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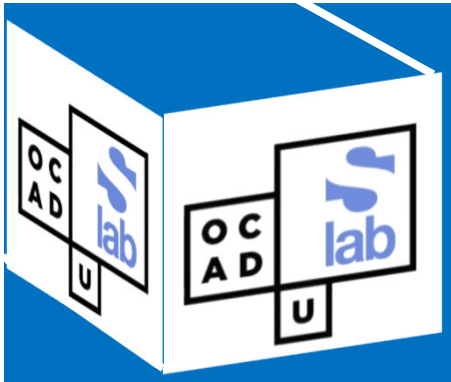

Evolutionary Stakeholder Discovery

Requisite System Sampling for Co-Creation

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RSD7 2018 Politecnico Torino

RSD7 2018

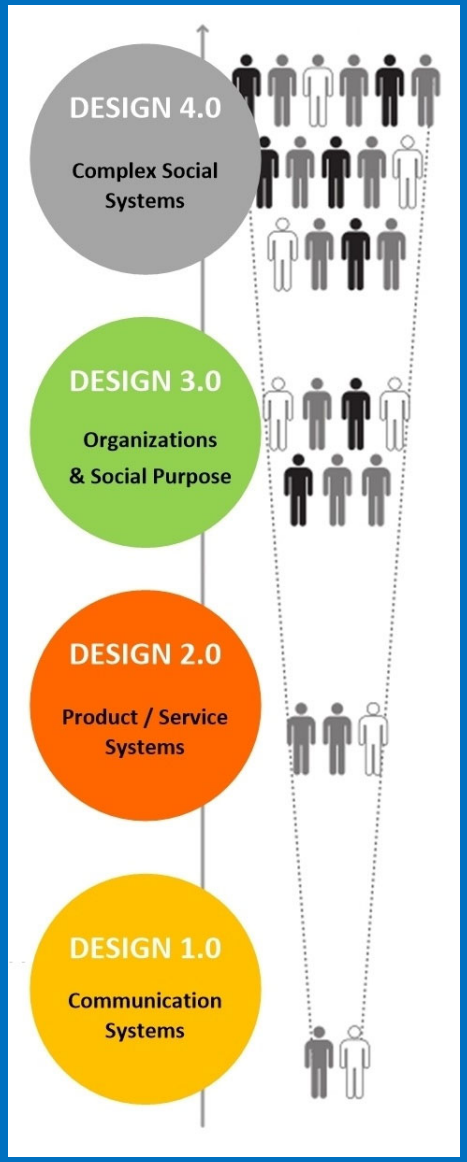
“USERS ARE THE SYSTEM”

In Product/Service design we can reliably sample population or market participants.

High deviation *informs* design, we learn from extremes. We treat users as experts in their experience.

But in Design 3.0-D.0 contexts, we are problem finding, co-creating consensus, discovering common ground across systems.

Stakeholders are expert “system members.”



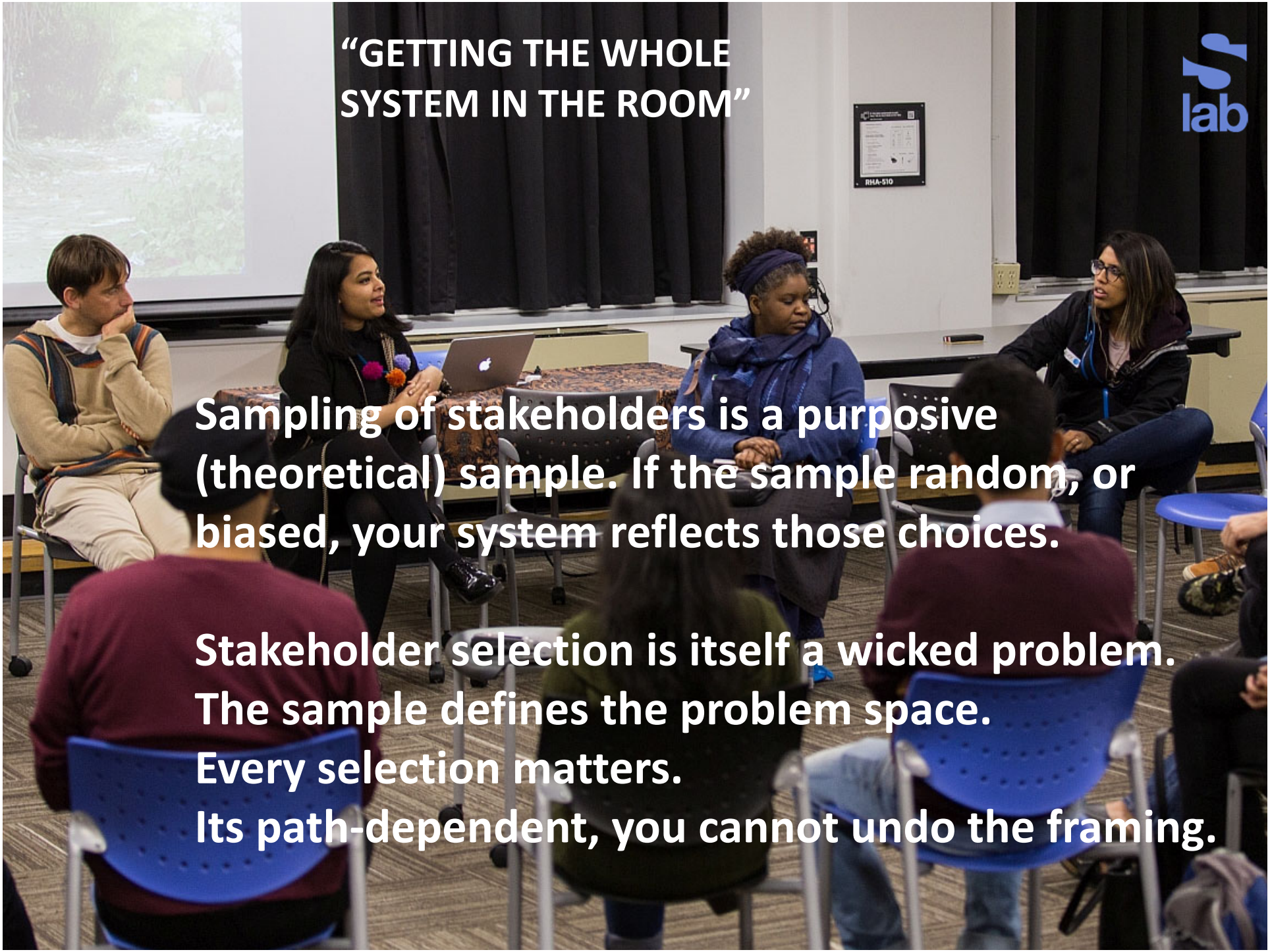
“GETTING THE WHOLE SYSTEM IN THE ROOM”

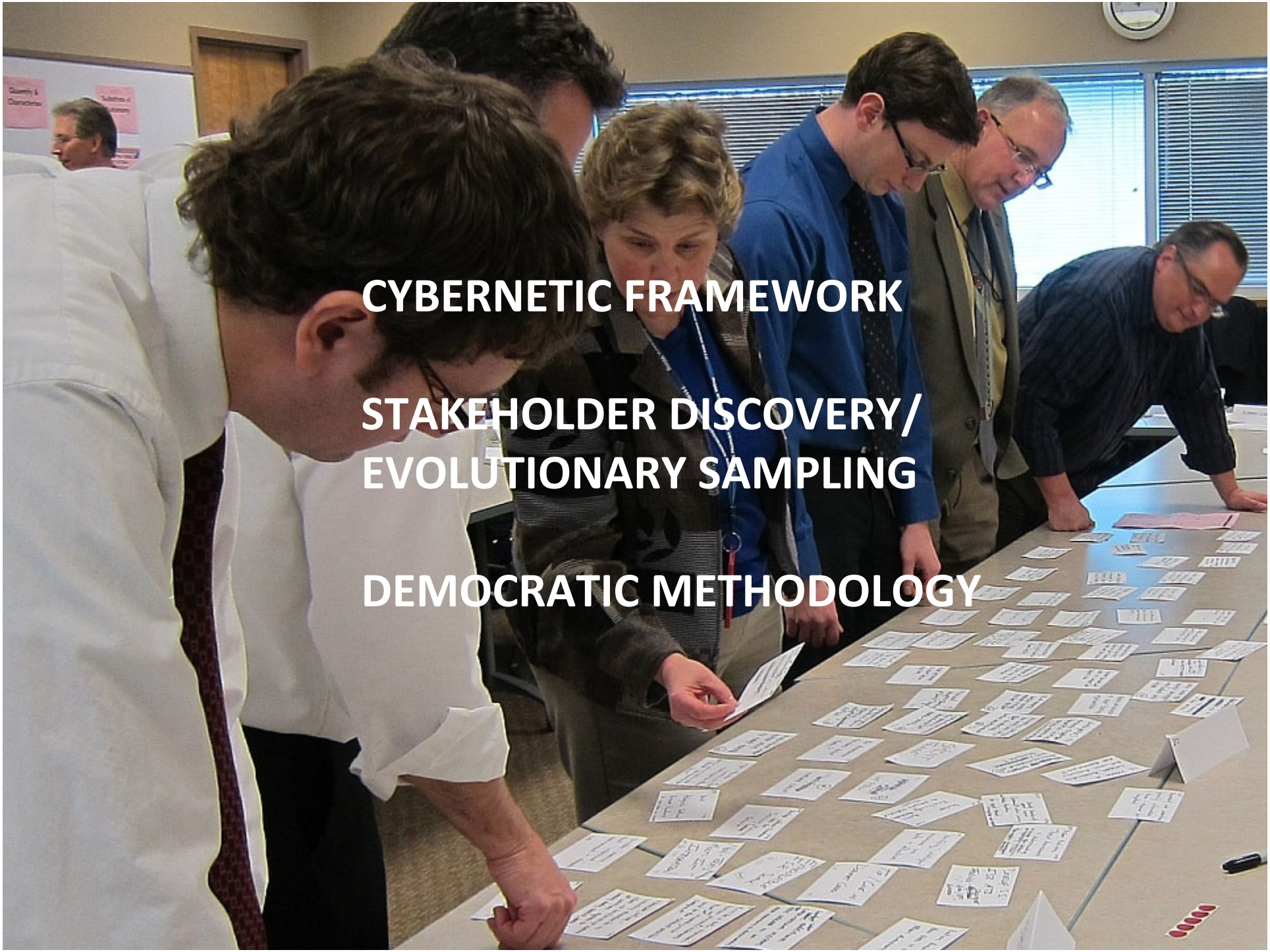
Stakeholder selection may be the most critical risk & blind spot we face in systemic and policy design contexts.

Our choice of *methodology* pales in comparison to the variances between different participants.

The question we often cannot ask is:
“Do participants have a serious role for change in the target social system, and are they committed to that system?”

Your particpants should have “skin in the game.” You as a designer do not, and if you do, should play neutral to avoid biasing the dialogue.


“GETTING THE WHOLE
SYSTEM IN THE ROOM”
lab
Sampling of stakeholders is a purposive (theoretical) sample. If the sample random, or biased, your system reflects those choices.
Stakeholder selection is itself a wicked problem.
The sample defines the problem space.
Every selection matters.
Its path-dependent, you cannot undo the framing.


CYBERNETIC FRAMEWORK
STAKEHOLDER DISCOVERY/
EVOLUTIONARY SAMPLING
DEMOCRATIC METHODOLOGY

CYBERNETIC FRAMEWORK

QUESTIONS Formulating an Inquiring System

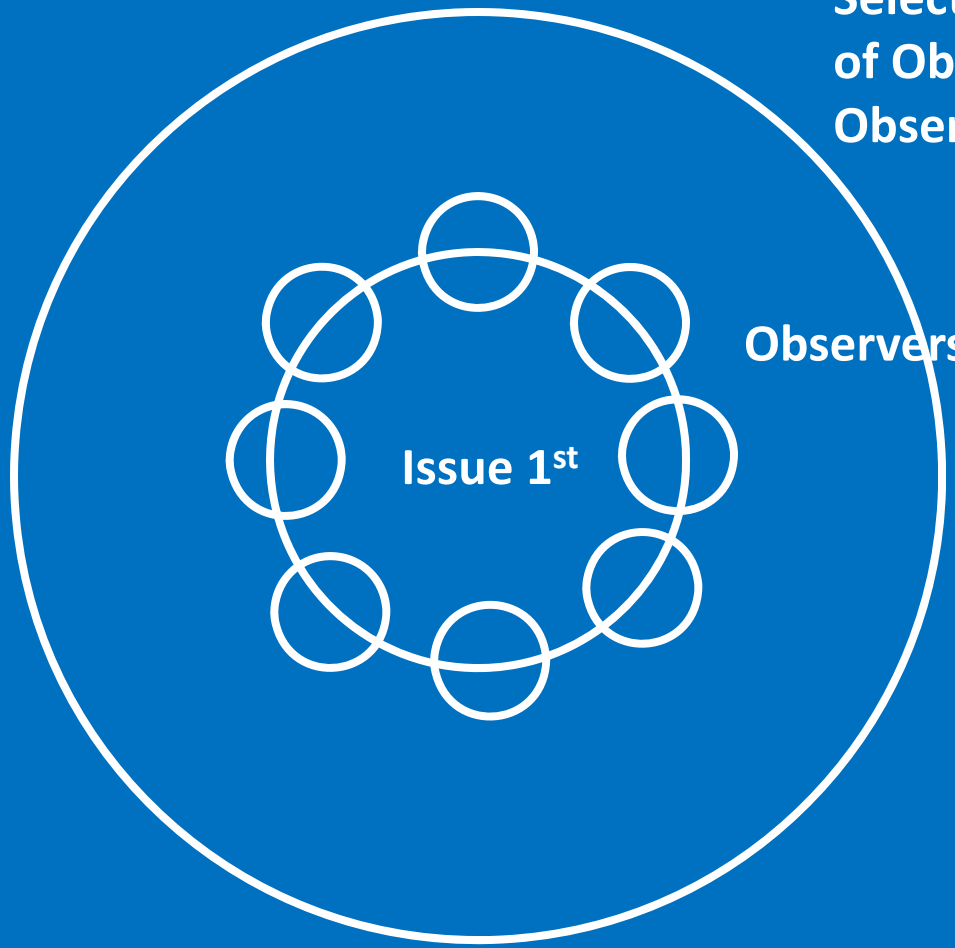
SHARED Shared by Whom? Stakeholder Discovery

FUTURES Whose Future? Which Future? Happening When?

The framing of inquiries for real stakeholders in an arena of concern for their shared future outcome is not trivial. "Everyone you know" is not good enough.

It's a matter of Third Order Cybernetics.

CYBERNETIC ORDERS IN DIALOGUE/DESIGN



MULTIPLE VARIETIES TO REQUITE

Ashby & von Foerster: Requisite Variety applies to social systems. Multiple configurations of (social) requisite variety

- **Perspectives on the Triggering Question (the inquiry)**
- **Stakeholders with a commitment to that Question (domains in the Arena)**
- **Stakeholder communities that care about the decision or design**

And a dialogic process that absorbs varieties & is sufficient to enable strong agreement to emerge.

STAKEHOLDER DISCOVERY/ EVOLUTIONARY SAMPLING

Underexamined contributions to systemic fragility…

- Deterministic stakeholders associated with system
- Cultural biases & ahistoricity
- Groupthink. (Black swan insight from other-than-usual suspects)

Evolutionary Sampling

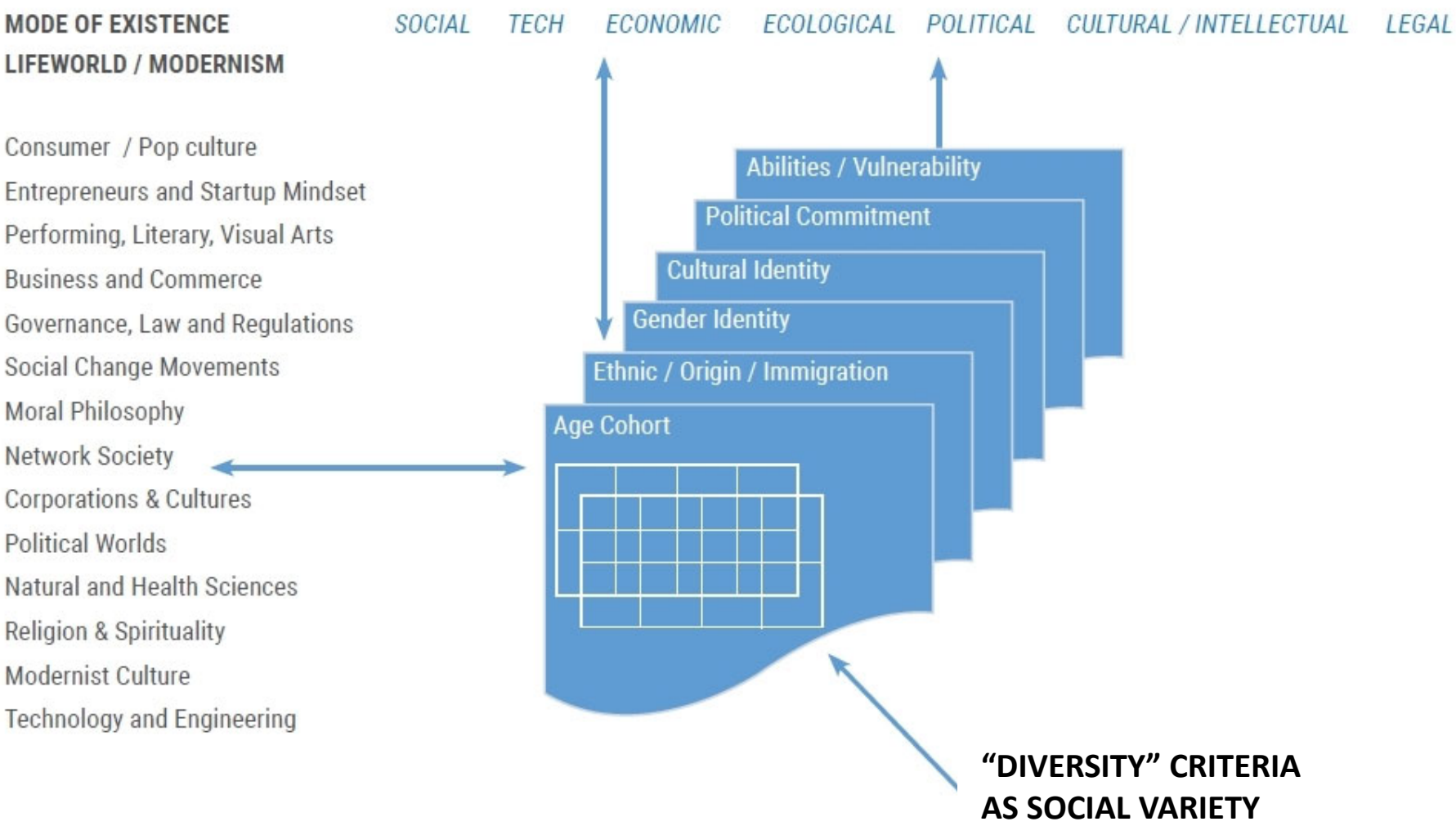
- Requisite Stakeholder Variety provides a reference model
- Mapping category sets to projected stakeholder influence
- Exposes risks & blind spots for oversampling biases
- Reveal variety by expanding & triangulating categories

Make *Methodology* Fit the Human.

Multi-dimensional sampling by multi-category

Latour's 15 Modes

STEEP/CIL



Evolutionary sampling

- Initial mapping of sampling categories to Question of interest.
- Dialectic between TQ <> Sample

- Requisite Variety is internal to TQ & exogenous to future system

CATEGORIES

- Ontological commitments (MoE)
- Expertises: STEEP/CI ++
- Social Sectors
- Geographies
- Diversities: Age, Ethnicity, Gender
- Temporal cognition

- Systematic sampling to minimize influence of systematic bias

Multi-dimensional sampling in action.

Requisite variety selected to match informed decisions for a complex shared concern. "Only variety can absorb variety."

How do we account for & select for temporal variety in recruiting?
How would we ever identify horizon bias – even if a durable trait – in advance of participation?

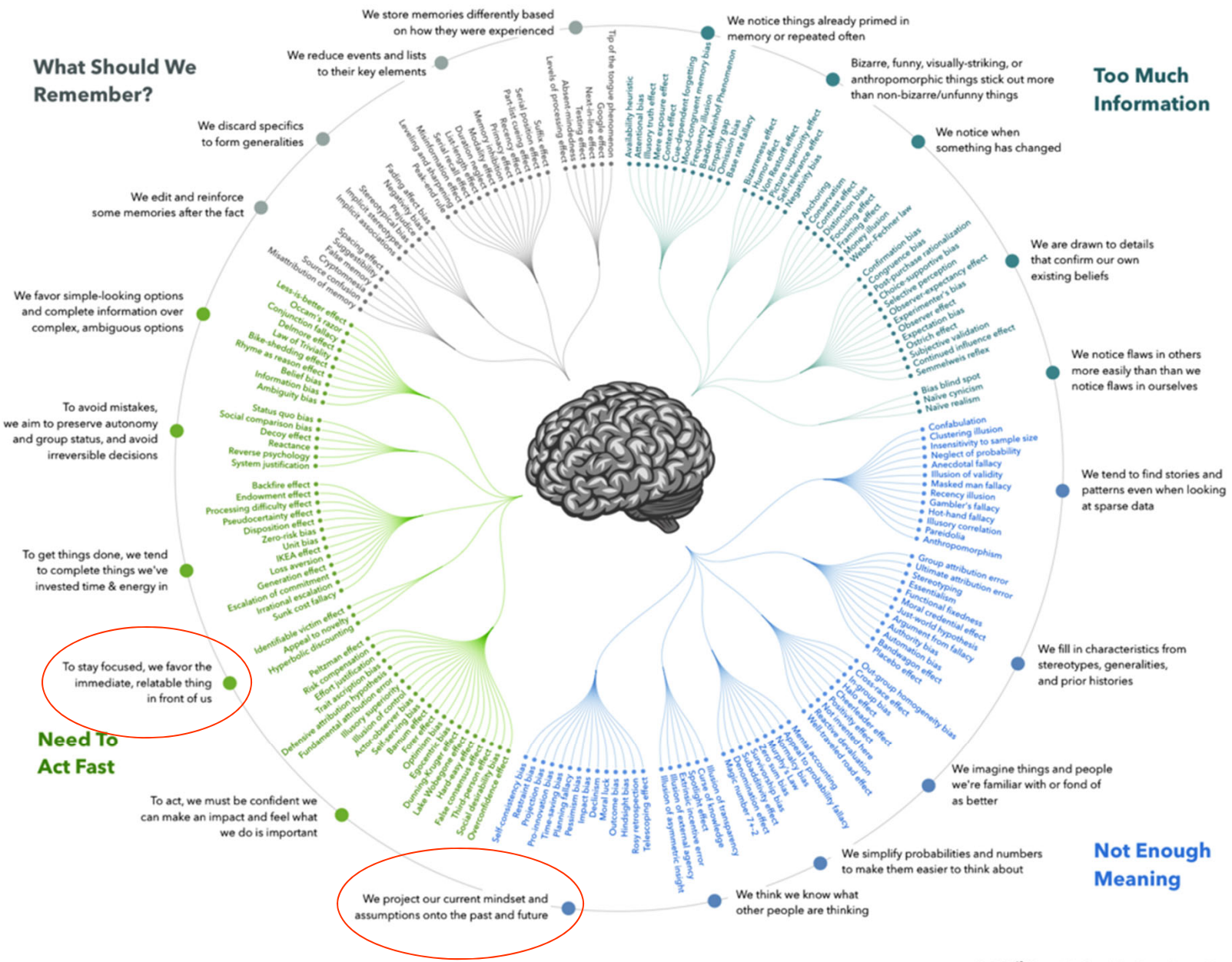
AN OBSERVATION …

Human beings have significant limits of foresight, *especially* in matters of concern in which they may have a stake.

Taleb demonstrates the inability of most humans to reason with sufficient prospection of critical tail risks in which they have actual exposure. The Black Swan effect is an outcome of this insufficency.

We can frame this as a requisite variety problem.

COGNITIVE BIAS CODEX



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CONSIDERING TEMPORAL COGNITION

Behavioral economics is obsessed with cognitive biases.
Here we have a "positive" bias with systematic effects.
Temporality biases dominate our reasoning & we ignore this.

- **We reason about decisions as if the future remains stable.**
- **Futures are *perishable* (ask Taleb, ask an options trader)**

- **We have an innate anticipatory model of the world (Rosen).**
- **But without training this model we are biased to near-term outcomes due to survival bias.**

Can we co-create shared futures that account for "multiplicities of levels of analysis" (Tim Allen)?

Risk of Insufficient Temporal Cognition

- **Biases or shortcomings in variety of temporal cognition will impact quality & outcomes of decisions involving a future.**
- **Impair visioning & optionality in collective foresight (e.g. planning, decision making, policy making).**

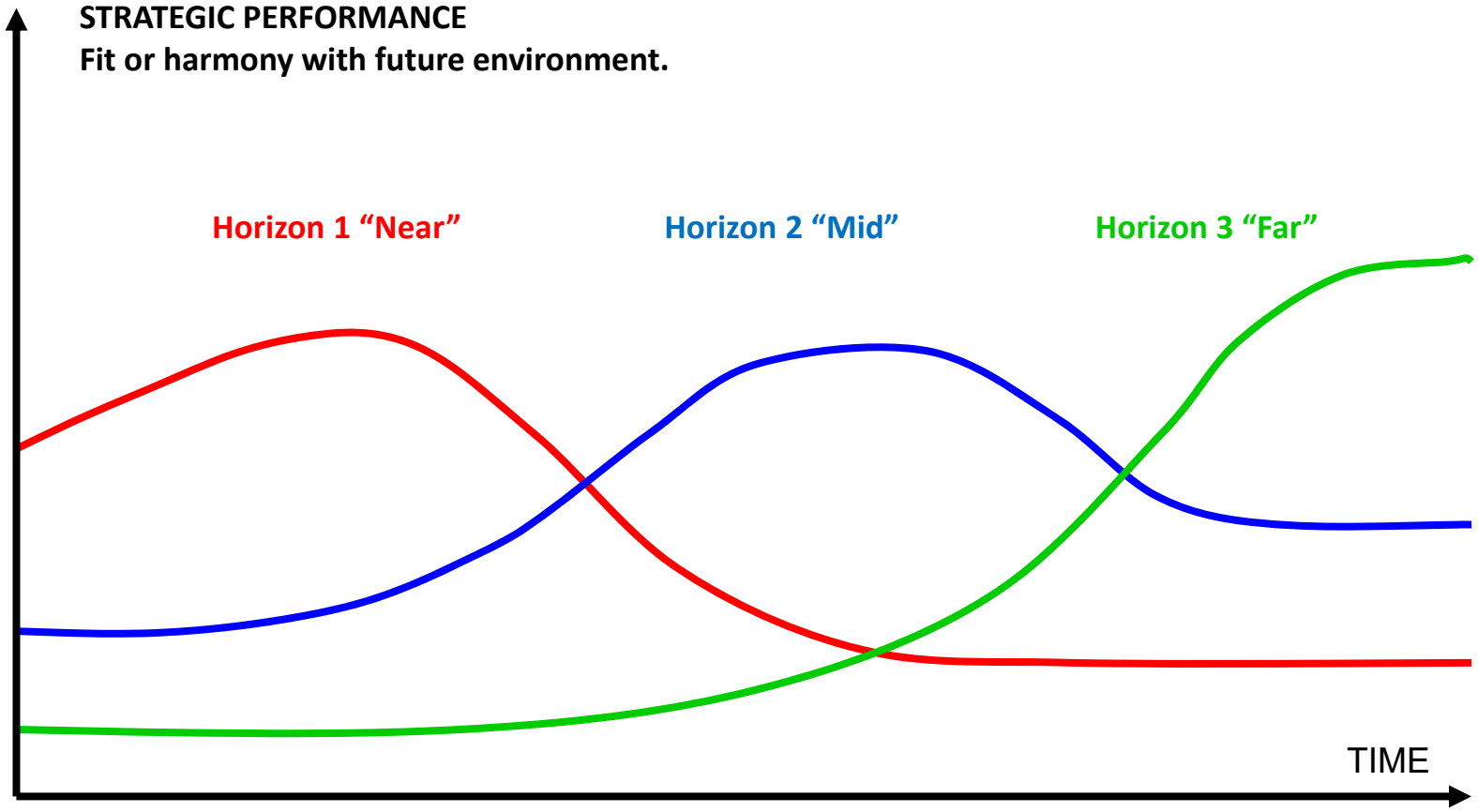
- **Cybernetics (& good sampling practice) assesses requisite variety.**
- **How can we enhance requisite temporal variety?**

- **Triangulation (in research) compensates for systematic bias.**
- **In foresight/futures we mix methods to enhance quality of scenarios & reduce reliance on one method.**

- **Stakeholder Discovery / Evolutionary Sampling balances risk.**

Temporality self-selection within groups.

"In what *timeframe* do you personally prefer to imagine and plan for significant change?"



DEMOCRATIC METHODOLOGY

Dialogic Design: Multi-method deliberation to progressively understand & converge on shared mapping of influences (problematique) & to achieve consensus (resolutique)

DO WE HAVE AN "AGENCY PROBLEM"?

- Organizers/Designers without personal risk in their design outcomes may be subject to *agency problem.*
  The moral of "not having skin in the game."

  "Anyone producing a forecast or making an economic analysis needs to have something to lose from it, given that others rely on those forecasts (forecasts induce risk taking; they are more toxic to us than any other form of human pollution)." Taleb, Antifragile, 2012.

- "Strong democracy" stakeholder-owned system design balances or distributes agency & risk.

- We might call stakeholders with agency/risk awareness "committed participants."

WHY THIS MATTERS

- **The outcomes of any engagement can become decisive**. We don't always know how influences will propagate, especially in complexity contexts.
- The interactions of participants are indeterminate, probabilistic and potentially influential of future outcomes.
- When we draw upon "immediate, accessible & willing" stakeholders, we may be fooled into thinking participation results in high-quality observations.
- We are quick to identify "bias" in positions with which we disagree. As co-design/co-creation organizers, can we see our own biases?

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Thanks.

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