

STRATEGIC PLANNING FOR SCIENCE AND ENGINEERING

WHAT IS STRATEGIC PLANNING?

Strategic planning is a management tool used to maximize and ensure the successful outcomes of long-term organizational goals or initiatives.

STRATEGIC PLANNING IS

Focused---energies and resources selected and dedicated to achieve goals.

Strategic---steps to achieve goals are carefully crafted with required resources.

Integrated---all the pieces of the plan fit together and work synergistically.

Feasible---goals are achievable and designed to produce practical results.

Adaptable---plan is a steady guide, with built-in flexibility to adjust to changing situations.

Measurable---process and outcomes of the plan are demonstrable and quantifiable.

WHY STRATEGIC PLANNING?

It is a highly useful management tool to:

- Guide simple or complex initiatives over long periods of time
- Minimize risks in execution of plan
- Maximize successful outcomes
- Provide a solid basis for evaluation and accountability

HOW TO DEVELOP A STRATEGIC PLAN

- First form a group of concerned persons, including the organization's (or project's) leader and other stakeholders who will steer the development of the plan to completion.
- Stakeholders must then carefully consider, reach a consensus on and document the following elements of a strategic plan:

VISION

A statement that describes the ultimate aim of the proposed initiative and how the world will be changed as a result of the initiative. It must be stated clearly and have a sense of urgency and excitement for stakeholders and potentially interested persons.

MISSION

Statement of the overall focus of an initiative. It should be unambiguous and include the driving rationale for the initiative.

SITUATIONAL ANALYSIS

Describes the strengths, weaknesses, opportunities and threats (SWOT) that are involved in or may impact an initiative. This analysis is essential for the strategies and adaptability of the plan, and is critical to the overall success of the strategic plan.

GOALS & OBJECTIVES

- **Goals** are the guiding aims of an initiative. The goals must be stated succinctly.
- **Objectives** are statements that further specify the goals in measurable terms and timeframes.

STRATEGIES

The approaches used to achieve the goals and objectives. Strategy statements must be feasible, and include contingency strategies. Also, the approaches used to achieve the goals should include how the opportunities found from the situational analysis will be utilized and challenges addressed.

IMPLEMENTATION PLAN

Describes the specific actions taken to achieve the plan, including the what, who, how, where and when for each of the goals and objectives.

SAMPLE IMPLEMENTATION CHART

Goal	Obj.#	Action	Who	Loc.	Time-frame	Status
1	1.1	Do study	P.I.	Lab	Jan-May 2005	

METRICS

Metrics are the quantitative and qualitative measures used to assess the effectiveness and efficiency of the plan's implementation and the goal-related outcomes. Also included in the assessment is documentation of lessons learned from executing the plan and adjustments made in the strategic and implementation plans.

FINANCIAL RESOURCES

- Description of linkages between the financial (and in-kind resources) and the goal-related activities. The specific linkages provide a basis for monitoring and accounting for the allocation and expenditure of the plan's resources.

MANAGING THE STRATEGIC PLAN

- A description should be included in the plan of how and who will oversee and manage the plan's implementation. This should include a description of administrative controls and a code of ethics to guide the behaviors of the plan's participants.

END

STC STRATEGIC PLANNING AND IMPLEMENTATION

STRATEGIC PLANNING FOR STCs

The 9 basic elements of a strategic plan will be applied to the prospective TRUST and CReSIS Science and Technology Centers:

- Vision
- Mission
- Analysis
- Goals/Objectives
- Strategies
- Implementation Plan
- Metrics
- Resources
- Management

A SUB-STRATEGIC PLAN IS DEVELOPED FOR EACH COMPONENT OF A STC

- Research
- Education
- Diversity
- Knowledge Transfer

END