



## EGI VO

# SERVICE LEVEL AGREEMENT

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<b>Customer</b>	EMSO-ERIC/vo.emso-eric.eu
<b>Service Provider</b>	EGI Foundation
<b>First day of service delivery</b>	01/12/2019
<b>Last day of service delivery</b>	30/06/2023
<b>Status</b>	FINAL
<b>Agreement finalization date</b>	19/11/2019
<b>SLA link</b>	<a href="https://documents.egi.eu/document/3539">https://documents.egi.eu/document/3539</a>
<b>OLA Link</b>	<a href="https://documents.egi.eu/document/3539">https://documents.egi.eu/document/3539</a>

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## DOCUMENT LOG

<i>Issue</i>	<i>Date</i>	<i>Comment</i>	<i>Author</i>
<b>FINAL</b>	19/11/2019	SLA agreed with the Customer	Giuseppe La Rocca Małgorzata Krakowian
<b>v0.2</b>	08/09/2020	Extended agreement till 03/2021 (new EOOSC-hub project end)	Giuseppe La Rocca
<b>v0.3</b>	26/03/2021	Extended agreement till 06/2023	Giuseppe La Rocca

## TERMINOLOGY

The EGI glossary of terms is available at: <https://wiki.egi.eu/wiki/Glossary>

For the purpose of this Agreement, the following terms and definitions apply. The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119.

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The present Service Level Agreement (“the Agreement”) is made between **EGI Foundation (the Service Provider)** and the **EMSO-ERIC/vo.eso-eric.eu (the Customer)** to define the provision and support of the provided services as described hereafter. Representatives and contact information are defined in Section 6.

The **European Multidisciplinary Seafloor and water column Observatory (EMSO)**<sup>1</sup> aims to explore the oceans and to explain the critical role they play in the broader Earth systems, focussing on climate change, risks of biodiversity loss, and natural hazards. EMSO's observatories are platforms equipped with multiple sensors to measure biogeochemical and physical parameters such as ocean temperature, dissolved oxygen concentration, and ocean current speed and direction.

EMSO consists of a system of regional facilities placed at key sites around Europe, from North East to the Atlantic, through the Mediterranean, to the Black Sea. Observatories are platforms equipped with multiple sensors, placed along the water column and on the seafloor. They constantly measure different biogeochemical and physical parameters, that address natural hazards, climate change and marine ecosystems.

EMSO is a consortium of partners sharing a common strategic framework of scientific facilities (data, instruments, computing and storage capacity). Formally it is a European Research Infrastructure Consortium (ERIC), legal framework created for pan-European large-scale research infrastructures.

The User is a consortium represented by the EMSO-ERIC project.

This Agreement is valid from **01/12/2019** to **30/06/2023**.

The Agreement was discussed and approved by the Customer and the Provider on **19/11/2019**.

## 1 The Services

All services provided by EGI are listed under: <https://www.egi.eu/services/>

Possible allocation types:

- **Pledged** - Resources are exclusively reserved to the Community and the job will be executed immediately after submission.
- **Opportunistic** - Resources are not exclusively allocated, but subject to local availability.
- **Time allocation** - Resources are available in fair share-like mode for a fixed time period.

Possible payment mode offer:

- **Sponsored** - Model where the customer uses services that are funded, or co-funded by the European Commission or government grants.
- **Pay-per-use** - Model where customers directly pay for the service used.

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<sup>1</sup> <http://emso.eu/>

The Services are defined by the following properties:

### Cloud Compute (category: Compute)

Description: <https://www.egi.eu/services/cloud-compute/>

- Resource Centre: **CESGA (Country: Spain)**
  - Cloud Compute
    - Number of virtual CPU cores: 198
    - Memory per core (GB): 2.5GB. A total of 512GB is provided
    - Local disk (GB): 50
    - Public IP addresses:
    - Allocation type: Pledged
    - Payment mode offer: Sponsored
    - Other technical requirements:
    - Duration: 01/12/2019 – 30/06/2023
    - Supported VOs: vo.emso-eric.eu
  - VO ID card: <https://operations-portal.in2p3.fr/vo/view/voname/vo.emso-eric.eu>
  - VO-wide list: <https://vmcaster.appdb.egi.eu/store/vo/vo.emso-eric.eu/image.list>
  
- Resource Centre: **RECAS-BARI (Country: Italy)**
  - Cloud Compute
    - Number of virtual CPU cores: 300
    - Memory per core (GB): A total of 1.2TB is provided
    - Local disk (GB):
    - Public IP addresses:
    - Allocation type: Pledged
    - Payment mode offer: Sponsored
    - Other technical requirements:
    - Duration: 01/12/2019 – 30/06/2023
    - Supported VOs: vo.emso-eric.eu
  - VO ID card: <https://operations-portal.in2p3.fr/vo/view/voname/vo.emso-eric.eu>
  - VO-wide list: <https://vmcaster.appdb.egi.eu/store/vo/vo.emso-eric.eu/image.list>

### Online Storage (category: Storage)

Description: <https://www.egi.eu/services/online-storage/>

- Resource Centre: **CESGA (Country: Spain)**
  - Online Storage
    - Guaranteed storage capacity [TB]: 0.6
    - Opportunistic storage capacity [TB]:

- Standard interfaces supported<sup>2</sup>: POSIX
    - Storage technology<sup>3</sup>:
    - Other technical requirements: High IOPS (preferably SSD)
    - Duration: 01/11/2019 – 30/06/2023
    - Payment mode offer: Sponsored
  - Allocation type: Pledged
  - Supported VOs: vo.emso-dev.eu
  - VO ID card: <https://operations-portal.in2p3.fr/vo/view/voname/vo.emsodev.eu>
- Resource Centre: **RECAS-BARI (Country: Italy)**
    - Online Storage
      - Guaranteed storage capacity [TB]: 10
      - Opportunistic storage capacity [TB]:
      - Standard interfaces supported<sup>4</sup>: POSIX
      - Storage technology<sup>5</sup>:
      - Other technical requirements: High IOPS (preferably SSD)
      - Duration: 01/12/2019 – 30/06/2023
      - Payment mode offer: Sponsored
    - Allocation type: Pledged
    - Supported VOs: vo.emso-eric.eu
    - VO ID card: <https://operations-portal.in2p3.fr/vo/view/voname/vo.emso-eric.eu>

The Services are supported by additional services:

- Accounting<sup>6</sup>
- Service Monitoring<sup>7</sup> (operational only)

Note: Please note that the following services are not provided by EGI Foundation:

- Monitoring of the vo.emso-eric.eu VO
- Monitoring of services provided by the Customer on agreed resources

## 2 Service hours and exceptions

The Services operate during the following hours: twenty-four (24) hours a day, seven (7) days a week, three hundred sixty-five (365) days a year.

The following exceptions apply:

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<sup>2</sup> CDMI, POSIX, SWIFT, etc.

<sup>3</sup> DPM, dCache, STORM, etc.

<sup>4</sup> CDMI, POSIX, SWIFT, etc.

<sup>5</sup> DPM, dCache, STORM, etc.

<sup>6</sup> <http://accounting.egi.eu/>

<sup>7</sup> <http://argo.egi.eu/>

- Planned maintenance windows or service interruptions (“scheduled downtimes”<sup>8</sup>) will be notified via email in a timely manner i.e. 24 hours before the start of the outage<sup>9</sup>.
- Downtime periods exceeding 24 hours need justification.

## 3 Support

Support is provided via EGI Service Desk<sup>10</sup>. Access requires a valid X.509 or the login via a EGI SSO account<sup>11</sup>. Support is available between:

- Monday to Friday.
- From 9:00 to 17:00 in the time zone of the relevant Resource Centres.

Service times always apply with the exception of public holidays in the country of the supporting Resource Centres.

### 3.1 Incident handling

Incidents will be handled according to the Quality of Support level that is estimated according to the impact of the outage or service quality degradation.

The Quality of Support in this Agreement has level: **Medium**<sup>12</sup>

Incident priority	Response time
Less urgent	5 working days
Urgent	5 working days
Very Urgent,	1 working day
Top Priority	1 working day

so the incidents, based on their priority will be responded to with the following response times:

Incident priority <sup>13</sup>	Response time	Comment
Less urgent	5 working days	wishes and enhancements that are "nice to have"
Urgent	5 working days	service degraded; work-around available
Very Urgent	1 working day	service degraded; no work-around available
Top Priority	1 working day	service interrupted; needs to be addressed as soon as possible

Table 1. Response times to incidents according to the incident priority of “Medium” services

<sup>8</sup> [https://wiki.egi.eu/wiki/GOCDB/Input\\_System\\_User\\_Documentation#Downtimes](https://wiki.egi.eu/wiki/GOCDB/Input_System_User_Documentation#Downtimes)

<sup>9</sup> <http://goc.egi.eu/>

<sup>10</sup> <http://helpdesk.egi.eu/>

<sup>11</sup> <https://www.egi.eu/sso/>

<sup>12</sup> [https://wiki.egi.eu/wiki/FAQ\\_GGUS-QoS-Levels](https://wiki.egi.eu/wiki/FAQ_GGUS-QoS-Levels)

<sup>13</sup> [https://wiki.egi.eu/wiki/FAQ\\_GGUS-Ticket-Priority](https://wiki.egi.eu/wiki/FAQ_GGUS-Ticket-Priority)

## 3.2 Service requests

In addition to resolving incidents, standard service requests ([https://wiki.egi.eu/wiki/EGI\\_Service\\_requests](https://wiki.egi.eu/wiki/EGI_Service_requests)) will be fulfilled through the defined support channels in the same way as incidents. Service requests are classified as “Less urgent”.

# 4 Service level targets

### Monthly Availability

- Defined as the ability of a service to fulfil its intended function at a specific time or over a calendar month.
- Minimum (as an average percentage per month):
  - Cloud Compute: 95%
    - CESGA: 95%
    - RECAS-BARI: 95%
  - Online Storage: 95%
    - CESGA: 95%
    - RECAS-BARI: 95%

### Monthly Reliability

- Defined as the ability of a service to fulfil its intended function at a specific time or over a calendar month, excluding scheduled maintenance periods.
- Minimum (as an average percentage per month):
  - Cloud Compute: 95%
    - CESGA: 95%
    - RECAS-BARI: 95%
  - Online Storage: 95%
    - CESGA: 95%
    - RECAS-BARI: 95%

### Quality of Support level

- Medium (Section 3)



## 5 Limitations and constraints

The Services provisioning is subject to the following limitations and constraints.

- Support is provided in English.
- Availability and Reliability calculations are based on the Service Monitoring operational results.
- Failures in VO monitoring are not considered as SLA violations.
- Downtimes needed to ensure the security of the Service issues are not considered Agreement violations.
- Failures of resource provider not being part of EGI production infrastructure are not considered as Agreement violations.
- Force Majeure. A party shall not be liable for any failure or delay in the performance of this Agreement for the period that such failure or delay is due to causes beyond its reasonable control. Means any
  - fire, flood, earthquake or natural phenomena,
  - war, embargo, riot, civil disorder, rebellion, revolutionwhich is beyond the Provider's control, or any other causes beyond the Provider's control

## 6 Communication, reporting and escalation

### 6.1 General communication

The following contacts will be generally used for communications related to the service in the scope of this Agreement.

<b>Customer contact</b>	Ivan Rodero, EMSO-ERIC Director <a href="mailto:ivan.rodero@emso-eu.org">ivan.rodero@emso-eu.org</a>
<b>EGI Foundation contact</b>	Małgorzata Krakowian <a href="mailto:sla@mailman.egi.eu">sla@mailman.egi.eu</a> SLA Coordinator at EGI Foundation
<b>Service Support contact</b>	See Section 3

### 6.2 Regular reporting

As part of the fulfilment of this Agreement and provisioning of the service, the following reports will be provided:

Report title	Contents	Frequency	Produced by	Delivery
Services Performance Report	The document provides an overall	Every six months	Provider	Email to the Customer

	assessment of service performance (per month) and SLA target performance achieved during the last 6 months			
Scientific Publications report	The document provides a list of scientific publications benefiting from the Service.	Yearly and with the Agreement ending.	Customer	During satisfaction review
Platform Service report	The document provides usage records (resources used, users) of the Customer service during the last 6 months	Yearly and with the Agreement ending.	Customer	During satisfaction review

All reports shall follow predefined templates<sup>14</sup>.

### 6.3 Violations

The Provider commits to inform the Customer, if this Agreement is violated or violation is anticipated. The following rules are agreed for communication in the event of violation:

- In case of violations of the Services targets for **four months** or **two consecutive months**, the Provider will provide justifications to the Customer.
  - In case of unavailability of the Resource Provider to provide the service, the Provider will search for a new Resource Provider and support migration.
- The Customer will notify the supporting Resource Centres in case of suspected violation via the EGI Service Desk (Section 3). The case will be analysed to identify the cause and verify the violation.

### 6.4 Escalation and complaints

For escalation and complaints (A customer complaint is a customer's expression of dissatisfaction with an EGI service, either orally or in writing), the Provider contact (section 6.1) point shall be used, and the following rules apply.

- In case of repeated violation of the Services targets for **four months** or **two consecutive months**, a review of the Agreement will take place involving the parties of the Agreement.
- Complaints or concerns about the Services provided should be directed to the Provider contact who will promptly address these concerns. Should the Customer still feel

<sup>14</sup> <https://documents.egi.eu/document/2748>

dissatisfied, about either the result of the response or the behaviour of the supporting Resource Centres, [complaints@egi.eu](mailto:complaints@egi.eu) should be informed.

## 7 Information security and data protection

The following rules for information security and data protection related to the Service apply.

- Assertion of absolute security in IT systems is impossible. The Provider is making every effort to maximize security level of users' data and minimize possible harm in the event of an incident.
- The Provider will define and abide by an information security and data protection policy related to the service being provided.
- The parties of the Agreement will meet all requirements of any relevant policy or procedure of the Provider<sup>15</sup> and will comply with the applicable national legislation.

## 8 Responsibilities

### 8.1 Of the Provider

Additional responsibilities of the Provider are as follows.

- The Provider adheres to all applicable operational and security policies and procedures<sup>16</sup> and to other policy documents referenced therein.
- The Provider allows monitoring of the Service in order to measure the fulfilment of the agreed service level targets.
- The Provider retains the right to introduce changes in how the Service is provided, in which case the Provider will promptly inform the Customer and update the Agreement accordingly.

### 8.2 Of the Customer

The responsibilities of the Customer are:

- **The customer facilitates the use of EGI acknowledgement by communicating to users the need of adding the following sentence in acknowledgement: "The EMSO-ERIC project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 731036. This agreement is**

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<sup>15</sup> [https://www.egi.eu/about/policy/policies\\_procedures.html](https://www.egi.eu/about/policy/policies_procedures.html)

<sup>16</sup> [https://www.egi.eu/about/policy/policies\\_procedures.html](https://www.egi.eu/about/policy/policies_procedures.html)

**sponsored by EGI and the EGI-ACE project with the dedicated support of the CESGA and RECAS-BARI providers”.**

- The Customer will provide during Agreement review (yearly) list of scientific publications benefiting from the Service.
- The Customer must not share access credentials with anyone else.
- The data stored in the system by the Customer must not cause any legal violation due to the content type (such as copyright infringement, dual use, illegal material).
- The use must be consistent with the Acceptable Use Policy<sup>17</sup> of the Service.
- The Customer will notify the Provider in case the actual amount of the Service used results in being under- or over-estimated. The Customer will request an update of the Agreement to ensure optimal usage of the Service.
- The Customer will create one or more Virtual Organizations (VOs) to define the group of users entitled to access the Service. Information about the VO will be regularly updated in EGI Operations Portal<sup>18</sup>.
- The Customer must request EGI Service Desk support<sup>19</sup> to enable assigning tickets with appropriate VO name.
- When applicable, the Customer is responsible for ensuring that the Virtual Machine images endorsed and listed in the AppDB<sup>20</sup> VO image list are properly maintained and updated.

## 9 Review, extensions and termination

The Services performance will be reviewed against the defined Service level targets according to Section 4. The Agreement will be annually reviewed until expiration.

If the Customer wishes to extend the duration after the Agreement termination date, an extension will be negotiated with the Provider.

The Provider retains the right to introduce changes in the Service, in which case the Customer retains the right of terminating the Agreement.

The Agreement can be terminated at any time upon agreement of the parties. Amendments, comments and suggestions must be addressed to the Provider and the Customer according to Section 6.

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<sup>17</sup> <https://documents.egi.eu/document/74>

<sup>18</sup> <http://operations-portal.egi.eu/>

<sup>19</sup> [https://wiki.egi.eu/wiki/FAQ\\_GGUS-New-Support-Unit](https://wiki.egi.eu/wiki/FAQ_GGUS-New-Support-Unit)

<sup>20</sup> <https://appdb.egi.eu/>