

IC2 AA Guide Scoping



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Scoping Modules

- Initial Evaluation
 - Is an AA necessary?
- Stakeholder Module
 - Decide appropriate level of stakeholder involvement
- Decision Module
 - Frameworks
 - Decision Analysis



Initial Evaluation Module

**Alex Stone
State of Washington**



Initial Evaluation Module

- Asks several basic questions:
 1. Can the product or process containing the COC be phased out?
 2. Does the COC perform a necessary function?
 3. Is the presence of the COC required for regulatory purposes?



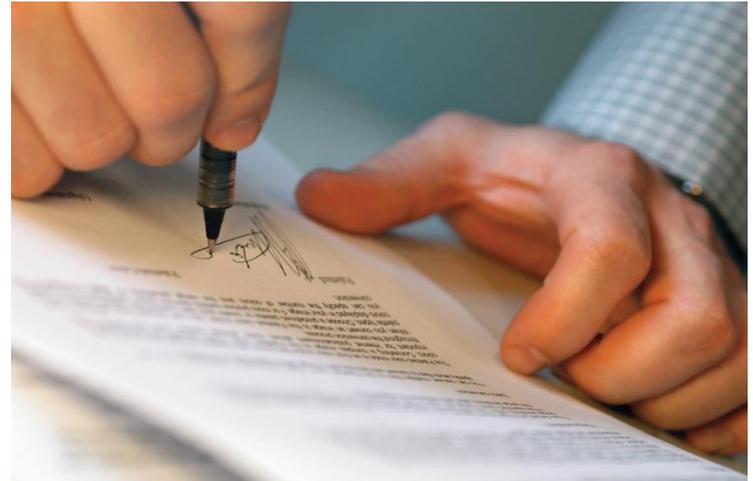
Initial Evaluation Module (cont)

- Based upon responses:
 - Should the Product be phased out?
 - How did the COC get in the product?
 - Unintentional/contaminant
 - Intentional addition/provides a function
 - Can COC be removed without affecting product functionality?



Initial Evaluation Module (cont)

- If product phased out or chemical removed without affecting functionality, no AA is needed.
- Document decision and information used.
- If COC is needed or cannot be eliminated, conduct AA.



Initial Evaluation Module (cont)

Example:

- Large NW sports clothing company identified shoe rubber contained 5 COCs, 12% of product by weight.
- 4 toxic chemicals were not needed.
- 1 could be drastically reduced to 1% by weight.
- Eliminates 3,000 metric tons of toxic chemicals yearly.
- Eliminated COCs without need for an AA.
- Manufacturers need to ask question, i.e. 'Is it needed?'



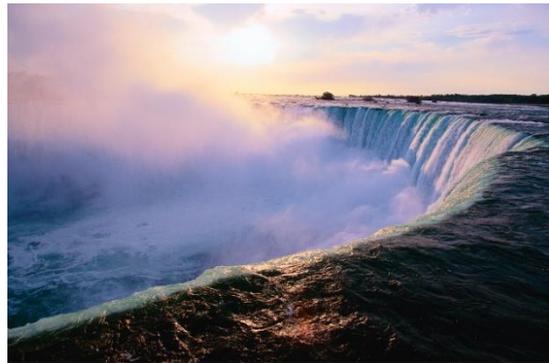
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Stakeholder Module

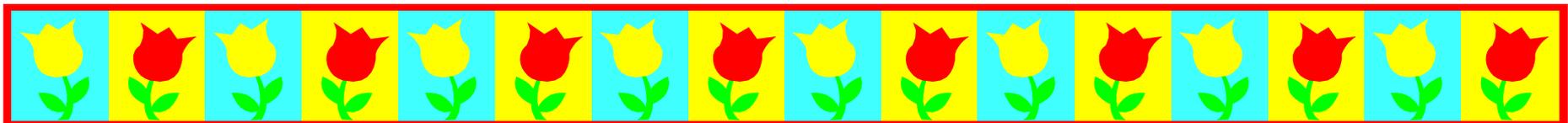
**Pam Hadad Hurst
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Stakeholder Module

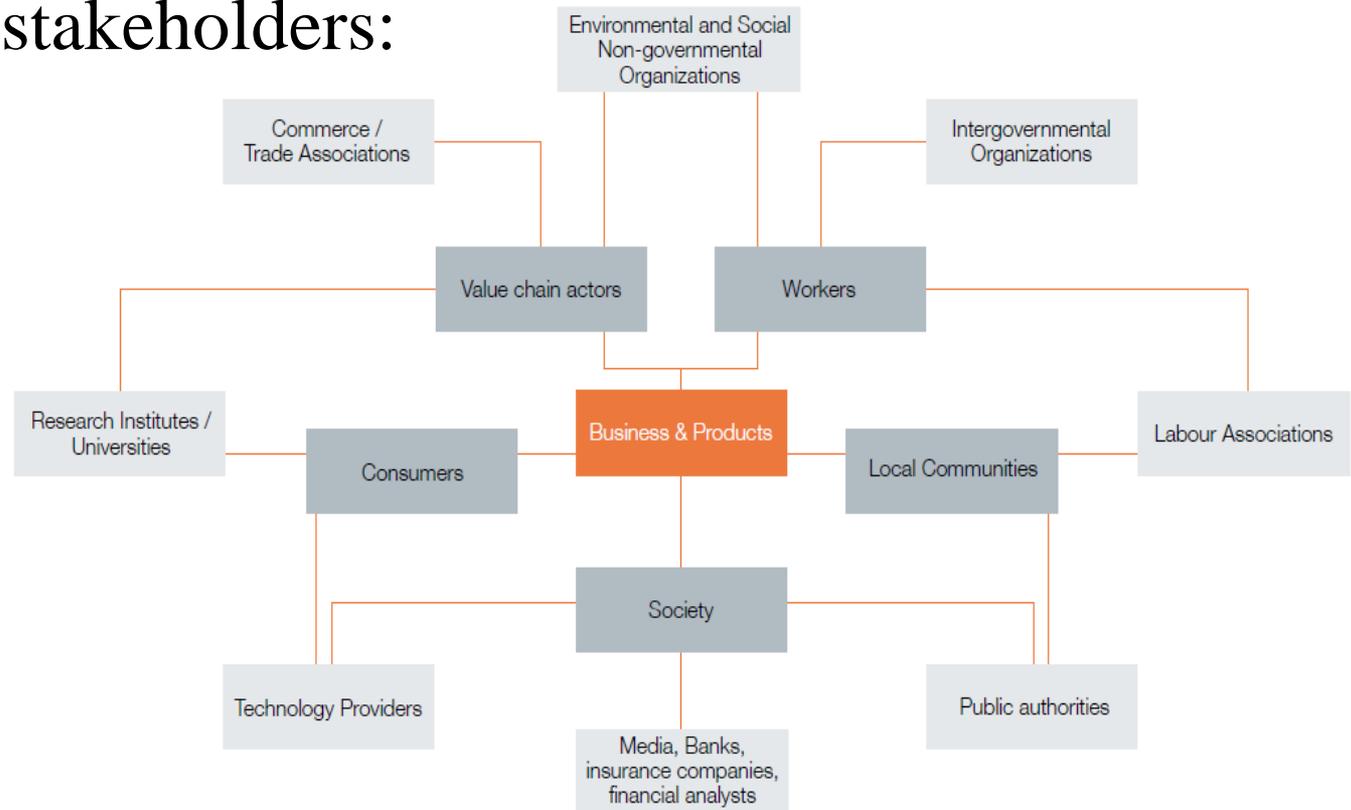
Stakeholder Module

- Ensures stakeholders are considered in AA.
- Allows stakeholders to understand decisions.
- Allows stakeholder input into the process.
- Transparency vital to success of process.
- Consists of:
 - Initial screen to identify stakeholders important to the process.
 - Three levels with increasing amount and variety of stakeholder input.



Stakeholder Module (cont.)

- **Initial Screen:** Identification of pertinent stakeholders and those likely interested in and important to proposed AA.
- **Potential stakeholders:**



Stakeholder Module (cont.)

- Other ways to identify potential stakeholders:
 - Consider full life cycle of COC and selecting stakeholders most involved.
 - Choose potential alternative and identify stakeholders most concerned with its function.

Potential Stakeholders	
1. Company representatives	Company owner
	Board of Directors
	Stockholders
	Other Management
	Employees/workers
2. Technical Experts	Testing
	Performance
	Process
	Materials
	Product
	Consumer marketing
3. Supply Chain	Tier 1
	Tier 2
4. Customers	Suppliers
	Retailers
	End user
	Recyclers
5. Interest Groups/Concerned Non - Government Organizations (NGOs)	Environmental groups
	Environmental Justice representatives
	Stakeholders affected by life cycle impacts (e.g., conflict minerals); (this starts to get to environmental justice issues)
6. Local Community	Local politicians
	Community leaders
	Native Nation representatives (if applicable)
7. Other Governmental Representatives	Federal
	State
	International
8. Other stakeholders unique to your assessment that should be considered?	

Stakeholder Module (cont.)



Stakeholder Levels:

- **Level 1:** *Internal exercise:* Identifies potential stakeholders, their concerns and how their concerns may be addressed. Little external stakeholder involvement unless specific questions are posed.
- **Level 2:** *Formal stakeholder process:* Identifies potential stakeholders and seeks their input in a formal and structured process. Pertinent AA information is provided for stakeholder review and comment. All comments are collected and responded to.
- **Level 3:** *Open stakeholder process:* Identifies stakeholders invited to participate in all aspects of AA. Involvement includes all aspects from scoping, development, participation in formal committees (steering, advisory, technical, etc.), and review of final product.

Stakeholder Module (cont.)

- All Stakeholder levels ask similar questions and take similar steps. The variable is how much stakeholders involvement is included in the process.
- Standard questions/steps:
 - Identify stakeholders.
 - Identify stakeholder concerns.
 - Can concerns be addressed or mitigated?
 - Incorporate concerns into decision making process.
 - Document how concerns were included.
 - Are any concerns sufficient to eliminate conclusion?



Stakeholder Module (cont.)

Stakeholder Levels:

- **Level 1:**

- Seeking input from specific stakeholders is not required.
- Limited discussion between assessors and stakeholders may be desirable.
- Dependent upon level of knowledge of assessor. The less knowledgeable may have greater need for external input.
- Typically stakeholders have minimum input into AA although potential concerns would be considered.



Stakeholder Module (cont.)

Stakeholder Levels:

- **Level 2:**

- Input from stakeholders affected by COC & potential alternatives.
- Pertinent stakeholders approached for perspective.
- Stakeholders may be useful sources of information in evaluation of alternatives.
- Approaches for soliciting input include interviews, questionnaires, scoping discussions or similar means.



Stakeholder Module (cont.)

Stakeholder Levels:

- **Level 3:**

- Actively involves stakeholders during AA process.
- Stakeholders asked to participate in AA and input actively sought.
- Advisory committees might be formed during development process.
- Stakeholder concerns identified and acknowledged in final report.

- **Other stakeholder processes also mentioned and these three levels are not the only options available.**

- Benefit Corporations (B Corp) like Patagonia
- EPA Design for the Environment process



Stakeholder Module (cont.)

Summary:

- Stakeholder input is important
- Guide provides several different examples of different types and degree of stakeholder involvement
- Assessor has flexibility to select what level of stakeholder involvement is appropriate for the chemical, product or process under evaluation



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Decision Module

**Nancy Ostrom
State of California**



Decision Module

Decision Module:

- Requires 2 important decisions
 1. Which of three Frameworks is best?
 2. If required by the selected Framework, how will decisions be made?

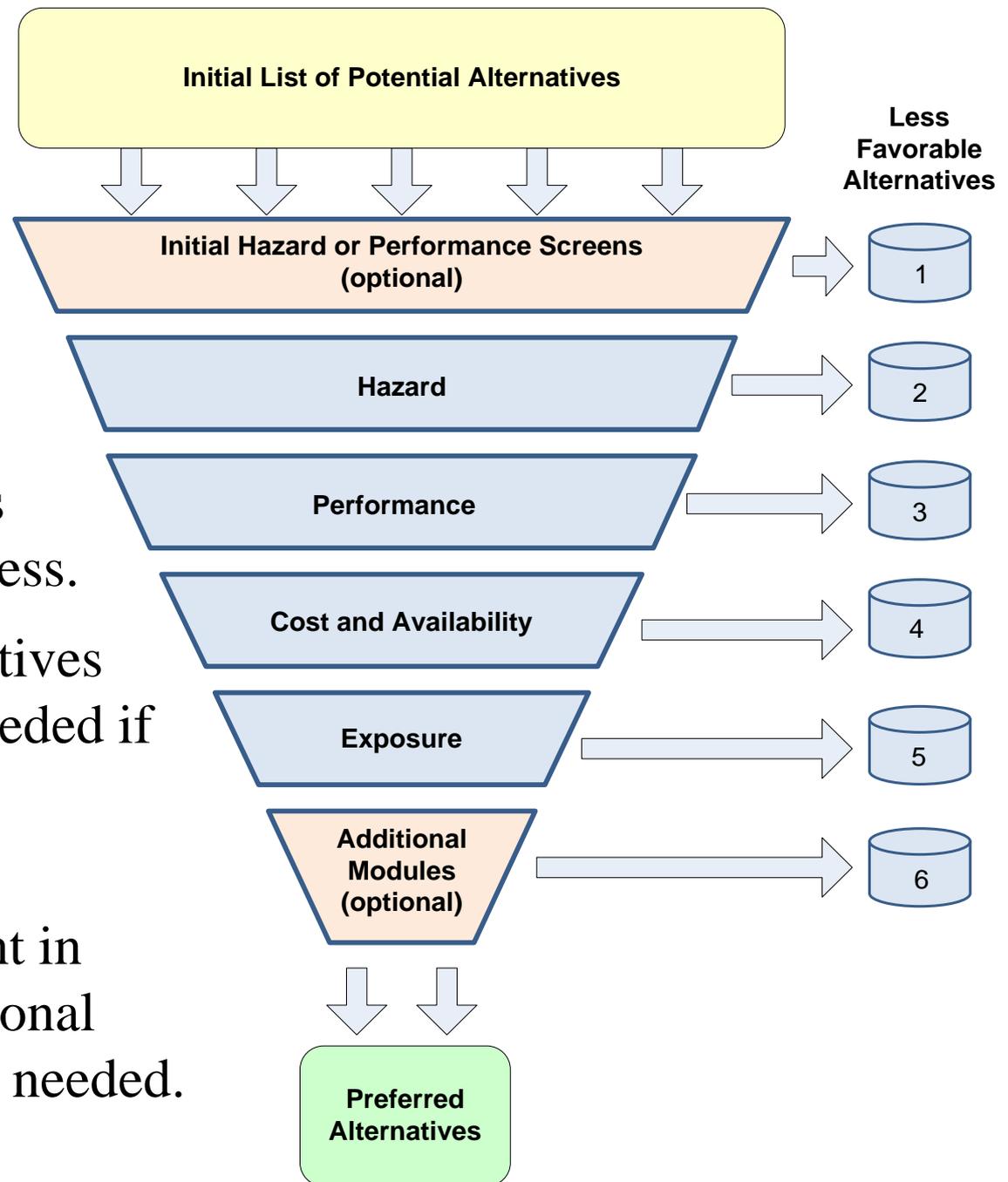
Three Frameworks:

- Simultaneous
- Sequential
- Hybrid



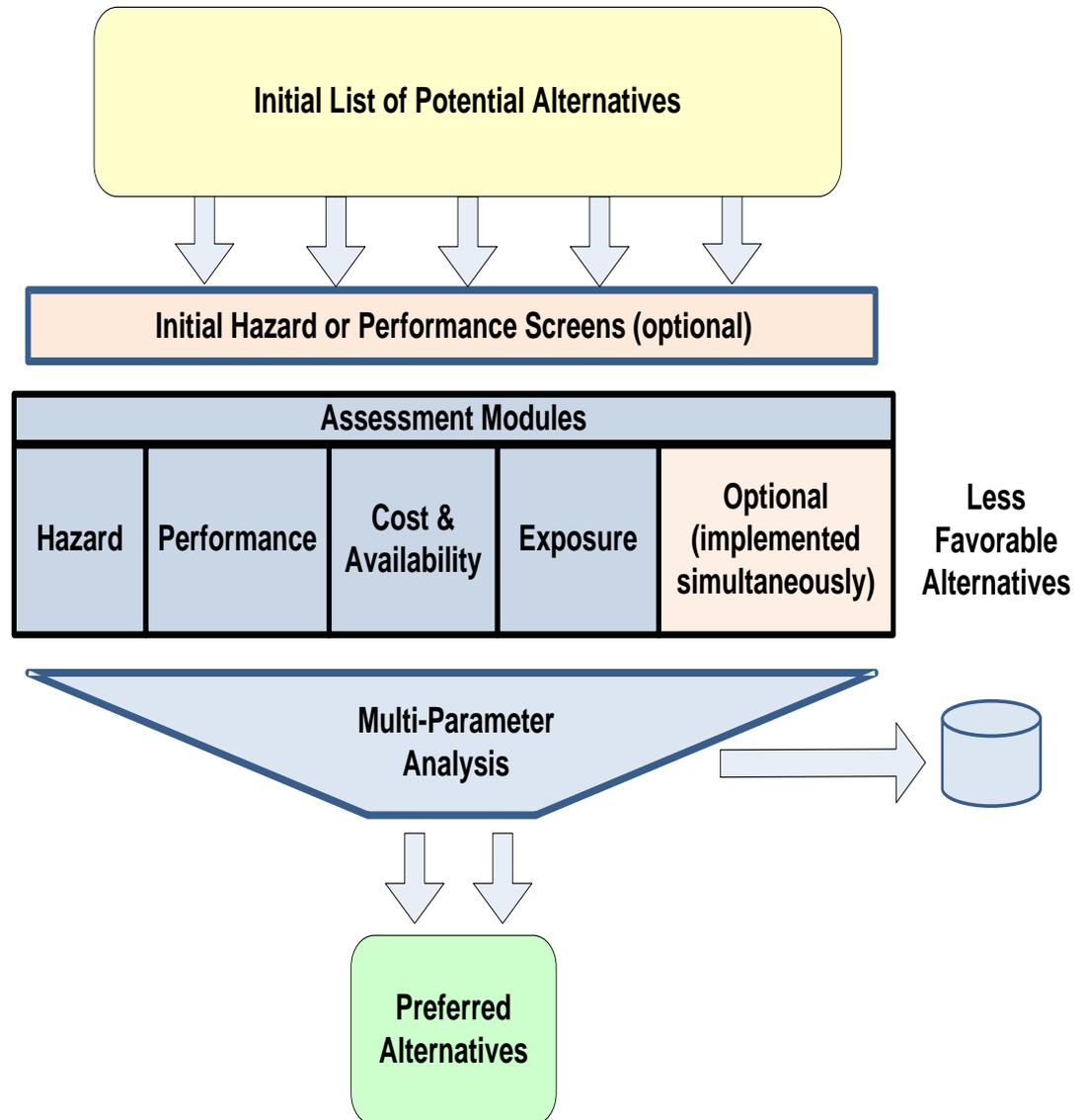
Sequential Framework

- Filters out less desirable alternatives.
- Preferable alternatives continue through process.
- Less favorable alternatives set aside as may be needed if no safer alternative identified.
- Decision logic inherent in modules and no additional decision methodology needed.



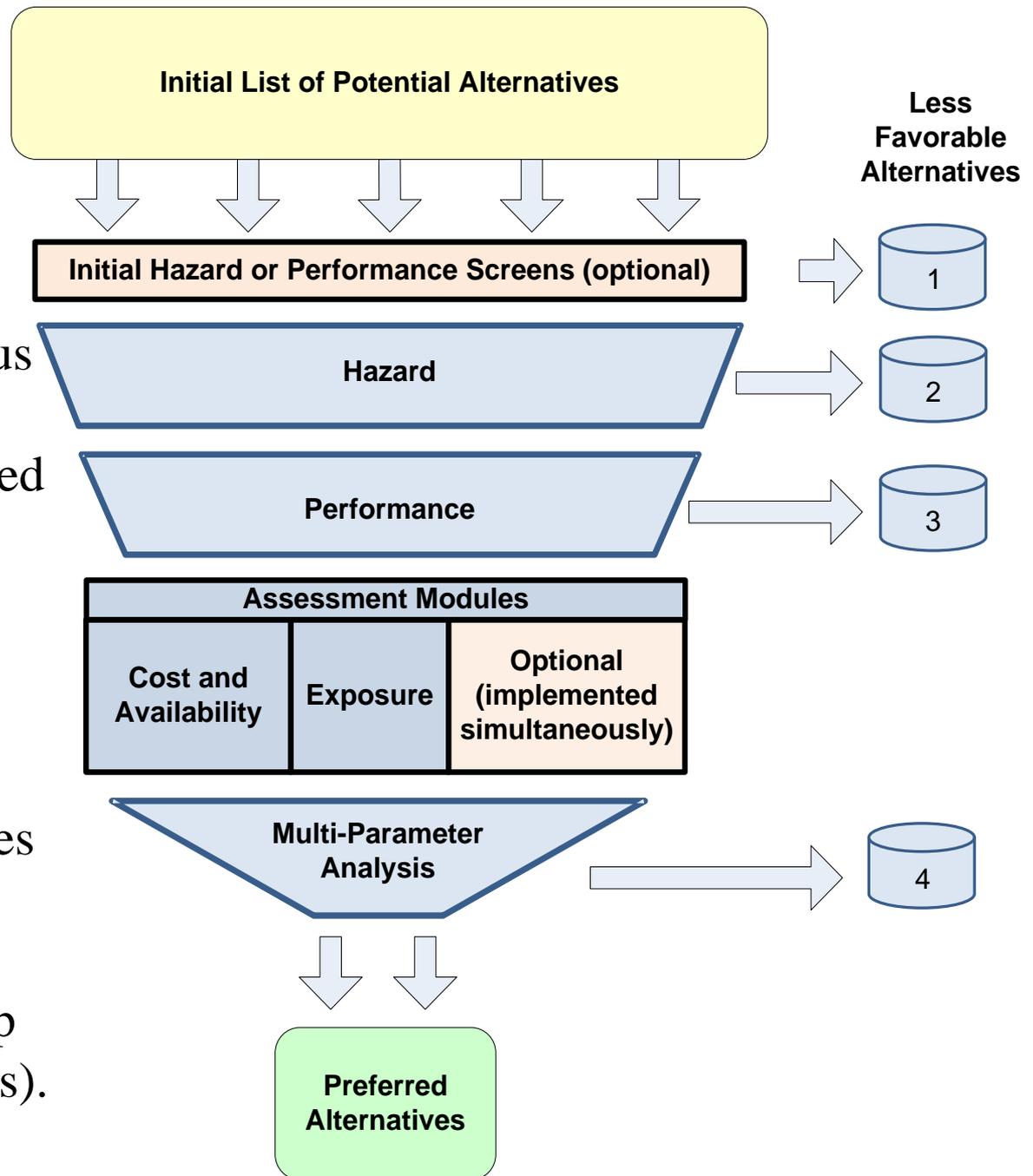
Simultaneous Framework

- Collects data on all alternatives for all selected modules.
- Once data collected, requires weighting of criteria to establish importance.
- Hazard **MUST** be heavily weighted.
- Methodology needed to reach decision on which is the best alternative.



Hybrid Framework

- Combines parts of both Sequential & Simultaneous Frameworks.
- Sequential Framework used for subset of evaluation criteria.
- Once less favorable alternatives are removed from consideration, data collected on all alternatives for all remaining criteria.
- Decision methodology needed for the second step (Multi-Parameter Analysis).



Decision Methodologies

Three Decision Methods Included in Guide:

1. Simple Comparison
2. Iterative Comparison
3. Simultaneous Comparison

Other Decision Methods are possible and the three are not intended to be proscriptive.



Decision Module (cont.)

Simple Comparison:

- Simple, general approach.
- Summarizes impacts with COC and alternatives.
- Summary reveals when an alternative is clearly superior or inferior to COC.
- ‘Safe and effective’ used to define preferences among alternatives.
- Includes basic uncertainty analysis.



Decision Module (cont.)

Iterative Comparison:

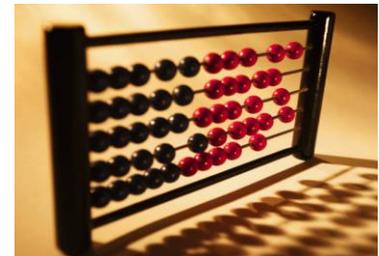
- Uses hierarchy of criteria created by assessor.
- Hierarchy defines:
 - Preferences among criteria.
 - Thresholds to facilitate comparison.
- Eliminates options that do not achieve minimum thresholds.
- If all alternatives are rejected, hierarchy can be adjusted and process repeated.
- Includes basic uncertainty analysis.



Decision Module (cont.)

Simultaneous Comparison:

- All relevant criteria assessed simultaneously.
- Uses weighted criteria to define preferences and offset conflicts among criteria.
- Identifies both preferred alternative and relative ranking of all alternatives.
- Complicated.
- Determining weighting resource and time consuming.
- Usually requires computerized calculations.



Decision Module (cont.)

Conclusions:

- Decision module provides assessor with wide range of AA options.
- Flexible.
- Non-proscriptive.
- Transparent.



Questions?

Comments?

