Value Planning

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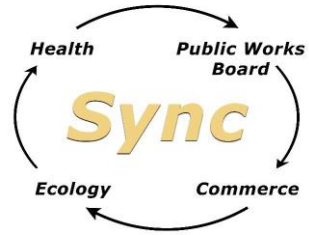
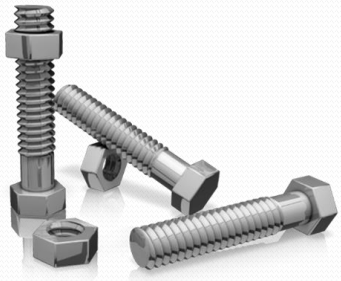
System Improvement Team (Sync)

- Sync is a collaboration of:
  - The Public Works Board
  - Department of Health
  - Department of Ecology
  - Department of Commerce



- Sync's mission is to increase the value of the state investment in infrastructure

Value Planning is a process for developing infrastructure projects that maximizes value



Is Value Planning a new idea?

- Existing best practices
- Strategic planning
- Project management
- Lean/Kaizen
- Leadership
- Critical problem solving
- Community development

What is Value Planning?

Why should you do Value Planning?

We want to build good projects

What is a "good" project ?

- Completed on time, under budget?
- ~~No~~. Few change orders.
- No "surprises"?
- Startup goes well?
- The completed project solves a problem.
- The completed project is operator friendly.
- The completed project is financially sustainable.

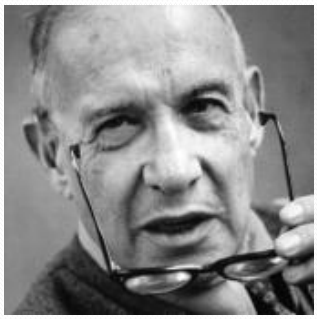
A good project is the right project, successfully executed.

During project execution…

- You cannot control:
  - Bid climate,
  - Change orders,
  - Contractors,
  - Neighbors,
  - Other agencies,
  - Weather,
  - Subsurface conditions…

What Can You Control For Successful Project Execution?

- Good internal project team.
- Careful selection of engineer
- Well developed schedule and budget
- Inclusive SEPA and permitting process
- Complete, robust design
- Procuring your contractor
- Open lines of communication
- Good on site inspection
- Luck does not hurt



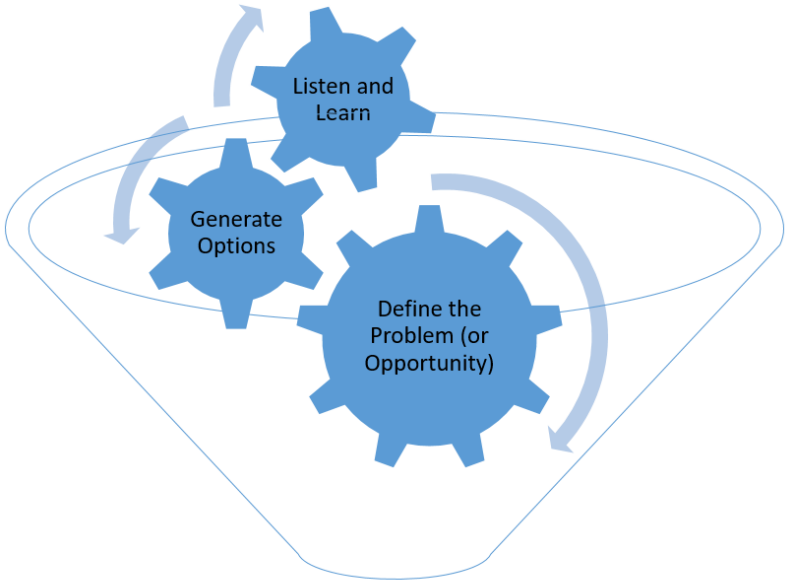
"There is nothing quite so useless, as doing with great efficiency, something that should not be done at all." -- Peter Drucker

Optimization: doing things right

Effectiveness: doing the **right** things

Value Planning: Choosing the right project

- The **right projec**t,
- At the **right time**,
- Using the **right technology**,
- Designing it to be the **right size**, and
- Embracing the **right amount of complexity** for the community.



The Best Fit Solution

Value Planning: Key Activities

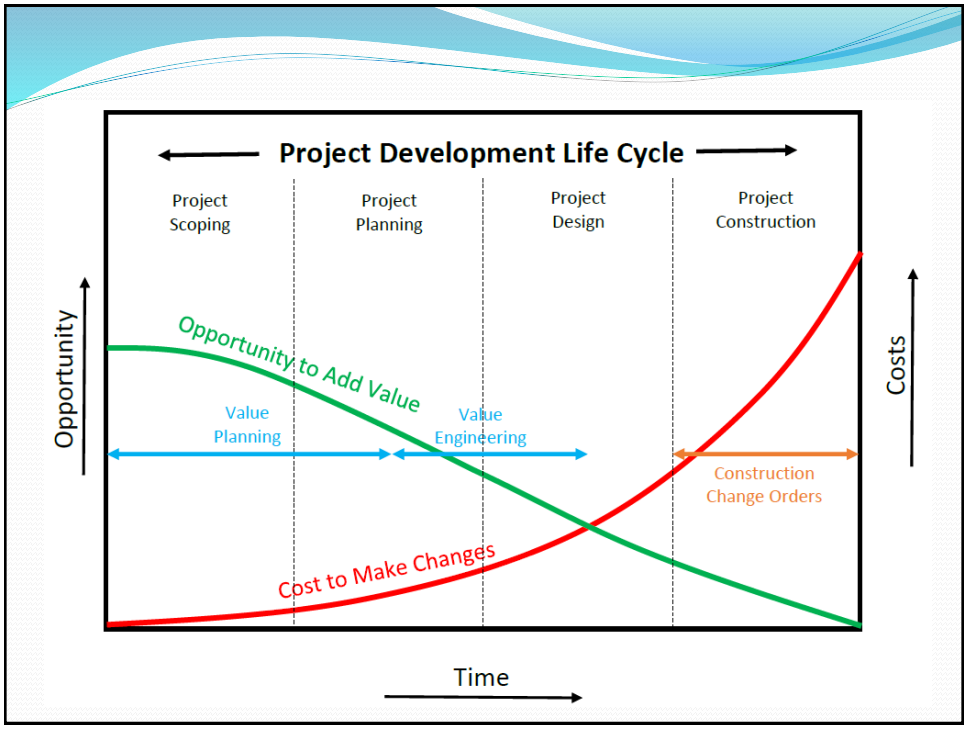
- Listen to your community and learn from them
- Identify the correct problem to solve
- Generate alternative ways to solve that problem
- Objectively evaluate the options to choose the best one

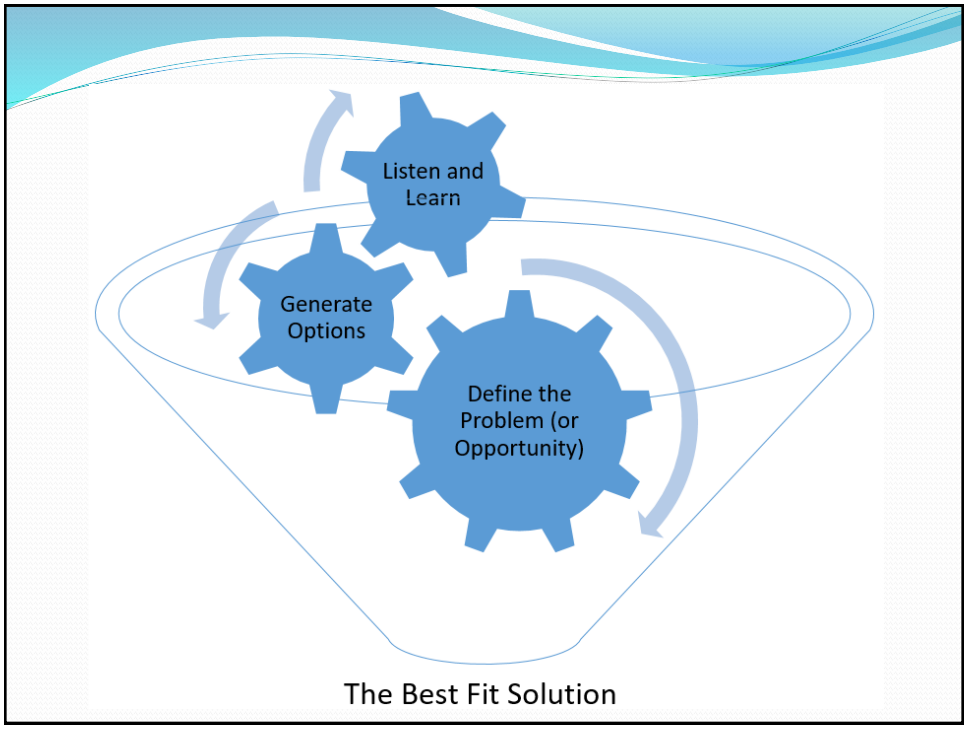
- Planning is not a linear process.

When do you do "Value Planning"?

When to do Value Planning

- Throughout project development.
  - Comprehensive planning
  - System planning
  - CIP development
- Usually not as a separate exercise.
- Include these tools into your existing planning processes.
- Early in a project timeline.
- Don't let projects become emergencies.





How to do "Value Planning"?

Listen and Learn

Community First

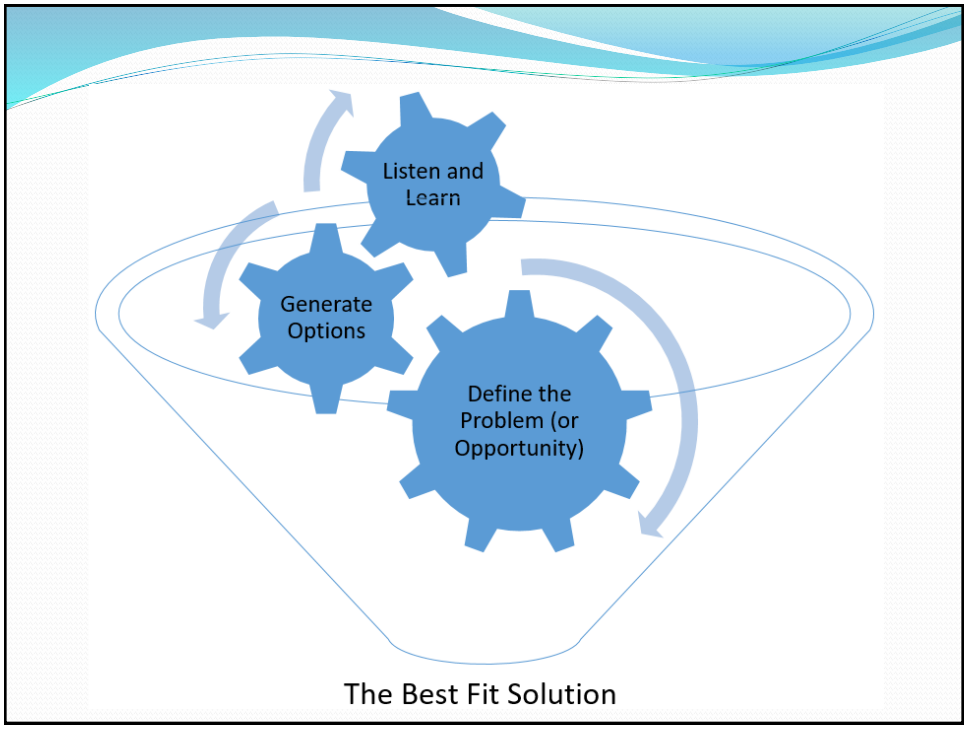
- Unique local conditions dramatically affect Value Planning.
- Local political, environmental, geotechnical and hydrologic conditions.
- There are no “one size fits all” solutions.
- Local involvement and ownership.
- Local decision makers are in charge and making the decisions.
- Meaningful involvement of Stakeholders.

Who is a "Stakeholder"?

- Who uses your system?
- Who sees the project differently?
  - Financial staff
  - Administrators
  - Elected officials (and Candidates)
  - Front Line Staff
  - Operators
  - Neighbors
  - Regulators
  - Other utilities
  - Environmental Groups
  - Tribes
  - Engineers
- Who could oppose your project?
- Who could impact or delay your project?

Outreach, Engagement, Invitation…

- How you involve stakeholders matters.
- Are stakeholders:
  - Informed about the project?
  - Asked about the project?
  - Invited into the decision making process?
  - Asked to help frame the decision? (input on the outcome statement)
- The goal is not to build support, but to understand conditions so you can select the best project.



Define your Problem or Opportunity

Premature "HOW?"

- Focus on defining the problem, not solving it yet.
- Solving the wrong problem isn't going to move you forward.
- Premature "How" is a symptom of Black/White thinking.
- Watch out for one size fits all solutions.

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Value Planning requires you Ask yourself "WHY?"

- WHY?
- WHY?
- WHY?
- WHY?
- Keep asking till you identify your real problem
- Call it "Root Cause Analysis" to sound impressive

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Questions Assumptions

- How do you know what you know?
  - Growth projections
  - Current capacity
  - Permit Limits
  - Future Usage
  - What regulators "like" or "don't like"
  - Building for growth
  - We need a "brand new" something.
  - We have to do this project NOW.
- Do we really know this stuff?
- How can you tell?

Just Asking Questions

- Questioning somebody else's assumptions is hard.
- The "Expert Problem"
  - Your expert knows more than you do.
  - Your expert knows less than they think they do.
- Ask your expert three questions:
  - How do you know that?
  - How certain are you? (quantify your thinking)
  - What happens if you are wrong?

Identify Your Real Problem / Need

- Listen to your community
- Look for root causes, not symptoms
  - You may have more than one problem
- Get Clarity: Write a problem statement:
  - Two sentences, no more than 20 words, plain English
- Review with utility staff, engineers, elected officials, stakeholders
- Fully define your problem before you start working on a solution

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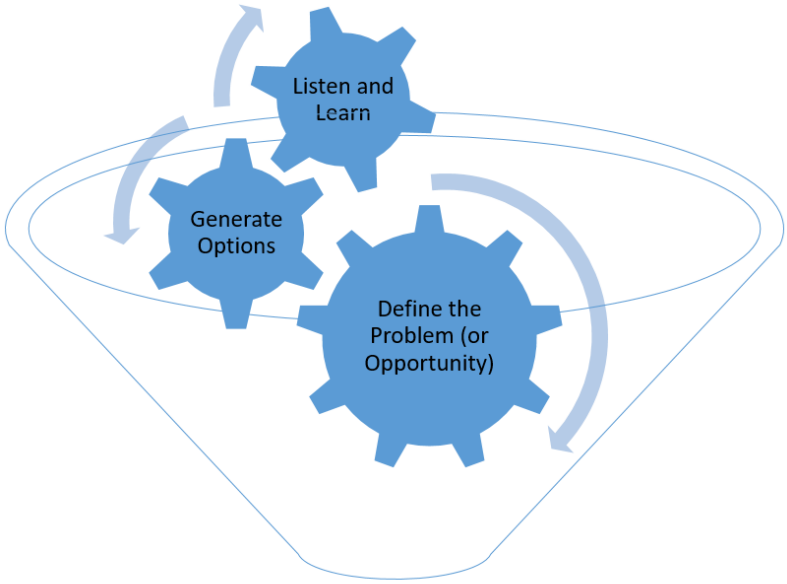
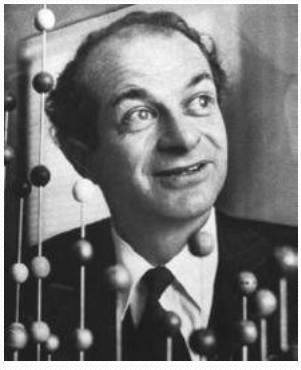


The Best Fit Solution

Develop Options

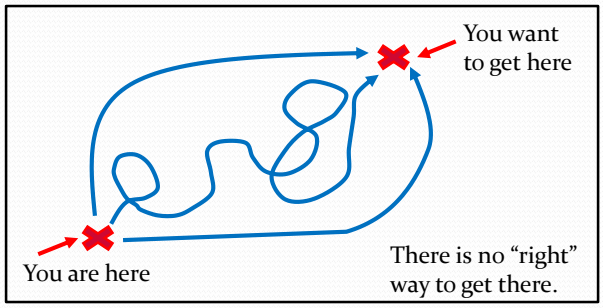


"If you want to have good ideas you must have many ideas. Many of them will be wrong, and what you have to learn is which ones to throw away."

- Linus Pauling

Find more Options

- You can only implement the things you consider.



- The "way we've always done it" is only one option.
- Remember, not every problem is a nail; unless someone is selling you hammers.

Brainstorming 101

- Your first idea isn't bad, it's just "business as usual".
- Listen to the "nobody will do that" ideas.
- Record all the ideas.
- Nobody owns an idea.
- Take your time. Take breaks.
- Include different backgrounds and perspectives.
- Consider political and regulatory approaches.
- The "No Action" alternative.
- "Thinking Outside The Box" is really just being able to see a larger box.

Brainstorming in a small box

The problem:

+

The alternatives:

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Brainstorming in a bigger box

The problem:

+

The alternatives:

+

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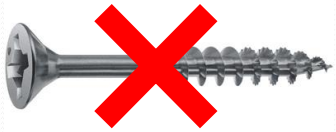
Brainstorming outside the box

The problem:



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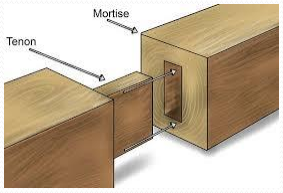
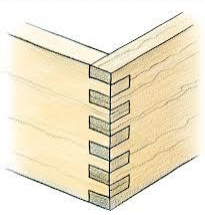
The alternatives:





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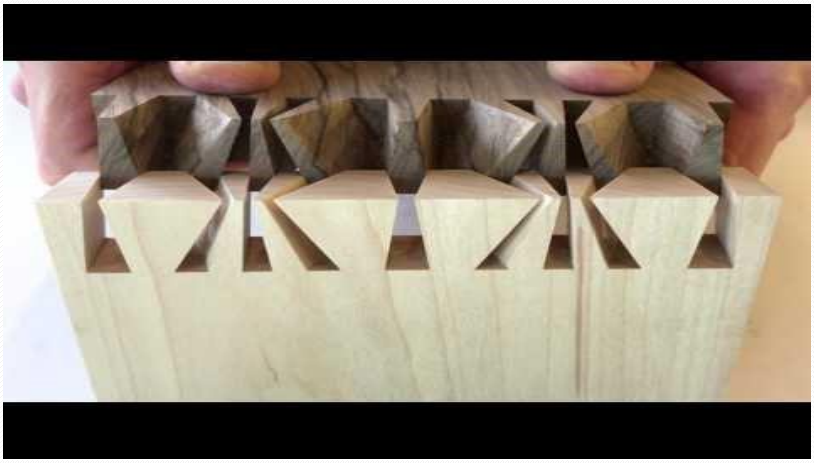

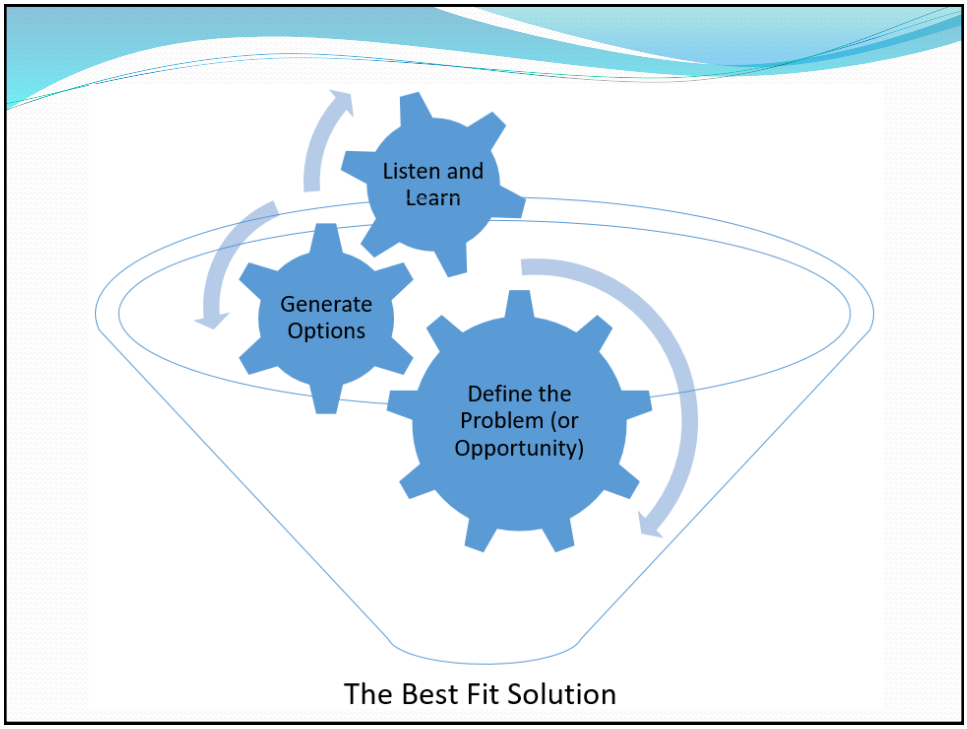

Choose the Best Fit Solution

Screen the options

- Ask:
  - Does this option solve (all or part) of the problem?
  - Is this option infeasible?
- Eliminate these options.

Best Fit Solution Considers:

- Capital Cost
- Annual Operations Cost
- How much of the problem is solved?
- Effort to implement
- Risk
- Other Benefits

Whole Life-Cycle Cost

- Construction costs (design, construction management, change order / high bid risk)

AND

- Operations costs (labor, power, chemical, laboratory, legal, financing, and admin)

AND

- Replacement costs (short lived assets, and end of useful life replacement)

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The Problem with Whole Life Cycle Costs

- Depends on the options considered.
- Depends on the discount rate.
- Highly sensitive to how accurate the assumptions are.
  - Estimates of construction cost
  - Estimates of annual O&M cost
  - Estimates of needed refurbishment (timing and cost)
  - Estimates of the replacement cost
- Comparing options with different useful lifetimes.
- Comparing partial options.
- Comparing options with different levels of benefit.

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Resources

Introductory Guide

- Sync has created an introductory guide for Value Planning.
- https://www.commerce.wa.gov/building-infrastructure/sync-systems-improvement-team/
- Still a draft document
- Please send us your comments and suggestions:
  - buck.lucas@commerce.wa.gov
  - janet.cherry@doh.wa.gov
  - david.dunn@ecy.wa.gov

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