

EGI-InSPIRE

QUALITY PLAN AND PROJECT METRICS

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This document describes the document handling and production procedures used within the EGI-InSPIRE project. In addition it describes the review procedure that is used for the project's milestones and deliverables. It also describes the project metrics that will be used to monitor the performance of the project from various perspectives: the project overall in terms of its defined objectives and the metrics measuring progress towards achieving the EGI Strategic Plan.

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II. DELIVERY SLIP

	Name	Partner/Activity	Date
From	Catherine Gater and Steven Newhouse	EGI.eu	21/03/2012
Reviewed by	Moderator: John Walsh Reviewers: Maurice Bouwhuis, Thomas Schaaf	TCD SARA LMU	15/05/2012
Approved by	AMB & PMB		8/6/2012

III. DOCUMENT LOG

Issue	Date	Comment	Author/Partner
1	21/4/2012	ToC	Catherine Gater/EGI.eu
2	06/04/2012	First draft	Catherine Gater / EGI.eu
3	20/4/2012	Revised version with strategic metrics	Steven Newhouse/EGI.eu
4	25/4/2012	Revised metrics	Steven Newhouse/EGI.eu
5	04/06/2012	Final version after review	Steven Newhouse/EGI.eu

IV. APPLICATION AREA

This document is a formal deliverable for the European Commission, applicable to all members of the EGI-InSPIRE project, beneficiaries and Joint Research Unit members, as well as its collaborating projects.

V. DOCUMENT AMENDMENT PROCEDURE

Amendments, comments and suggestions should be sent to the authors. The procedures documented in the EGI-InSPIRE “Document Management Procedure” will be followed:

<https://wiki.egi.eu/wiki/Procedures>

VI. TERMINOLOGY

A complete project glossary is provided at the following page: <http://www.egi.eu/about/glossary/>.



VII. PROJECT SUMMARY

To support science and innovation, a lasting operational model for e-Science is needed – both for coordinating the infrastructure and for delivering integrated services that cross national borders.

The EGI-InSPIRE project will support the transition from a project-based system to a sustainable pan-European e-Infrastructure, by supporting ‘grids’ of high-performance computing (HPC) and high-throughput computing (HTC) resources. EGI-InSPIRE will also be ideally placed to integrate new Distributed Computing Infrastructures (DCIs) such as clouds, supercomputing networks and desktop grids, to benefit user communities within the European Research Area.

EGI-InSPIRE will collect user requirements and provide support for the current and potential new user communities, for example within the ESFRI projects. Additional support will also be given to the current heavy users of the infrastructure, such as high energy physics, computational chemistry and life sciences, as they move their critical services and tools from a centralised support model to one driven by their own individual communities.

The objectives of the project are:

1. The continued operation and expansion of today’s production infrastructure by transitioning to a governance model and operational infrastructure that can be increasingly sustained outside of specific project funding.
2. The continued support of researchers within Europe and their international collaborators that are using the current production infrastructure.
3. The support for current heavy users of the infrastructure in earth science, astronomy and astrophysics, fusion, computational chemistry and materials science technology, life sciences and high energy physics as they move to sustainable support models for their own communities.
4. Interfaces that expand access to new user communities including new potential heavy users of the infrastructure from the ESFRI projects.
5. Mechanisms to integrate existing infrastructure providers in Europe and around the world into the production infrastructure, so as to provide transparent access to all authorised users.
6. Establish processes and procedures to allow the integration of new DCI technologies (e.g. clouds, volunteer desktop grids) and heterogeneous resources (e.g. HTC and HPC) into a seamless production infrastructure as they mature and demonstrate value to the EGI community.

The EGI community is a federation of independent national and community resource providers, whose resources support specific research communities and international collaborators both within Europe and worldwide. EGI.eu, coordinator of EGI-InSPIRE, brings together partner institutions established within the community to provide a set of essential human and technical services that enable secure integrated access to distributed resources on behalf of the community.

The production infrastructure supports Virtual Research Communities (VRCs) – structured international user communities – that are grouped into specific research domains. VRCs are formally represented within EGI at both a technical and strategic level.



VIII. EXECUTIVE SUMMARY

This document describes the quality plan and metrics for the individual activities and tasks within the EGI-InSPIRE project. The formal outputs from the project – the milestones and deliverables – are reviewed internally within each activity and then externally to the activity. This provides a broad input into the work and allows reviewers from the target audience to assess the document before it is formally published. At the same time as the document is reviewed by the external reviewers, it is also reviewed by the Activity Management Board (AMB), which allows for technical alignment between the project's different activities. The Project Management Board (PMB) has the final approval on the reports.

Metrics have been developed within each activity within the project during the first year, and have been reviewed during the second year in response to the EC reviewers' comments. The metrics are split into project level metrics, measuring outcomes, strategic metrics, measuring progress towards achievement of the EGI strategic plan, and activity level metrics, which are used to track progress internally at a work package level. Based on the experiences gained during Year 2, targets are set for the project level and strategic level metrics, based on three performance levels: foundation, ideal and stretch. Progress towards these targets will be tracked in the quarterly reports and periodic report, and analysed in the end of Year metrics at the close of project year 3.

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1 INTRODUCTION

This document describes the document handling and production procedures used within the EGI-InSPIRE project. In addition it describes the review procedure that is used for the project's milestones and deliverables.

Metrics have been developed within each project activity during the first year, and have been reviewed during the second year in response to the EC reviewers' comments. The metrics are split into project level metrics, measuring outcomes, strategy metrics, measuring progress towards achievement of the EGI Strategic Plan [R8], and activity level metrics, which are used to track progress internally at a work package level. Based on the experiences gained during PY2, targets are set for the project level and strategic level metrics, based on three performance levels: foundation, ideal and stretch. Progress towards these targets will be tracked in the quarterly reports and periodic report, and analysed in the end of Year metrics at the close of PY3.

2 DOCUMENT MANAGEMENT PROCEDURE

2.1 Document Repository

All documents, presentations and other material that form an official output of the project (not just milestones and deliverables) are placed in the document repository [R1] to provide a managed central location for all material.

The following templates are available:

Template Name	Document URL
Milestone/Deliverable	https://documents.egi.eu/document/26
Presentation	https://documents.egi.eu/document/44
Document Comment	https://documents.egi.eu/document/54

EGI accounts are linked to the EGI single sign on (SSO) system [R2], which can be used to generate an account and password. Once logged into the document repository using the created account, it is possible to create new document items or update existing ones through the 'Create or change documents or other information' link.

2.2 Naming Conventions

Filenames must use the following format in order to link any item back to other versions placed in the document repository, as described in D1.5 [R3]. The filename format is:

EGI-<DOCUMENT IDENTIFIER>-<REPOSITORY ID>-V<VERSION>

DOCUMENT IDENTIFIER	<p>The document identifier is dependent on the document type. If the document is:</p> <ul style="list-style-type: none">• Deliverable: Use the deliverable name: e.g. D1.1, D5.5, etc.• Milestone: Use the milestone name: e.g. MS102, MS504, etc.• Activity: Use the activity code: e.g. SA1, NA3, etc.• Committee/Board: Use an acronym based on the committee or board name: e.g. TCB, OMB, UCB, USAG, SPG, etc.• Other: If the source of the material cannot be identified then ignore this section.
REPOSITORY ID	<p>This is the identification number generated by the document repository.</p>
VERSION	<p>This is the version number generated by the document repository for the particular repository identifier.</p>

2.3 Document Metadata

The cover page of the document (along with the footer running throughout the document) contains metadata (marked in yellow) that needs to be reviewed and completed:

- Title: This must be the title of the milestone or deliverable as described in the Description of Work.
- Deliverable/Milestone code: e.g. D1.1 or MS101. (This may be deleted for documents that are not Deliverables or Milestones).
- Document identifier: With a correctly formulated filename (see ‘Naming Convention’) this field can be updated in MS Word by highlighting, right clicking and selecting ‘Update Field’.
- Date: This field records the last date the document was saved and can be updated in MS Word by highlighting, right clicking and selecting ‘Update Field’.
- Activity: Enter the work package name (WP1, WP2, etc.) that is producing this document.
- Lead Partner: Enter the recognised shortname within the EGI-InSPIRE project of the lead partner.
- Document Status: This will move through the following states for milestones and deliverables:
 - TOC (Table of Contents)
 - Draft
 - Review
 - AMB/PMB Review
 - FINAL
- Dissemination Level: This indicates the final dissemination level of the document:
 - INTERNAL: The document is internal to the project consortium and will not be passed onto the European Commission or the reviewers.
 - CONFIDENTIAL: The document is available to the project and the European Commission and its staff and reviewers, but must not be disclosed any further.
 - PUBLIC: The document is publicly available.
- Document Link: The URL in the EGI document repository that provides access to the document.
- Abstract: An abstract describing the document’s contents and main conclusions. On submission of the final version this should be entered into the relevant field in the repository metadata.

Access to internal or confidential documents is controlled at SSO group level, with SSO IDs being assigned to particular groups depending on their permissions to view or modify documents. Public documents are available to all, without restriction or the requirement to log in. Restricted documents can only be viewed and/or modified by logging in using an account with the correct permissions.

2.4 Repository Metadata

When creating the entry in the document repository there are a number of compulsory metadata fields that need to be completed. Where possible these values should be copied from the corresponding document metadata. The Repository Metadata includes the following items:

- Title
- Abstract
- Keywords
- Notes and changes
- Media type:
 - Document: A written document: i.e., deliverable, milestone, or policy document.
 - Presentation: A presentation given for the EGI-InSPIRE project.
 - Other: Multi-media content, poster, etc.
- Submitter: Select the person submitting the document.
- Authors: Select the people involved in writing significant portions of the document.
- View: Select the groups able to view the document. Documents that are drafts may be restricted to the groups within the project that are working on the document. Documents that are complete must be marked public unless they are marked for distribution just inside the project.
- Modify: The 'office' group must be marked as able to modify the document.
- Topics: Select the topics relevant to the material. These will generally include 'EGI-InSPIRE', the work package or committee/board that produced the material, the material type (deliverable, milestone, etc.)

3 REVIEW PROCESS

3.1 Overview

The formal outputs from the project (milestones and deliverables) pass through a formal review process. The review process provides staged deadlines during the process to ensure the output is available to the EC at the *end of the project month (PM)* that the material is due. Deliverable and milestone review forms are available from <https://documents.egi.eu/document/54>.

The review process for a milestone and a deliverable is identical except for:

- Milestones are expected to have two reviews – produced by a reviewer and the moderator.
- Deliverables are expected to have three reviews – produced by two reviewers and the moderator.

The reviewers are selected (one from each of EGI's functional areas not involved in its production) from EGI's functional areas (i.e. Operations, User Community, Technology and Policy).

Other outputs from the project, such as documents that are neither deliverables nor milestones, may use modified versions of the official document templates and are also reviewed internally.

3.2 Roles

Roles in the review process are identified below:

- **Reviewer:** Responsible for providing a review of the document on the EGI review form so that responses from the document authors to the reviewer can be tracked. A change tracked version of the document can be provided with corrections for spelling, formatting and other minor issues. The reviewer is generally from an activity and organisation that is not responsible for producing the document.
- **Moderator:** Responsible for providing a review and deciding in cases of conflicting reviews, which elements of a review must be implemented by the author. The decision to follow or reject a reviewer's comment must be tracked in the review document. The moderator is normally an EGI-InSPIRE task leader not from the activity producing the document.
- **Editor:** The person from the activity and the partner who is responsible for the document. They may rely on others within the activity to provide the information. The editor cannot be a moderator or reviewer.
- **Project Office (PO):** The project office provides administrative support for the process.
- **Shepherd:** The shepherd is a member of the AMB who is responsible for overseeing the production of the document. They will work with the Editor to ensure that the work is done in a timely manner, and report to the AMB on its progress. This is usually the activity manager or their deputy.
- **AMB Chair:** This is the project director, or their deputy.

[NOTE: an individual may act in one or more of these roles provided that the roles are not conflicting with one another.]

3.3 Workflow

The workflow for the review process is described below.

Time before submission	Person	Action	RT Action
> 2 months	Project Office	Create DocDB URLs and enter into RT. Obtain moderator and reviewers from the AMB Chair and add these into the ticket fields and cc on the ticket. Set the DocDB metadata (see Section 2.4) and the view and modify groups to the inspire-taskleaders and the activity group responsible for the work.	Remains blank and is assigned to Shepherd
6 weeks	Shepherd	Add the editor onto the cc of the ticket. Ensure the editor has provided the table of contents (optionally including notes as to the contents of each section) and the document is stored in DocDB.	Set state to ToC
4 weeks	Shepherd	Shepherd is aware a draft is available in the repository and is under active development with revisions from the contributors.	Set state to Draft
3 weeks	Shepherd	The draft is stable and is undergoing review within the activity and is nearly complete.	Set state to Internal Review
2 weeks	Shepherd	The document is ready for external review.	Set state to External Review and assign to the PO
Immediately (***)	Project Office	PO notifies reviewer(s), moderator and AMB that the document is available for review. Confirm expected review completion date with reviewers.	Enter completion date as Due Date in RT
	Project Office	Notify the Editor that review is complete.	Set state to Being Revised
	Editor	Notify the PO an updated document is available.	Set state to External Review and return to ***
	Project Office	The external review is complete. Notify the AMB that the document has completed external review.	Set state to AMB Review and assign to the AMB Chair.
1 week	AMB Chair	The PMB is emailed that the document is available for the PMB to review for 1 week.	Set state to PMB Review.
Deadline	AMB Chair	A clean PDF version of the document is generated by the PO and placed in the document repository with updated meta-data.	Set state to With EC.



4 DOCUMENT PRODUCTION

4.1 Content

All documents will be written in English and use one of the document formats described in the following section. In addition to the fields and sections already described in the document template, deliverables must include an Executive Summary and, if required, one or more Annexes. References to external document and a Glossary to terms not listed on the website must be recorded.

The correct capitalisation of the project name is EGI-InSPIRE.

English date format must be used (DD/MM/YYYY) when required.

4.2 Formats and Tools

The following tools and formats will be recognised within the project:

- Word Processing: 'Word 97-2003 Format' allowing its use on MS Office on Windows/Mac and OpenOffice on Linux
- Spreadsheet: 'Excel 97-2003 Format' allowing the use of MS Office on Windows/Mac.
- Presentation: 'PowerPoint 97-2003 Format' allowing the use of MS Office on Windows/Mac.

The final version of all formal documents (milestones and deliverables) must be available in PDF format. However, "Open" non-proprietary document formats may be used for review purposes.

5 PROJECT OUTPUTS

All output produced by staff active within EGI-InSPIRE (funded and unfunded effort) must be recorded so that it can be reported by the project. The following procedures must be used:

- **Meetings run by EGI-InSPIRE:** The meetings must be recorded in the EGI Indico server [R4] and all presentations and material provided for the meeting, including any minutes, must be attached to the appropriate agenda page.
- **Presentations at other Meetings:** Presentations and/or papers presented at other meetings attended by EGI-InSPIRE staff must be recorded in the document repository [R1]. A link to the meeting and a summary of the outcome should be recorded in the 'notes' section of the document.
- **Mailing Lists:** As the majority of the communication within the project will be electronic having a coherent record of that work is essential. All mailing lists must use the EGI.eu based mailing lists which allow groups defined within the single sign on to be linked to mailing lists, access to wiki space, document access, etc.
- **Websites:** The main website [R5] is used for all 'official' 'static' content. Individual services supported by EGI.eu will have their own hostname in the egi.eu domain. The wiki [R6] has group based access control provided through the EGI SSO system. This can be used for all dynamic content being maintained or developed within each project activity. Other third party websites or wikis should not be used to host EGI-InSPIRE related material in order that the egi.eu domain becomes the definitive source of project information.

More generally all output from the project (paper or presentation) must include the phrase:

EGI-InSPIRE is a project co-funded by the European Commission as a combination of a collaborative project (CP) and coordination and support actions (CSA) within the 7th Framework Programme under contract INFISO-RI-261323

This phrase should be included unless the output already uses one of the recognised project templates, where appropriate acknowledgements are already included.

Project material is released under the Creative Commons Attribution Non-Commercial license. All document templates (see page 2) already contain a full copyright notice that should minimally include:

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6 PROJECT METRICS

EGI-InSPIRE defines the following project objectives (PO) as its goals:

- PO1: The continued operation and expansion of today's production infrastructure by transitioning to a governance model and operational infrastructure that can be increasingly sustained outside of specific project funding.
- PO2: The continued support of researchers within Europe and their international collaborators that are using the current production infrastructure.
- PO3: The support for current heavy users of the infrastructure in Earth Science, Astronomy & Astrophysics, Fusion, Computational Chemistry and Materials Science Technology, Life Sciences and High Energy Physics as they move to sustainable support models for their own communities.
- PO4: Interfaces that expand access to new user communities including new potential heavy users of the infrastructure from the ESFRI projects.
- PO5: Mechanisms to integrate existing infrastructure providers in Europe and around the world into the production infrastructure so as to provide transparent access to all authorised users.
- PO6: Establish processes and procedures to allow the integration of new DCI technologies (e.g. clouds, volunteer desktop grids, etc.) and heterogeneous resources (e.g. HTC and HPC) into a seamless production infrastructure as they mature and demonstrate value to the EGI community.

The metrics described in this document are used to measure work:

- As an Activity within the project
- Towards the project's objectives (PO1-6)
- Towards achieving the EGI Strategic Plan [R8]

The targets for the metrics relating to the project level and strategic objectives are outlined in Section 8. The targets are split into three different performance levels: foundation, ideal and stretch.

Activity level metrics are tracked using a number of EGI Operational tools including the Metrics Portal [R9] and the Accounting Portal [R10], the GGUS portal [R11], GStat [R12] and the Operations Portal [R13]. Metrics are gathered quarterly as part of the quarterly report process, which is driven by the Project Office and the Activity Managers. These are reported in the quarterly and periodic reports, together with an analysis as well as in the end of year activity reports.

As outlined in D1.7 Annual Report on Quality Status [R6], the metrics in PY2 were gathered through both manual and automatic means. Many of the project and activity metrics require inputs from several different NGIs each quarter, and gathering these remains a complicated and time consuming process, which will be mitigated in the future by more extensive use of the updated metrics portal. For example, the activity level metrics that are collected automatically through the metrics portal are highlighted as unverified, until verified by a member of the management team. This will help to ensure that automatic data is confirmed as accurate for reporting purposes. In addition, the setting up of the NGI International Liaisons network has consolidated contact points for the NGIs that have nominated these individuals, aiding with the gathering of metrics, such as the communications

metrics. In future, the aim will be for the NGI International Liaisons to enter the data directly into the portal, ensuring the accuracy of the data.

Annual performance to activity level metrics targets is further analysed in the periodic report and annual activity reports. The metrics portal provides an overview of the data entered each quarter, and the data may be downloaded as Excel spreadsheets for further analysis and generation of reports. Each activity has reviewed their metrics and their suitability for internal monitoring purposes, and these have been updated where necessary in the sections below.

The following activity metrics are aligned against the project's objectives.

The first figure for PY1 and PY2 is the target, and the bracketed figure is the achieved figure, as reported in D1.7 Annual Report on Quality Status [R 7] and D1.3 Annual Report on Quality Status [R14]..

For PY3, the first figure is a foundation level performance and the 2 bracketed figures are ideal and stretch targets respectively.

No	Objective Summary	Metrics	Target PY1	Achieved PY1 (PQ4)	Target PY2	Achieved PY2 (PQ7)	Target PY3
PO1	Expansion of a nationally based production infrastructure	Number of resource centres in EGI-InSPIRE and integrated partners (M.SA1.Size.1)	300	344	330	347	350 (355) (355)
		Number of job slots available in EGI-InSPIRE and integrated partners (M.SA1.Size.2)	200,000	239,895	250,000	290,300	300,000 (325,000) (333,000)
		Reliability of resource centre functional services (M.SA1.Operation.5)	90%	94.6%	91%	94.8%	95% (96%) (97%)
		Reliability of NGI functional services (MSA1.Operations.4)					97% (98.5%) (99%)
		Reliability of critical operations tools (MSA1.Operations.6a)					97% (98.5%) (99%)

PO2	Support of European researchers and international collaborators through VRCs	Number of papers from EGI Users (M.NA2.5)	50	161	60	82	70 (80) (90)
		Number of jobs done a day (M.SA1.Usage.1)	500,000	960,053	525000	1,264,922	1.2M (1.4M) (1.5M)
PO3	Sustainable support for Heavy User Communities	Number of sites with MPI (M.SA1.Integration .2)	50	96	100	108	120 (130) (140)
		Number of users from HUC VOs (M.SA1.VO.6)	5000	7,103	5500	10,856	12,000 (15,000) (17,000)
PO4	Addition of new User Communities	Peak number of cores from desktop grids (M.SA1.Integration .3)	0	0	0	0	1,000 (5,000) (7,500)
		Number of users from non-HUC VOs (M.SA1.vo.5)	500	4075	1000	8,518	10,000 (12,000) (13,000)
		Public events organised (attendee days) (M.NA2.6)	1500	10,123	2000	11,795	15,000 (17,000) (19,000)
PO5	Transparent integration of other infrastructures	MoUs with resource providers (M.NA2.10)	3	1	5	3	4 (5) (5)
PO6	Integration of new technologies and resources	Number of HPC resources (M.SA1.Integration .1)	1	49	3	39	50 (50) (50)
		Number of resource centres part of the EGI Federated Cloud (M.SA2.19)	0	1	1	7	10 (15) (20)

7 ACTIVITY METRICS

This section lists the activity level metrics for each of EGI-InSPIRE's activities.

7.1 NA1 – Project Management

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.NA1.1	Number of NGIs actively contributing resources into the production infrastructure	P	TNA1.2	From NGIs
M.NA1.2	Time to review deliverables & milestones (from entering External Review to exiting PMB Review)	I	TNA1.4	Measured in days

7.2 NA2 – Community Engagement

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.NA2.1	Number of press releases issued	P	TNA2.2	Either centrally or nationally
M.NA2.2	Number of media contacts sent press releases	P	TNA2.2	Through AlphaGalileo ¹ or other means
M.NA2.3	Number of press cuttings relating to EGI, EGI.eu or EGI-InSPIRE	P	TNA2.2	Tracked through Google Alerts ² and other means
M.NA2.4	Number of interviews given to media organisations	P	TNA2.2	Contributed from each NGI and partner
M.NA2.5	Number of papers published by users of EGI	P	TNA2.2	Contributed from each NGI and each VRC
M.NA2.6	Public events organised by EGI.eu & NGI teams	P	TNA2.2	Measured in events and event person days
M.NA2.7	Events with EGI presence (stand, presentation, or literature)	P	TNA2.2	Measured in events and people reached (i.e. those attending the event)
M.NA2.8	Number of unique visitors per month on the main websites	P	TNA2.2	Measured by Google Analytics
M.NA2.9	Number of MoUs or agreements signed with technology providers (new during reporting period and total currently active)	P	TNA2.3 & TSA2.1	Demonstrates the EGI's implementation of a diverse technical base
M.NA2.10	Number of MoUs or	P	TNA2.3	Establishes international

¹ Press agency distributing press releases to subscribed journalists (www.alphagalileo.org)

² Cookie-based webstats tool provided by Google

	agreements signed with external (non-EGI) Resource Infrastructure Providers (new during reporting period and total currently active)		& TSA1.1	network of resource providers as a source of shared resources for each other's user communities
M.NA2.11	Number of MoUs or agreements established with collaborating Virtual Research Communities (VRCs) (new during reporting period and total currently active)	P	TNA2.3 & TNA3.1	Demonstrates the EGI capability to engage a diversified number of user communities engaged in using EGI's service
M.NA2.12	Number of MoUs or agreements signed with other partners (new during reporting period and total currently active)	P	TNA2.3	Demonstrates the EGI need to engage with partners other than Technology Providers, external Resource Infrastructure Providers or VRC
M.NA2.13	Number of policies or procedures recorded by EGI.eu that apply to User Communities	P	TNA2.3 & TNA3.1	Demonstrates the progress of EGI in building a regulatory framework for user communities
M.NA2.14	Number of policies or procedures recorded by EGI.eu that apply to Infrastructure Providers	P	TNA2.3 & TSA1.1	Demonstrates the progress of EGI in building a regulatory framework for infrastructure providers
M.NA2.15	Number of policies or procedures recorded by EGI.eu that apply to Technology Providers	P	TNA2.3	Demonstrates the progress of EGI in building a regulatory framework for technology providers
M.NA2.16	Number of articles about strategy or policy themes published in external publications	P	TNA2.3	Demonstrates the EGI communication effort on strategic/policy themes outside the community
M.NA2.17	Uptime of User Support services: <ul style="list-style-type: none"> • Training Marketplace • Applications Database • CRM system 	P	TNA2.5	Collected by EGI.eu UCST from Nagios monitor
M.NA2.18	Visitors of User Support services: <ul style="list-style-type: none"> • Training Marketplace • Applications Database • CRM system 	P	TNA2.5	Including gadget traffic where possible. Expected tools: <ul style="list-style-type: none"> • Web logs for Training Marketplace and its gadgets • Piwik for AppDB and its gadgets • Google Analytics for CRM

M.NA2.19	Number of items per category in the Applications Database	P	TNA2.5	Reported by GRNET Total number of items on the last day of the quarter
M.NA2.20	Number of items in the Training Marketplace: <ul style="list-style-type: none"> • number of events added • number of online resources added • number of relevant online resources (added or verified within the last 12 months) • number of online resources in total (including out of date items) 	P	TNA2.5	Reported by STFC
M.NA2.21	Number of new items per category in the CRM system	P	TNA2.5	Accounts, Contacts, Conversations reported by Ibergrid. Conversations stored in <ul style="list-style-type: none"> • Documents (new & modified) • Text fields (in accounts or contacts)

7.3 SA1 – Operations

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.SA1.Usage.1	Average number of jobs “done” per day for all VOs	P		Excluding OPS and DTEAM. Tool: accounting portal ³
M.SA1.Usage.2	Normalised consumed computing capacity	p		Normalized elapsed time to a reference value of HEP-SPEC 06 ⁴ (hours), excluding DTEAM and OPS. Tool: accounting portal
M.SA1.Usage.3	Normalised Computing power consumed outside of a user’s home country	P		Requires tool development.

³ <http://accounting.egi.eu/egi.php>

⁴ https://wiki.egi.eu/wiki/HEP_SPEC06

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.SA1.Size.1	Total number of production resource centres that are part of EGI	I	TSA1.1	Tool: GOCDB (TSA1.1 QR)
M.SA1.Size.2a	Total number of job slots available in EGI-InSPIRE and integrated resource providers (excluding peer infrastructures)	P	TSA1.1	Job slots equal logical cpus. "Integrated" includes logical cpus from Resource Infrastructure Providers that are integrated with EGI but not partners of EGI-InSPIRE. NGI can amend results reported by tools, and report correct values in its own QR. Tool: GStat
M.SA1.Size.2b	Total number of job slots available in EGI - InSPIRE Project	P	TSA1.1	Project only includes logical cpus from Resource Infrastructure Providers that are partners of EGI-InSPIRE. NGI can amend results reported by tools, and report correct values in its own QR. Tool: metrics portal.
M.SA1.Size.3	Installed Capacity in HEP-SPEC 06 in EGI	P	TSA1.1	NGI can amend results reported by tools, and report correct values in its own QR. Tool: GStat
M.SA1.Size.4	Installed disk capacity (PB) in EGI	P	TSA1.1	NGI can amend results reported by tools, and report correct values in its own QR Tool: GStat

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.SA1.Size.5	Installed tape capacity (PB) in EGI	P	TSA1.1	The overall installed capacity of EGI is derived from the sum of the capacity reported by NGIs. NGI can amend results reported by tools, and report correct values in its own QR Tool: GStat
M.SA1.OperationalSecurity.1	Number of Site Security Challenge (SSC) made	I	TSA1.2	Manual metric (from TSA1.2 QR)
M.SA1.OperationalSecurity.2	Number of Sites passing one Security Challenge	I	TSA1.2	Manual metric (from TSA1.2 QR)
M.SA1.OperationalSecurity.3	Number of suspended sites for security issues	I	TSA1.2	Manual metric (in TSA1.2 QR)
M.SA1.Integration.1	Number of production HPC clusters	P	TSA1.3	An HPC cluster has a dedicated high-speed low-latency communications network. Manual metric (NGI QR)
M.SA1.Integration.2	Number of production sites supporting MPI	P	TSA1.3	Only sites passing MPI Nagios tests count. Manual metric (NGI QR) Tool: query to the information system
M.SA1.Integration.3	Average number of cores from desktop grids during the quarter	I	TSA1.3	Manual metric (NGI QR)
M.SA1.ServiceValidation.1	Total number of components tested/rejected in staged rollout	I	TSA1.3	Manual metric (TSA1.3 QR)
M.SA1.ServiceValidation.2	Number of staged rollout tests undertaken	I	TSA1.3	Manual metric (TSA1.3 QR). A single patch can be tested by multiple EA sites at a time. This metric counts the number of actual tests performed by the EA sites.
M.SA1.ServiceValidation.3	Number of EA teams	I	TSA1.3	Manual metric (TSA1.3 QR)

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.SA1.Support.1	Overall average number of GGUS tickets in EGI per month CREATED	P	TSA1.7	Tool: GGUS reporting tool
M.SA1.Support.2	Average/Median monthly ticket solution time (hours)	P	TSA1.7	Tool: GGUS reporting tool
M.SA1.Support.3	Assigned ticket monthly Average RESPONSE TIME (hours)	I	TSA1.7	Tool: GGUS reporting tool
M.SA1.Support.4	Number of tickets SOLVED by TPM (1st line support)	I	TSA1.7	Tool: GGUS reporting tool
M.SA1.Support.5	Average-Median ticket assignment time by TPM (1st line support) per month (hours)	I	TSA1.7	Tool: operations dashboard
M.SA1.Support.9	NGI ROD quality index ⁵	I	TSA1.7	Tool: Operations portal reporting tool
M.SA1.Operation.1	NGI monthly availability and reliability Error! Bookmark not defined. ⁺	P	TSA1.8	Tool: availability report generator
M.SA1.Operation.2	Number of sites suspended	I	TSA1.7	Manual metric. TSA1.7 report. Only includes sites suspended for operational issues.
M.SA1.Operation.3	NGI monthly availability and reliability of core operations tools Error! Bookmark not defined. ⁺	P	TSA1.8	
M.SA1.Operation.4	NGI Monthly availability and reliability of core middleware services Error! Bookmark not defined. ⁺	P	TSA1.8	Development needed

⁵ The NGI metrics are included of the annual report, but not in the quarterly reports.

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.SA1.Operation.5	EGI monthly reliability [availability] of site middleware services	P	TSA1.8	This metric is the arithmetic average of the monthly weighted availability/reliability scored by all EGI certified sites. For each site the weight is the amount of contributed HEP-SPEC 06 installed capacity (published on the information discovery system).
M.SA1.Operation.6a	EGI monthly availability and reliability of critical central operations tools	P	TSA1.8	The highly critical operations tools are tools needed for the day-by-day operations of the infrastructure, namely: EGI Helpdesk, EGI Service registry, Operations Portal, Messaging brokers network. Development needed
M.SA1.Operation.6b	EGI monthly availability and reliability of central operations tools	P	TSA1.8	Availability and reliability of all the central tools operated by EGI
M.SA1.VO.1	Number of VO support units registered in the EGI Helpdesk	P	TSA1.7	The metric quantifies the number of VOs that are using the EGI Helpdesk infrastructure. Number of SUs called VOSupport(*)
M.SA1.VO.2	Number of tickets assigned to the 'VO Support' support unit, and not re-assigned to another SU	P	TSA1.7	The metric quantifies the usage of the EGI Helpdesk to handle the VO's incidents. Tool: GGUS report generator.
M.SA1.VO.3	Existing/New/Decommissioned VOs	P	TSA1.7	Total number of VO existing at the end of the quarter/New VO registered during the quarter/ VO decommissioned during the quarter

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.SA1.VO.4	International/Regional VOs	P	TSA1.7	
M.SA1.VO.5	Low/Medium/High Activity VOs	P	TSA1.7	
M.SA1.VO.6	Total number of users from non HUCs and distribution by discipline [Computer Science & Mathematics, Multidisciplinary, other]	P	TSA1.7	
M.SA1.VO.7	Total number of users from HUCs and their distribution by discipline [HEP, Life Sciences, Computational Chemistry, Astronomy & Astrophysics, Earth Sciences, Fusion]	P	TSA1.7	
M.SA1.VO.8	Number of central VO support services	P		The number of VO services provided centrally by SA1
M.SA1.VO.9	Availability/reliability of central VO support services	P		

7.4 SA2 – Software Provisioning

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.SA2.1	Number of software components recorded in the EGI Software Repository	P	TSA2.4	From EGI Software Repository
M.SA2.2	UMD Capabilities coverage with Quality Criteria	P	TSA2.2	Expresses the coverage of UMD Quality Criteria with Quality Criteria. Value is given as a percentage.
M.SA2.3	Number of software incidents found in production that result in changes to quality criteria	P	TSA2.2	Indicates how good the quality criteria are – what is slipping through into staged rollout and production that could be caught? Only incidents that are investigated with post mortems are counted, not ordinary bugs.
M.SA2.4	Number of quality related issues that result in changes to quality criteria.	I	TSA2.2	Measures the activity and communication flow between TSA2.2 and its input sources as defined in the Wiki.
M.SA2.5	Number of new Product releases validated against defined criteria	P	TSA2.3	Measures the workload on the validation team
M.SA2.6	Mean time taken to validate a Product release	P	TSA2.3	Indicates how responsive the team is to validating releases
M.SA2.7	Number of Product releases failing validation	P	TSA2.3	Indicates the quality assurance process of the software providers
M.SA2.8	Number of new releases contributed into the Software Repository from all types of software providers	P	TSA2.4	Records how actively is the repository used by software providers in the community
M.SA2.9	Number of unique visitors to the Software Repository	P	TSA2.4	Records the visibility of the repository front-end to the community through Google Analytics
M.SA2.10	Number of unique visits to the Repository backend	P	TSA2.4	Records how actively the community is using the software repository. It is measured in terms of visits.
M.SA2.10b	Number of product installations off the UMD repository	P	TSA2.4	Records in quarterly aggregated totals how many products were installed out of the UMD repository, based on

				RPM/DEB metapackage downloads.
M.SA2.11	Number of tickets assigned to DMSU	P	TSA2.5	Demonstrates use of DMSU
M.SA2.12	Mean time to resolve DMSU tickets	P	TSA2.5	Demonstrates effectiveness of DMSU for resolving tickets
M.SA2.13	Status of the Federated Clouds test-bed: Compute capacity	P	TSA2.1	Amount of virtualised compute capacity accessible to EGI users across all RPs (total of cores times clock frequency, and total of available RAM)
M.SA2.14	Status of the Federated Clouds test-bed: Storage capacity	P	TSA2.1	Amount of virtualised storage capacity accessible to EGI users across all RPs (total of available storage capacity)
M.SA2.15	Status of the Federated Clouds test-bed: VMs registered in the VM Marketplace	P	TSA2.1	Number of VM images registered in EGI's VM Marketplace
M.SA2.16	Status of the Federated Clouds test-bed: Number of federated Resource Providers	P	TSA2.1	Number of Resource Providers contributing accessible cloud resources to the test-bed
M.SA2.17	Status of the Federated Clouds test-bed: Collaborating user communities	P	TSA2.1	Number of user communities (VOs) that actively make use of the test-bed
M.SA2.18	Status of the Federated Clouds test-bed: VM instantiation/usage	P	TSA2.1	Number of instantiated VMs across all RPs (M.SA2.19), aggregated virtual machine hour

7.5 SA3 – Support for Heavy User Communities

Metric ID	Metric	Public / Internal	Task	Comments/ Explanation
M.SA3.1	Number of users of deployed dashboard instances	P	TSA3.2.1	Measure the number of unique IP addresses per month.
M.SA3.2	Number of unique users of GANGA	P	TSA3.2.2	Total numbers
M.SA3.3	Number of unique users of DIANE	P	TSA3.2.2	Total numbers
M.SA3.4	Number of sites using GANGA	P	TSA3.2.2	Total numbers
M.SA3.5	Number of sites using DIANE	P	TSA3.2.2	Total numbers
M.SA3.6	Number of users of GReIC	P	TSA3.2.3	Total numbers
M.SA3.7	Number of users of Hydra	P	TSA3.2.3	Total numbers
M.SA3.8	Number of users of SOMA2	P	TSA3.2.4	Total numbers
M.SA3.10	Number of users using RAS	P	TSA3.2.4	Total numbers
M.SA3.11	Number of users using MD	P	TSA3.2.4	Total numbers
M.SA3.12	Number of users using Gridway	P	TSA3.2.4	Total numbers
M.SA3.13	Number of MPI support tickets	P	TSA3.2.5	Total numbers
M.SA3.14	Mean time to resolve MPI support tickets	P	TSA3.2.5	Measured in hours
M.SA3.15	Number of HEP VO support alarm tickets	P	TSA3.3	We can sum the number of tickets where the concerned VO = ATLAS, ALICE, CMS or LHCb during the quarter.
M.SA3.16	Mean time to resolution of HEP VO alarm tickets	P	TSA3.3	Time in hours
M.SA3.17	Number of Life Science users of provided services	P	TSA3.4	Usage of the VO management, File Catalogue, Data encryption, VO monitoring and support services.
M.SA3.18	Number of databases integrated and/or accessible from EGI resources.	P	TSA3.4	Total number
M.SA3.19	Number of unique users of VisIVO	P	TSA3.5	Total number
M.SA3.20	Number of data sets accessible from EGI resources	P	TSA3.6	Enabled through collaboration with GENSEI-DR and others.

7.6 JRA1 – Operational Tools

Metric ID	Metric	Public / Internal	Task	Comments / Explanation
M.JRA1.1	Number of software releases	P	TJRA1.2 & TJRA1.5	Records the activity of each product team within JRA1
M.JRA1.2	Number of software issues reported with deployed operational tools	P	TJRA1.2	Demonstrates the quality of the produced software
M.JRA1.3	Mean time to release for critical issues reported in production	P	TJRA1.2	Responsiveness of the team to serious issues.
M.JRA1.4	Number of approved (by OTAG) enhancement requests	P	TJRA1.2	Total numbers
M.JRA1.5	Mean time from approval to release for approved enhancement requests	P	TJRA1.2	Responsiveness to new feature requests.
M.JRA1.6	Number of operational tool instances deployed regionally	P	TJRA1.3	Total numbers
M.JRA1.7	Number of different resources that can be accounted for in EGI	P	TJRA1.4	Such as data, MPI, VMs, applications, etc.

8 STRATEGIC METRICS

The following strategic level metrics are aligned with the EGI Strategic Plan [R8], which is a PM24 deliverable. The key areas of the strategy and the project level objectives have been aligned to the metrics using an “EGI Balance Scorecard” which sets out a strategic management and measurement framework that can be used to track the execution of the strategy. The framework proposed is an adaptation of the Strategy Map using the “Balanced Scorecard” mechanism⁶ outlined for non-profit organisations that provides an integrated framework for describing and translating strategy through the use of linked performance measures from a number of key perspectives. In the most common form, these perspectives are: Customer, Internal Processes, Employee Learning and Growth, and Financial. The balanced scorecard acts as a measurement system, strategic management system, and communication tool.

In its most recent evolution, this is coupled with the Strategy Map, a multi-layered diagram grouping the strategic objectives by perspectives and linking them with arrows to identify a cause-effect relationship. Applying this technique to EGI, the Strategy Map includes also the values that need to be upheld by the people involved in the organisation, the strategic themes (i.e., grouping of objectives that run across the perspectives) as defined in the EGI2020 strategy and with the mission/vision at the top. The Strategy Map is a useful tool to design and communicate a strategy.

Given the not-for-profit nature of EGI, the balance scorecard needs to be adapted. The selected perspectives include are:

1. Learning & Growth: “how EGI must learn, grow and develop as an organisation”
2. Processes: “to satisfy our beneficiaries and funders, what must we focus on and excel at?”
3. Direct beneficiaries: “what do our direct beneficiaries want?”
4. Funders: “what do our funders want in return for funds?”
5. Income: “if we succeed, what will our income look like?”

Figure 1 below presents the EGI Strategy Map with the objectives that have been derived from the EGI Strategic Plan and are cross-referenced to the EGI-InSPIRE project objectives (see number in the circle).

It should be noted that the EGI Strategic Plan [R8] is aligned with the Europe 2020 (EU2020)⁷ vision. For EGI, the two important key flagship initiatives are the Digital Agenda for Europe (DAE) and the Innovation Union (IU). EGI plays an important role in achieving a number of the key actions defined in these initiatives. The contribution to the Europe 2020 will be captured at an aggregate level, while a more detailed measurement framework will be used to track progress in the other areas and to generate the aggregated metrics.

For the PY4 Target in the following table, the first figure is a foundation level performance and the two bracketed figures are ideal and stretch targets respectively. Metrics with targets marked ‘N/A’ are provided as a means of tracking performance and do not have any targets associated with them.

⁶ <http://www.balancedscorecard.org/BSCResources/AbouttheBalancedScorecard/tabid/55/Default.aspx>

⁷ http://ec.europa.eu/europe2020/index_en.htm

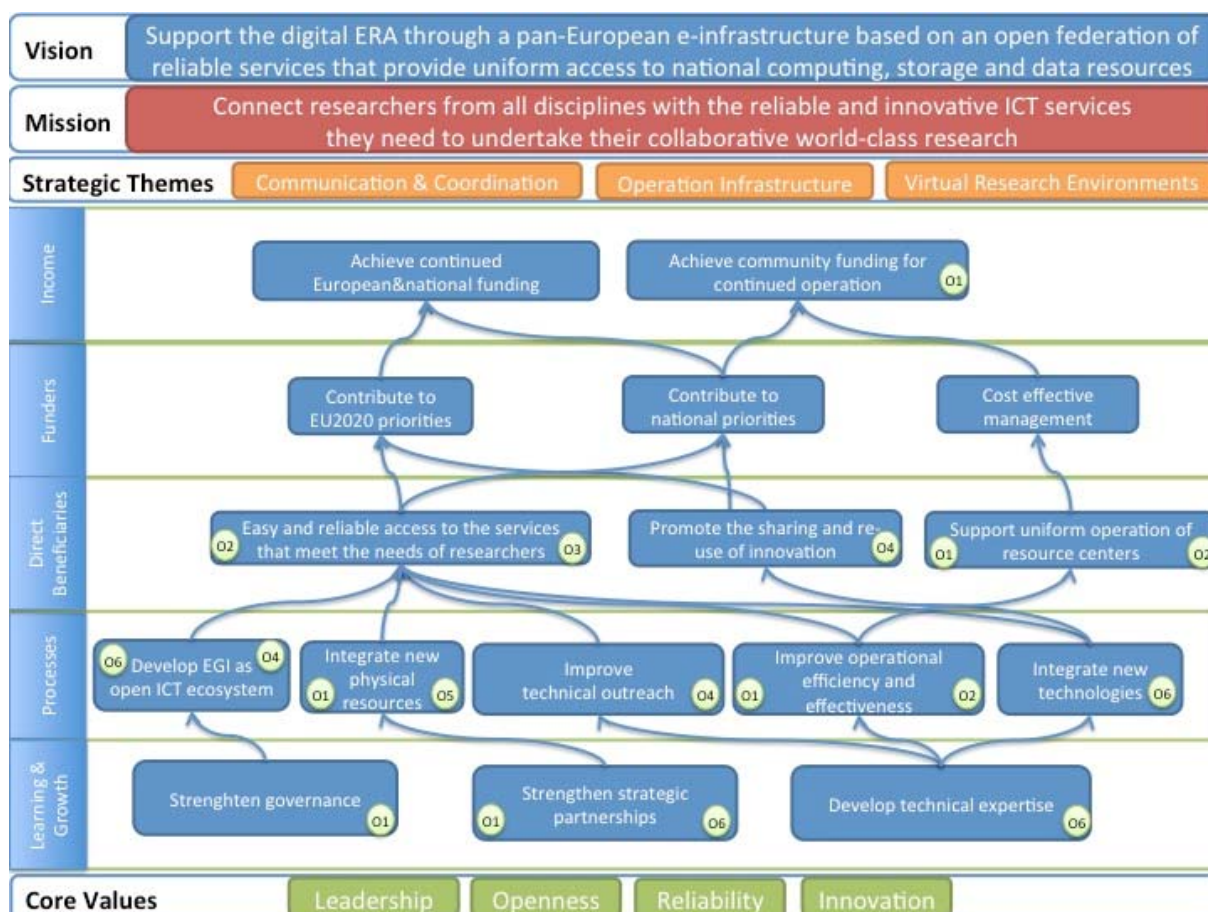


Figure 1 - EGI Strategy Map

Table 1 EGI Balanced Scorecard

Objectives	Description	Performance measures	Strategic Themes	PY4 Targets
Perspective: Learning & Growth				
Develop technical expertise	Develop the human capital within the EGI ecosystem. This should have a positive impact on the technical effectiveness and capacity of the EGI ecosystem and the support that can be offered locally to all stakeholders.	<ul style="list-style-type: none"> Number of NGI supported training/tutorial attendee days undertaken at NGI events a year. Number of EGI.eu supported training/tutorial attendee days undertaken through EGI Forums and dedicated events a year. NB: An event that lasted for 2 days that had 25 attendees would contribute 50 attendee training days. 	C&C	1000 (1500) (2000) 100 (200) (300)
Strengthen strategic partnerships	Develop strategic relationships with organisations/projects that can contribute or expand the EGI ecosystem (e.g., broaden technology offer, consulting on IT service management, engaging with developing regions, strategic partnerships)	<ul style="list-style-type: none"> Number of entries in the EGI 'Yellow Pages' would provide a directory of skilled consultants, services, strategic partnerships, etc. NB: An EGI Yellow Pages (i.e. classified service directory) would have to be developed 	C&C	50 (75) (100)



Strengthen governance	Align the EGI governance to sustain the development of an open ecosystem by increasing the diversity of its stakeholders with associate participants who are not resource providers.	<ul style="list-style-type: none"> Number of associate participants in the EGI Council 	C&C	5 (6) (7)
Perspective: Processes				
Develop EGI as an open ICT ecosystem	With an open governance model the accessibility of the EGI ecosystem will improve. With well-defined roles, processes and interfaces the collaboration between existing actors should improve while stimulating healthy competition to allow new actors to enter the ecosystem.	<ul style="list-style-type: none"> Number of service offerings in the ecosystem that have been identified and documented as being able to be fulfilled independently. NB: This service offering equates to a category in the Yellow Pages that organisations can advertise their services under. 	C&C	5 (7) (8)
Integrate new physical resources	Expand the installed physical capacity of EGI (as defined by the EGI-InSPIRE partners)	<ul style="list-style-type: none"> Total number of job slots (LCPUs) available in EGI Installed disk capacity (PB) in EGI Installed tape capacity (PB) in EGI 	O.I.	300,000 (325,000) (333,000) 150 (160) (170) 150 (160) (170)



Integrate new technologies	Integrate new functional services into EGI's Operational Infrastructure in order to increase the diversity and therefore the attractiveness of EGI to more research communities.	<ul style="list-style-type: none"> Number of different operational service types in EGI as recorded in GOCDB. NB: These function service types could also be reused in the Yellow Pages to refine the offerings coming from technology providers. Number of resource centres offering federated cloud services accessible to authorised users. (See M.SA2.19) 	O.I. VREs	60 (63) (66) 10 (15) (20)
Improve technical outreach	Strengthen local technical outreach to existing and new research communities to increase awareness of EGI.	<ul style="list-style-type: none"> Number of recorded geographical contacts across the NGIs that can represent EGI locally to external requests NB: These contact points can be NGI local champions, contact points in RIs, etc. Number of NGIs with established and active NILs 	C&C	100 (150) (200) 20 (25) (30)
Improve operational efficiency and effectiveness	Improve the reliability and the delivery of the operational infrastructure through improvements in the operational tools and associated processes.	<ul style="list-style-type: none"> Number of EGI Global Services meeting published OLAs Number of resource centres meeting the Resource Centre OLA. 	O.I.	7 (10) (12) 300 (310) (320)
Perspective: Beneficiaries				
Easy and reliable access to the services that meet the needs of researchers	Increase number of researchers and the diversity of research communities who rely on EGI for performing their data driven research	<ul style="list-style-type: none"> Number of researchers using EGI's resources (either directly or through affiliated services – i.e. portals or integrated research infrastructures) Number of scientific papers produced using NGI resources affiliated into EGI across different disciplines. 	VREs,	22,000 (25,000) (27,000) 500 (700) (800)



Promote the sharing and re-use of innovation	Improve the reuse of innovation developed within the EGI ecosystem elsewhere in the ecosystem across all stakeholders (e.g. resource centres, research communities)	<ul style="list-style-type: none"> Number of relevant software items registered in the EGI AppDB Number of relevant training materials and resources in the EGI Training Marketplace Number of relevant appliances (i.e. virtual machines) available in the EGI Marketplace Number of software components available in the EGI Repository Number of agreements established with external research communities to use EGI's operational tools to monitor their deployed services in their infrastructures 	VREs, C&C	450 (500) (550) 40 (50) (60) 5 (10) (20) 60 (65) (70) 0 (1) (2)
Support the uniform operation of resource centres	Resource centres providing uniform operation and consistent access to services is a fundamental aspect of a transnational infrastructure.	<ul style="list-style-type: none"> Number of resource centres that run services for international VOs. 	O.I.	200 (250) (275)
Perspective: Funders				
Contribute to EU2020 priorities	EGI shows a clear impact on enabling the Digital ERA and other key EU strategic objectives for 2020	<ul style="list-style-type: none"> Establish a measurement framework that will track the EGI contribute to EU2020 key flagship initiatives (IU and DAE) 	C&C	N/A



Contribute to national priorities	NGIs, by collaborating with EGI, shows a clear impact on contributing to their national priorities	<ul style="list-style-type: none"> Number of NGIs with national ministry/government as a stakeholder in their governance structure (i.e. management or advisory body) Number of NGIs that are recognised in their national e-Infrastructure strategies or plans. 	C&C	10 (13) (15) 5 (8) (10)
Cost effective management	Demonstrate the cost effective management of EGI and utilisation of its resources.	<ul style="list-style-type: none"> Cost (in Euro) of providing the operational tools and coordination needed to ensure the operation of EGI Percentage utilisation through EGI provisioned services by EGI VOs of the job slots (LCPUs) capacity made available for their use 	O.I.	N/A N/A
Perspective: Income				
Achieve continued European & national funding	The EGI ecosystem is able to attract funding for continued operation, investment in physical resources and innovation in the virtual research environment that are deployed within it.	<ul style="list-style-type: none"> Total national funding received for the operation and replacement of the physical resource infrastructure. Total national funding for the staff needed to operate and provide technical outreach. Total national and European funding that is supporting technology innovation projects recorded in the EGI Yellow Pages 	C & C VREs	N/A N/A N/A
Achieve community funding for continued operation	The cost of providing the EGI Global Services needed to ensure the integrated operation and coordination of the production infrastructure is matched by the funds available from the NGIs.	<ul style="list-style-type: none"> The percentage of funds coming from outside the community that is needed to deliver the coordinated operation of the EGI Global services 	O.I.	N/A

In order to provide a more precise definition of each metric, a descriptive table could be developed supporting the creation of a metric dictionary. Table 2 presents a metric dictionary template providing full information on the metric and how this should be monitored and interpreted.

Table 2 EGI Scorecard metric dictionary template

Perspective: internal	e.g.	Metrics Number /Name:		Owner:				
Strategic theme:			Objective:					
Description:								
Lag/Lead:		Frequency: quarterly	e.g.	Unit type: numbers, percentages	e.g.	Polarity: values are good	e.g.	high
Formula: describes specific element of calculation								
Data Source:								
Data Quality:				Data Collector:				
Baseline:				Target:				
Target rationale: how did you arrived to particular at the particular target				Initiatives: current and anticipated initiatives to reach defined target				
				1.				
				2.				
				3.				

9 CONCLUSIONS

The quality plan within EGI-InSPIRE provides a multi-phase review mechanism to ensure that the formal output of the project is of a high quality. This takes place through technical review within the activity responsible for the initial work, review external to the producing activity to groups within the project that are consumers of the work, review across all activities of the project through the Activity Management Board, and then finally alignment with the managerial aspects of the project through the Project Management Board. While specifically focused on the project's milestones and deliverables, this process of open review is used across all aspects of the project.

Alongside the formal outputs, metrics provide a continuous approach to monitoring the performance of an organisation or task. This document defines a set of metrics that will be used to monitor the performance of each activity and its tasks within the EGI-InSPIRE project at a technical level. Although, many of these metrics will be published, there are a subset of these metrics have been identified as representative for particular stakeholders. These are:

- The progress of the project towards its main objectives
- The progress of the project towards the EGI Strategic Plan

This document will be updated at the end of Year 3.

10 REFERENCES

R 1	EGI Document Repository - https://documents.egi.eu .
R 2	EGI Single Sign On system - https://www.egi.eu/sso/
R 3	D1.5 Quality Plan and Metrics - https://documents.egi.eu/document/
R 4	EGI Indico Meeting Planner - https://www.egi.eu/indico/
R 5	EGI Website - http://www.egi.eu
R 6	EGI Wiki - https://wiki.egi.eu/wiki/Main_Page
R 7	D1.7 Annual Report on Quality Status - https://documents.egi.eu/document/
R 8	D2.30 EGI Strategic Plan - https://documents.egi.eu/document/
R 9	Metrics Portal - http://metrics.egi.eu
R 10	Accounting Portal - http://accounting.egi.eu/gridsite/accounting/CESGA/egee_view.php
R 11	EGI Helpdesk – http://helpdesk.egi.eu
R 12	Gstat - http://gstat.egi.eu/
R 13	Operations portal - https://operations-portal.egi.eu/
R 14	D1.3 Annual Report on Quality Status - https://documents.egi.eu/document/360