

# The UK's role and status in the Rubin Observatory

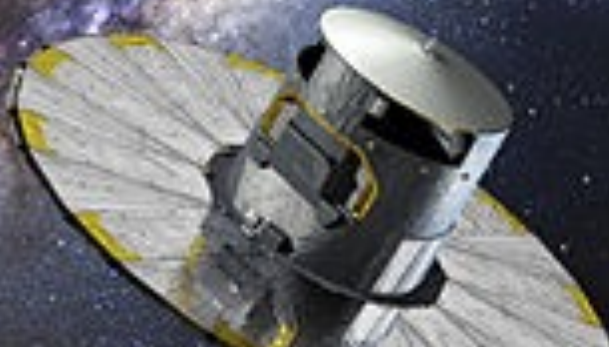
Bob Mann and  
Stephen Smartt





# UK LSST Synergies

Gaia



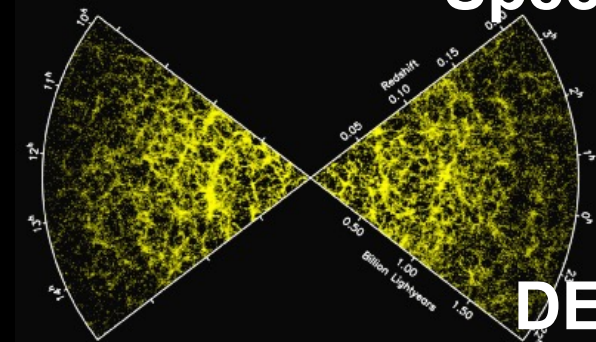
Spectroscopy:

MOONS

4MOST

WEAVE

DESI, Euclid



Infrared: VISTA, Euclid



SKA

The UK has an unprecedented opportunity to lead the exploitation of this combined suite of facilities

# LSST:UK Consortium



Every astronomy group in the UK



# Questions for this short talk

- What is the UK role in Rubin's LSST ?
- As a UK scientist - how can I get access to LSST data ?
- How do I get involved in Science Collaborations and planning for LSST ?



# UK participation in LSST

LSST:UK  
Consortium



Defines the  
programme  
of work for...

<https://www.lsst.ac.uk/governance>

Works on  
behalf of...

LSST:UK Science Centre (LUSC)



# LSST:UK Leadership

- Bob Mann (*Project Leader*)
- Terry Sloan (*Project Manager*)
- George Beckett (*Project Manager & Data Facility Coordinator*)
  
- Stephen Smartt (*Project Scientist*)
- Mike Watson (Board Chair)

## LSST:UK EXECUTIVE

- Aprajita Verma (also Rubin *International Program Coordinator*)
- Catherine Heymans
- Kathy Romer
- Cosimo Inserra
- Richard McMahon





# UK Science Leadership in Rubin

- UK one of only 3 “LSST National Groups”
- 8 science collaborations (~16 co-leads): UK has 5 co-lead roles in 3 SCs.
- 2 members on “Science Advisory Committee”
- 2 members on “Survey Cadence and Optimization Committee”
- 57% of these UK lead science roles are female
- Strong involvement across Science Collaborations



# International contributions models

## 2015

- Cash subscription
- STFC signed Memorandum of Agreement to secure data rights for 100 PIs (and 400 Junior Associates)

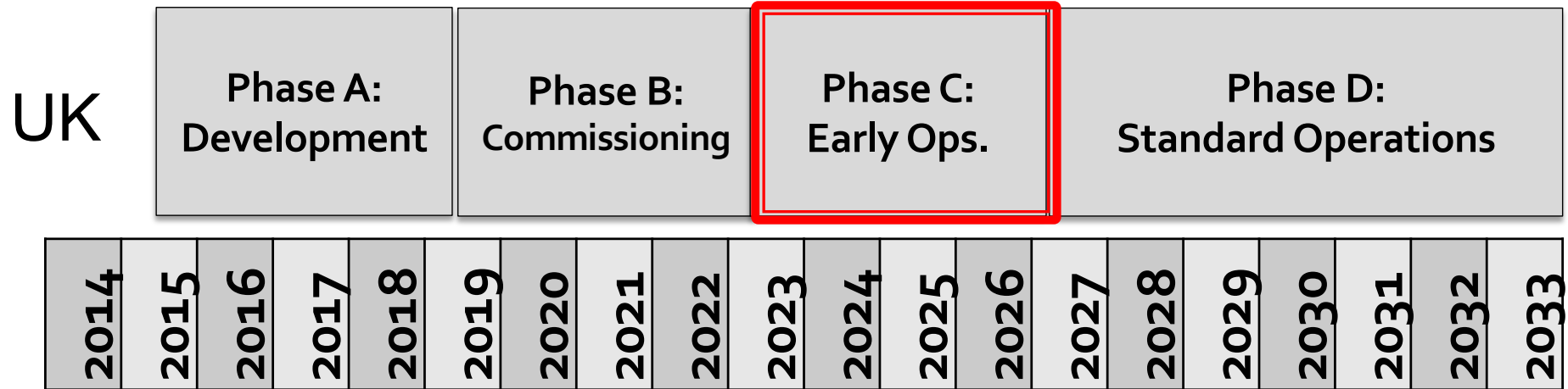
## 2019

- In-kind contributions: either
  - **Offset costs** to US agencies - i.e. do work that would happen in US otherwise
  - **Add value** to US scientific return from Rubin LSST – e.g. other data or software for user-generated products





# LUSC programme defined in 2014



- Phases A & B very successful
- Three major changes since 2014

# In-kind contributions model

- Great opportunity for the UK
  - Expand data rights – ideally to whole UK community
  - Earn a place within the Rubin operations consortium
- In-kind package developed by LSST:UK in conjunction with STFC & Rubin during 2019-20
  - Approved in 2021 by Rubin Management Board as forming basis for UK Data Rights Agreement





# Where are we now ?

- Currently funded LSST:UK grant from STFC PPRP : Phase B 2019-2023
- Work ongoing under this grant is being continually assessed by the Rubin's "Contribution Evaluation Committee" (CEC)
- We submitted a Phase C (2023-2027) proposal of work to STFC – under review
- Total cost to UK will be about £60M

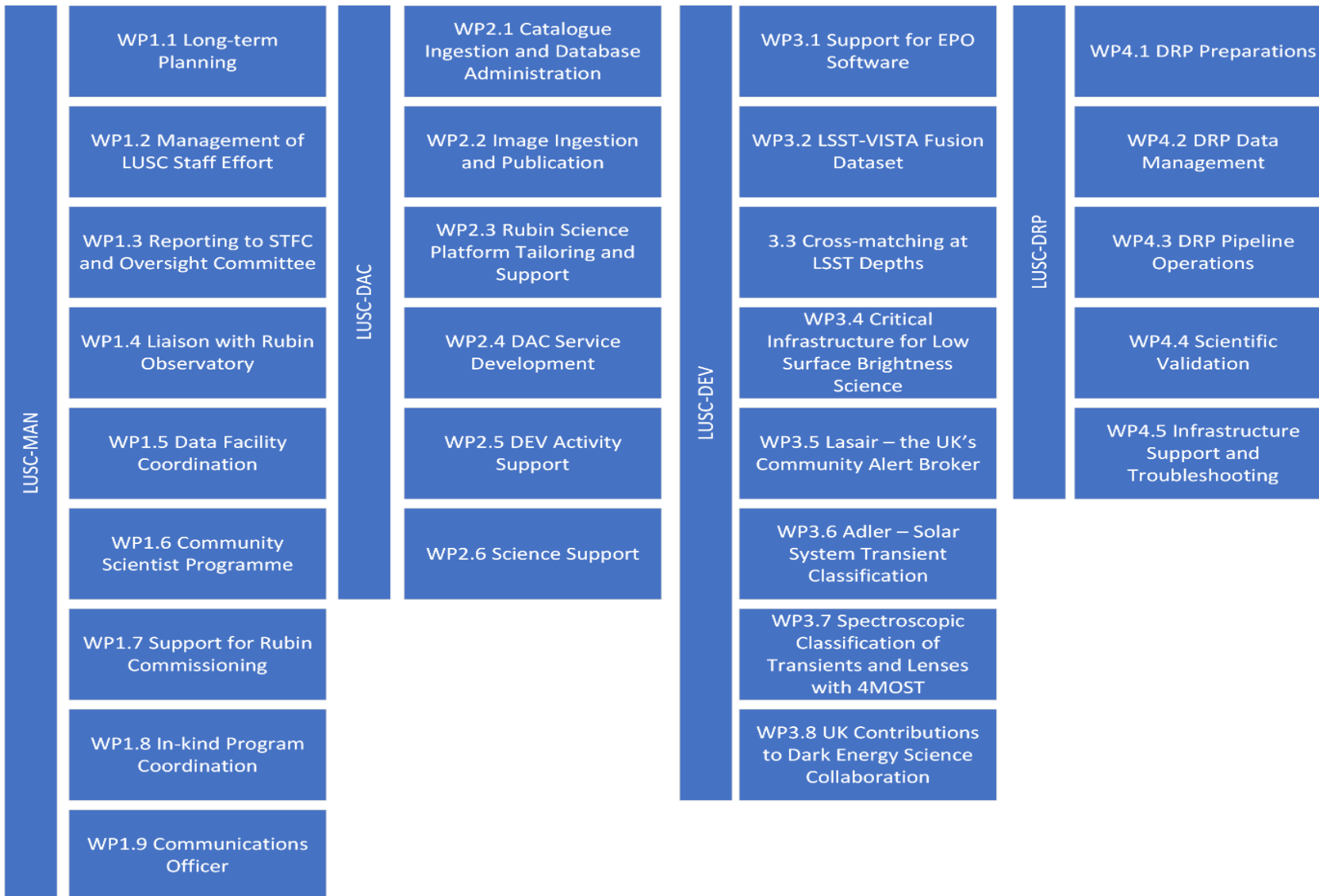


# UK in-kind package

- Three main strands
  - **DAC**: development & operation of Data Access Centre
  - **DRP**: 25% share of annual Data Release Processing
  - **DEV**: development of analysis software
- plus additional cost-offsetting activities requested by Rubin & binding us into operations consortium
- Gain data rights credit for work we're already doing
- All STFC funding will now be spent within the UK
- Rubin valuation: over 300 PI positions



# Phase C WPs



# Phase C WPs In-kind





# Data access and involvement

- Get “Affiliate PI” or “Junior Associate” status
- <https://www.lsst.ac.uk/news/2021/2022-pija-selection-round-open-21-11-01>
- Join the LSST:UK mailing list – wiki account, follow monthly newsletters
- <https://www.lsst.ac.uk> and the link to wiki
- General good starting point : <https://www.lsst.org/participate>
- Join a Science Collaboration : slack and community posting web sites

