

Braintrust

Concepts

Innovation starts with Framing the Problem

If I had an hour to solve a problem and my life depended on the solution, I would spend the first fifty-five minutes determining the proper question to ask, for once I know the proper question, I could solve the problem in less than five minutes. Albert Einstein

Objective

To critically assess a project in order to find its faults, potential failure points and to find solutions to prevent those failures from materializing.

Focus Areas:

1. Spotting problem
2. Speed up characterization of brominated epoxy in order to quickly find the lowest cost material

What is a BrainTrust?

The term “BrainTrust” came from Pixar (Ed Catmull)

- “The BrainTrust, which meets every few months or so to assess each movie we’re making, is our primary delivery system for straight talk.”
- “Without the critical ingredient that is candor, there can be no trust. And without trust, creative collaboration is not possible.”
- It is essentially a peer review process

The term critical “scrub” came from our best practice study...

- Critically scrubbing schedules (or design problems) with triads of external subject matter experts (SMEs) was a key component of fast projects
- SMEs were directed to identify all mistakes, failure points, logic errors and overly aggressive durations in a project plan (or design solution)
- Critical schedule scrubs occurred throughout a project and were used by teams in order to improve their plan, such that they could anticipate and correct problems before they happened

The BrainTrust combines these two ideas into a single workshop/critical review process

Ground Rules

SMEs participate

- They have a deep understanding of the area of focus and have specific technical expertise

SMEs are external to the project

- Their role is to find “everything wrong with what you are doing”

SMEs are super critical - that is their role

- They test and find the weak points
- They should not prescribe solutions/tell how to fix problems (this is the role of the project team)
- They focus on the problem, not the people

Project team members present and defend their approach/plans/ideas

- The idea is to get “hammered” by the experts (in order to find the failure points)
- Check your “defensive” behavior at the door

Ground Rules

SMEs have no authority and the team does not have to follow any of their advice

A safe environment where everyone wants to hear each other's ideas, even if challenging

All involved should have a “vested interest” in a positive outcome

Accepted ideas get integrated into the plan or design after the workshop

And perhaps the best advice from Catmull is...

- “The film itself—not the film maker is under the microscope. This principle eludes most people, but it is critical.”
- “You are not your idea, and if you identify too closely with your ideas, you will take offense when they are challenged.”
- “To set up a healthy feedback system, you must remove power dynamics from the equation—you must enable yourself, in other words, to focus on the problem, not the person.”

How it works

Team presents approach

- Presents the plan or design and describes their (design) logic
- Walk through the schedule

SME's ask questions to test for areas of weakness or potential failure points

Ideas are discussed and recorded

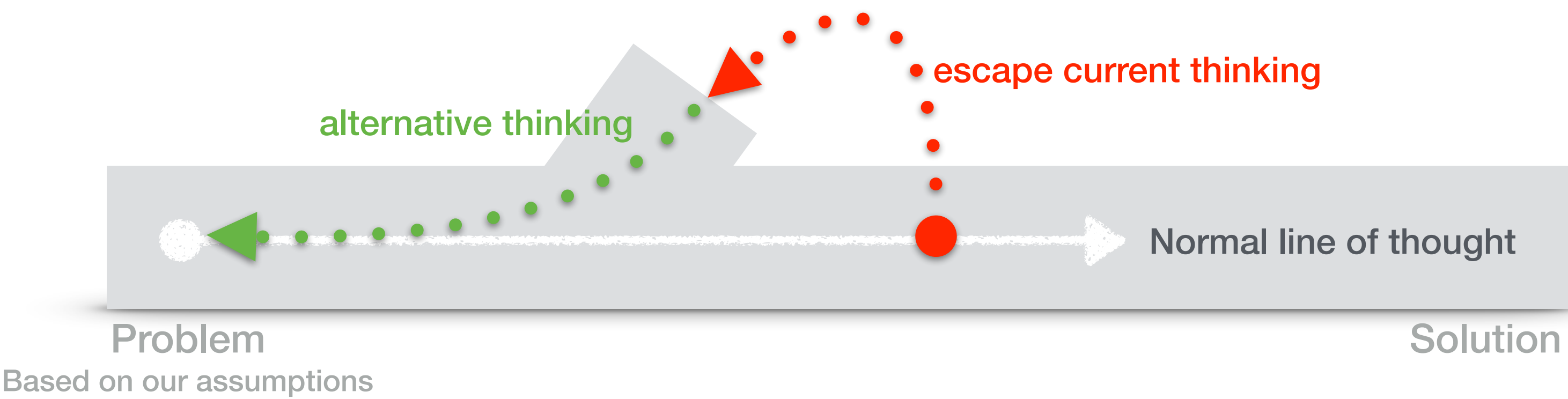
Ideas are incorporated into the schedule or design

- Or an action is taken (with owner and “due by” date) if further investigation is needed

Outcome examples

- Added more learning cycles
- Changed the logic of how something was being done (at detail and roadmap level)
- Increased duration (based on experience)
- Created more realistic timeline
- Integrated external resources
- Better aligned team leadership based on skills
- Integrated supply chain into plan
- Accelerate technical decisions
- Accelerate personnel decisions
- Changed resource deployment
- Started sooner, to give more time
- Realistically integrated risk to make a more realistic schedule (more predictable)
- Created better team understanding of the road ahead and potential failure points (in advance)

Escape Current Thinking



Current Thinking Assumptions

Dominate: What ideas control our thinking?

Boundary: What boundary conditions must we live within?

Avoid: What should be avoided?

Essential: What must always be included?



Explicit Assumption

Precisely and clearly expressed or readily observable; leaving nothing to implication

Implicit Assumption

Implied though not directly expressed; inherent in the nature of something

Area of Focus

Want to improve...

What is box?

Current thinking assumptions

What is in box?

Reasons for doing it this way

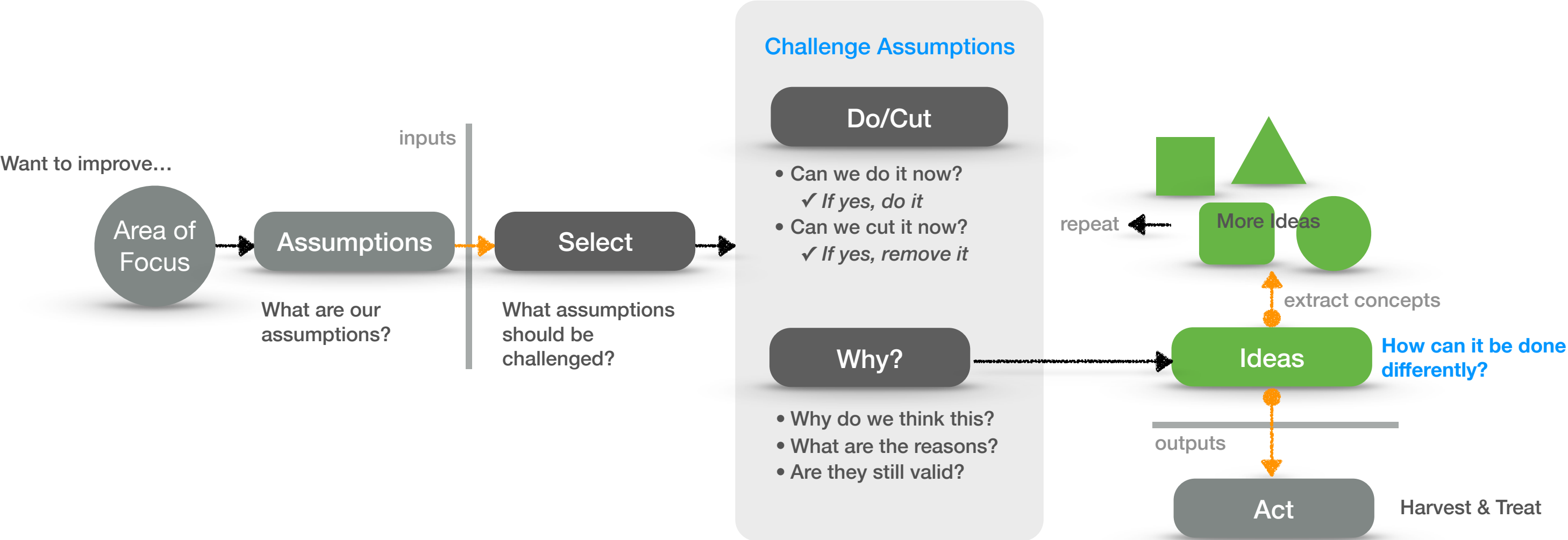
Why are these things in the box?

Challenge

How can it be done differently?

Generate new ideas... new frame/box

Challenge



Force Field Analysis

