



Technical Factors

Technical Merit

The Proposal's likelihood of solving the technical challenge (identified in the solicitation) and the degree of its impact on the defined focus area.

Sub-Factors:

- Projects should use a systems engineering approach to reduce risk associated with improved manufacturing.
- Projects should have clear objectives, goals, metrics that lead to a clear and viable implementation plan.
- Technical plans should be clear and concise, clearly identifying the core innovation, the technical approach, major technical hurdles, and the attendant risks with risk mitigation factors. The technical plan should be coherent, display reasonableness of the technical objectives and clarity of vision of technical objectives, and provide the degree to which the technical plan meets program goals. Note: do not interpret this discussion as a desire for only low risk proposals.
- Adequacy of software development plan outline, if it is an element of the proposal.

Innovation

- Projects should press the state of the art while still having credibility with regard to technical approach. The enabling nature of the technology should be apparent. The quality, innovativeness, cost-effectiveness of the proposed technical program, and uniqueness with respect to current industry practice will also be considered.

Business Case, including Benefits Analysis

Evaluators will consider the business requirements that the proposed new technology will address, and clearly demonstrate that there is a need for the technology/process.

Sub-Factors:

- Substantial Impact on Affordability, Schedule and Quality
- The degree to which there is a compelling case that the proposed technology has strong potential to generate substantial benefits to the proposing organizations and the industry as a whole. Considerations will include the breadth of applicability to the shipbuilding industry, the level and nature of benefit provided to the industry (e.g., productivity, quality improvement, cost reduction), the potential for lead and cycle time reduction, the business impact of the technology on life-cycle cost (e.g., sustainment of aging ships), the life of the product/technology in the marketplace (years), and synergy with other operations, businesses, research, and programs.
- The need for ManTech support and what difference ManTech funding is expected to make in terms of what will be accomplished with the ManTech funding versus without it.
- The expected returns to the offeror and to others, i.e., spillover effects. A key element of this evaluation is a Benefit Analysis. Evaluators will consider the anticipated payoff that would result from the project, both in terms of cost savings (e.g. Labor, Materials, Rework, etc.) and/or reduced cycle time for affected processes and procedures. The credibility of the offeror's justification of assumptions used and the resulting estimated payoff will be assessed.

Implementation Plan – Technology Transfer and Commercialization

The implementation strategy for the proposed technology will be evaluated primarily on the adequacy of plans for implementation on current Navy programs. Proposals that develop technology with broad application throughout the industry will be viewed more favorably than those that do not produce transferable results.

Sub-Factors:

- Support and endorsement of the proposed effort by proposer's management team
- Transition Funding. Implementation on Navy programs requires that a successful R&D project focused on a priority need be accompanied by a viable source of transition funding. This transition funding is typically needed to cover Navy qualification as well as capital equipment and training costs. Since ManTech funding does not normally cover this, the requisite funding source for these costs needs to be identified at project onset.
- Approach for maintenance funding for developed technology after project completion.
- Plans to pilot innovations in a realistic context that specifically addresses organizational and cultural challenges to successful adoption (as appropriate).
- The pathways to economic benefit should be identified, including the offeror's approach for getting the technology into commercial use, as well as additional routes that might be taken to achieve broader diffusion of the technology. Examples might include development and distribution of "awareness" material that educates the industry on the technology developed, its technical merits, the lessons learned, and the benefits of the proposed innovations while addressing cost, risk, and the extent of change.
- Implementation on other Navy programs. Evaluation will consider the potential applications of the technology and evidence that the offeror has credible plans for prompt and widespread diffusion or commercialization of the technology if the R&D is successful.

Team Strength

This section should address the qualifications, capabilities, and experience of the proposed management team and technical personnel who will be assigned to carry out the project including the overall management approach and team organization.

Sub-Factors:

- The strength of teaming arrangements, clarity of task delegation, the chain of command, as well as the extent to which those responsible for the work have adequate authority and access to higher level management. The commitment of team members, including cost sharing contributions and the economic risk/exposure associated with this cost sharing, the extent to which the offeror assigns highly qualified people to the project, and the priority given to this work in relation to other company activities. Convincing evidence of commitment by team members is a key element of this evaluation factor.
- The qualifications, capabilities, and experience of the proposed management team and technical personnel who will be assigned to carry out the project. CNM will assess the proposing team's relevant experience for pursuing the technical plan. The team carrying out the work should possess an appropriate level of scientific/technical expertise to conduct the R&D and have access to the necessary research facilities.
- Past performance of the company or team members in carrying out similar kinds of efforts successfully, including technology application. Consideration of this factor in the case of a start-up company or new joint venture, will take into account the past performance of the key people in carrying out similar efforts.

Management Plan

This section should address the overall management approach and team organization.

Sub-Factors:

- Overall project duration, including discrete phases (none longer than one year and non-overlapping) and associated metrics for making a determination to proceed from one phase to another. Each phase will require milestones that relate to specific deliverables during the phase.
- Milestones or "observable technical events" mark the completion of a significant portion of the project. An appropriate number of milestones and criteria by which their completion will be determined should be

provided by the offeror. For projects with multiple phases, identify the key metrics that will be used to make the determination to continue from one phase to another, or stop the project.

Cost Evaluation Factors

The objective of this area of evaluation is to assess the ability of the offeror to execute the proposed project with the financial resources proposed and to achieve project objectives. CNM will assess the reasonableness and completeness of estimates provided. Summary cost data is provided to the technical reviewers to support their assessment of cost realism.

Completeness (Qualifying Factor)

The following will be evaluated:

- The degree to which the offerors have provided all cost information requested in the solicitation. Please note that rate and pricing information is required to properly perform the cost analysis of your proposal. If your company is unwilling to provide this information in a timely manner, your proposal will be lacking information that is required to properly evaluate the proposal, which will delay any subsequent award.
- How well cost data is reconcilable.
- Substantiation of cost (i.e., supporting data and estimating rationale) for all elements.
- Cost and cost share proposed should be allowable in accordance with FAR Part 31.

Reasonableness (Critical Factor)

A cost estimate will be considered “reasonable” based upon subjective judgements. To be considered reasonable, the offeror’s cost estimate should be developed from applicable historic cost data, fully supportable with assumption, learning curves, equations, estimating relationships, etc., clearly stated, valid, and suitable. The offeror should show that sound, rational judgement was used in deriving and applying cost methodologies. Appropriate narrative explanation and justification should be provided for critical cost elements. The overall estimate should be presented in a coherent, organized and systematic manner.

Realism (Critical Factor)

Estimates are “realistic” when the number of hours and material costs proposed are neither excessive nor insufficient for the effort to be accomplished. Estimates must also be realistic for each phase of the proposed project when compared to the total proposed cost. Determination will be made by directly comparing proposed costs with cost estimating relationships, comparable current and historical data, evaluator experience, available estimates, etc. Proposed estimates will be compared with the corresponding technical proposals for consistency.