SUSTAINABILITY CHANGE MANAGEMENT

A Seminar in the Principles and Practices of Launching and Growing a Sustainability Initiative

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UO Sustainability Leadership Academy
UO Downtown Portland Center

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THREE GOALS OF SEMINAR

1. To share the fundamentals of systems thinking as it applies to sustainability and organizational change.

2. To develop transferable skills and tools in change management than can be applied in any organization.

3. To help you develop your own "Theory of Success" for organizational change.

The world is complex.

Change within any organization is also complex.

However, most organizations approach change as if it were a simple thing.
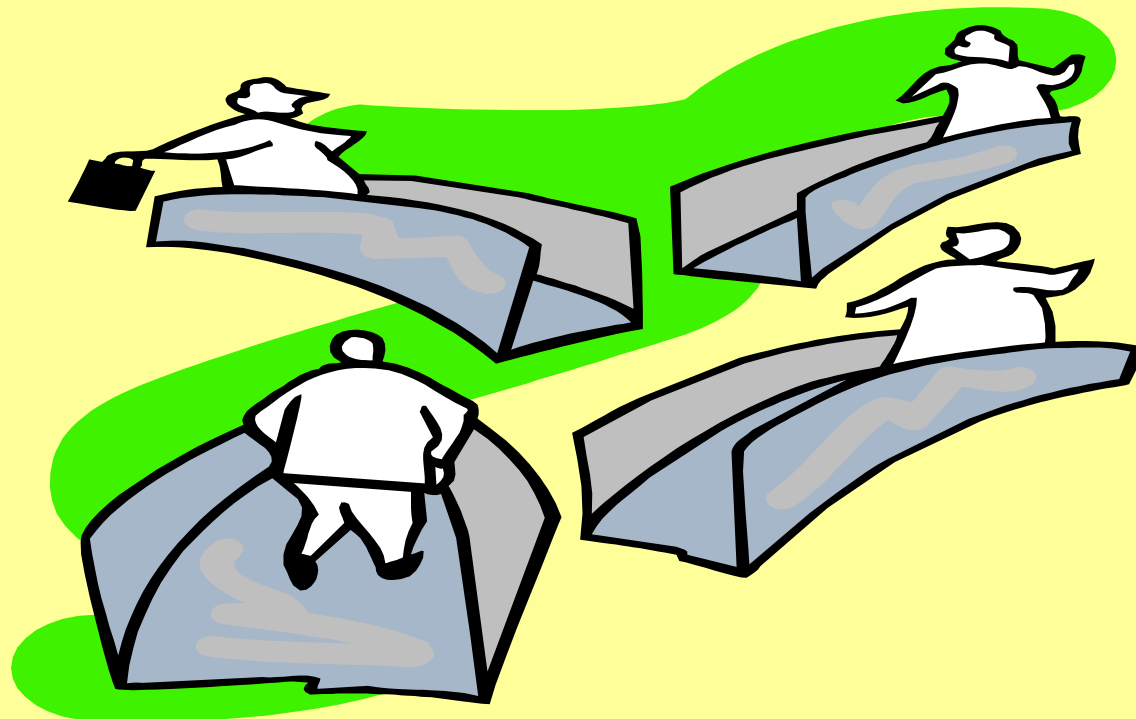
THREE PREMISES OF SEMINAR

Change Efforts Are Difficult to Launch, Plateau Early, or Fail Because:

- Most organizations are not really interested in results.

- Most organizations do not actually know how their operational, social, or economic systems work.

- Most organizations focus on reducing non-sustainability (i.e. symptoms), not on achieving sustainability (i.e. addressing root causes).

BECAUSE CHANGE IS COMPLEX, SUCCESSFUL SUSTAINABILITY CHANGE LEADERS MUST CONTINUALLY ASK TWO KEY QUESTIONS:

"WHAT ARE WE TRYING TO ACHIEVE?"

"WHAT IS OUR THEORY OF SUCCESS?"

INTRODUCTIONS

1. Name, place and type of work

2. What are your striving to achieve in your sustainability efforts?

3. What is your theory of success?

LOGISTICS AND SUGGESTIONS

1. _Develop A Journal_—**Keep a piece of paper available to jot down notable points, personal awareness's, choices you want to make, actions you decide to take.**

2. _Don't Worry if You Can't Read All Of The PowerPoint's._
We May Not Get Through Everything—**The PowerPoint's are for your use after the seminar as much as for the workshop itself.**

3. _Use This Workshop As A Practice Field_**--- Use this as an opportunity to learn and practice.**

SOME GROUND RULES

1. Be here. Turn off cell phones. Return from breaks on time.

2. Participate fully

3. Respect each other—keep private contributions private

4. Respect yourself—share only what you want and are comfortable with.

5. Have fun—we will use humor—let's play and laugh.

6. Others?

SCHEDULE

Thursday

Fundamentals of systems thinking

Understanding your organization's systems

Primary on sustainability

Lunch **12 –1 PM**

Systems thinking, sustainability and organizational change

Common sustainability 'blunders' organizations make

Assessing your orgs "blunders"

End 4:30 PM

Friday

Start 8:30 AM

Morning

How to change a social system

The 'Wheel of Change Toward Sustainability'

Application of the 'Wheel of Change'

Lunch **12-1 PM**

Key issues in managing sustainability change initiatives
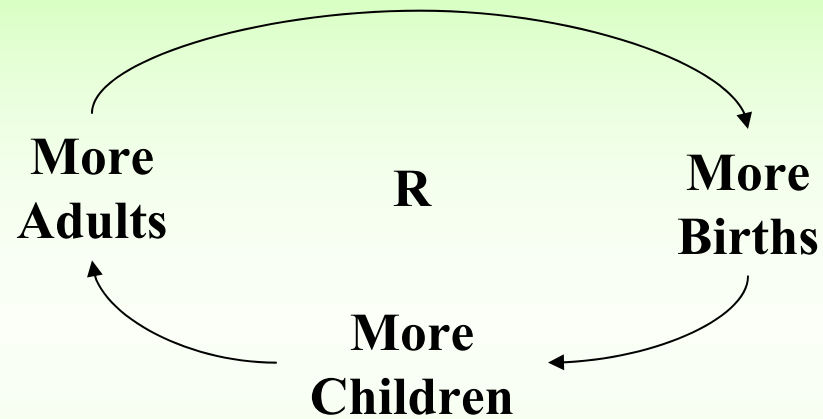
Personalized Action Plans

End 3:30 PM

A "Theory of Success" is Vital Because Most Change Efforts Fail

- Two thirds of all TQM programs fail

- 85% or more of all Re-engineering efforts fail

- My research found most sustainability efforts struggle to get off the ground, peak early, or fail outright
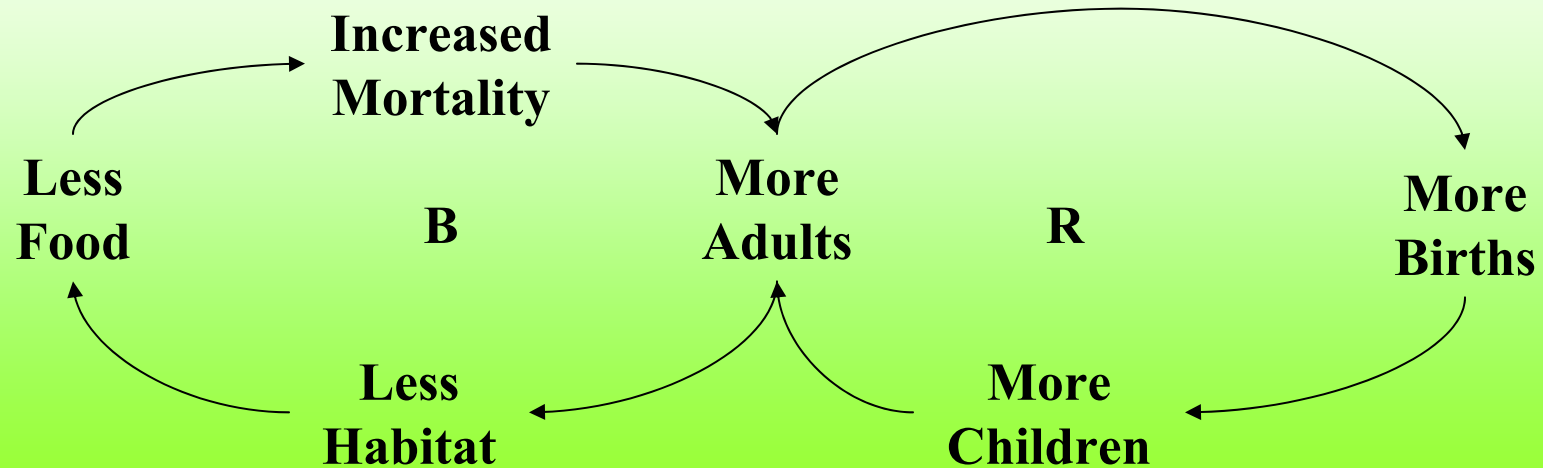
HOW DOES CHANGE HAPPEN?

All growth processes in nature are governed by the interaction of self-reinforcing (positive) and balancing (negative) feedback.

Reinforcing Processes (Driving Forces)
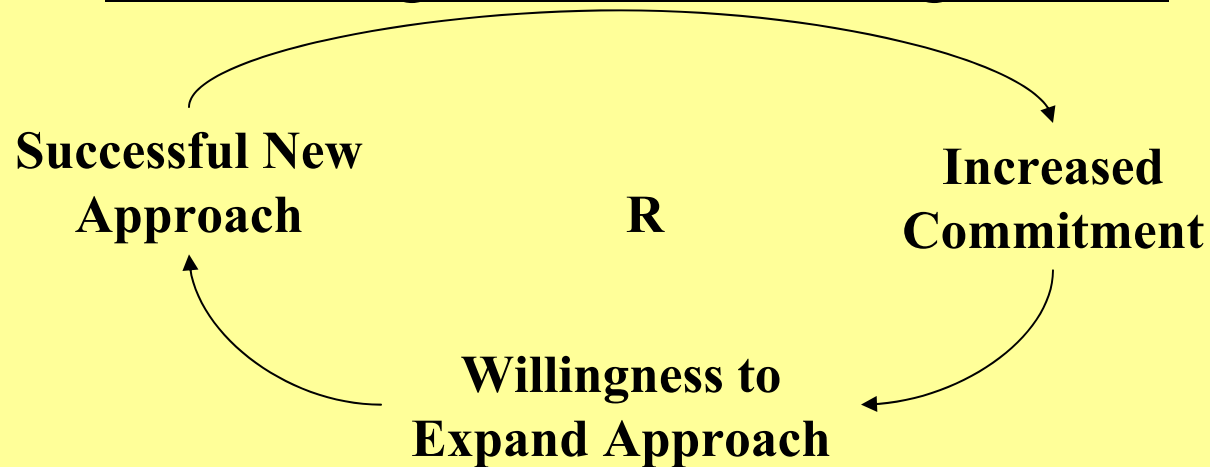
More Adults → R → More Births → More Children → More Adults

Balancing Processes (Resistance Forces)

Less Food → Increased Mortality → More Adults → R → More Births → More Children → More Adults → Less Habitat → Less Food (B)

SIMILAR PATTERNS EXIST IN ORGANIZATIONS

Reinforcing Processes (Driving Forces)

Successful New Approach

R

Increased Commitment

Willingness to Expand Approach

Balancing Processes (Resistance Forces)

Resistance to New Approach

Successful New Approach

Increased Commitment

Fear of Lost Power/Control

B

R

Changes in Thinking

Willingness to Expand
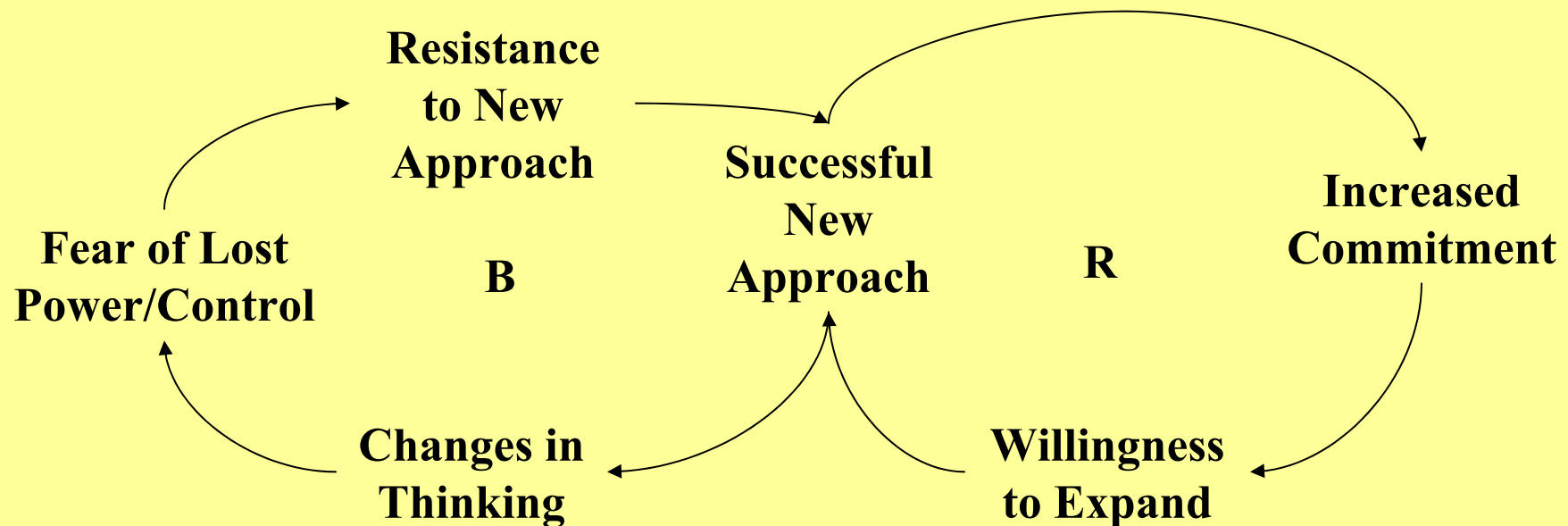
Successful Change Requires Managing the Change *Resistors* as Much or More Than the Change *Drivers*

Understanding *Systems* is the Key to This

CHANGE TOWARD SUSTAINABILITY DOES NOT OCCUR BY CHANCE

SUCCESSFUL CHANGE REQUIRES

CHOICE

&

INTENTIONALITY!

CLARITY ON "GRR"….
The Key to Successful Sustainability Change Efforts!

G	**R**	**R**
O	O	U
A	L	L
L	E	E
S	S	S

REMEMBER THE "80-2O RULE"

THE "80-20 RULE"

The Key 20% Are: *Goals, Roles, and Rules*

- Clarity over *goals* means that the organization/team's purpose, goals, strategies and tactics are carefully articulated and embraced.

- Clarify over *roles* requires that org/team members know and accept their functions and responsibilities.

- Clarity over *rules* requires that org/team decision-making, information, and resource allocation mechanisms must be transparent and agreed to.
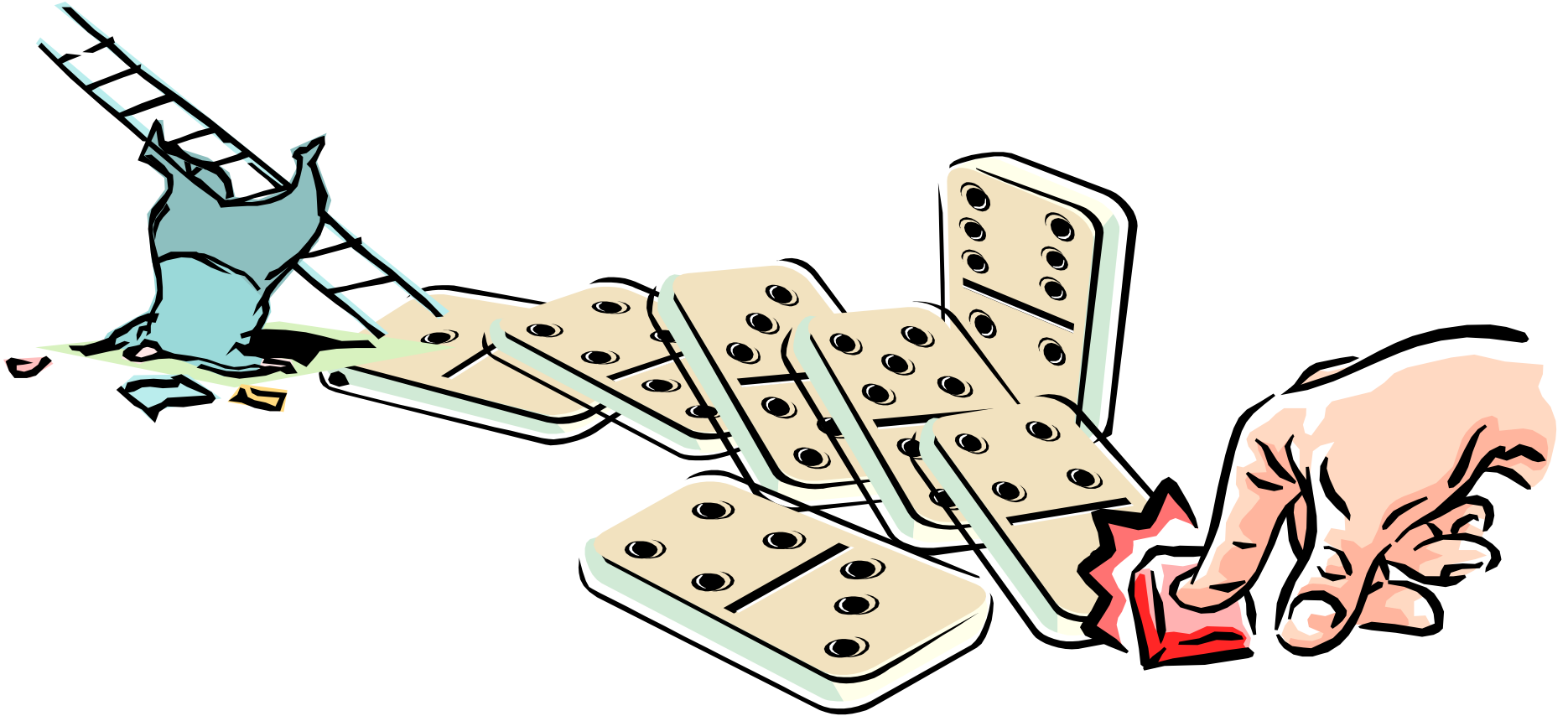
SYSTEMS THINKING

This Picture Shows A Second Major Learning Disability:

Our Inability to See the Full Impacts of Our Actions Due To _Delays_ In the System.

SYSTEMS THINKING

Helps Overcome the Two Dominant Human Learning Disabilities:

- Inability to see effects *across boundaries in time and space*

- Inability to see and understand the effects of *delays*.

Systems Thinking Overcomes These Disabilities By *Looking at the Whole, Not Just the Parts One At a Time*.

**Rather Than Just Responding to Events,
A Good Systems Thinker Continually Asks:**

"What else is going on here?"

And Most Importantly:

"How may we (I) have contributed to the problem we see?"

Most Environmental & Socio-Economic Problems Result From *Our Lack of Understanding Systems*!

By themselves, increased energy efficiency, green building, recycling etc. *will not* set an agency, community, or state on a path toward sustainability.

Only When We Understand & Act Within a *Systems Context* Can We Adopt a Sustainable Path.

EXERCISE: "CIRCLES IN THE AIR"

"We don't talk about what we see.

We see what we can talk about."

Changing Our Vantage Point Is a Way of Discovering New Leverage Points to Manage and Change Complex Systems.

This Is the Purpose of Systems Thinking.

HOW DO WE TYPICALLY RESPOND TO THE WORLD?

Something engages us to think.

The thinking causes us to act.

The act creates some feedback.

Stimulus
(Thinking) → **Response**
(Act)

Feedback
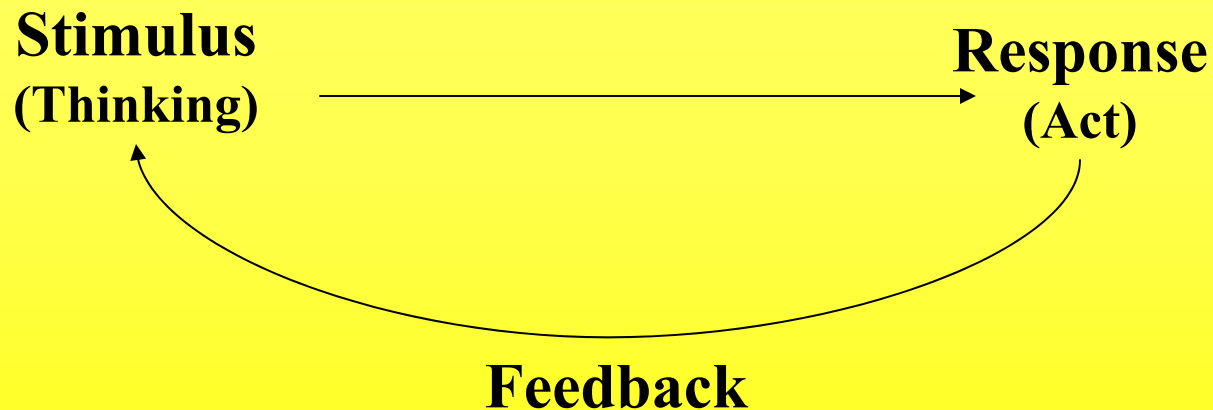
OUR MOST COMMON RESPONSE TO STIMULI IS *REACTIVE*

THIS IS LINEAR THINKING

Implicit In Linear or Reactive Thinking:

- **Factors are independent**

- **Causality runs one way (from cause to effect)**

- **All factors are equally important**

LINEAR (REACTIVE) THINKING
IS USUALLY *HABITUAL*—

"This Looks Like What Happened Last Week.

I'm Going To Respond The Same Way Again."

Linear Thinking Has Value--Important Times and Places.

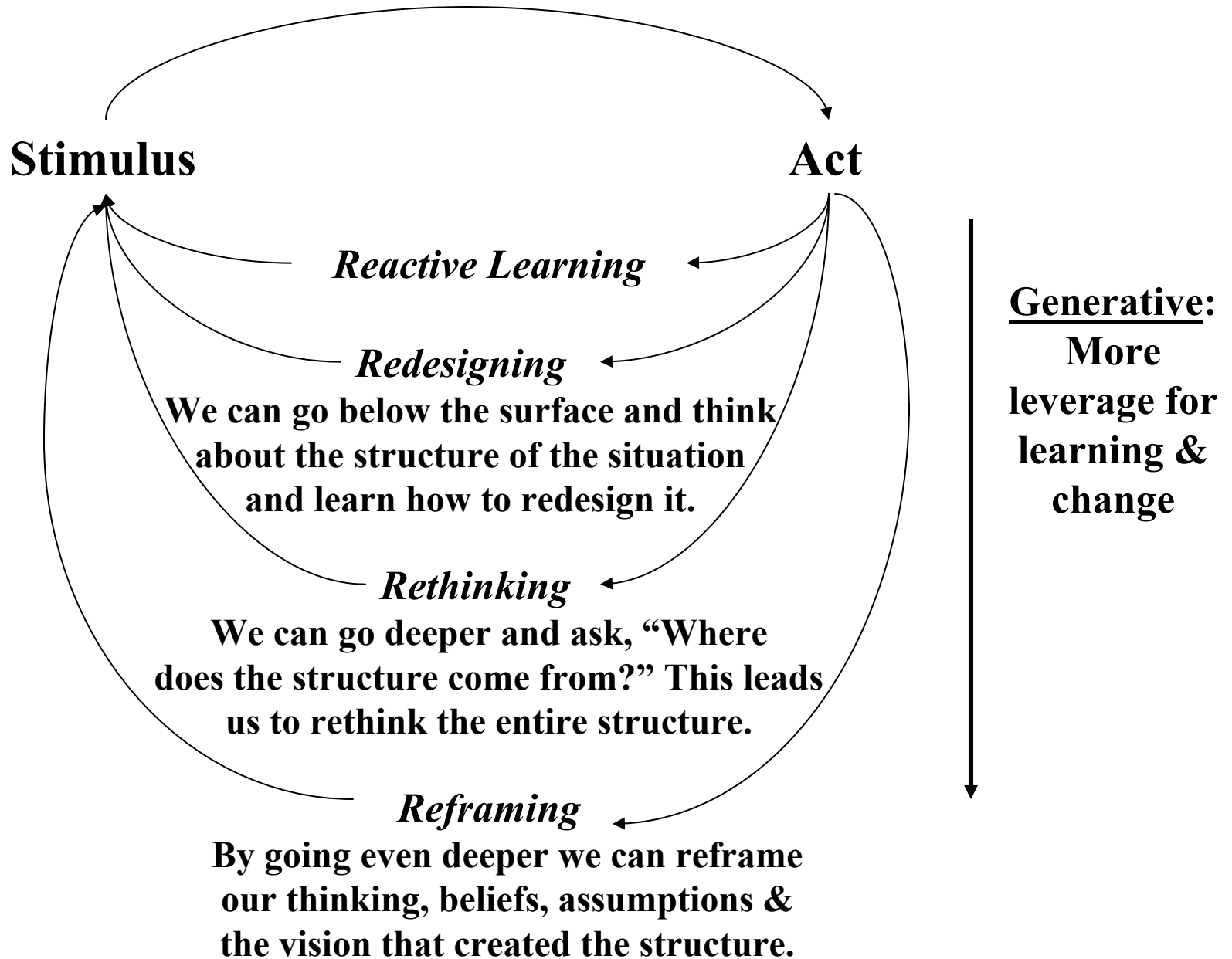*However, The Benefits Are Usually Limited.*

WHEN WE REACT WE USUALLY RESPOND TO THE *WRONG THING*, OR TO ONLY *PART OF IT*.

That Is, We Usually React to _Symptoms._

**The Problem Eventually Reappears,
Requiring *More* Time, Energy, and Resources to Address, and
Unintended Consequences Often Emerge Down the Road.**

**Resolving Problems at their Source Requires a
*Much Deeper Level of Response.***

HOW DO WE GET TO A MUCH DEEPER LEVEL OF LEARNING?

Stimulus   **Act**

Reactive Learning

Redesigning

We can go below the surface and think about the structure of the situation and learn how to redesign it.

Rethinking

We can go deeper and ask, "Where does the structure come from?" This leads us to rethink the entire structure.

Reframing

By going even deeper we can reframe our thinking, beliefs, assumptions & the vision that created the structure.

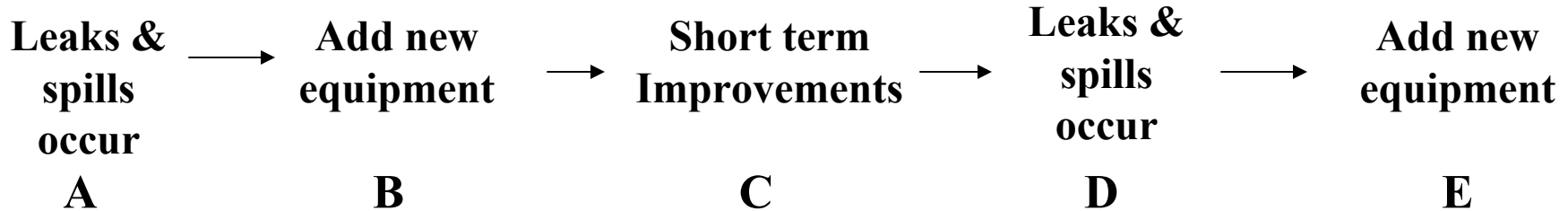**Generative: More leverage for learning & change**

THE PURPOSE OF SYSTEMS THINKING IS TO FOSTER DEEPER LEVELS OF LEARNING

In Systems Approach:

- **Factors in Any System Are Not Independent**

- **Causality Is "Circular'**

- **Some factors are more important than others**

WHAT SYSTEMS DO: FEEDBACK LOOPS

Linear Approach

Leaks & spills occur → Add new equipment → Short term Improvements → Leaks & spills occur → Add new equipment

A   B   C   D   E

Systems Approach

B **More Equipment Added**

C **Short term Improvements**

F **Complexity Increases**

Workload Increases

A **Leaks & spills occur** D

G **Mistakes Increase**
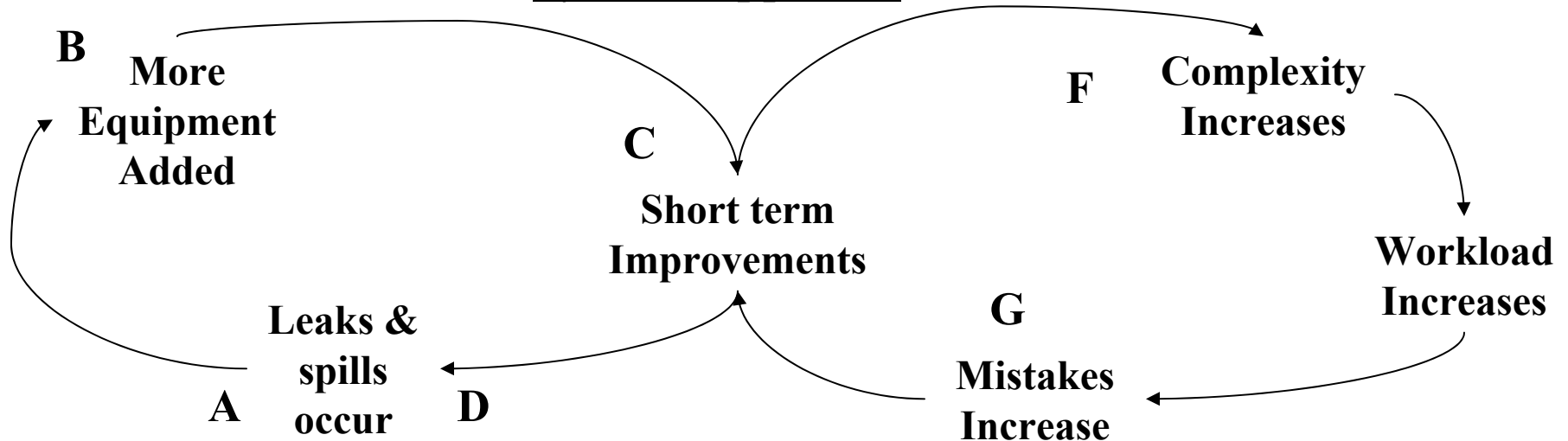
"Thinking in feedback loops" helps us discover the *interrelationships* between *all* parts of the system

SYSTEMS THINKING IN DAILY LANGUAGE

- What comes around goes around

- Cyclical pattern

- We're in this together

- Vicious cycle

- Domino effect

- Ripple effect

- Chronic behavior

- Self-fulfilling prophecy

- Closing the loop

- Snowballing

"UNIVERSAL PRINCIPLES" OF SYSTEMS THINKING

1. *See The Big Picture*—Whatever situation we are in or problem we have can be related to a larger system.

2. *Think Short and Long Term* –Habitual short-term solutions can impede long-term outcomes. However, you can't ignore short-term actions.

3. *Soft & Hard Indicators*—Hard indicators alone are insufficient. A host of powerful "soft" factors that cannot be easily observed influences behavior.

4. *System as a Cause*—We are not 'victims'– the unintended consequences of our past decisions *and* our mental models contribute to our current problems.

5. *Time and Space and Delays*—Cause and effect are often not closely related in time and space. Time delays & the chain-of-effects often mask the connection between cause and effect.

6. *System Versus Symptom*—A problem cannot be resolved without understanding the system that generates it. Root causes must be identified before lasting solutions can be found.

7. *'And' Versus 'Or'*—There are usually several interrelated causes for a given problem, not a 'single-cause'.

WHY THE NEED FOR SYSTEMS THINKING IN SUSTAINABILITY?

- **Increasing *interrelationship*s between environmental, social, and economic problems.**

- **Increasingly *complexity* of environmental and socioeconomic problems.**

- **Mistaken belief that *one person or unit* can resolve problems.**

- **The source—& solution--of most environmental & socio-economic problems is usually *not where the problems first appear*.**

- **Preponderance of *quick fixes* (symptomatic solutions) for systemic problems.**

- **Need for *common language* to discuss complex issues.**

- **Need for method to *graphically* describe complexity.**

SYSTEMS OR COLLECTIONS?

Bowl Of Fruit

Tools in Toolbox

Soccer Team

Toaster

Swim Relay "Team:

Professional Basketball All-Star "Team"

DEFINITION OF SYSTEM

"Any Group of Interacting, Interrelating, or Interdependent Parts That Form a Complex and Unified Whole With a Specific Purpose"

All Human Organizations Are *Social* Systems

CHARACTERISTICS OF SYSTEMS

- **A System Has Intent – a Unique *Purpose* of Its Own**

  Addresses *Goals*
  (Are The Orgs/Teams Vision and Goals Clear and Embraced by All?)

- **All of The Parts of the System Must Be *Present & Functioning Well* to Achieve Its Purpose Effectively.**

  Addresses *Roles*

  (Are All of the Right People & Units Involved & Fully Engaged?)

- **The *Order* in Which the Parts Are Arranged Affects the Systems Performance.**

  Addresses *Roles*
  (Are People in the Right Roles & Are Responsibilities Clear?)

SYSTEMS PRINCIPLES(Continued)

- **The Parts of a System Are *Interdependent* -- & Thus Create More Than the Sum of Their Parts (Synergy).**

  Addresses *Roles & Rules*
  (Do Clear Rules of Engagement Exist that Help Each Individual/Team Effort Build on the Others?)

- **Systems Seek to Maintain *Stability* Through *Feedback*.**

  Addresses *Goals, Roles, and Rules*
  (Are The Goals, Roles, and Rules for Information Gathering, Continual Learning, and Feedback Clear and Effective?)

KEY AXIOMS OF SYSTEMS PERSPECTIVE

If You *Optimize Parts Of A System* You Are Guaranteed To
Sub-Optimize The Whole System
or The Larger System In Which It Is Embedded.

A CORRELARY:

If You *Optimize The Whole System*, You Are Guaranteed To Need to
***Sub-Optimize Some Of The Parts* Of The System**

IN THE COUNTERINTUITIVE NATURE
OF SOCIAL SYSTEMS

"The Things That Cry Out For Attention The Loudest Are Usually The Farthest Away From The Root Causes"

**Most Environmental & Socioeconomic Efforts (Emissions, Waste, GHG) Are Focused on *Symptoms* of Systemic Problems, *Not Root Causes*—
Thus Crisis Management Remains the Norm**

TAKE AWAY POINT

THE PERFORMANCE OF A SOCIAL SYSTEM IS THE PRODUCT OF THE INTERACTION OF ITS PARTS

"STRUCTURE DRIVES PERFORMANCE"

Change the *Structure* of a Social System & You Can Change It's Performance

"STRUCTURE" MEANS "FORCES" & "PRESSURES" THAT FORM THE SYSTEM "CONTAINER"

The container is the boundaries people set around their system. It allows the system to define itself as a separate"self"

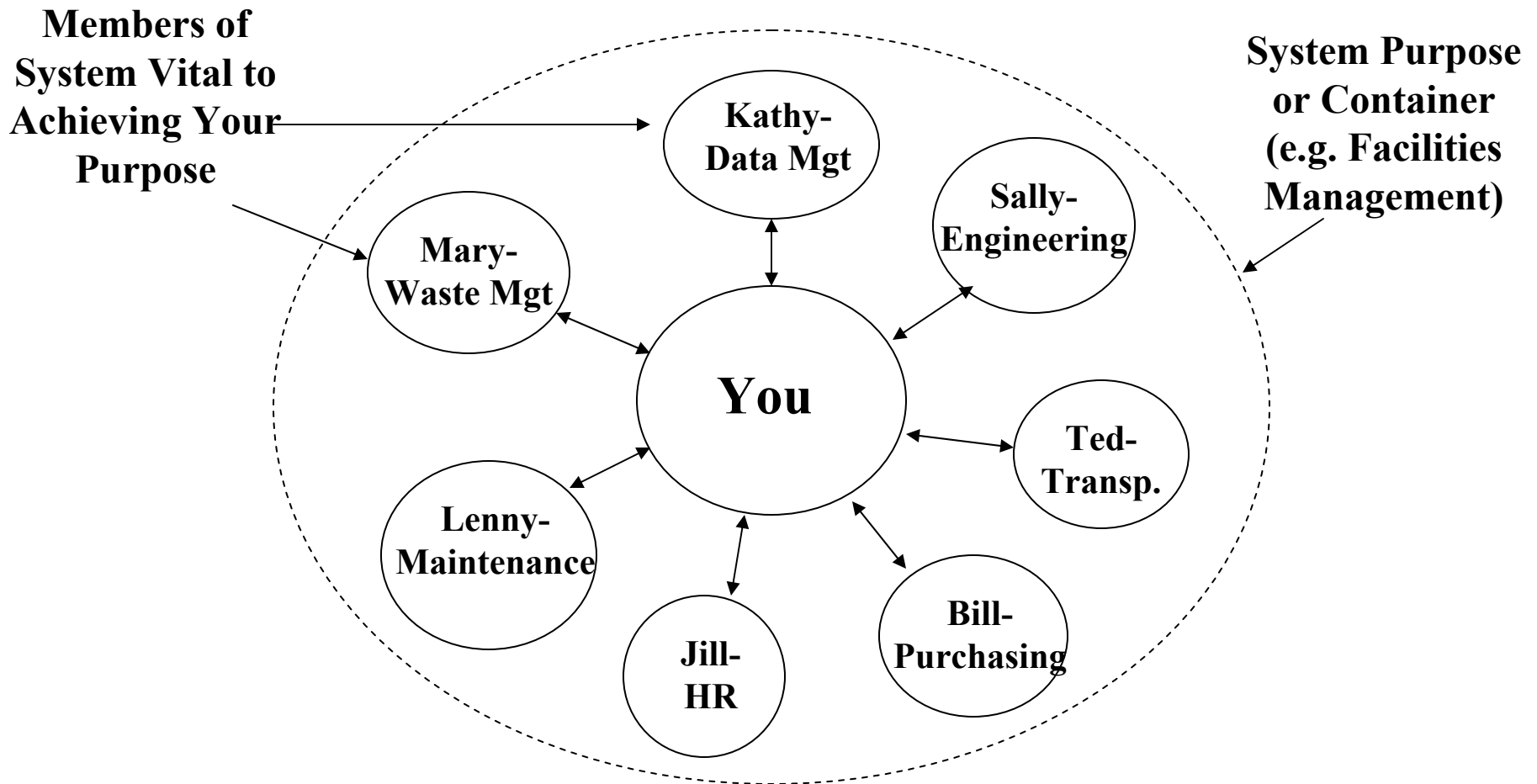## Composed of the 'Hard' and 'Soft' Elements

Hard Elements:

• Physical (e.g. geographical, building location, type of people)

• Organizational (e.g. department, unit, function, SOPs, policies, capital, incentives)

'Soft' Elements:

• Behavioral (e.g. professional identification, culture)

• Conceptual (e.g. sense of purpose, vision, beliefs, trust, fears, communication styles)

DIAGRAMMING YOUR SOCIAL SYSTEMS

1. **Identify the purpose (container) of your most immediate system (team/unit) and signify it by drawing a circle with yourself in the middle.**

2. **Draw a hub and spoke listing all the members of your system (team/unit) required for it to achieve that purpose.**

Members of System Vital to Achieving Your Purpose

System Purpose or Container (e.g. Facilities Management)

Kathy-Data Mgt

Sally-Engineering

Mary-Waste Mgt

You

Ted-Transp.

Lenny-Maintenance

Jill-HR

Bill-Purchasing

WHO TO INCLUDE IN YOUR SYSTEM?
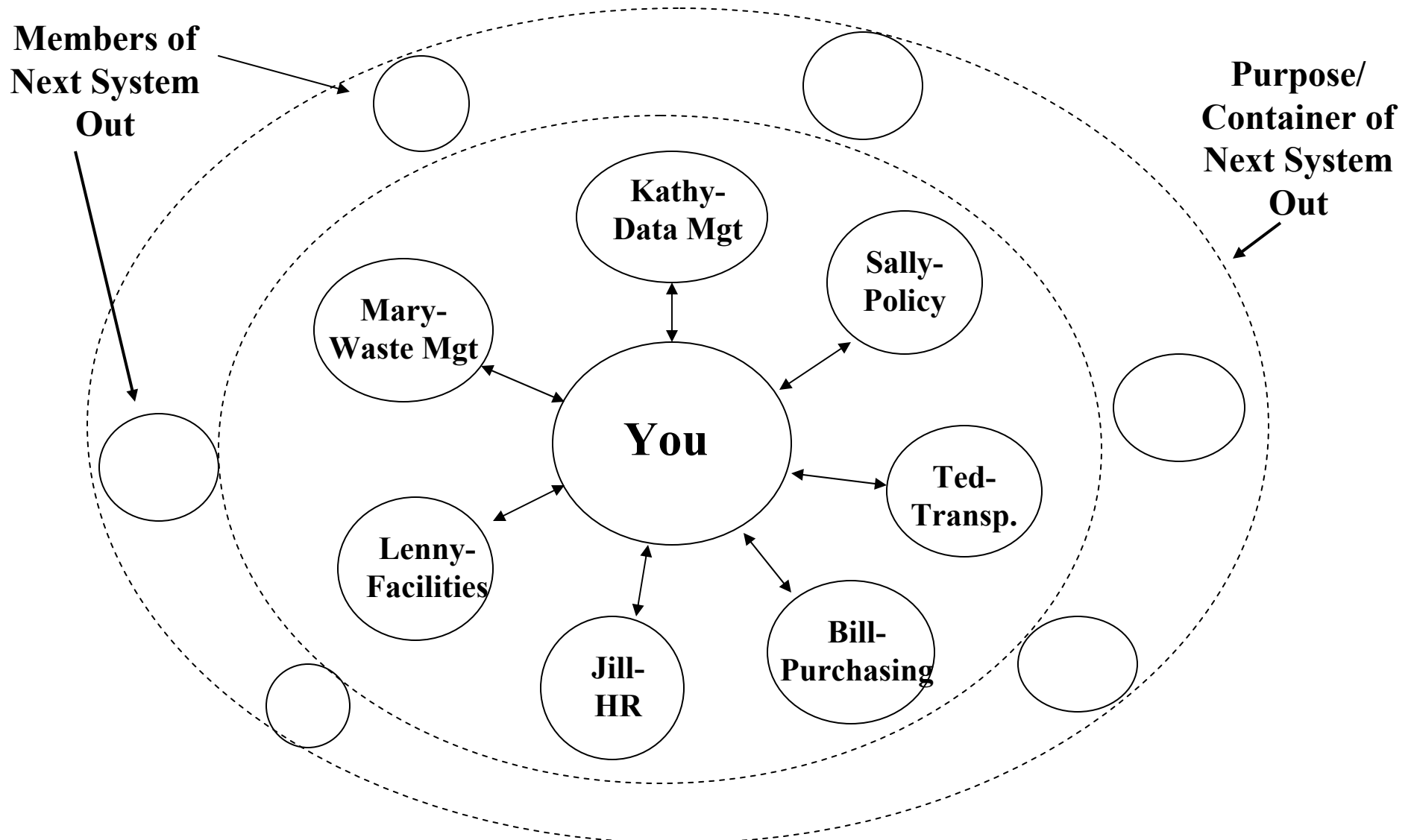
To decide what people/units/functions should be included in your immediate system and who should be placed in the next system out, ask:

"If this person's involvement were doubled, or cut in half, would it seriously impair the ability of our system to achieve its purpose."

If so, they should be included in your system. If not, they can probably be placed in the next system out.

DIAGRAMMING YOUR SOCIAL SYSTEMS

3. Use same process to identify the system at the next level out that influences your system's ability to achieve its purpose.

Members of Next System Out

Purpose/ Container of Next System Out

Kathy-
Data Mgt

Sally-
Policy

Mary-
Waste Mgt

You

Ted-
Transp.

Lenny-
Facilities

Bill-
Purchasing

Jill-
HR

EXERCISE

Discuss these questions:

- "Purpose" of your immediate system.

- Physical and organizational *"hard"* elements of your immediate system (location, building structure, policies, capital goods, incentives, procedures).

- Behavior and conceptual *"soft"* elements of your immediate system (professional identification, norms and values, beliefs, fears, thinking patterns, communication styles).

- Name, purpose, and key elements of the next larger system out which most directly influences your immediate system.

EXERCISE

SYSTEM OR COLLECTION?

Use your systems diagrams to answer these questions:

1. Is our organization/team clear about our purpose?

2. Are all the parts (individuals/units) of our system "present" and fully "contributing"?

3. Are all of the "parts" (people/units) arranged in the proper order for high performance?

4. Is the sum of whole greater than the individual parts-- people/units (i.e. does synergy exist)?

5. Do effective (honest, timely, transparent) feedback mechanisms exist?

ASSESS THE EFFECTIVENESS OF YOUR SYSTEMS

1. <u>Evaluate how each of the relationships within your immediate system relate to each other (S-S, SS-SS, C-C)</u>:

S-S (System to System): People/units function as completely separate systems.

SS-SS (Subsystem to Subsystem): People/units sometimes function together and sometimes function completely independently.

C-C (Component to Component): People/units function as components of a system that work well together.
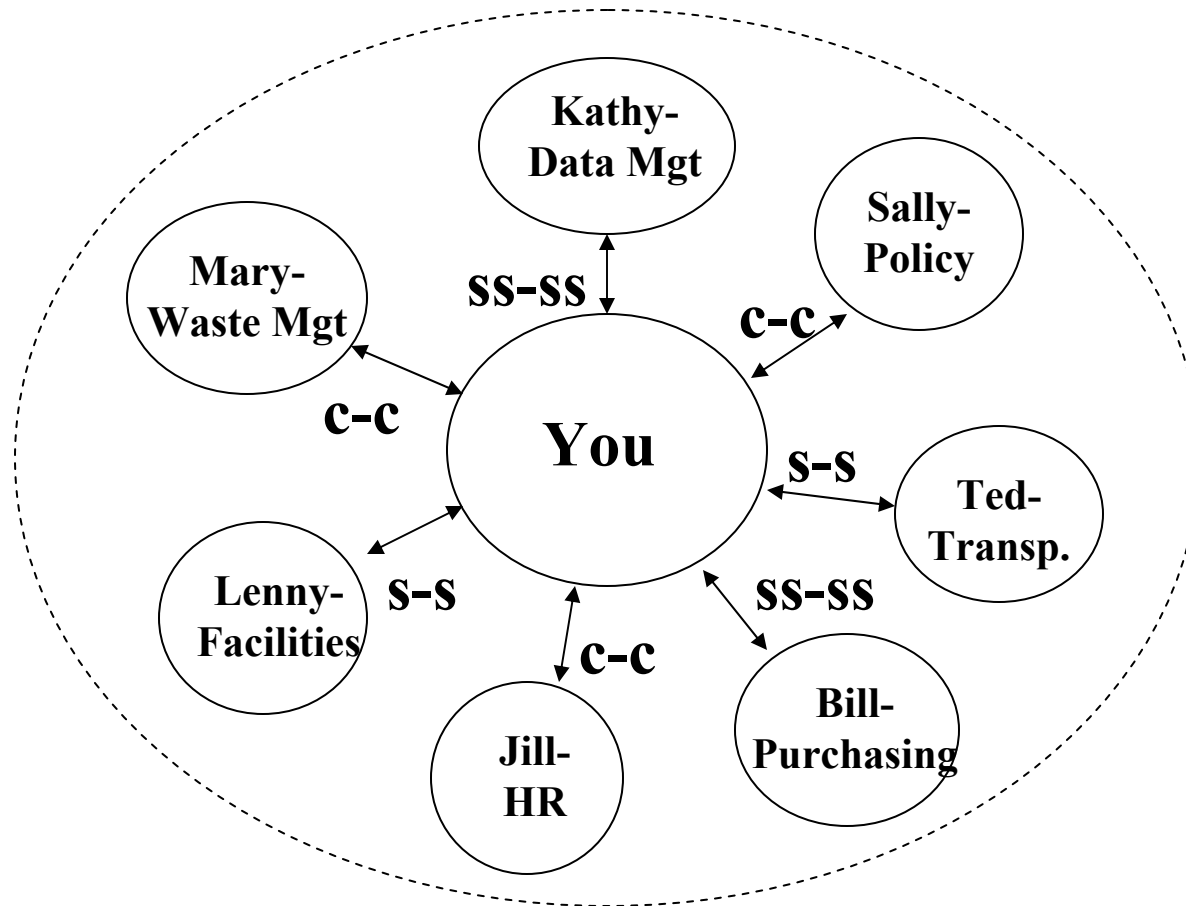
2. <u>Now evaluate how you want each of the relationships to function</u>.

High performance systems are composed of components that function in harmony with each other, not as separate entities!
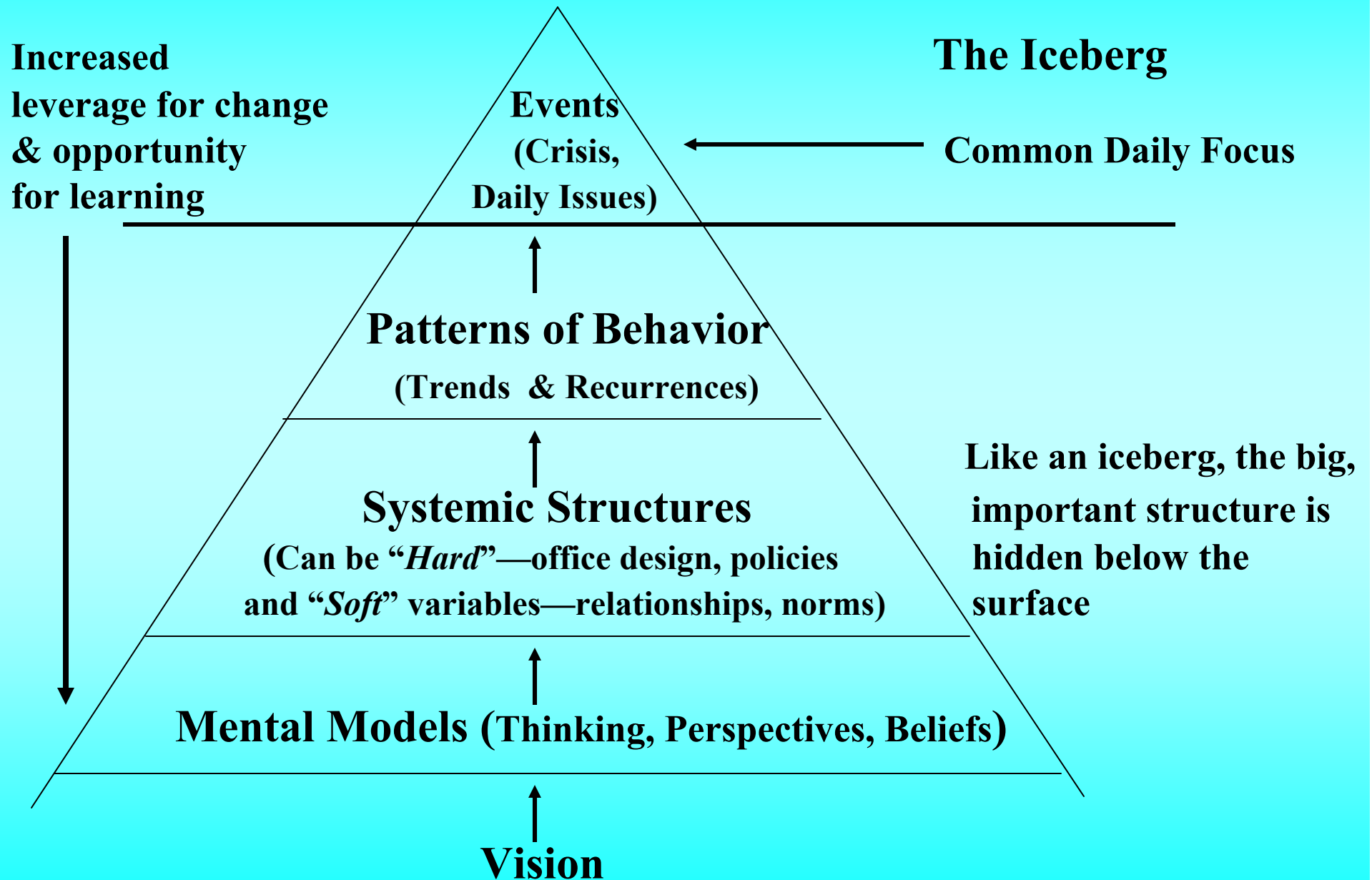
EVALUATING YOUR SOCIAL SYSTEM'S EFFECTIVENESS

Evaluating the Effectiveness of the Relationships Among People in Your System

1. **Evaluate the current nature of relationships**

2. **Then determine how you need the relationships to be for your system to function at high levels of performance.**

THE CENTRAL PREMISE OF SYSTEMS THINKING IS THAT
STRUCTURE DRIVES PERFORMANCE

Increased
leverage for change
& opportunity
for learning

The Iceberg

Events
(Crisis,
Daily Issues)

Common Daily Focus

Patterns of Behavior

(Trends & Recurrences)

Like an iceberg, the big,
important structure is
hidden below the
surface

Systemic Structures

(Can be "*Hard*"—office design, policies
and "*Soft*" variables—relationships, norms)

Mental Models (Thinking, Perspectives, Beliefs)

Vision

TRANSLATING THE "ICEBERG" INTO PRACTICE

Exercise

Directions: Pair off with one person serving as coach.

Take a problem at work or home that has some emotion behind it. One person should say, "I have a problem with xxxx."

The coach should then asks these 3 questions:

1. What happened? (events)

2. What has been happening? (patterns)

3. Why is it happening? (structure)

Each person take 5 minutes.

<u>DEBRIEF</u>

**People often have different hypothesis about
what is happening.**

This leads to taking the wrong actions.

*Your Role As a Sustainability Change Agent is to
<u>Help People Go Deeper</u> To Increase Their Clarity & Insight.*

**Deepening Our Thinking and Perceptions is Vital To
Identify, Resolve and Prevent Sustainability Problems.**

The Iceberg Has Profound Implications for Sustainability!

Think of the Iceberg As The "Trajectory of Emotion."

Sustainability leaders can use these three questions to help people think more deeply:

* What's happening?
* What has been happening?
* Why has this happened?

EXERCISE

"HANDS DOWN"

THE LADDER OF INFERENCE

We Live in a World of Self-Generating Beliefs
Which Are Largely Untested.

We adopt beliefs because they are based on conclusions, which are inferred from what we observe, plus our past experience.
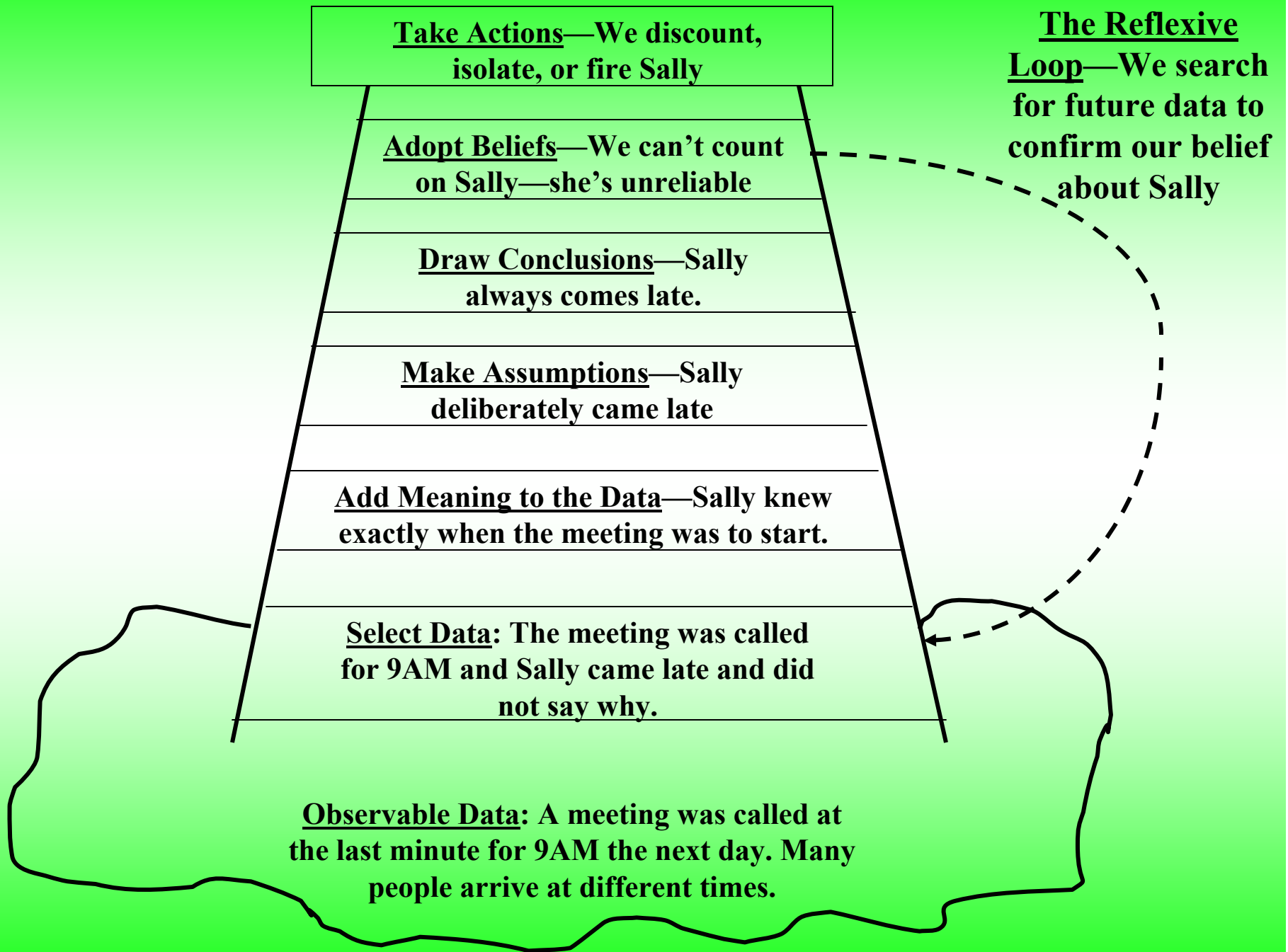
Our ability to achieve the outcomes we desire is eroded by our feelings that:

- Our beliefs are *the* truth
- The truth is *obvious*
- Our beliefs are based on *real data.*
- The data *we select* are the real data.

THE LADDER OF INFERENCE

We Take Actions Based On Our Beliefs

We Adopt Beliefs

We Draw Conclusions

We Make Assumptions Based on Meaning Added

We Add Meaning to the Data

We Select Data From What We Observe

Pool of Observable Data

The Reflexive Loop (our beliefs affect what data we select the next time)

THE LADDER OF INFERENCE

Take Actions—We discount, isolate, or fire Sally

Adopt Beliefs—We can't count on Sally—she's unreliable

Draw Conclusions—Sally always comes late.

Make Assumptions—Sally deliberately came late

Add Meaning to the Data—Sally knew exactly when the meeting was to start.

Select Data: The meeting was called for 9AM and Sally came late and did not say why.

The Reflexive Loop—We search for future data to confirm our belief about Sally

Observable Data: A meeting was called at the last minute for 9AM the next day. Many people arrive at different times.

USING THE LADDER OF INFERENCE*

Humans cannot live without adding meaning or drawing conclusions. However, we *can* improve our communication through reflection and by using the Ladder of Inference.

- Become more aware of your own thinking and reasoning (reflection).

- Make your thinking and reasoning more visible to others.

- Inquire into others' thinking and reasoning (inquiry).

- Keep asking what is the observable data behind a statement.

- Continually ask if everyone agrees on what the data is.

- Ask others to run you through their reasoning.

- Try to understand how people get from the data to their abstract assumptions.

- Use paraphrasing: "When you said "_____"(your inference) did you mean "_____" (your interpretation).

SUSTAINABLE DEVELOPMENT

Sustainability–the Goal

Sustainable Development:
The Behaviors and Practices Needed to Achieve That Goal

• First legitimized by the U.N. World Commission on Environment and Development (Brundtland Commission) in *Our Common Future (1987),* sustainable development was defined as, "*development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.*"

• Terminology has been part of local, national, and international discussions for well more than a decade.

DUTCH GOVERNMENT *REVERSED* THE BRUNDTLAND COMMISSION DEFINITION

"In principle, every generation must leave behind good environmental quality. This means that existing environmental problems must be resolved within the span of one generation (20 to 25 years) while the creation of new problems must be prevented. For the current generation, the environmental legacy from the past must also be reduced to acceptable proportions."

NATURAL CAPITALISM
Paul Hawken, Amory & Hunter Lovins *(Natural Capitalism: Creating The Next Industrial Revolution)*

- *Radically increase productivity in the use of natural resources*. **Using resources more efficiently and effectively. What we gain from one kilowatt of electricity today, for example, is far greater than what has historically been obtained. Continuing such gains is a key tenet of natural capitalism.**

- *Shift to biologically inspired production models and materials*. **Reducing wasteful and toxic throughput of materials and substances and, like nature, constantly reusing materials in closed cycles.**

- *Move to a "service-and-flow" business model.* **Shifting from an economy in which the sale of goods is dominant to one based on services and flows (selling performance, quality, and utility, not objects).**

- *Reinvest in natural capital.* **Sustaining, restoring, and expanding the stocks and flows of natural capital**

NATURAL CAPITAL

Stocks of Natural Capital Include:

- Productive, uncontaminated topsoil
- Clean water
- Clean air
- A predictable climate
- Intact ozone layers
- Fertile forests
- Healthy estuaries and oceans
- An abundant array of biological diversity including fish, wildlife, macro-organisms, and plant species.

Flows of Natural Capital Include:

- The *interactions* between the stocks of natural capital generate a flow of ecological processes that clean the air and water, produce healthy soils and forests, and in general provide the ecological basis for the production of healthy stocks of natural capital.

THE NATURAL STEP
Four "Systems Conditions"

- Nature's functions and diversity must not be systematically subjected to increasing concentrations of substances extracted from the Earth's crust (such as fossil fuels and heavy metals).

- Nature's functions and diversity must not be systematically subjected to increasing concentrations of substances produced by society (such as synthetic toxic substances and materials).

- Nature's functions and diversity must not be systematically manipulated, degraded, impoverished, or over harvested (such as over- cutting forests or driving species to extinction).

- Resources must be used fairly and efficiently to meet the basic needs of people worldwide (such as producing more products with less resources and distributing them equitably).

ZERO EMISSIONS RESEARCH INITIATIVE (ZERI)

- The ZERI approach begins with premise well known to most businesses—eliminate waste everywhere you can.

- ZERI therefore encourages business to "*do more with less until everything is done without producing waste.*"

- *All forms of waste* should be eliminated (not just wasted motion or solid waste), including all liquid, gaseous, hazardous and solid wastes.

- *All environmental wastes are considered emissions*: discharges into the air, soil, or water as well as solid, industrial, and hazardous waste.

- Result is creation of multi-functional closed-loop production systems.

ZERO WASTE

- As with ZERI, most Zero Waste advocates focus—at least in theory--on achieving "zero solid waste," "zero hazardous waste," "zero toxics," and "zero emissions and discharges."

- The Zero Waste New Zealand Trust says that Zero Waste "Encompasses waste elimination at the source through product design and producer responsibility, and waste reduction strategies further down the supply chain such as cleaner production, product dismantling, recycling, reuse, and composting."

- Most Zero Waste programs in U.S. focus on end-of-the-pipe solid waste reduction through reuse and recycling.

ECOLOGICAL FOOTPRINT
Bill Rees and Mathis Wackernagel

• "Ecological footprint" is "a measure of the 'load' imposed by a given [human] population on nature."

• Developed an accounting tool that enables companies, communities, and governments to estimate their total resource consumption and waste assimilation requirements in terms of a corresponding area of "productive" land required to satisfy those demands.

• One conclusion is that human consumption today is roughly 30-percent more than the Earth's carrying capacity:

"If everyone around the globe consumed the way Americans do, three more planets would be necessary to provide the resources needed to sustain them."

ECO-EFFECTIVENESS
Bill McDonough & Michael Braungart

- Guided by the principle found everywhere in nature that "waste equals food," Eco-effectiveness means designing and manufacturing products and processes that *replenish and restore* nature and human society, instead of using traditional environmental strategies such as "reduce, reuse, and recycle" and "eco-efficiency" that just seek to "*minimize damage*" and be "*less bad.*"

- Eco-effectiveness means designing goods and services so that materials produced by society can be safely recirculate back into one or both of two distinct global metabolisms: the *biosphere*, which includes the cycles of nature, and the *technosphere*, which are the cycles of industry and include the extraction raw materials from nature. metabolisms.

"Products can either be composed of materials that biodegrade and become food for *biological cycles*, or of technical materials that stay in closed-loop *technical cycles*, where they continually circulate as valuable nutrients for industry.

SUSTAINABILITY REQUIRES IMPROVED SOCIAL EQUITY

- To successfully transition to a circular production model every social class and human must have access to an equitable share of the stocks and flows of nature.

- This is not just about altruism. It's about self-preservation.

- An additional 80-90 million people are joining an already crowded planet each year. The demand for water, shelter, healthcare, education, food, and jobs is consequently rising exponentially.

- If society does not provide basic goods and services in an equitable manner to the world's growing population, unrest and unsustainable practices will grow.

THE "TRIPLE BOTTOM LINE"

Financial Bottom Line

Considering the impacts on *financial capital*:
The most common bottom line of all organizations includes *today's* cash flows, profits, shareholder value *and* *tomorrow's* economic viability.

Social Bottom Line

Considering the impacts on *social capital*: employees, local community, people in other regions/counties where raw materials are produced or are disposed of, and future generations.

Environmental Bottom Line

Considering the impacts on *natural capital* (the stocks and flows of ecological processes and species).

MAKING THE TRANSITION TO SUSTAINABILITY REQUIRES SIMULTANEOUSLY CHANGING:

Operations—Changing the way the organization interacts with and affects the *external* environment (natural capital, stakeholders, communities).

Organizational Culture—Changing the way the organization interacts within its *internal* environment (thinking, beliefs, decision-making, and behaviors).

CHANGE IN OPERATIONS REQUIRES

• **Clarity about how the economic, mechanical, & technological systems function.**

• **Identification of all of the environmental, social, and economic affects (upstream and downstream) generated by those systems.**

• **Identification of highest leverage points for change to reduce and eliminate impacts**

CHANGE IN CULTURE REQUIRES CHANGES IN VALUES & NORMS

Values: widely held beliefs about what is *truly important.*

Example: A dominant value may be efficiency, or protecting the public image of the organization.

Norms: widely held social expectations about *appropriate attitudes and behaviors.*

Example: A dominant norm may be never openly challenging a superior, or wearing certain types of clothing (dress codes).

The Prevailing Norms & Values of an Organization Are Constantly Reinforced by Its <u>Feedback Systems</u>

Culture Synchronizes Thinking, Beliefs, Perspectives, and Behaviors Within a Social System.

EXERCISE

1. List three values your organization/team believes are *truly important* that frame its way of thinking?

2. List three behaviors (norms) your organization/team believe are required to successfully work there?

3. Discuss how the values and norms influence your sustainability initiative.

Recap

Values: widely held beliefs about what is *truly important*.

Norms: widely held social expectations about a*ppropriate attitudes and behaviors.*

WHAT IS REAL CHANGE?

Lasting change is achieved when people begin to *openly value* different things (e.g. the natural environment, fellow workers, social welfare)...

and

adopt *attitudes & behaviors* (norms) consistent with those new values.

"Capture the heart & the mind will follow."

RESISTANCE CAN BE EXPECTED WHENEVER THE POSSIBILITY OF A CHANGE IN CULTURE APPEARS

Resistance is a _Natural Process_ in a Social System

Resistance need not be a problem—in fact, _it can be very helpful_ to achieving sustainability.

When ignored or poorly managed, however, resistance can be deadly!
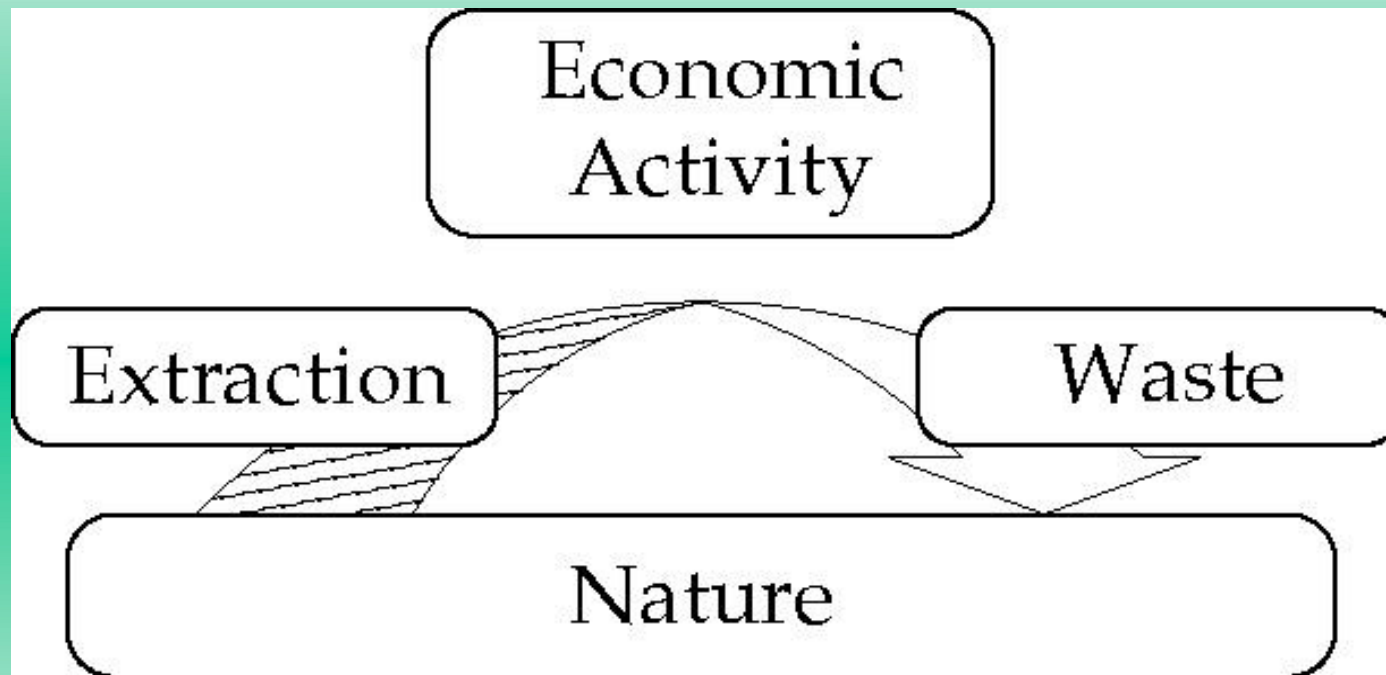
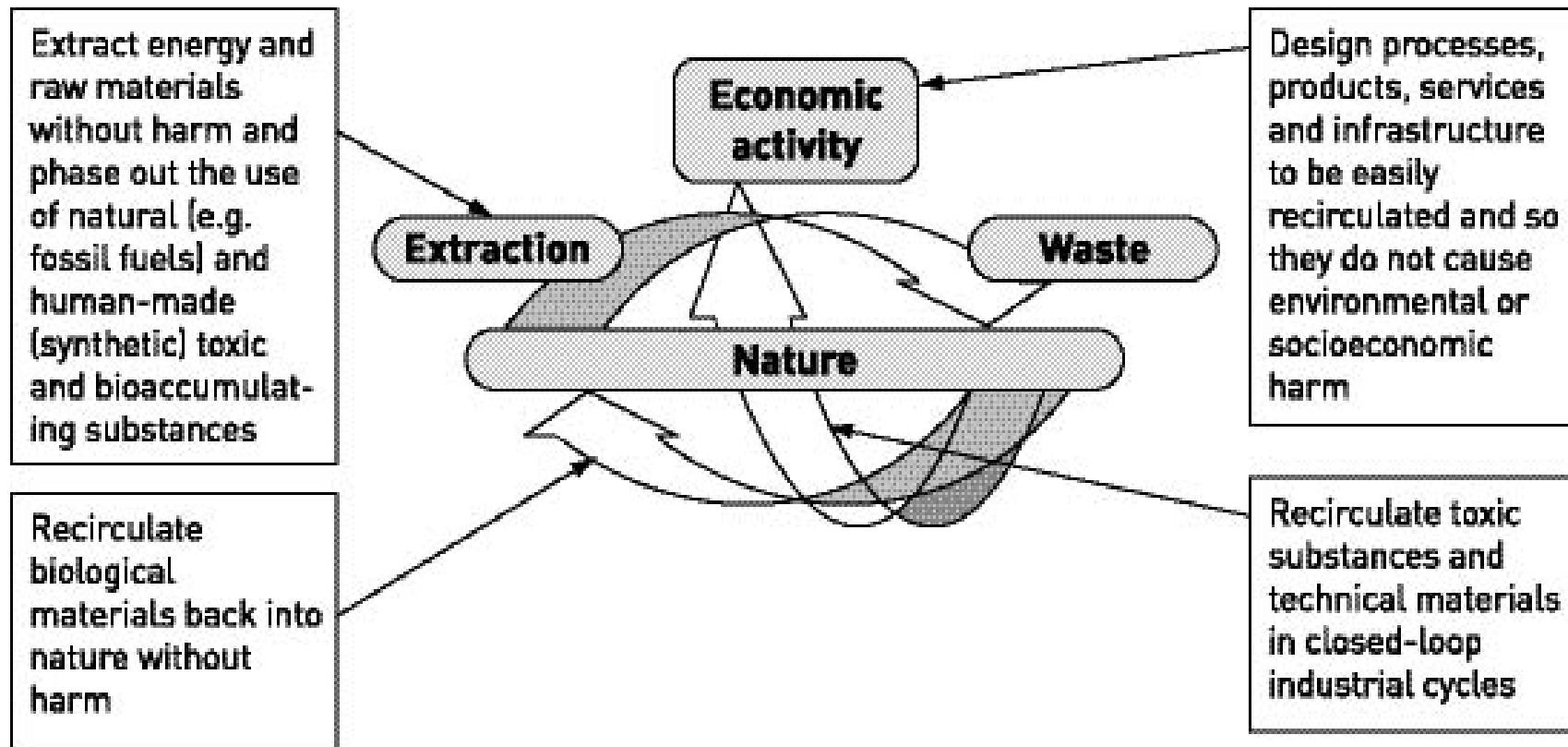# RESISTANCE CAN BE…

Overt

Covert

Path Dependency

A STARTING POINT FOR CHANGE EFFORTS IS TO UNDERSTAND YOUR *EXISTING SYSTEMS*

MOST CURRENT OPERATIONAL SYSTEMS ARE FUNDAMENTALLY _LINEAR_ ("TAKE-MAKE-WASTE")

Linear approach is used by almost _all_ organizations today: public and private, large and small

SUSTAINABILITY REQUIRES A TRANSITION TO *CIRCULAR* PRODUCTION SYSTEM ("BORROW-USE- RETURN"; "CLOSED-LOOP"; "CRADLE-TO-CRADLE")

Extract energy and raw materials without harm and phase out the use of natural (e.g. fossil fuels) and human-made (synthetic) toxic and bioaccumulating substances

Recirculate biological materials back into nature without harm

Economic activity

Extraction

Waste

Nature

Design processes, products, services and infrastructure to be easily recirculated and so they do not cause environmental or socioeconomic harm

Recirculate toxic substances and technical materials in closed-loop industrial cycles

The sustainable circular 'borrow–use–return' economic model

EXERCISE

- **Where and how is your organization frozen around the linear "take-make-waste" system?**

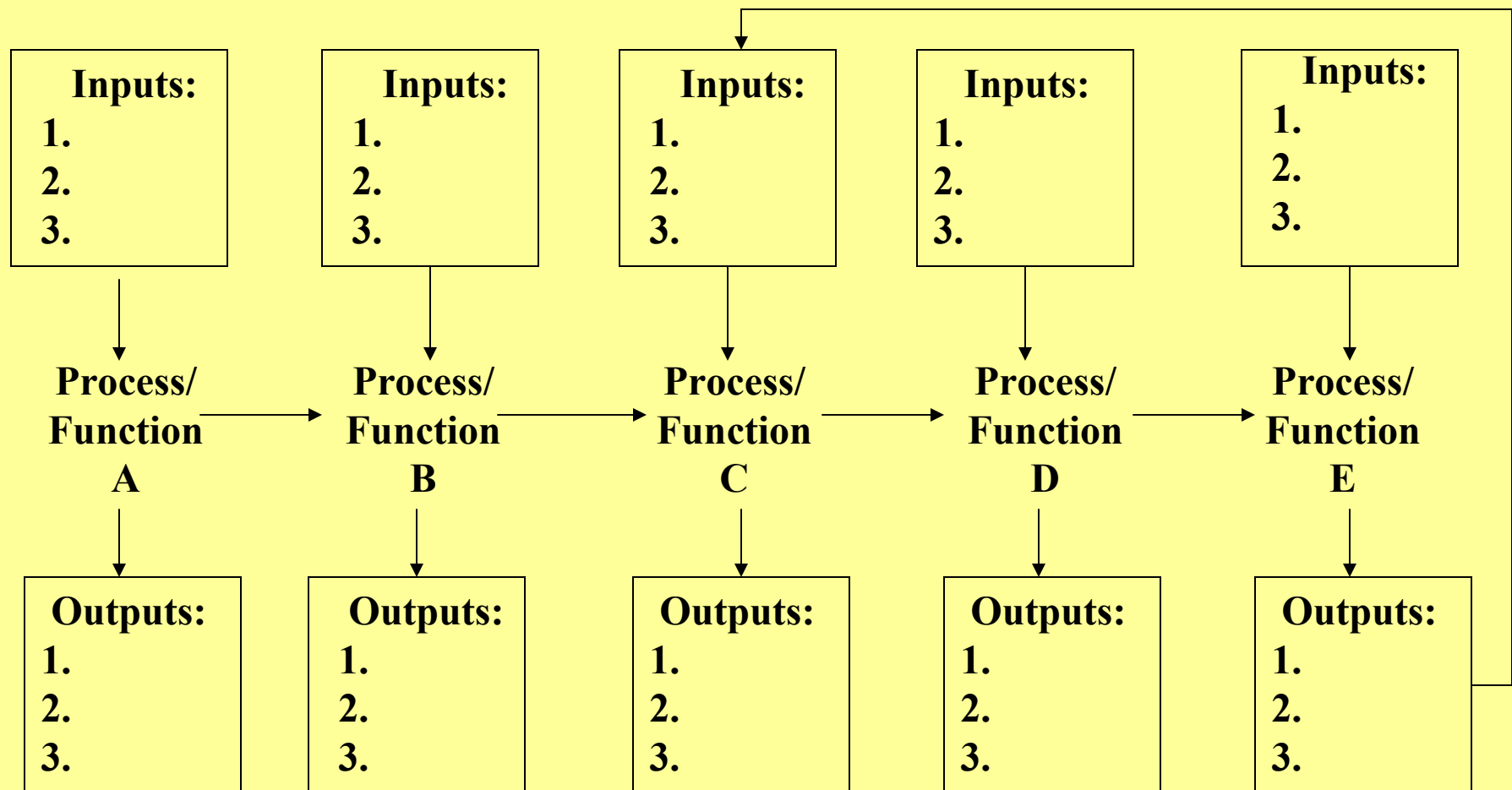- **Where and how has your organization shifted toward a circular system?**
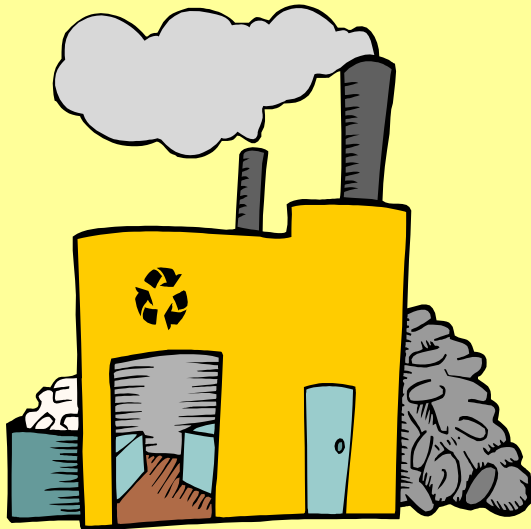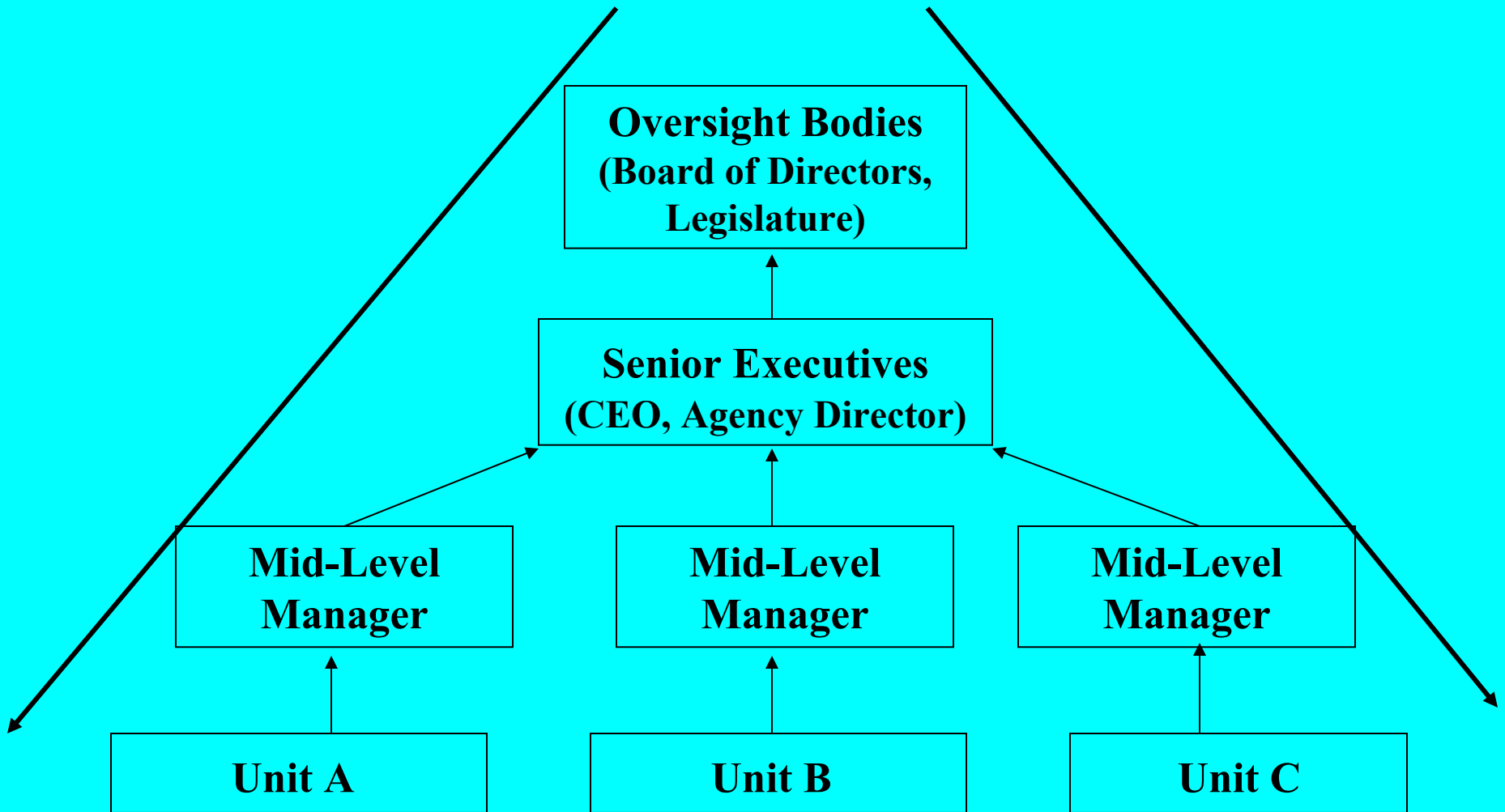
Or?

EXERCISE: DIAGRAM YOUR OPERATIONAL SYSTEMS

**Use a systems thinking approach to map the operational systems of your organization/unit**

Inputs: 1. 2. 3.	Inputs: 1. 2. 3.	Inputs: 1. 2. 3.	Inputs: 1. 2. 3.	Inputs: 1. 2. 3.
Process/ Function A	Process/ Function B	Process/ Function C	Process/ Function D	Process/ Function E
Outputs: 1. 2. 3.	Outputs: 1. 2. 3.	Outputs: 1. 2. 3.	Outputs: 1. 2. 3.	Outputs: 1. 2. 3.

LINEAR PRODUCTION MODEL HAS LED TO MECHANICAL, PATRIARCHAL ORG DESIGN & MANAGEMENT

Oversight Bodies (Board of Directors, Legislature)

Senior Executives (CEO, Agency Director)

Mid-Level Manager

Mid-Level Manager

Mid-Level Manager

**Unit A**

Unit B

Unit C

The Focus Is On *Vertical* Relationships
(Who Reports to Whom, Who Has Power Over Whom)

# SHIFT TO CIRCULAR PRODUCTION MODEL REQUIRES SYSTEMS-BASED ORGIZATIONAL DESIGNS
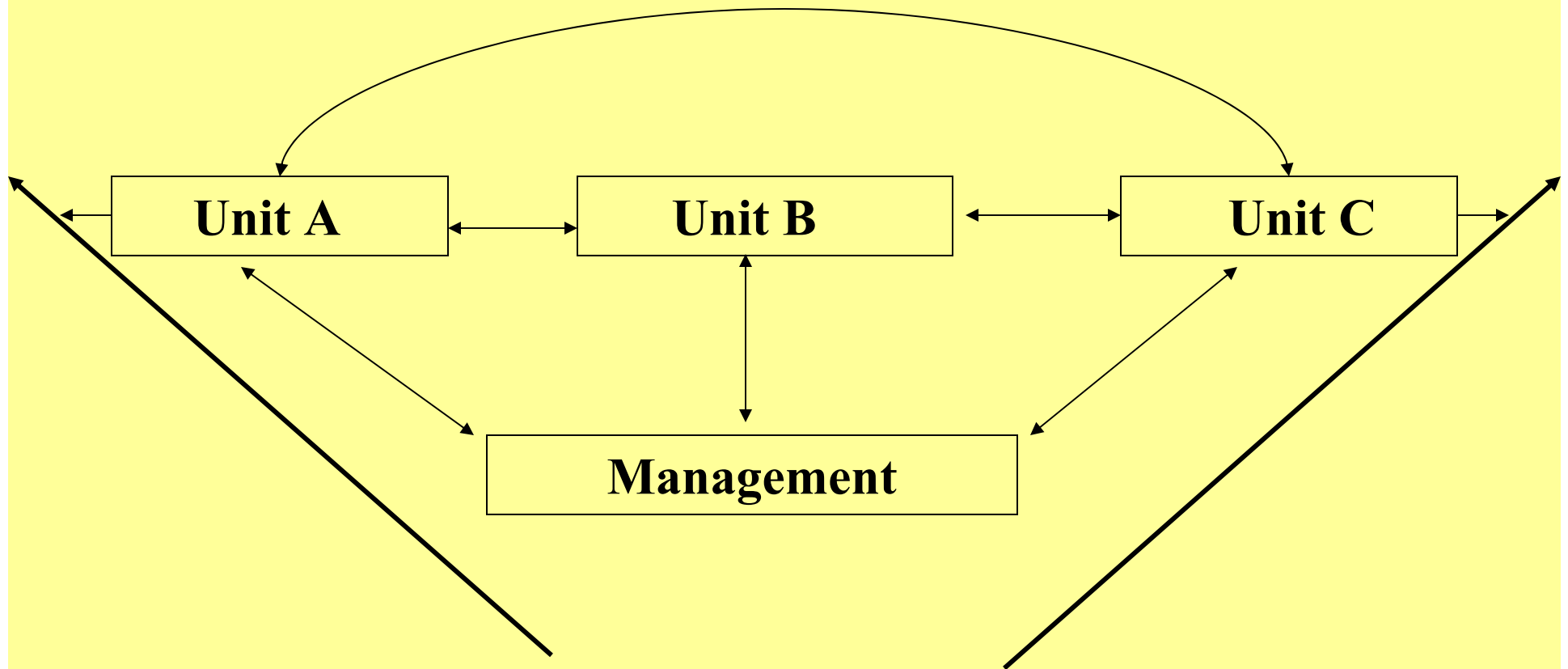
The focus is on *horizontal relationships*, *interactions* and *integration* between all units and people

MECHANICAL ORGANIZATIONAL DESIGN LEADS TO TRADITIONAL HIERARCHAL PATRIARCHAL LEADERSHIP
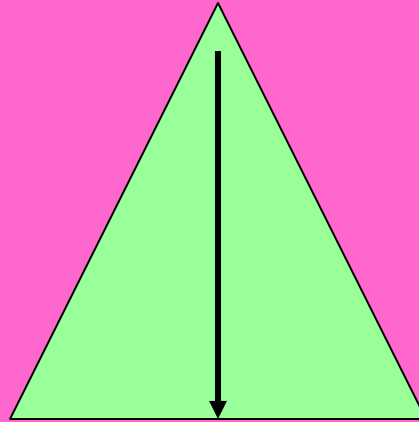
- One person (or core group) controls from the top.

- Information flows upward.

- Power and management flows downward.

- Accountability is about assigning blame.

- Employees are motivated primarily by fear or more money.

- Employees wait to be told what to do & hence do the least possible.

- People need constant reminders of procedures & commitment.

SYSTEMS-BASED ORGANIZATIONAL DESIGN REQUIRES SYSTEMS AND SERVICE-BASED LEADERSHIP
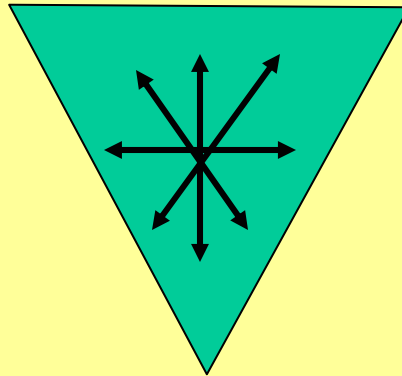
- Not dependent on one person (or group) at the top.

- Information flows to everyone in all directions.

- Power is equitably distributed.

- Leadership is focused on facilitating horizontal interactions

- Accountability is created by safe environment for learning, personal mastery and growth.

- Employees are self-directed and take responsibility for planning and follow through.

ASSESSING WHO REALLY MATTERS

A "core group" holds power and authority in most organizations. To identify the core group, put an organizational chart on the wall & answer some key questions.
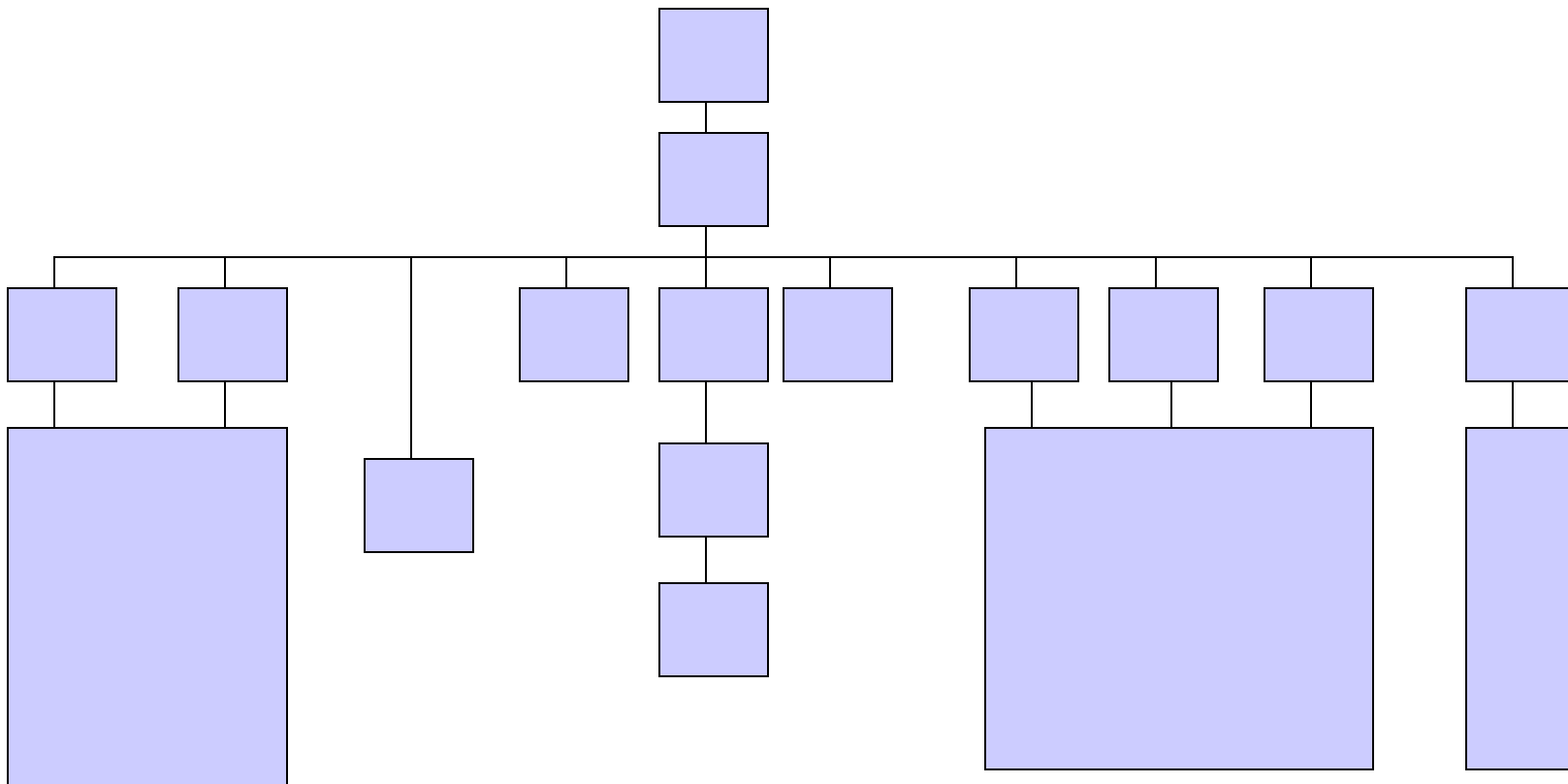
Using Your Organizational Charts, Answer These Questions:

1. Thinking back to at least the last three major decisions the org/team made, whose interests did we consider? (about whom did we ask ourselves "What would so-and-so think of this?)

2. Who are the people with the real power to get things done (or conversely who could stop something from happening simply by raising an eyebrow or questioning it)?

3. Who are the "heroes" in the organization—the larger than life celebrities about whom stories are told?

4. Who represents key subgroups—a labor union, function, or constituency?

5. Who is identified as the intellectual, emotional, financial or moral heart of the organization?

6. Who can convene people in a meeting simply by asking them?

7. *Of all the people we identified, who's really in the core group?*

ASSESSING YOUR CORE GROUP
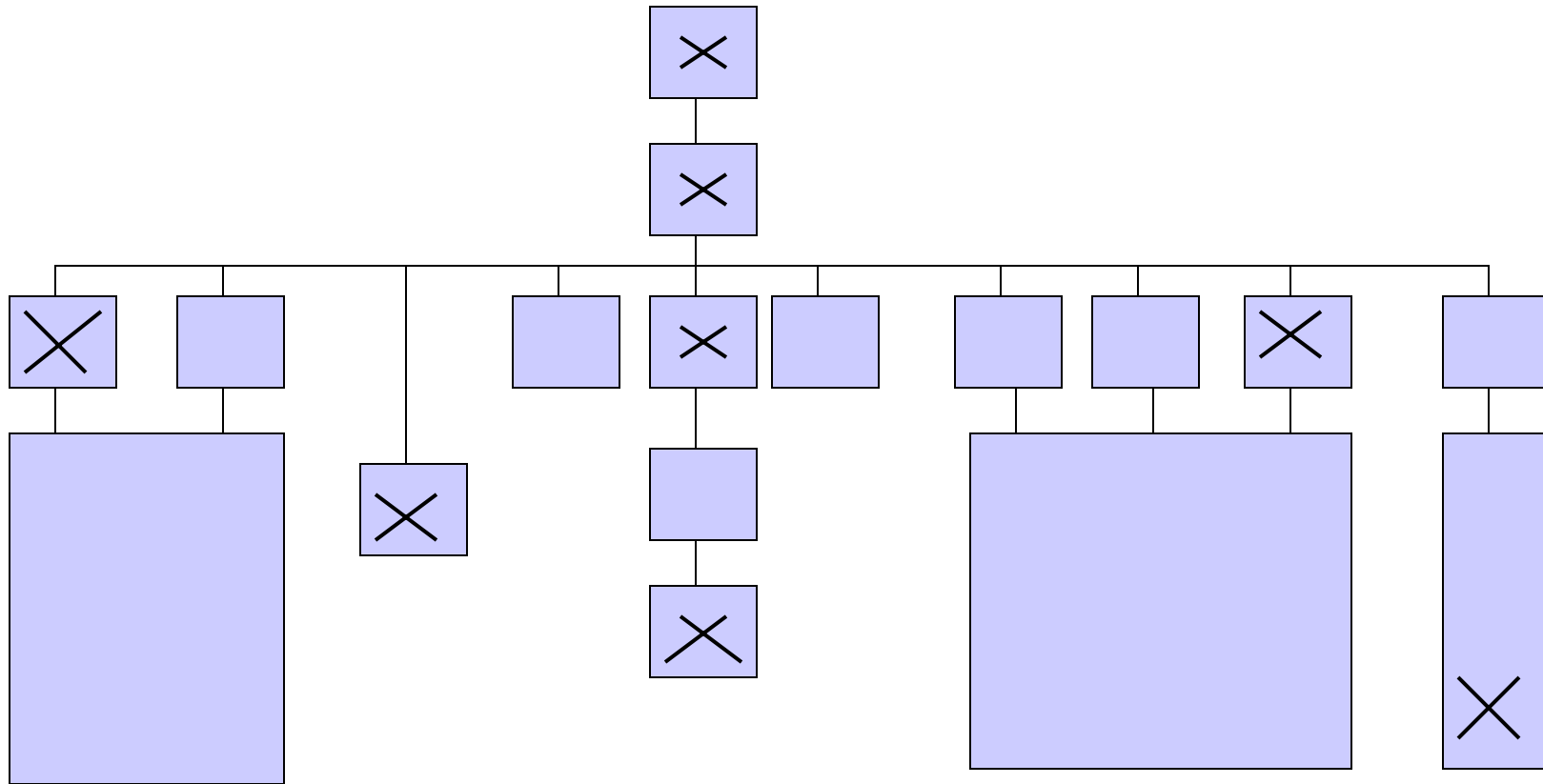
Once you have a rough map like this, use high leverage interventions to make the core group more responsive, supportive, and effective.

LINEAR MECHANICAL APPROACH LEADS TO SEVEN COMMON SUSTAINABILITY 'BLUNDERS'

1. Patriarchal Thinking That Leads To A False Sense of Security

2. Siloed Approach To Environmental & Social-Welfare Issues

3. No Clear Vision of Sustainability

4. Confusion Over Cause and Effect

5. Lack of Information

6. Insufficient Mechanisms for Learning

7. Failure to Institutionalize Sustainability

EXERCISE

Use the form provided to assess the potential sustainability blunders of your organization/team.

"IF WE DON'T CHANGE OUR DIRECTION, WE ARE LIKELY TO END UP WHERE WE ARE GOING."

Old Chinese Proverb

TWO APPROACHES TO ORGANIZATIONAL CHANGE
Planned (Theory E) & Emergent (Theory O)

Purpose and Means	Planned	Emergent
Purpose	Maximize *E*conomic Value	Develop *O*rganiz. Capacities
Leadership	Top-down	Participative
Focus	Structure and Systems	*Thinking, Values, and Behaviors*
Planning	Programmatic	Emergent
Motivation	Incentives Lead	Incentives Lag
Consultants	Large/Knowledge-Driven	Small/Process driven

EMERGENT APPROACH
'THEORY OF SUCCESS'

A systems approach, focused on a *small set of high leverage interventions* that *continually reinforce each other*, is the most effective and efficient "theory of success" for placing an organization on a path toward sustainability.

EMERGENT APPROACH TO ORG. CHANGE

'Theory of Success': Intervene At Highest Leverage Points for Change

Impact   <u>**In Descending Order of Impact:**</u>

Lowest

7. **Change the parameters (numbers, policies, procedures).**

6. **Change the feedback processes of the system.**

5. **Change the information flows of the system.**

4. **Change the rules of engagement (strategies) of the system.**

3. **Change the goals of the system.**

2. **Rearrange the parts of the system.**

1. **Change the mindset (mental model) out of which the system arises**.

Highest

(Adapted from Donnella Meadows)

THE 'HIERARCHY OF CHOICES' FOR CHANGE INITIATIVES

Where?
(Embed) — Sixth Order

From What?
(Learning) — Fifth Order Choices

When/Who?
(Action Plans) — Fourth Order Choices

Which?
(Tactics) — Third Order Choices

How?
(Strategy) — Secondary Choices

What?
(Vision) — Primary Choice

Why?
(Purpose) — Fundamental Choice

Core Values ←→ Related to the Org/Team ←→ Core Values
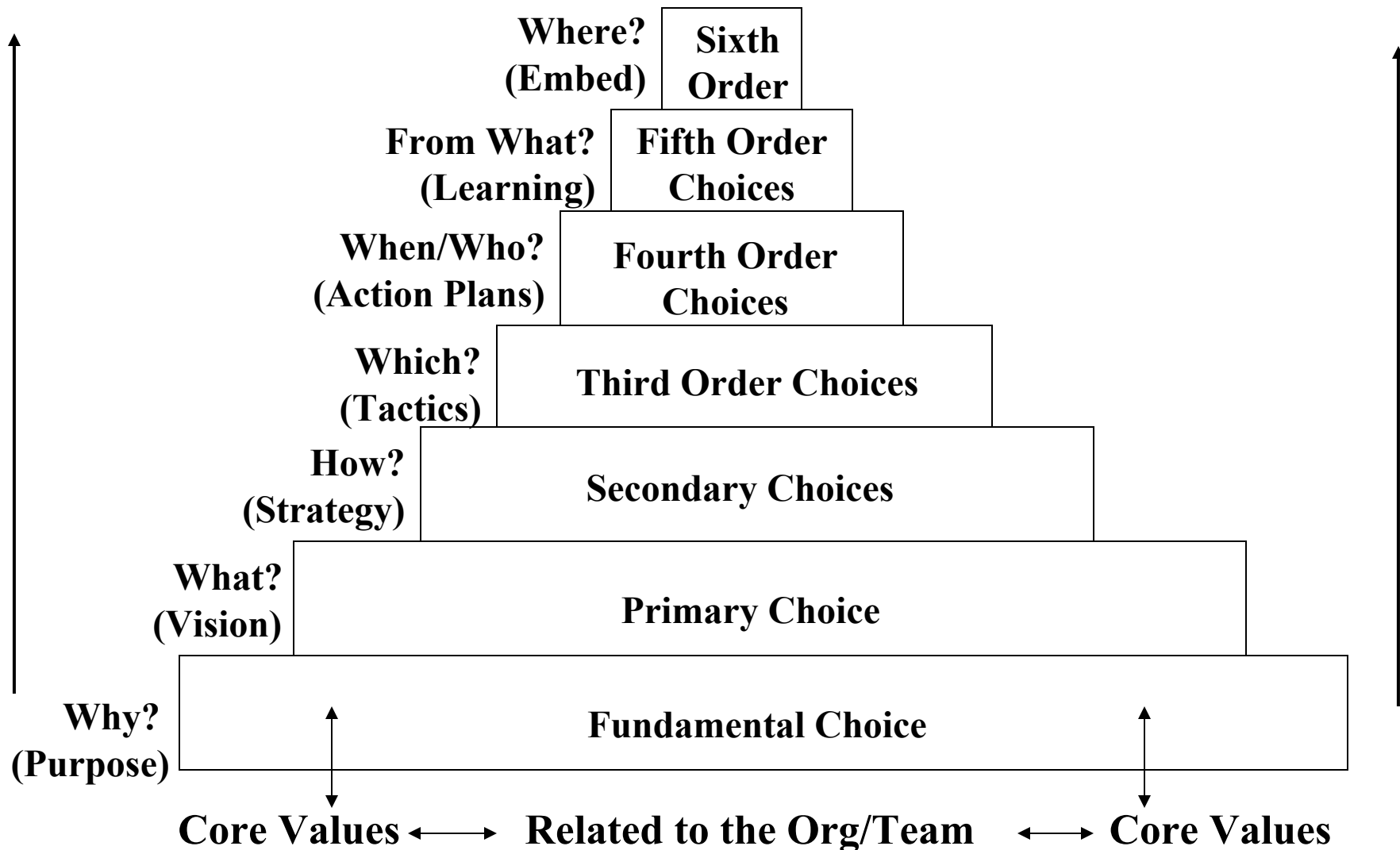
THE SEVEN KEY INTERVENTIONS OF SUCCESSFUL SUSTAINABILTY-CHANGE INITIATIVES

- **Undermine Business-as-Usual Through the Imperative of Achieving Sustainability**

  Changes the *Mindset or Mental Model* Out of Which the Current System Arises

- **Organizing Deep, Wide, and Powerful Sustainability *Transition Teams*.**

  Changes *How the Parts Are Arranged* in the Existing System

- **Teams Must Craft Clear & Inspiring *Ideal Visions of Success & Guiding Principles for Decision Making*.**

  Changes the *Goals* of the System

- **Develop *Operational <u>and</u> Governance-Change Strategies* to Achieve the Vision Consistent with the Principles.**

  Changes the *Rules* of Engagement of the System

- **The Vision, Principles and Strategies Must Be** *Relentlessly Communicated* **Using Every Possible Vehicle** *and* **Role Modeling.**

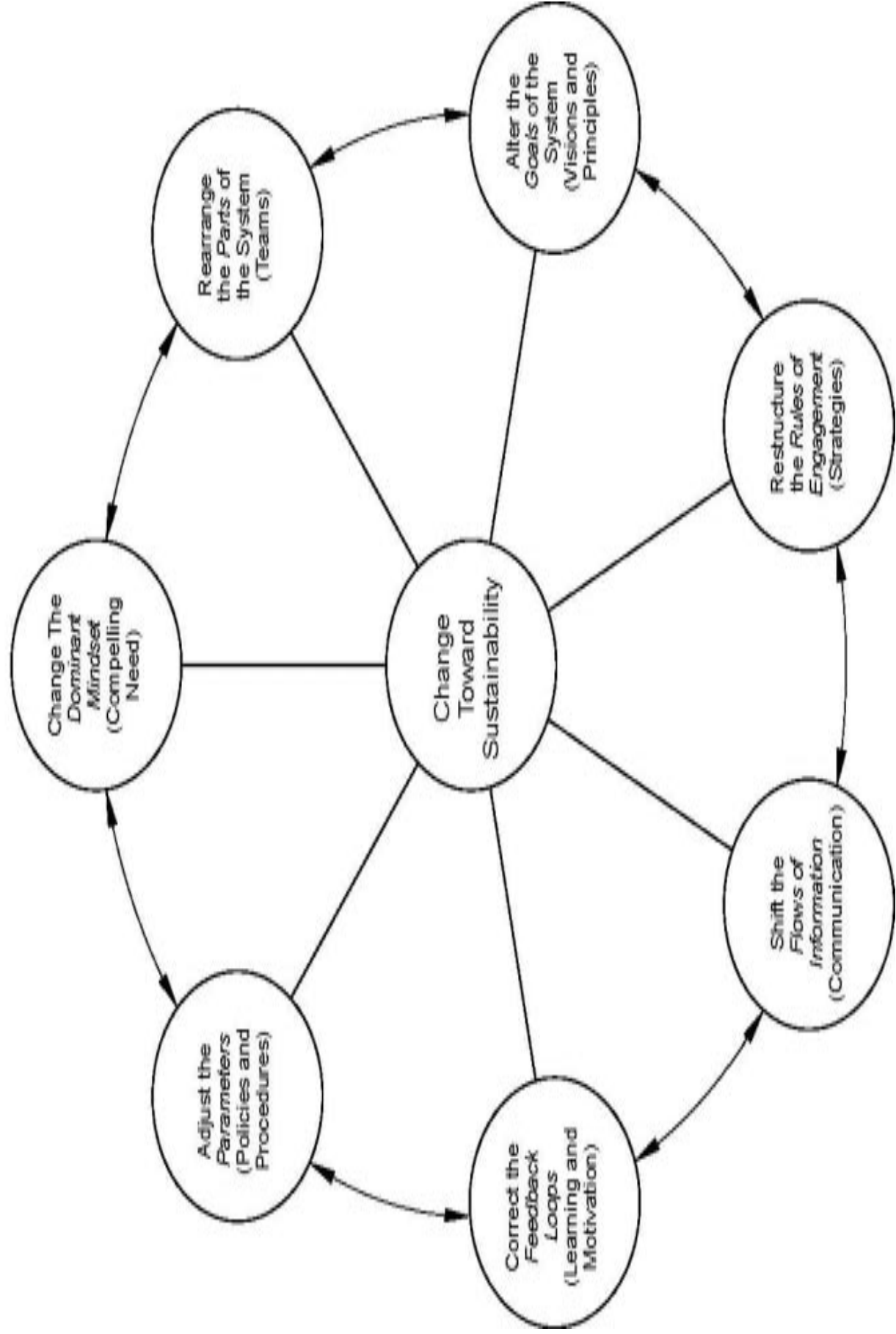 **Changes the *Information Flows* of the System**

- **Encourage & Reward** *Learning & Innovation* **to Achieve** *Staircased Successes* **& Overcome** *Barriers.*

  Changes the *Feedback Loops* of the System

- **Embed The New Approach in the Systems, Structure, and SOPs of the Organization/Unit.**

  Changes the *Parameters* that Drive the System

The Wheel of Change Toward Sustainability

Nodes:
- Alter the *Goals* of the System (Visions and Principles)
- Rearrange the *Parts* of the System (Teams)
- Restructure the *Rules of Engagement* (Strategies)
- Change The *Dominant Mindset* (Compelling Need)
- Change Toward Sustainability
- Shift the *Flows of Information* (Communication)
- Adjust the *Parameters* (Policies and Procedures)
- Correct the *Feedback Loops* (Learning and Motivation)

EACH INTERVENTION SUPPORTS THE NEXT

While change is not linear, it results from cumulatively progressing through the three change modules embedded in the process

AND

from the sequential completion of each intervention.

Because the Process Is Circular and Iterative, You Can Start *Anywhere* on the "Wheel of Change."

However, each intervention must be designed to leverage and link with all others and eventually all of the interventions must be sufficiently completed or the process will stall or fail.

THREE CHANGE MODULES OF THE "WHEEL OF CHANGE"

1. Create a new organizational mental model and organizing framework:

- Undermine the controlling mindset

- Organize deep and wide teams

- Adopt sustainability visions and principles

2. Establish the means to design and test new ways of thinking and operating:

- Develop operational and governance change strategies

- Relentlessly communicate them.

3. Provide the means to make sustainability grow and stick over the long term:

- Enable learning and innovation to overcome barriers

- Embed sustainability in policies and SOPs

SEVEN SUSTAINABILITY BLUNDERS AND SOLUTIONS

BLUNDER		SOLUTION
Patriarchal Thinking That Leads to a False Sense of Security	→	***Change the Dominant Mindset*** **That Created the System Through the Imperative of Achieving Sustainability**
Siloed Approach to Environmental and Socio-Economic Issues	→	***Rearrange the Parts*** **of the System by Organizing Deep, Wide, & Powerful Transition Teams**
No Clear Vision of Sustainability	→	***Alter the Goals*** **of the System by Crafting an Ideal Vision and Guiding Principles of Sustainability**
Confusion Over Cause & Effect	→	***Restructure the Rules of Engagement*** **of the System by Adopting Source-Based Operational** *and* **Governance-Change Strategies**
Lack of Information	→	***Shift the Information Flows*** **of the System By Tirelessly Communicating the Need, Vision, & Strategies**
Insufficient Mechanisms for Learning	→	***Correct the Feedback Loops*** **of the System by Encouraging & Rewarding Learning and Innovation**
Failure to Institutionalize Sustainability	→	***Adjust the Parameters*** **of the System by Aligning Systems. Structures, Policies, and Procedures with Sustainability**

EXERCISE

With the form provided assess the change initiative of an organization of your choosing then discuss the findings with a partner

Use this assessment as a starting point for the development of a successful sustainability change strategy

CHANGE MODULE I

Purpose: Create a new organizational mental model and organizing framework.

1. UNDERMINE BUSINESS-AS-USUAL THROUGH THE IMPERATIVE OF ACHIEVING SUSTAINABILITY
Changes the *Mindset or Mental Model* Out of Which the Current System Arises

<u>Executive-Led Strategies:</u> Use, Written, Verbal, *and* Symbolic Acts to <u>*Create Urgency*</u>.

- Use an existing crisis or "intermittent" events as evidence of the need for change.

- Complete "audits" to describe the "performance gaps" between the organizations desired state and current affairs.

- Complement audits by seeking the views of employees and stakeholders about your organizations socio-economic or environmental performance.

- Show how the organization may be losing money (market share) to others with better environmental or socio-economic performance.

- Estimate the money the organization/unit currently wastes due to inefficient practices, waste generation, or regulatory compliance issues.

- Use "commitment strategies": small personal commitments tend to lead to bigger ones.

- Develop "scenarios" to predict future trends in environmental and socio-econ policy

- Benchmark organizations in your sector to determine the practices used to address interlinked social, economic, and environmental issues (but don't just mimic practices).

Staff-Led Bottom-Up or Middle-Out Approach (Most Common Type)

- Staff can gather environmental, socio-economic, and financial data that demonstrates that a serious crisis already exists or that major turmoil is pending. Organize the data in a straightforward manner to make your points.

- Create a persuasive written and/or visual presentation outlining the problems. A good presentation is needed that succinctly documents the risks and opportunities.

- Share the presentation with fellow employees and then slowly work your way up the line to top executives. Systematically expand the circle of those who understand and support the need for change.

- Start with people who are likely to be sympathetic. Move on to those who have the ear of senior management.

- Prior to making your final pitch to senior managers, publish articles about the issues in organizational newsletters, bring in outside speakers, and hold special events—i.e. get a buzz going in the organization.

- When the time arrives to give your presentation to the top managers, ask supportive mid-level managers and people respected by the executive team to join you.
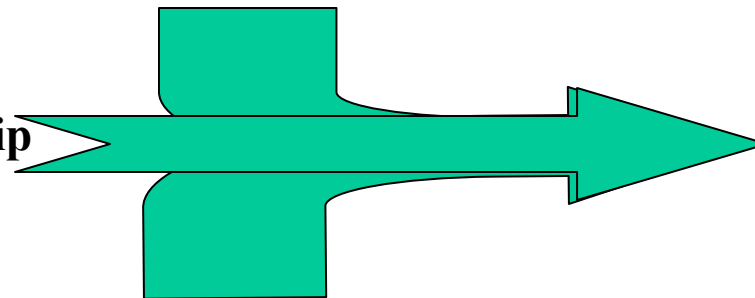
Building the Business Case For Sustainability:
Link the drivers with the mission and goals of your organization

Internal Business Drivers

- Right to operate (simply meeting existing standards won't cut it)
- Risk reduction (avoid lawsuits, fines, civil strife & PR, share loss)
- Cost reduction (reduce all forms of waste and save money)
- Greater access to and retention of top talent
- Increased productivity
- Maintain/expand existing market share/constituents
- Capture new markets/constituents (capitalize on growing demand for sustainability-based goods & services)

Social Drivers
- Rise of civil society
- Values-based leadership
- Information explosion
- Growth of SRI
- Social disintegration (poverty, health care crisis, terrorism)
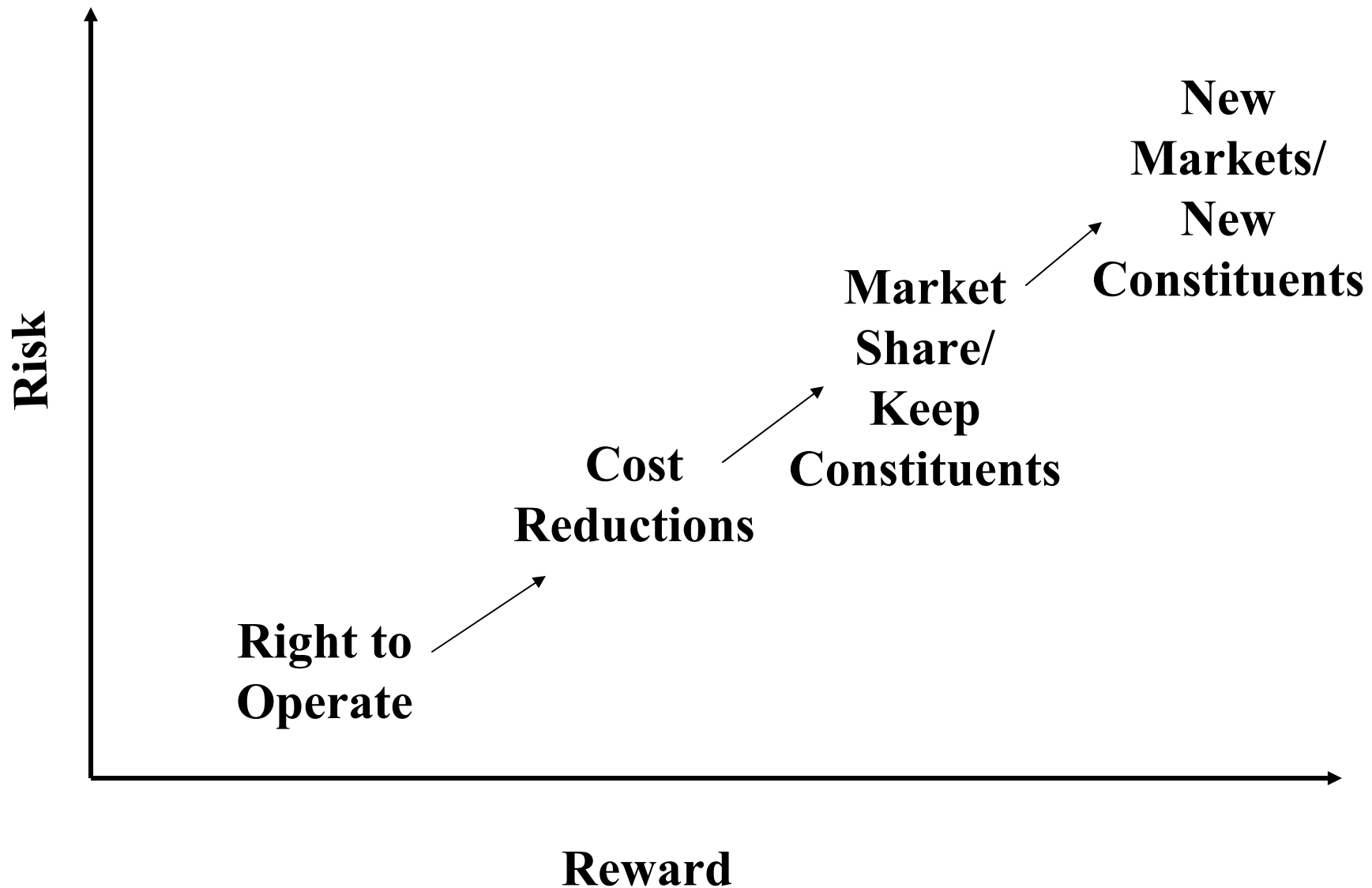
Case for Sustainability

External Business Drivers

- Environmental pressures (GHG, endangered salmon, forests)
- Peak of the oil curve (rising prices, unstable supplies)
- Increased competition (industrial overcapacity)
- Rising population (competition for resources)

IDENTIFY BENEFITS FOR EACH STAKEHOLDER GROUP

Stakeholder	Potential Benefit
Senior Executives	Right to operate, cost reduction, easier hiring and retention of top talent, increased productivity, market share, new markets, enhanced public image
Employees	Hiring and retention of talent, improved morale and productivity, greater stability and security, revenue sharing
Stockholders	Increased shareholder value, lower risks
Business Partners	Access to strategic resources and capabilities
Unions	Improved labor relations and conflict resolution
Value chain members	Cost reductions, value-enhancing collaboration throughout the value chain.
Regulatory authorities	Validation of specific product/service levels, Increased flexibility with regulators. Get off regulatory screen
Governments	Larger and more stable tax revenues, clearer environmental and social policies.
Local communities	Mutual support and accommodation, 'License to operate'
Private organizations (NGOs)	Constructive collaboration, favorable public opinion, right to operate.

Resources for Building the Business Case:

- *The Sustainability Advantage: Seven Business Case Benefits of a Triple Bottom Line* (Bob Willard, New Society Publishers, 2002)

- *The Sustainable Company: How to Create Lasting Value Through Social and Environmental Performance* (Chris Laszlo, Island Press 2003)

- UO Sustainability Leadership Academy Seminar: *Building the Business Case for Sustainability,* Instructor Justin Yeun (formerly with Nike), January 28, 2005, Eugene.

COMPLACENT EXECUTIVES

Senior executives often develop a "mental model" of 'they know best', 'current approaches are sufficient', and 'the organization is healthy and not at risk.' They then look for information that reinforces those beliefs and disregards or discounts information that conflicts with it.

Possible Solution: *Make Information Gathering Process Visible and Explicit*

1. *Get Better Unfiltered Information*
   (Focus Groups, Phone Surveys, Written Surveys, Feedback from Stakeholders/Insurance Co/Investors, Complete Sustainability Audit)

2. *Establish Mechanisms to Objectively Assess Information*
   (Cross-functional Team Assessments, Stakeholder-Staff Teams, Consultants)

3. *Continually Identify, Surface, and Challenge Existing Mental Models—and the Mechanisms That Have Been Created to Reinforce Them* (Relentlessly Use the "Three Question" Process).

2.   ORGANIZE DEEP, WIDE AND POWERFUL SUSTAINABILITY TRANSITION TEAMS

Changes *How the Parts Are Arranged* in the Existing System

Teams Need a Diversity of People Who:

- See the world differently from others in the org/unit

- Are innovators and creators

- Have key technical skills

- Hold pivotal positions of authority

- Have widespread credibility

- Provide outstanding personal qualities

- Represent *all* of the key units, functions needed to accomplish the team's mission (often requires external stakeholders).

- Have outstanding leadership skills.

**GREAT TRANSITION TEAMS DON'T START
WITH THE QUESTION**

"WHAT DO WE DO?"

**HIGH PERFORMANCE TEAMS START WITH TWO
FUNDAMENTAL QUESTIONS:**

"WHO IS ON THE BUS"

"WHAT IS OUR CORE PURPOSE"

HIERARCHY OF CHOICES FOR TRANSITION TEAMS

Key Questions	Task
Why do we exist?	→ Decide on your purpose and core values.
What are we striving to achieve?	→ Create an inspiring vision of the ideal desired state.
How will we achieve our vision?	→ Develop operational and people change strategies to achieve the ideal state.
Which actions will we take?	→ Identify the tactics used to implement the strategy.
When, where, should the actions take place?	→ Describe the rationale and sequence of actions used to implement the tactics.
From what will we learn?	→ Outline how the org/initiative will deepen its understanding of how to achieve its vision.
Where will we make the new approach stick?	→ Depict how the new approach will be embedded and aligned in SOPs and culture.

REMEMBER THE "80-20 RULE"

The Key 20% Are: *Goals, Roles, and Rules*

• **Clarity over *goals* means that the organization/team's purpose and goals are carefully articulated.**

• **Clarify over *roles* requires that org/team members know their functions and responsibilities.**

• **To avoid confusion over *rules*, decision-making mechanisms used by the org/team must be explicitly agreed to.**

| ROLE	RESPONSIBILITIES
Authorizing Sponsor	Visibly support and reinforce need for change Continually emphasize the end goals Protect the process from negative external forces
Sustaining Sponsor	Similar to sustaining sponsor with added task of keeping the process focused and moving forward
Advocates	Lead daily operations Continually drive home need for change Embed vision and goals throughout organization
Agents	Oversee the process of change (not content) Provide timely, credible, objective information Provide new ideas Devise strategies to keep sponsors engaged
Support Staff	Provide administrative and organizational support for sponsors, advocates, and agents
Targets	Adopt new thought processes, perspectives, and behaviors

Prepare and Perform Like Pro Teams

A FUNDAMENTAL OF SUCCESS IS CLARITY OVER *GOALS*, *ROLES*, AND *RULES*

Is Your Team A High Performance Professional Team
or
A Saturday Afternoon Neighborhood Get Together?

or
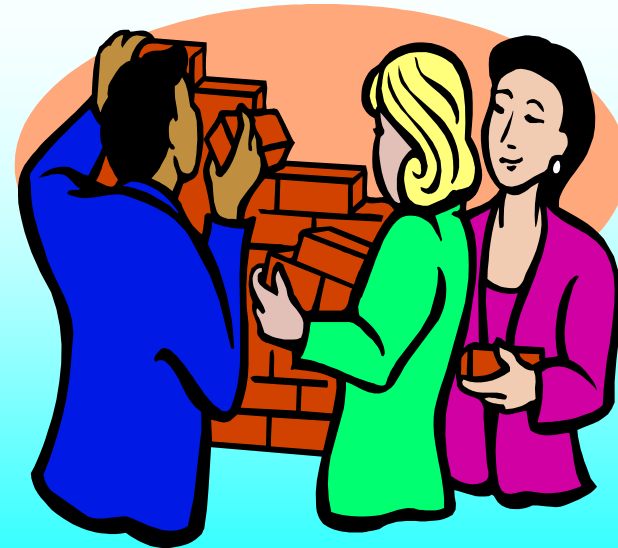
3. TEAMS MUST DEVELOP AN INSPIRING IDEAL VISION OF SUCCESS AND GUIDING PRINCIPLES

Changes the *Goals* of the System

First-Rate Visions and Principles Have Certain Defined Characteristics:

- They describe, in simple, straightforward terms, the ideal condition of sustainability the organization wants to achieve or become at some specific time in the future (e.g. 5, 10, 20 years).

- They paint a picture of how that future will look and feel. People need to visualize an ideal future state in their minds before they commit their hearts and minds to it.

- They explain the basic purpose behind achieving the vision in a manner that many different interest groups and types of people can relate to.

- They inspire people to participate in achieving this new end. Employees and stakeholders need to understand the logic behind the new vision, and see tangible benefits in it for themselves, before they will agree to help create it.

WHAT IS "VISION"?

Vision describes *intent*

Visions Are *Clear* And *Compelling* Pictures of a *Future State* That People Are Committed To Achieving

Visions Have A Very Special Function:

They Provide a Mental Model of Something to Aspire to That is Greater Than the Current State-of-Affairs.

ALL MEANINGFUL SHARED VISION RESTS ON THE DISTINCTION BETWEEN
PROBLEM SOLVING & CREATING

Problem Solving ⟶ Makes things go away

Creating ⟶ Seeks to make new things

When problem solving dominates an organization, life is about survival rather than bringing things into being that people really care about.

TRADITIONAL PLANNING METHODS
(REACTIVE AND FORECASTING MODELS)

System As We Want It
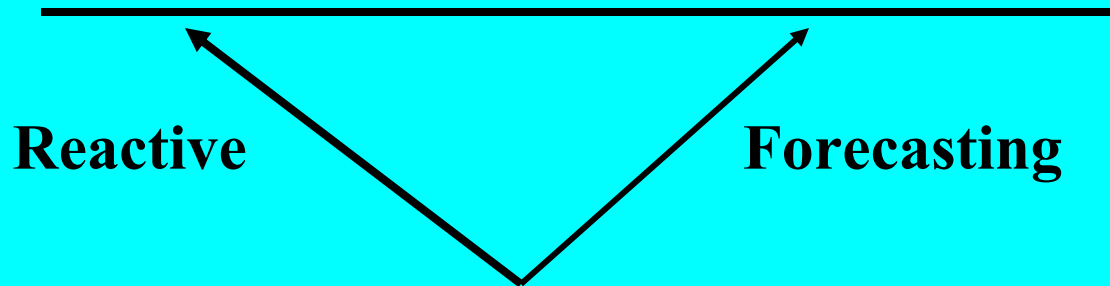
Reactive

Forecasting

System As It Is Now

Past

Today

Future

ENDS-PLANNING
("BACKWARD THINKING")

System As We Want It

Perspective

System As It Is

Past   **Present**   **Future**
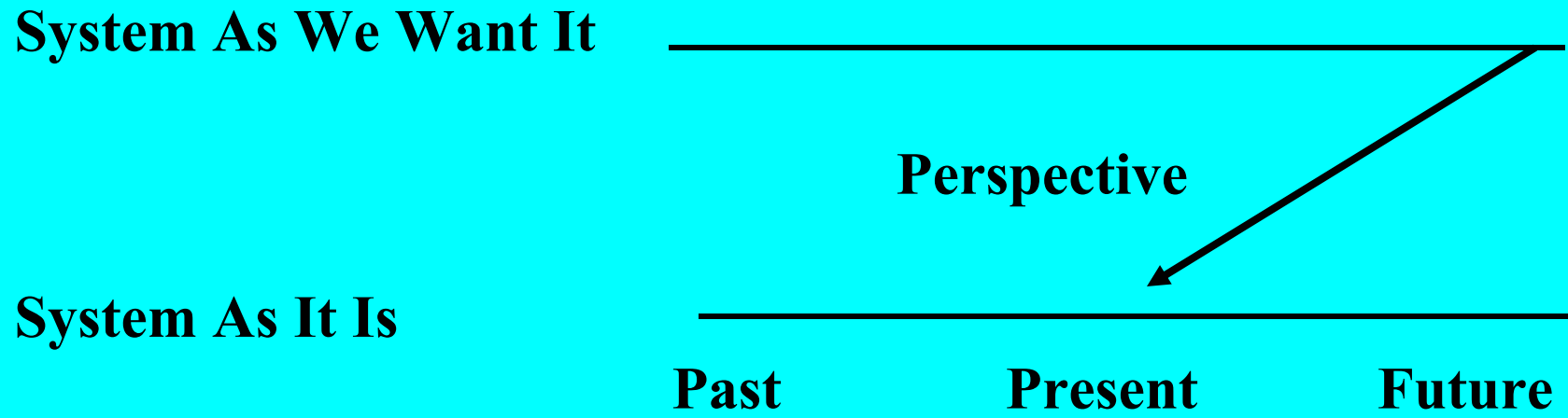
ENDS-PLANNING STARTS BY ASKING:

"What Is The Ideal Condition Or State-of-Affairs You Want To Achieve?"

Let Go of Constraints – Visualize the Ideal Condition

Once the Ideal Condition Is Described, Identify *the Closest Approximation to the Ideal*

Your Initial Goal is the Closest Approximation to the Ideal

VISIONING GUIDELINES

1. Focus on the results you want in positive terms—
    You need a positive image.

2. See it in the present (If it is out there in the future you
    will forget about it).

3. Focus on what you want, not on avoiding what you don't
    want (If you want health you don't focus on illness)

4. Assume anything is possible—really reach.

The visioning process will only work for things you care about.
It will not work if you don't really want it or if it is manipulative.

TO DEVELOP A SUSTAINABILITY VISION ASK:

- **What would our organization/unit look like in a fully sustainable condition in 5, 10, or 20 years?**

- **What type or products or services would be offer?**

- **How would our raw materials, production systems, buildings, transportation, energy, land use, and waste management systems look and function?**

- **How would our governance systems operate?**

- **What would employees and stakeholders say about our org?**

- **If a newspaper wrote an article in twenty years describing how we as a sustainable entity operated, how would they depict us?**

Good Visions Start With Words Such As:
"We will be..," " or "We choose to..." or "We commit to..."

A SUSTAINABILITY VISION FOR YOUR ORGANIZATION

1. **WHAT WOULD BE AN *IDEAL* VISION FOR OUR ORG?**
   (In a Perfect World, What Would Success Look and Function Like?):

2. **WHAT WOULD BE THE *CLOSEST APPROXIMATION* TO THE IDEAL (What can be rapidly done to get closest to the ideal)?:**

3. **DESCRIBE THE *EXISTING* COMMONLY HELD VISION (Today, What Do People Think They Are Striving To Achieve?:**

SUSTAINABILITY VISION UTILIZATION MATRIX

Adapted from D. Kim *Vision Deployment Matrix*

Level of Perspective	Ideal Future Vision of Sustainability	Closest Approx. to Ideal	Current Status	Gaps Between Ideal Vision & Current State	Gaps Between Closest Approx. & Current State	Strategy to Close Gaps	Actions To Implement Strategy	Progress Indicators	Work Plan
Vision (Generative)									
Mental Model (Reflective)									
Systemic Structures (Creative)									
Patterns (Adaptive)									
Events (Reactive)									

ADOPT PRINCIPLES TO GUIDE DECISION MAKING

"Vision defines the goal, principles guide the journey."

Natural Capitalism

Natural Step
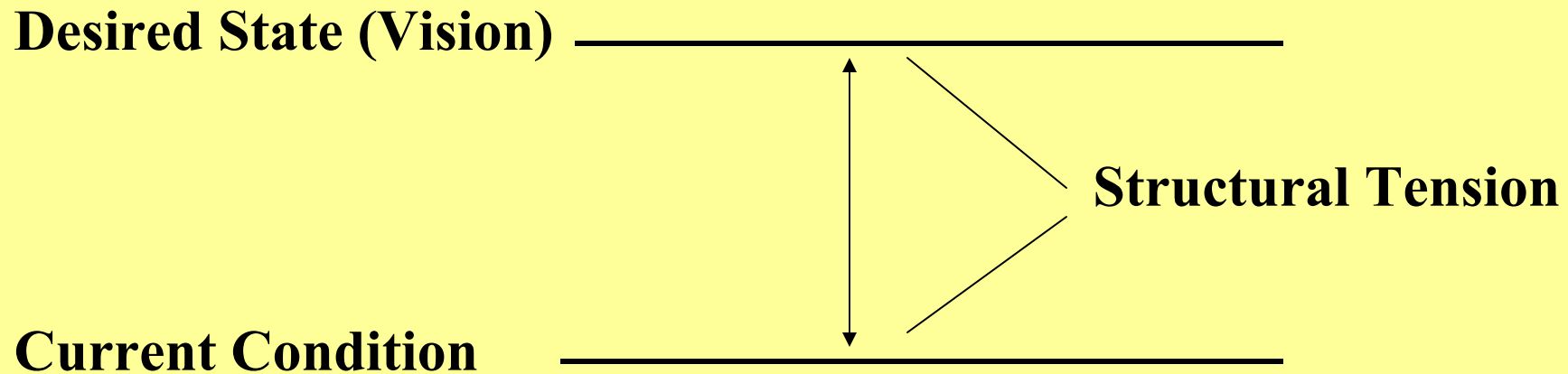
ZERI

Zero Waste

CERES

Eco-Efficiency

Other

STRUCTURAL TENSION IS KEY TO *ALL* CHANGE

The "structural tension" that is generated between your desired state and your current condition provides the energy for change.

Desired State (Vision) ──────────────

Structural Tension

Current Condition ──────────────

The systems flows between tension and resolution are how _all_ systems operate.

THE SUSTAINABILITY CHANGE LEADERS ROLE IS TO GENERATE & MANAGE CREATIVE TENSION.

Generate because if there is no tension there is no growth.

Managing the tension is important because tension often turns into emotion that must be handled carefully.

The key is to be honest about the emotional tension and include it in current reality.

This is a very high level intervention.

A MODEL FOR CREATING

Truly innovative organizations follow a simple process.
It begins by focusing on what you want, <u>not</u> how to do it.

- Identify what you want.

- Start taking action toward your desired state (practice).

- Learn from your actions and keep moving toward what you want.
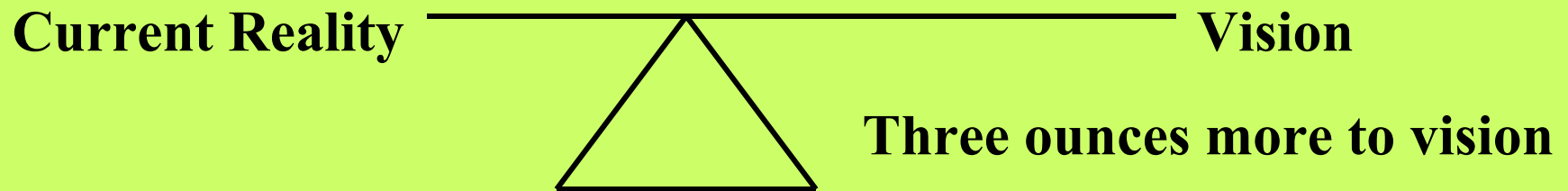
<u>Desired State (Vision)</u>

<u>Current State</u>

The Key to Effective Creating Is to Set Aside the "What and How?"

MOST EFFECTIVE APPROACH

Vision Needs to Be More Dominant Than Current Reality

Current Reality ⟍⟋ **Vision**

Three ounces more to vision

People move in the direction of their thoughts. **If you have greater emphasis on vision you will move that direction.**

WHENEVER THERE IS A QUESTION OR CONFUSING CHOICE, *FOCUS MORE ON YOUR VISION*.

EXERCISE

Discuss Ways You Can Complete or Improve the First Phase of a Sustainability Change Initiative:

"Create a new organizational mental model and organizing framework."

Key Interventions

1. Undermine business-as-usual through the imperative of sustainability.

2. Organize 'deep and wide" transition teams

3. Teams develop an ideal vision and closest approximation to the ideal and adopt guiding principles for decision making.

CHANGE MODULE II

Purpose: Establish the means to design and test new ways of thinking and operating.
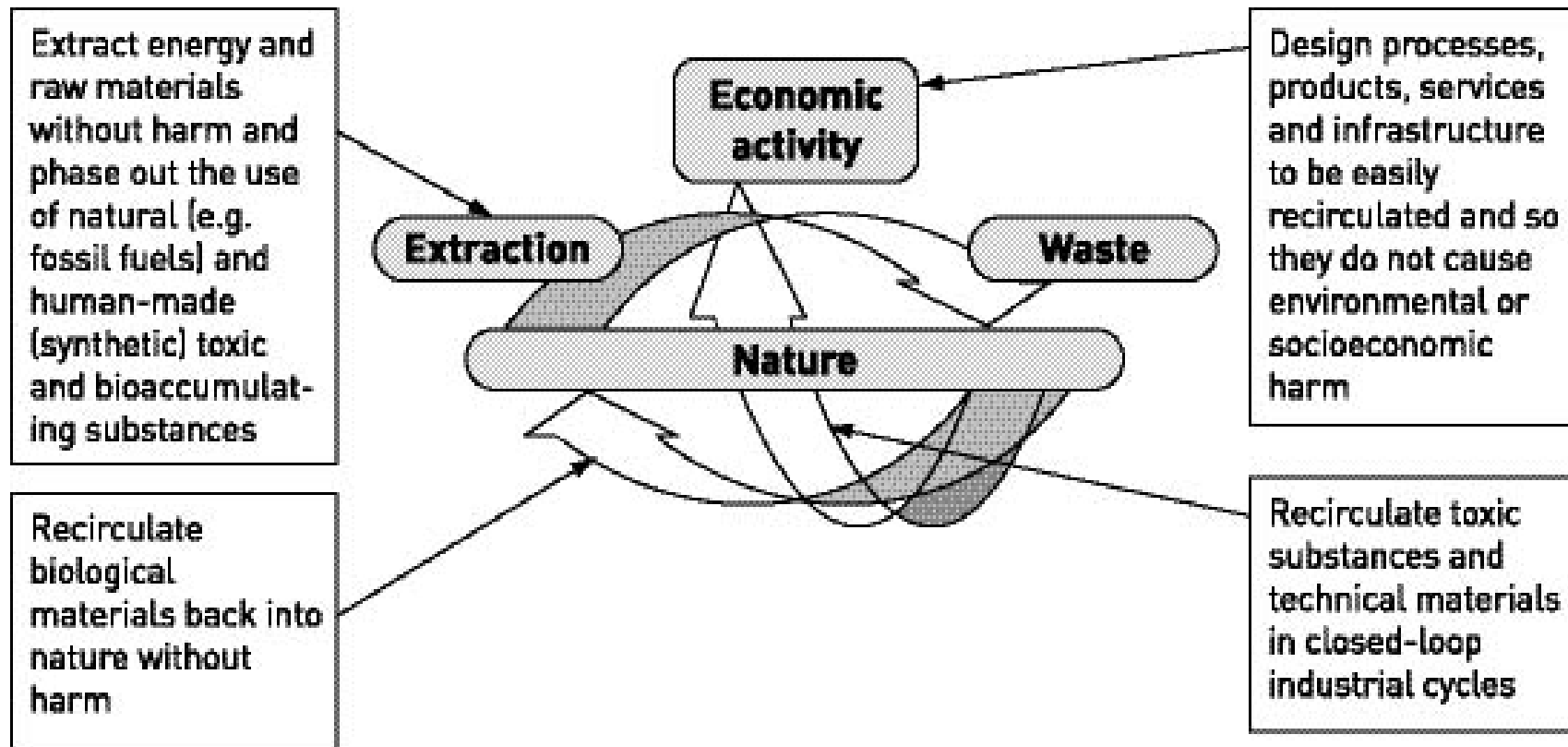
4. THE TEAM MUST DEVELOP NEW STRATEGIES FOR *OPERATIONS <u>AND</u> GOVERNANCE*

Changes the *Rules* of the System

<u>Strategy Development Starts by Asking Broad Questions</u>:

▪ To achieve our ideal vision, not just be less bad, what is the most direct line between the ideal and our current state?

· What is the closest approximation to the ideal that we could attain in short order and how can we quickly move to this position?

· If we attained the closest approximation, what gap would remain between the ideal and our ideal state?

· Which aspects of our operations will require slight modifications and which will require complete redesigns to achieve closest approximation and ideal visions?

· How should we link incremental improvement with fundamental restructuring?

SUSTAINABILITY REQUIRES A TRANSITION TO *CIRCULAR* PRODUCTION SYSTEM ("BORROW-USE- RETURN"; "CLOSED-LOOP"; "CRADLE-TO-CRADLE")

Extract energy and raw materials without harm and phase out the use of natural (e.g. fossil fuels) and human-made (synthetic) toxic and bioaccumulating substances

Recirculate biological materials back into nature without harm

Design processes, products, services and infrastructure to be easily recirculated and so they do not cause environmental or socioeconomic harm

Recirculate toxic substances and technical materials in closed-loop industrial cycles

Economic activity

Extraction

Waste

Nature

The sustainable circular 'borrow–use–return' economic model

FOCUS ON OPERATIONAL AND GOVERNANCE CHANGE STRATEGIES

Operational strategies are intended to change the organizations interactions with the external environment

Governance strategies are intended to change the interactions among internal members of the organization

Key Question: *"What decision making and accountability, resource allocation, and information gathering mechanisms are needed to implement the proposed operational strategy?"*
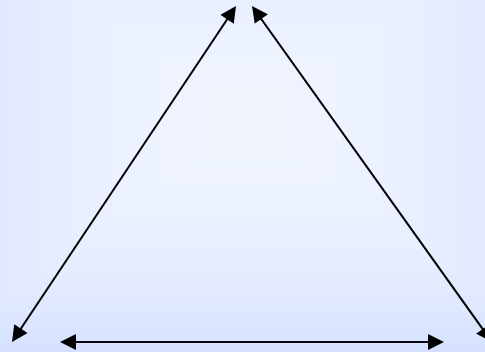
GOVERNANCE

How Power and Authority Are Distributed

• *Information Gathering, Sharing, and Use:* **Who gets what type of data and information to shape what kind of decisions.**

• *Decision-making Authority and Accountability*: **Who has the power to make what kind of decisions.**

• *Distribution of Resources and "Wealth"*: **Who gets money, time, attention of executives, and other resources for what purpose.**

GOVERNANCE SYSTEMS

A Three-Part Interactive Process

**Decision-Making
and Accountability**

**Information Generation
And Sharing**

**Distribution of Resources
and Wealth**

EACH FACTOR INFLUENCES POWER AND AUTHORITY

OPERATIONAL STRATEGY DEVELOPMENT
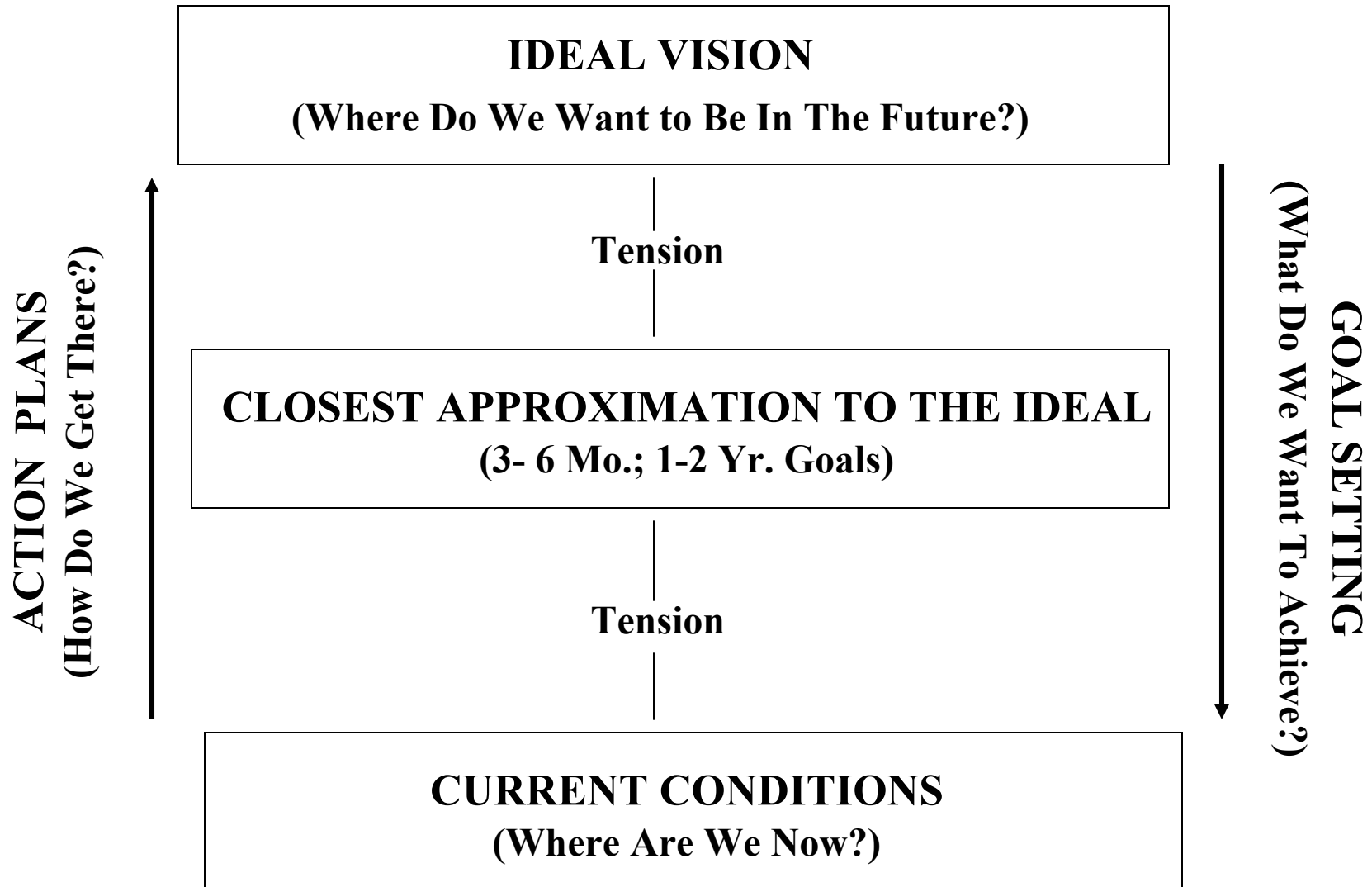
A Four Step Process:

- How sustainable are we now?

- How sustainable do we want to be in the future?

- How do we transition to the new approach?

- How do we monitor and measure progress?

GOVERNANCE CHANGE STRATEGY DEVELOPMENT

A Four Step Process:

- How do we govern now?

- How do we want/need to govern in the future?

- How do we transition to the new approach?

- How do we monitor and measure progress?

STRATEGY DEVELOPMENT

IDEAL VISION

(Where Do We Want to Be In The Future?)

Tension

CLOSEST APPROXIMATION TO THE IDEAL
(3- 6 Mo.; 1-2 Yr. Goals)

Tension

CURRENT CONDITIONS
(Where Are We Now?)

ACTION PLANS
(How Do We Get There?)

GOAL SETTING
(What Do We Want To Achieve?)

5. RELENTLESSLY COMMUNICATE THE NEED, VISION, AND STRATEGIES USING EVERY POSSIBLE VEHICLE *AND* ROLE MODELING

Changes the *Information Flows* of the System

<u>Keys to Good Communication</u>

- **Leaders Must Model the Change Desired**

- **Be A Straight Shooter and Tell People Soon and Often**

- **Be Transparent**

- **Keep it Simple**

- **Speak in Many Voices**

- **Employ Catchy Tags**

- **Be Interactive, Not Didactive**

- **Keep Highlighting Successes**

- **Keep It Fresh**

- **Use Symbols, Heroes, and Stories**

- **Be Relentless**

- **Have Fun**

Research Shows That to Motivate Behavior Communication Must Include Both:

A Moderate *Threat*

and

Achievable, Clear, and Specific *Actions* That Can Resolve the Problems

EXERCISE

Discuss How You Can Improve or Complete the Second Module of a Sustainability Change Initiative:

"Design and test new ways of thinking and operating."

Key Interventions

• **Develop operational and governance change strategies, tactics, and implementation plans.**

• **Relentlessly communicate the need, vision, principles, and strategies.**

CHANGE MODULE III

Purpose: Provide the means to help sustainability grow and stick over the long term.

6. ENCOURAGE AND REWARD LEARNING AND INNOVATION TO ACHIEVE STAIRCASED SUCCESSES

Changes the *Feedback Loops* Within the System

Build Structures That Encourage and Reward Continued *Learning:*

- *Connect learning with business operations* (not as a separate activity).

- *Learning & innovation are functions of two factors*: support for risk taking, and tolerance of mistakes. Both must be present.

- *To support risk taking*: reward learning and innovation behaviors (monetary, individual public recognition, recognition for the entire team).

- *To create atmosphere of accepting mistakes*, failures must not be punished. Establish criteria to ensure safety (e.g. giving managers advanced warning of experiments, basing efforts on sound data and analysis, not causing major harm, ensuring that the organization can learn from the project no matter what the outcome) .

- *Explicitly plan for stair-stepped successes*. Each success leading to the next biggest step (not to dead ends).

THE *LEARNING* WHEEL OF CHANGE TOWARD SUSTAINABILITY
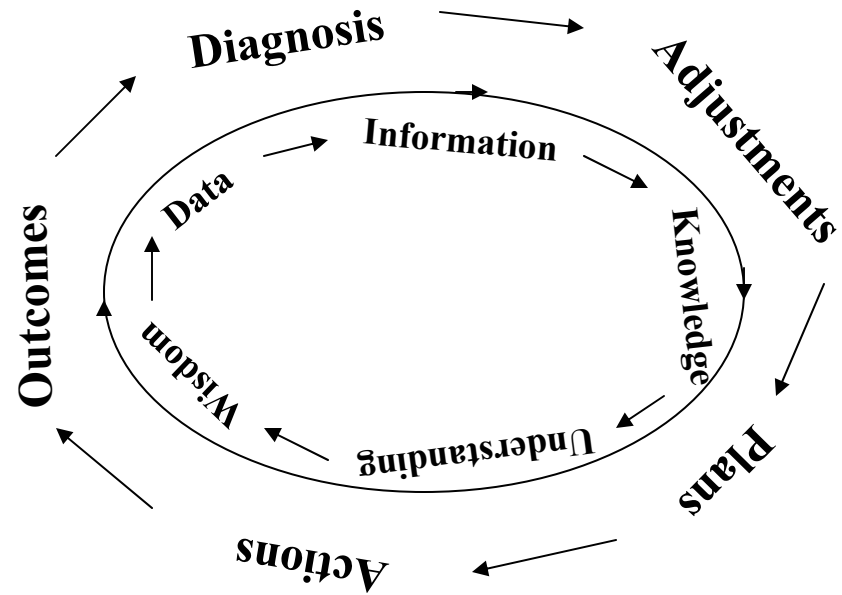
7. EMBED THE NEW BEHAVIORS IN STANDARD OPERATING PROCEDURES, STRUCTURE AND SYSTEMS

Changes the *Parameters* (Rules and Procedures) Used to Drive the System

Three Primary Factors Prevent Sustainability From "Sticking":

- Lack of commitment and clarity permeates the organization.

- The organization has not sufficiently navigated through all of the key phases of the change process.

- The factors that influence organizational performance send mixed messages.

MAKING SUSTAINABILITY STICK
REQUIRES *ALIGNMENT*

All of the Key Factors That Influence Organizational Performance Must Send the Same Message…

e.g. leadership, vision, goals, strategies, tactics, communications, learning, rewards, compensation, hiring, promotion, accounting, decision-making, information, and employee participation etc.

SYSTEMS ALIGNMENT
Three Keys Are Internal Measurement, Human Resources,
and Incentive Systems

Internal Measurement Systems:

The key to effective internal measurement is to measure *all* of the key objectives—*financial and non-financial*--that create value for the organization on its march toward sustainability
(most organizations just track financial measures)

<u>Example</u>: If costs, constituent or customer satisfaction, employee understanding & involvement, quality, and reductions in environmental and social impacts are key objectives for value creation, tracking *each* of these parameters will be powerful measurement alignment tools.

Human Resources
Important Drivers of Employee and Organizational Performance

- **When orgs realize that people are their most important asset, HR becomes focused on providing _Services_ to help employees maximize their potential-not on enforcing rules.**

- **Unfortunately, most HR departments today remain rooted in the traditional focus on rules and control.**

- **To send consistent messages in support of sustainability, *HR must focus on helping employees learn & grow, find situations in which they excel, and reward sustainability-based activities.***

- **Systems alignment requires that employee compensation and reward systems become consistent with the organization's sustainability vision, goals, and strategies.**

GUIDELINES FOR INCENTIVE SYSTEMS

1. ***Closely Pair the Incentive and the Behavior.***

    Incentives work best when presented at the time the behavior is occurring

2. ***Use Incentives to Reward Positive Behaviors.***

    Incentives work best when aimed at encouraging desired behaviors. Disincentives are often less predictable, since the punishment suppresses an unwanted behavior but does not directly encourage a positive alternative.

3. ***Make Incentives Visible.***

    Incentives have little to no impact if they are unnoticed. Carefully consider how to draw attention to it.
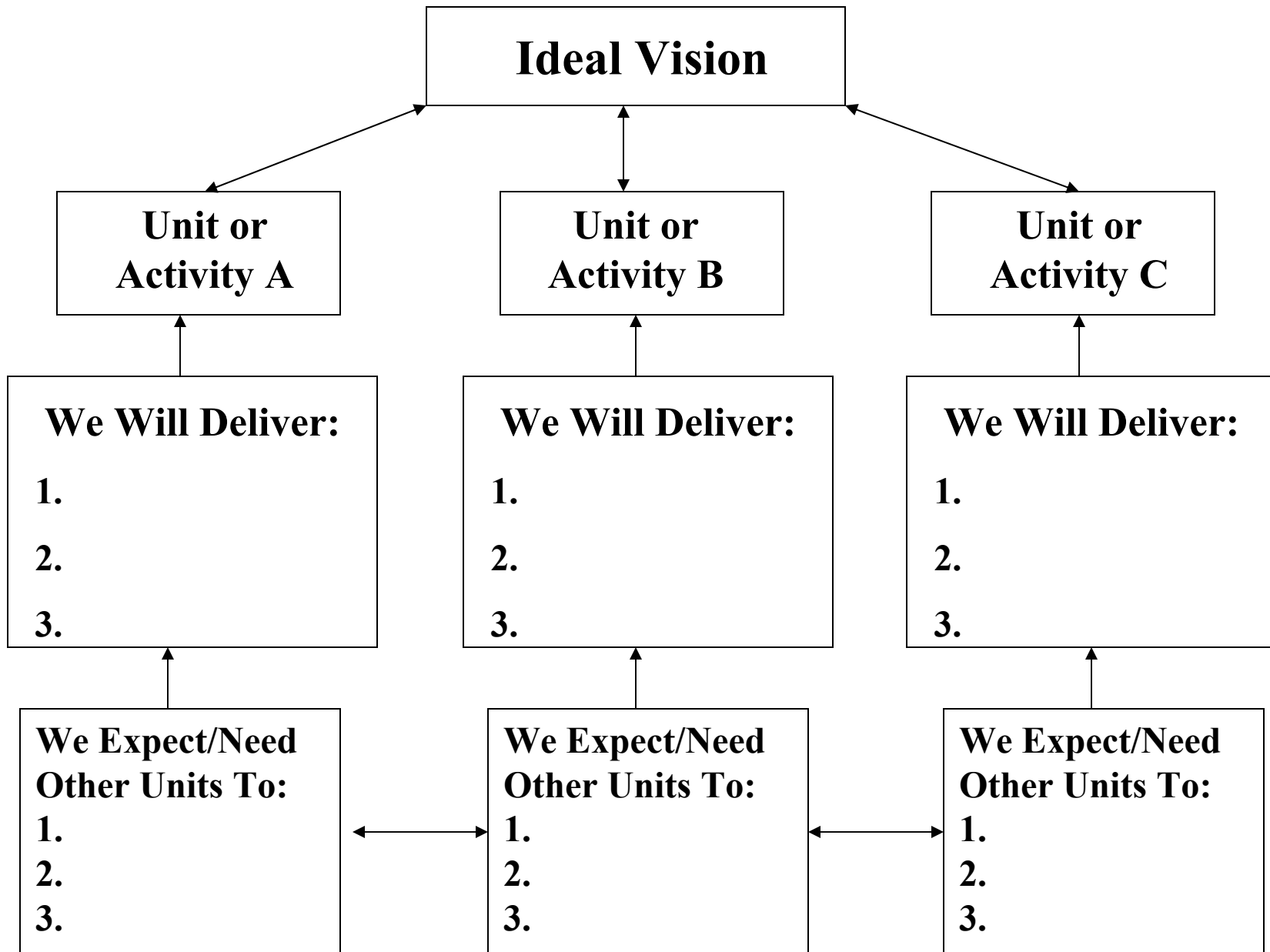
4. ***Make Incentives Large Enough to Succeed.***

    Study the impact of different sized incentives before deciding.

5. ***Use Many Types of Incentives.***

    Financial incentives are not always best. Public recognition, competitions between units and other incentives can be as or more effective.

ALIGNMENT PROCESS

Ideal Vision

Unit or Activity A

Unit or Activity B

Unit or Activity C

We Will Deliver:

1.

2.

3.

We Will Deliver:

1.

2.

3.

We Will Deliver:

1.

2.

3.

We Expect/Need Other Units To:
1.
2.
3.

We Expect/Need Other Units To:
1.
2.
3.

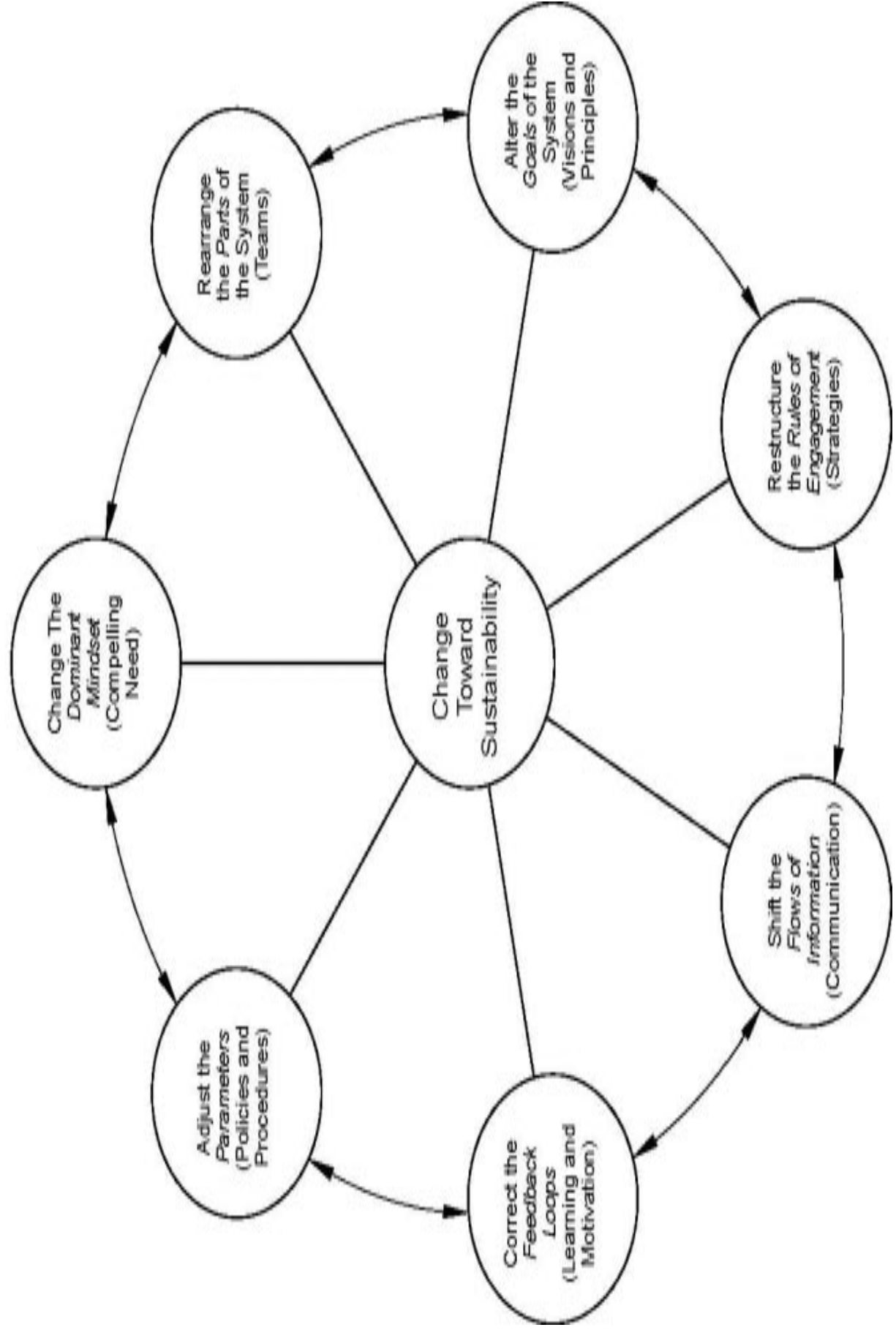We Expect/Need Other Units To:
1.
2.
3.

EXERCISE

Discuss How You Can Improve or Complete the Third Phase of a Sustainability Change Initiative:

"Establish means to make sustainability grow and stick over the long term."

Key Interventions

- **Establish mechanisms to enable continual learning and stair-stepped successes**

- **Embed (align) sustainability in SOPs**

The Wheel of Change Toward Sustainability

The Wheel of Change Toward Sustainability

- Alter the *Goals* of the System (Visions and Principles)
- Rearrange the *Parts* of the System (Teams)
- Restructure the *Rules of Engagement* (Strategies)
- Change The *Dominant Mindset* (Compelling Need)
- Change Toward Sustainability
- Shift the *Flows of Information* (Communication)
- Adjust the *Parameters* (Policies and Procedures)
- Correct the *Feedback Loops* (Learning and Motivation)

COMMON CHALLENGES FOR SUSTAINABILITY LEADERS

Struggle to Launch

• Lack of time ("We don't have time for this.")

• Lack of help ("We don't know how to do this.")

• Concerns about relevance ("Why are we doing this?")

• Mixes messages ("They say one thing but do another.")

Maintaining Momentum

• Fear and anxiety ("What if I make a mistake, or lose my position?")

• Measurement ("How do we know if we are making progress?")

• Zealots and non-zealots ("We know the way" and "This is a cult.")

Redesigning and Rethinking

• Feelings of impotence ("Senior execs will never let us do this.")

• Diffusion and alignment ("How does every unit apply this?")

• Rethinking strategy ("What are we really trying to do as an org?")

LEADERS SET THE CONDITIONS FOR CHANGE BY:

- **Understanding and altering the *"containers"* that shape interactions in their organization/team.**

- **Surfacing and magnifying the *"significant differences"* (divergence in power, status, skill, education, race etc.) that can form the basis for emergent patterns in the organization.**

- **Supporting mechanisms to establish and intensify *"transforming exchanges"* (information flows and communication).**

THE "CONTAINER"

**The container is the boundaries set around a system.
It allows the system to define itself as a separate "self"**

The container may be:

Physical (e.g. geographical, building location)

Organizational (e.g. department, unit, function)

Behavioral (e.g. professional identification, culture)

Conceptual (e.g. sense of purpose, vision, procedures)

FRAMING THE CONTAINER

Change can occur by changing the container that shapes the behavior of a system.

<u>Traditional containers include:</u>

- **Goals and expectations**

- **Project schedules**

- **Budgets**

- **Work teams**

- **Physical space**

- **Other systems boundaries**

No change can occur if traditional elements remain unchanged.
<u>*New Containers Are Needed to Foster Change!*</u>

SOME WAYS TO ESTABLISH NEW CONTAINERS

1. Set A Minimum Number of New Expectations

Rather than specifying what to do, allow your teams and individuals to figure it out by identifying a few essential specifications.

Key question: "What minimum specifications will produce important outcomes?"

2. Distribute Control

Reduce the dependence on any one leader by distributing decision-making authority and building trusting relationships.

Key questions: "What do you need?" "How can I (we) help"?

3. Create a Sense of Urgency

Speed up innovation by establishing short deadlines for small focused teams to achieve.

Key question: "What do we need to meet that deadline?"

4. Stretch Boundaries

Enlarge interactions with the external environment by performing small experiments such as adding new staff or assigning new roles and responsibilities.

Key question: "What's missing here?"

5. Shrink Boundaries

Limit interaction with the external environment by reducing team variability and designating specific individuals and departments they can interact with.

Key question: "What can we ignore?"

6. Re-clarify Your Purpose

Reassess the products or services you provide, how you deliver them, and even what physical location and arrangement is needed.

Key questions: "Why do we exist as an organization?" "What makes us unique?"

SIGNIFICANT DIFFERENCES

Key internal & external differences shape the behavior of a social system. Amplification of differences can change the way people think and lead to emergent new behaviors.

Examples

Power and Authority

Levels of Expertise (Knowledge, Skills)

Gender

Race

Educational Background

Access to Information

Access to Resources

EACH DIFFERENCE WILL SHAPE BEHAVIOR DIFFERENTLY

FOCUS ON DIFFERENCES THAT WILL FORM NEW EMERGENT PATTERNS

1. Explore contradictions

Encourage different views, acknowledge tensions, and encourage resolution to spur previously unthinkable creative ideas.

Key question: "How else can we think about this?"

2. Accept contention and adversity

Don't be concerned with conflicts between ideas as they signal growth and learning. Its absence signals stagnation and decline.

Key question: "What are you holding back?"

3. Raise tough questions

Increase connection and action by asking tough questions about vision and goals, schedules, costs, budgets, feedback systems etc.

Key question: "What do you really think?"

4. Encourage organization and team diversity

Add new people from different units or organizations or with different skill levels, training, ethnic and racial backgrounds etc. to the team to maintain and enhance lively mix of activity

Key question: "Who else needs to be at the table?"

5. Scan the external environment for significant differences

Examine innovations occurring in other organizations that an raise understanding and expectations. Give funds to and learn from organizations doing innovative work in order to infuse new thinking.

Key question: "Who are the innovators that can spur new patterns within the organization?"

TRANSFORMING EXCHANGES

Transforming exchanges are the connections people make within and outside of the system. Change the types and intensity of exchanges and you can change understanding and behaviors.

Media for transforming exchanges include:

Information

Money

Energy

Communication
(meetings, e-mails, memos, phone calls, financial transactions)

They connect across significant differences and create changes in the surrounding patterns around which the system organizes itself.

DESIGNING TRANSFORMING EXCHANGES
Enable Change in All Parts of the System by Developing New Linkages Between Systems Agents.

1. Encourage Feedback

Everyone—including executives—needs continual feedback about their performance. In addition, measurement, reflection, and learning mechanisms (individual, group, organizational) should be build into each activity.

Key questions: "How am I doing?" and "How are we doing?" and "How can everyone learn and grow from what we are doing?"

2. Link Communities of Practice

Link people and units doing similar work within the organization and with external organizations, customers, constituents, and stakeholders.

Key questions: "What professional networks should be belong to?" and "What learning networks can we form?"

3. Reconfigure (Loosen or Tighten) Networks and Teams

Encourage cooperation and learning among the members of the system by enlarging or tightening the flow of information within teams and units.

Key question:"Is information flow optimal?"

4. Encourage Ongoing Personal and Professional Development

Encourage and actively support lifetime learning to enhance personal and professional development.

Key question: "What have you always wanted to learn?" and "Where can you go to enhance your development?"

TWO KEYS TO LONG TERM SUCCESS

EXAMPLARY

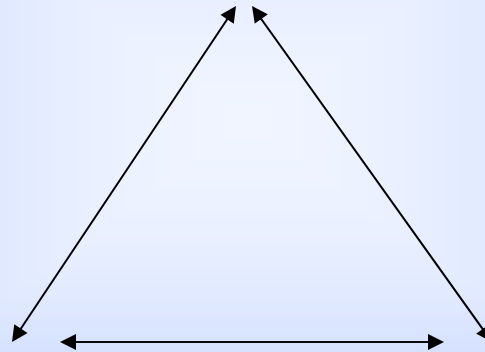### *LEADERSHIP*

and

GOVERNANCE

GOVERNANCE

How Power and Authority Are Distributed

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- *Decision-making Authority and Accountability*: **Who has the power to make what kind of decisions.**

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GOVERNANCE SYSTEMS

A Three-Part Interactive Process

**Decision-Making
and Accountability**

**Information Generation
And Sharing**

**Distribution of Resources
and Wealth**

EACH FACTOR INFLUENCES POWER AND AUTHORITY

MANAGEMENT

A *set of processes that keeps complicated systems of people and technology running smoothly:*

- **Planning**

- **Budgeting**

- **Organizing**

- **Staffing**

- **Supervision**

- **Controlling**

- **Problem Solving**

These Are Qualities of *Control*

LEADERSHIP

A *set of processes that helps a human community shape its future and sustain significant change:*

Helps define what future should look like.

Mobilizes the forces to align people with that vision.

Inspires them to make it happen despite obstacles.

Responds to daily events & patterns from perspective of structure, mental models, and vision.

These Are Qualities of *Influence.*

MANAGING VS LEADING

Managers ("Pushers")	Leaders ("Pullers")
Objectives	Values
Strategies	Symbols
Planning	Dreaming
Logic	Emotions
Current reality	Aspirations
Crisis management	Visioning
Implementation	Inspiration & Heart

Mangers and leaders are Siamese twins. *Both* are critical.

However, no growth or change occurs without leadership.

MOST SUSTAINABILITY INITIATIVES ARE VASTLY

OVERMANAGED* and *UNDERLED

We Cannot Manage Our Way To Sustainability.

***Exemplary Leadership Is Required*!**

ACTION PLANNING

How do you propose to develop and implement a systems-based sustainability change strategy?

MOST IMPORTANT

Have Fun

Play

Laugh

Don't Take Yourself Too Seriously

Serve and Help Others