,020)*
* *Presentation of results at Mega Forum in South Aldebaran (year 30,042)*

# References & Bibliography ( max ½ page)

“The Hitchhikers Guide to the Galaxy” by Douglas Adams, Ed. Pan Books, (1980)

This information will be used as a starting point for collaboration with the EGI community to provide services to support the project.

This document is intended to be a direct input from user communities. EGI will assist you in whatever questions you may have regarding the technical description of the requirements of your project.

1. Use font Times Roman 12 pt in all chapters [↑](#footnote-ref-1)