

# Research Project Management Strategies Utilized in a Large, Multi-site Lung Cancer Screening Consortium

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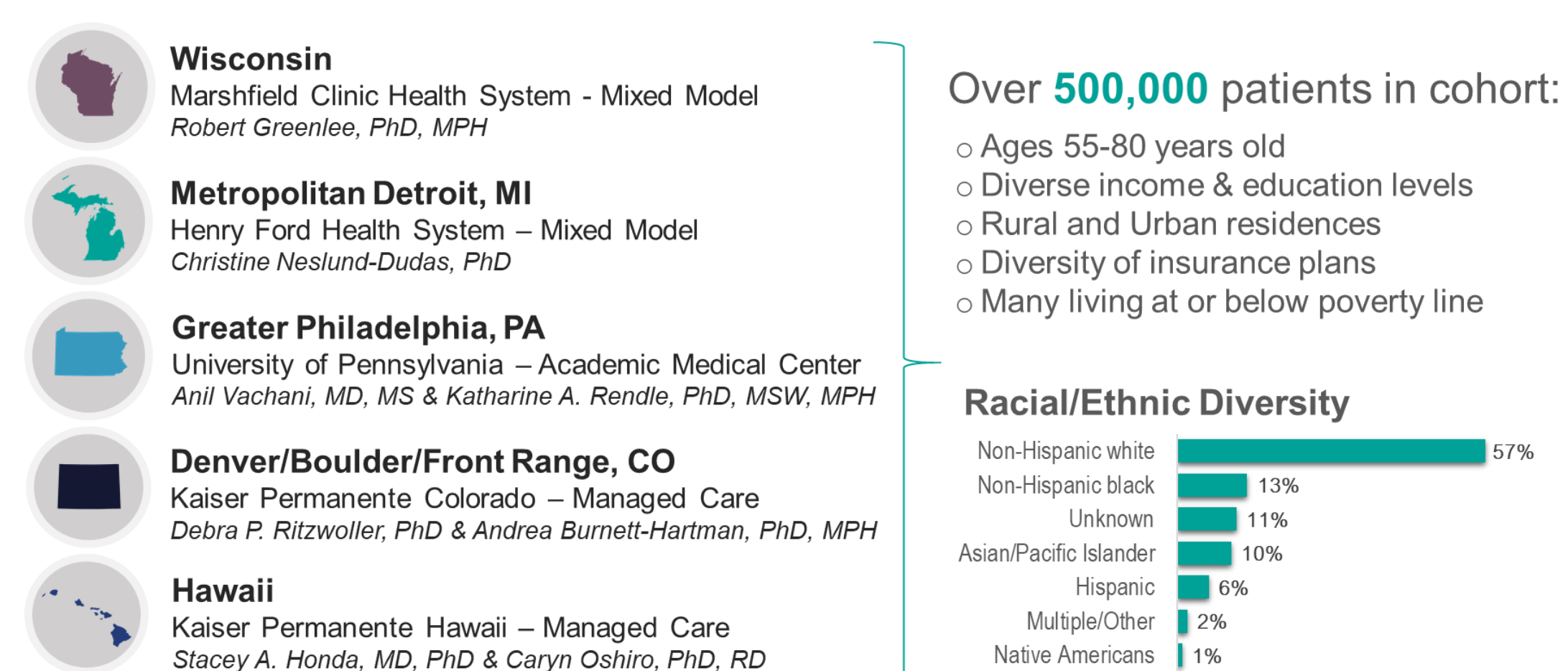
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## Background

Research is increasingly conducted through multi-institutional consortia. Scientific research teams must prioritize infrastructure to increase effective collaboration, communication, and coordination.

Here we describe the structure and processes employed by the Population-based Research to Optimize the Screening Process – Lung Consortium (PROSPR-Lung) from 2018-2021 that contributed to the successful launch and management of this large, multi-site research center and data repository.

Figure 1. PROSPR-Lung data contributing sites and demographics



## Methods

Our research team implemented six evidence-based Science of Team Science (SciTS) best practices\* to develop the structure of PROSPR-Lung (Figure 2):

1. Develop a shared **mission, vision and goals**; build consensus and ensure individual goals are also met.
2. Build a **culture of trust**, accountability, openness, inclusivity, and constant learning; create a culture of psychological safety.
3. Facilitate **interdisciplinary conversation** on approaches, methods and results.
4. Build strong and transparent **research support systems**: information management, scientific coordination, project management, and communication systems.
5. Build accessible, transparent **data management systems** with clear data analysis pipelines.
6. Foster strong, functional **leadership** that values inclusive authorship and transparent intellectual product responsibilities.

\*Rolland B, Burnside ES, Voils CI, Shah MN, and Brasier AR. Enhancing reproducibility using interprofessional team best practices. Journal of Clinical and Translational Science 5: e20, 1–8. doi: 10.1017/cts.2020.512

## Results

Figure 2. PROSPR-Lung Strategies to Implement Science of Team Science (SciTS) Best Practices

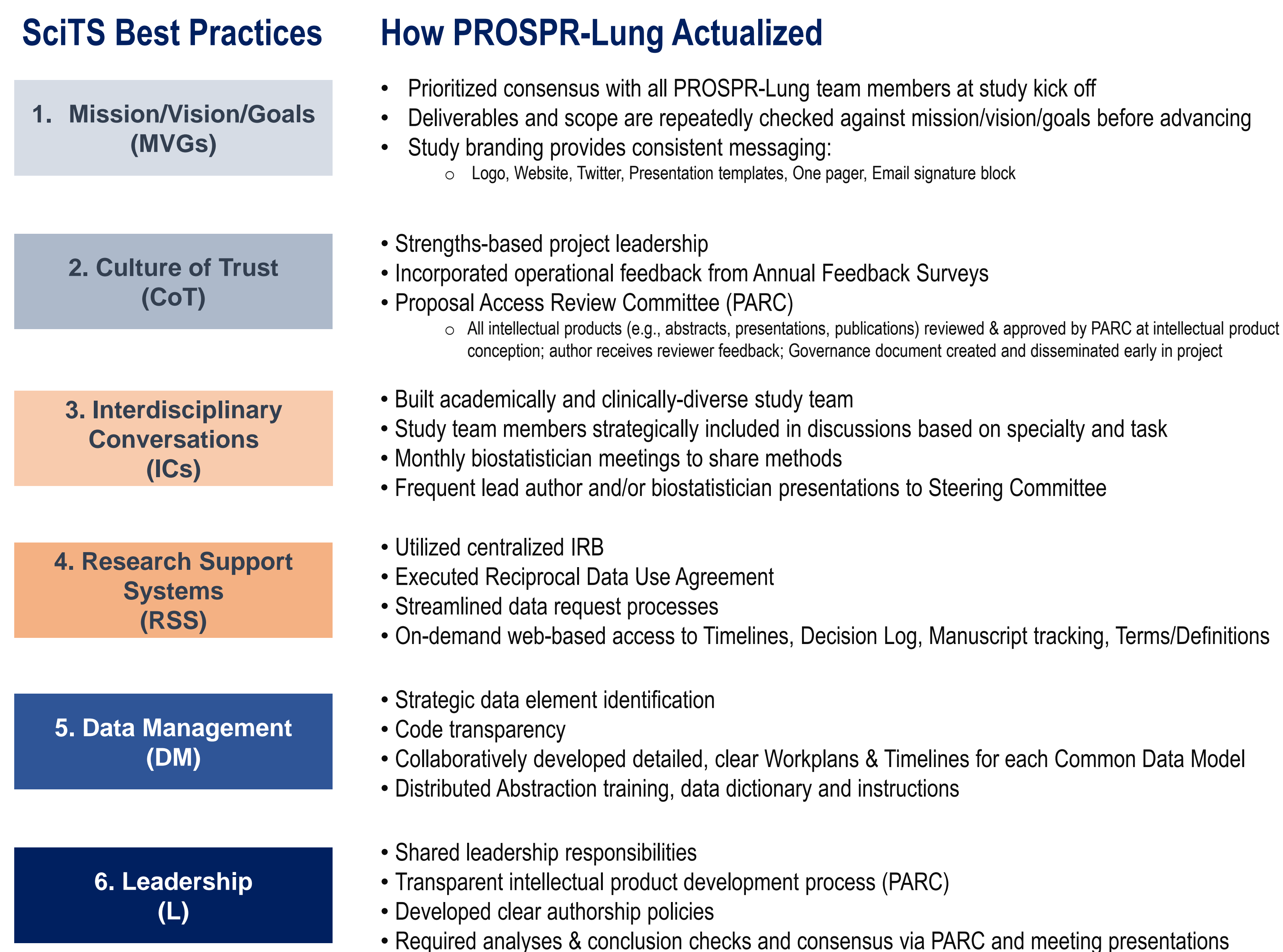


Figure 3. PROSPR-Lung Project Management tools used to drive collaboration, efficiency and scientific progress

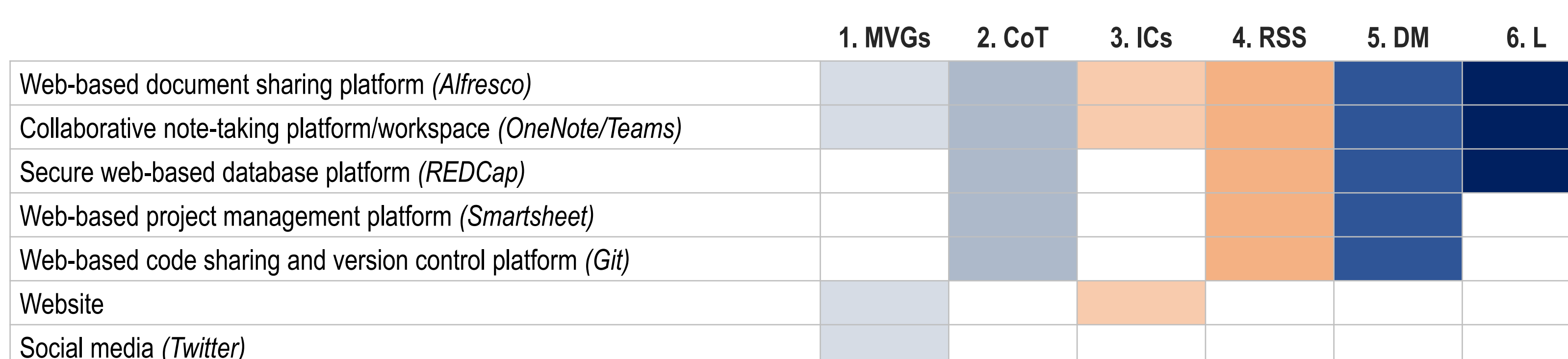
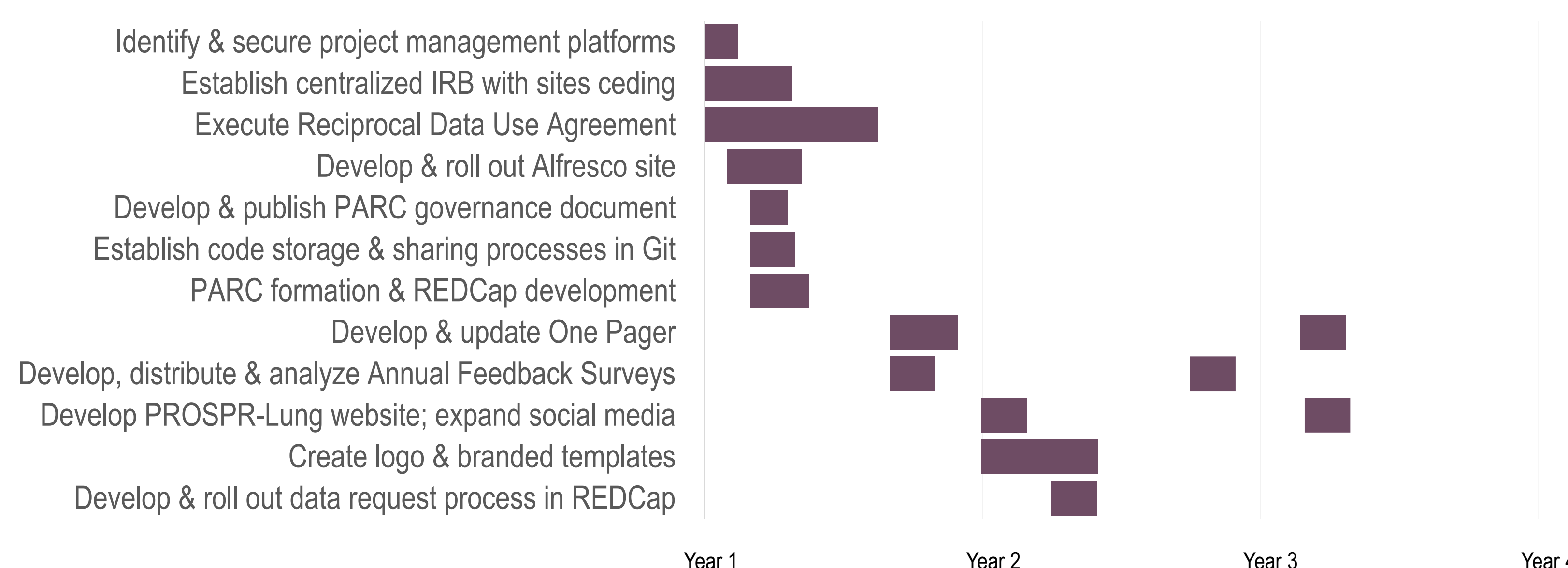


Figure 4. PROSPR-Lung prioritization of research infrastructure establishment



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## Conclusion

The PROSPR-Lung Consortium utilized evidence-based **Science of Team Science (SciTS) Best Practices** to:

- ☑ Implement governance policies & ensure compliance
- ☑ Provide clear direction
- ☑ Create and distribute data capture workplans
- ☑ Manage deliverables with an efficient timeline
- ☑ Remove barriers and manage challenges
- ☑ Demonstrate productivity

Figure 5. PROSPR-Lung Governance

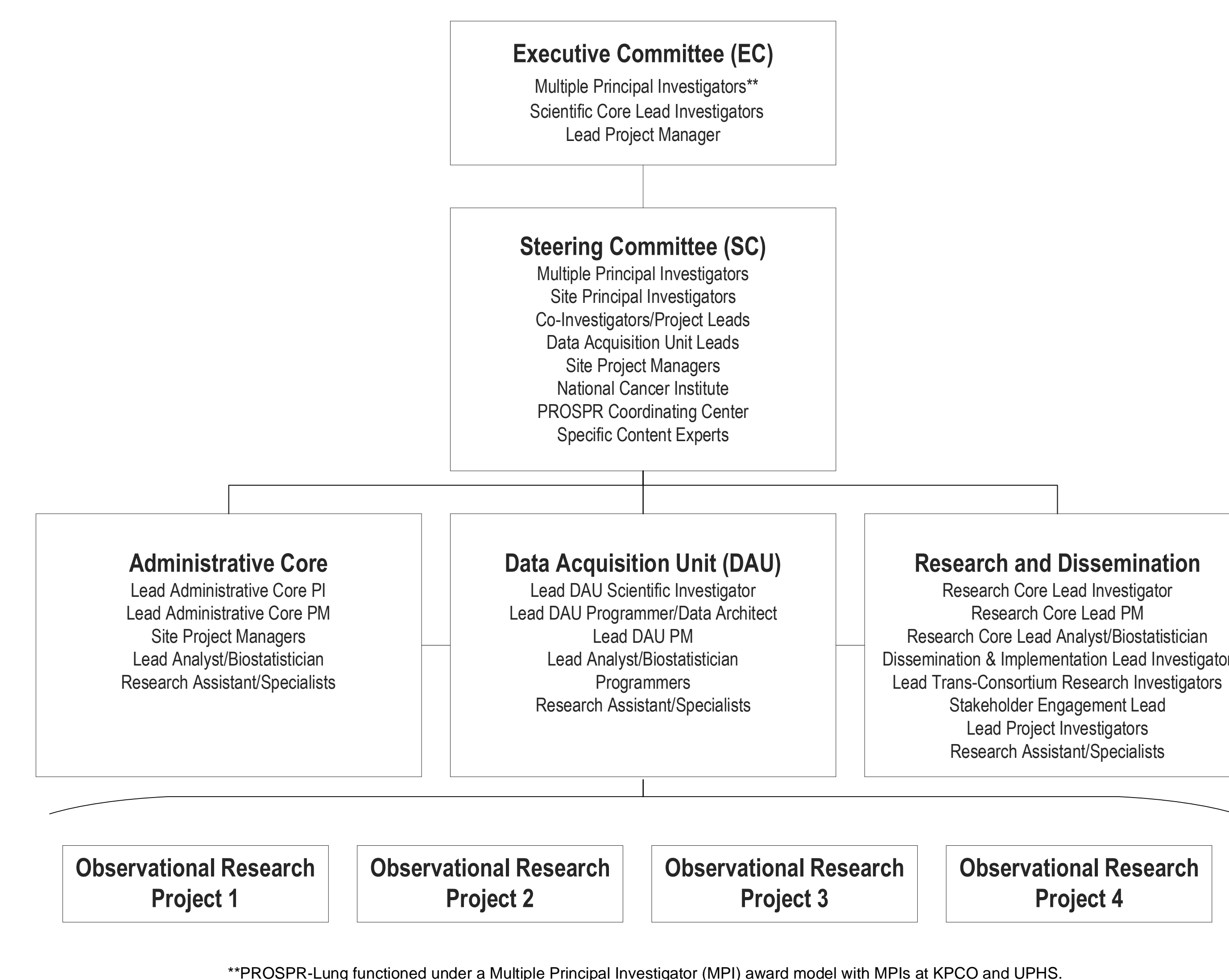
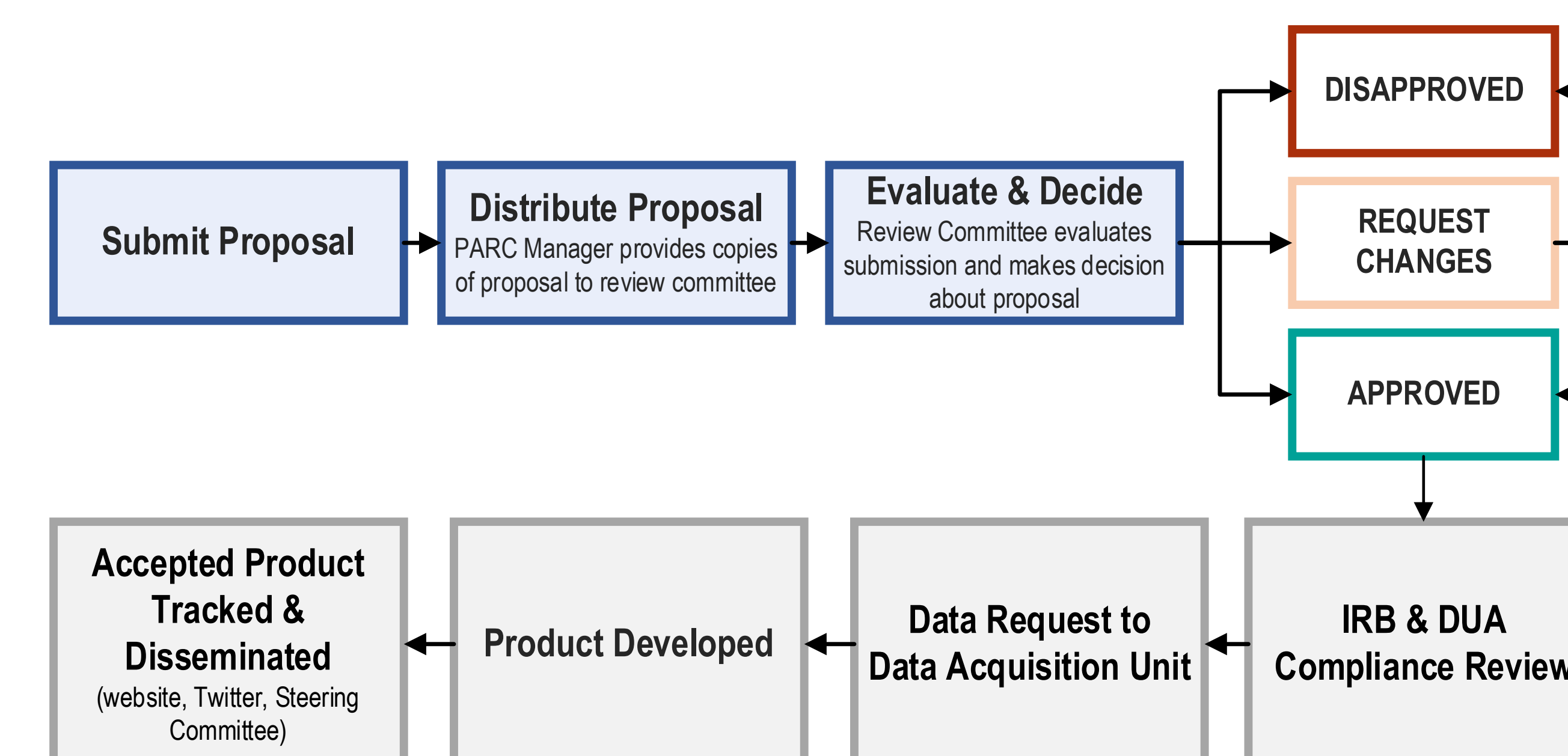


Figure 6. PROSPR-Lung Intellectual Product Review, Data Request, and Tracking Process (PARC)



## Contact

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