

# CSP project startup documents

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This note outlines what should be in the document that describes the hopes and aspirations of a new CSP activity.

The most successful of the projects that the CSP group has engaged in over the years have begun by recording their aspirations and intentions. When done well, this has resulted in a clear set of goals that have guided the project and helped determine when corrective or supportive action is needed to help get things back on track. Since this seems like a Good Thing, I propose that we require a **CSP startup document** for all CSP-initiate activities.

This note is intended as an *aide memoire* to people writing a startup document. It indicates the expected contents of such documents, in the form of a checklist of questions that should be answered.

The basic idea is to think of the project as a hypothesisexperiment-conclusion chain, with the conclusion being a justified solution to some interesting problem.

What follows are outlines for the five major portions that a project startup document should contain. You can always add more if you like (much more, if you insist), but try hard to include some sort of answer to these questions.

#### **Problem statement**

*What* is the problem that this project is going to address? *Does it matter*: why is the problem important? *Who* will benefit when the problem is solved (e.g. CSP/DataMesh, HPL, IBM)?

#### **Proposal**

What is the basic approach, method, idea or tool that's being suggested to solve the problem? (E.g. dynamic

disk shuffling, stainless-steel moustrap springs, an AI tool for writing monthly progress reports.)

### **Hypotheses**

What exactly are the expected *effects* of the proposed solution? (E.g. disk I/O time will increase to 2 seconds per request.) Why is this?

What are plausible alternatives? How likely are they? What's good and bad about them by comparison with what's proposed? What have others done already? What did they learn? (This is the "literature search" segment.)

## **Experiments**

What will be *done* to test out the hypotheses? (E.g. measurements, simulations, constructing code, thinking beautiful thoughts, hard vacationing). How will this confirm (or deny) the hypotheses? Why will the conclusions be believable?

Who will work on this? For how long? What additional equipment or other resources will be needed (e.g. loan of a boa-constrictor for 2 weeks)?

#### Results

What will be the *outcome* of the work (papers, a working system, a graph of ...)? When? What are the intermediate milestones? How will we know when they are complete?

What are the measures for success? (E.g. "faster", "smaller", "more available".) How will we know to declare the project a success?