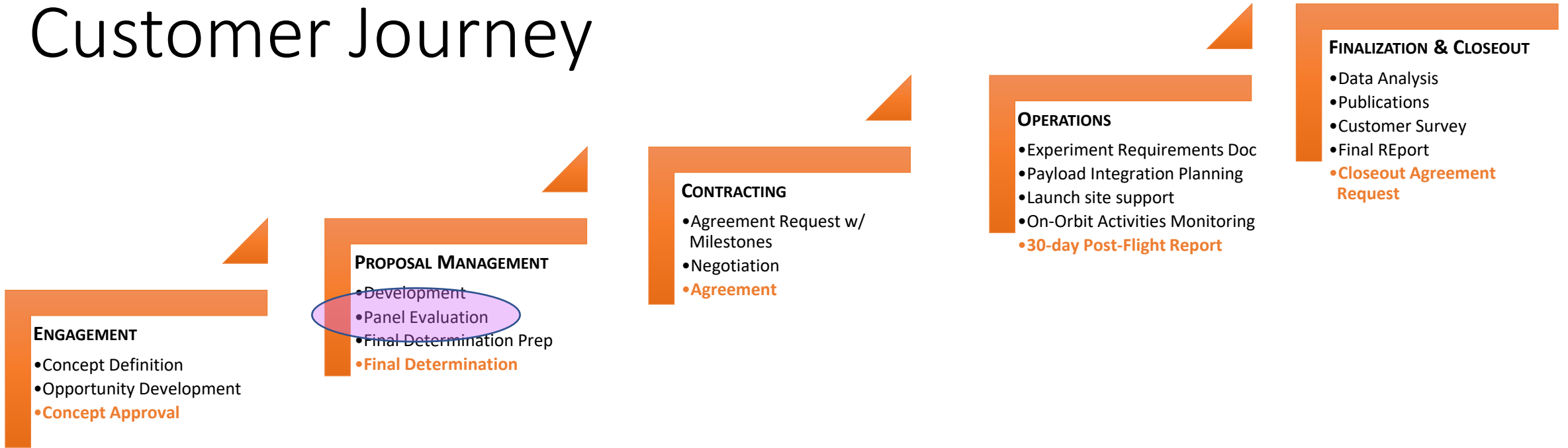


CASIS Proposals: Business and Economic Evaluation Process

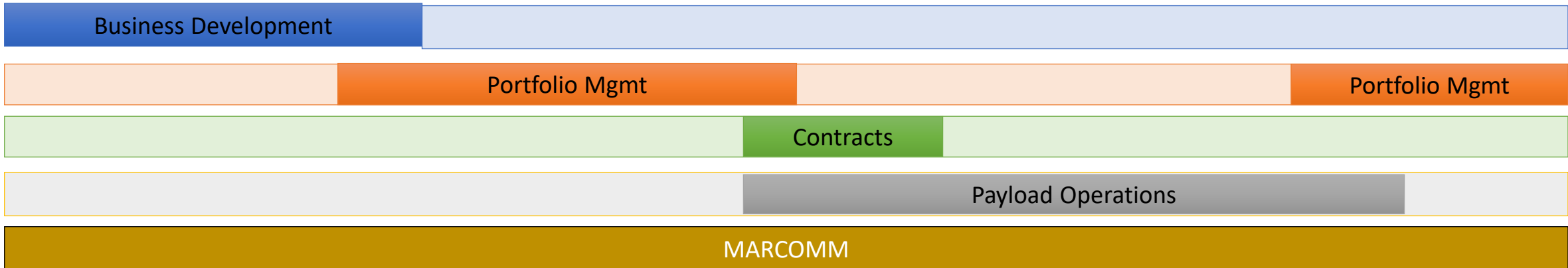
Who is CASIS?

- Center for the Advancement of Science in Space
- 501 c3 Non-profit Organization
- Manager of the International Space Station National Laboratory
- Funded by NASA Cooperative Agreement

Customer Journey



Project Lead



Proposal Instructions based on Lines of Business

Discovery Science – emphasizes scientific or technical value and potential benefit to humanity

Commercial Utilization – describes both scientific/technical value and commercial purpose/value.

In-Space Production – similar to Commercial Utilization but emphasizes scalable and sustainable business operations in space.

STEM – focuses on educational value ... specifically depth of experience and reach across multiple, especially underserved communities

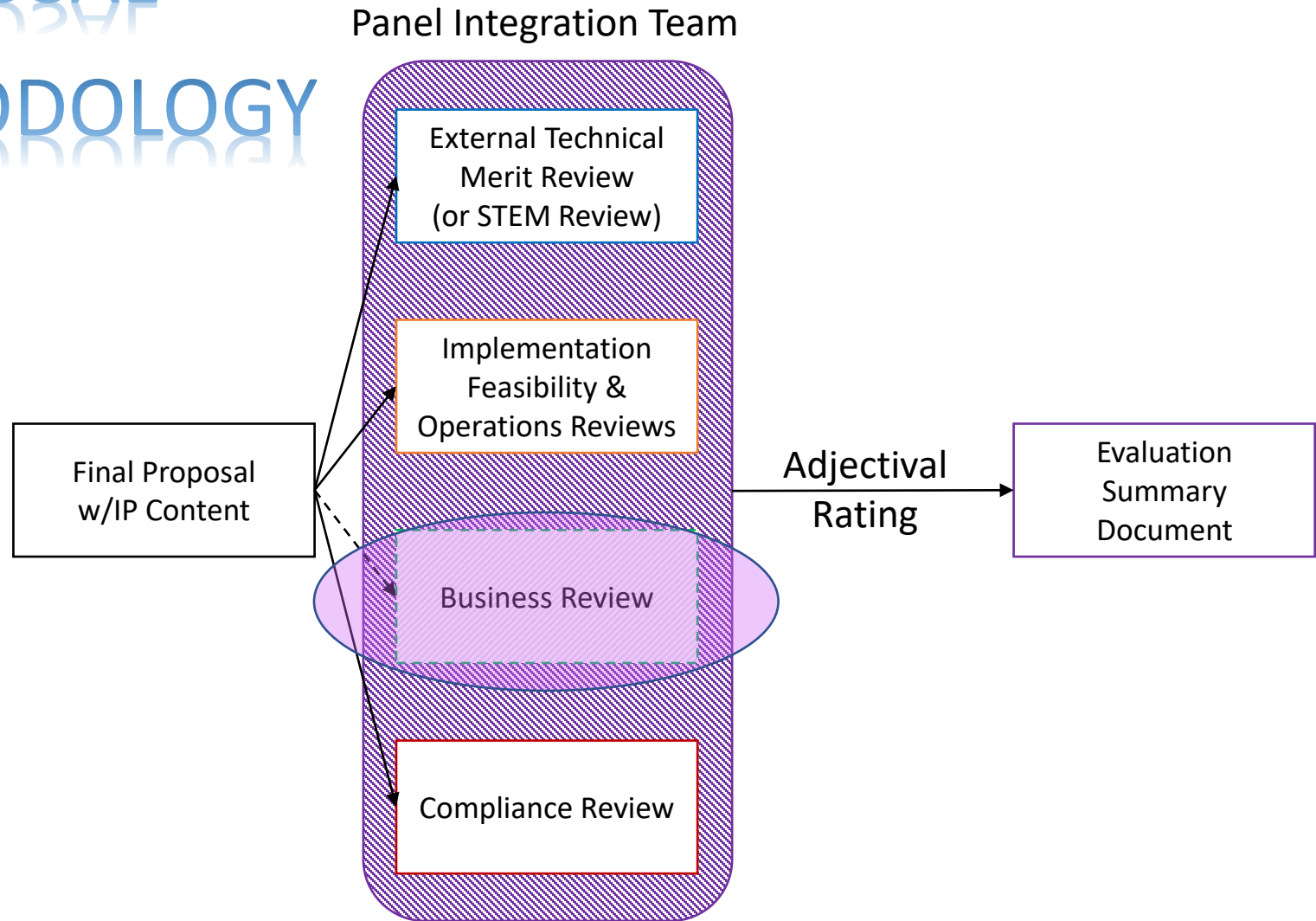
GENERAL PROPOSAL EVALUATION METHODOLOGY



External Business Review performed by Consulting Agent



CASIS may also conduct internal business reviews for comparison



BUSINESS AND ECONOMIC MERIT CRITERIA

D-1, Project outcomes can be deployed to serve sizable addressable markets (scalability)

D-2, Project outcomes are leverageable across other applications, customers or needs

D-3, Project results in technology/products/solution innovation and/or market disruption

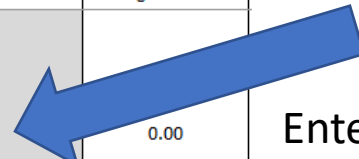
D-4, Project leads to incremental revenue after completion

D-5, Sufficient internal/partner resource commitment is available

D-6, Project has feasible commercialization and customer engagement

CRITERIA RATING PROCESS

ISS National Lab Business & Economic Impact Panel - Proposal Evaluation Rubric							TOTAL SCORE		
Proposal Organization		0			Reviewer	0			
		0			Proposal TYPE	STEM Engagement and Outreach			
		Non-Compliant (=0)	Poor (=1)	Fair (=2)	Good (=3)	Very Good (=4)	Excellent (=5)	Score	Weighted score
Project results in Technology/products/solution Innovation and/or market disruption	D-3	No discussion of planned market impact is provided	No evidence provided that target markets are in any way impacted, or that material new market opportunities are created.	Some evidence that the project results will be seen as innovative and attractive to markets	The project represents a unique innovation that may disrupt markets. Potential market share is unclear	The project represents a unique innovation that will be likely to disrupt markets. Products will have documented potential for competitive advantage to win at least a single digit percent market share.	The project represents a unique innovation that will be likely to disrupt markets. Products will have significant competitive advantage and have high potential to win significant (10% or more market share)		0.00
Project leads to incremental revenue after completion	D-4	No information on revenue expectations	Revenue expectations are stated but unsubstantiated or unlikely to be achieved at material scale	Project revenue expectations stated but not substantiated, but it is reasonable to expect some revenues.	Project revenue expectations are well substantiated and are expected and likely to be material, however the potential outcomes could vary broadly and/or results will require 10 years or more to be realized	Project revenue expectations are well substantiated. Project is expected and likely to result in incremental revenues of \$10M or more per year, achieved within 7 years	Project revenue expectations are well substantiated. Project is expected and likely to result in incremental revenues of \$50M or more per year, achieved within 5 years		0.00
Sufficient Internal / partner resource commitment is available	D-5	No information provided on resource commitments	50% or less of the full project costs are funded. No evidence of internal or partner capability to commercialize	75% or less of the full project costs are funded. There is some discussion of how access to necessary commercialization resources may be achieved	Project funding is fully established and documented by commitment letter(s). There is some discussion of how commercialization resources may be achieved	Project funding is fully available and documented by commitment letter(s). Funding needs to complete commercialization is discussed in a credible way but may not be fully quantified and addressed.	Project funding is fully available and documented by commitment letter(s). Funding to complete and commercialize the results with significant additional, quantifiable, and identified capital sources		0.00
Project has feasible commercialization and customer engagement	D-6	No commercialization capability is provided	Low probability that project results will be advanced or deployed. There is no evidence of customer interest or engagement	Some probability that project results will be advanced or deployed, as documented by customer interest or engagement	Proposal provides some understanding of customer capabilities, with a defined commercialization market, leading to a moderate probability of further advancement or deployment	Proposal provides strong understanding of customer capabilities, with a defined commercialization strategy as documented in reported business plan items	Proposal provides strong understanding of customer capabilities, with a well defined commercialization strategy. Sufficient financial/operational plan details are provided in concert with a well defined business plan		0.00

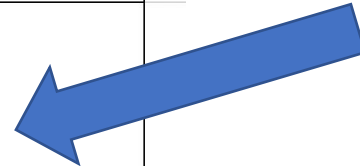
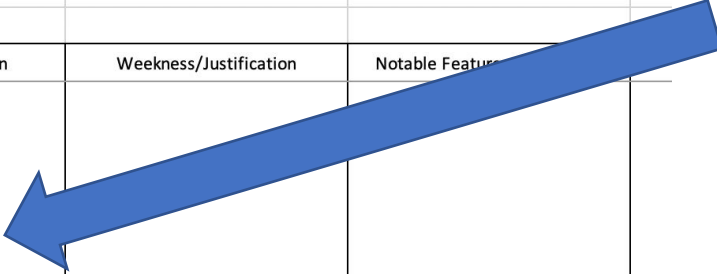


Enter a score of 1 to 5 for each criteria per the rubric

STRENGTHS, WEAKNESSES, AND FEATURES

Statement and Outreach		Score	Weighted score	Strength/Justification	Weakness/Justification	Notable Features
represents a market that will significantly impact and is critical to win or more are)		0.00				
expectations initiated. and likely elemental or more d within 5		0.00				
is fully mented by etter(s). plete and he results dditional, l identified rces		0.00				
es strong i customer th a well cialization it financial/ details are ert with a iness plan		0.00				

TOTAL SCORE
0



Provide justification for Rubric score as a Strength (exceeding the standard) or weakness (shortfall)

- Reference the criteria standard
- Both strengths and weaknesses can be written for any given criteria.
- Cite location (page) in proposal

Rubric scores:

- 1 or 2 => one or more substantiating weakness(es)
- 4 or 5 => one or more substantiating strength(s)
- 3 => strength and weaknesses essentially balance

Include any “notable features,” to help identify high-potential proposals that may not have scored well in the rubric

Score	Adjectival Rating	Strengths and Weaknesses
0-50	Poor	A non-selectable proposal. Few if any strengths; many weaknesses some of which may include uncorrectable non-compliances .
51-65	Fair	A marginal proposal. Weaknesses outweigh strengths (perhaps significantly). The evaluation may identify non-compliant criteria, but these should be correctable with additional effort by Proposer or Implementation partner.
66-75	Good	An acceptable proposal. Weaknesses and strengths are essentially balanced. Any non-compliances are easily correctable. A proposal that rates 'Good' in all categories would be "on the cusp" for selection.
76-85	Very Good	A better-than-average proposal. Strengths outweigh weaknesses and there are no meaningful non-responsives to criteria. A proposal of this rating would have attractive features noted in strengths that would easily justify selection.
86-100	Excellent	A truly outstanding proposal. Few if any weaknesses are noted and many strengths. A proposal with this rating should be compelling and a top-tier effort.

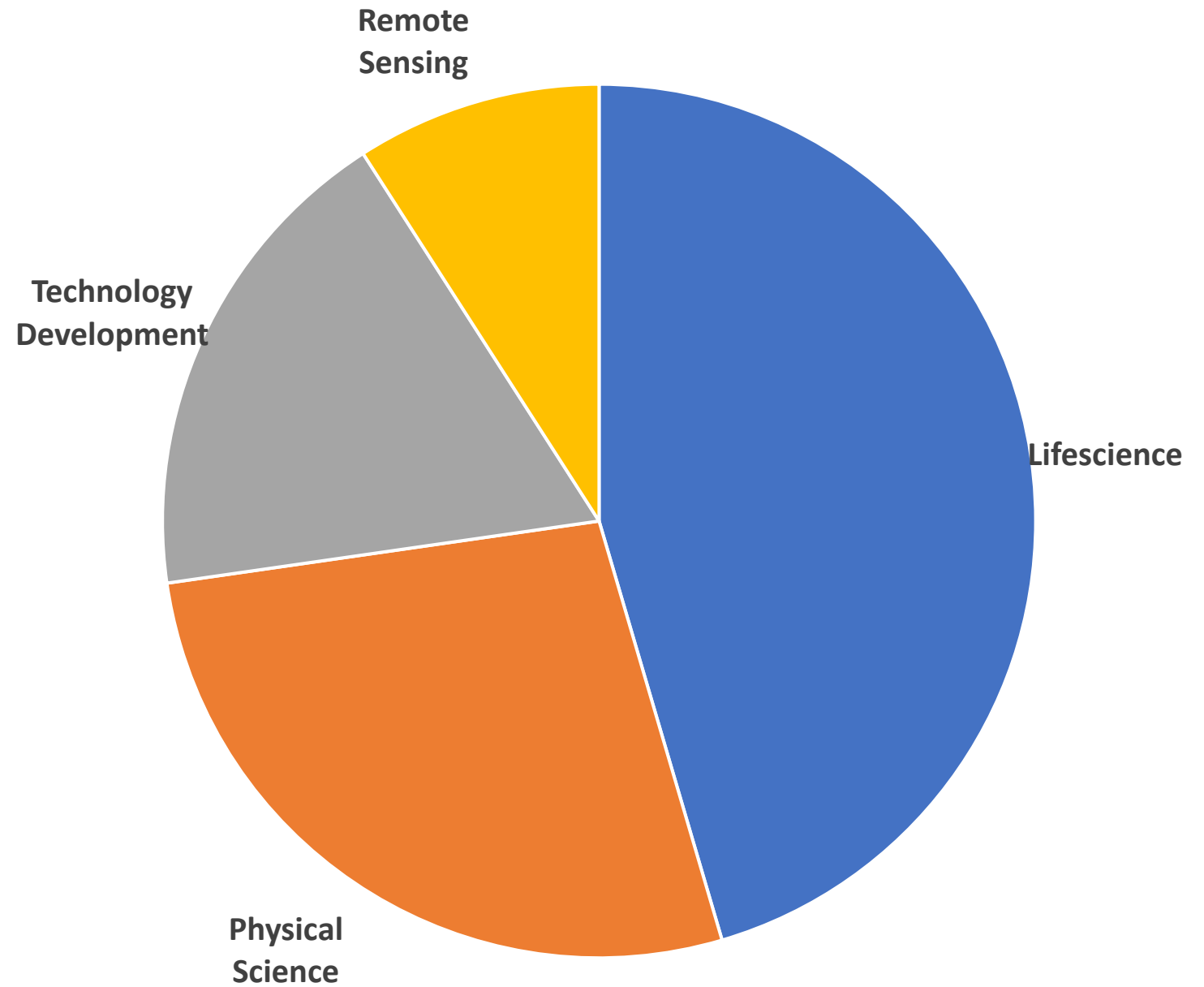
NOTIONAL ISSNL PROPOSAL EVALUATION TIMELINE

Activity	Duration (Days)	Wk1	Wk2	Wk3	Wk4
CASIS Provides Proposal Summary ¹ to Vendor	0	▲			
Vendor Identifies Reviewer & Responds to CASIS	5	■	▲		
CASIS Provides Proposal and Evaluation Materials	0		▲		
Vendor Submits Completed Evaluation Form	10		■	▲	
Economics Panel Meeting (as required) ²	0				▲

1 Proposal Summary lists the technical topic, proposing organization, and principal investigator name(s).

2 Evaluators participate, as required, in a CASIS-facilitated virtual panel meeting to determine a consensus evaluation and adjectival rating for the proposal's Business and Economic merit.

Proposals by Technical Area



Take Aways

- External Business Reviews will be conducted when warranted by proposal content
- Reviews must follow the documented process
- Avoiding conflicts of interest and proposal content disclosures are Paramount
- Affordability is a Concern

Questions?