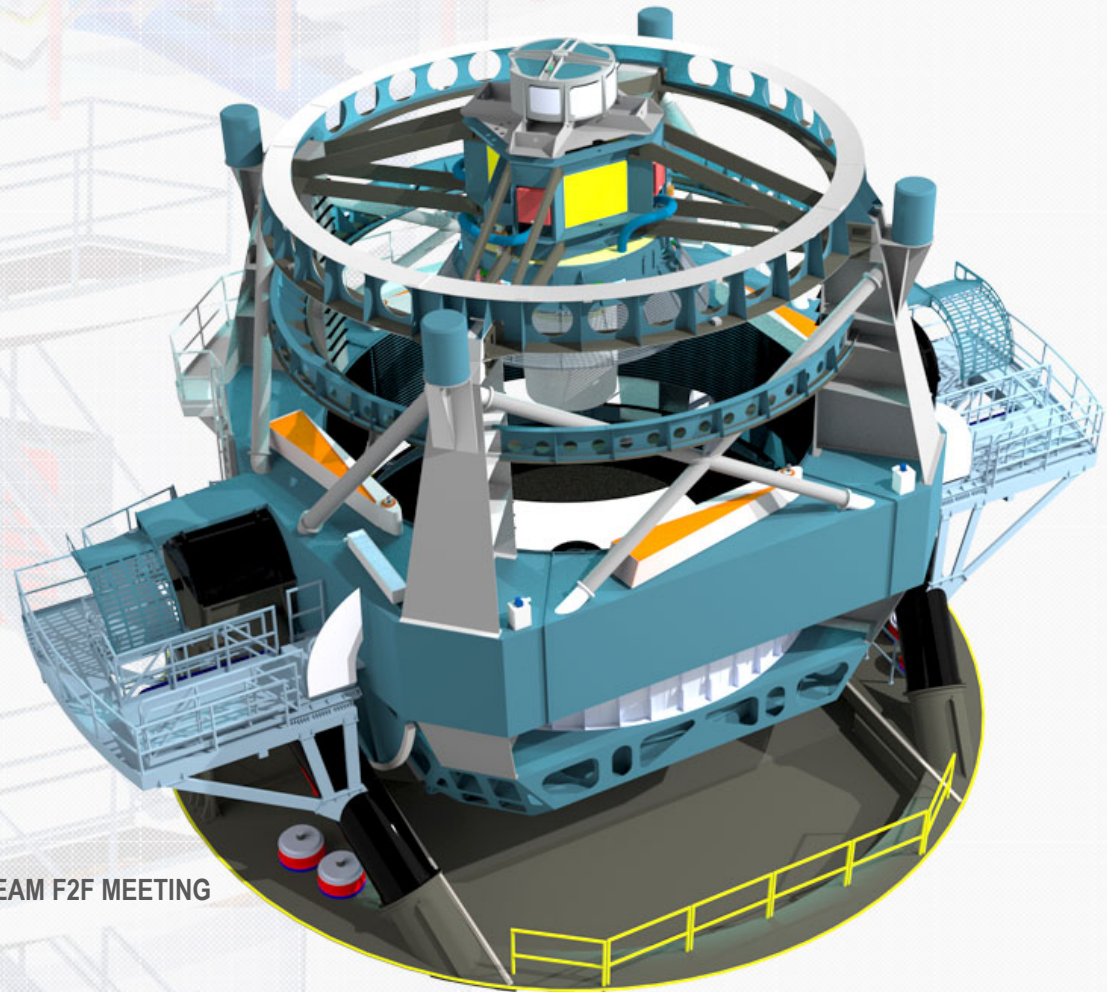


# DM Project Science Group

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University of Washington*



DATA MANAGEMENT LEADERSHIP TEAM F2F MEETING  
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# What Does the DM Project Scientist Do?



Defined in LDM-294:

Maintain a vision of what DM needs to deliver to satisfy LSST's promises to the community.

***“The DM Project Scientist has ultimate responsibility for ensuring DMO initiatives provide solutions that meet the overall LSST scientific and technical requirements.***

*The DM Project Scientist must ensure correct specification of DM Scientific Requirements and proper translation of those requirements into derived information technology requirements and ultimately, into implemented solutions.*

Don't have us over- or under-build.

Make sure that vision is translated to requirements, that designs respond to the requirements.

*The DM Project Scientist must ensure that the DM subsystem is properly scoped and integrated within the overall LSST system.*

*The DM Project Scientist is also a member of the LSST Project Science Team (PST) and reports to the LSST Director. “*

Advise the Director on these matters (n.b. this is likely incorrect)

# What Does the DM Project Scientist Do?



More from LDM-294:

*Specific responsibilities include:*

Vision

- **Responsible for [defining] the science deliverables of the DM System**
- **Set requirements for the DMS that:**
  - *Ensure that the design and operational flow of the data products meet the needs of the science community*
  - *Ensure that the quality requirements of the data products will be / are being met by the DMS, with a particular emphasis on choice of appropriate application algorithms*

Requirements

- **Set requirements for and assess/validate results of Data Challenges and other precursor experiments**
- **Set requirements and assess/validate results for Data Releases**
- *Convene and/or participate in all DM reviews*
- *Co-Chair the DM Leadership Team and Science/Architecture Team*

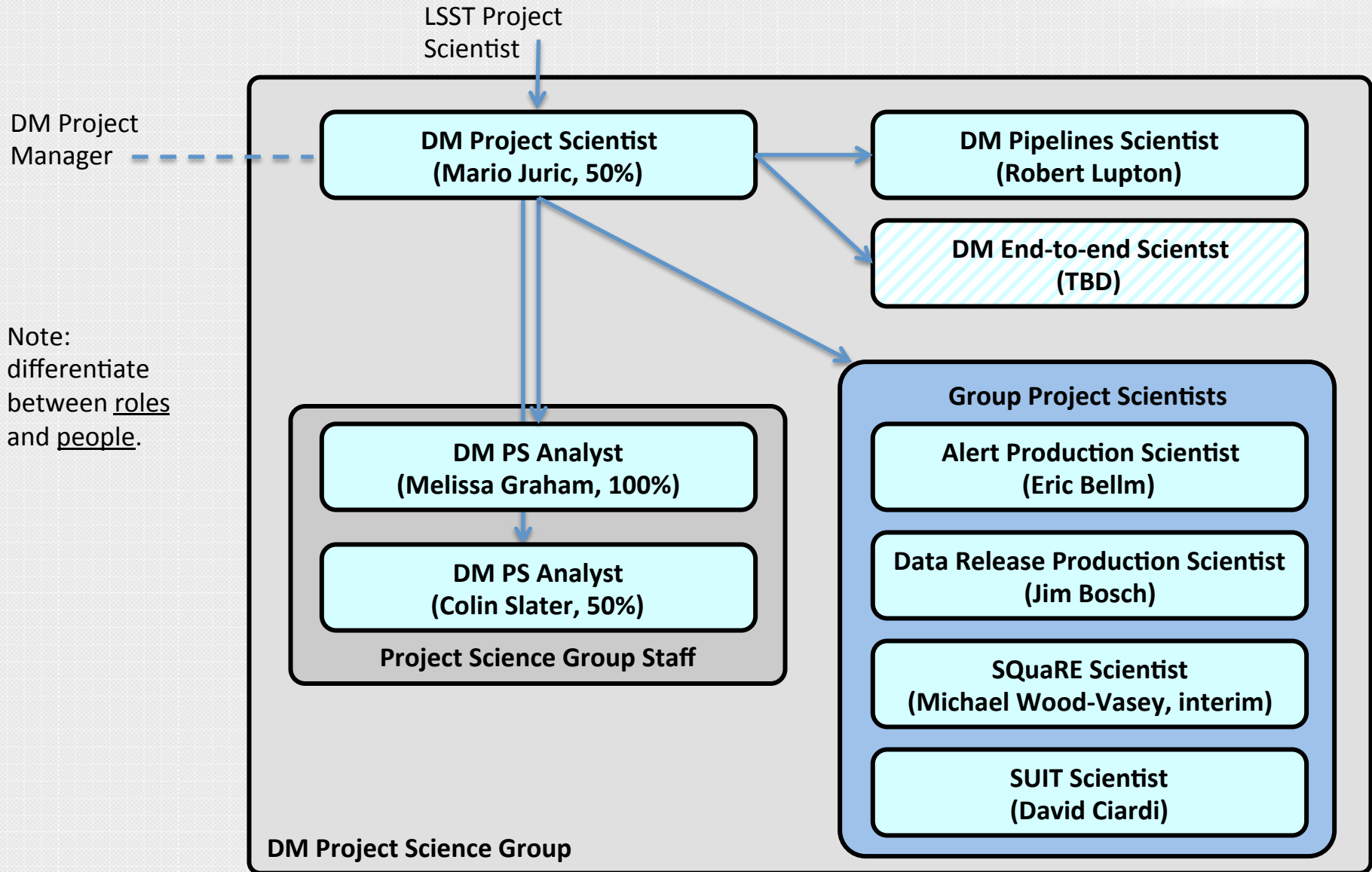
Science Validation

Coordination



- **Communicate with the stakeholders** (science community, advisory bodies) to **understand stakeholder goals**
  - Attend workshops and conferences on behalf of LSST, collect information and feedback
  - Be involved in science collaboration work
- **Define, maintain and communicate system vision and requirements; communicate these to the construction team**
  - Maintain high-level vision and requirements documents
  - Investigate and assess scientific acceptability of proposed technical solutions to the project stakeholders (understand the performance of the system); potentially propose alternatives
  - Negotiate mutually acceptable solutions between the stakeholders and the development team
  - Collection and communication of required scientific inputs
- **Advise on the priority of DM construction activities**
  - Provide advice on overall prioritization (backlog prioritization)
- **Validate the deliverables**
  - Convene design reviews (internal and external)
  - Define the scientific content and coordinate execution of tests and data challenges

# DM Project Science Group



# Delegation of Responsibility



- Members of the DM Project Science group work together to define, maintain, and validate the implementation of the vision for the LSST DM system
- DM PS responsibilities are delegated to the members of the DM Project Science Group
  - **Group Project Scientists:** ProductOwner roles for parts of the work breakdown structure (more in a second)
  - **Pipeline Scientist:** Algorithm choices and their impact on science
    - PSG Staff, Group Project Scientists
  - **PSG Staff:** Understand the expected performance of the deliverable, investigate scientific acceptability of proposed solutions
  - **DM PS:** Communication with the community
    - Everyone on the PSG
  - **End-to-end Scientist:** Validation of deliverables
    - Validation group (TBD), PSG Staff

# The DM Project Scientist is DM's Product Owner



- *The Scrum product owner is typically a project's key stakeholder. Part of the product owner responsibilities is to have a vision of what he or she wishes to build, and convey that vision to the scrum team.*
- *The product owner is commonly a lead user of the system or someone from marketing, product management or **anyone with a solid understanding of users, the market place, the competition and of future trends for the domain or type of system being developed.***
- *This, of course, varies tremendously based on whether the team is developing commercial software, software for internal use, hardware or some other type of product. The key is that the person in the product owner role needs to have a vision for what is to be built.*

<https://www.mountangoatsoftware.com/agile/scrum/product-owner>

# How (I think) DM PSG Plugs into Planning and SCRUM



- **The DM PS is the Product Owner of the DM system**
  - *Responsibility delegated by the LSST Project Scientist*
  - Participate in long-term planning (contribute to cycle goal definition)
  - Participate in the definition of acceptance criteria for the cycle
  - Participate in plan performance evaluations, advise on modifications (~cycle timescales)
  - Accept the result of cycle development (scientific performance)
  
- **DM PSG Scientists are the Product Owners of their parts of the system**
  - *Responsibility delegated by the DM Project Scientist*
  - Participate in sprint planning (sprint goal, backlog prioritization, etc.)
  - Participate in sprint reviews (accept the results)