

In-Kind Assembly I

April 17, 2023 9AM Pacific Virtual meeting

Bob Blum, Agnès Ferté, Greg Madejski, Steve Margheim, Phil Marshall, Knut Olsen & Aprajita Verma











Code of Conduct

Shared Values

The Vera C. Rubin holds the values of **Kindness Trust Respect Diversity Inclusiveness** at its core in order to promote intellectual environments that foster learning and lead to rigor, excellence, and happiness.

Points of Contact

Bullying Harassment Aggression of any kind are never permitted or tolerated and should be reported

Aprajita Verma

Slack DM (#aprajita) or @aprajitaverma1@gmail.com

Rules of engagement

THIS MEETING WILL BE RECORDED.



As a participant of the meeting, your image and/or your voice may appear in recordings that may be publicly accessible. If you attend online an prefer your image not to appear, you are welcome to keep the video off. To avoid your voice being recorded you may consider asking questions on Slack.



Virtual participants should be muted when not presenting or asking questions















In-kind Program Overview





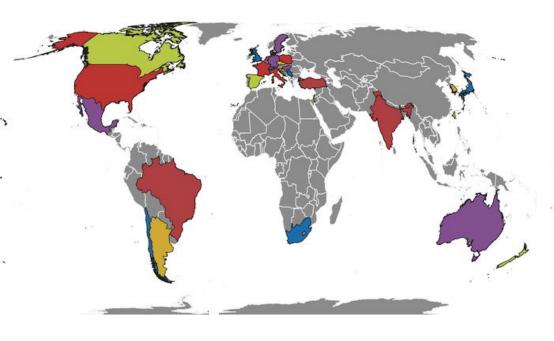






Rubin In-kind Program Overview

There are **43** individual international teams (**28** countries + US/Chile) who are providing **153** in-kind contributions to Rubin and the LSST science community in return for LSST data rights.



IDACs & SPCs

~12 international centres contributing computing resources

Rubin operations:

e.g. DRP in France and UK, plus various engineers and scientists

Rubin In-kind Program

Datasets

11 programs spanning X-ray, UV, optical, IR & radio
Curated datasets/crossID etc.

Software Development

270 FTE in committed directable, non-directable and general pool effort to Rubin and SCs

Facility enhancements:

e.g. SW dev, EPO, PSF/LSST Camera I&T, MASCARA/DREAM all sky camera

Commissioning

Contributions of effort from 6 international teams.

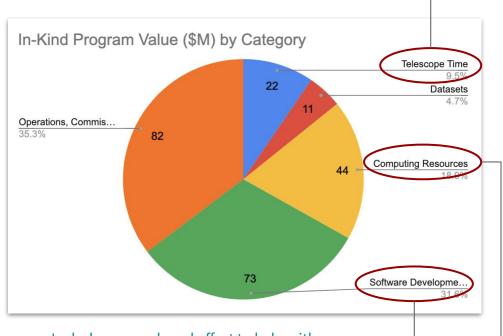
Telescope Time

8 countries
16 1-10m telescopes
Photometry and spectroscopy
Transient capability



Resources for the community

Includes Telescope Time that will be offered through NOIRLab, see "<u>The Rubin In-kind Program Community Session</u>" at the PCW22 for a summary.



Primary Recipients	Туре	Number of Contributions	Equivalent Value (\$M)
AGN	Telescope Time and Datasets	1	0.1
AGN	Directable SW Effort	7	4.3
DESC	Telescope Time and Datasets	4	2.4
DESC	Non-directable SW Effort	6	3.5
DESC	Directable SW Effort	24	17.3
Galaxies	Non-directable SW Effort	3	2.5
Galaxies	Directable SW Effort	8	4.3
Solar System	Directable SW Effort	2	1.2
SMWLV	Non-directable SW Effort	1	1.2
SMWLV	Directable SW Effort	3	2.0
Strong Lensing	Non-directable SW Effort	1	0.3
Strong Lensing	Directable SW Effort	2	1.6
TVS	Telescope Time and Datasets	3	2.7
TVS	Non-directable SW Effort	3	1.7
TVS	Directable SW Effort	12	10.1
		otals: 80	55.1

Includes <u>general pool</u> effort to help with gaps in Recipient S/W needs (see later)

Includes CPU and storage - see the resources from the recent "Supporting Computational Science with Rubin LSST" workshop





The In-kind Program Team & How to Get Help











The Rubin In-kind Program Coordinators (IPCs)

+ Advice from

- Phil & Bob

- Sierra Villarreal (IDACs

Agnès Ferté (SLAC)

Software contributions

Greg Madejski (SLAC)

Community Engagement Team Liaison

Technical coordinator)

Steve Margheim (NOIRLab)

Telescope time and dataset contributions (primary contact)



Phil Marshall (SLAC)

Contributions to Rubin, Data Rights Agreements & list (Deputy Director of Operations)



Knut Olsen (NOIRLab)

Independent Data Access Centers & other computing resources

Stephen Ridgway (NOIRLab)

Telescope time and datasets contributions (secondary contact), NOIRLab CSDC Liaison

Aprajita Verma (Oxford)

Software contributions & SC/Recipient Liaison (IPC Team Lead)

Heather M. Shaughnessy (SLAC)

Data rights holder database management, office hours coordination (Program Operations support)



jikh@lsst.org

Rubin IPC Team Roles

Contribution IPC (C-IPC): Each contribution has an assigned IPC, to help the Contribution Lead and to facilitate interactions between the Contribution Lead and the Recipient group as needed. Will check work plans and updates and will forward to the recipient groups.

Program IPC (P-IPC): Each in-kind program has an assigned IPC, to assist its **Program Manager** in programmatic issues, program and resource and deliverable tracking, program status



In-kind Program Web Pages

https://project.lsst.org/in-kind-program

Welcome to the Rubin LSST In-kind Program!

What is the Rubin LSST In-kind Program?

43 teams outside the US and Chile are making in-kind contributions to Rubin Observatory and LSST Science in return for LSST data rights. The International Data Rights Holder list is linked here. Find out more about this large international collaboration below and at the links in the sidebar.

In addition, we have compiled an extensive list of In-kind Program FAQs here and you can also browse the LSST community forum using the in-kind tag: https://community.lsst.org/tag/in-kind

The In-kind Program spans many varied contributions providing resources and support to Rubin Operations and the Rubin Science Community. The Rubin LSST Science Collaborations support the CEC and In-kind Program Coordination (IPC) teams in management of the In-kind contributions with their scientific expertise.

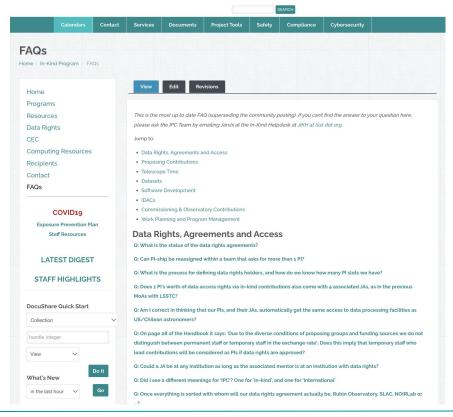
The in-kind program is managed collectively by the international programs' Program Managers (PMs), facilitated by the Rubin In-kind Program Coordination (IPC) Team which reports to the Rubin Director and Deputy Director of Operations.



We appreciate that you will have questions, ways to get help

- Comprehensive <u>in-kind FAQs</u> are posted on community web pages
- Q&A session after this talk
- Office hours: please book slots here for meetings with 1 or more IPCs
- Not sure whom to contact: write to jikh@lsst.org







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LSST Data Rights Agreement Update











LSST Data Rights Agreement Update

- DOE, SLAC, and AURA all now have DRA templates, including a common set of terms and conditions
 - AURA working through feedback from a first "pathfinder" program, ironing out the approach to IP. Then, 25 more IDRAs will follow.
 - SLAC assembling full package of 17 iCRADAs for DOE approval, prior to distribution to programs. iCRADA requires 5-year renewals but this is a formality.
- 2-year grace periods for JAs who either move abroad or get promoted to permanent positions

To date, Rubin's priority has been to successfully implement the approved program, with DRAs. An opportunity for programs to amend their contributions is being planned, per the Manual.

Expect an announcement in May regarding an eventual call for amendments to programs that will include requests for expansions that would be **targeted to meet specific Recipient** needs.

From this call, Rubin anticipates accepting only a small number of new contributions. New international programs will NOT be considered in this year's call.

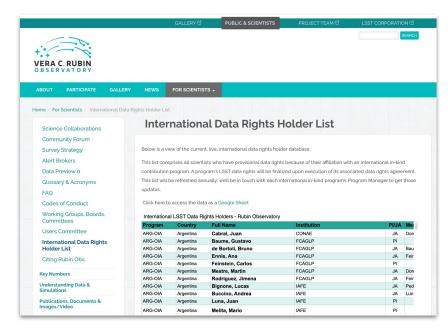
Rubin is also looking at ways to include US and Chilean in-kind contributions in the overall program.



Glossary & Acronyms

Data Rights Holders List

- Rubin manages data rights holder database
 - taken over from LSSTC on July 1 2021
 - International Data Rights Holder List
 - All enquiries to Rubin via <u>Heather Shaughnessy</u>
- Program Managers will receive requests to update their data rights holder (PI and JA) lists, with PI quotas based on their approved in-kind program
 - The PM is responsible for maintaining their program's list of PIs and JAs
 - PIs and JAs defined in the <u>Rubin Data Policy</u> (Section 4.3): JAs don't have means
 - NB. JAs no longer need to "belong" to a PI at their institution. Instead, JAs just need a named mentor who is a PI in their program.







In-kind Program Process











Making & Receiving In-kind Contributions

Please see PCW 21 session "How to make and receive in-kind contributions" slides &

recording

Lots of information on the

In-kind process as well as

specific info per contribution type





Manual for In-kind Contributors & Recipients

Goal: help the Contribution
Leads, Program Managers and
Recipients work together to
make each in-kind
contribution succeed

Living document, with current version PDF at ls.st/RDO-41

Feedback is welcome, via <u>this</u> <u>form</u>





Manual for In-kind Contributors and Recipients

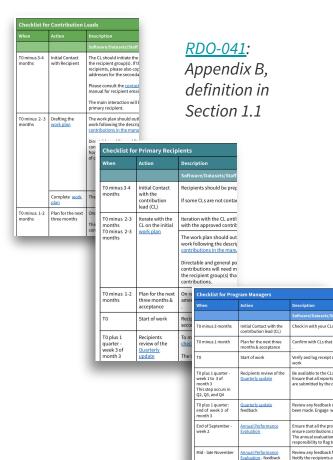
Phil Marshall, Bob Blum, Greg Madejski, Knut Olsen, Steve Ridgway, Aprajita Verma

Responsibilities

Contribution Leads drive the planning of the work, manage their teams, and report regularly (quarterly) on progress, ensure team embedded in recipient groups

Primary **Recipients** focus on technical direction, have opportunities to give feedback through the annual cycle. Other recipient groups are referred to as secondary recipients (optionally can give feedback)

Program Managers manage the program, track progress and support their CLs (aware of start dates & prompt work planning & updates, check submitted promptly, check team is embedded in rec groups), DRH list updates, Profile explore & status checks







Updates by contribution type











Software contributions

- Requirements setting
 - Contribution Leads are responsible for development of the initial set of technical requirements
 - Recipients are responsible for providing the high-level goals needed to define those
- **Standards** for software development:
 - Software must be **developed collaboratively**, in a shared, version-controlled, repository that
 is accessible to the recipient group
 - Code must be validated and clearly documented, and must be released **publicly** at the point of delivery of the final version to the recipients (if not before)
- Detailed information about the coding standards etc is spelled out in the Manual
 - Contribution Leads are responsible for the software developers in their teams adhering to those standards
 - Program Managers should ensure the team have the training and skills required to execute the contribution



Software Updates

No major updates

Make sure **work plan** discussions start with the recipient group **2-3 months before the start date** (as given in the profile explorer).

Program Managers check start dates and prompt Contribution Leads

Secondaries now have access and can provide comments/feedback

Help & Advice

Requirements setting

Coding good practice advice

Workshops - what do you need?

jikh@lsst.org

LINCC Frameworks synergies being explored



Software - General Pool

Incoming S/W effort that can be allocated to recipient groups according to need

General Pool web page under construction

FY22 call - delayed start to much of GP

Allocated effort to

- Rubin build support (started)
- Survey scheduling (started)
- Solar System (in development)
- Support for In-kind S/W (consultancy)
- Rubin Web development (not yet started)

FY23 call - under consideration

- Call to Recipients for Lols
- Stage 1: Development of selected LoIs to S/W requirements
- Stage 2: Feasible projects taken forward
- Stage 3: Start of work according to needs & skills available



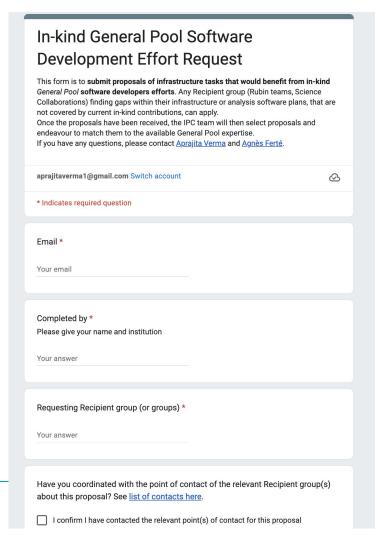
Glossary & Acronyms

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Software - General Pool

In-kind recipients can request General Pool efforts at **anytime**, by filling out this form: https://ls.st/ikc-gp

We will regularly review proposals as they come in and match them to available software experts.





Telescope Time

Contributions

- Telescope time CLs should be beginning preparatory work to understand the scope and timeline of work needed to realize a successful contribution. Schedule realignment with LSST start?
- Recommend revisiting your proposal and begin creating a work plan to achieve those goals
- **AEON contributions** doubly so! We would like to have an AEON technical workshop to help you with planning your implementation
- I will be in contact with you soon

Community

Coming Soon: Telescope time web-pages to help plan for usage of this resource.



Glossary & Acronyms

Computing resources (IDACs and SPCs)

- <u>IDACs/SPCs</u> should plan for operation at start of DR1
 - Preparation work could be significant, please develop in work plans
- Work planning should focus on:
 - Use cases
 - Establishing contact with relevant user communities
 - Planning for software and service layers needed
- We encourage delay in purchasing hardware (but understand if impossible)
- Recent <u>science</u> and <u>technical</u> workshops for IDACs included:
 - Submission and discussion of 48 use cases
 - Key technical discussions
- IDAC Coordination Group <u>Community forum</u> and Slack channel (#idac-coordination-group) for discussion



Commissioning Contributions

- 9 contributions from 6 program teams (UK, France, Italy, Japan, Korea, Spain BCN-MAD)
- Keith Bechtol is the main recipient contact for all international in-kind contributions, but each contribution has been assigned its own commissioning liaison within the SITCOM team.
 - SITCOM organises technical direction of in-kind contributions in concert with supervision of US research teams' contributed labor (following last summer's AO)
 - All teams will need to work with their contacts to adapt to changes in schedule
- Phil is the IPC for commissioning, supporting the teams through work planning with help from other IPCs
- Tracking for the international in-kind contributions to commissioning will follow the process outlined here





Contribution Lifecycle



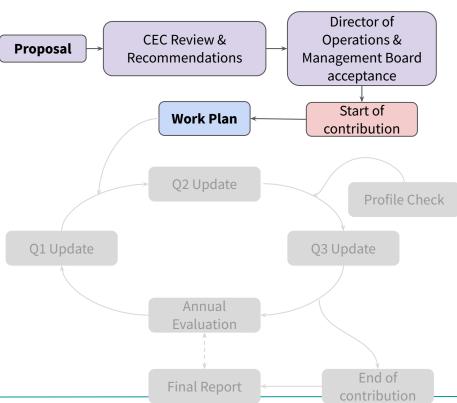








Contribution Cycle





In-Kind Contribution Work Plan Walk Through

Aprajita Verma, Phil Marshall, Knut Olsen, Greg Madejski, Steve Ridgway, Steve Margheim and Bob Blum











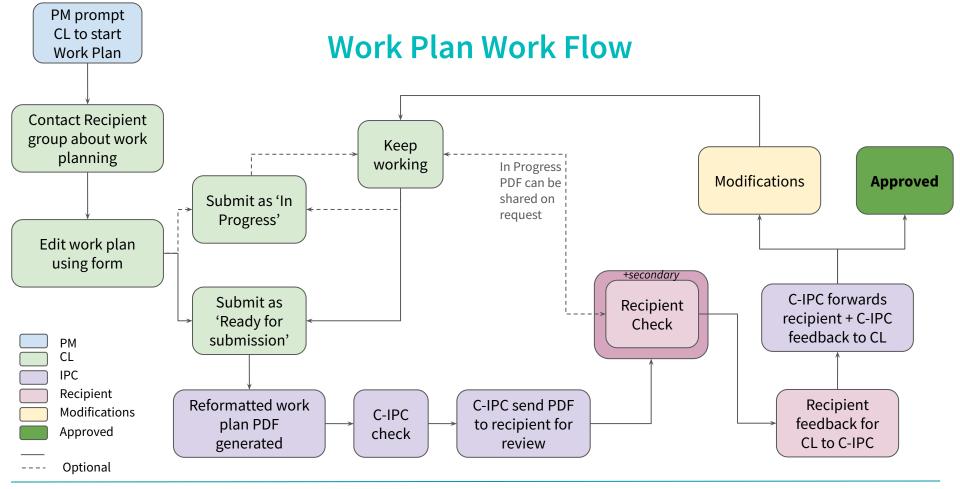
Walkthrough slides and recording of the meeting

Work plan (onus is on Contribution Lead (CL)):

- Start 2-3 months** before start date & submit
- Reviewed by Recipients & IPCs
- Approval process complete ~1 month before the start
- Defines top levels objectives & milestones
- Contains detailed plan of work for the first quarter



^{**} Telescope time/IDACs can start filling out Work Plan initial info earlier





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Work Planning

https://ls.st/ikc-wp

These are static URLs. Require your contribution ID Ask your Program Manager or IPC if you don't know what that is).

In-kind Contribution Work Plan

Contribution Leads, this form is designed for you to develop and update your Work plans for your contributions. It mirrors the information requested in the Manual for In-Kind Contributions (https://ls.st/RDO-41), but please also refer to the specific instructions summarised there when writing your work plans.

You may wish to complete this form in parts before it is ready for review. The final question on the work plan asks you whether the plan is still in progress or ready to submit. For the former, you can edit your response by following the link in the confirmation email. Once you are happy with the work plan, please select "Ready for Review" so that we know when you are done. The work plan will then be sent to your contribution IPC and Recipient contact(s). The recipient groups will be asked to approve the work plan. Any amendments arising from this review will be communicated to you.

The work plan compiles the top-level objectives for the contribution, and captures any contribution-type specific information. Key elements such as deliverables and milestones towards reaching those deliverables should be outlined, along with an estimate of the timeline for achieving milestones and/or delivery.

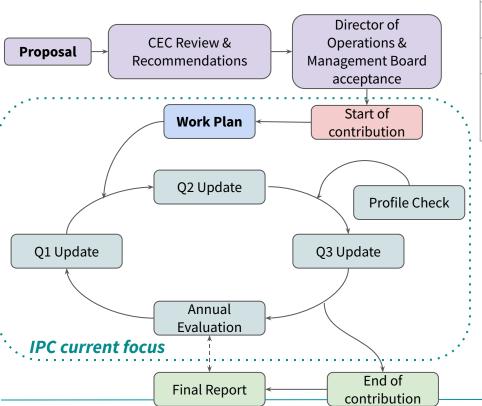
A work plan should be submitted for each contribution identified by a unique ID - the contribution ID of the form XXX-YYY-SN where N is a running number for each program element. If your contribution (denoted by the ID) includes more than one element or more than one contributor, please describe each in this form but do not submit multiple forms for a single contribution ID. In the case of FTE, the effort of different contributors should be summarised, describing the elements each person is working on. In the case of multiple resources e.g., datasets, processing, storage etc., the work plan similarly should summarise each element of the contribution.



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Contribution Cycle



Quarter	Due by	Covers work done	Plan of work for
Q1	Dec week 2	Sep week 2 / Dec week 2	Jan - Mar
Q2	Mar week 2	Dec week 2 / Mar Week 2	Apr - Jun
Q3	Jun week 2	Mar week 2 / Jun week 2	Jul - Sep
Q4 / Annual Evaluation	Sep week 2	October preceding year to current September week 2	Oct - Dec

Quarterly Updates (Contribution Lead)

- Follows Rubin's FY (e.g. FY23: Oct 22 Sep 23)
- Record progress/achievements and possible changes
- Contains detailed plan of work for the next quarter

<u>Program Managers</u> are responsible for coordinating their CLs to complete the various elements



Quarterly Update

https://ls.st/ikc-qu

These are static URLs.
Require your contribution ID
Ask your Program Manager
or IPC if you don't know
what that is).



Contribution Leads will use this form to provide the quarterly update on your contribution. Note that to keep the process streamlined, we are expecting that this report focusses on any issues arising from the previous quarters work, otherwise assumes activities described in the previous quarter were carried out as planned. Please refer to the specific instructions for different contribution types in the Manual for In-Kind Contributions (https://ls.st/RDO-41).

If your contribution (denoted by the contribution ID) includes more than one element or more than one contributor, please describe each in this form but do not submit multiple forms for a single contribution ID. In the case of FTE, the effort of different contributors should be summarised, describing the elements each person is working on. In the case of multiple resources e.g., datasets, processing, storage etc., the work plan similarly should summarise each element of the contribution.

The primary audience for the report are your Recipient group(s) and the contribution IPCs. The Program Manager and IPCs may also view this report. The Primary recipient group will accept and provide feedback, if any, on the update.

You are welcome to make any confidential comments to your contribution IPC by email, if needed.

aprajitaverma1	l@gmail.com	Switch	account
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* Required

Fmail *

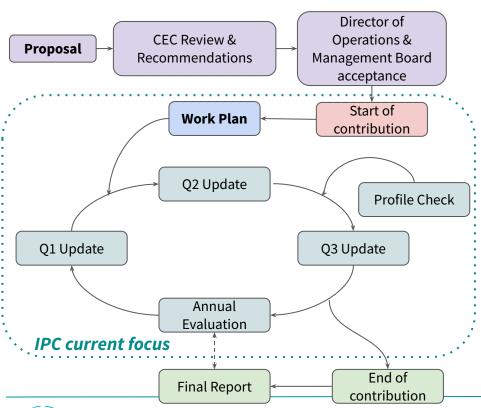
Your email

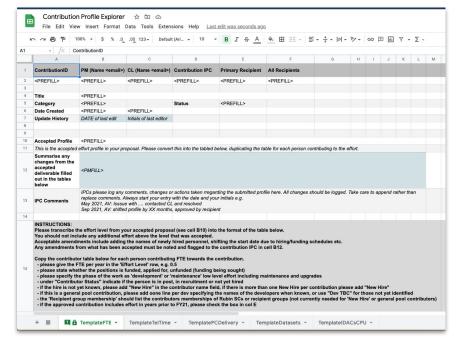
Submitted by name *

Please add the name (Last Name, First Name) of the main person who wrote and submitted this form. Other contributors can be added later.

Your answer

Contribution Cycle





Status Check (Program Manager & Contribution Lead)

- Follows Rubin's FY (e.g. FY23: Oct 22 Sep 23)
- Makes sure the timeline of resource is correctly captured
- Typically in May-June each year
- Updates during the year are possible



Profile Explorers

Each program has a **Profile Explorer workbook** with 1 tab per contribution

Breakdown of the expected resource(s) by year per contribution

The format of the explorer depends on the contribution type

Profiles now exist for all contributions

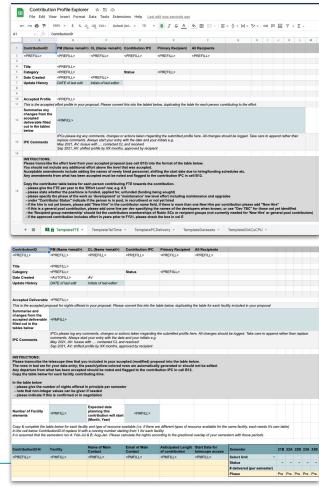
Program IPCs will contact the **Program Managers** (PMs are responsible for this)

- Check last years FTE based submitted ones
- Fill out non-FTE based ones

Don't forget **start date**

Telescope & IDACs start date for planning in the WPs which can be 12 months or more before the start

The Profile Explorers are accessed through the Program Viewer sent to Program Managers/Program Leads





Annual Evaluation - CLs & PMs

PMs Ensure CLs have form & aware of timeline CLs Prepare & submit evaluation form using supporting **IPCs** info **Email Form to** CLs/PMs **PMs** Check all forms PMs have been Notify P-IPC by submitted for email when the deadline complete

Part of the Annual Cycle for reporting

A chance to take a more holistic review of the progress made. Annual reports are:

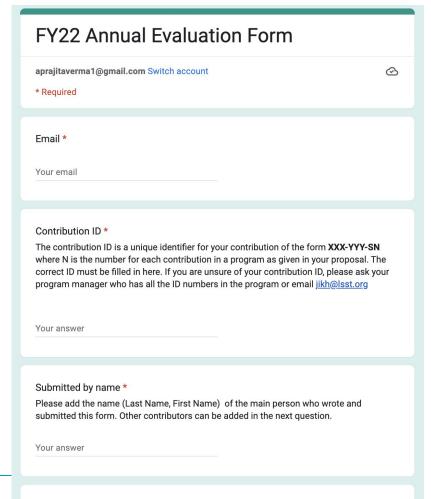
- Completed by CL
- Coordinated by PM
- Reviewed by Recipients & IPCs
- IPC report to Director of Operations who will make recommendations

All contributions undergoing the FY22 annual evaluation were informed via the program managers. Reviews were made by the recipients and the IPCs.



Annual Evaluation

https://ls.st/ikc-ae

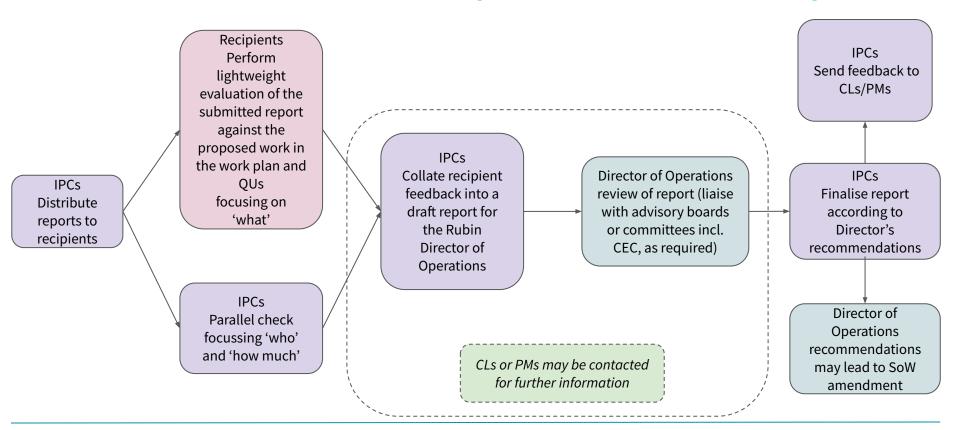




Names of all others contributing to this report *

Please list those who helped write this report. This may not be all of those contributing We see all the first terms of th

Annual Evaluation Review - Recipient, IPC, Director of Operations





Current focus & upcoming plans

Annual Evaluation:

- 35 contributions underwent the FY21 annual evaluation
- Feedback sent, resulting actions are being completed

Preparing for

- General pool allocation
- Program and Contribution viewers
- Next status check (May 23)
- DRH update (Jun 23)
- May announcement for targeted contributions
- PCW & next in-kind assembly

How we can help

Any questions - jikh@lsst.org

Office hours

Attend SC/recipient group meetings (e.g. in-kind specific, annual meetings)

S/W professional help for defining S/W requirements &/or best practice



DP0 Summer School

June 12-16, 2023

All in-kind contributors welcome to attend

https://community.lsst.org/t/dp0-virtual-summer-school-june-12-16-2023/7555

Contact: Jeff Carlin

DP0 Virtual Summer School, June 12-16, 2023

Science dp0



jeffcarlin ♥ LSST

Hello Rubin Observatory enthusiasts,

Please join us for a DPO Virtual Summer School from June 12-16, 2023.

What is the Summer School? This Summer School has been designed as an accelerated learning experience to enable Data Preview 0 (DP0) delegates to do Rubin-related research, focusing on the DP0.2 dataset. Much of the time will be spent on live virtual hands-on tutorials focused on various aspects of DP0 data access, visualization, and processing. Some time will be dedicated to collaborative (breakout) sessions where delegates can interact more informally.

Who? The tutorial sessions assume no prior knowledge of the Rubin/DP0/Science Platform ecosystem. All **DP0**delegates* are invited to attend and participate – even experienced delegates may wish to attend for the collaborative period each day.

*Not a DPO delegate yet? There are spaces available for Rubin data-rights holders. (All scientists and students affiliated with an institution in the US and Chile have data rights, as well as the international scientists and students whose names appear on the list of international data rights holders 1.) Visit the DPO Getting Started Checklist 3 and follow the instructions to become a DPO delegate.

When? To provide opportunities for delegates from all time zones there will be two sessions daily. All sessions are open to all delegates. Detailed schedules:

Session A (Monday-Friday, June 12-16, 2023):

Tutorials/demonstrations: 8:00-10:00 PDT (15:00-17:00 UTC)
Collaborative breakouts: 10:00-11:00 PDT (17:00-18:00 UTC)

Session B (Monday-Thursday, June 12-15, 2023):

Tutorials/demonstrations: 19:00-20:00 PDT (02:00-03:00 UTC; +1 day) Collaborative breakouts: 20:00-21:00 PDT (03:00-04:00 UTC; +1 day)



UKIDAC

George Beckett



Follow-up with Milankovic 1.4 telescope

Jelena Kovacevic Dojcinovic



Q&A



Glossary & Acronyms