

Research Data Governance and Sharing

5 & 6 March 2015

Benefits of Data Sharing

Promote open scientific inquiry

Encourage synergies from multiple data sources

Greater returns from public investment

Promote novel research

Share unique data that cannot be easily replicated

Key Highlights



Apply to all MOH funded research projects with effect from 1 May 2015



Mandatory for projects with at least \$\$250,000 of direct research cost



Open access of the peer-reviewed publications regardless of the funding quantum

What is Research Data?

Recorded factual material commonly accepted in the scientific community as necessary to document and support research findings.

Publications with data

Includes conference papers, peer-reviewed journal articles.

Processed data & tools

Includes software or computer code that is required for replication, etc.

Metadata

Includes experimental protocols, statistical methods, etc.

Original data;
Data generated from past research or research by other researchers

Includes observations, measurements etc.

Does not include laboratory notebooks, preliminary analyses, drafts of scientific papers, plans for future research, peer review reports, communications with colleagues, or physical objects, such as gels or laboratory specimens

Principles for Research Data Sharing



I. Timeliness



II. Human Subjects and Privacy



III. Methods of Sharing



V. Research Data Directory



IV. Governance of Data Access

I. Timeliness of Sharing



Legitimate interest of researchers in benefiting from the investment of their time and effort

Value of data often depends on timeliness



Research Data

All data should be made available to user communities at the earliest feasible opportunity. Data to be shared no later than the release of main findings through publication.



Publications

Peer-reviewed publications to be made publicly available no longer than 12 months after official date of publication.



Delays or restrictions on data sharing may be justified to gain intellectual property protection or to further develop technology for public benefit. Such limits should be minimised and indicated in Data Sharing Plan.

II. Human Subjects and Privacy



Human Subjects

Rights and privacy of human subjects who participate in publicly funded research must be protected at all times.

Responsibility

Responsibility of the investigators, their Institutional Review Board (IRB), and their institution to protect the rights of study subjects and the confidentiality of the data.



Anonymised Data

Data shared must be free of identifiers that would lead to linkages to or deductive disclosure of individual human subjects.

II. Human Subjects and Privacy

The informed consent process should include, where appropriate, explicit provisions for

Sharing of data for wider or future research use to maximise the value of the data, while providing adequate safeguards for human subjects.

Obtaining subject's prior approval to be contacted should the research study show that clinical intervention was needed.

Consent to access subject's clinical data from national-level databases, such as National Electronic Health Record (NEHR).

III. Methods of Data Sharing

Under Auspices of Investigators

- To publish anonymised data on institutional or personal website, available to public on a long term basis.
- To provide anonymised data to requestor personally.
- Data Sharing Agreement may be used to impose restrictions, e.g. condition of use.

Through Data Repositories and Database Resources

- To deposit anonymised data on Webbased platforms, e.g. Harvard Dataverse Network and Dryad.
- Most data repositories allow control of access to shared data.

IV. Governance of Data Access







Research Data





Private Companies

Investigator to identify
who will make
decision on access
and facilitating sharing
(via Data Sharing Plan to
be covered later)

Private companies
who collaborate with
investigators in
publicly funded
research can have the
anonymised research
data required for the
collaborated research

IV. Governance of Data Access

- A Data Access Oversight Committee (DAOC) is to be convened to undertake the following responsibilities:
 - Oversee the implementation of the policy
 - Resolve disagreements relating to data access requests, escalated by the investigator or a potential new user's institution.
 - Handle appeals related to data access requests



V. Research Data Directory

 A web-based research data directory will be made available for listing of all publicly funded research and links to its generated research data through nGager.



V. Research Data Directory

Active Grant Calls





Contact

Feedback

NMRC Awarded Projects

Announcement

Welcome to nGager - the NMRC Grant Application and Grant Evaluation for Research system. The system is designated for researchers and grant managers who are involved in NMRC grants. Do visit the nGager Information and User Guides webpage here if you require any assistance with nGager.

This system is best viewed using Mozilla Firefox or Internet Explorer. Do also enable pop-ups in your browser.

Grant Opportunities

Clinical Trial Grant Co-Development Scheme (CTGCoD)

The Clinical Trial Grant Co-Development Scheme (CTG Co-D) is open for application by clinicians to enable them to carry out clinical trial projects in collaboration with an industry partner. The pre-requisite for application is PI's ability to obtain industry contribution of at least 50% of the Total Project Cost (in-kind and cash contributions from industry partner can be included) and a clear potential of return on investment for Singapore, both to be supported by a Research Collaboration Agreement (RCA). The funding cap is S\$5 million, inclusive of 20% indirect costs for up to five years.

CTGCoD-2 (15-12-2014) Apply Here

The Clinical Trial Grant Co-Development Scheme (CTG Co-D) is open throughout the year, i.e. there will be no formal grant calls. The grant details, eligibility criteria, requirements, submission mode and more information can be found on our website (http://www.nmrc.gov.sg). It is mandatory for all applications to be submitted through nGager. Please ensure that all submissions are endorsed by the corresponding host institution's Research Director (HI RD). We will not entertain any submissions from individual applicants without HI RD endorsement.

Member Login

USERNAME

PASSWORD

Sign in

Forget Password?

Registration

Register an Account

nGager is best viewed using Internet Explorer 8.0 or above and Mozilla Firefox. Safari is not supported. Please enable pop-ups as well. We apologise for any inconvenience caused.

Implementation

Implement through integration into MOH NMRC's grant processes

Applications requesting at least \$\$250,000 of direct research cost must include a Data Sharing Plan



Data Sharing Plan to show how investigators will meet data sharing responsibilities

Data Sharing Plan Template

Data Sharing Plan

Review

Compliance

Type of Study & Data

- Type of study
- Type of data

Data Sharing and Access

- Suitability for sharing
- Timeframe for sharing
- Format of data
- Method of sharing
- Access of data and governance
- Human subject and privacy
- Budget considerations

Data Sharing Plan Template

Data Sharing Plan

Review

Compliance

- Include budget breakdown for data sharing in Data Sharing Plan.
- Reflect as one-line item under nGager "OOE - Others - Data Sharing".
- Data sharing cost is in addition to the project funding quantum and is eligible for IRC.
- PI is allowed to vire funds into Data Sharing budget, but not allow to vire funds out of Data Sharing budget.

Review of Data Sharing Plan

Data Sharing Plan



Review

Compliance

- Review by Local Review Panel or equivalent body
- Assess independently from the proposed research
- Mandatory requirement for award of the grant

Review of Data Sharing Plan

Data Sharing Plan



Review

Compliance

- If Data Sharing Plan is unsatisfactory, comments from the panel discussion will be sent to the applicant.
- Applicant will be required to revise Data Sharing Plan during the budget revision stage.
- Revised Data Sharing Plan will be re-assessed by the Local Reviewers.

Compliance of Data Sharing



Monitor progress and compliance via progress/final reports



Examples of Data Repositories

Harvard Dataverse





- Repository for sharing, citing and preserving research data
- Open to all scientific data from all disciplines worldwide
- Free for anyone within or outside of Harvard (up to 1TB storage; 2GB per file)

Getting started with the Harvard Dataverse Network http://thedata.org/files/thedata_new2/files/gettingstartedguidefinal.pdf

Getting Started with the: Harvard Dataverse Network

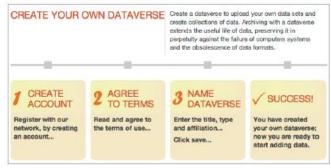




Step 1: Go to:



Step 2: Create Account open to Harvard & non-Harvard users

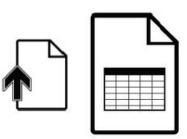


Step 3: Create your own Dataverse for your own research, project, journal, and more



Step 6: Release Study + Dataverse

for others to find, cite, share, and reproduce analyses of your study



Step 5: Upload Data Sets + Code + Documentation

any format or # of files, with a max of 2GB/file, with more features for certain formats (SPSS, Stata, R, FITS, GraphML)



Step 4: Create a Study

describe the study to receive a **formal data citation** (w/ persistent URL) for others to discover and cite your work (required fields are author, title, and date, plus optional fields)



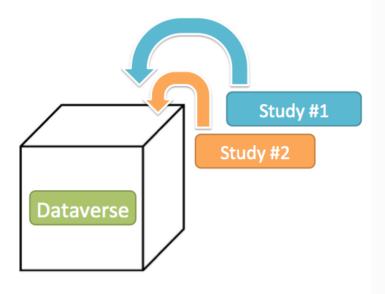




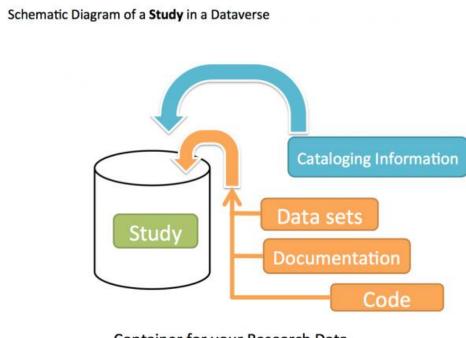
Learn more at: thedata.org

Harvard Dataverse

Schematic Diagram of a Dataverse in a Dataverse Network



Container for your Research Data Studies



Container for your Research Data

From Harvard Dataverse FAQ

http://thedata.org/book/faq-using-harvard-dataverse-network



- Allows researchers to publish all of their data in a citable, searchable and sharable manner
- Offers unlimited storage space for data that is made publicly available (250MB per file)
- 1GB of free storage space for a secure and private storage area

Figshare FAQ http://figshare.com/faqs



- Repository that makes the data underlying scientific publications discoverable, freely reusable, and citable
- Provides long-term access to its contents at no cost
- USD90 for 10GB, USD10 for each additional 10GB or part thereof payable by submitter

Dryad FAQ http://datadryad.org/pages/faq



Thank you





nGager Progress/Final Report

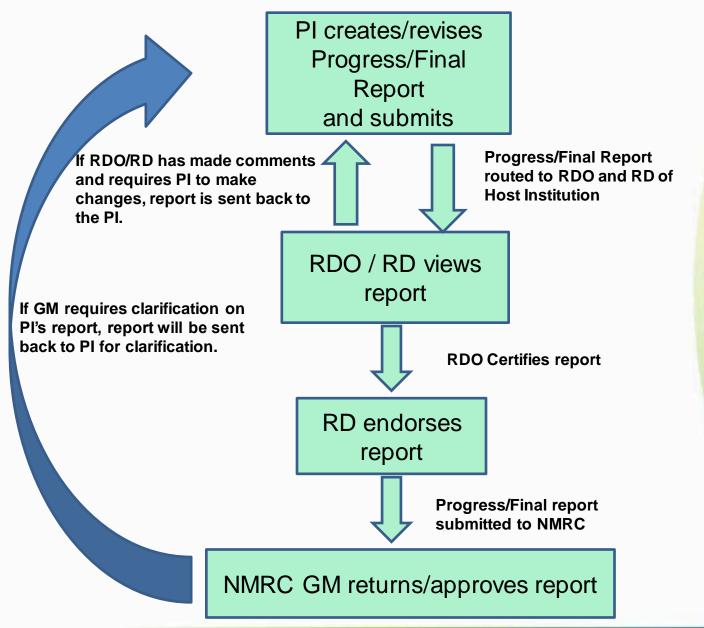
Agenda

- 1. nGager Progress/Final Report Submission workflow
- 2. Progress Report on nGager
- 3. Final Report on nGager
- 4. nGager Screenshots

Terminology

Abbreviation	Description	
PI	Principal Investigator	
HI	Host Institution	
RDO	Research Development Officer	
RD	Research Director	
NMRC GM	NMRC Grant Manager	

nGager Progress/Final Report Submission



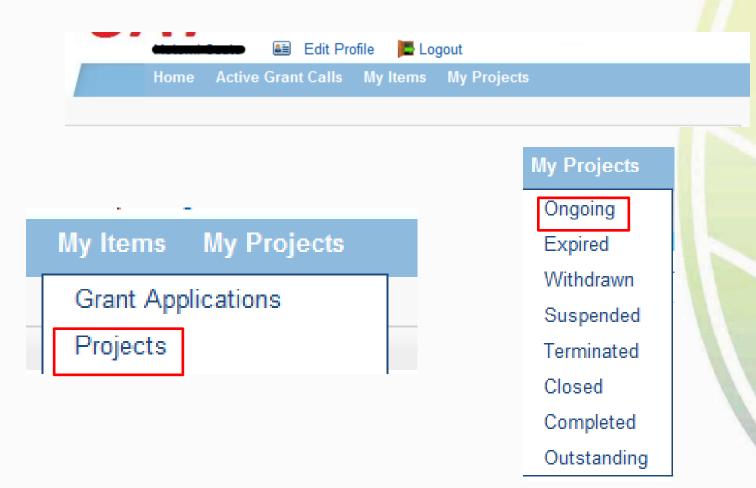
Progress Report on nGager

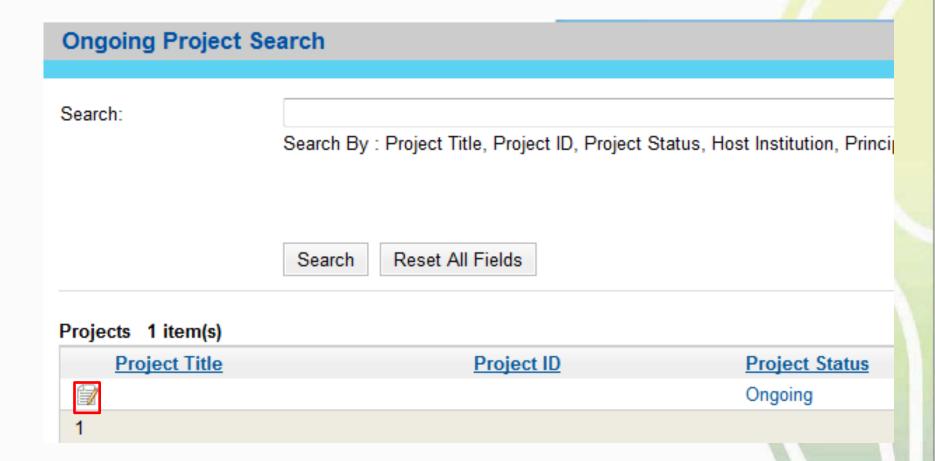
- NMRC will send email to HI's RDOs with a consolidated list of projects pending progress report submission during the FY's reporting period (as per current practice)
- 2. Email will contain information on when the progress report is due. HI RDOs to disseminate information to projects' Pls for their action.
- PI to create Progress Report on nGager once HI's RD/RDO has notified them
- 4. Reminder emails will be sent automatically by nGager to the PI and RDO for the following:
 - 7 days before the progress report's submission due date
 - 3 days after the progress report's submission due date (overdue reminder)

Final Report on nGager

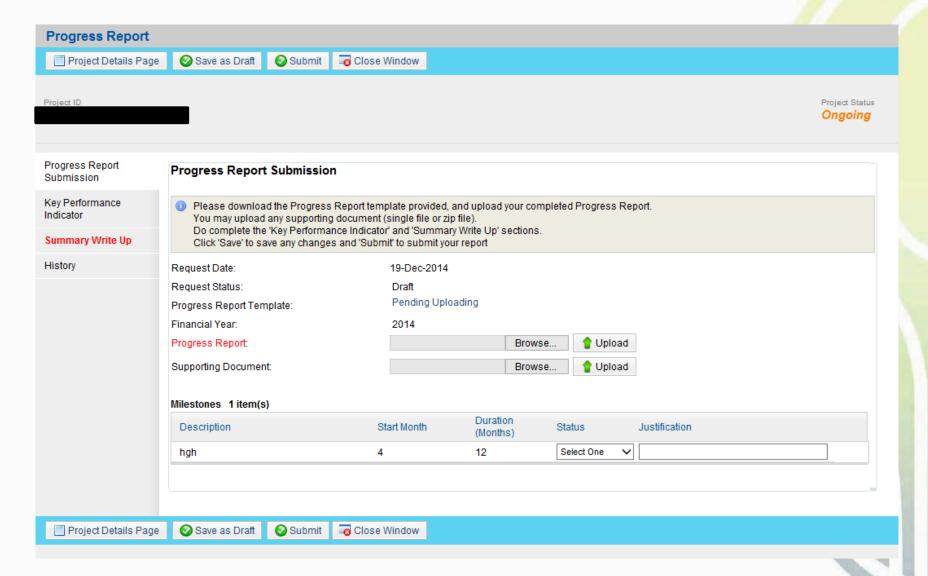
- Final Report to be submitted within 3 months of Project's Completion date.
- 2. Reminder emails to submit Final Report will be sent to the PI (cc: HI RDO) during the following conditions
 - On PI's project's completion date
 - 2 months after project's completion date
 - When Final Report is overdue (overdue reminder)
- 3. Same workflow as Progress report submission

Accessing Project Details on nGager





General Details	Project Details		
Key Performance Indicator	Title:		
	Status:	Ongoing	Withdraw Project
	HI Project Ref No:		
	Principal Investigator:		Change Principal Investigator
	Grant Type / Grant Call:		
	Application ID		Download Proposal Package
	Host Institution:		Change Host Institution
	Start Date:	31-Dec-2009	
	Original Expected Completion Date:	01-Oct-2012	
	Expected Completion Date:	30-Jun-2013	Grant Extension
	Letter of Award	=	
	Letter of Acceptance	=	
	Fund Disbursement Letter	Funds Disbursement Letter	
	Research Scope		Change Research Scope
	Latest Progress Report:		Progress Report
	Latest Final Report:		Final Report



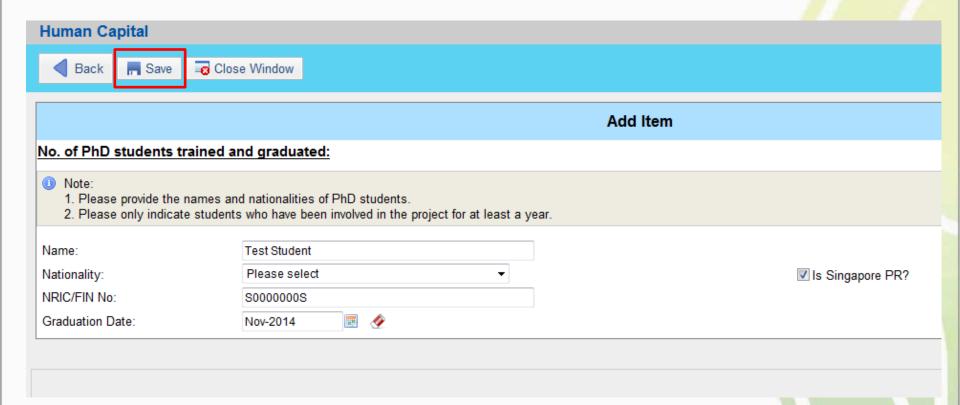
Progress Report Submission

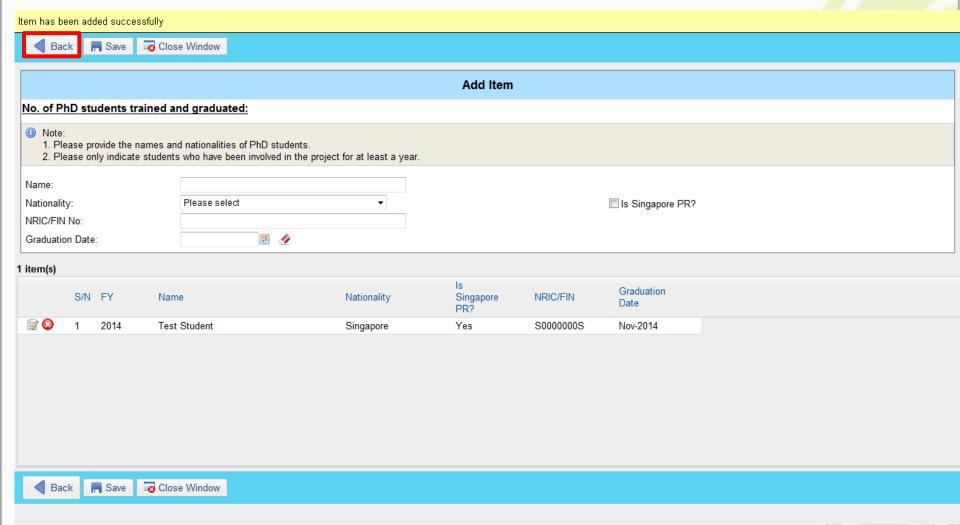
Key Performance Indicator

Summary Write Up

History

	Overall		FY2011		FY2012		FY2013	
Key Performance Indicator	Target	Achieved	Target	Achieved	Target	Achieved	Target	Ach
Human Capital								
No. of PhD students trained and graduated	0	0	0	0	0	0	0	
No. of Master students trained and graduated	0	0	0	0	0	0	0	
No. of Post-Docs employed	0	0	0	0	0	0	0	
Intellectual Capital								
No. of Invention Disclosures	0	0	0	0	0	0	0	
No. of publications in peer reviewed journals	0	0	0	0	0	0	0	
No. of presentations at major conferences	0	0	0	0	0	0	0	
No. of patent applications filed	0	0	0	0	0	0	0	
No. of patents granted	0	0	0	0	0	0	0	
No. of patents commercialised	0	0	0	0	0	0	0	
No. of other IP obtained (non-patents)	0	0	0	0	0	0	0	
No. of academic collaborations (local and international)	0	0	0	0	0	0	0	
No. of competitive research grants received	0	0	0	0	0	0	0	
No. of awards for research at national and international level	0	0	0	0	0	0	0	
Industry Relevance								
No. of projects with industry	0	0	0	0	0	0	0	
Amount of industry funding - in cash (\$)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Amount of industry funding - in kind (\$)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
No. of spin - offs & start ups from results of research programme	0	0	0	0	0	0	0	
No. of new products/ processes/ services commercialised	0	0	0	0	0	0	0	
Amount of royalties and licensing revenue from research results	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
No. of new clinical trials initiated	0	0	0	0	0	0	0	
Others								
No. of human subjects recruited	0	0	0	0	0	0	0	





Progress Report









Project ID

Project Status

Outstanding

Progress Report Submission

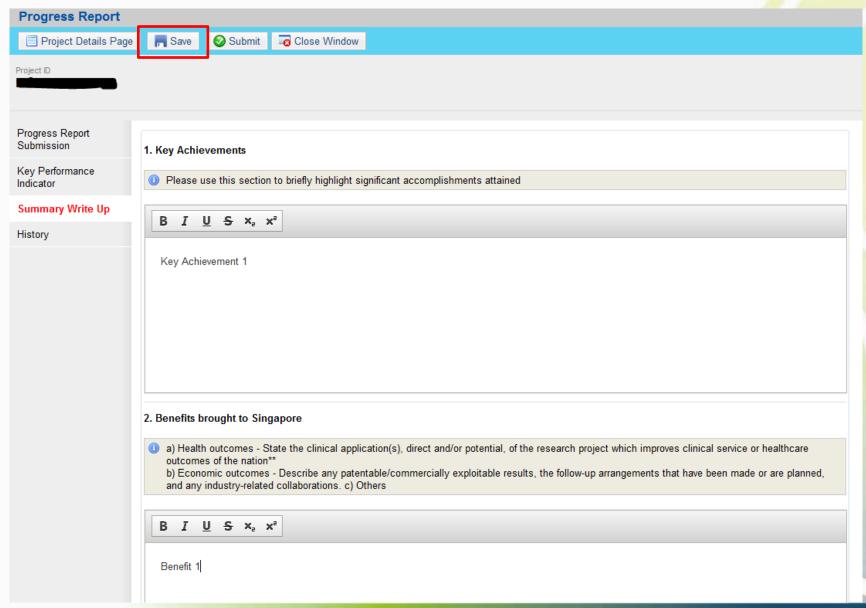
Key Performance Indicator

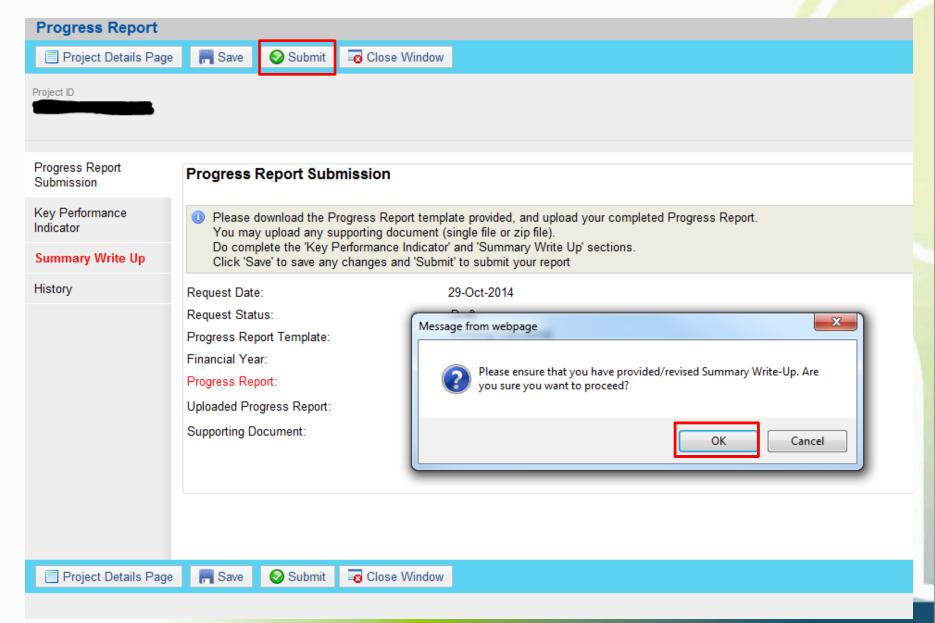
Summary Write Up

History

		Overall		FY2011		FY2012		FY2013		FY2014	
	Key Performance Indicator	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
	Human Capital										
7	No. of PhD students trained and graduated	0	1	0	0	0	0	0	0	0	1
7	No. of Master students trained and graduated	0	0	0	0	0	0	0	0	0	0
7	No. of Post-Docs employed	0	0	0	0	0	0	0	0	0	0

MOH: nGager Roadshow





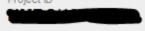
Request has been submitted successfully



Project Details Page



Project ID



Progress Report Submission

Key Performance Indicator

Summary Write Up

History

Progress Report Submission

① F Y

Please download the Progress Report template provided, and upload your completed Progress Report. You may upload any supporting document (single file or zip file).

Do complete the 'Key Performance Indicator' and 'Summary Write Up' sections.

Click 'Save' to save any changes and 'Submit' to submit your report

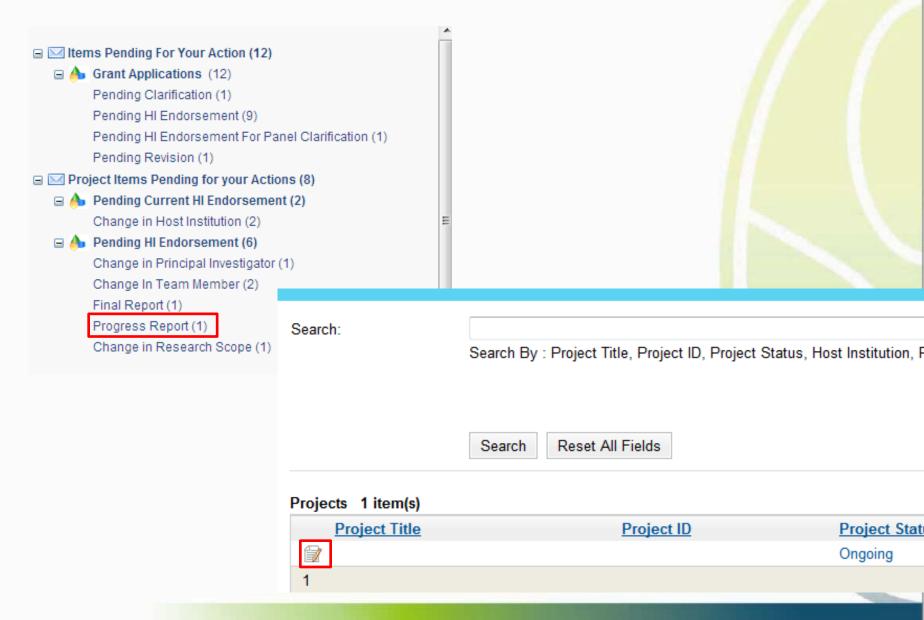
Request Date: 29-Oct-2014

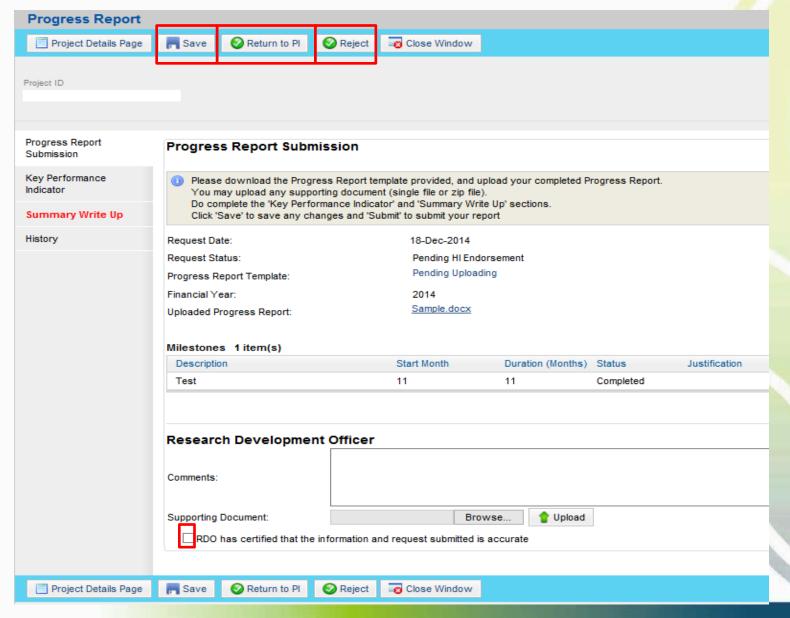
Request Status: Pending HI Endorsement

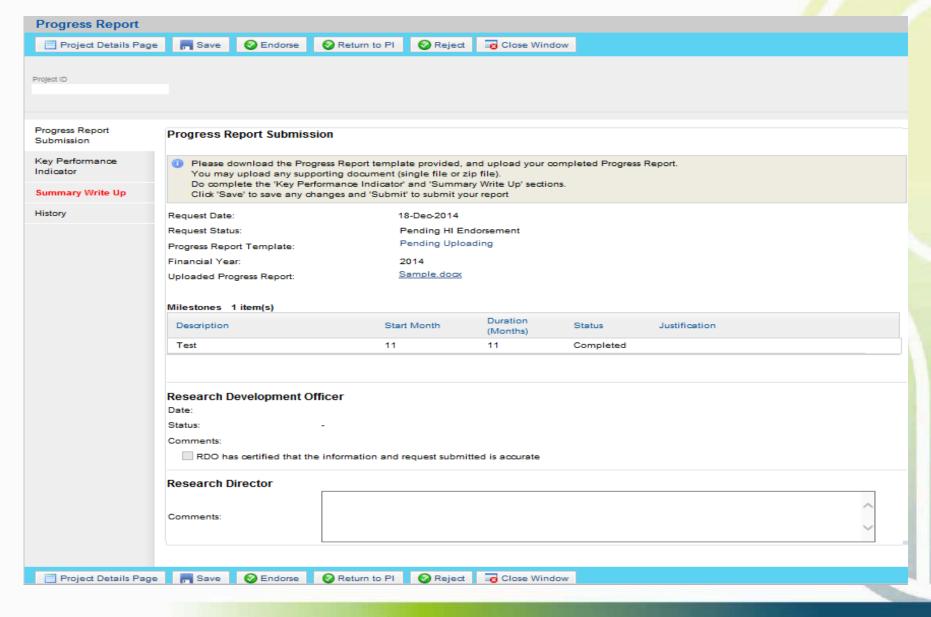
Progress Report Template: Pending Uploading

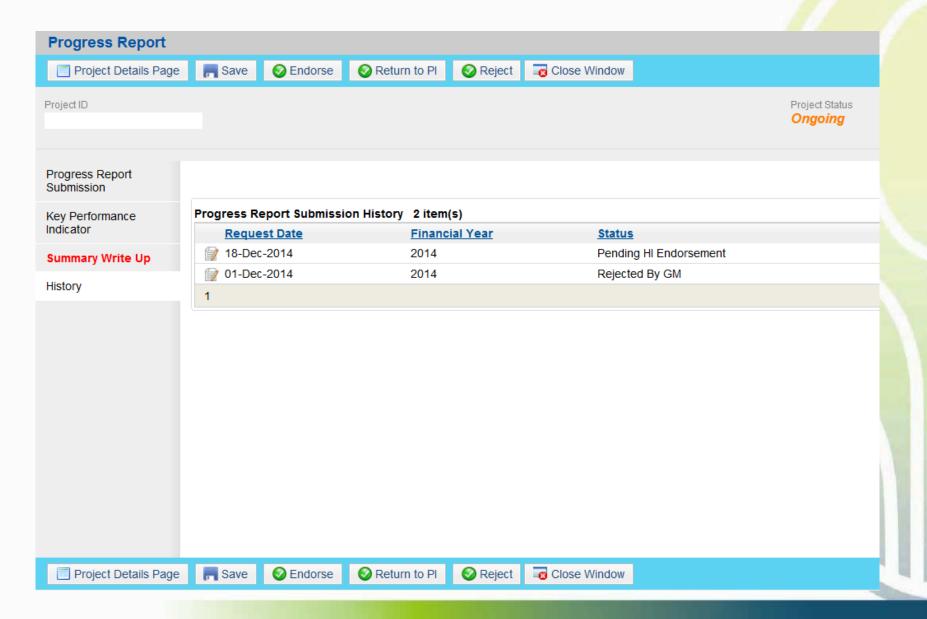
Financial Year: 2014

Uploaded Progress Report: Progress Report Template.doc



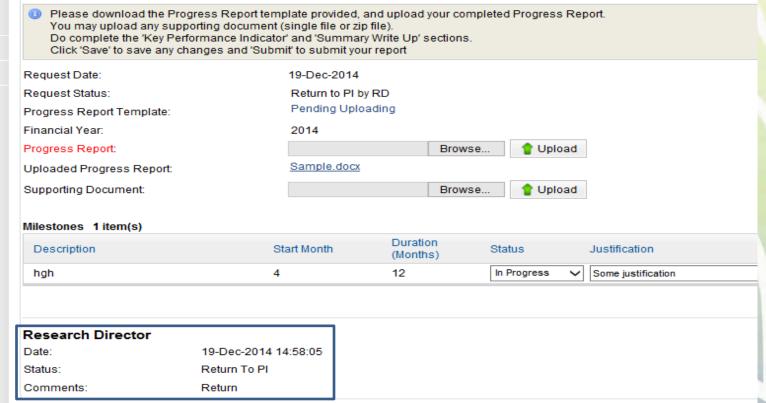




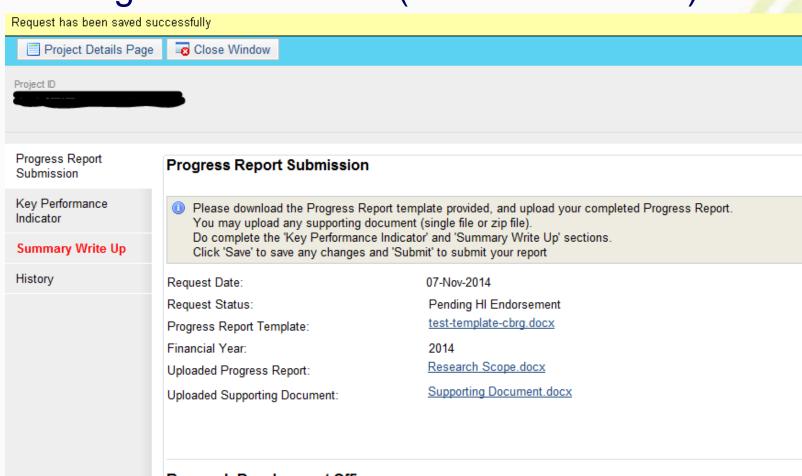


nGager Progress Report Screenshots (Return to PI)





nGager Screenshots (RDO certification)



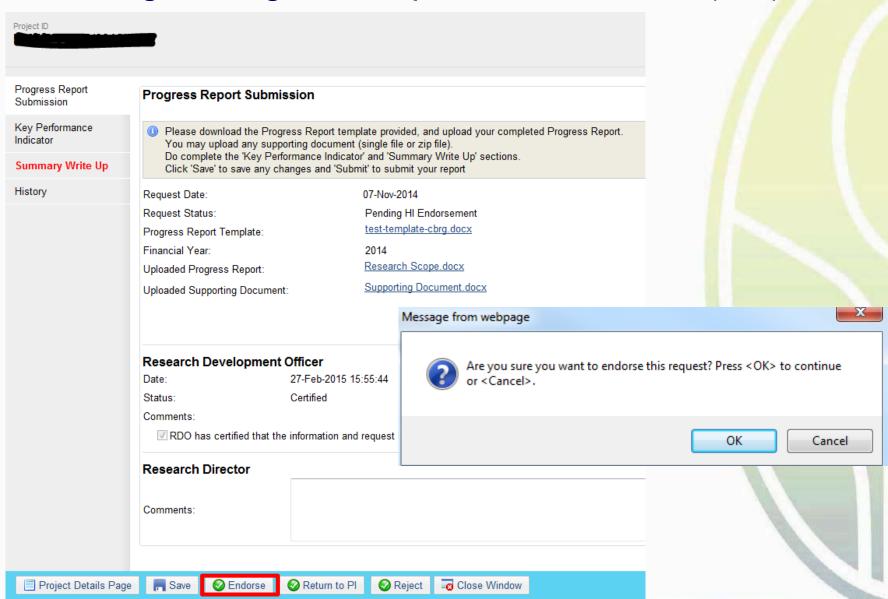
Research Development Officer

Date: 27-Feb-2015 15:55:44

Status: Certified

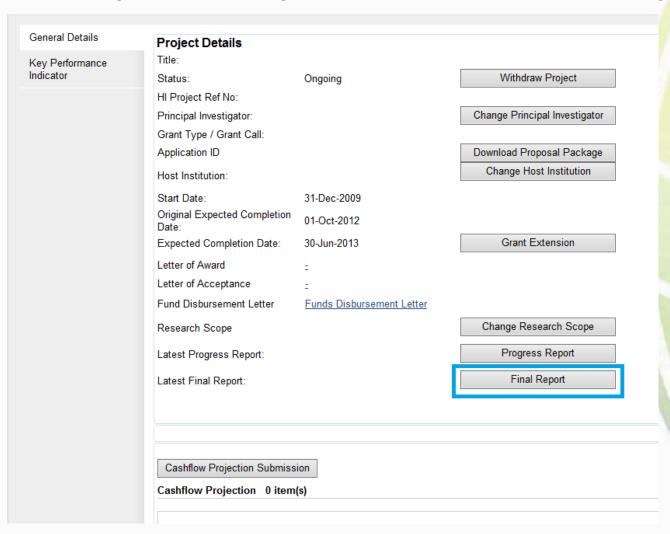
Comments:

RDO has certified that the information and request submitted is accurate



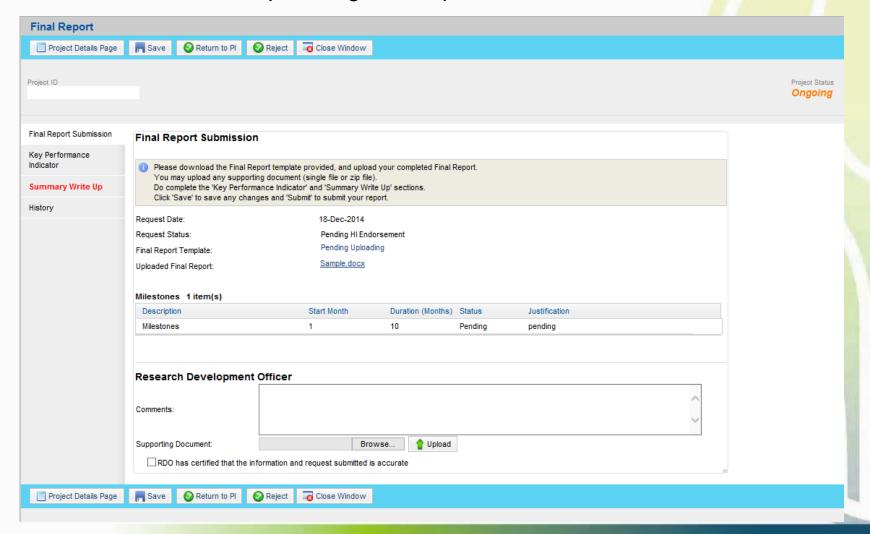
nGager Final Report Screenshots (PI, RDO, RD)

Steps for creating and submitting Final Report are similar to the Progress Report



nGager Final Report Screenshots (PI, RDO, RD)

This screen is slightly different due to the Final Report Template. The rest of the sections are the same as per Progress Report.



nGager Progress/Final Report

Notifications will be sent to the respective users (PI and RDO) when there are changes in the report's status. Eg: submission by PI, endorsement by HI, approval by NMRC

Only 1 Progress Report can be submitted for each FY.

Detailed User guides will be available on the NMRC website



Thank You

Q & A