Maximizing Grant Proposal Writing for Success Using "The Baseline Logic Model"

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Seminar Goals

The goal of this presentation is to

- **Give instruction on a successful proposal development tool, the "Baseline Logic Model"**

- **Allow participants a chance to use this approach and share their writing**

- **Discuss how this approach may be tailored to their institutions**

Proposal Development Process
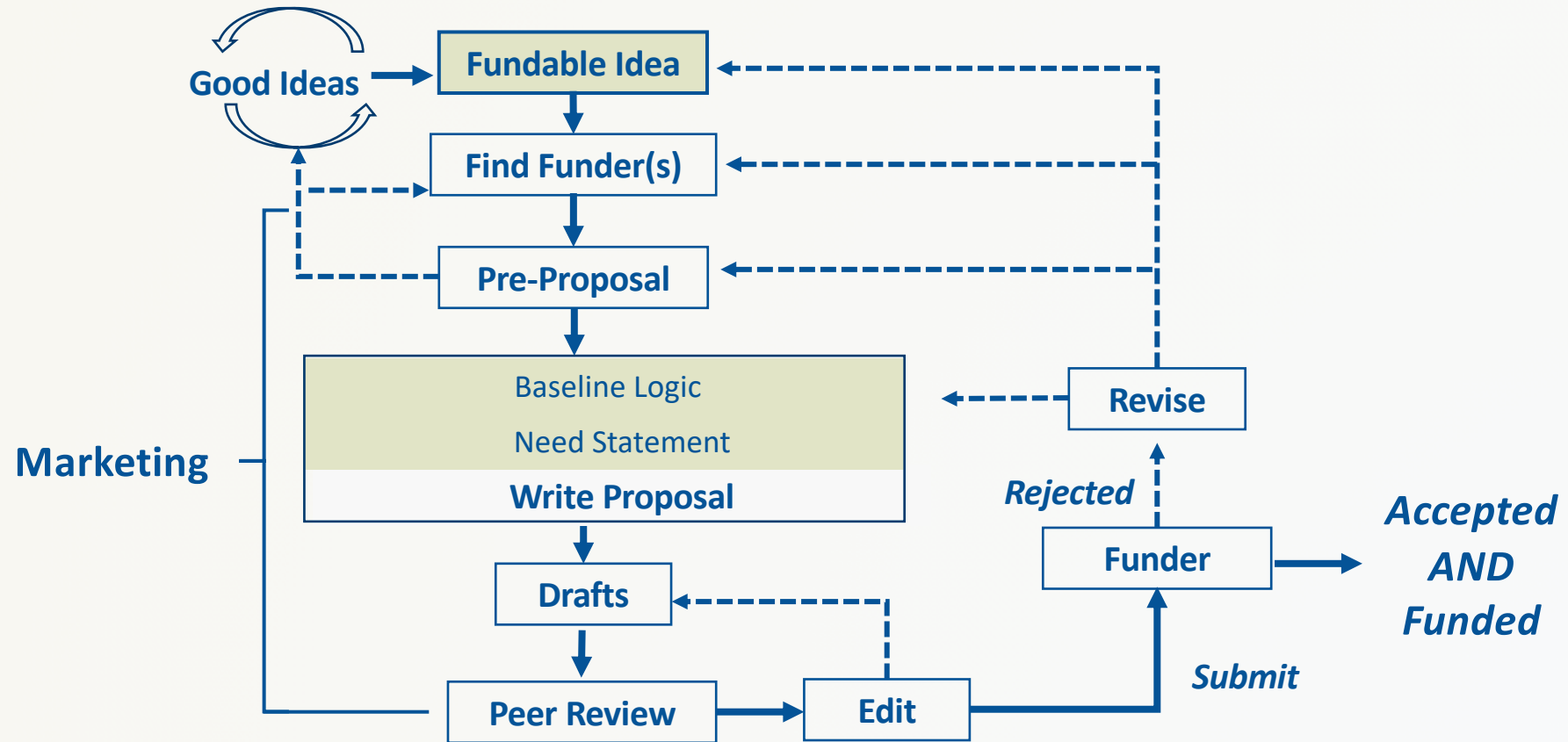
Fundable Idea

Fundable Ideas Start With Good Ideas

How do you develop good ideas?

- **Be knowledgeable, thoughtful, creative, open**

- **Think in Question/Experiment/Hypothesis format**

- **Keep an ongoing log of your ideas**

- **Let the ideas incubate and try the process again**

- **Seek constructive criticism of your idea**

From a Good Idea, Develop a Fundable Idea

- **What is the problem (or need) and why is it important?**

- **How is existing knowledge or practice inadequate?**

- **How is your idea new, unique, different?**

- **How will it advance your field?**

- **What are the broader impacts?**

- **Who will benefit?**

Baseline Logic

Baseline Logic

Baseline Logic is the foundation for a clear understanding of a proposal developed from a fundable idea

What is the problem you are addressing?

Current Situation

S_1

Desired Result

S_2

What does the project produce: insight, a product, and/or new knowledge that address the problem**?**

B

Benefits

Benefits are the good outcomes after the desired result is achieved

90% of proposals have serious flaws in their baseline logic
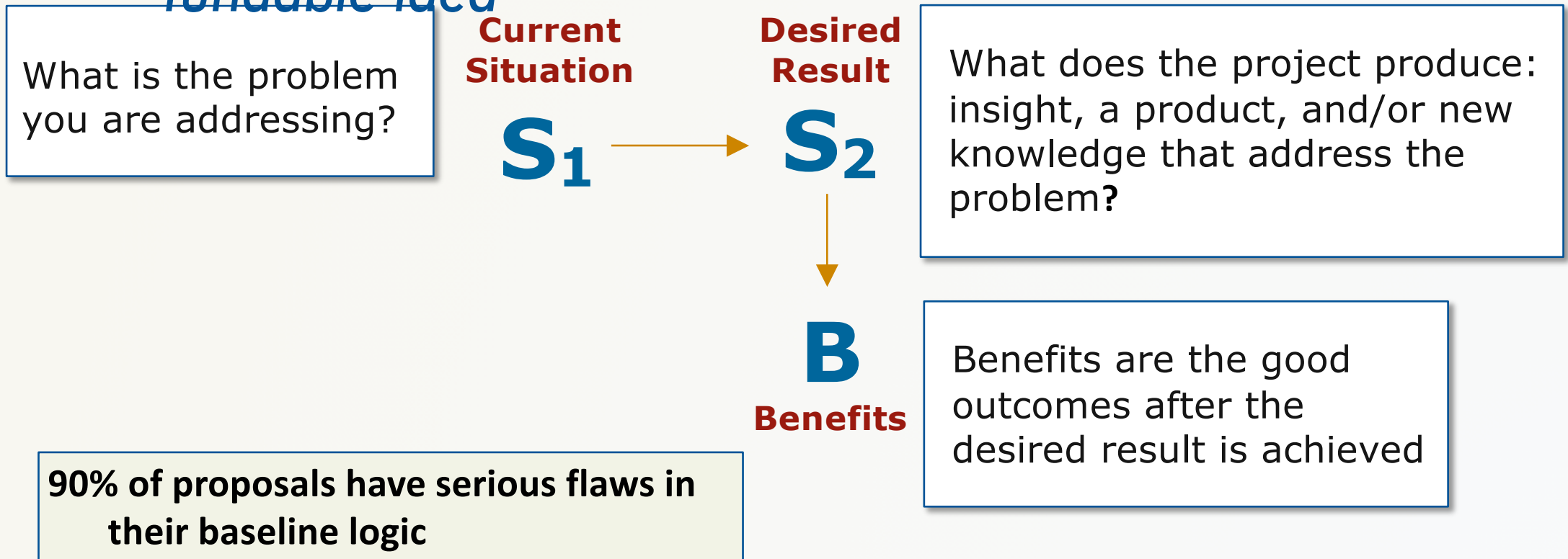
Baseline Logic Example
Cyber Security Graduates

| Lack of cybersecurity graduates | **Current Situation** S_1 | $\rightarrow$ | **Desired Result** S_2 | Increased number of cybersecurity graduates |

$S_2 \downarrow$

B

Benefits

Cybersecurity jobs filled by qualified cybersecurity graduates
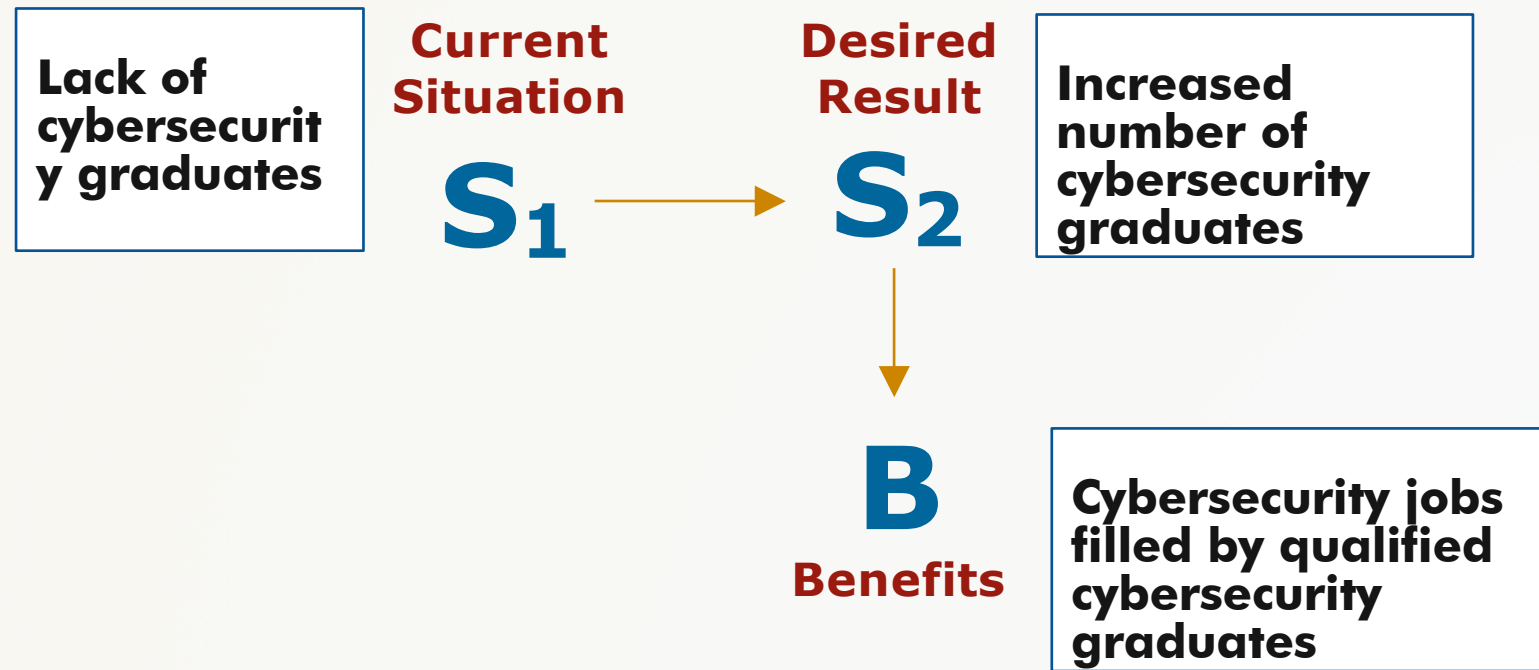
Baseline Logic Example
Origami-Based Engineered Systems

A variety of mechanical systems are needed but cannot be built because their design and engineering is too difficult

Current Situation

$$S_1$$

Desired Result

$$S_2$$

Using origami-based compliant mechanisms, create systems that can perform sophisticated mechanical tasks

$$B$$

Benefits

Innovative and cost-effective devices that integrate functions, eliminate interfaces between parts and

accomplish sophisticated mechanical tasks

Baseline Logic Example
High Density 3D Printed Microfluidics

The small size and self-contained components make microfluidic "Lab-on-a-Chip" devices highly attractive for point of-care applications. However these capabilities have not yet been developed because microfluidic devices are difficult to fabricate

Current Situation

$$S_1$$

**Desired Result**

$$S_2$$

$$B$$

Benefits

Use 3-D printing to make very small, highly sophisticated lab-on-a-chip (microfluidic) devices

Biomedical innovation in many medical applications including drug discovery, tissue engineering, cancer screening, point-of-care diagnostics, and pathogen detection

Baseline Logic Includes Deliverables

Current Situation   **Desired Result**

$$S_1 \longrightarrow S_2$$

Deliverables

$$\textcircled{d}\textcircled{d}\textcircled{d}\textcircled{d}$$

$$B$$

Benefits
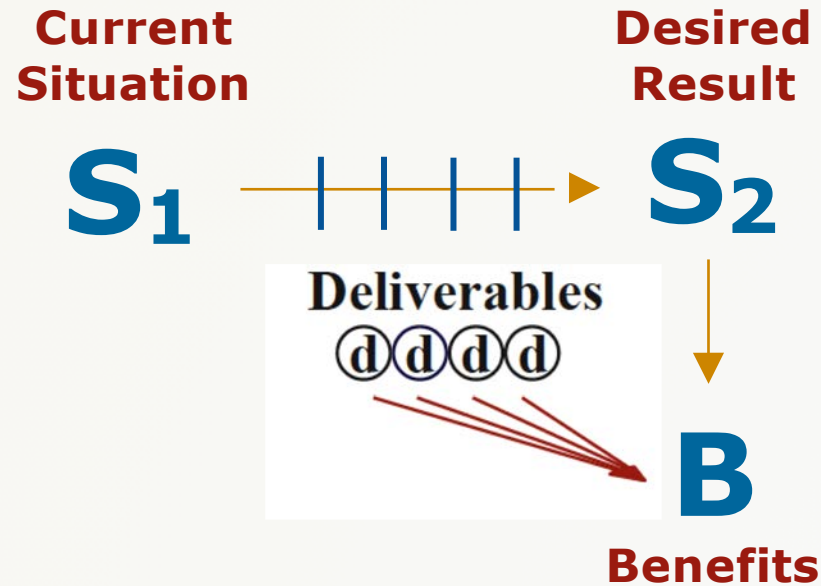
Deliverables
- The outputs produced during the transition from S_1 to S_2
- Include progress reports, methodologies, simulations, materials/capabilities created, etc.

Exercise – Write the baseline logic for your proposal

Need Statement

The Need Statement

- **A description of the problem and support needed to solve it**
  No problem, no interest, no funding

- **Should be** *succinct* **and** *persuasive* **– often the first thing a funder reads**

- **It is embedded in the proposal**

- **Can use it to create a white paper, Letter of Intent, other types of pre-proposal documents**

The Need Statement is Derived from Baseline Logic

The Need Statement has 4 parts:

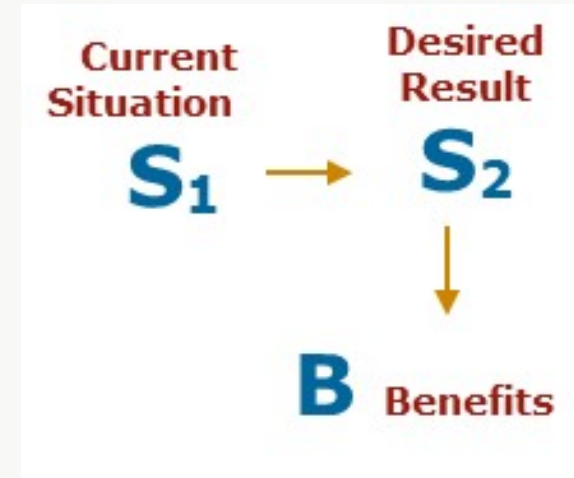**1. Description of the problem**
Expanded S_1

2. Plan for solving the problem
Derived from S_1/S_2

3. Benefits

4. Request for support

Need Statement – Problem Description

- **Context of the problem**
  - Define the problem so that other people can understand
  - Be specific about a larger societal problem (if relevant)

- **Justification for addressing the problem**
  - Scope: How large is the problem? How many people affected by it?
  - Justification: Why do we need to spend the money and resources to solve this problem now? (Urgency)

- **Specific aspect of problem being addressed**
  - If you are working on trying to solve a complex societal problem, you will not try and solve the entire problem, but rather an aspect of the problem

- **Use narrative form**
  - Include statistics, anecdotes, real-life examples

Example of a Problem Description

According to the Children's Report card, approximately 10,753 were physically, mentally, or sexually abused. Children of color, especially Hispanics, are at considerably greater risk of being abused. According to the Department of Health and Human Services, Hispanic children are four times more likely to become victims of child abuse than Caucasian children.

- **Description of the context of the problem, the justification and scope**

Certain aspects of Hispanic culture may create risk factors. Many Hispanic people leave their home countries to improve their quality of life, yet in the United States encounter poor education, unemployment and lack of affordable housing. While parents are working, relatives or friends who also live in the household often care for the children. Circumstances like these often leave Hispanic children more prone to abuse. Therefore, programs and interventions tailored specifically for Hispanics are needed to help prevent child abuse and successfully identify and refer victims to treatment.

- **This paragraph gives the aspect of the problem being solved**

CENTRO believes that there is a need to educate the Hispanic community about child abuse in order to prevent abuse and identify and treat victims. CENTRO understands the cultural needs of the Hispanic community and has been serving the twin cities for 28 years.

- **Justification for why this organization is qualified to solve this aspect of the**

Need Statement – Plan for Solving the Problem

- **Approach to solving the problem**
  - **What questions must be answered to solve the problem or realize the opportunity? (derived from deliverables and from themes)**
  - **Show how one step will lead to another until your solution is effected, or you can use analogies or precedent (i.e. how other similar research proposals have been successful elsewhere)**

- **Activities**
  - **Specific aims, intellectual merit, high level tasks**

Need Statement – Benefits

- **Benefits to your field**
  - How does it move your discipline forward?
  - These are the benefits or value of achieving our objectives

- **Benefits outside your field**
  - Broader impacts and outreach

- **Benefits to the funder**

Need Statement – Request for Support

- **Actions you want the sponsor to take immediately**

- **Resources you want the sponsor to commit**
  - **Strengthens budget request and narrative**
  - **Could include non-monetary resources like people, equipment, facilities**

CENTRO seeks to empower and support the Hispanic community by eliminating barriers to self-sufficiency. CENTRO believes that cultivating strong and healthy children who are free of abuse is one step to cultural self-sufficiency. For these reasons, we are undertaking a program to train parents and teachers to recognize the signs of abuse and refer abused children to treatment.

This training program will involve developing training materials and training trainers in the community to conduct free training sessions. We are seeking funding develop a training video which will be used to train parents and teachers to recognize the signs of abuse and how to access treatment. Therefore, we are requesting $6,700 in support from your organization.

Funding CENTRO's training program will result in parents and teachers who are able to recognize signs of child abuse in Latino/a children and refer abused children to treatment. This type of training program will lead to fewer abused Hispanic children and a more self-sufficient Hispanic community.

Summary of Need Statement Components

Component	
Story (Problem)/S_1	What is the history, the factors, events that caused the problem? What is the problem or opportunity? What are its effects? What has been done to try and solve the problem and have those efforts been successful? Describe the problem: (1) context of the problem, (2) justification for addressing the problem, (3) specific aspect of problem being addressed. (Causes and Effects) Statistics: your own data, info from external sources Examples: anecdotes, real-life, quotes
Plan for solving (Problem)/S_1 S_2	What questions must be answered to solve the problem or realize the opportunity? (Derived from deliverables and from themes)
Request for support and Benefits	State the actions you want the sponsor to take immediately and resources you want the sponsor to commit Briefly state the benefits

Develop a Proposal from a Need Statement

The Need Statement Content is Incorporated into Proposal Elements

Need Statement Components
1. Story (Problem)
2. Plan for solving (Problem)
3. Benefits 4. Request for support

- **The Need Statement thoroughly develops and describes the problem you are addressing including context and justification … develops the** *Situation* **description of a proposal**

- **Describes** *Methods* **at a high level; informs** *Qualifications* **and** *Benefits*

- **Provides the basis for the** *Budget* **you need**

S_1 Situation

Methods

Qualifications

Objective(s) S_2

Benefits **B**

Budget
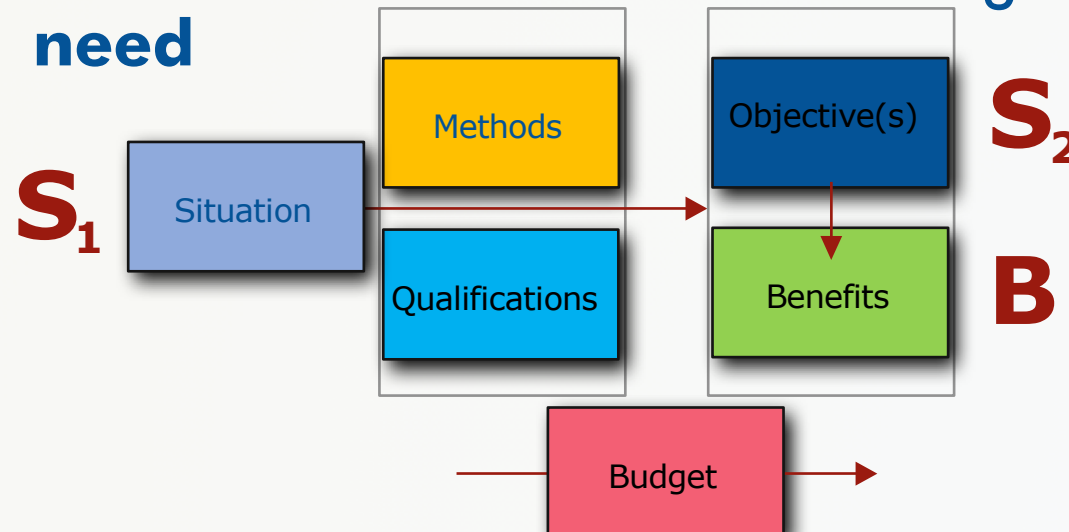
A Funder's Proposal Sections

The proposal elements created from the need statement map directly to a funder's proposal sections
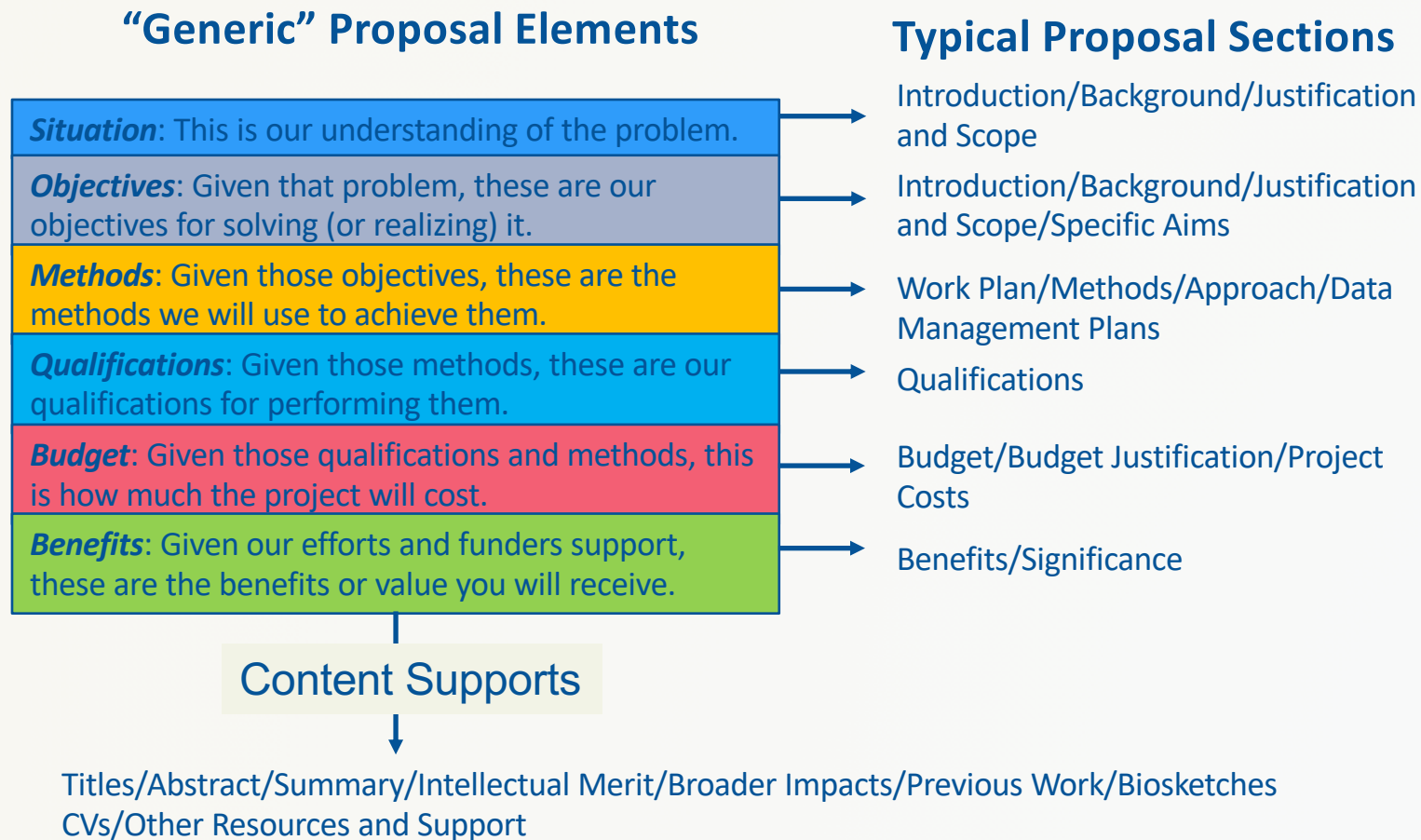
"Generic" Proposal Elements

	Typical Proposal Sections
Situation: This is our understanding of the problem.	Introduction/Background/Justification and Scope
Objectives: Given that problem, these are our objectives for solving (or realizing) it.	Introduction/Background/Justification and Scope/Specific Aims
Methods: Given those objectives, these are the methods we will use to achieve them.	Work Plan/Methods/Approach/Data Management Plans
Qualifications: Given those methods, these are our qualifications for performing them.	Qualifications
Budget: Given those qualifications and methods, this is how much the project will cost.	Budget/Budget Justification/Project Costs
Benefits: Given our efforts and funders support, these are the benefits or value you will receive.	Benefits/Significance

Content Supports

Titles/Abstract/Summary/Intellectual Merit/Broader Impacts/Previous Work/Biosketches CVs/Other Resources and Support

Baseline Logic and Program Logic Models

- **Baseline Logic** provides the foundation of a well written proposal that is clear and compelling with a narrative and logic that are easy to follow

- **Logic models** "…are intended to be a tool and a process to visually understand and **clarify the relationships between actions and expected results for a program** (Knowlton & Phillips, 2013 The Logic Model Guidebook)…and are used for program planning"[1]

Thus the Logic Model of the program expands on the Baseline Logic of the proposal

[1]Patricia Montano, "A Start To Developing a Logic Model", Oct. 4, 2016, http://www.informalscience.org/news-views/start-developing-logic-model

Wrap Up

- **Create fundable ideas from good ideas**

- **Develop baseline logic for your fundable idea proposal**

- **Expand baseline logic elements into a need statement**

- **Develop proposal elements from baseline logic and the need statement**

- **Use baseline logic to create program logic for your funded project**