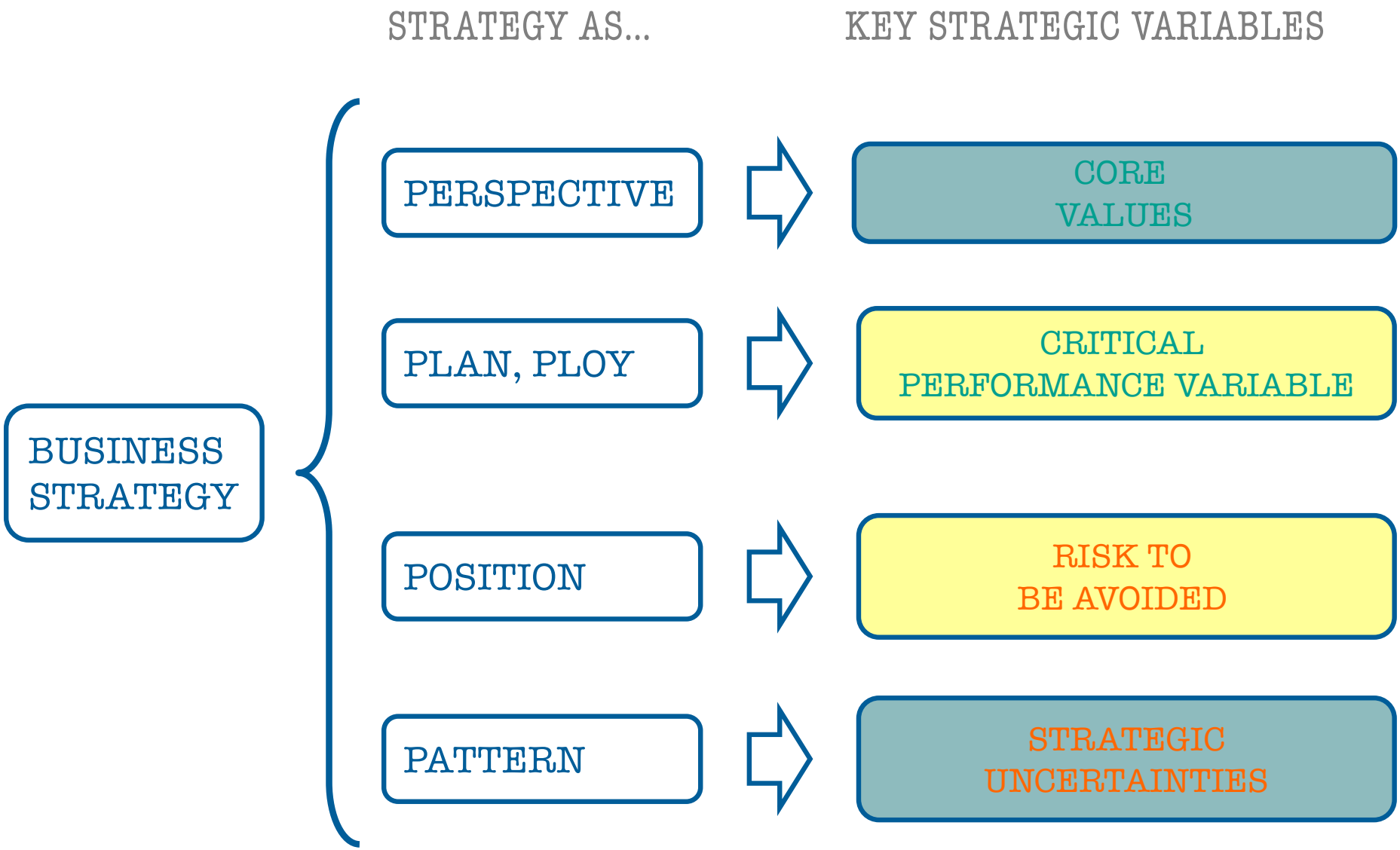
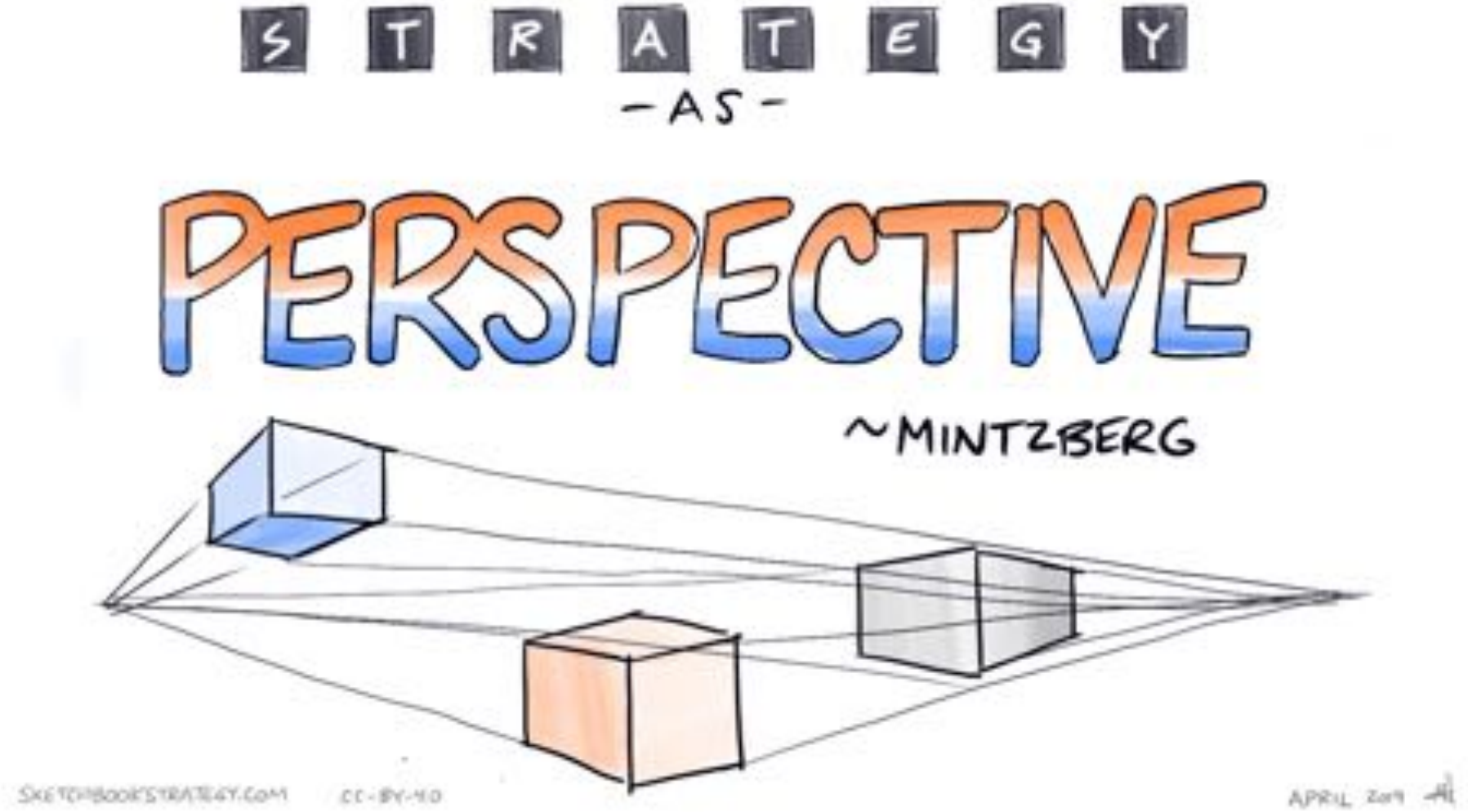
LEVERS OF CONTROL – Control systems (1)

How Managers Use Innovative Control Systems to Drive Strategic Renewal

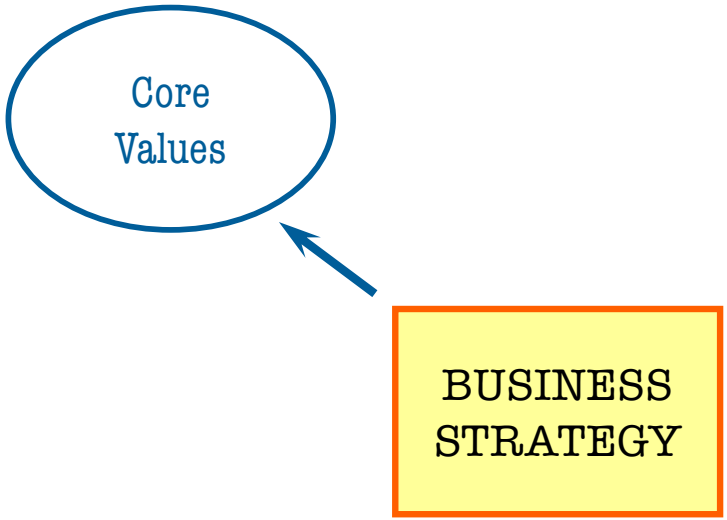
FOUR DIFFERENT DEFINITIONS OF STRATEGY



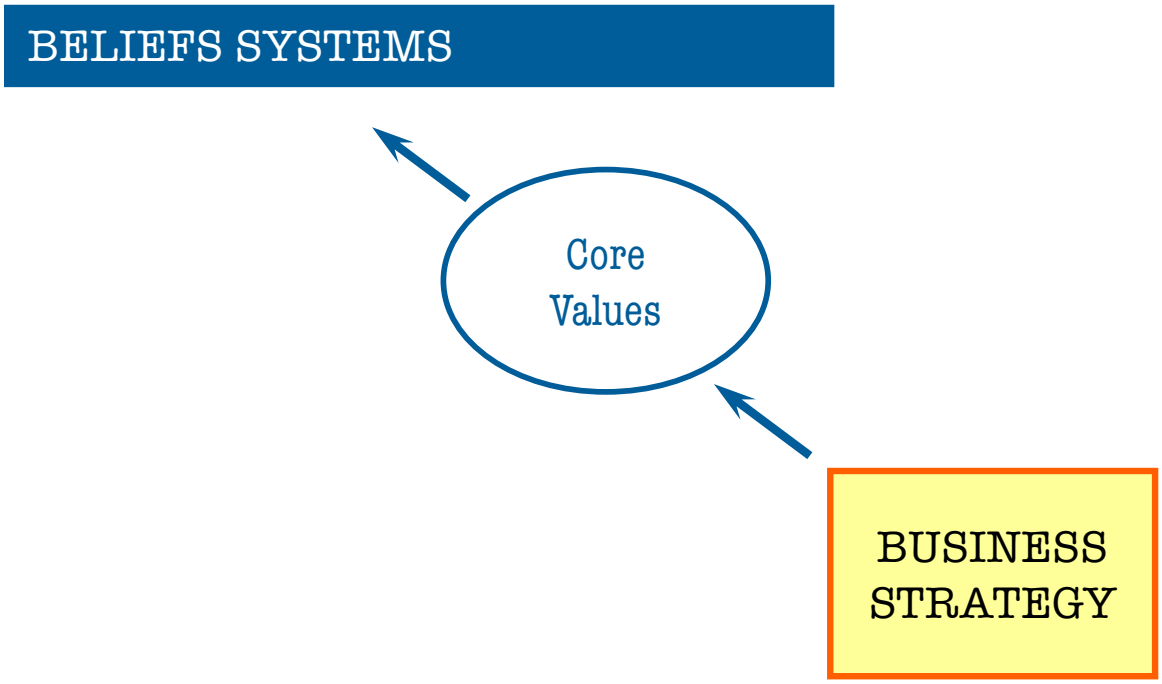
FIVE Ps FOR STRATEGY



SEARCHING FOR NEW OPPORTUNITIES…



… USING BELIEF SYSTEMS



Beliefs Systems are used to inspire and direct the search for new opportunities.

BELIEFS SYSTEM

«A beliefs system is the explicit set of organizational definitions that senior managers communicate formally and reinforce systematically to provide basic values, purpose, and direction for the organization.

The definitions espouse the values and direction that senior managers want subordinates to adopt. These core values are linked to the business strategy of the firm.

A formal beliefs system is created and communicated through such documents as

- credos,
- mission statements, and
- statements of purpose.»

SOURCE: SIMONS, LEVERS OF CONTROL

BELIEFS SYSTEMS

«The primary purpose of a beliefs system is to inspire and guide organizational search and discovery.

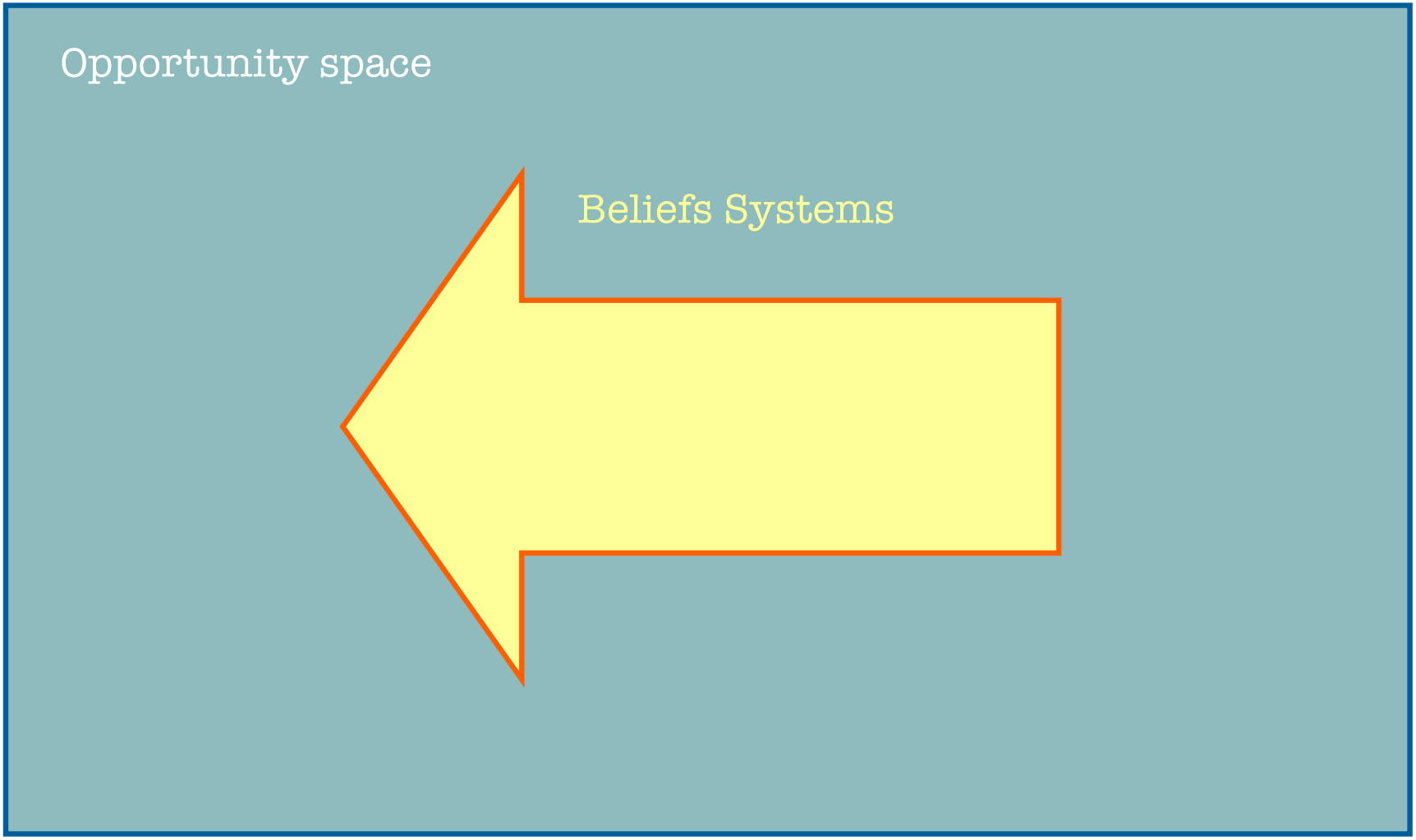
When problems arise in implementing strategy, a beliefs system helps participants to determine the types of problems to tackle and the solutions to search for.

More important, in the absence of problems, beliefs systems motivate individuals to search for new ways of creating value.

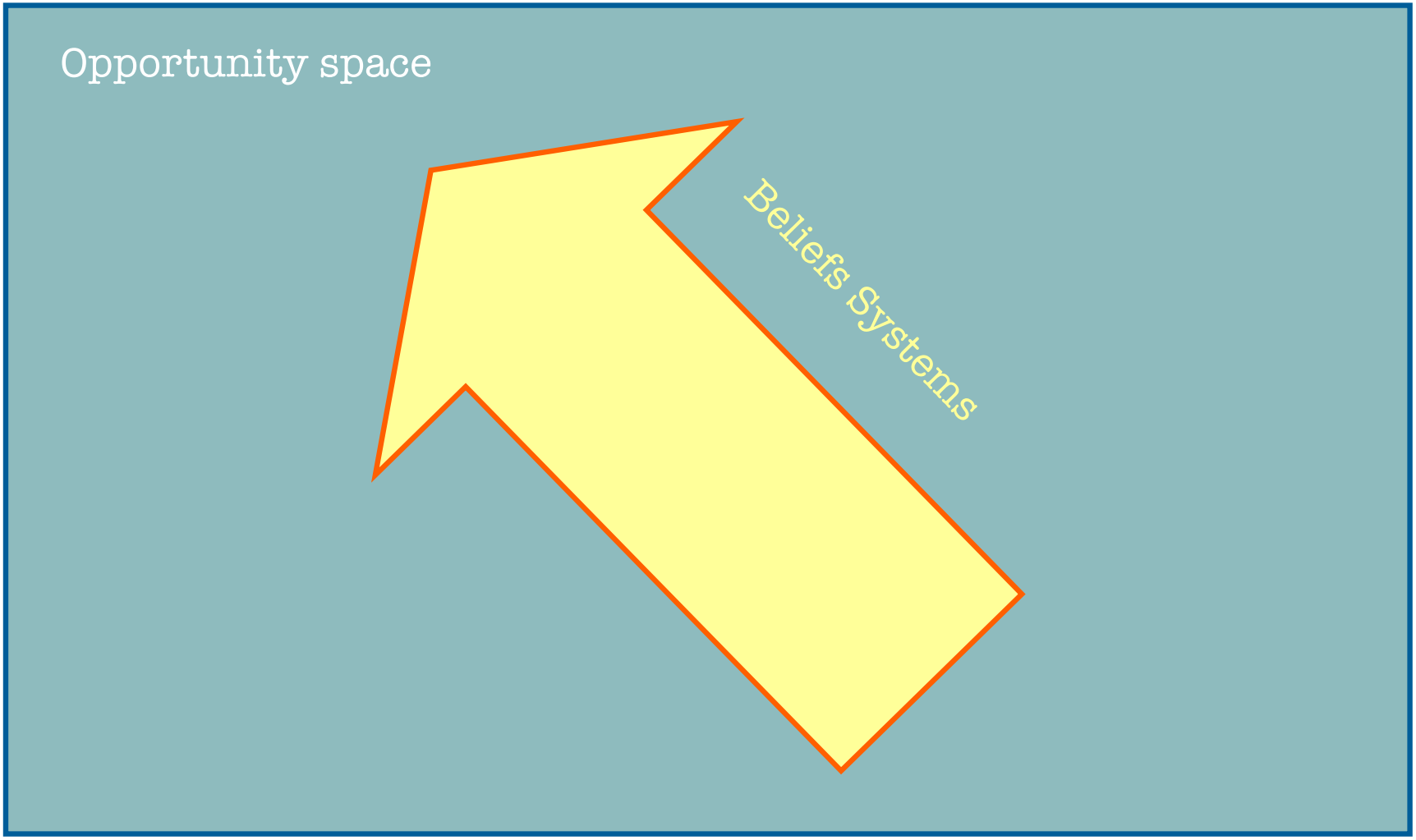
To implement strategy effectively, Hambrick and Cannella have argued that managers must "sell, sell, sell the strategy to everyone who matters upward, downward, across, and outward"»

SOURCE: SIMONS, LEVERS OF CONTROL

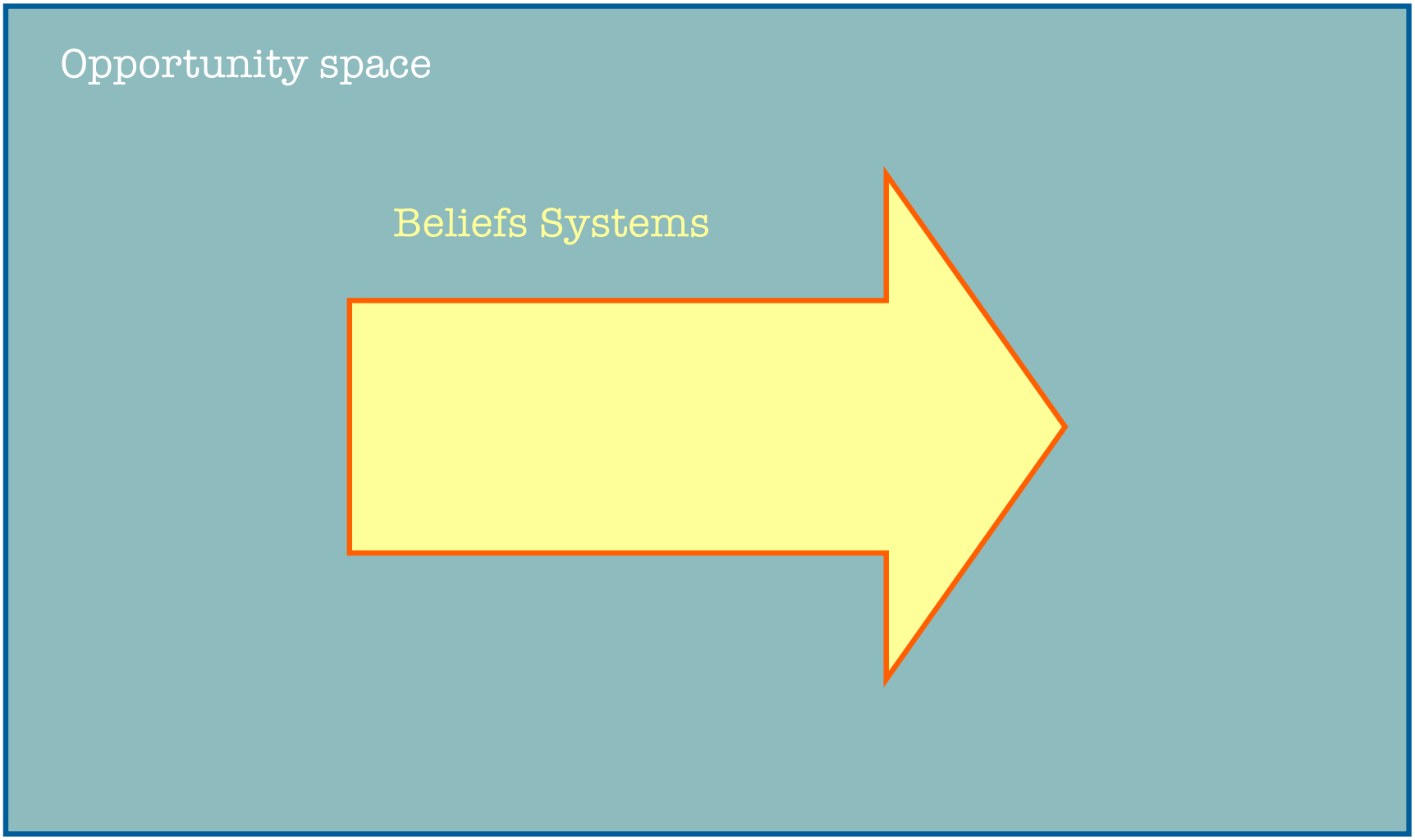
BELIEFS SYSTEMS PROVIDE DIRECTION



DIFFERENT ORGANIZATIONS …



… FOLLOW DIFFERENT DIRECTIONS



BELIEFS SYSTEM

«As the opportunity space of a business expands, the creation and communication of a formal beliefs system become more important.

Managers attempt to define the values and direction of the organization by:

1) asserting uniqueness,
2) providing prestige to group membership, and
3) using formal beliefs as symbols of what the organization represents.

These actions are intended to increase commitment, provide a core of stability, and reinforce the distinctiveness of the organization.»

SOURCE: SIMONS, LEVERS OF CONTROL

MOTIVATE AND INSPIRE

«John Kotter's study of leadership concluded that effective leaders are able to motivate and inspire organizational participants to bursts of energy in support of organizational goals and strategies.

Using survey data and field interviews, Kotter concluded that inspirational motivation is created by:

1. articulating a vision that addresses the values of participants,
2. allowing each individual to appreciate how he or she can contribute to the achievement of that vision,
3. providing enthusiastic support for effort, and
4. encouraging public recognition and reward for all successes.

Beliefs systems play a central role in this process.»

SOURCE: SIMONS, LEVERS OF CONTROL

CORPORATIONS NEED A HEALTY SOCIETY

«Successful corporations need a healthy society. Education, health care, and equal opportunity are essential to a productive workforce. Safe products and working conditions not only attract customers but lower the internal costs of accidents. Efficient utilization of land, water, energy, and other natural resources makes business more productive. Good government, the rule of law, and property rights are essential for efficiency and innovation. Strong regulatory standards protect both consumers and competitive companies from exploitation. Ultimately, a healthy society creates expanding demand for business, as more human needs are met and aspirations grow. Any business that pursues its ends at the expense of the society in which it operates will find its success to be illusory and ultimately temporary».

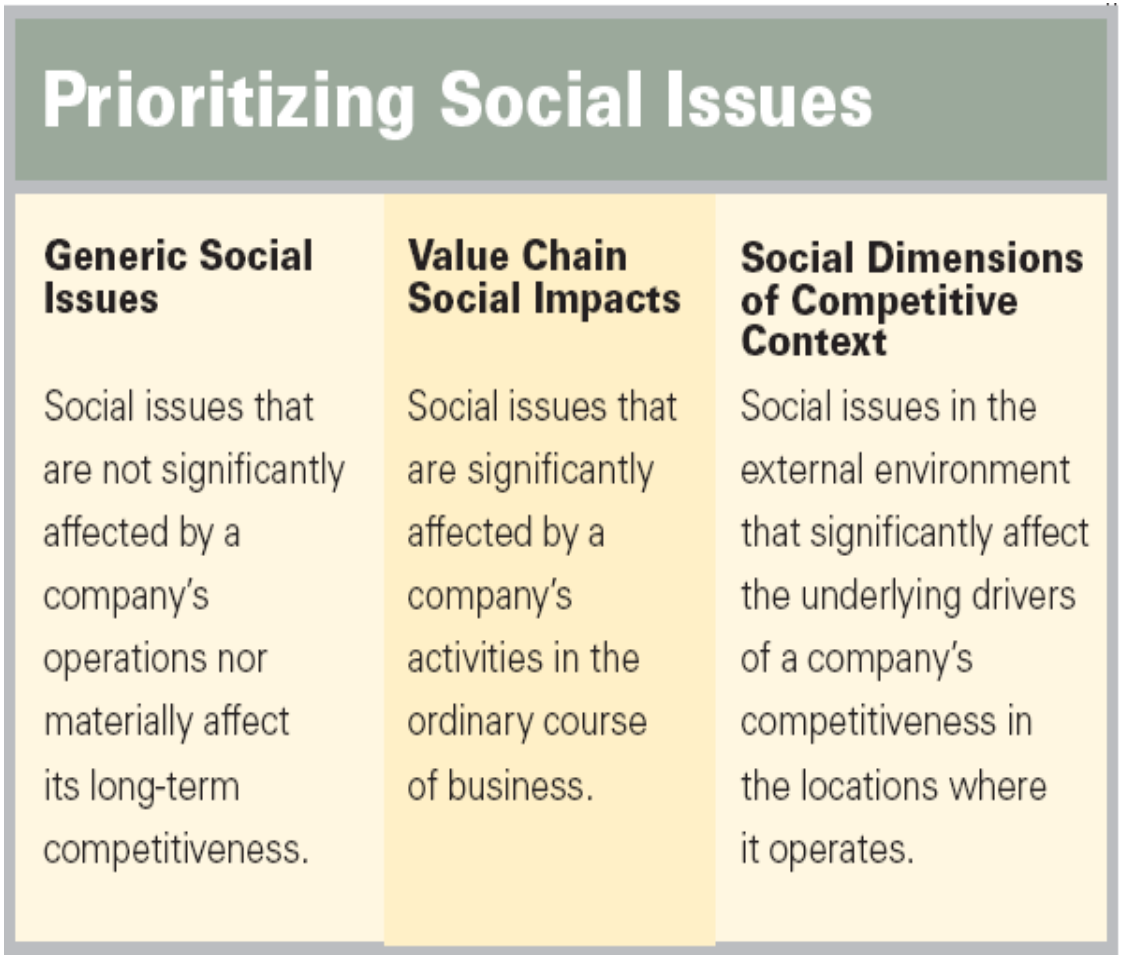
Michael E. Porter and Mark R. Kramer, "*Strategy & Society The Link Between Competitive Advantage and Corporate Social Responsibility*", HBR, Dec. 2006

HEALTY SOCIETY NEEDS SUCESSFUL COMPANIES

«At the same time, a healthy society needs successful companies. No social program can rival the business sector when it comes to creating the jobs, wealth, and innovation that improve standards of living and social conditions over time. If governments, NGOs, and other participants in civil society weaken the ability of business to operate productively, they may win battles but will lose the war, as corporate and regional competitiveness fade, wages stagnate, jobs disappear, and the wealth that pays taxes and supports nonprofit contributions
evaporates».

Michael E. Porter and Mark R. Kramer, "*Strategy & Society The Link Between Competitive Advantage and Corporate Social Responsibility*", HBR, Dec. 2006

WHAT KIND OF SOCIAL ISSUE IS RELEVAT TO YOU?



Prioritizing Social Issues

Generic Social Issues	Value Chain Social Impacts	Social Dimensions of Competitive Context
Social issues that are not significantly affected by a company's operations nor materially affect its long-term competitiveness.	Social issues that are significantly affected by a company's activities in the ordinary course of business.	Social issues in the external environment that significantly affect the underlying drivers of a company's competitiveness in the locations where it operates.

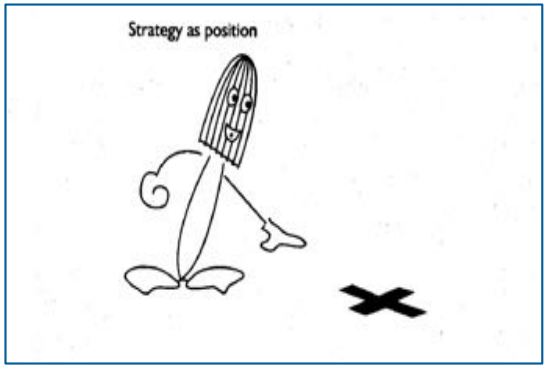
Michael E. Porter and Mark R. Kramer, "*Strategy & Society The Link Between Competitive Advantage and Corporate Social Responsibility*", HBR, Dec. 2006

STRATEGIC CSR: A WAY TO DIFFERNTIATE

Michael E. Porter and Mark R. Kramer, "*Strategy & Society The Link Between Competitive Advantage and Corporate Social Responsibility*", HBR, Dec. 2006

BELIEFS SYSTEMS

STRATEGY AS PERSPECTIVE



While the [previous] definition of strategy looks out, seeking to locate the organization in the external environment, [this one] **looks inside** the organization, indeed inside **the heads of the collective strategist**. Here, strategy is a perspective, its content consisting not just of a chosen position, but of **an ingrained way of perceiving the world.**
Strategy in this respect **is to the organization what personality is to the individual.**

Henry Mintzberg, "The Strategy Concept I: Five Ps For Strategy"

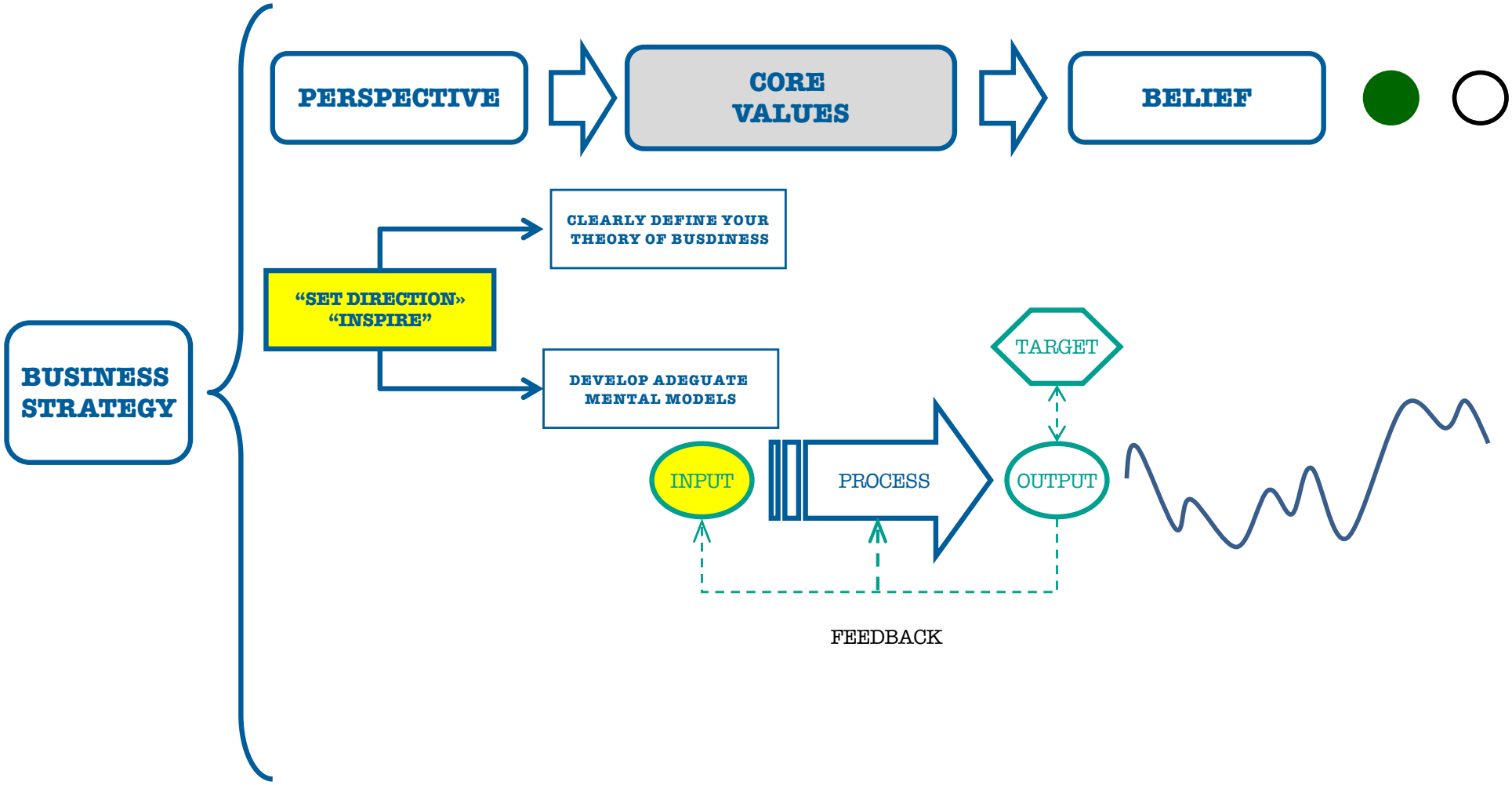
KEY STRATEGIC VARIABLE ⇨ **CORE VALUES**

CONTROL SYSTEMS ⇨ **BELIEFS**

Are used to inspire and direct the search for new opportunities.
They are composed by the explicit set of organizational definitions that senior managers communicate formally and reinforce systematically to provide basic values, purpose, and direction for the organization.

Robert Simons, "Levers of control"

BELIEF SYSTEMS

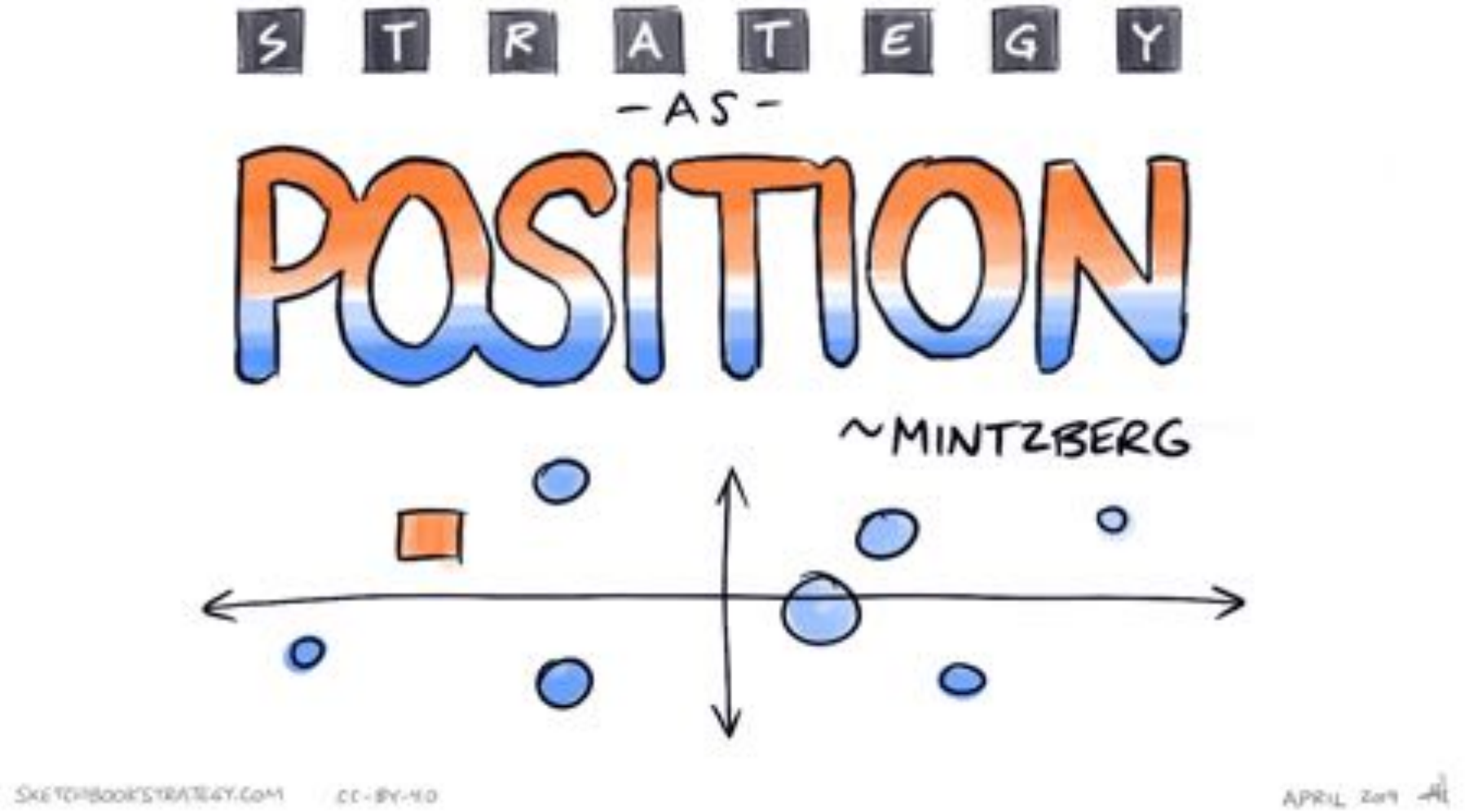


CECKLIST SUMMARY OF LEVERS OF CONTROL

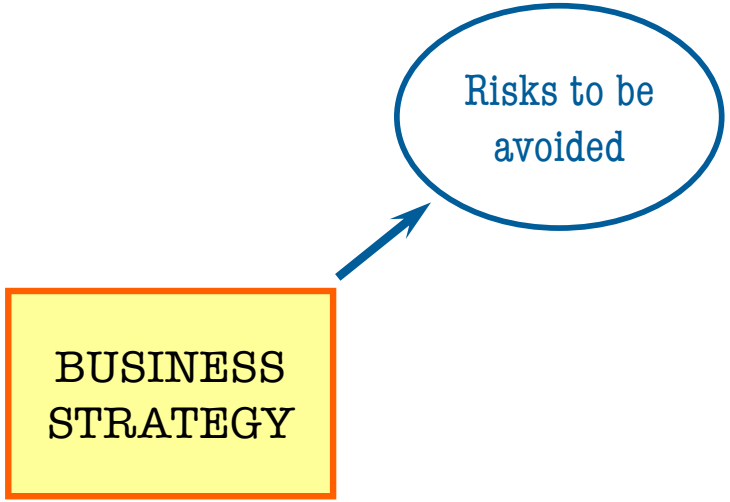
BELIEFS SYSTEMS

WHAT	Explicit set of beliefs that define basic values, purpose, and direction, including how value is created; level of desired performance; and human relationships
WHY	To provide momentum and guidance to opportunity-seeking behaviors
HOW	Mission statements Vision statements Credos Statements of purpose
WHEN	Opportunities expand dramatically Top managers desire to change strategic direction Top managers desire to energize workforce
WHO	Senior managers personally write substantive drafts Staff groups facilitate communication, feedback, and awareness surveys

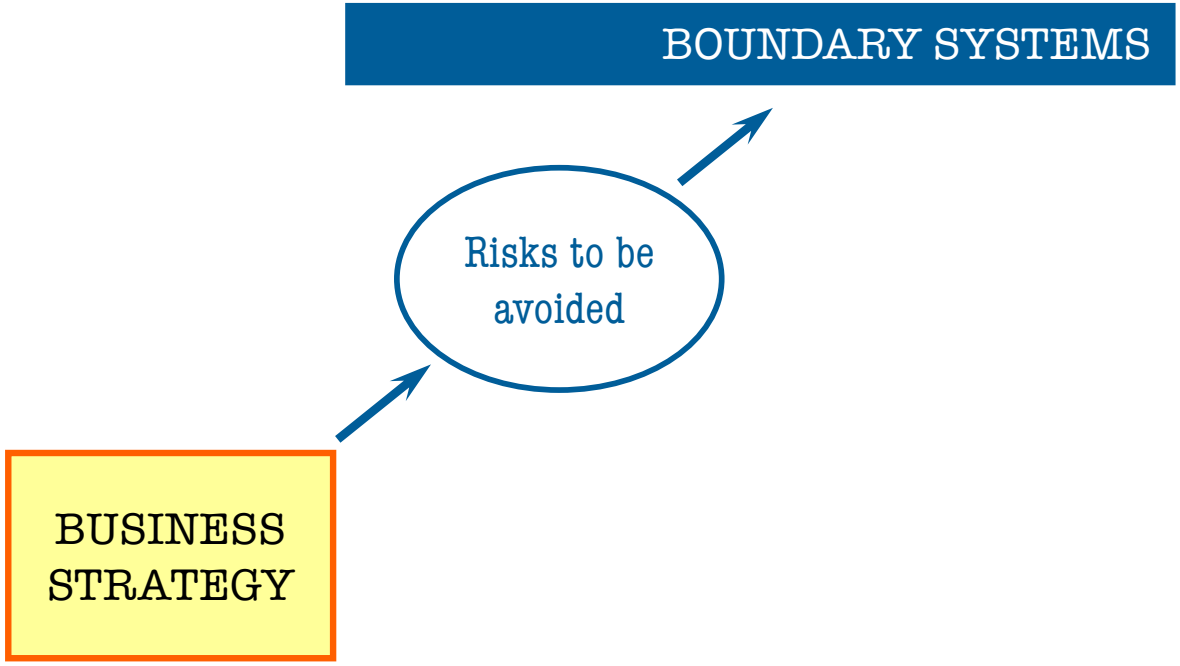
FIVE Ps FOR STRATEGY



AVOIDING RISKS …



… USING BUNDARY SYSTEMS



Beliefs Boundary Systems are used to set limits on the opportunity-seeking behavior.

BOUNDARY SYSTEMS

«Boundary systems, the second lever of control, delineate the acceptable domain of activity for organizational participants.

Unlike beliefs systems, boundary systems do not specify positive ideals. Instead, they establish limits, based on defined business risks, to opportunity-seeking.

Individuals in organizations are opportunity-seekers; that is, when presented with new information and situations, they search for ways to create value or overcome obstacles. It is impossible for managers, in all but the simplest organizations to know all the problems, solutions, and opportunities organizational participants face. Therefore, managers should not dictate the specific opportunities participants should seek.»

SOURCE: SIMONS, LEVERS OF CONTROL

NARROWING CHOICES

«Chester Barnard, writing more than fifty years ago, realized that setting limits on action was a prerequisite for effective organizational decision making. “The power of choice is paralyzed in human beings if the number of equal opportunities is large . . . Limitation of possibilities is necessary to choice. Finding a reason why something should not be done is a common method of deciding what should be done. The processes of decision as we shall see are largely techniques for narrowing choice”

Although boundary systems are essentially proscriptive or negative systems, they allow managers to delegate decision making and thereby allow the organization to achieve maximum flexibility and creativity. In many ways, boundary systems are a prerequisite for organizational freedom and entrepreneurial behavior.»

SOURCE: SIMONS, LEVERS OF CONTROL

BOUNDARIES FOR CHRISTIAN AND JEWISH LIFE

1. You shall have no other gods.
2. You shall not make any graven images and bow down.
3. You shall not take the name of the Lord in vain.
4. Keep the Sabbath holy, You shall do no work on that day.
5. Honor your father and mother.
6. You shall not kill.
7. You shall not commit adultery.
8. You shall not steal.
9. You shall not bear false witness against your neighbor.
10. You shall not covet anything that is your neighbor's.

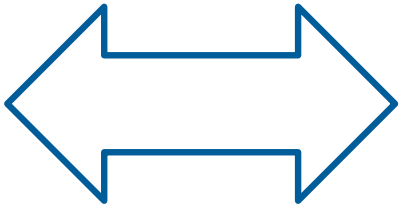
These rules establish clear limits on behavior.
Moreover, nine of the ten are stated in proscriptive terms.

SOURCE: SIMONS, LEVERS OF CONTROL

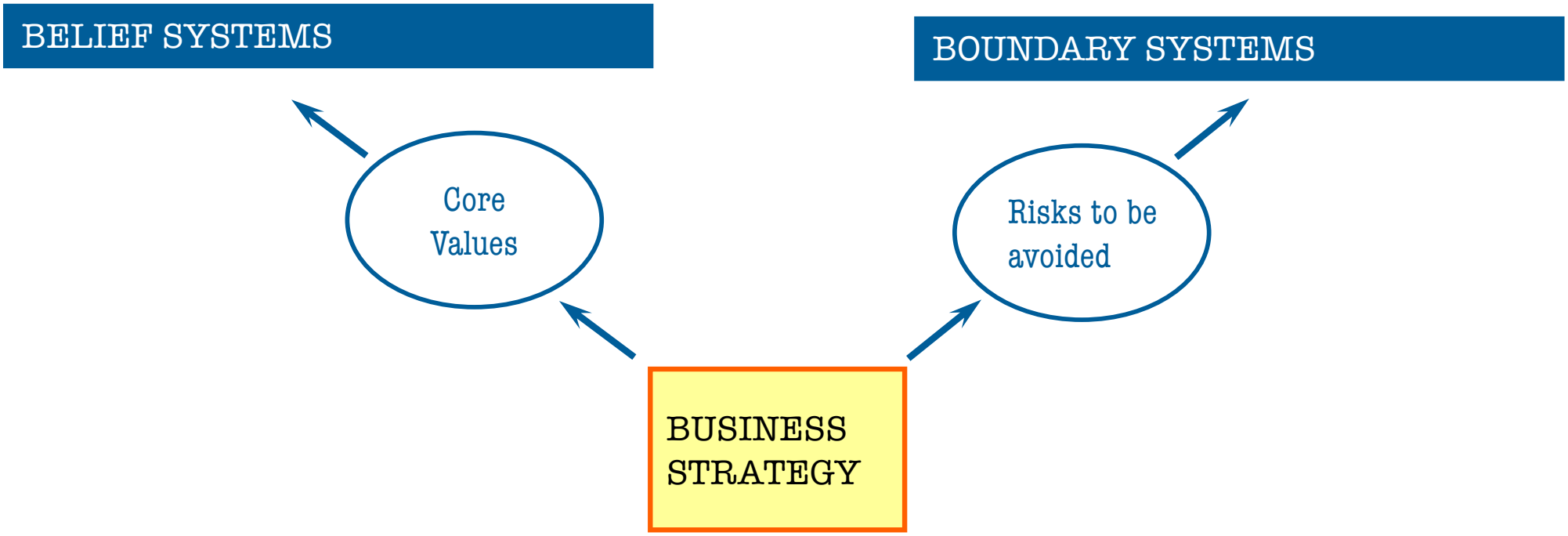
BELIEFS AND BOUNDARY SYSTEMS WORK IN TANDEM

BELIEF SYSTEMS

BOUNDARY SYSTEMS



TWO FORCES MOVING IN OPPOSITE DIRECTION



FOCUSED DOMAIN

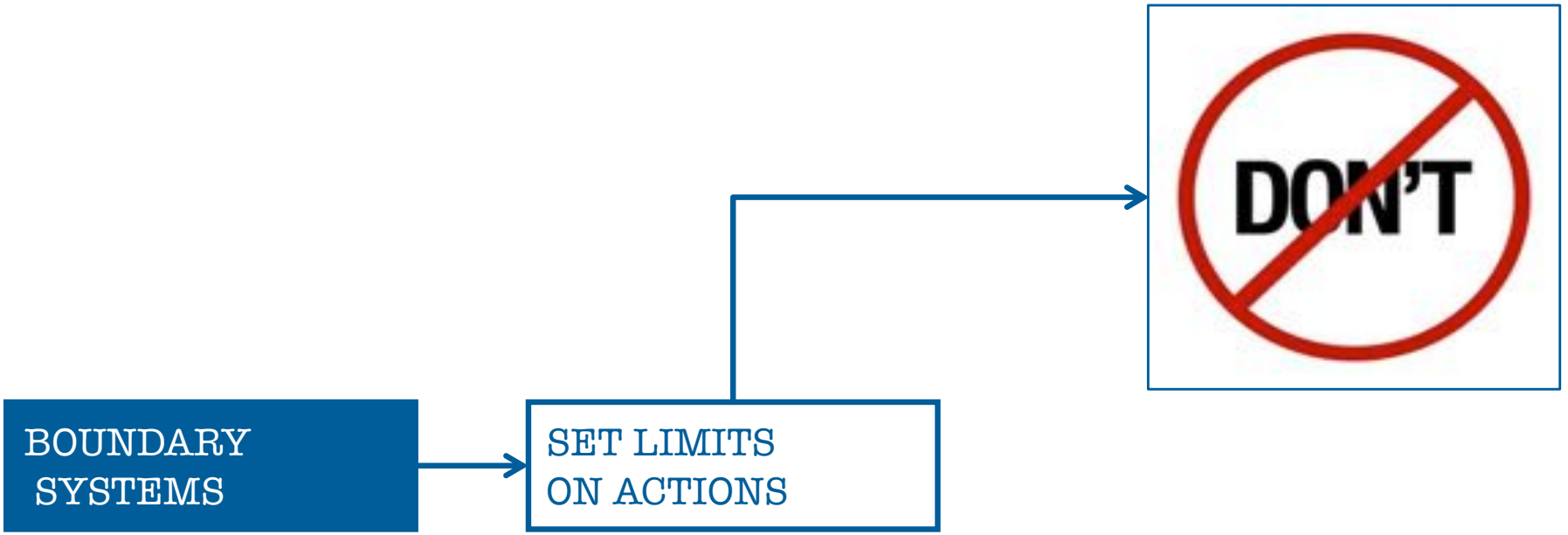
«Beliefs system and related boundary system work in tandem. The beliefs system provides organizational purpose and momentum to guide and motivate individual opportunity seeking within unlimited opportunity space.

Within the beliefs system, boundary systems communicate the acceptable domain for search activity and thereby demarcate the opportunity domain as a subset of opportunity space within which organizational participants can exercise their energies.

Beliefs systems and boundary systems transform unbounded opportunity space into a focused domain that organizational participants can be encouraged to exploit.»

SOURCE: SIMONS, LEVERS OF CONTROL

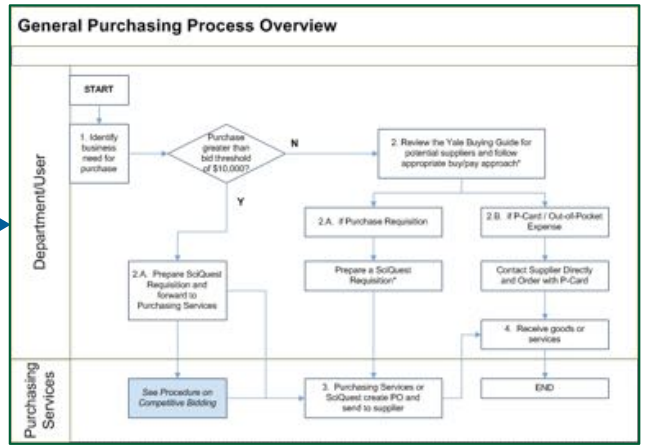
BANS, PROIBITIONS…



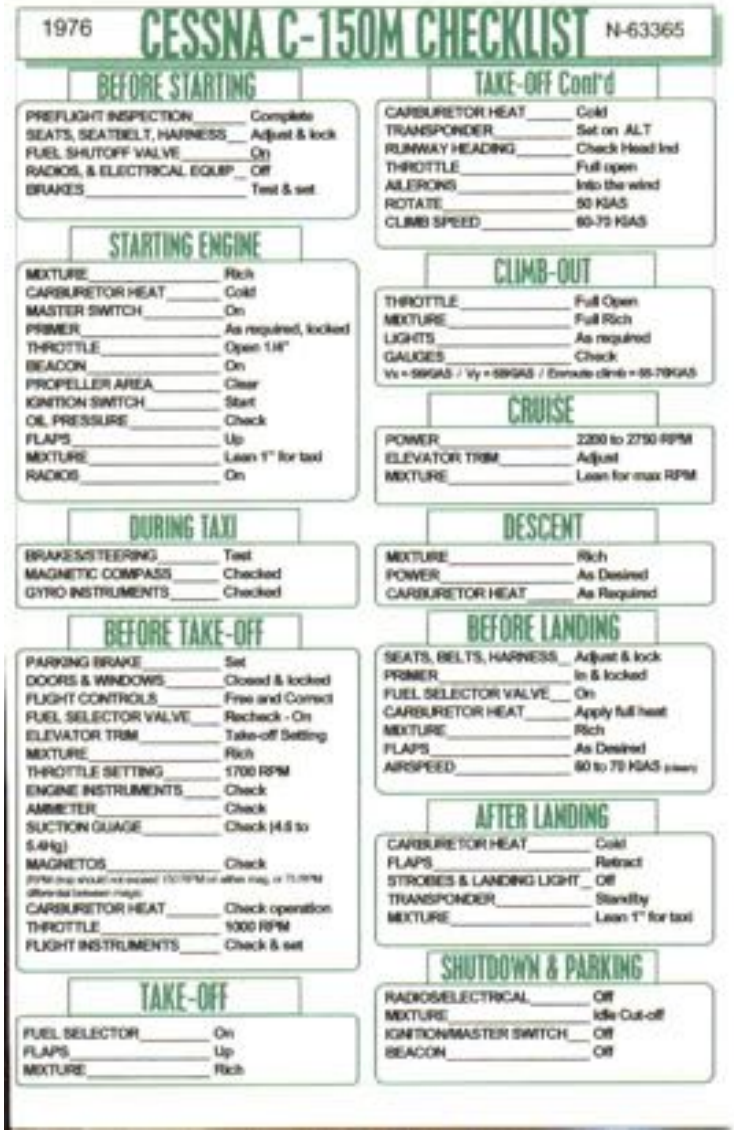
… AND PROCEDURES

BOUNDARY SYSTEMS

SET LIMITS ON ACTIONS



FLIGHT OPERATION PROCEDURES



1976 CESSNA C-150M CHECKLIST N-63365

BEFORE STARTING

PREFLIGHT INSPECTION	Complete
SEATS, SEATBELT, HARNESS	Adjust & lock
FUEL SHUTOFF VALVE	On
RADIOS, & ELECTRICAL EQUIP	Off
BRAKES	Test & set

STARTING ENGINE

MIXTURE	Rich
CARBURETOR HEAT	Cold
MASTER SWITCH	On
PRIMER	As required, locked
THROTTLE	Open 1/4"
BEACON	On
PROPELLER AREA	Clear
IGNITION SWITCH	Start
OIL PRESSURE	Check
FLAPS	Up
MIXTURE	Lean 1" for taxi
RADIOS	On

DURING TAXI

BRAKES/STEERING	Test
MAGNETIC COMPASS	Checked
GYRO INSTRUMENTS	Checked

BEFORE TAKE-OFF

PARKING BRAKE	Set
DOORS & WINDOWS	Closed & locked
FLIGHT CONTROLS	Free and Correct
FUEL SELECTOR VALVE	Recheck - On
ELEVATOR TRIM	Take-off Setting
MIXTURE	Rich
THROTTLE SETTING	1700 RPM
ENGINE INSTRUMENTS	Check
AMMETER	Check
SUCTION GUAGE	Check (4.6 to 5.4 Hg)
MAGNETOS	Check
CARBURETOR HEAT	Check operation
THROTTLE	1000 RPM
FLIGHT INSTRUMENTS	Check & set

TAKE-OFF

FUEL SELECTOR	On
FLAPS	Up
MIXTURE	Rich

TAKE-OFF Cont'd

CARBURETOR HEAT	Cold
TRANSPONDER	Set on ALT
RUNWAY HEADING	Check Head Ind
THROTTLE	Full open
AILERONS	Into the wind
ROTATE	50 KIAS
CLIMB SPEED	60-70 KIAS

CLIMB-OUT

THROTTLE	Full Open
MIXTURE	Full Rich
LIGHTS	As required
GAUGES	Check

Vx = 59KIAS / Vy = 68KIAS / Enroute climb = 65-75KIAS

CRUISE

POWER	2200 to 2750 RPM
ELEVATOR TRIM	Adjust
MIXTURE	Lean for max RPM

DESCENT

MIXTURE	Rich
POWER	As Desired
CARBURETOR HEAT	As Required

BEFORE LANDING

SEATS, BELTS, HARNESS	Adjust & lock
PRIMER	In & locked
FUEL SELECTOR VALVE	On
CARBURETOR HEAT	Apply full heat
MIXTURE	Rich
FLAPS	As Desired
AIRSPEED	60 to 70 KIAS (flaps)

AFTER LANDING

CARBURETOR HEAT	Cold
FLAPS	Retract
STROBES & LANDING LIGHT	Off
TRANSPONDER	Standby
MIXTURE	Lean 1" for taxi

SHUTDOWN & PARKING

RADIOS/ELECTRICAL	Off
MIXTURE	Idle Cut-off
IGNITION/MASTER SWITCH	Off
BEACON	Off

EG&G SPECIAL PROJECTS DIVISION

B-737 Checklist
Aircraft 290 Only

BEFORE START - ORIGINATING FLIGHTS

C F	OXY-INTERPHONE	CHECKED
C F	CB's	SET
C F	STATIC SOURCE	NORMAL
C	BATTERY SWITCH/TR's	ON-CHECKED
C	EMER EXIT LIGHTS	ARMED
C	NO SMOKE/SEAT BELT	ON/OFF
F	WINDOW HEAT	ON
F	VOICE RECORDER	CHECKED
F	AIRCON & BLEEDS	1 PACK/ON
F	RADAR/TRANSPONDER	STNDBY
C	FIRE WARNING	CHECKED
C	STAB TRIM SWITCHES	NORMAL

BEFORE START - THROUGH FLIGHTS

F	LOG BOOK-FLT RELEASE	ABOARD
C	GEAR PINS	3 ABOARD
C	BOOST PUMPS/CROSSFD	ON-CLOSED
F	WING/ENG ANTI-ICE	OFF
F	FLT RECORDER	TRIP-DATE-ENCODED
F	PRESSURIZATION	SET
C F	FLT INSTRUMENTS	CHECKED
C F	ALTIMETER	CHECKED
F	HYD QUANTITY & OIL	CHECKED
C	RUD-AIL STAB TRIM	SET
C F	RADIOS & DME	CHECKED
C	FUEL QUANTITY	CHECKED-VERIFIED

STARTING ENGINES

C	PARKING BRAKES	SET
F	DOOR LIGHTS	OUT
C	SEAT BELT SIGN	ON
F	BEACON	ON
F	HYD PUMPS	A OFF/B ON
F	PACKS/BLEEDS & PRES	OFF/ON LBS

AFTER START - TAXI

C	GENERATORS	ON BUS
C	HYD A PUMPS	ON
C	ENG ANTI-ICE	AS REQUIRED
C	FUEL HEATERS	AS REQUIRED
F	PACKS & BLEEDS	1 PK ON/OFF
F	FLT GRND SWITCH	FLIGHT
F	MASTER CAUTION	RECALLED
C F	FLT INSTRUMENTS	SET
F	FLAPS	SET-GREEN
F	COCKPIT DOOR	LOCKED
F	ISO VALVE LIGHT	OFF
C F	SHOULDER HARNESS	ON
C F	FLT CONTROLS	CHECKED

BEFORE TAKE-OFF

C F	TAKE-OFF DATA/BRF	SET-COMPL
C F	FLAPS	GREEN
F	PITOT HEAT	ON
F	MASTER CAUTION	RECALL
	WHEN CLEARED ONTO RUNWAY	
C	ATTDT BUTTON	PUSH
C	START SWITCHES	LOW IGN
F	TRANSPONDER	CODE CHK/ON
C	LANDING LIGHTS	ON

CLIMB

PNF	GEAR & FLAPS	OFF-UP
PNF	START SWITCHES	AS REQUIRED
PNF	BLEEDS - APU	AS REQUIRED
C F	RADIO ALTIMETERS	AS REQUIRED
PNF	ISO VALVE LIGHT	OFF
PNF	LANDING LIGHTS	OFF

SURGICAL PROCEDURES

Surgical Safety Checklist

World Health Organization | Patient Safety

Before induction of anaesthesia
(with at least nurse and anaesthetist)

Has the patient confirmed his/her identity, site, procedure, and consent?
- ☐ Yes

Is the site marked?
- ☐ Yes
- ☐ Not applicable

Is the anaesthesia machine and medication check complete?
- ☐ Yes

Is the pulse oximeter on the patient and functioning?
- ☐ Yes

Does the patient have a:

Known allergy?
- ☐ No
- ☐ Yes

Difficult airway or aspiration risk?
- ☐ No
- ☐ Yes, and equipment/assistance available

Risk of >500ml blood loss (7ml/kg in children)?
- ☐ No
- ☐ Yes, and two IVs/central access and fluids planned

Before skin incision
(with nurse, anaesthetist and surgeon)

- ☐ **Confirm all team members have introduced themselves by name and role.**
- ☐ **Confirm the patient's name, procedure, and where the incision will be made.**

Has antibiotic prophylaxis been given within the last 60 minutes?
- ☐ Yes
- ☐ Not applicable

Anticipated Critical Events

To Surgeon:
- ☐ What are the critical or non-routine steps?
- ☐ How long will the case take?
- ☐ What is the anticipated blood loss?

To Anaesthetist:
- ☐ Are there any patient-specific concerns?

To Nursing Team:
- ☐ Has sterility (including indicator results) been confirmed?
- ☐ Are there equipment issues or any concerns?

Is essential imaging displayed?
- ☐ Yes
- ☐ Not applicable

Before patient leaves operating room
(with nurse, anaesthetist and surgeon)

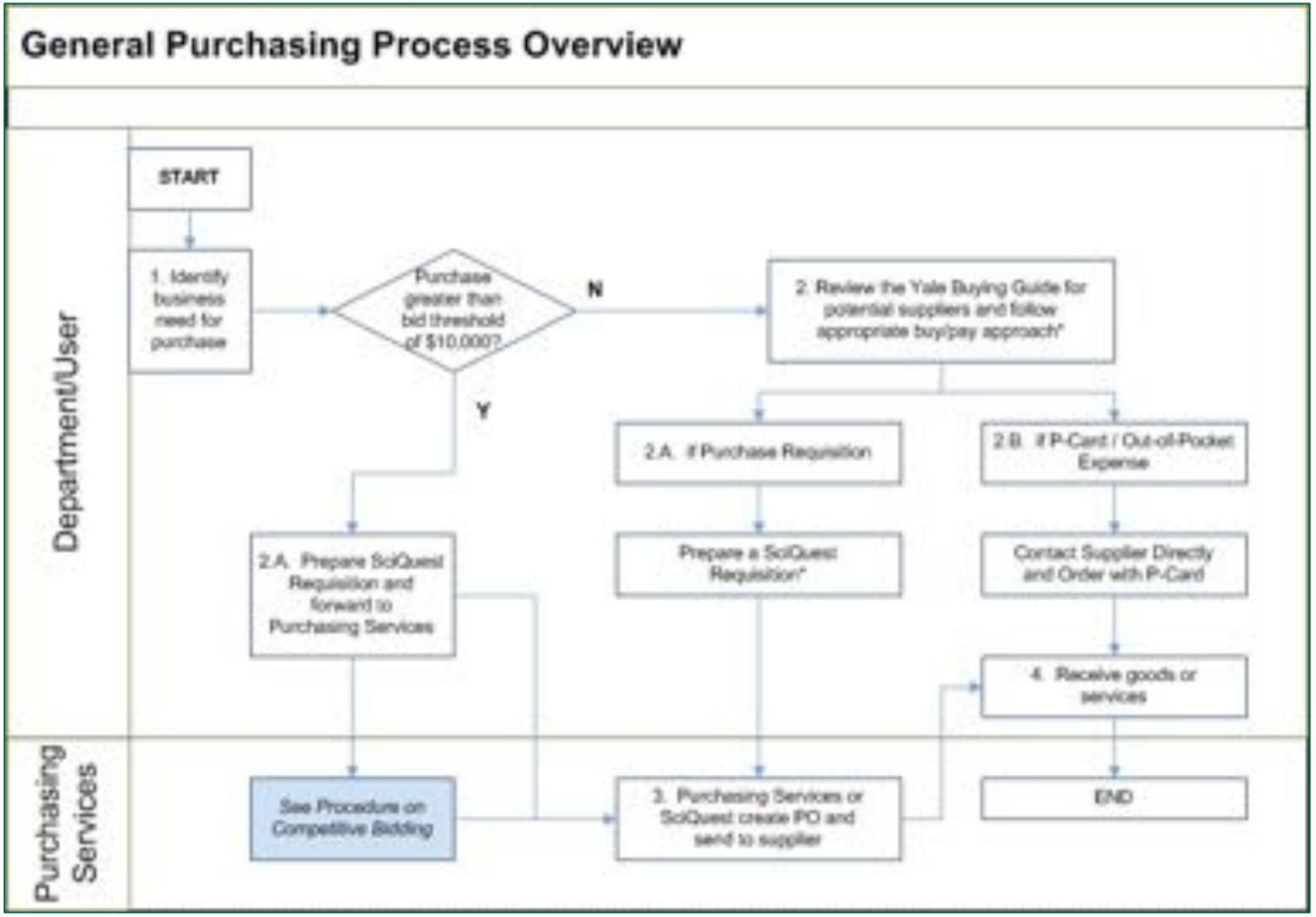
Nurse Verbally Confirms:
- ☐ The name of the procedure
- ☐ Completion of instrument, sponge and needle counts
- ☐ Specimen labelling (read specimen labels aloud, including patient name)
- ☐ Whether there are any equipment problems to be addressed

To Surgeon, Anaesthetist and Nurse:
- ☐ What are the key concerns for recovery and management of this patient?

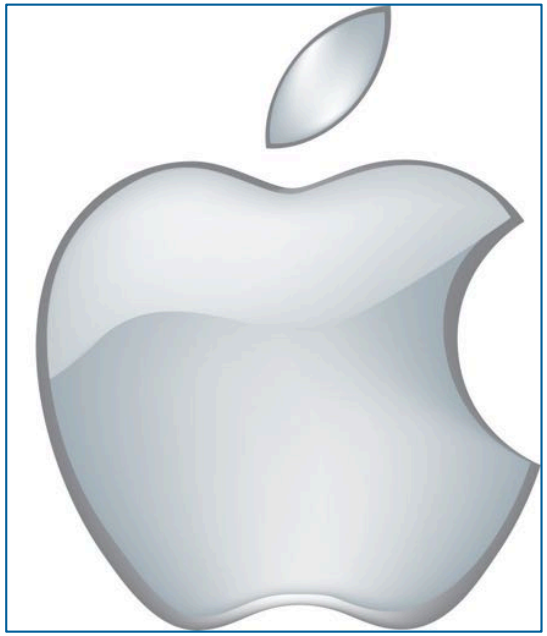
This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged.

Revised 1 / 2009

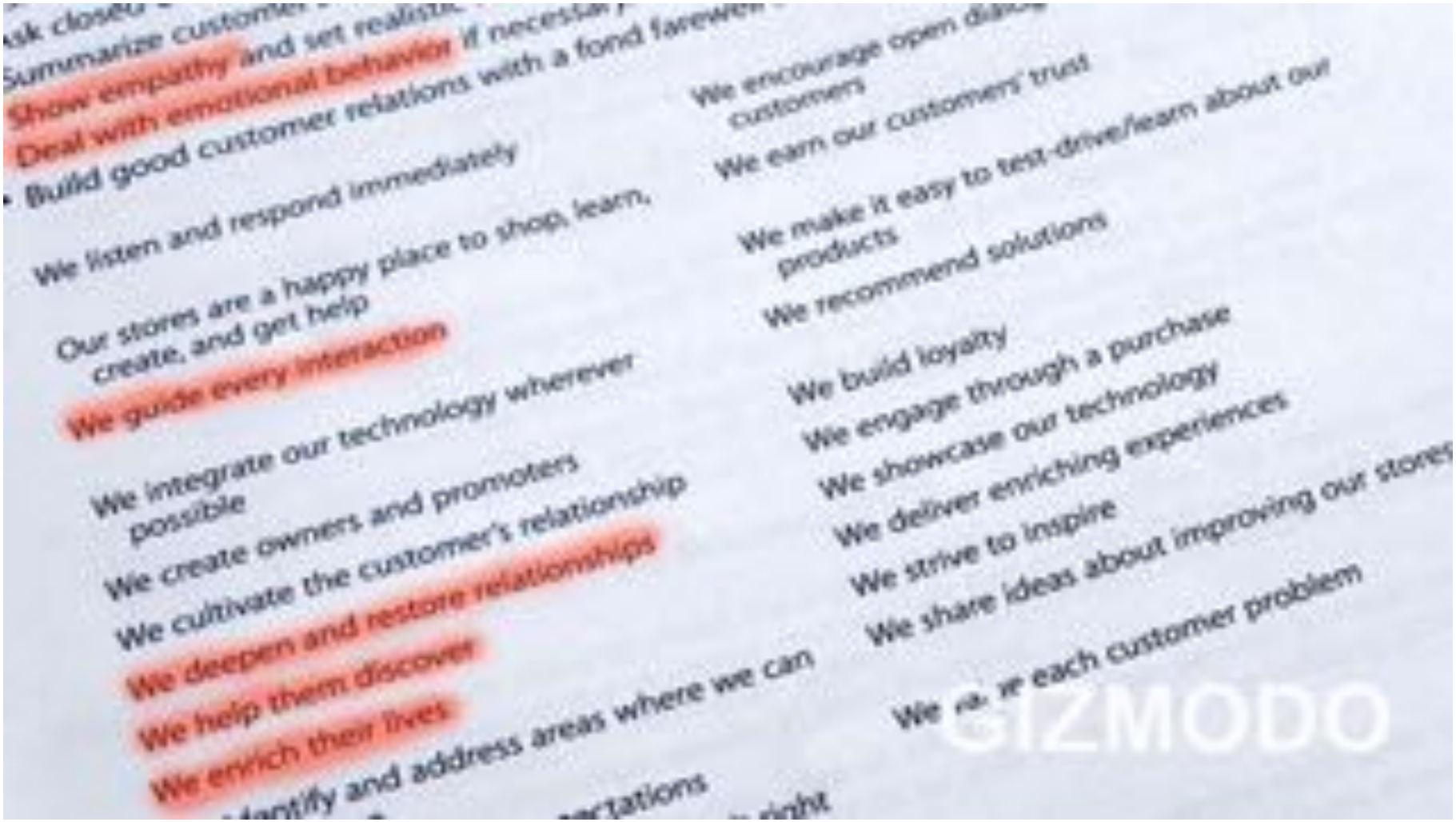
ADMINISTRATIVE PROCEDURES



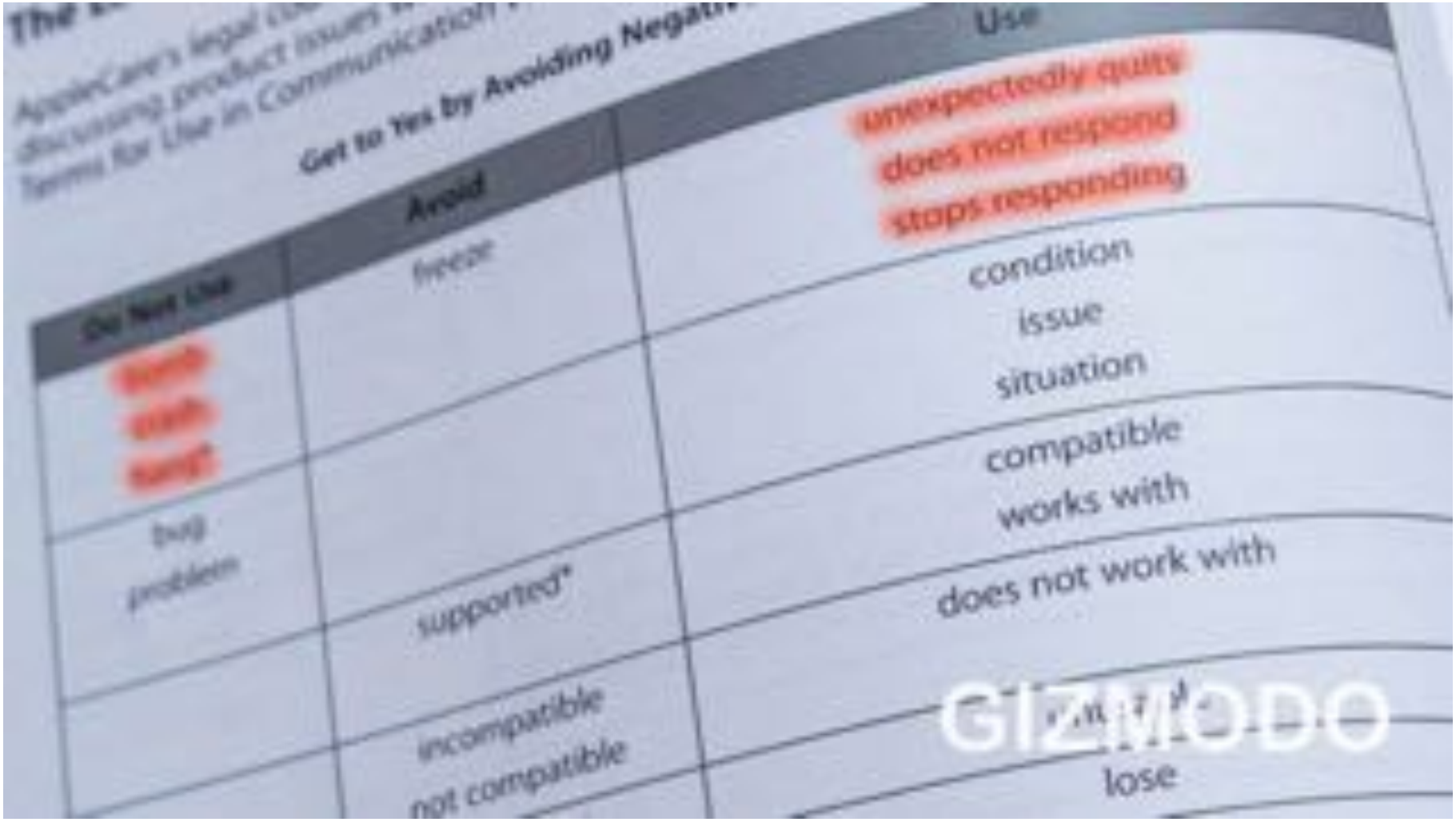
SALES PROCEDURES?



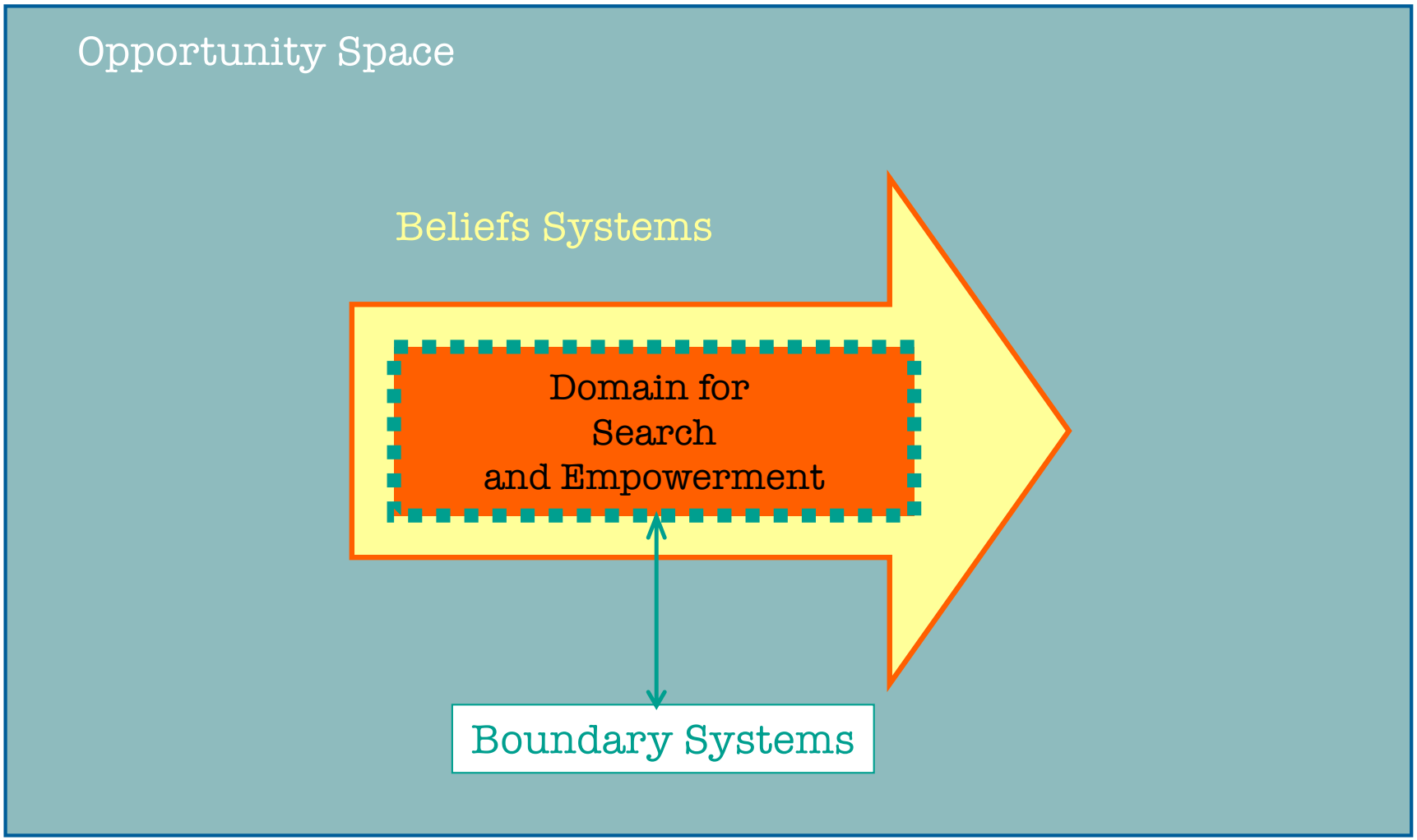
“ACTIVE BEHAVIOUR”



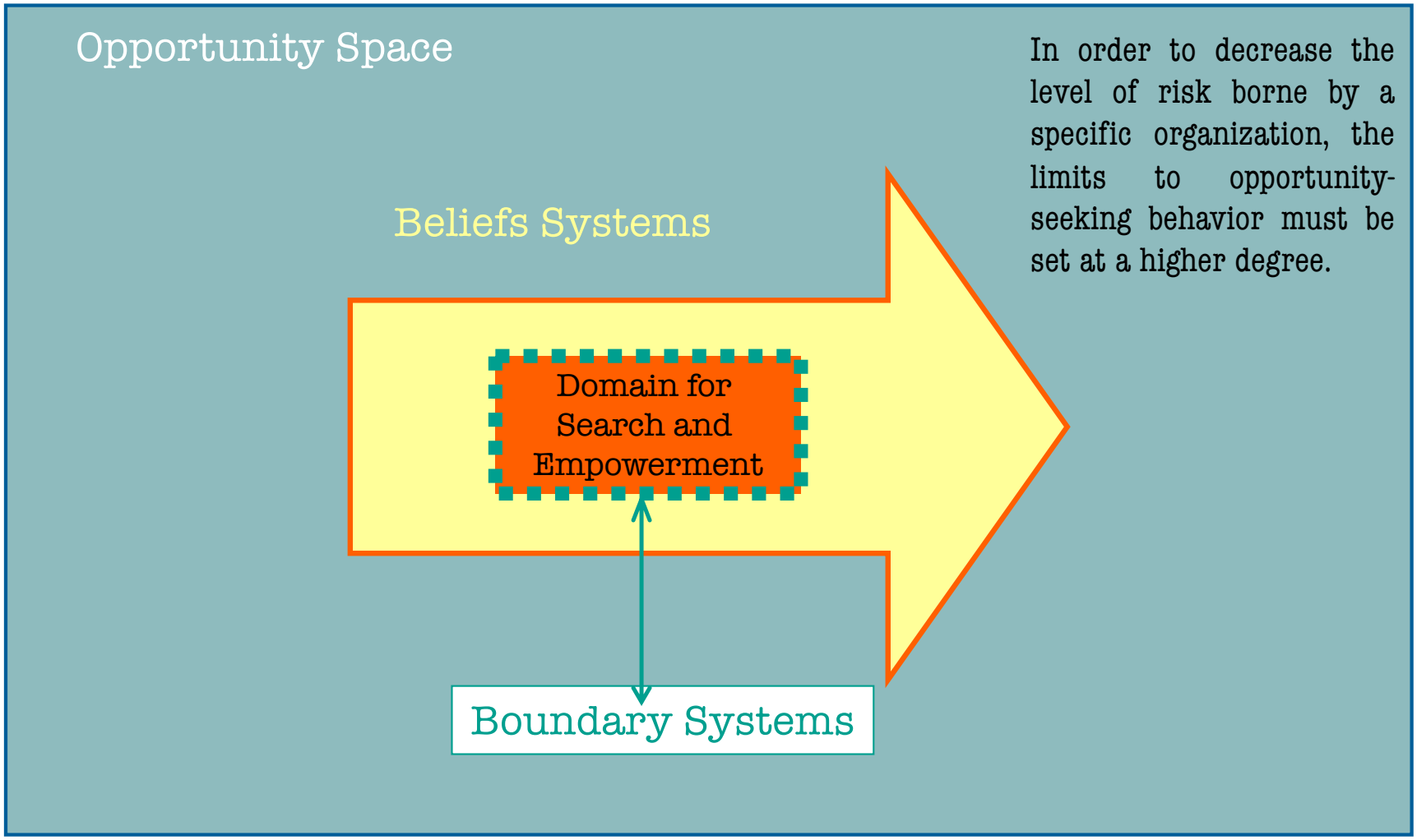
“THINGS YOU'RE NOT ALLOWED TO SAY”



DELIMITING ORGANIZATIONAL SPACE



RISK AND RETURN RELATIONSHIP



WHAT IS THE PURPOUSE OF BRAKES?

Why are there brakes on a car?

DOES IT NEED BRAKES?

THE HIGHEST YOUR SPEED …

«Ask yourself why there are brakes in a car. Is their function to slow the car down or to allow it to go fast?
Boundary systems are like brakes on a car: without them, cars (or organizations) cannot operate at high speeds.»

ORGANIZATIONAL FREEDOM

«Although boundary systems are essentially proscriptive or negative systems, they allow managers to delegate decision making and thereby allow the organization to achieve maximum flexibility and creativity.

In many ways, boundary systems are a prerequisite for organizational freedom and entrepreneurial behavior.

All systems that attempt to create accountability do so by delimiting organizational space for participants.

Beliefs about values and mission interact with rules and sanctions; commitment interacts with freedom within clearly stated boundaries.

In business organizations, boundary systems are used to specify both means and ends.»

SOURCE: SIMONS, LEVERS OF CONTROL

HOW MUCH?

How much did you saved last time you put in action the brakes of your car?
Not approximately, exactly?

“NONEVENTS”

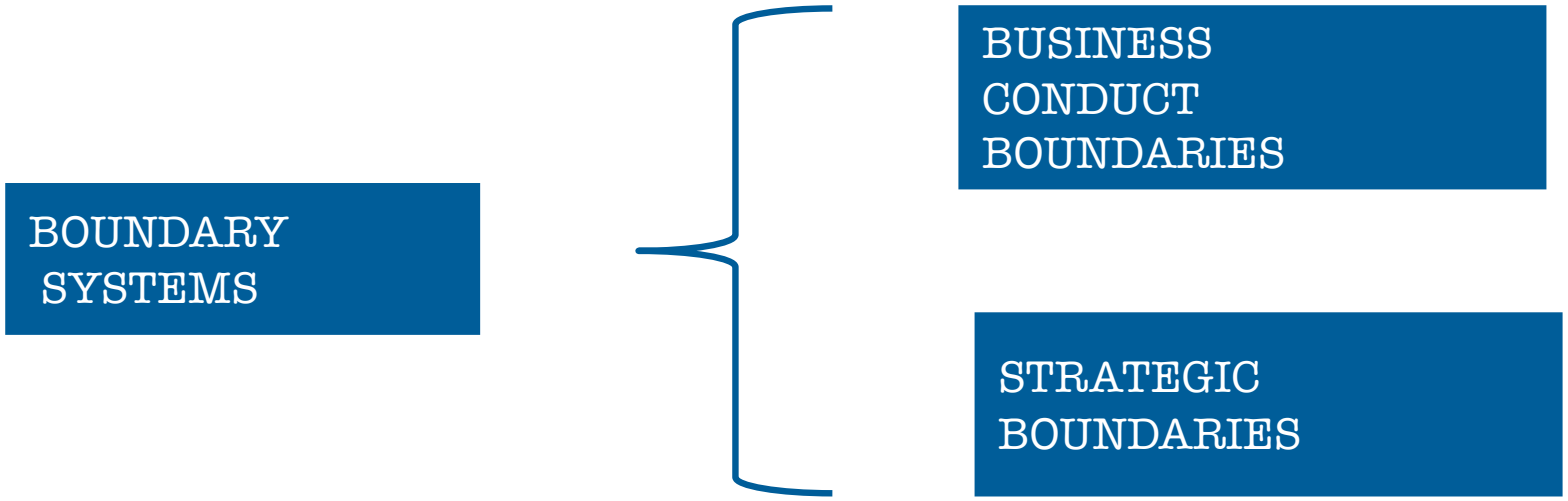
How much did you saved last time you put in action the brakes of your car? Not approximately, exactly…
When this systems works properly, they imply the existence of what we may call “nonevents” (there wasn’t any accident)… it is therefore difficult and technically inappropriate to prize someone who simply complies with the rules…
“When it comes to compliance with standards of business conduct, there are no carrots only sticks.”

CLEAR AND CREDIBLE SANCTIONS

Boundary system incentives are usually punitive sanctions. As a matter of fact like other norms of behavior, boundary systems cannot be effective without credible sanctions.

For sanctions to be effective, threats must be clear and credible. Therefore, managers use a "no exceptions" policy to send unambiguous signals that transgressors will be punished.

BANS, PROIBITIONS...



Formal systems establish two types of boundaries: business conduct boundaries and strategic boundaries. Both are determined through analysis of the risks associated with specific business strategies.

CODES OF BUSINESS CONDUCT

«The most basic boundary systems are those that impose codes of business conduct.

The standards encompassed in these codes have three sources:

(1) society's laws,

(2) the organization's beliefs systems, and

(3) codes of behavior promulgated by industry and professional associations.

Like the Ten Commandments, codes of business conduct are stated for the most part in proscriptive terms.»

SOURCE: SIMONS, LEVERS OF CONTROL

PROSCRIBED BEHAVIORS

«Proscribed behaviors typically include:

(1) conflicts of interest,

(2) activities that contravene antitrust laws,

(3) actions that could compromise trade secrets or confidential information,

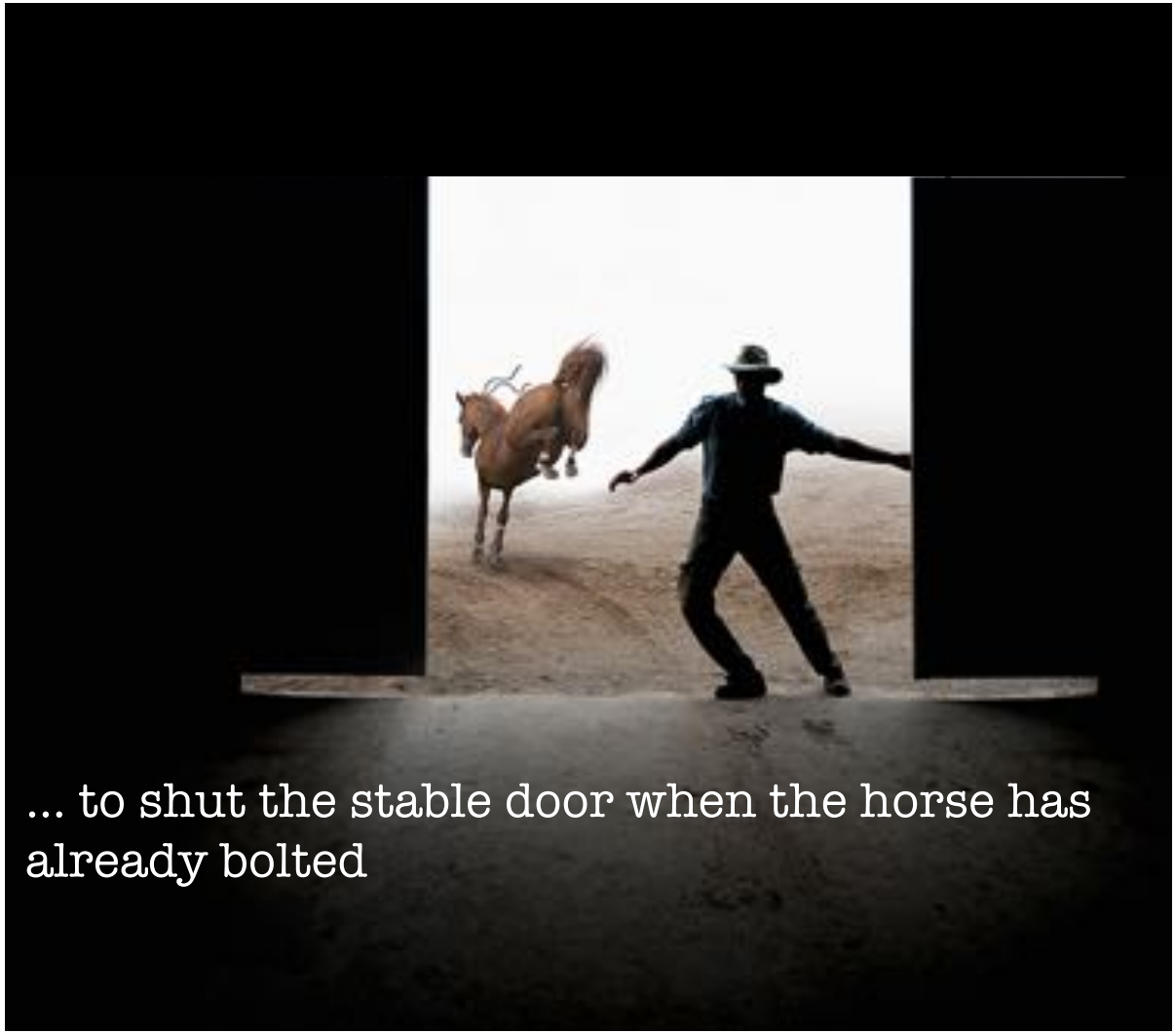
(4) the use of nonpublic information for stock trading, and

(5) certain types of payments to government officials.

These activities are ones that could jeopardize the well-being of an organization by exposing it to potential loss of assets, loss of reputation, or legal liability»

SOURCE: SIMONS, LEVERS OF CONTROL

IT IS NOT UNUSUAL...



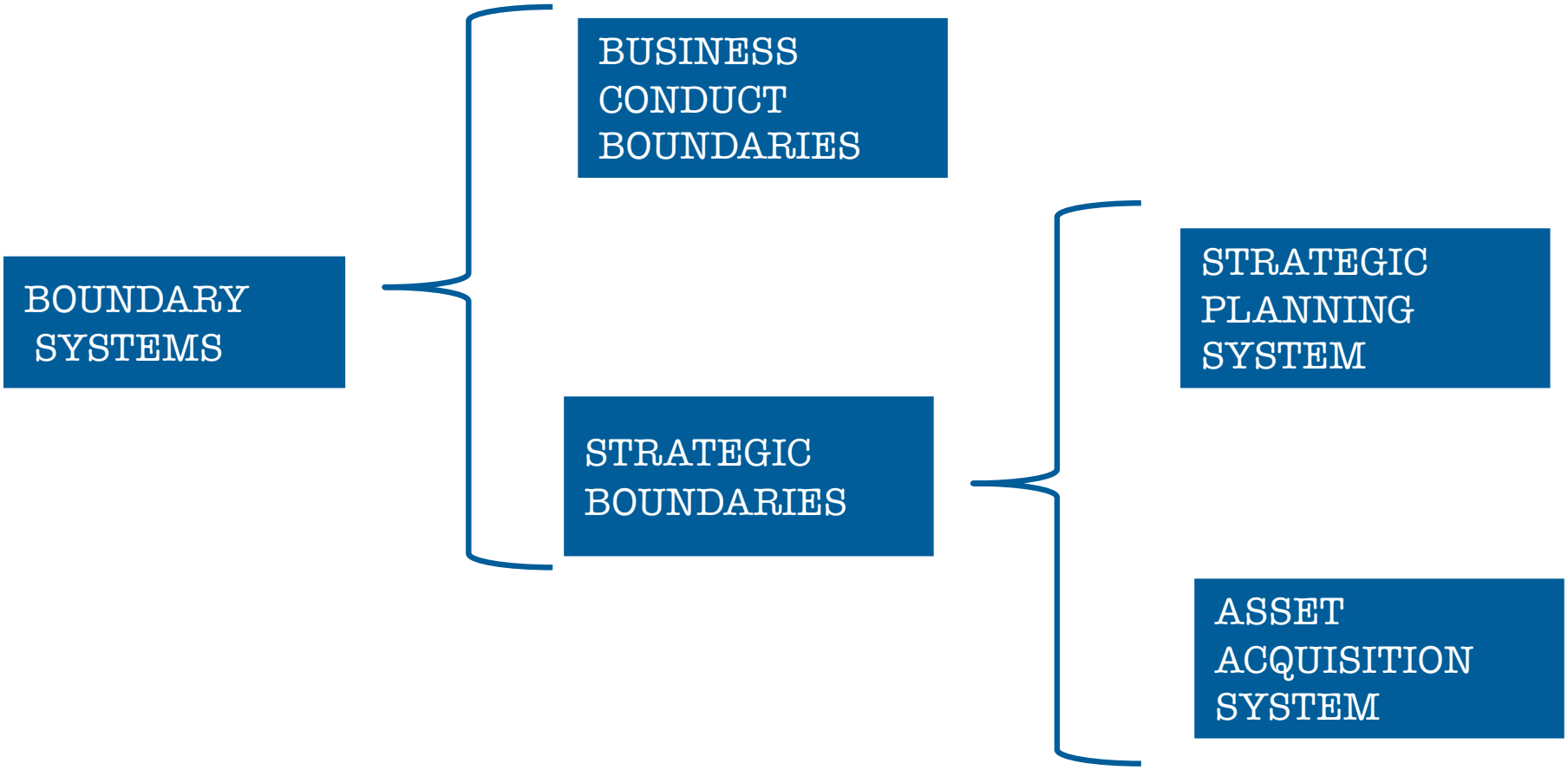
STRATEGIC BOUNDARIES

«Strategic boundaries focus on opportunity-seeking behavior to support explicit organizational strategies. Although strategic planning systems serve several different purposes, a principal purpose is to limit search activities. Strategic planning is often used to stipulate what search activities are not acceptable and should not be pursued.

Business opportunities emerge rapidly and erratically, but attempts to specify how a business will compete can be counterproductive to success. Senior managers can, however, specify the range of business opportunities in which they do not want the organization to expend resources. To do so, these managers use planning tools and checklists.»

SOURCE: SIMONS, LEVERS OF CONTROL

BANS, PROIBITIONS...



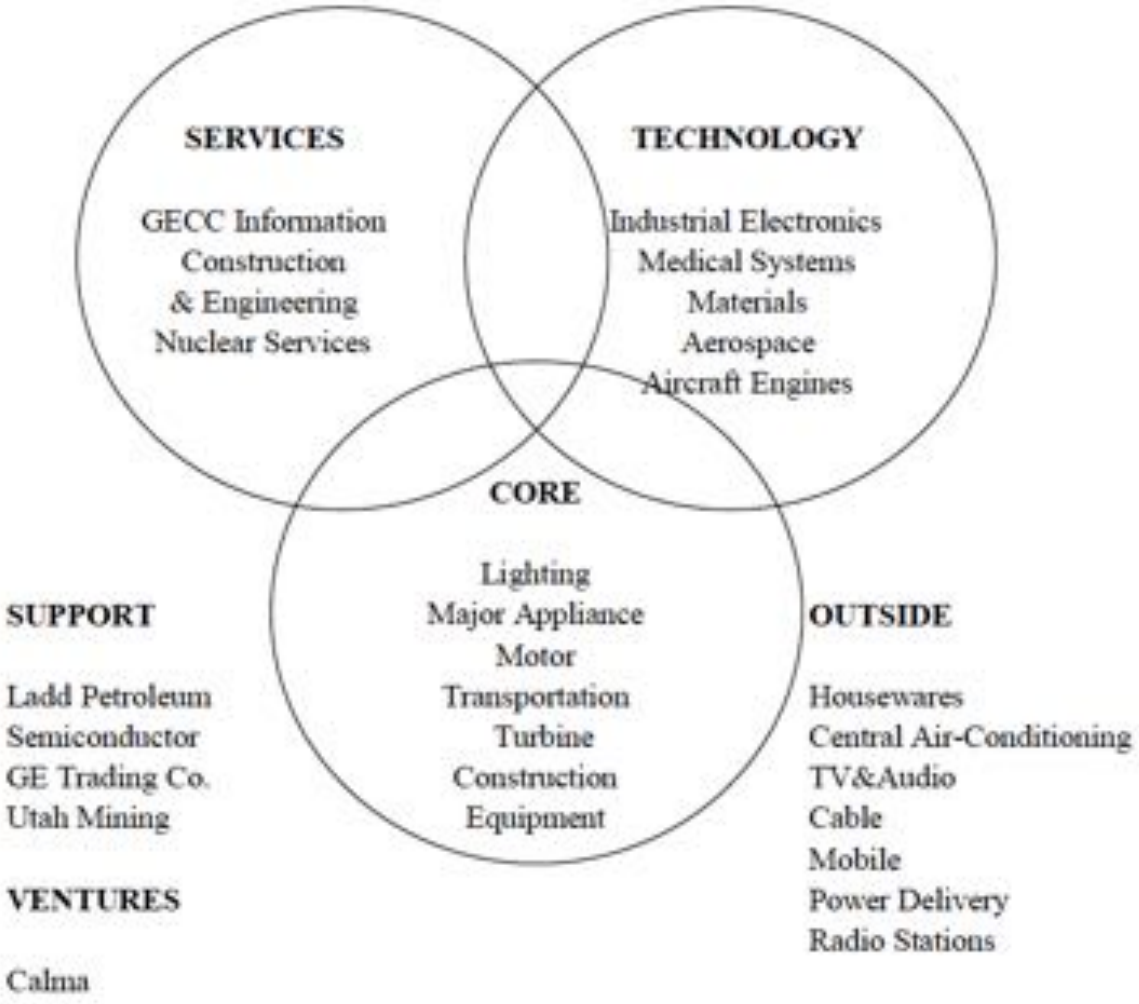
#1 OR #2: FIX, SELL, OR CLOSE

Soon after taking charge, Welch set the standard for each business to become the #1 or #2 competitor in its industry—or to disengage. Asked whether this simple notion represented GE's strategy, Welch responded, "You can't set an overall theme or a single strategy for a corporation as broad as GE." By 1983, however, Welch had elaborated this general "#1 or #2" objective into a "three circle concept" of his vision for GE. Businesses were categorized as core (with the priority of "reinvesting in productivity and quality"), high-technology (challenged to "stay on the leading edge" by investing in R&D), and services (required to "add outstanding people and make contiguous acquisitions"). To a question about what he hoped to build at GE, Welch replied:

A decade from now, I would like General Electric to be perceived as a unique, high spirited, entrepreneurial enterprise . . . the most profitable, highly diversified company on earth, with world quality leadership in every one of its product lines.

But as GE managers struggled to build #1 or #2 positions in a recessionary environment and under attack from global—often Japanese—competitors, Welch's admonition to "fix, sell, or close" uncompetitive businesses frequently led to the latter options.

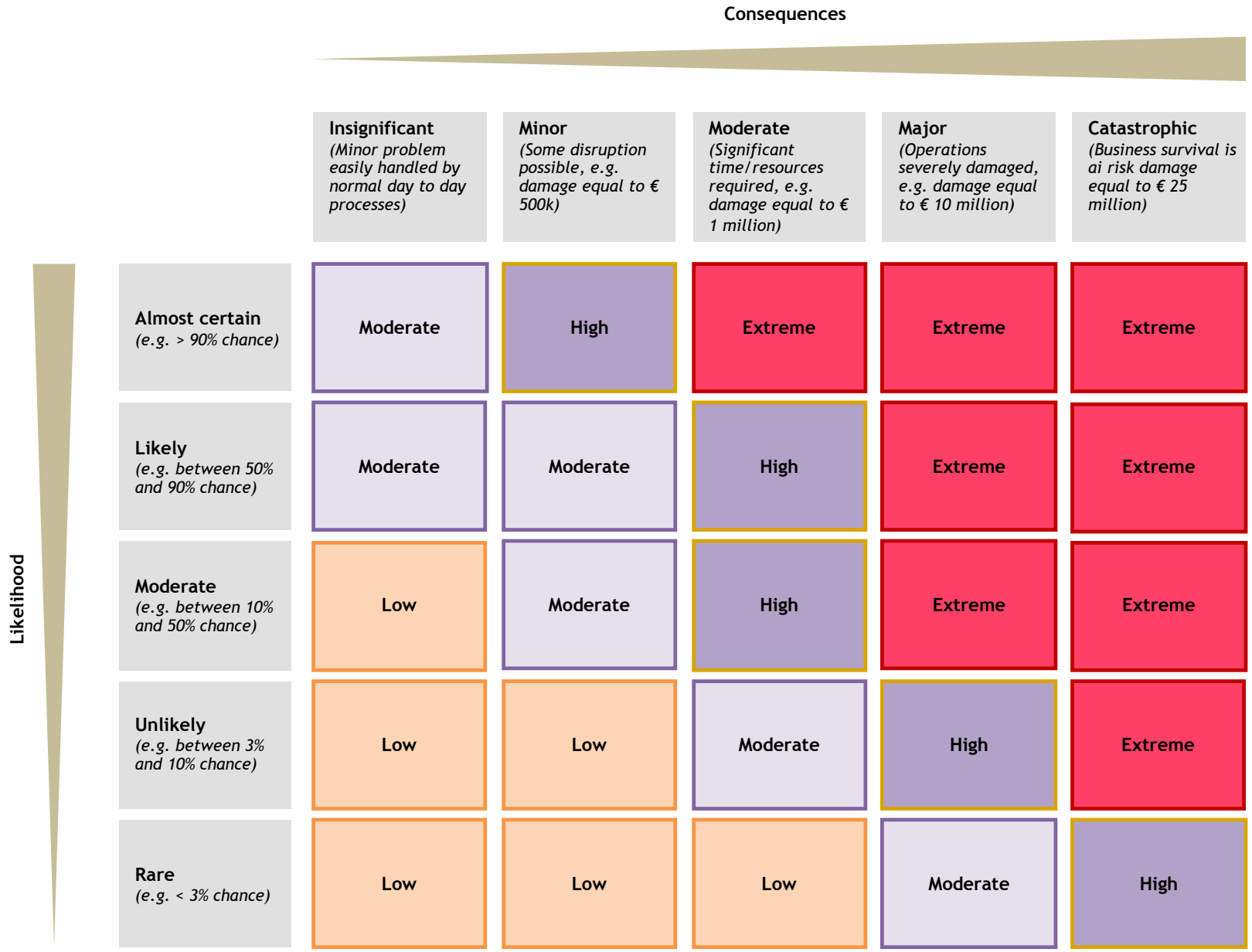
THREE CIRCLE CONCEPT



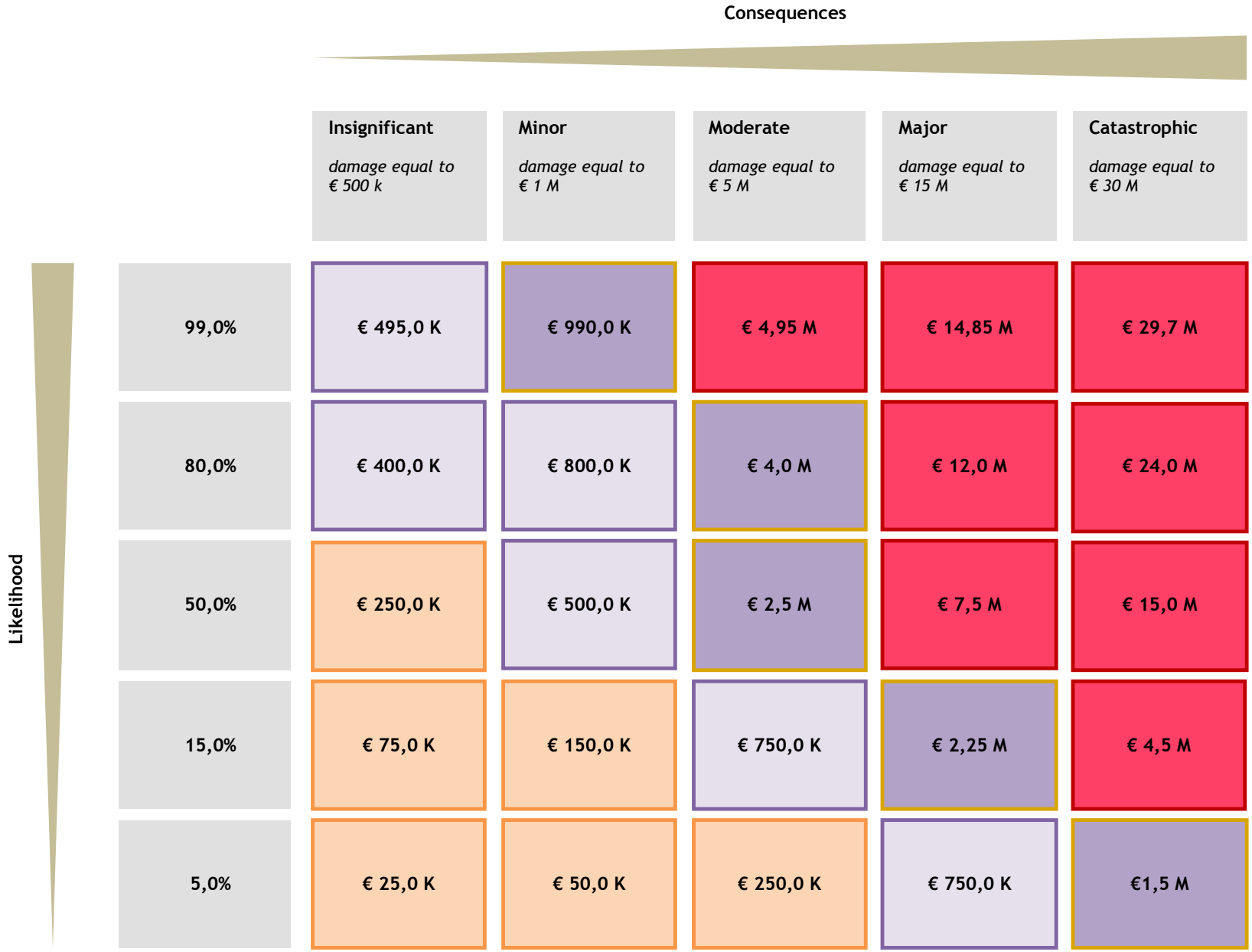
STRATEGIC BOUNDARIES: A CECK LIST

«At ADP, for example, managers use a check list that identifies which business opportunities are “verboten”. It covers every strategic base:
Financial. No opportunities that cannot generate $50 million in annual revenue.
Growth. No opportunities that cannot generate at least 15% continuing growth rate.
Competitive Position. No opportunities where ADP cannot be first or second in the market.
Products. No new products that cannot he sold on the mass market, that cannot he mass produced, or that do not offer consistently superior direct client service and performance features.
Sustained Market Position. No opportunities that do not put products or services in a very distinctive position, that do not include plans for adding a significant number of new clients, and that do not offer a high payback for clients.
With such an explicit guide, it is not surprising that ADP has never veered off its strategic course».

RISK = IMPACT * LIKELIHOOD

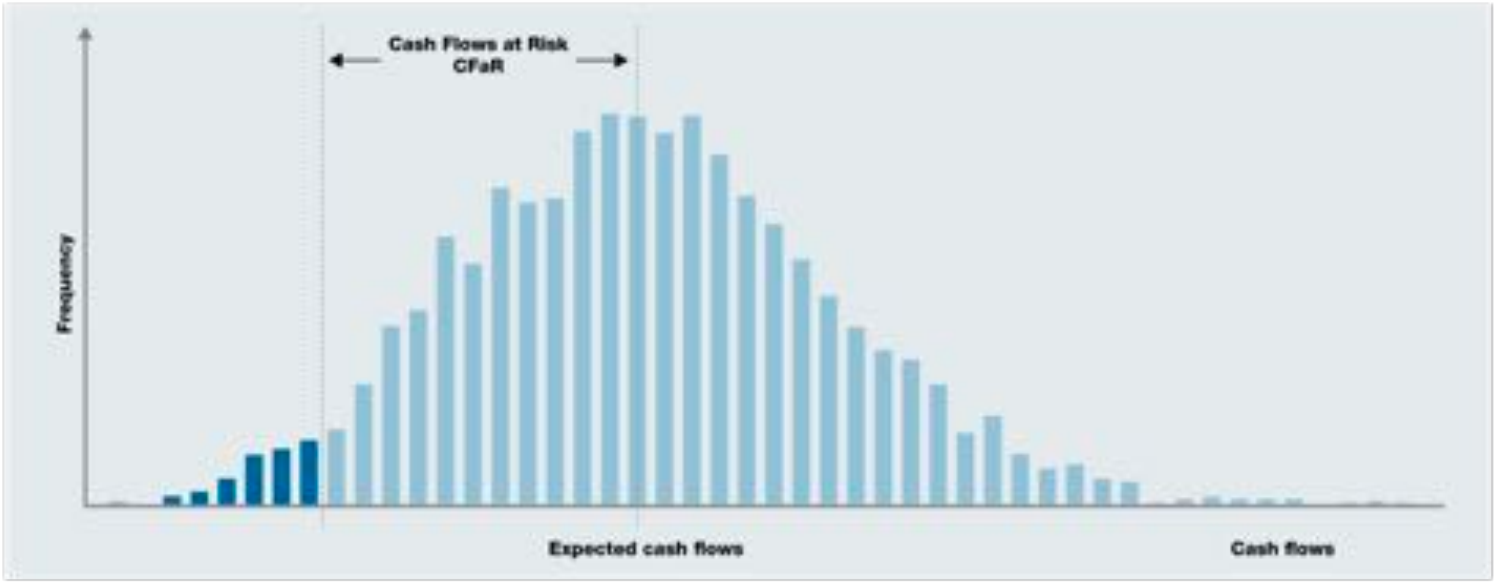


RISK = IMPACT * LIKELIHOOD



Likelihood	Insignificant *damage equal to € 500 k*	Minor *damage equal to € 1 M*	Moderate *damage equal to € 5 M*	Major *damage equal to € 15 M*	Catastrophic *damage equal to € 30 M*
99,0%	€ 495,0 K	€ 990,0 K	€ 4,95 M	€ 14,85 M	€ 29,7 M
80,0%	€ 400,0 K	€ 800,0 K	€ 4,0 M	€ 12,0 M	€ 24,0 M
50,0%	€ 250,0 K	€ 500,0 K	€ 2,5 M	€ 7,5 M	€ 15,0 M
15,0%	€ 75,0 K	€ 150,0 K	€ 750,0 K	€ 2,25 M	€ 4,5 M
5,0%	€ 25,0 K	€ 50,0 K	€ 250,0 K	€ 750,0 K	€1,5 M

CASH FLOW AT RISK

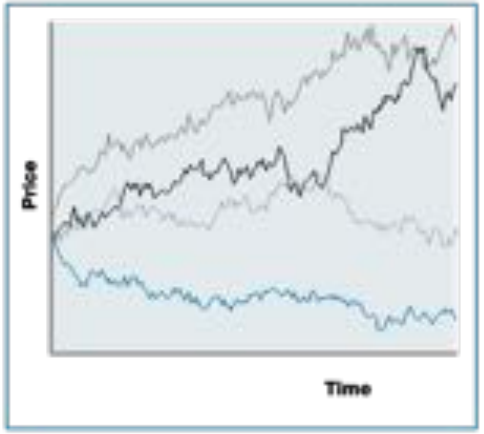


Exposure book

$ million

	Metal	US$	Cdn$	Natural gas
Revenues	500	200	20	
Input costs	200	200		75
Labor costs		100	60	
Derivatives	30	0	50	75

Volatility modeling



Correlation matrix

	Correlation, %				
	Metal	US$ / Cdn$	US$ / g	US$ / Au$	Natural gas
Metal	100	0	0	0	0
US$ / Cdn$		100	18	60	0
US$ / e			100	41	0
US$ / Au$				100	0
Natural gas					100

Source: McKinsey analysis

ASSET ACQUISITION SYSTEM

«A second common strategic boundary system in many organizations is the asset acquisition system (capital budgeting system).
In the most basic sense, virtually all asset acquisition systems specify a minimum rate of return or discount rate that should be used by individuals when proposing asset acquisitions. Because senior management cannot foresee all the opportunities available to the firm, senior managers reviewing asset acquisition proposals set a lower limit on acceptable proposals and motivate organizational participants to search for the best possible asset utilization opportunities within the boundary conditions. The effect is to say, "I will not tell you what opportunities to sponsor. Find the best opportunities out there and present them to us, but do not consider proposals with an ROI less than 15 percent."
The hurdle rate sets minimum boundaries.»

SOURCE: SIMONS, LEVERS OF CONTROL

ASSET ACQUISITION SYSTEM

«An asset allocation system is the set of formal routines and procedures designed to process and evaluate requests to acquire new assets.

It is sometimes known as a capital budget or capital investment plan.

These systems, like the profit plans to which they are linked, typically work on a calendar cycle—that is, formal proposals for asset acquisitions are created once a year. The timing of this process is designed to ensure that proposals are formally evaluated and approved prior to actually committing to spend any money».

SOURCE: SIMONS, Designing Asset Allocation Systems

BENEFITS OF ASSET ACQUISITION SYSTEM

«Asset allocation systems provide a number of benefits.

- First, they provide a framework and set of categories into which asset proposals can be grouped. [...] Sorting asset acquisition proposals into different buckets forces managers to be explicit about the type of value that they expect the asset to provide and the economic viability of the proposal.
- Second, asset allocation systems include analytic tools that can be tailored to different types of assets. [...]With proposals sorted into the correct bucket, decision makers can apply different decision tools to each category.
- Finally, and most importantly, asset allocation systems provide guidelines that help managers throughout the organization understand how their proposals relate to the strategy of the business. Acquiring assets often involves the analysis and judgment of several, if not many, people. These systems can be used to communicate what types of assets are needed (and not needed) to support new and ongoing strategic initiatives».

SOURCE: SIMONS, Designing Asset Allocation Systems

LIMITS ON THE DISCRETION

«Acquiring assets involves choice, and future options may become more limited after choices are made.

Because of the sometimes large sums of money involved, and the often irrevocable commitments, there are few other decisions in organizations in which decision making authority is so carefully prescribed.

Businesses invariably impose limits on the discretion of any individual manager to authorize or commit to the acquisition of assets. These limits are a function of span of control and position in the organizational hierarchy. The former affects the type of assets for which the manager has authority to commit; the latter affects the amount of money that a manager can commit».

SOURCE: SIMONS, Designing Asset Allocation Systems

ASSET ACQUISITION SYSTEM

- Payback Period (PBP)
- Discounted Payback Period (DPBP)
- Internal rate of return (IRR)
- Net present value (NPV)
- Modified Internal Rate of Return (MIRR)

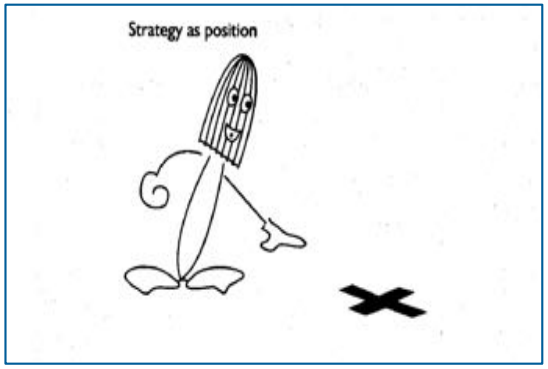
TIPICAL COMPONENTS

- Codes of Conduct
- Budgets (when used in order to assign resources and limit the level of expenses)
- Enterprise Risk Management Systems
- Assets Allocation Systems
- Strategic Boundary Systems

- Quality controls procedures
- Safety protection and accident prevention systems
- Administrative controls
- Purchasing procedures
- Separation of duties
- Work rules and other operational guidelines
- Policies regarding limits in the amount of expenses admissible at different hierarchical levels

BOUNDARY SYSTEMS

STRATEGY AS POSITION



[Another possible] definition is that strategy is a position– specifically, a **means of locating an organization in** what organization theorists like to call an **"environment."**
By this definition, strategy becomes the mediating force – or **"match,"** [...] – between organization and environment, that is, between the internal and the external context.

Henry Mintzberg, "The Strategy Concept I: Five Ps For Strategy"

KEY STRATEGIC VARIABLE ⇨ **RISK TO BE AVOIDED**

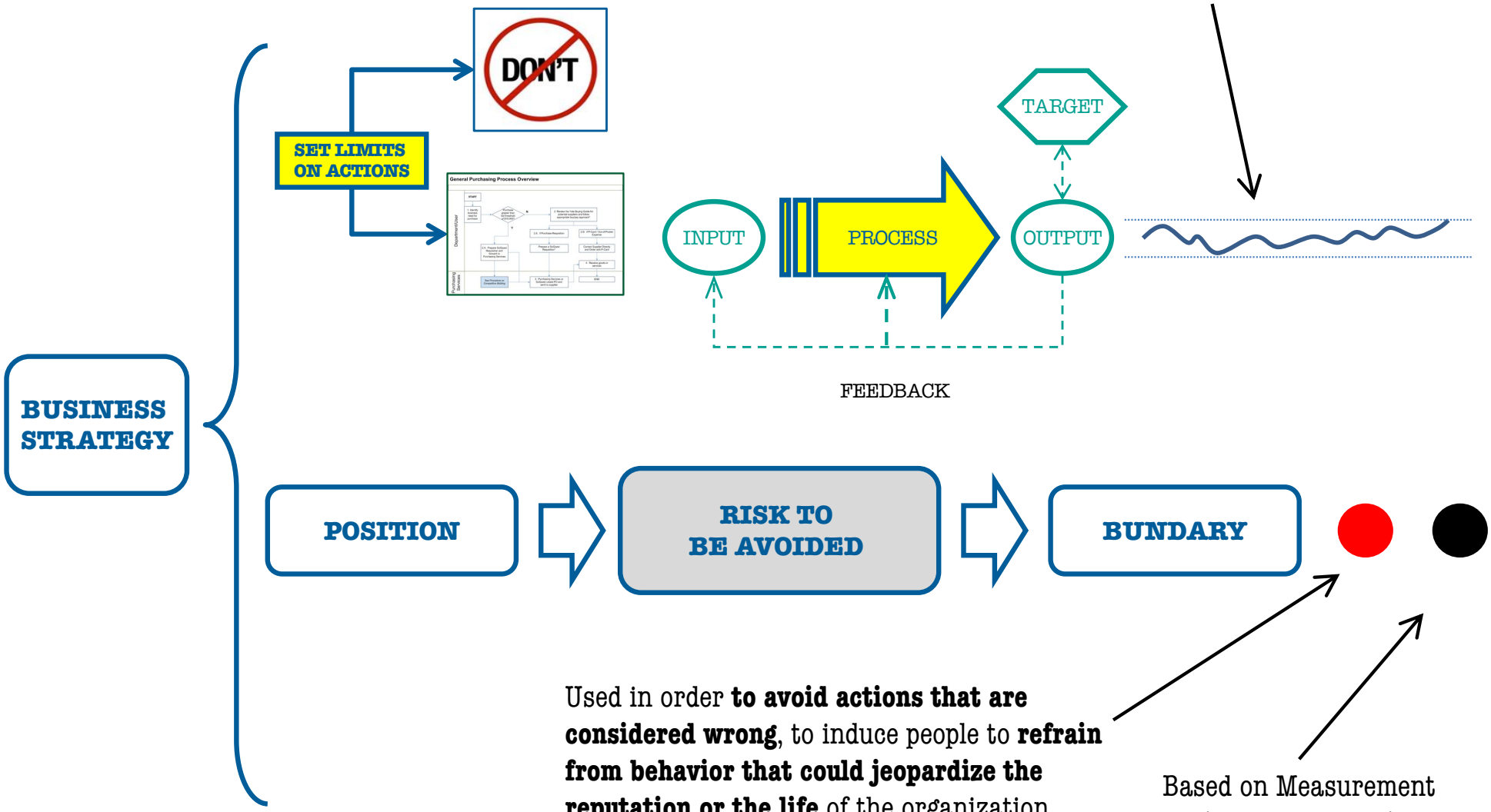
CONTROL SYSTEMS ⇨ **BOUNDARY**

Are used to delineate the acceptable domain of activity for organizational participants.
They establish limits, based on defined business risks, to opportunity-seeking.

Robert Simons, "Levers of control"

BUNDARY SISTEMS

Six Sigma (**6σ**) is a set of techniques and tools for process improvement. It was introduced by American engineer Bill Smith while working at Motorola in 1986.[1][2] Jack Welch made it central to his business strategy at General Electric in 1995. A six sigma process is one in which 99.99966% of all opportunities to produce some feature of a part are statistically expected to be free of defects.



CECKLIST SUMMARY OF LEVERS OF CONTROL

BOUNDARY SYSTEMS

WHAT	Formally stated rules, limits, and proscriptions tied to defined sanctions and credible threat of punishment
WHY	To allow individual creativity within defined limits of freedom
HOW	Codes of business conduct Strategic planning systems Asset acquisition systems Operational guidelines
WHEN	Business Conduct Boundaries: when reputation costs are high Strategic Boundaries: when excessive search and experimentation risk dissipating the resources of the firm
WHO	Senior managers formulate with the technical assistance of staff experts (e.g., lawyers) and personally mete out punishment Staff groups monitor compliance

LEVERS OF CONTROL – Control systems (2)

How Managers Use Innovative Control Systems to Drive Strategic Renewal

FIVE Ps FOR STRATEGY

THE IMPORTANCE OF MEASUREMENT

One of the basic element in the work of the manager is measurement.

The manager establishes targets and yardsticks—and few factors are as important to the performance of the organization and of every person in it.

He or she sees to it that each person has measurements available that are focused on the performance of the whole organization and that, at the same time, focus on the work of the individual.

The manager analyzes, appraises, and interprets performance.

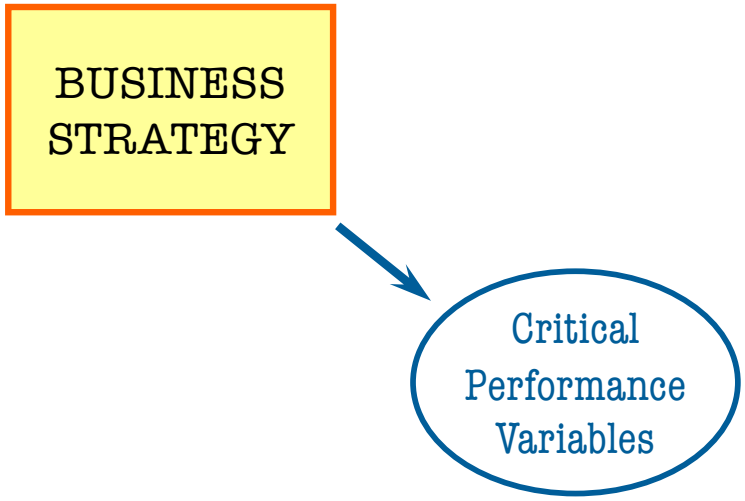
As in all other areas of this work, he or she communicates the meaning of the measurements and their findings to subordinates, superiors, and colleagues.

Peter F. Drucker, Management, revised edition

TOO MANY PURPOSES FOR JUST ONE TOOL?

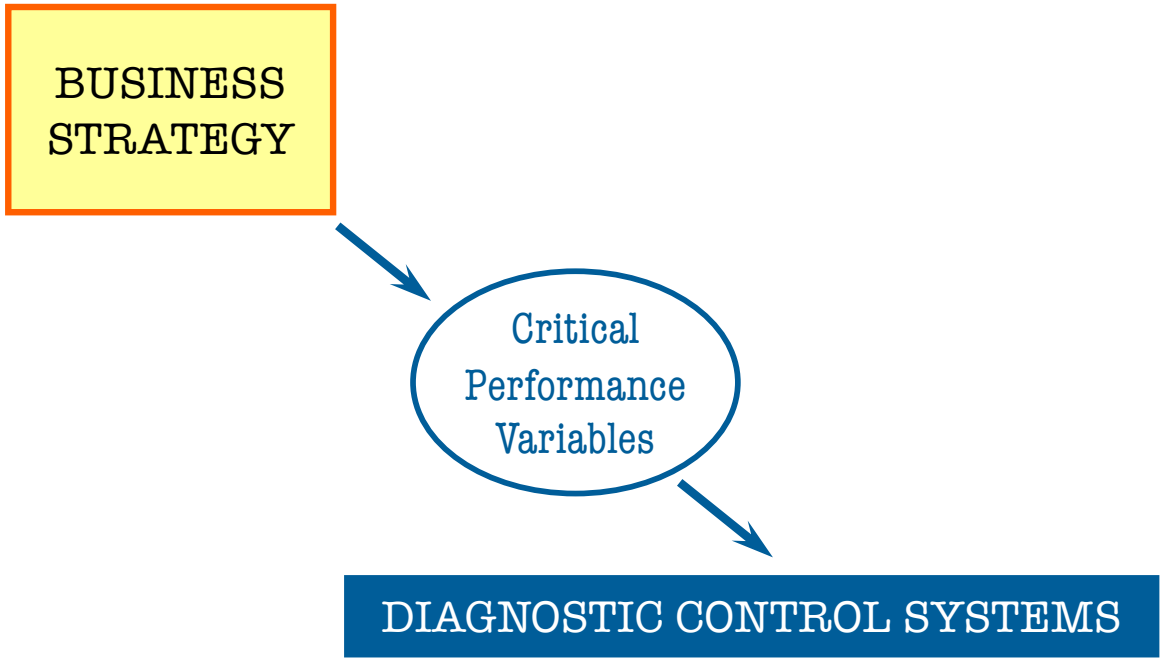
Source: Bjarte Bogsnes, Implementing Beyond Budgeting Unlocking the Performance Potential, Wiley, 2016.

ENSURING PREDICTABLE GOAL ACHIEVEMENT…



… WITH DIAGNOSTIC CONTROL SYSTEMS

Diagnostic Control Systems are used to motivate, monitor and reward achievement of specified goals.



MONTITOR AND CORRECT

«These feedback systems are the backbone of traditional management control and are designed to ensure predictable goal achievement.

What is powerful (and potentially dangerous) about these systems is the fact that managers pay little attention to them!

Diagnostic Control Systems are formal information systems that manager use to monitor organizational outcomes and correct deviations from preset standards of performance.»

Source: Robert Simons, "Levers of Control," HBS Press, 1995

UNDERLYING ORGANIZATIONAL PROCESSES

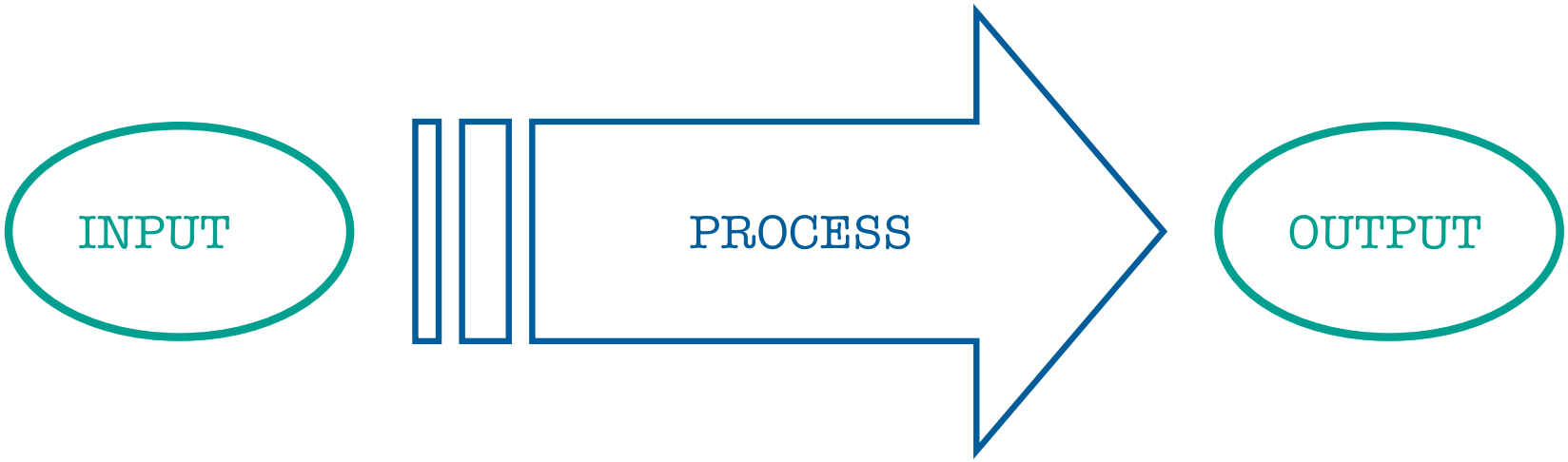
«Performance measurement and control information can be understood only by reference to some model of underlying organizational processes. In other words, managers must understand the process by which inputs are converted in outputs.

All organizational processes can be decomposed in

- Inputs such as information, material, energy, labor, and support services that are needed to create a product or service
- A transformation process which consumes these inputs to create or sustain something of value
- Output in the form of intermediate or final products or services».

Source: Robert Simons, "Strategy Execution Module 3: Using Information for Performance and Control", HBS Publishing, 2017

ORGANIZATIONAL PROCESS MODEL

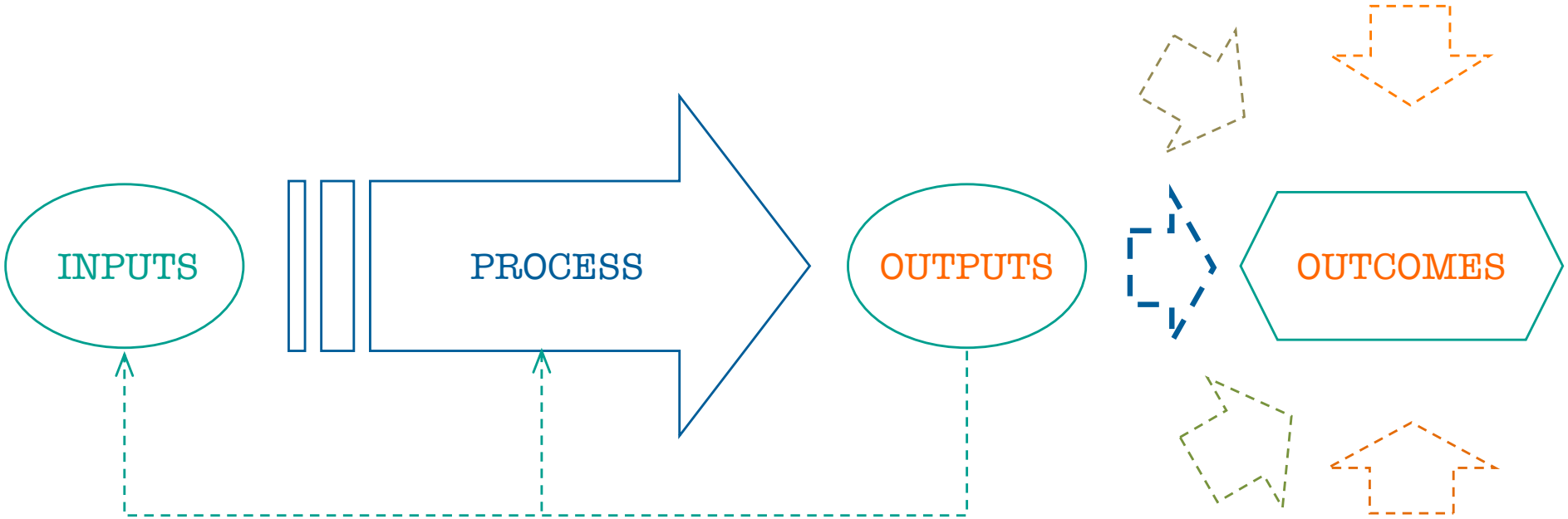


The input-process-output model is generic, so we can easily refer it to different entities: a machine, a factory, an individual worker, a team or the entire business. The principles are the same: absorb inputs, transform them through productive processes, and create outputs of value.

Managers are responsible for ensuring that:

- Inputs are appropriate to the task at hand and are adequate in quality and quantity,
- The transformation process is efficient, and
- The outputs meet specification.

OUTPUTS AND OUCOMES



OUTPUTS VS OUCOMES

OUTPUTS	OUCOMES
Cause	Effect
System-oriented	Context-oriented
Immediate effects	Intermediate and long-term effects
Descriptive	Normative
Easily measurable	Fuzzy and hard to measure

WHAT YOU MEASURE IS WHAT YOU GET

	INPUT MEASURES	PROCESS MEASURES	OUTPUT MEASURES
Non-Financial Measures for:			
(a) New Products	# of engineering hours	# of product delivery milestones achieved	# of new products introduced
(b) Order Processing	# of telephone answering staff	Order completion time	# of orders processed
(c) Parts Manufacture	# of components rejected	Set-up time	% of units meeting standard
Financial Measures for:			
(a) New Products	Labor and material $	$ cost of prototyping	% of sales $ from new products
(b) Order processing	Clerical labor $	$ cost of backorder handling	$ cost per order processed
(c) Parts Manufacture	$ cost of defective components	Set-up $ cost, cost of rework	$ cost per unit

MORE IS NEEDED TO GAIN CONTROL OVER A PROCESS

«For a manager to gain control over a process, however, knowledge about inputs, processes, and outputs is often not enough: he or she needs a standard or benchmark as a point of reference and a way of using the information obtained comparing outputs with standard to change the inputs or the process.

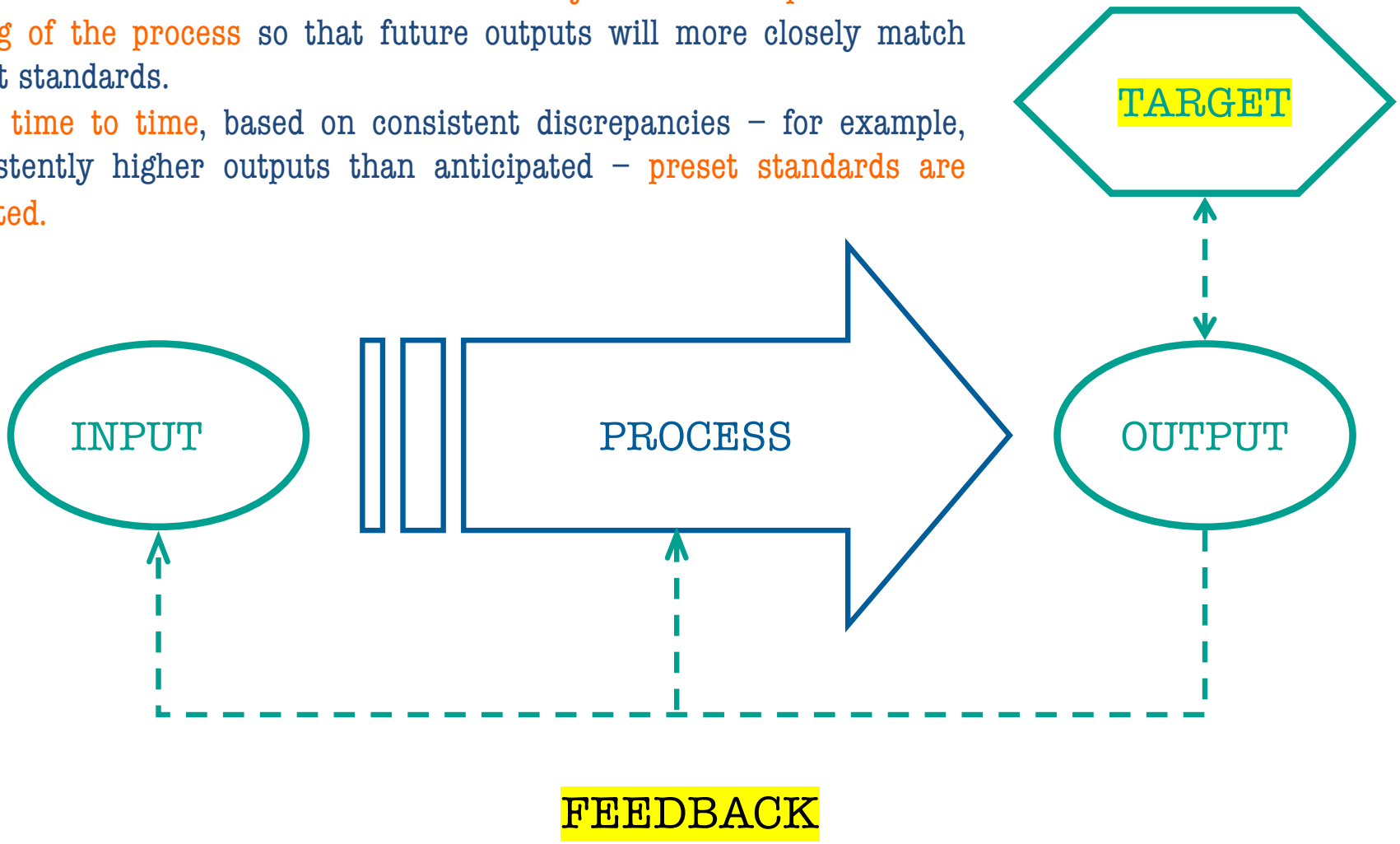
To gain control through a cybernetic process, therefore, we must add two additional ingredients beyond an understanding of inputs, processes, and outputs. We also must have

- A standard or benchmark against which to compare actual performance
- A feedback channel to allow information on variances to be acted upon».

Source: Robert Simons, "Strategy Execution Module 3: Using Information for Performance and Control", HBS Publishing, 2017

STANDARD AND FEEDBACK

The quantity and quality of outputs are measured periodically and compared against preset standards.
Feedback of variance information allows adjustment of inputs or fine tuning of the process so that future outputs will more closely match preset standards.
From time to time, based on consistent discrepancies – for example, consistently higher outputs than anticipated – preset standards are adjusted.



OUTPUT STANDARDS OR BENCHMARKS

«An output standard or benchmark is a formal representation of performance expectations. Ex ante performance standards may be created by reference to efficiency or effectiveness criteria for any miserable data.

With pre-set standards at hand, a manager can assess how well inputs have been transformed in output during a specific periods.

If actual outputs is higher than the benchmark the comparison indicates either a high level of effort (relative to past experience) or an unusually efficient process.

A shortfall will cause the manager to investigate further to understand the reasons».

Source: Robert Simons, "Strategy Execution Module 3: Using Information for Performance and Control", HBS Publishing, 2017

FEEDBACK MECHANISM

«However, having a performance standard or benchmark is, in itself, not sufficient.

There must be a way of using the data – comparing outputs with standards and using the resulting variance information to change the input or the process to ensure that the performance standards will be met in the future. Thus, the second ingredient is a feedback channel with an understanding of how adjustment of inputs and processes are likely to influence outcome.

Feedback is the return of variance information from the output of a process to the inputs or the process stage so that the adjustment can be made to maintain desired level of performance or control the stability of a process.

Feedback information – the backbone of performance measurement and control systems – can be used in many ways. ».

Source: Robert Simons, "Strategy Execution Module 3: Using Information for Performance and Control", HBS Publishing, 2017

TWO POPULAR ANALOGIES

«The thermostat in a home is a popular analogy for a diagnostic control system. The thermostat regulates air temperature by turning a furnace on and off, based on continual comparisons of actual air temperature with a preset standard.

The gauges in the cockpit of an airplane serve a diagnostic control function, feeding variance information to the pilot who continually scans for signs of abnormal functioning and adjusts airplane controls to keep critical variables within preset limits.»

CYBERNETIC CONTROL SYSTEMS

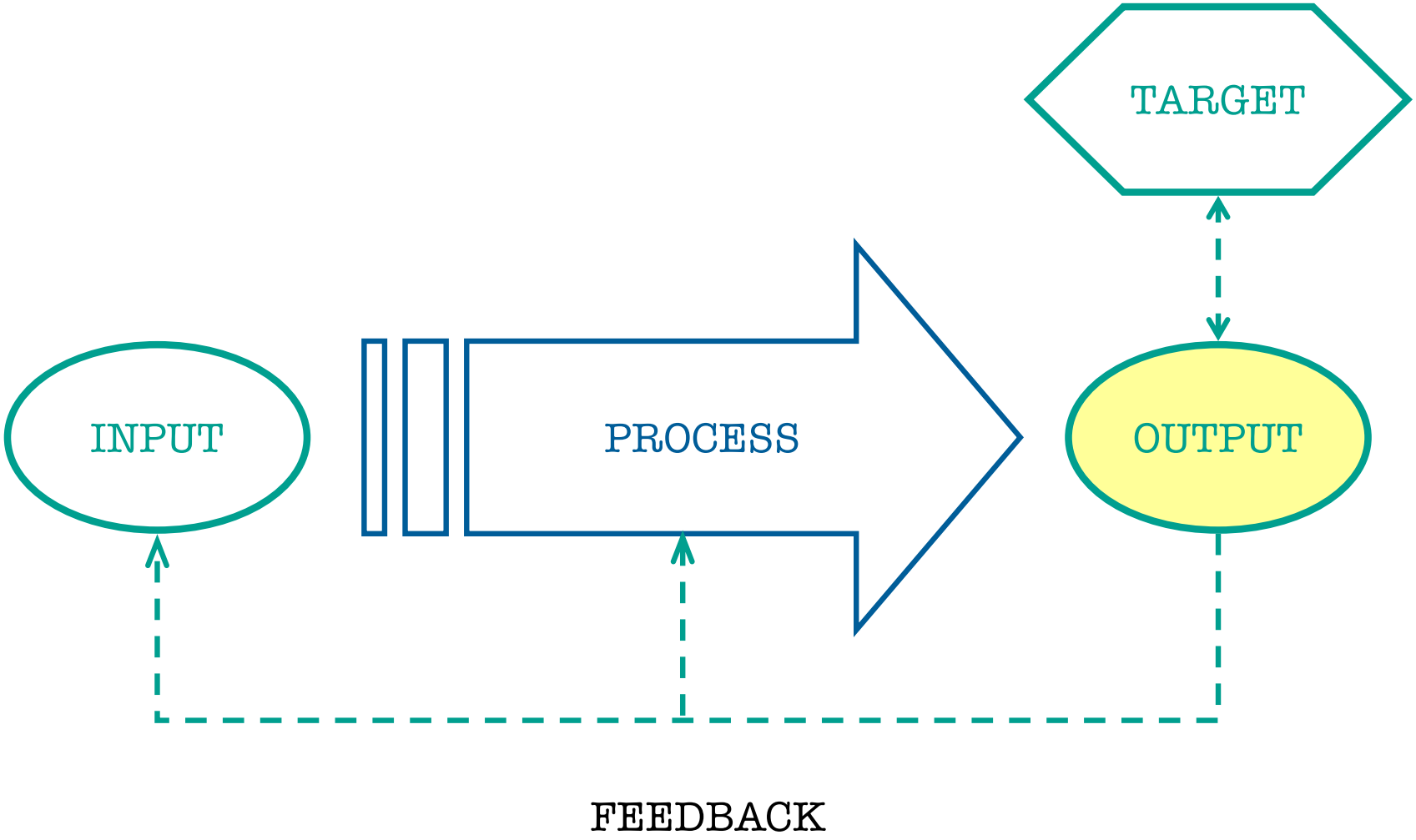
«A system is operating with inputs being subjected to a process that transforms them into outputs.

It is this system that we wish to control. In order to do so, we must monitor the system output. This function is performed by sensors that measure one or more aspects of the output, presumably those aspects one wishes to control. Measurements taken by a sensor are transmitted to the comparator, which compares them with a set of predetermined standards.

The difference between actual and standard is sent to the decision maker, which determines whether or not the difference is of sufficient size to deserve correction. If the difference is large enough to warrant action, a signal is sent to the effector, which acts on the process or on the inputs to produce outputs that conform more closely to the standard.»

SOURCE: MEREDITH & MANTEL, POJECT MANAGEMENT

OUTPUT CONTROL



CONTROL OF RESULTS (MERCHANT)

«Control can also be accomplished by focusing on results: this type of control comes in only one basic form, results accountability, which involves holding employees responsible for certain results.

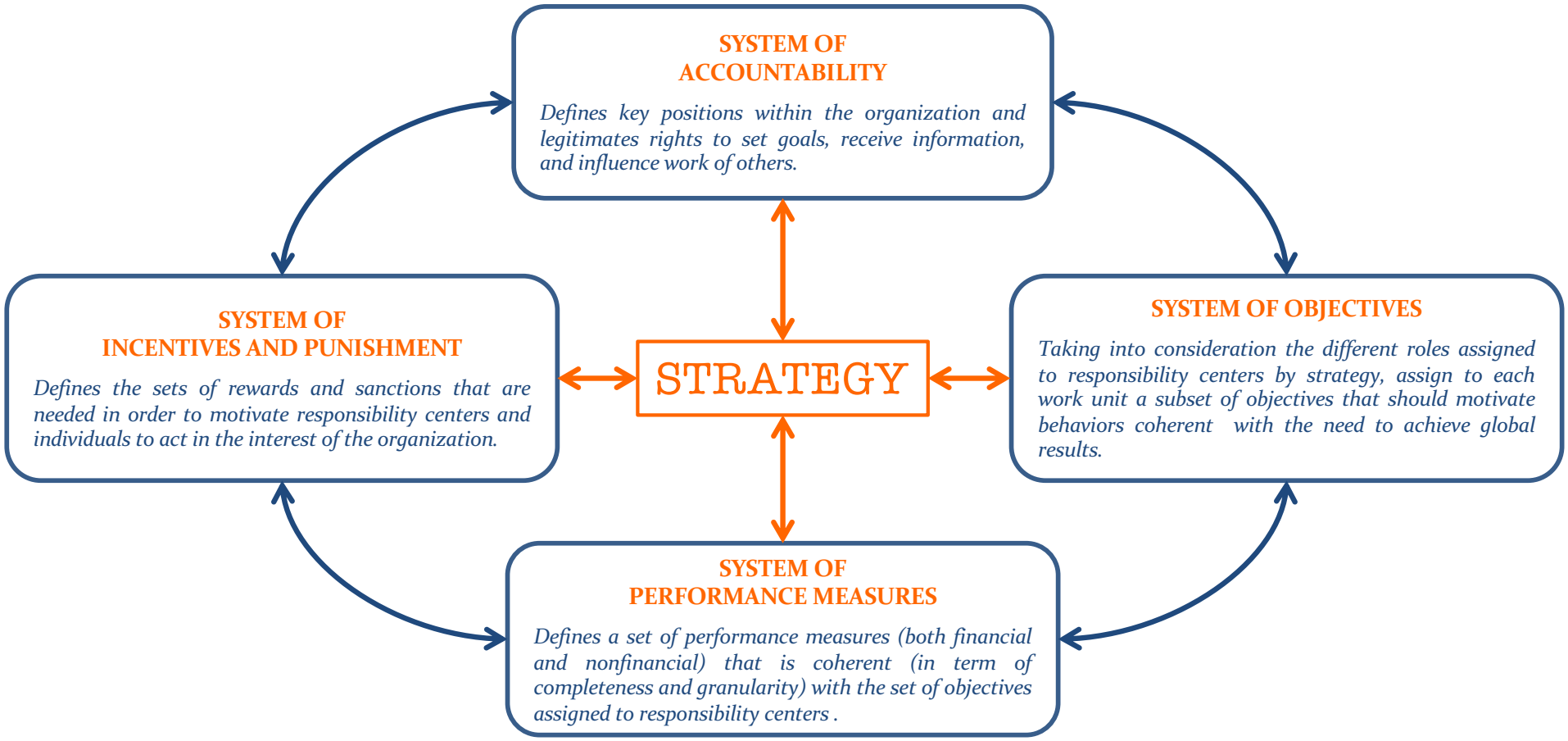
Use of results-accountability control systems requires:

- defining the dimensions along which results are desired, such as efficiency, quality, and service;
- measuring performance on these dimensions; and
- providing rewards (punishments) to encourage (discourage) behavior that will lead (not lead) to those results.

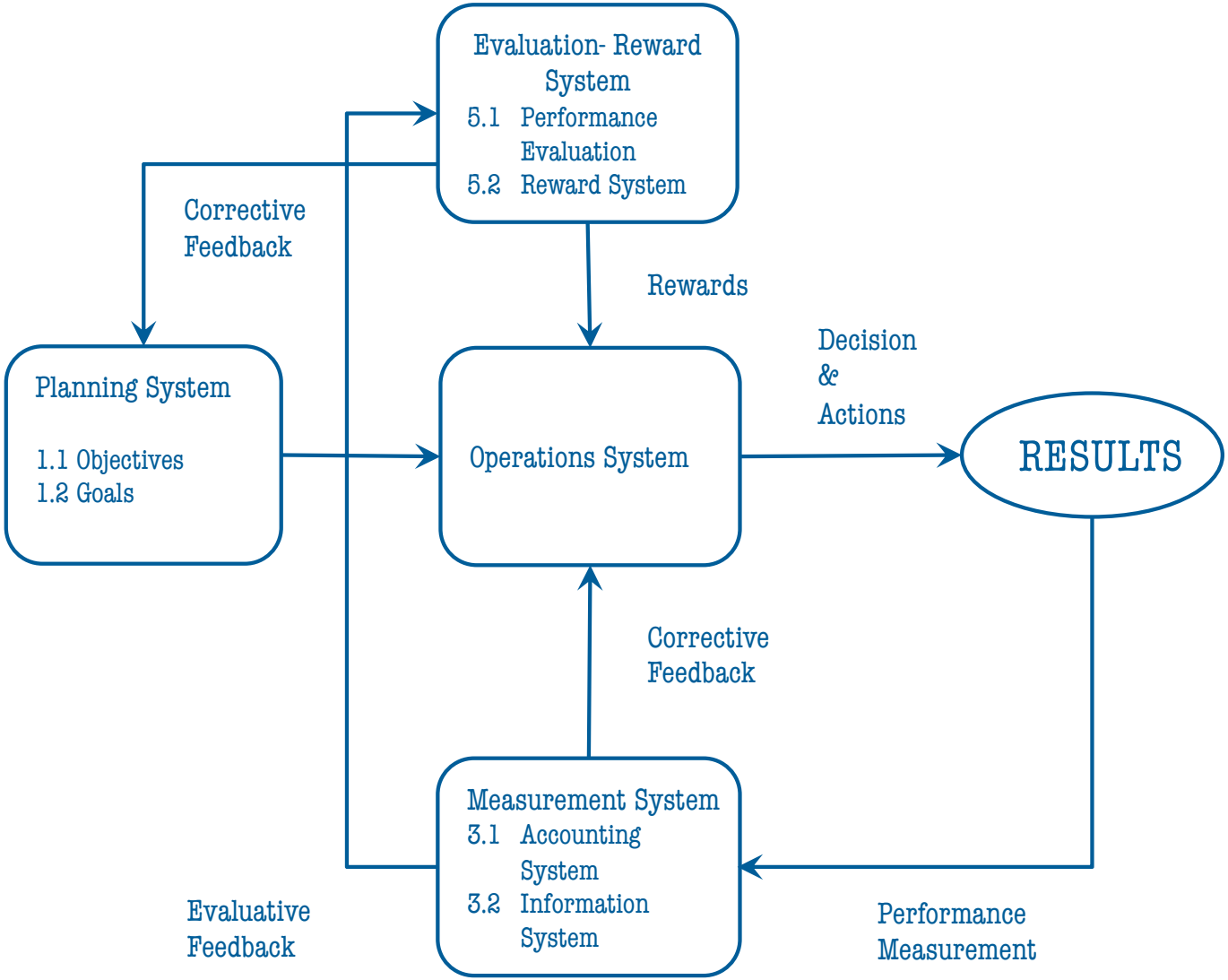
Results-accountability systems are future oriented; they attempt to motivate people to behave appropriately. But they are effective only if employees feel that their individual efforts will be noticed and rewarded in some significant way».

SOURCE: Kenneth A. Merchant, "The Control Function of Management"

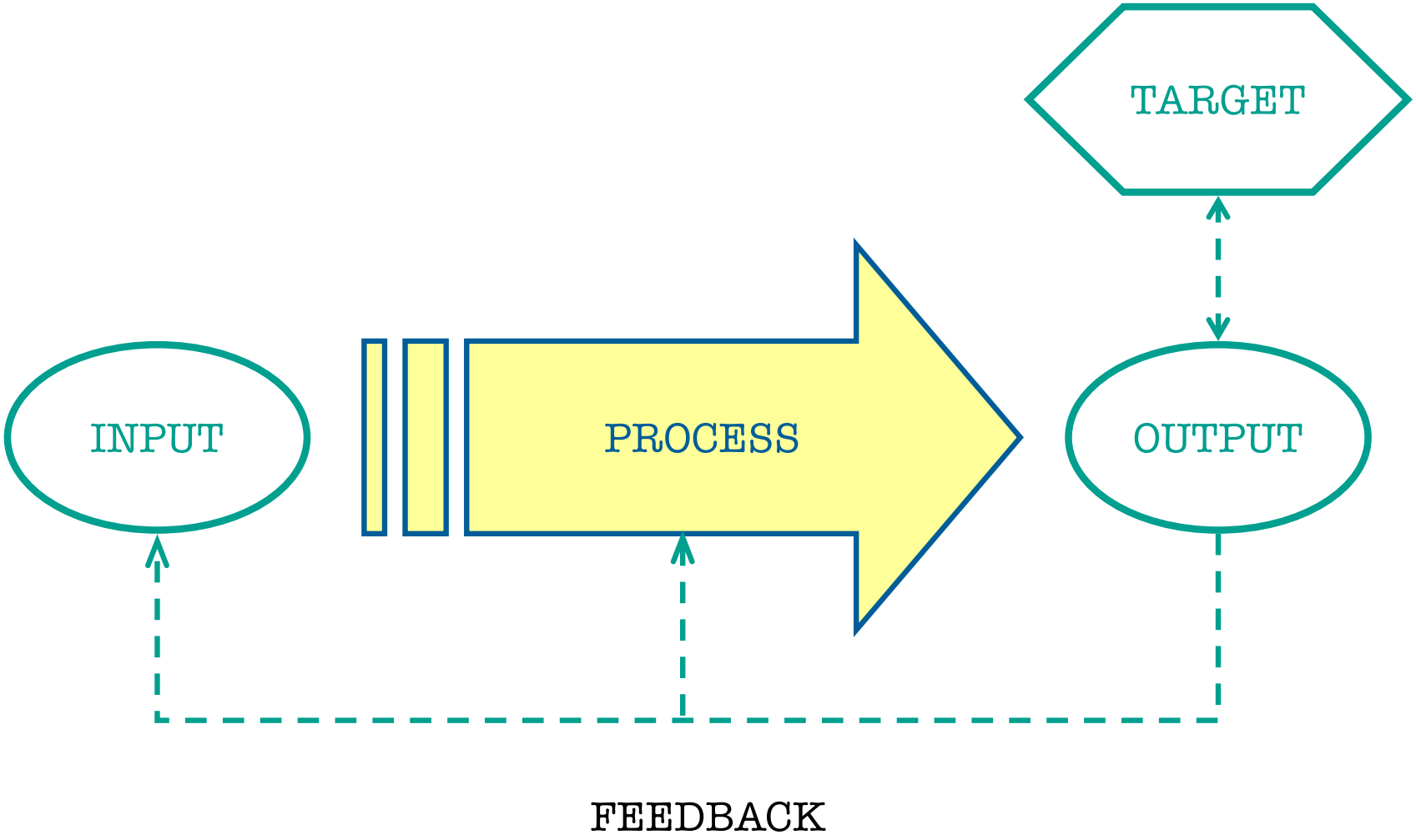
FEEDBACK WITHIN ORGANIZATIONS



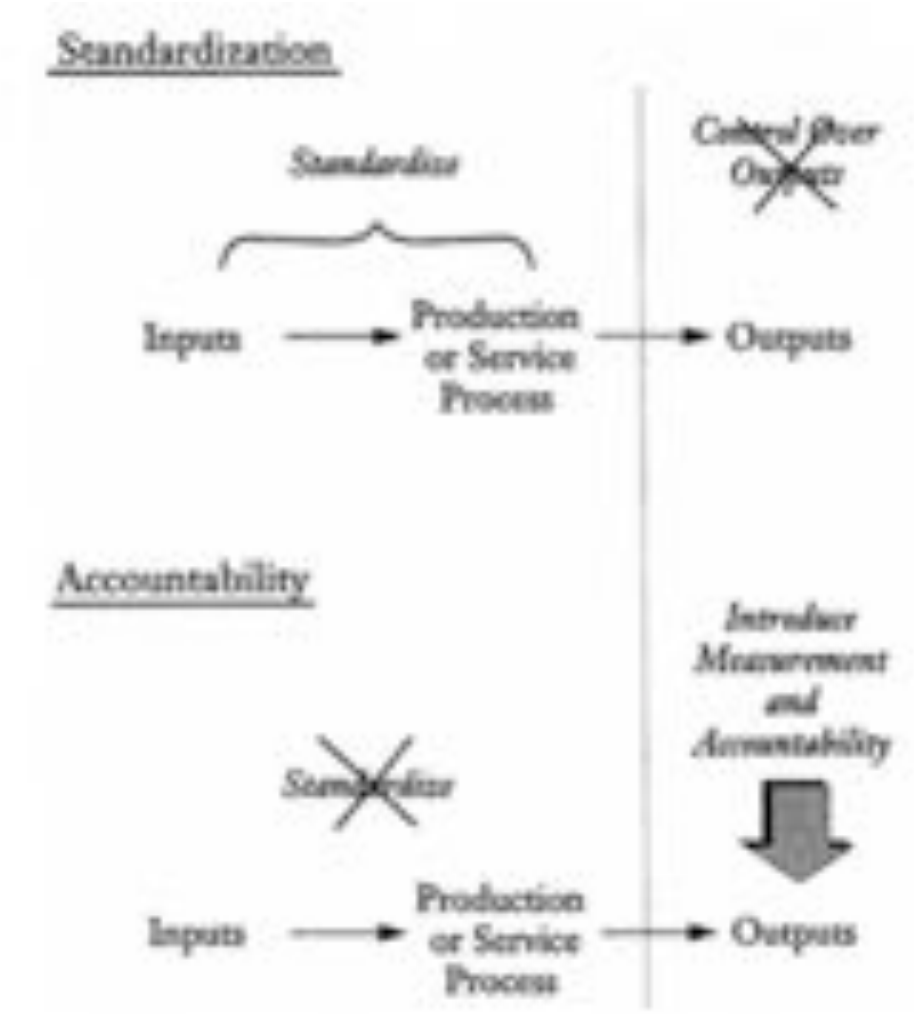
SCHEMATIC MODEL OF THE CORE CONTROL SYSTEM



PROCESS STANDARDIZATION

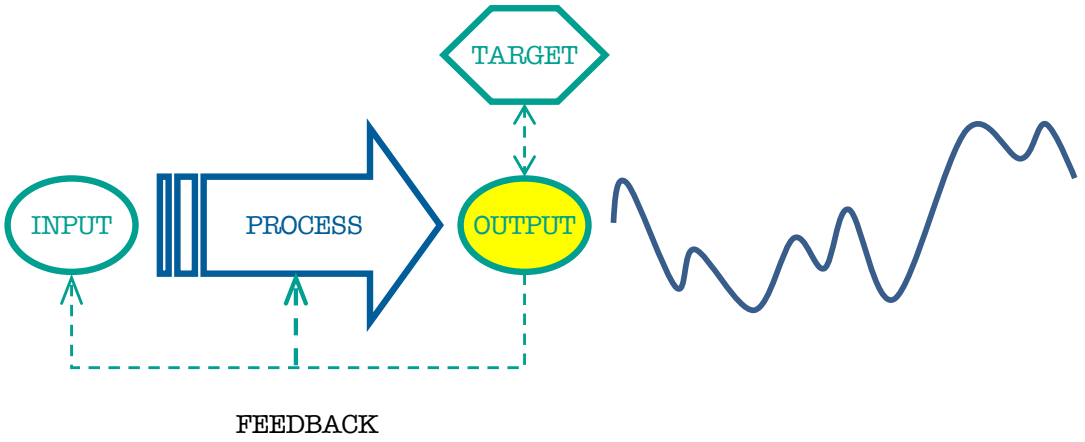


ALTERNATIVE APPROACHES TO CONTROL

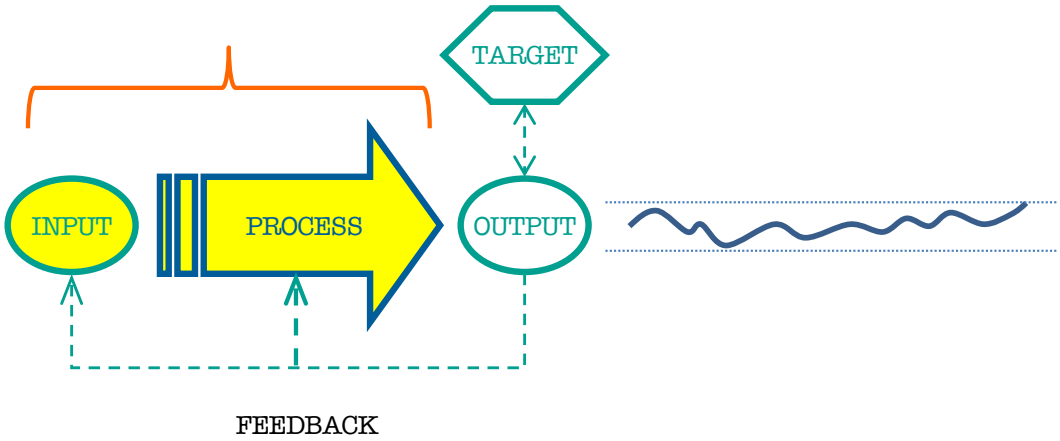


ACCOUNTABILITY VS STANDARDIZATION

ACCOUNTABILITY



STANDARDIZATION



PROCESS STANDARDIZATION

«If no variation in the transformation process is desired standard operating procedures can specify how every action should be performed.

Control is then achieved by telling people how to do their jobs and ensuring that they follow instructions.

Standardization is designed to minimize individual creativity and resultant error.

Standard operating procedures are used when:

1. standardization achieves efficiencies (assembly line)
2. the risk of theft of valuable assets is high (bank)
3. quality and safety are essential to product performance (nuclear power plant)».

Source: Robert Simons, "Levers of Control," HBS Press, 1995

CONTROL OF SPECIFIC ACTIONS (MERCHANT)

«Specific-action control attempts to ensure that individuals perform (or do not perform) certain actions that are known to be desirable (or undesirable).

There are three different modes to implement this kind of controls:

- Behavioral Constraints
  - Physical (e.g., locks, security guards)
  - Administrative (e.g., separation of duties)
- Action Accountability
  - Work rules
  - Policies and procedures
  - Codes of conduct
- Preaction Review
  - Direct supervision
  - Approval limits
  - Budget reviews

SOURCE: Kenneth A. Merchant, "The Control Function of Management"

1) BEHAVIORAL CONSTRAINTS

«Management can limit the incidence of some types of obviously undesirable activity by using behavioral constraints that render the occurrence impossible, or at least unlikely.

These constraints include physical devices, such as locks and key-personnel identification systems, and administrative constraints, such as segregation of duties, which make it very difficult for one person to carry out an improper act».

SOURCE: Kenneth A. Merchant, "The Control Function of Management"

2) ACTION ACCOUNTABILITY

«A second type of specific-action control is action accountability – a type of feedback control system by which employees are held accountable for their actions.

The implementation of these systems requires:

(1) defining the limits of acceptable behavior, as is done in procedures manuals;

(2) tracking the behaviors that employees are actually engaged in; and

(3) rewarding or punishing deviations from the defined limits».

Although action-accountability systems involve the tracking and reporting of actual behaviors, their objective is to motivate employees to behave appropriately in the future.

These systems are effective only if employees understand what is required of them, and they feel that their individual actions will be noticed and rewarded or punished in some significant way».

SOURCE: Kenneth A. Merchant, "The Control Function of Management"

3) PREACTION REVIEW

«A third type of specific-action control is preaction review. This involves observing the work of others before the activity is complete, for example, through direct supervision, formal planning reviews, and approvals on proposals for expenditures.

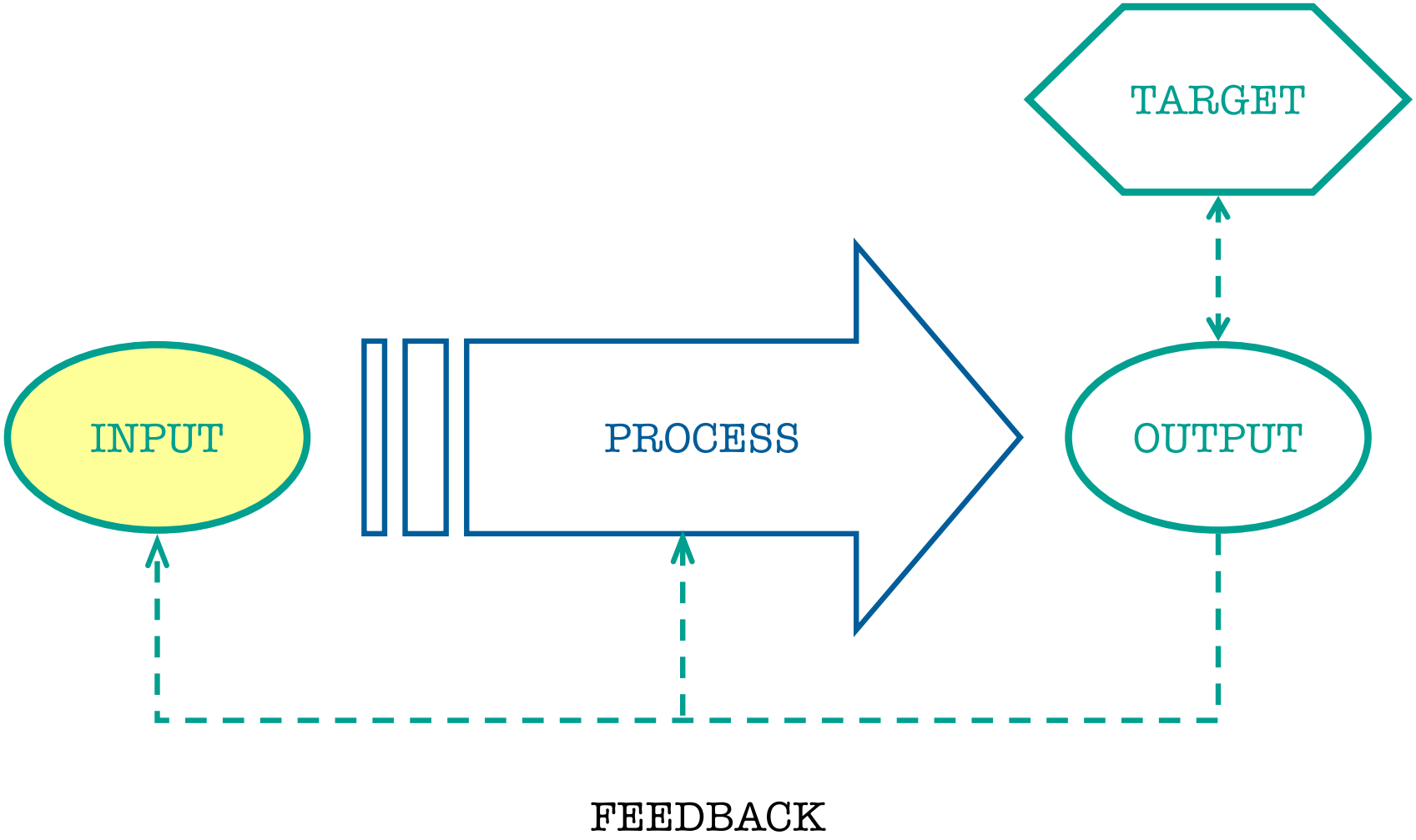
Reviews can provide effective control in several ways by:

- correcting potentially harmful behavior before the full damaging effects are felt; or
- influencing behavior just by the threat of an impending review, such as causing extra care in the preparation of an expenditure proposal.

One advantage of reviews is that they can be used even when it is not possible to define exactly what is expected prior to the review».

SOURCE: Kenneth A. Merchant, "The Control Function of Management"

INPUT CONTROL



WHEN ALL ELSE FAILS

«In rare circumstances, it may not be possible to obtain reliable information on either process or outputs. Processes may be poorly understood or unobservable. Outputs may be ill-defined or created at remote locations that are non easily susceptible of information gathering and oversight. In these cases, a manager must rely on other – mostly informal means of control.

In these rare instances, managers have no choice but to rely on control of inputs, coupled with a high degree of training and indoctrination.

Employees must be carefully selected, trained, and indoctrinated with the values and the objectives of the organization».

INPUT CONTROL

«Managers can control output through the careful selections of inputs.

Selecting fine diamonds ensures high-quality rings.

Carefully selecting and training individual workers can provide assurance that tasks will be performed in the desired way.

In rare situation in which it is impossible to monitor either the work process and the outputs directly, selections and training of workers are the only viable means of control.

In these circumstances, however, the selections of new recruits and the indoctrination of organizational mission, goals, and work methods consumes much of the organization's energy.»

Source: Robert Simons, "Levers of Control," HBS Press, 1995

PERSONNEL CONTROL (MERCHANT)

«A third type of control can be called personnel control because it emphasizes a reliance on the personnel involved to do what is best for the organization, and it provides assistance for them as necessary.

Personnel controls can be very effective by themselves in some situations, such as in a small family business or in a professional partnership, because the underlying causes of the needs for controls (personal limitations and lack of goal congruence) are minimal ».

SOURCE: Kenneth A. Merchant, "The Control Function of Management"

PERSONNEL CONTROL

«Even when control problems are present, they can be reduced to some extent by:

- upgrading the capabilities of personnel in key positions, such as tightening hiring policies, implementing training programs, or improving job assignments;
- improving communications to help individuals know and understand their roles better and how they can best coordinate their efforts with those of other groups in the organization, and
- encouraging peer (or subordinate) control by establishing cohesive work groups with shared goals».

SOURCE: Kenneth A. Merchant, "The Control Function of Management"

A CONTROL TOOL CLASSIFICATION FRAMEWORK

PERSONNEL

- **Upgrade Capabilities**
  - Selections
  - Training
  - Assignment
- **Improve Communication**
  - Clarify expectation
  - Provide information for coordination
- **Encourage Peer Control**
  - Work groups
  - Shared goals

SPECIFIC ACTIONS

- **Behavioral Constraints**
  - Physical (e.g., locks, security guards)
  - Administrative (e.g., separation of duties)
- **Action Accountability**
  - Work rules
  - Policies and procedures
  - Codes of conduct
- **Preaction Review**
  - Direct supervision
  - Approval limits
  - Budget reviews

RESULTS

- **Results Accountability**
  - Standards
  - Budgets
  - Management by Objective (MBO)

SOURCE: Kenneth A. Merchant, "The Control Function of Management"

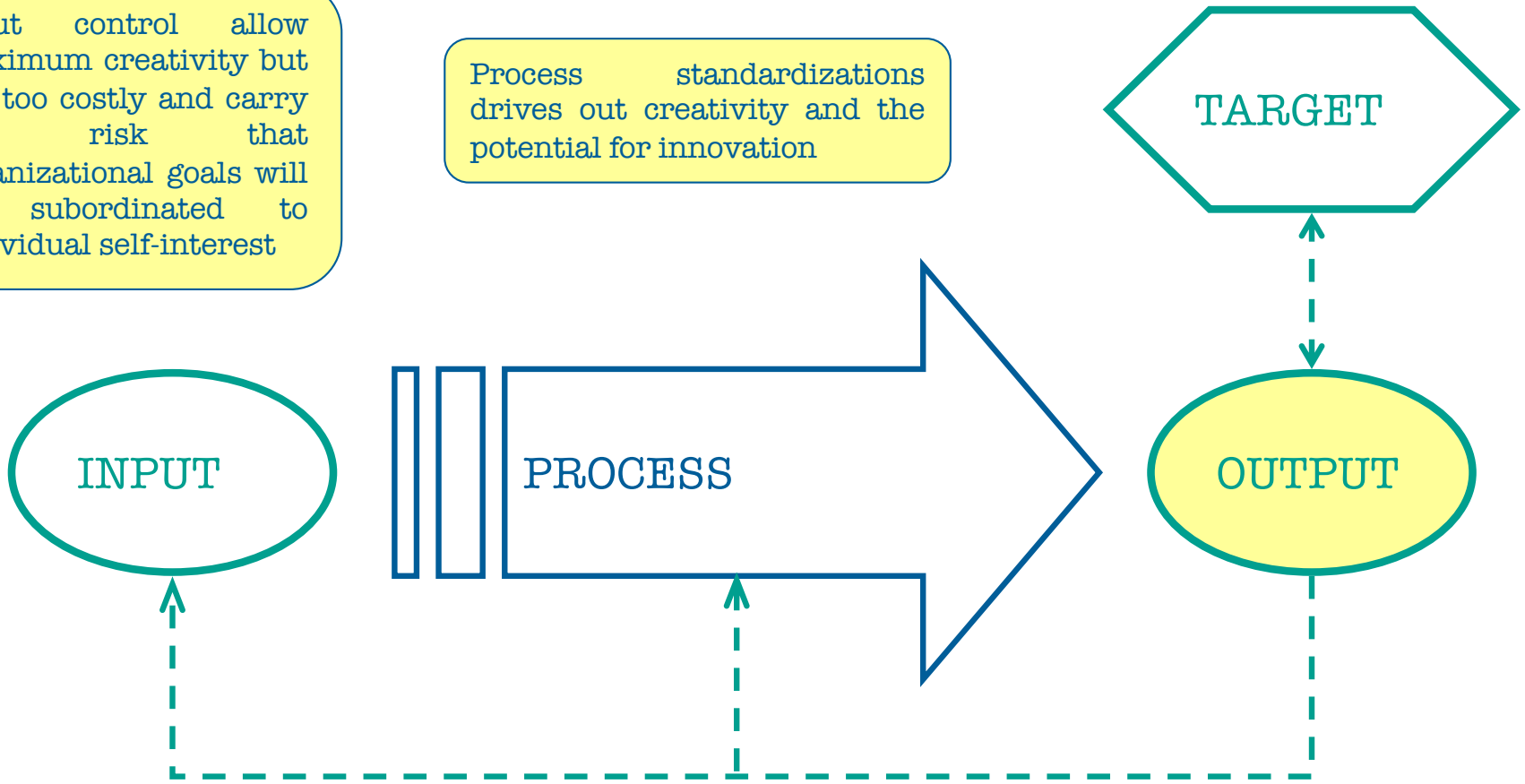
THE CHOICE OF WHAT TO CONTROL

CONTROL INPUTS WHEN:	CONTROL PROCESSES WHEN:	CONTROL OUTPUTS WHEN:
• It is impossible to monitor processes or outputs (i.e., monitor inputs as a last resort)	• Processes can be observed and/or measured	• Outputs can be observed and/or measured
• Cost of input is high relative to value of outputs (e.g. precious metals in computer chips)	• Cost of measuring/monitoring process is low	• Cost of measuring/monitoring outputs is low
• Quality and/or safety is important	• Standardization is critical for safety and/or quality	
	• Cause-and-effect relationships are understood	• Cause-and-effect relationships may not be well understood
	• Proprietary processes or process enhancements can result in strategic advantage	• Freedom to innovate is desired

CONTROLLING OUTPUTS

Input control allow maximum creativity but are too costly and carry the risk that organizational goals will be subordinated to individual self-interest

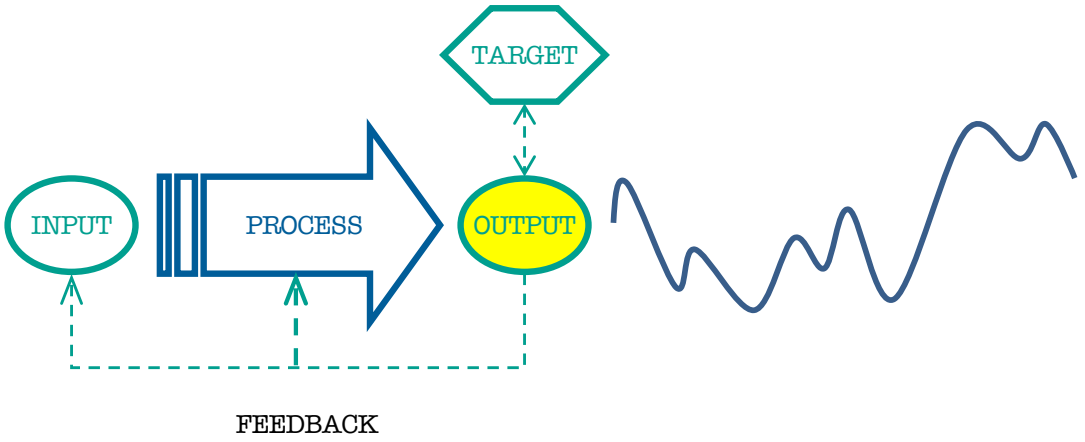
Process standardizations drives out creativity and the potential for innovation



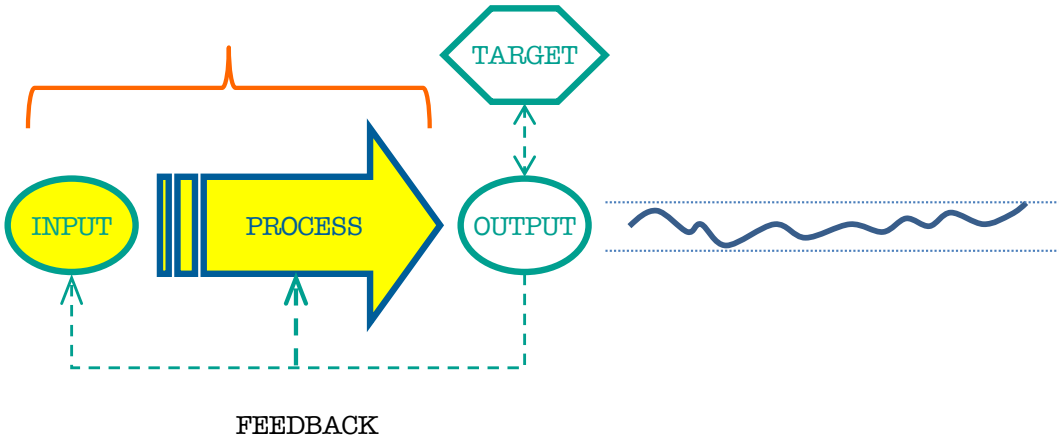
In business organizations neither input controls nor process standardization are viable alternatives for diagnostic management systems!

ACCOUNTABILITY VS STANDARDIZATION

ACCOUNTABILITY



STANDARDIZATION



FEATURES OF DIAGNOSTIC MEASURES

Three features distinguish diagnostic control systems:

1. the ability to measure the outputs of a process,
2. the existence of predetermined standards against which actual results can be compared, and
3. the ability to correct deviations from standards»

SOURCE: SIMONS, LEVERS OF CONTROL

WHAT IS A MEASURE?

WHAT IS A MEASURE?

Important advice:

In order to be able to save your life you must move yourself exactly **35,5 gnugni** northwards.

CHARACTERISTIC OF DIAGNOSTIC MEASURES

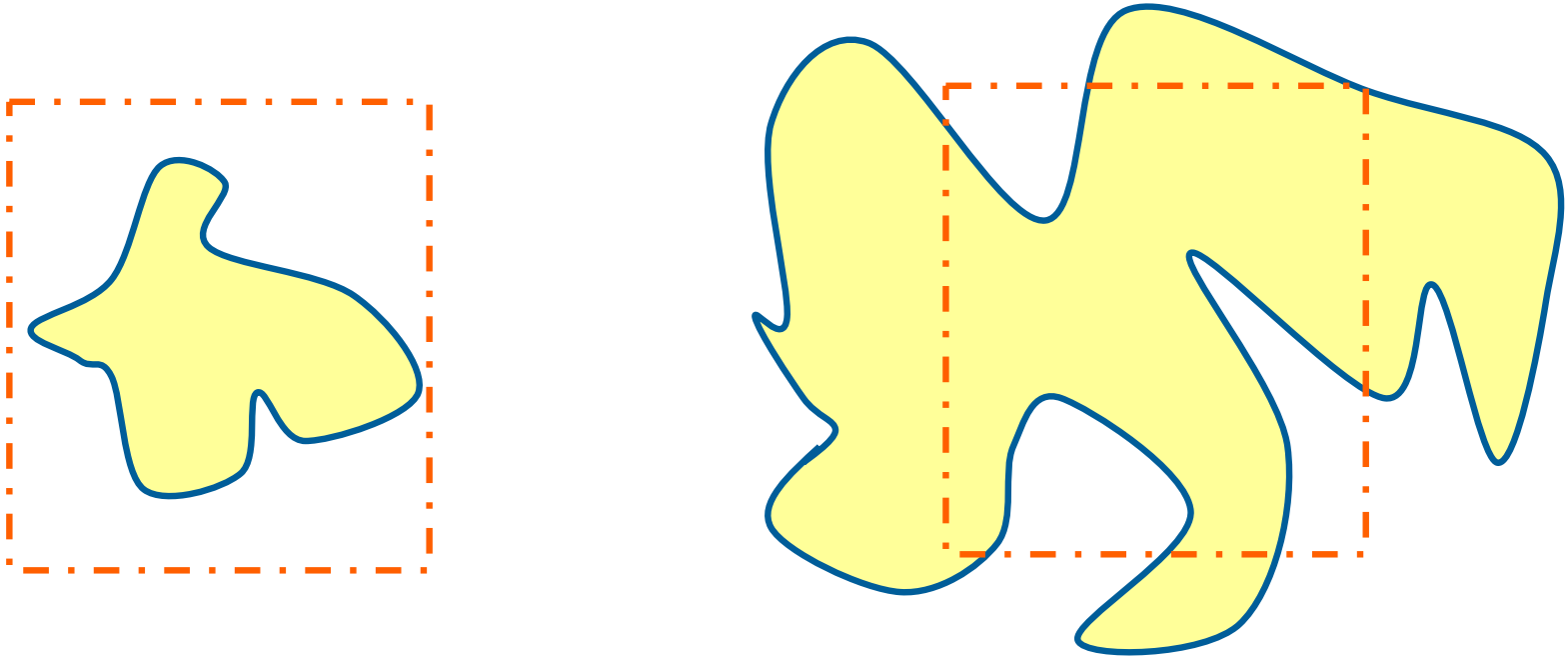
«Ideally, diagnostic control measures should be objective, complete, and responsive.

A measure is:

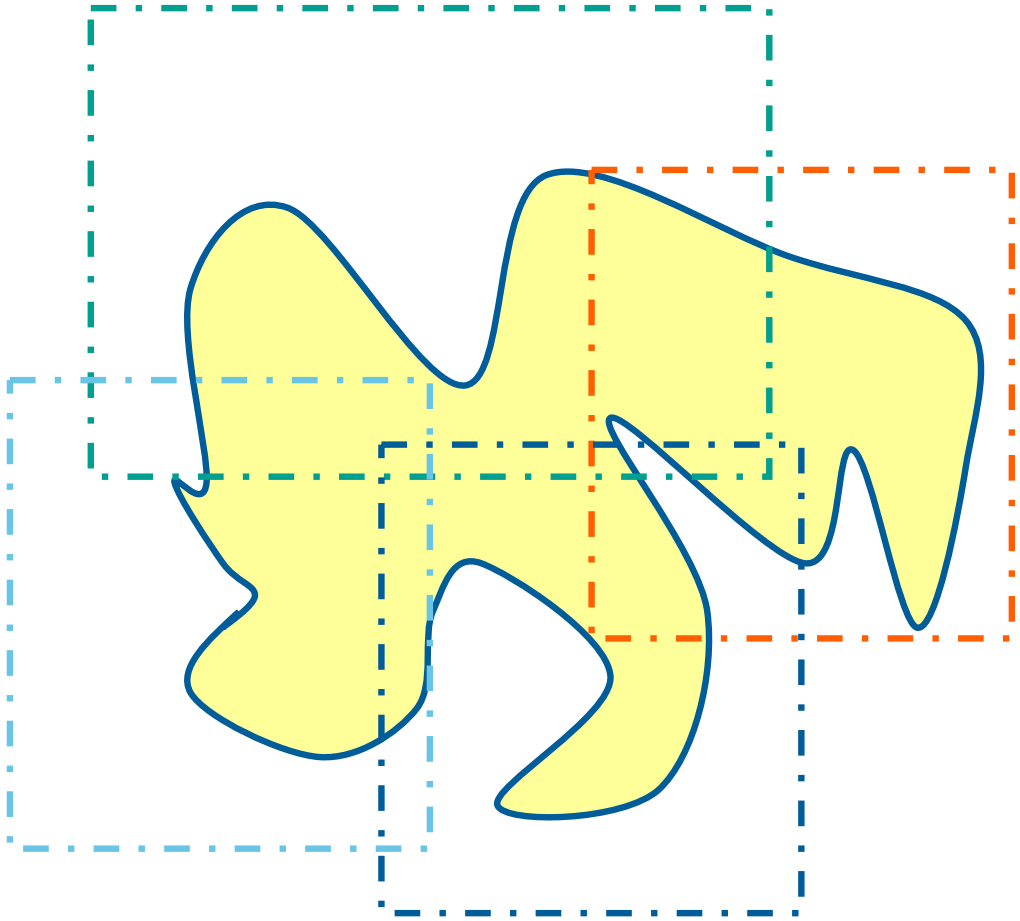
1. objective when it is independently verifiable;
2. complete when it captures all relevant actions or behaviors; and
3. responsive when it reflects the efforts or actions of the individual being measured.

These ideal attributes are seldom achieved.»

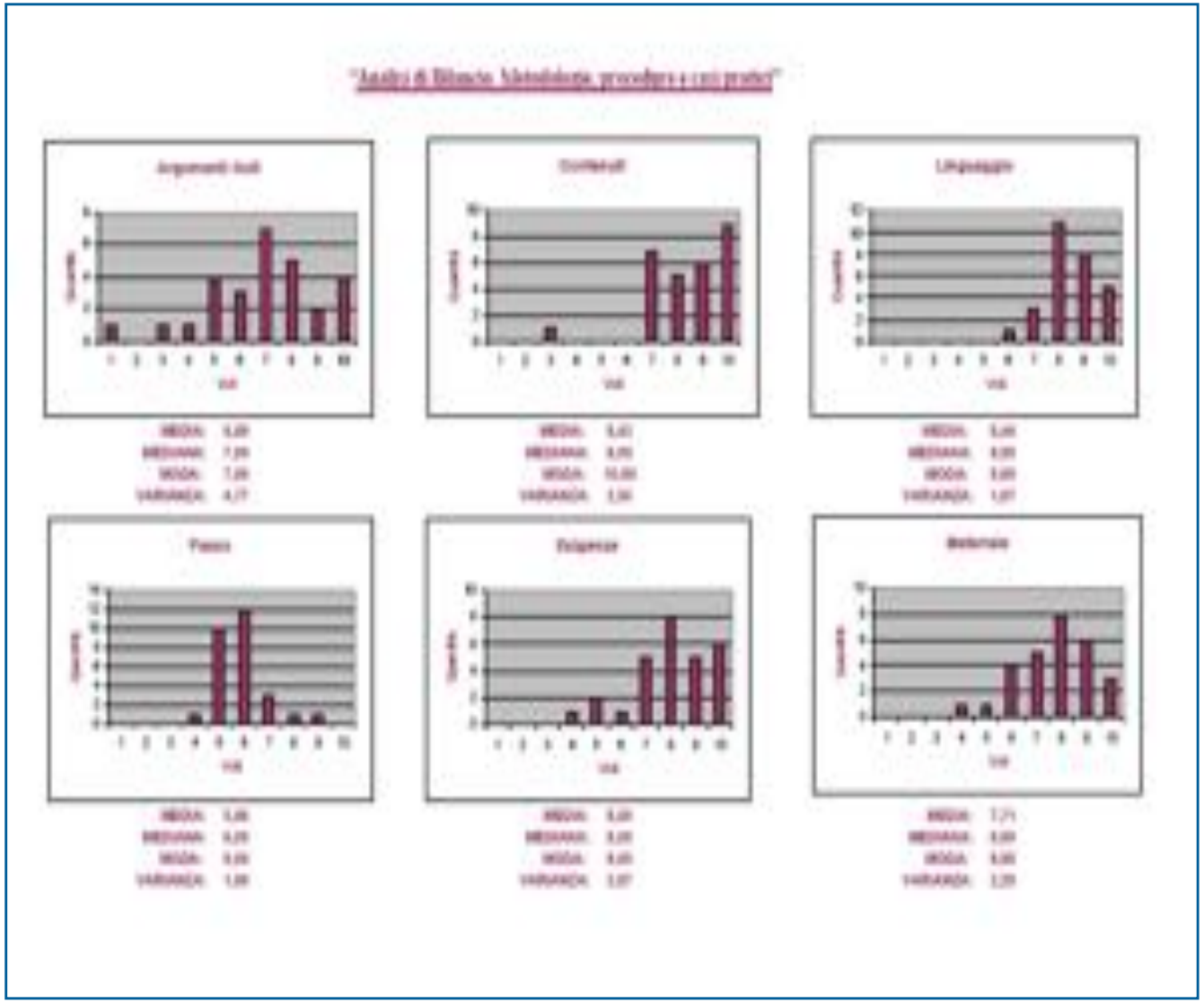
COMPLETE AND INCOMPLETE MEASURES



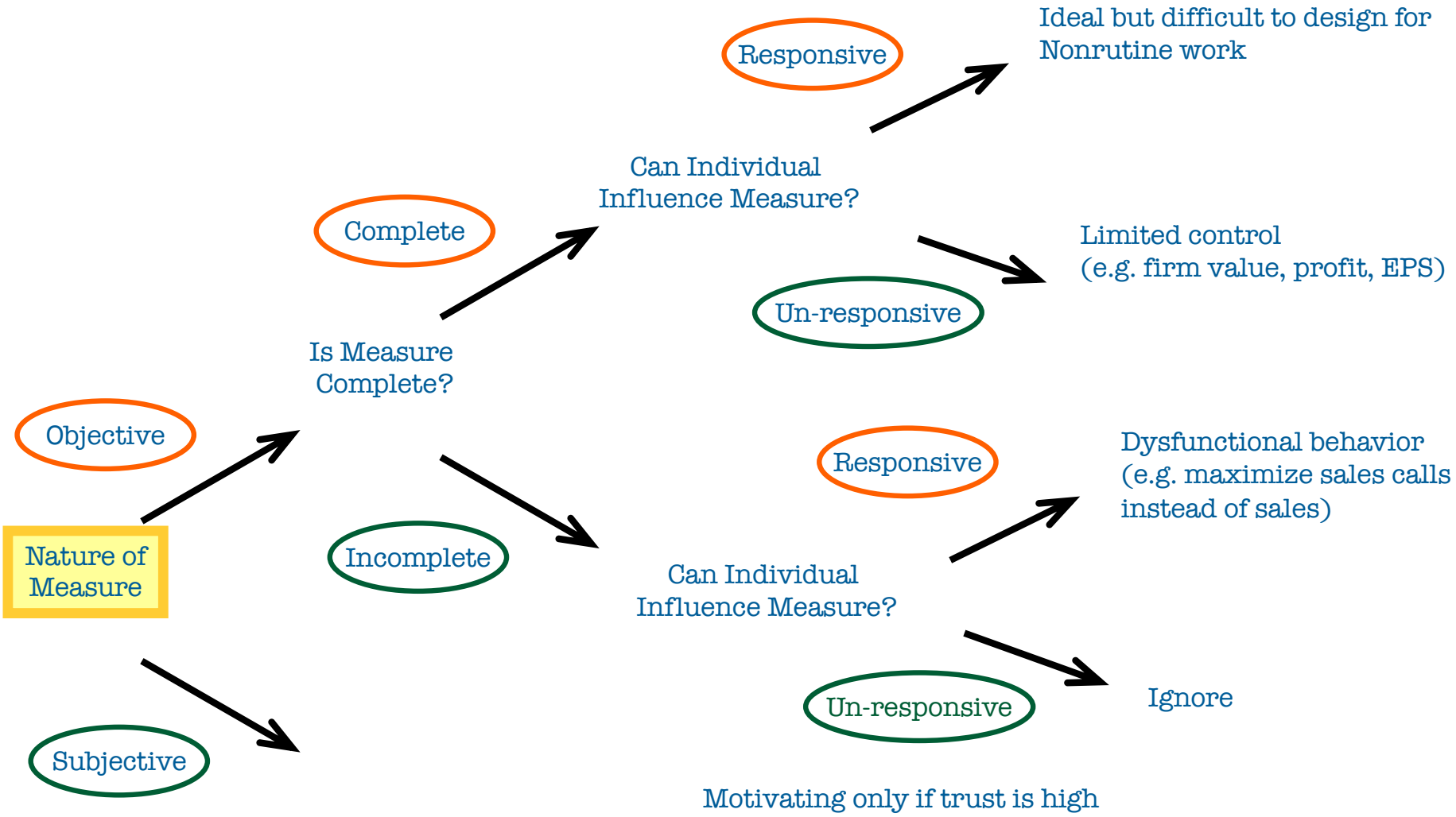
SYSTEMS OF MEASURES



SYSTEMS OF MEASURES



CHARACTERISTIC OF MEASURES



A POSSIBLE PROBLEM

THE RELATION BETWEEN STRATEGY AND METRICS

«Tying performance metrics to strategy has become an accepted best practice over the past few decades. Strategy is abstract by definition, but metrics give strategy form, allowing our minds to grasp it more readily.

If strategy is the blueprint for building an organization, metrics are the concrete, wood, drywall, and bricks.

But there's a hidden trap in this organizational architecture: A company can easily lose sight of its strategy and instead focus strictly on the metrics that are meant to represent it.

For an extreme example of this problem, look to Wells Fargo, where employees opened 3.5 million deposit and credit card accounts without customers' consent in an effort to implement its now-infamous "cross-selling" strategy.».

THE SURROGATION SNARE

«Every day, across almost every organization, strategy is being hijacked by numbers. It turns out that the tendency to mentally replace strategy with metrics —called surrogation— is quite pervasive. And it can destroy company value.

Of course, we all know that metrics are inherently imperfect at some level. In business the intent behind metrics is usually to capture some underlying intangible goal—and they almost always fail to do this as well as we would like. Your performance management system is full of metrics that are flawed proxies for what you care about.

Surrogation is especially harmful when the metric and the strategy are poorly aligned. The greater the mismatch, the larger the potential damage».

SOURCE:, Michael Harris and Bill Tayler, "Don't Let Metrics Undermine Your Business", HBR, S September–October 2019

GUARDING AGAINST SURROGATION

«To prevent surrogation, we must first understand how it happens.

Two recent studies on surrogation suggest that surrogation is a common subconscious bias: Whenever metrics are present, people tend to surrogate.

Nobel prize winner Daniel Kahneman and Yale professor Shane Frederick postulate that three conditions are necessary to produce the type of substitution we see with surrogation:

- The objective or strategy is fairly abstract.
- The metric of the strategy is concrete and conspicuous.
- The employee accepts, at least subconsciously, the substitution of the metric for the strategy».

Multiple research studies have helped demonstrate how these conditions combine to produce surrogation. Knowledge of them supplies us with the means to combat the problem ».

SOURCE:, Michael Harris and Bill Tayler, "Don't Let Metrics Undermine Your Business", HBR, S September–October 2019

HOW TO DO THAT

Get the people responsible for implementing strategy to help formulate it.

This helps reduce surrogation because those involved in executing the strategy will then be better able to grasp it, despite its abstract nature —and to avoid replacing it with metrics. It's particularly crucial to bring the executives and senior managers who are charged with communicating strategy into this process.

Loosen the link between metrics and incentives.

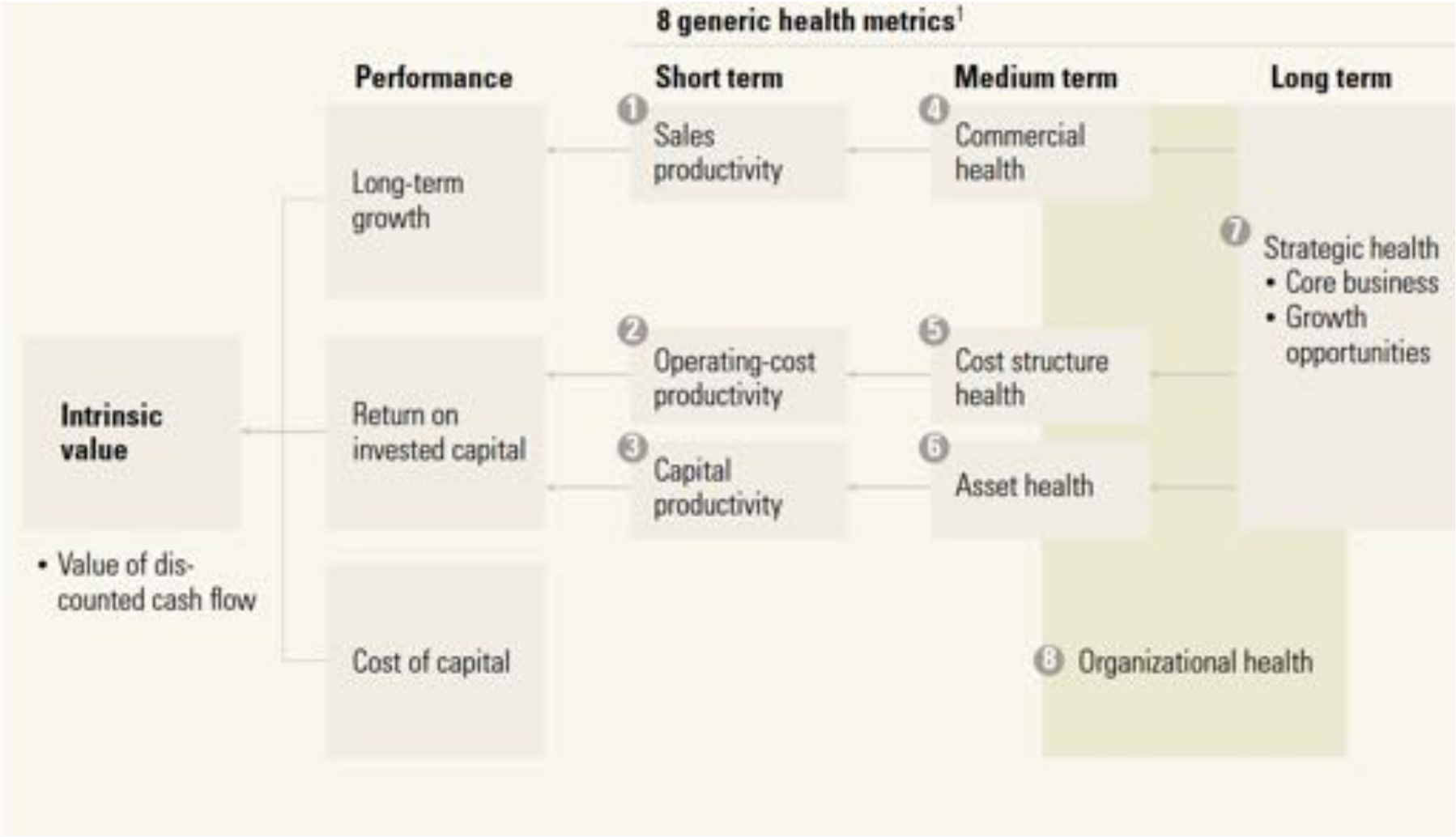
Tying compensation to a metric-based target tends to increase surrogation—an unfortunate side effect of pay for performance. Besides tapping into any monetary motivations people might have, this approach makes the metric much more visible, which means employees are more likely to focus on it at the expense of the strategy.

Use multiple metrics.

Another study shows that people surrogate less when they're compensated for meeting targets on multiple metrics of a strategy rather than just one. This approach highlights the fact that no single metric completely captures the strategy, which makes people more likely to consciously reject substituting it for the strategy.

SOURCE:, Michael Harris and Bill Tayler, "Don't Let Metrics Undermine Your Business", HBR, S September–October 2019

“PERFORMACE VERSUS HEALTH”



SHORT-TERM HEALTH METRICS

- Sales productivity metrics explore the factors underlying recent sales growth. For retailers, these metrics include market share, a retailer's ability to charge higher prices than its peers, the pace of store openings, and same-store sales increases.
- Operating-cost productivity metrics explore the factors underlying unit costs, such as the cost of building a car or delivering a package.
- Capital productivity metrics show how well a company uses its working capital (inventories, receivables, and payables) and its property, plant, and equipment. Dell revolutionized the personal-computer business by building products to order and thus minimizing inventories. Because the company keeps the so low and has few receivables to boot, it can operate with negative working capital.

MEDIUM-TERM HEALTH METRICS

- Commercial-health metrics, indicating whether a company can sustain or improve its current revenue growth, include the metrics for its product pipeline (the talent and technology to market new products over the medium term), brand strength (investments in brand building), regulatory risk, and customer satisfaction. Metrics for medium-term commercial health vary widely by industry.
- Cost structure health metrics gauge a company's ability, as compared with that of its competitors, to manage its costs over three to five years. These metrics might include assessments of programs like Six Sigma, which companies such as General Electric use to reduce their costs continually and to maintain a cost advantage relative to their competitors across most of their businesses.
- Asset health metrics show how well a company maintains and develops its assets. For a hotel or restaurant chain, to give one example, the average time between remodelings may be an important driver of health.

LONG-TERM HEALTH METRICS

- Metrics of long-term strategic health show the ability of an enterprise to sustain its current operating activities and to identify and exploit new areas of growth. A company must periodically assess and measure the threats—including new technologies, changes in public opinion and in the preferences of customers, and new ways of serving them—that could make its current business less attractive. In assessing a company's long-term strategic health, specific metrics are sometimes hard to identify, so more qualitative milestones, such as progress in selecting partners for mergers or for entering a market, are needed.
- Metrics are also needed to determine whether a company has the people, the skills, and the culture to sustain and improve its performance. Diagnostics of organizational health typically measure the skills and capabilities of a company, its ability to retain its employees and keep them satisfied, its culture and values, and the depth of its management talent. Again, what's important varies by industry.

PERSPECTIVES ON THE LONG-TERM

In a speech delivered back in 1969, when the Net was in its infancy, the social scientist and future Nobel laureate Herbert Simon posited that a glut of information would produce a dearth of attention. Since then, psychologists and neuroscientists have learned a great deal about how our brains respond to distractions, interruptions, and incessant multitasking. What they've discovered proves how right Simon was—and underscores why we should be worried about the new digital environment we've created for ourselves. When it comes to thinking, we're trading depth for breadth. We're so focused on the immediate that we're losing the ability to think more deeply about the long-term implications of complex problems.

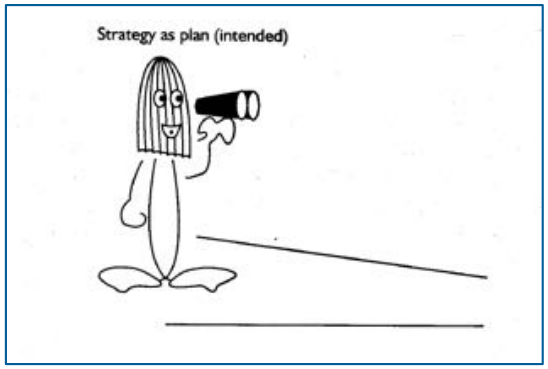
TIPICAL COMPONENTS

- Goals and objectives systems
- Business plans
- Profit plans
- Budgets (when used to establish priorities and set targets)
- Project monitoring systems
- Brand revenue/market share monitoring systems
- Human resource plans
- Standard cost accounting systems
- Management-by-objectives systems

- Material planning (MRP)
- Capacity planning
- Purchasing planning
- Maintenance planning

DIAGNOSTIC CONTROL SYSTEMS

STRATEGY AS PLAN



To almost anyone you care to ask, strategy is a plan–some sort of consciously intended **course of action,** a guideline (or set of guidelines) to deal with a situation.
By this definition, strategies have two essential characteristics: they are **made in advance** of the actions to which they apply, and they are **developed consciously and purposefully.**

Henry Mintzberg, "The Strategy Concept I: Five Ps For Strategy"

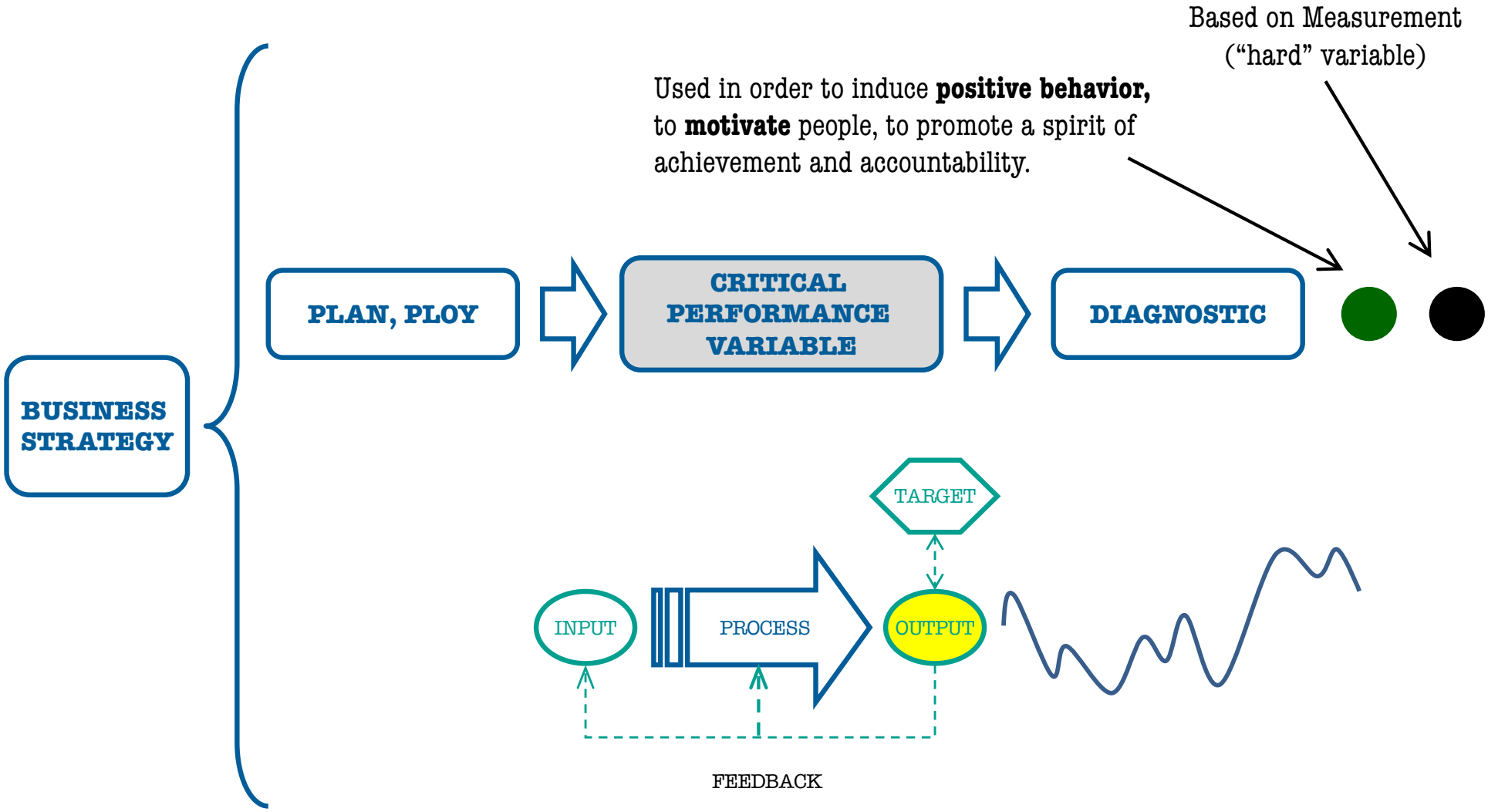
KEY STRATEGIC VARIABLE ⇨ **CRITICAL PERFORMANCE VARIABLE**

CONTROL SYSTEMS ⇨ **DIAGNOSTIC**

Are used to motivate, monitor and reward achievement of specified goals.
These feedback systems are the backbone of traditional management control and are designed to ensure predictable goal achievement.

Robert Simons, "Levers of control"

DIAGNOSTIC CONTROL SYSTEMS

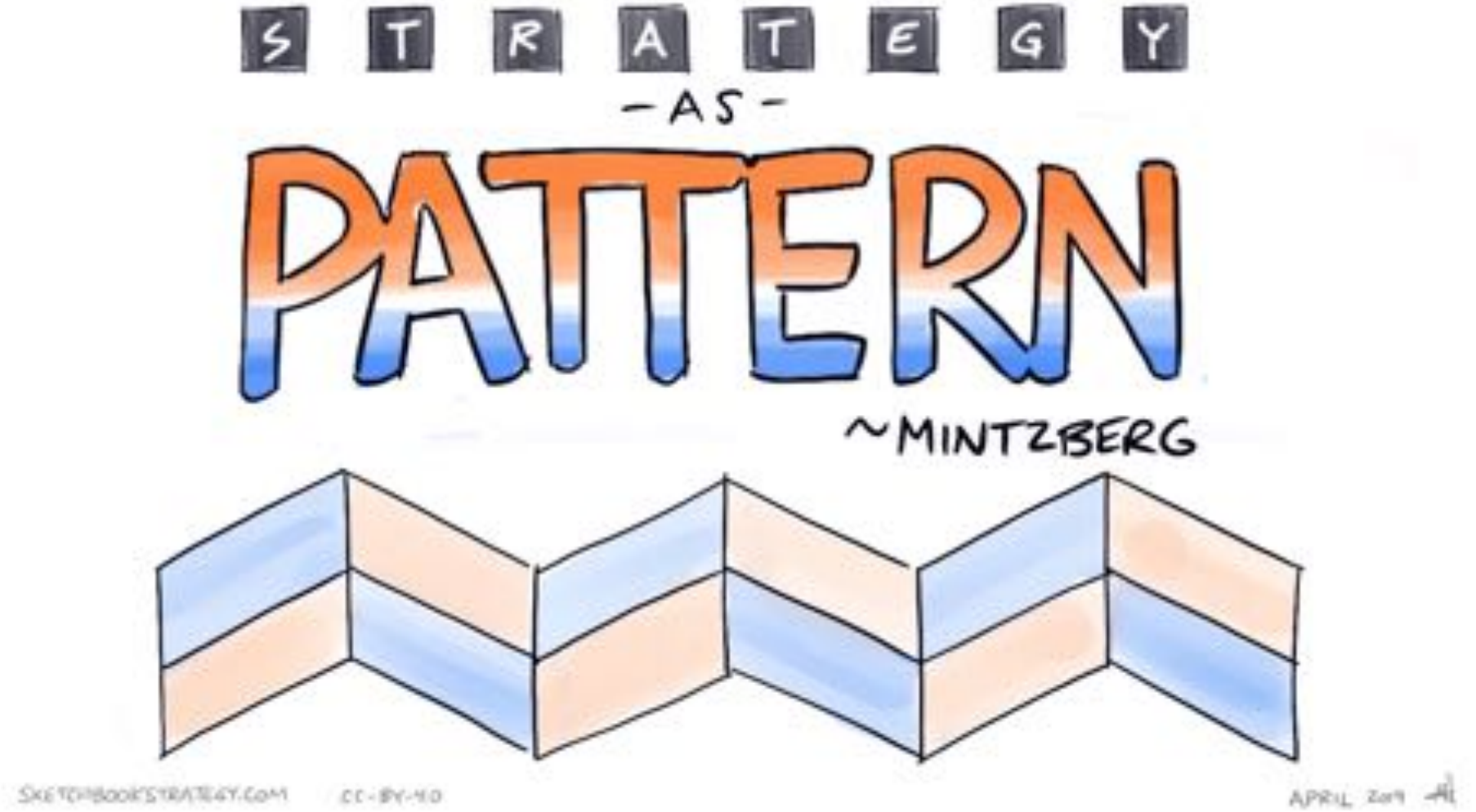


CECKLIST SUMMARY OF LEVERS OF CONTROL

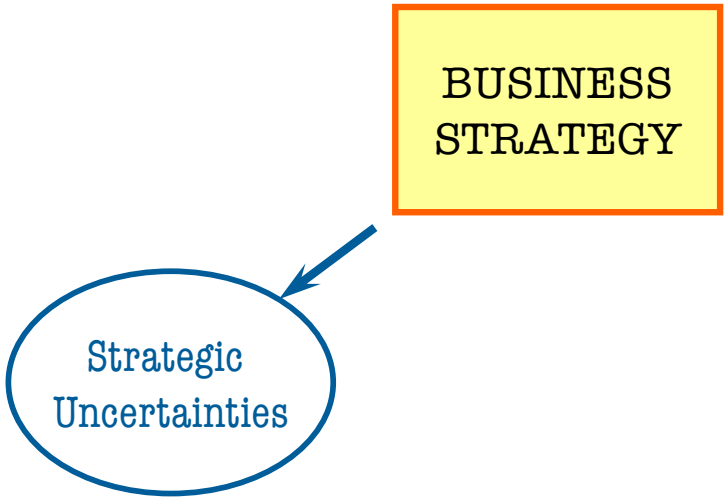
DIAGNOSTIC CONTROL SYSTEMS

WHAT	Feedback systems that monitor organizational outcomes and correct deviations from preset standards of performance
WHY	To allow effective resource allocation To define goals To provide motivation To establish guidelines for corrective action To allow ex post evaluation To free scarce management attention
HOW	Set standards Measure outputs Link incentives to goal achievement
WHEN	Performance standards can be preset outputs can be measured Feedback information can be used to influence or correct deviations from standard Process or output is a critical performance variable
WHO	Senior managers set or negotiate goals, receive and review exception reports, follow-up significant exceptions Staff groups maintain systems, gather data, and prepare exception reports

FIVE Ps FOR STRATEGY

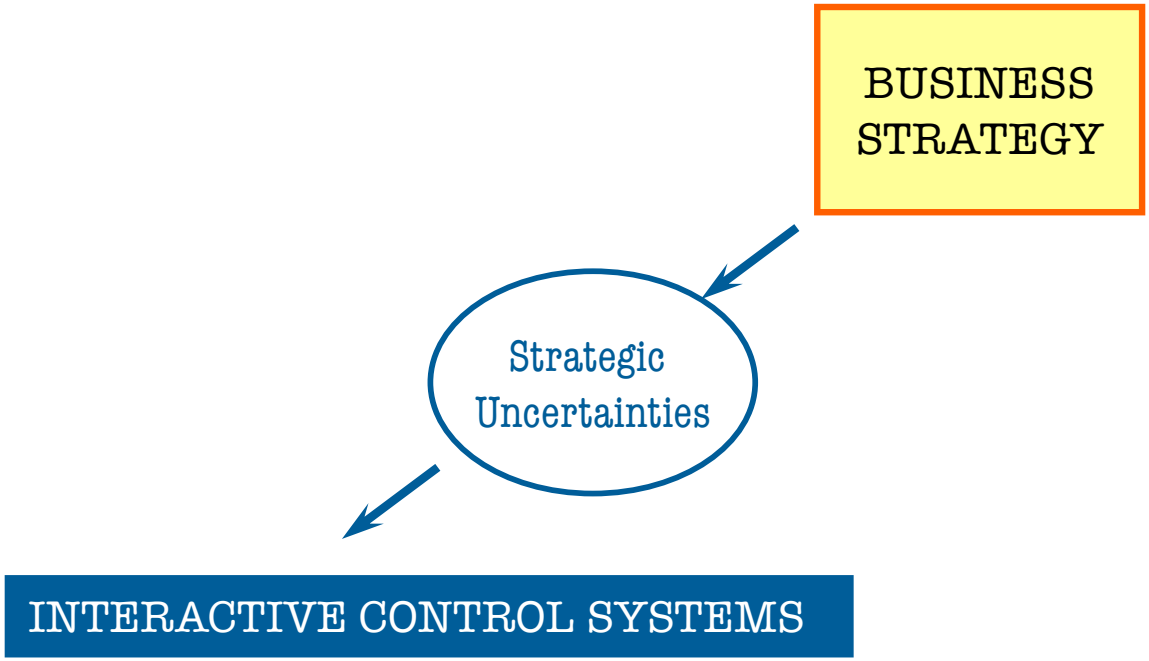


SCANNING FOR DISRUPTIVE CHANGES…



… WITH INTERACTIVE CONTROL SYSTEMS

Interactive Control Systems are used to stimulate search and learning, allowing new strategies to emerge as participants throughout the organization respond to perceived opportunity and threats.



STRATEGIC UNCERTAINTIES

Strategic uncertainties are uncertainties and contingencies that could threaten or invalidate the current strategy of the business.

They derive from senior management's perception of the known and unknown contingencies that could threaten or invalidate the assumption underlying the current strategy.

Strategic uncertainties are in a constant state of flux and, therefore, cannot be programmed and monitored on management-by-exception basis.

QUESTIONS RATHER THAN ANSWERS

Questions must be asked about how to realign the strategy to take advantage of emerging opportunities or deflect unexpected threats.

Senior managers must energize the entire organization around these issues.

Effective managers know that people can be extremely creative and can turn almost any threat or opportunity to advantage—if they can just focus the organization on these uncertainties.

Strategic uncertainties trigger a search for new information and meaning; they focus on questions rather than answers.

DIFFERENCES

	CRITICAL PERFORMANCE VARIABLES	STRATEGIC UNCERTAINTIES
Recurring questions	What must we do well to achieve our intended strategy?	What changes in assumptions could alter the way we achieve our vision for the future?
Focus on	Implementing intended strategy	Testing and identifying new strategies
Driven by	Goal achievement	Top management unease and focus
Search for	Efficiency and effectiveness	Disruptive change

INTERACTIVE CONTROL SYSTEMS

Four defining characteristics:

1. Information generated by the system is an important and recurring agenda addressed by the highest levels of management;
2. The interactive control system demands frequent and regular attention from operating managers at all levels of the organization;
3. Data generated by the system are interpreted and discussed in face-to-face meetings of superiors, subordinates, and peers;
4. The system is a catalyst for continual challenge and debate of underlying data, assumptions, and action plans.

INTERACTIVE CONTROL SYSTEMS

Interactive Control Systems are formal information system managers use to involve themselves regularly and personally in the decision activities of subordinates.

Interactive Control Systems focus attention and force dialogue throughout the organization.

They provide frameworks, or agendas, for debate, and motivate information gathering outside of routine channels.

Simply stated, interactive control systems are the hot buttons for senior managers. They provide the information that the boss pays a lot of attention to and are used to create an ongoing dialogue with subordinates.

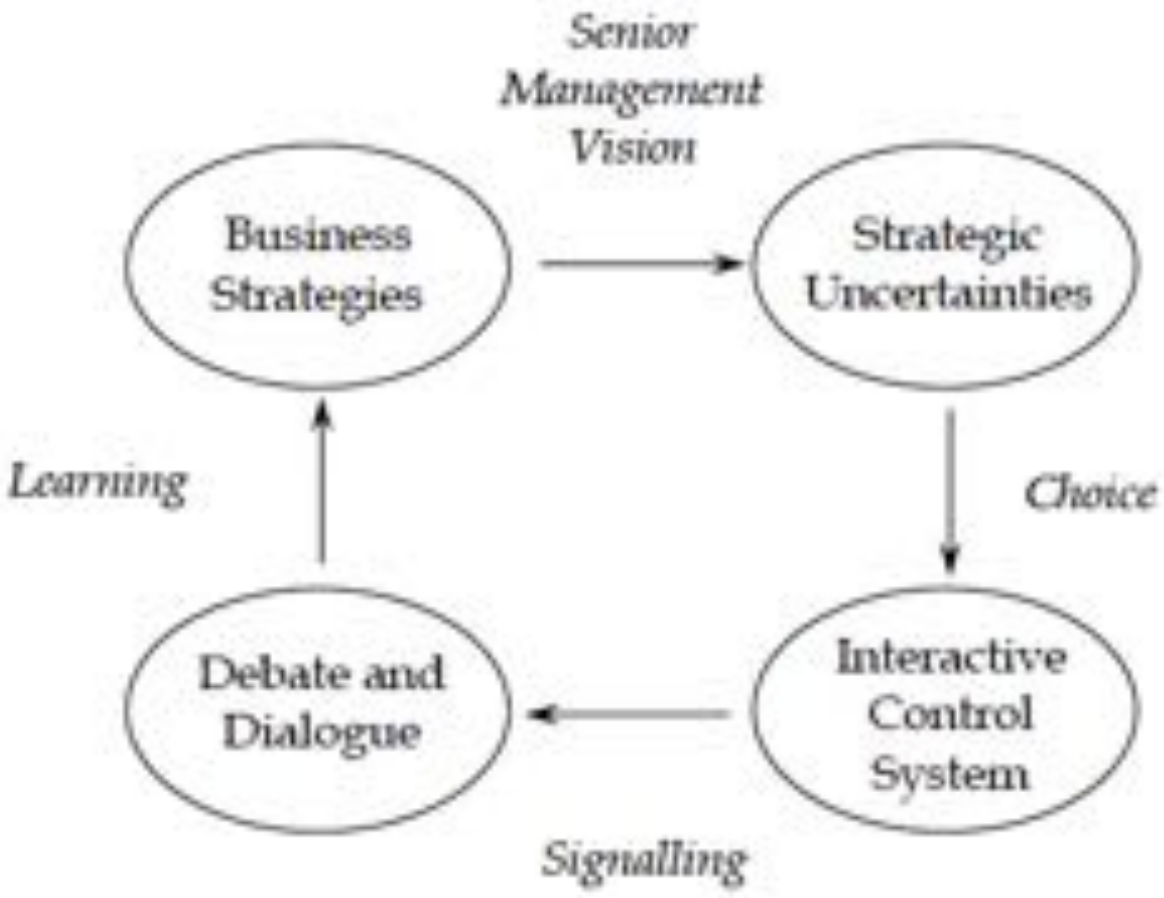
ORGANIZATIONAL LEARNING

To capture the benefits of emerging strategy, managers must foster organizational learning – the ability of an organization to monitor changes in its environment and adjust its processes, products, and services to capitalize on those changes.

They must use their performance measurement and control systems to encourage employees to constantly innovate and search for signs of change in the business. Managers must encourage employees to experiment, to find new opportunities, and test new ideas. And, perhaps most importantly, they must ensure that performance measurement and control systems create effective communication channels to move this information up the line from employees to senior managers at headquarters.

Feedback becomes critical for learning: it allows managers to fine-tune and, sometimes, radically change their business strategies.

A LEARNING TOOL



Using the Interactive Control Process for Learning

FOCUS ON STRATEGIC UNCERTAINTIES

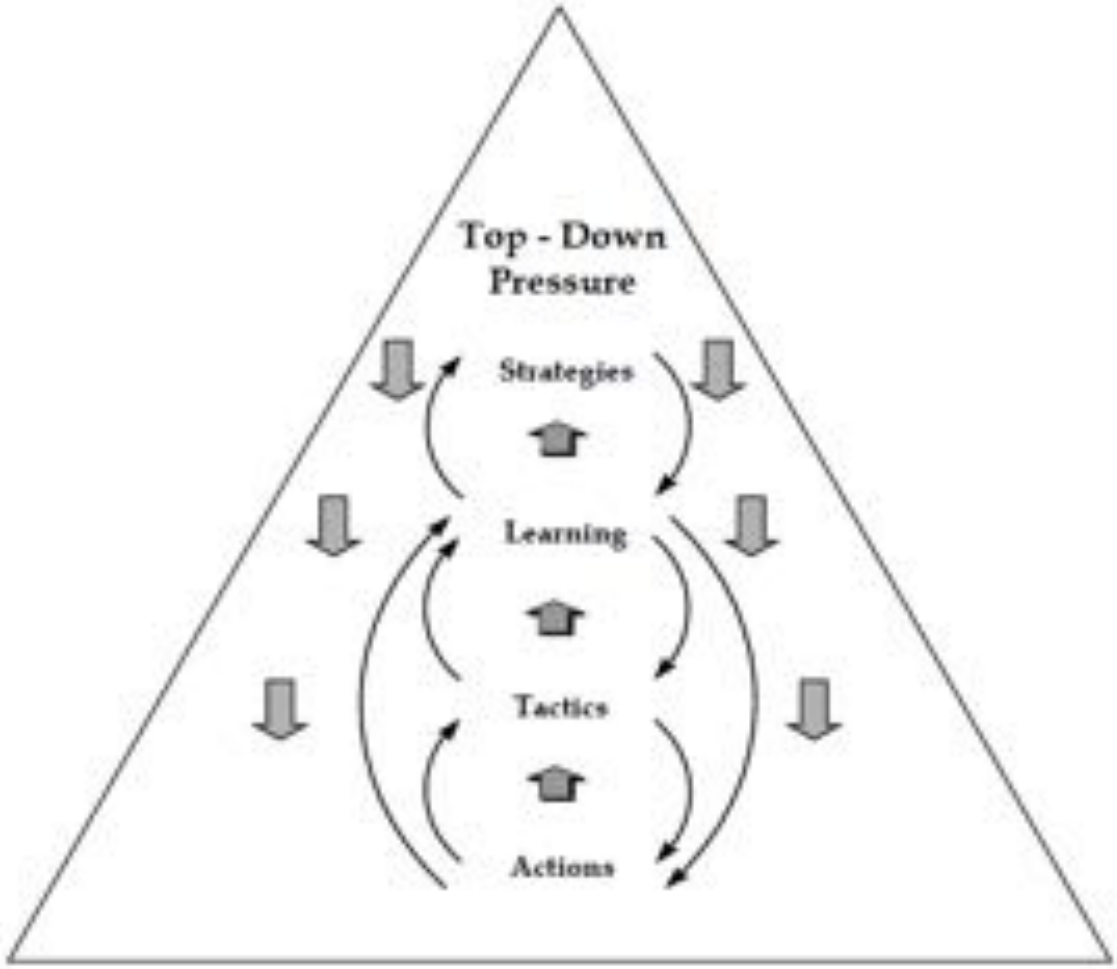
Strategies can emerge spontaneously in organizations as employees experiment and replicate small successes in their attempts to create value. This is strategy as emerging patterns of action.

Interactive control systems provide the principal means by which managers can guide this otherwise serendipitous process. Many of the best strategies come from unexpected ideas that originate with employees close to customers and markets.

By focusing attention on strategic uncertainties, managers can use the interactive control process to guide the search for new opportunities, stimulate experimentation and rapid response, and maintain control over what could otherwise be a chaotic process.

Over time, the debate and dialogue that is the hallmark of interactive control systems allow a business to adapt and renew its strategy.

TOP-DOWN PRESSURE: BOTTOM-UP STRATEGY



TOP-DOWN PRESSURE: BOTTOM-UP STRATEGY

The discussions surrounding interactive control systems are always face-to-face, involving operating managers directly. Meetings are used to brainstorm and use every possible piece of data to collectively make sense of changing circumstances. The debate focuses on new information, assumptions, and action plans.

The pressure to use a system interactively is created quite simply by the regular and recurring attention of the highest levels of management. In face-to-face meetings, senior managers probe subordinates to explain any unforeseen changes in their business and offer suggested action plans. This pressure cascades from the top of the organization to the bottom. In response, through a series of interlocking meetings, the new information and learning flows upward, from the bottom of the organization to the top.

A CRITICAL POINT

The difference between diagnostic and interactive control systems is not in their technical design features. A diagnostic control system may look identical to an interactive control system. The distinction between the two is solely in the way that managers use these systems.

Interactive control systems are not defined by their technical design features. Instead, they are defined by how senior managers use these systems.

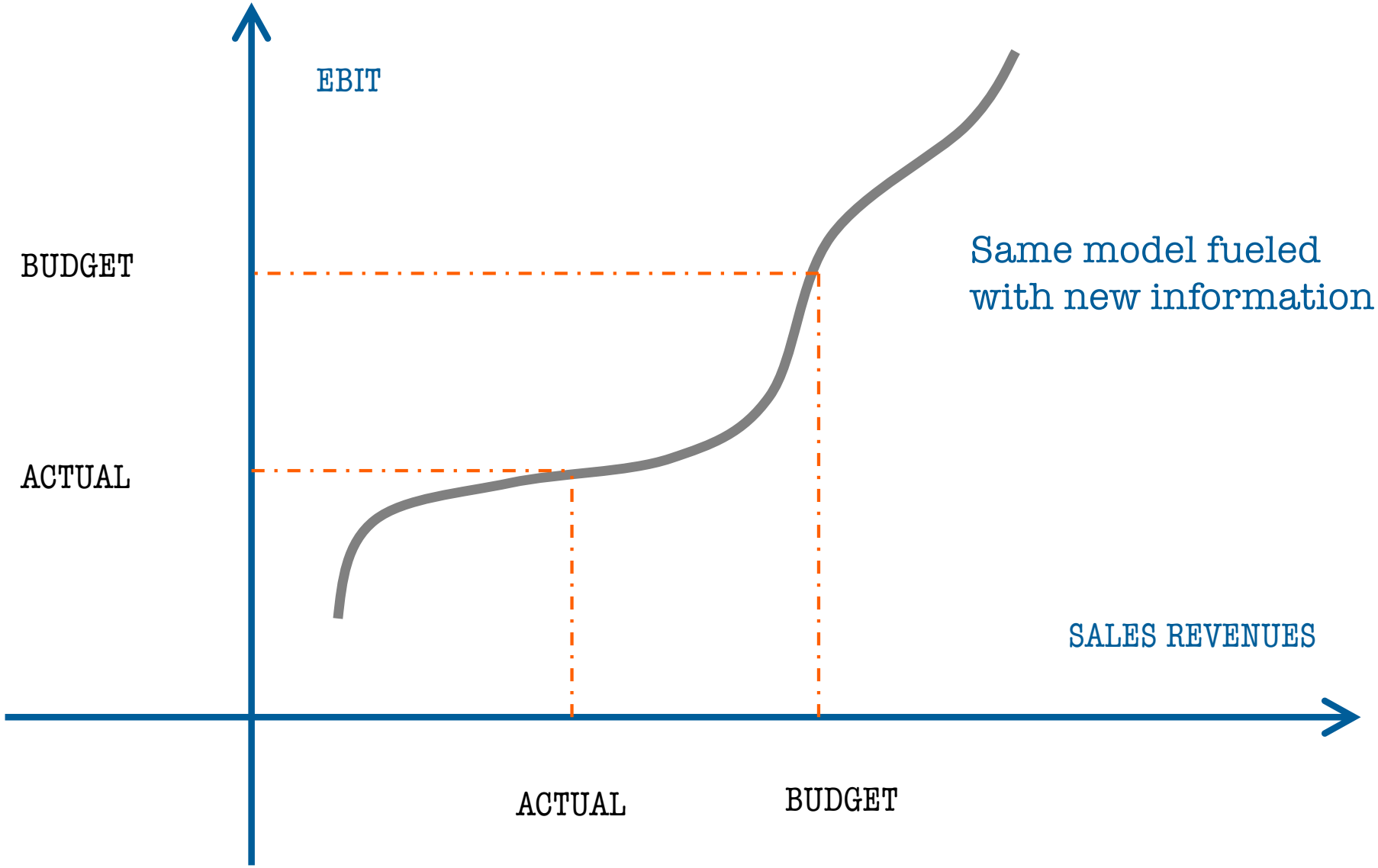
Top managers pore over reports as soon as they are received and later use the information to challenge the thinking and action plans of subordinates. Senior managers use the interactive control system to spark information searches throughout the entire organization. This intensive use and focus stands in stark contrast to the management by exception that defines diagnostic control systems.

WHAT IS NEEDED?

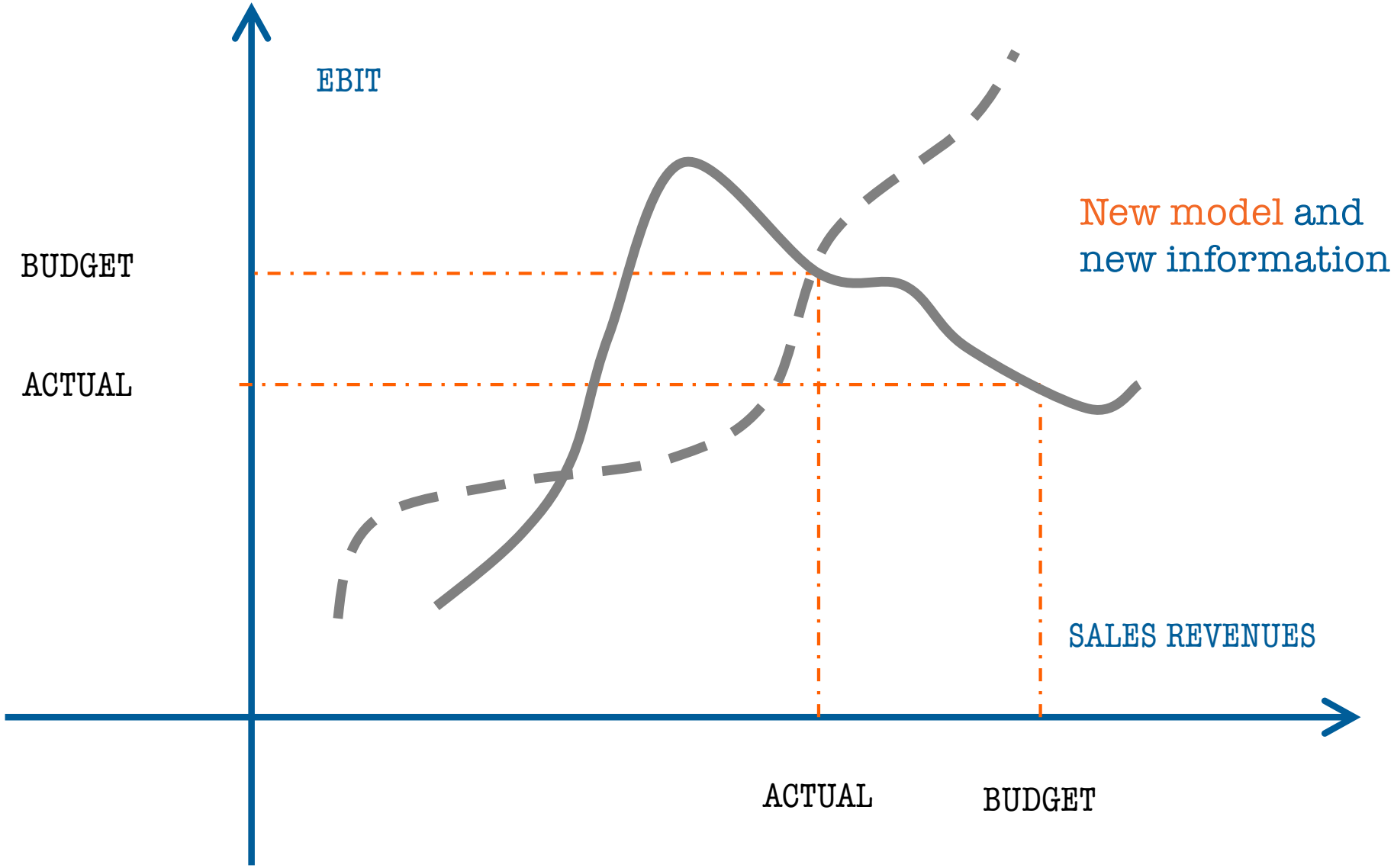
To be used interactively the control system must:

1. Require the reforecasting of future states based on revised current information;
2. Contain information simple to understand;
3. Be used not only by senior managers but also by managers at multiple levels of the organization;
4. Trigger revised actions plans;
5. Collect and generate information that relates to the effects of strategic uncertainties on the strategy of the business

ONE LOOP LEARNING

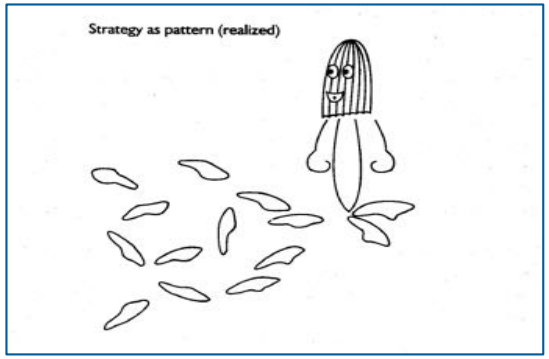


ONE LOOP LEARNING



INTERACTIVE CONTROL SYSTEMS

STRATEGY AS PATTERN



> [Another definition of strategy can be] proposed: strategy is a pattern– specifically, a pattern in a stream of actions. In other words, by this definition, strategy is consistency in behavior, whether or not intended.
> To paraphrase Hume, strategies may result from human actions but not human designs.
>
> Henry Mintzberg, "The Strategy Concept I: Five Ps For Strategy"

KEY STRATEGIC VARIABLE ⇨ **STRATEGIC UNCERTAINTIES**

CONTROL SYSTEMS ⇨ **INTERACTIVE**

> Are used to stimulate search and learning, allowing new strategies to emerge as participants throughout the organization respond to perceived opportunity and threats.
>
> Robert Simons, "Levers of control"

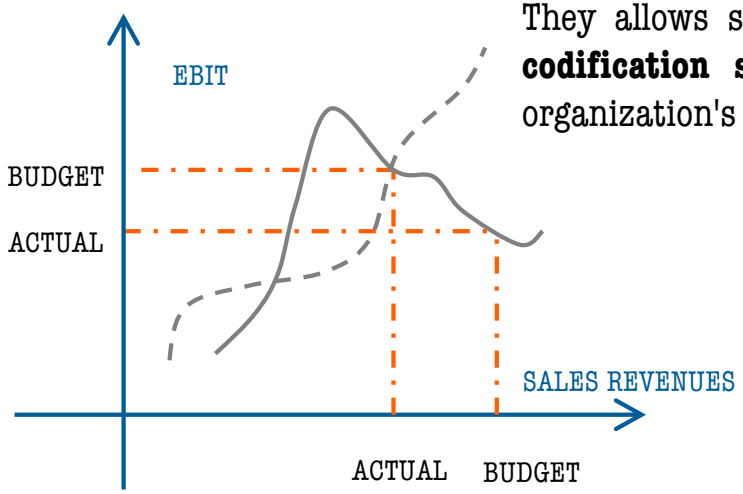
INTERACTIVE CONTROL SYSTEMS

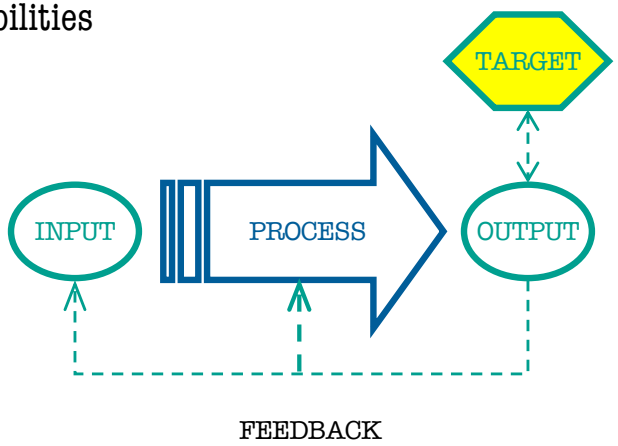
STRATEGY AS... KEY STRATEGIC VARIABLES CONTROL SYSTEMS

They **encourage innovation, learning and the search for new solutions,** which trigger the emergence of new strategies, as their participants interact and respond to emerging opportunities and threats.

They allows simultaneously the **creation of a best practices codification system,** in order to stabilize and diffuse the organization's abilities

BUSINESS STRATEGY





PATTERN → **STRATEGIC UNCERTAINTIES** → **INTERACTIVE**

CECKLIST SUMMARY OF LEVERS OF CONTROL

LEVER # 4: INTERACTIVE CONTROL SYSTEMS

WHAT	Control systems that managers use to involve themselves regularly and personally in the decision activities of subordinates
WHY	To focus organizational attention on strategic uncertainties and provoke the emergence of new initiatives and strategies
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WHO	Senior managers actively use the system and assign subjective, effort-based rewards Staff groups act as facilitators

LEVERS OF CONTROL – Systems (a summary)

How Managers Use Innovative Control Systems to Drive Strategic Renewal

BELIEFS SYSTEMS

STRATEGY AS PERSPECTIVE

While the [previous] definition of strategy looks out, seeking to locate the organization in the external environment, [this one] **looks inside** the organization, indeed inside **the heads of the collective strategist**. Here, strategy is a perspective, its content consisting not just of a chosen position, but of **an ingrained way of perceiving the world.**
Strategy in this respect **is to the organization what personality is to the individual.**

Henry Mintzberg, "The Strategy Concept I: Five Ps For Strategy"

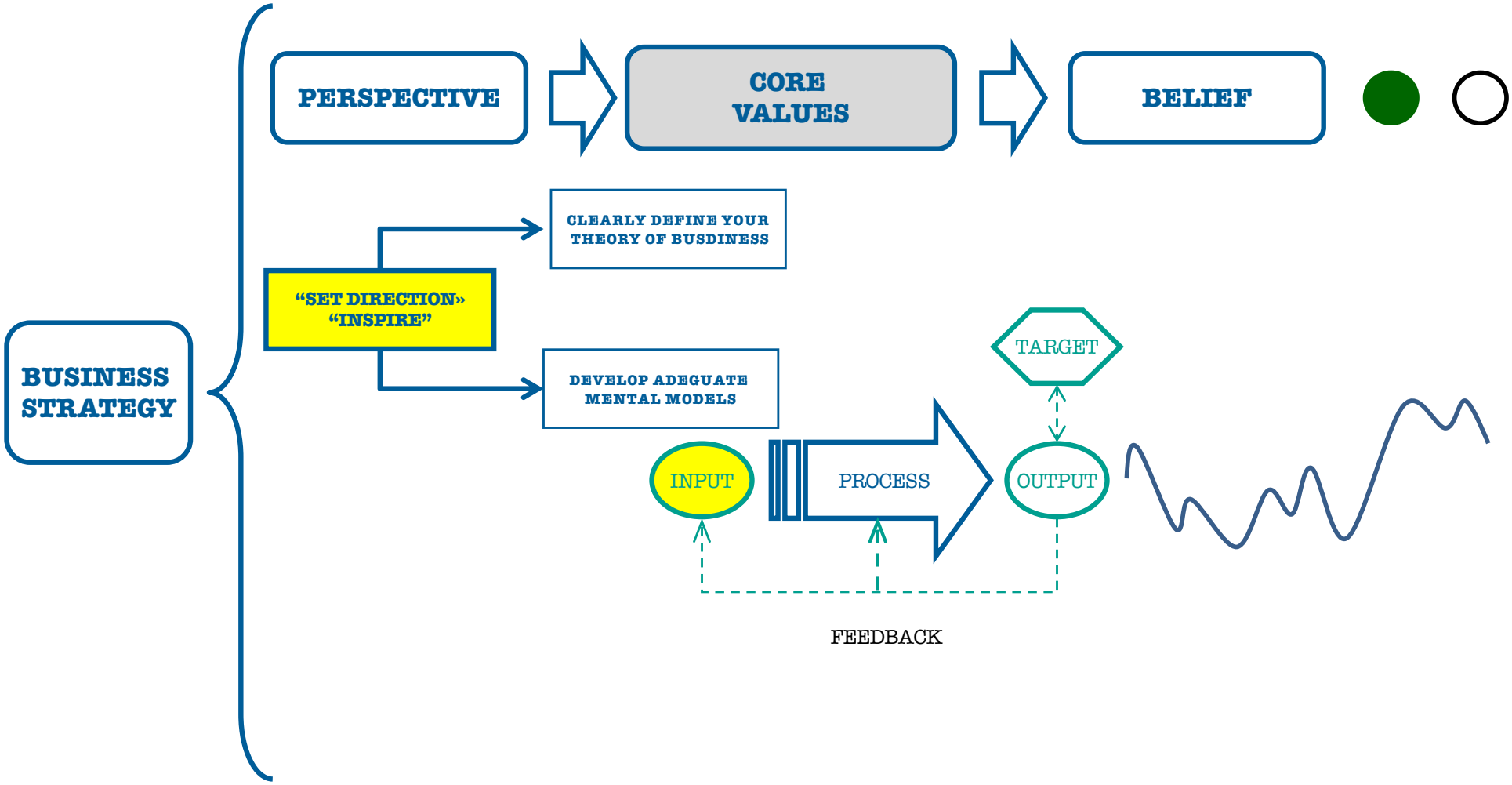
KEY STRATEGIC VARIABLE ⇨ **CORE VALUES**

CONTROL SYSTEMS ⇨ **BELIEFS**

Are used to inspire and direct the search for new opportunities.
They are composed by the explicit set of organizational definitions that senior managers communicate formally and reinforce systematically to provide basic values, purpose, and direction for the organization.

Robert Simons, "Levers of control"

BELIEF SYSTEMS



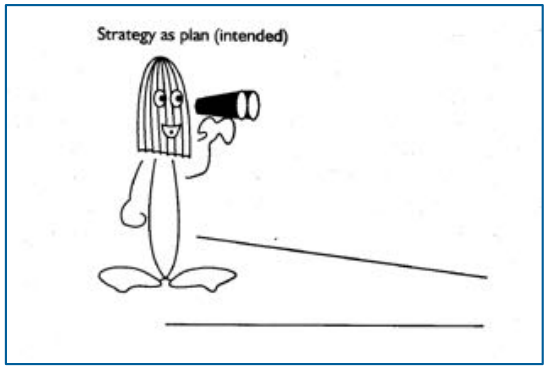
CECKLIST SUMMARY OF LEVERS OF CONTROL

BELIEFS SYSTEMS

WHAT	Explicit set of beliefs that define basic values, purpose, and direction, including how value is created; level of desired performance; and human relationships
WHY	To provide momentum and guidance to opportunity-seeking behaviors
HOW	Mission statements Vision statements Credos Statements of purpose
WHEN	Opportunities expand dramatically Top managers desire to change strategic direction Top managers desire to energize workforce
WHO	Senior managers personally write substantive drafts Staff groups facilitate communication, feedback, and awareness surveys

DIAGNOSTIC CONTROL SYSTEMS

STRATEGY AS PLAN



To almost anyone you care to ask, strategy is a plan– some sort of consciously intended **course of action,** a guideline (or set of guidelines) to deal with a situation.
By this definition, strategies have two essential characteristics: they are **made in advance** of the actions to which they apply, and they are **developed consciously and purposefully.**

Henry Mintzberg, "The Strategy Concept I: Five Ps For Strategy"

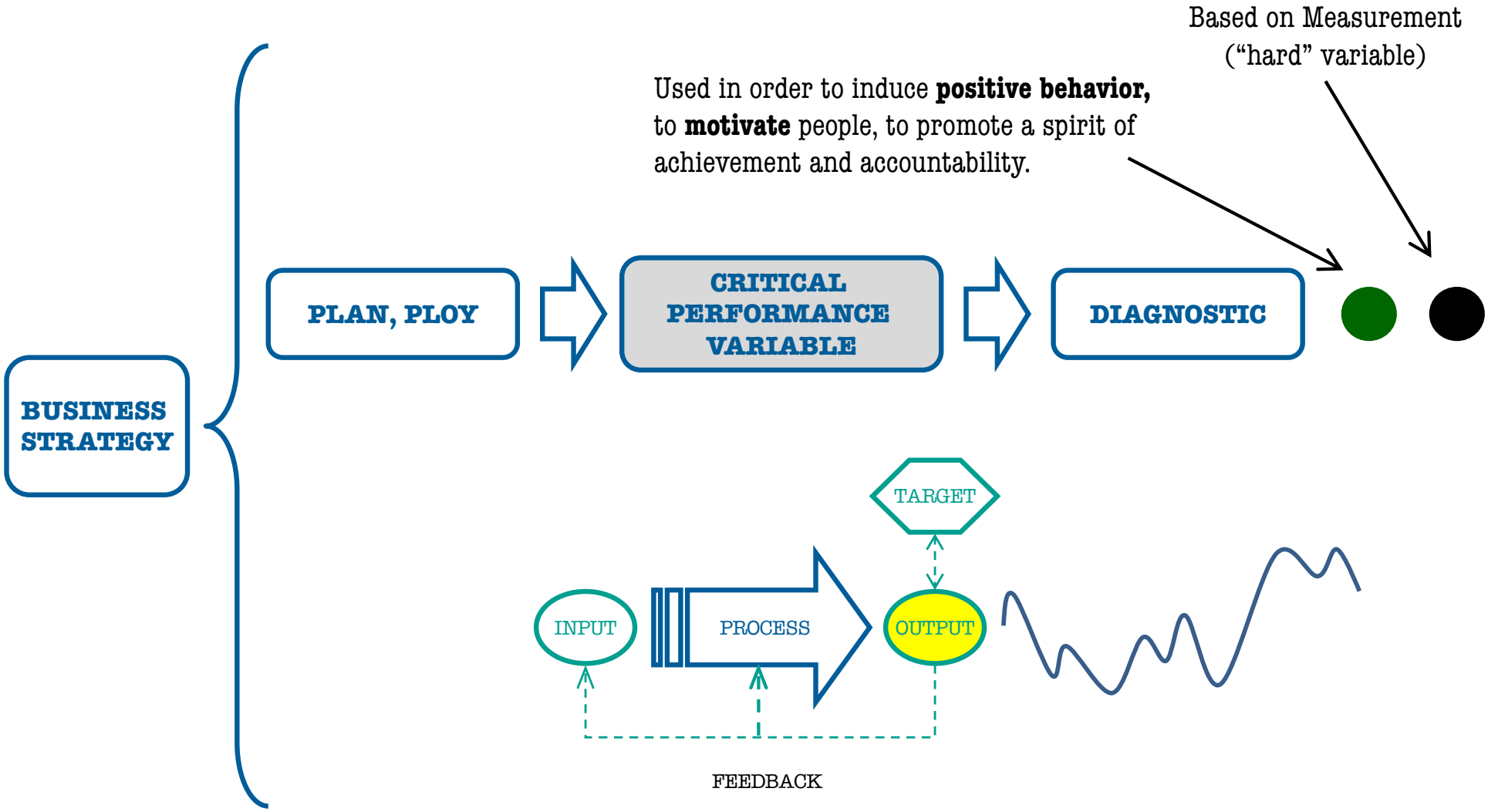
KEY STRATEGIC VARIABLE ⇨ **CRITICAL PERFORMANCE VARIABLE**

CONTROL SYSTEMS ⇨ **DIAGNOSTIC**

Are used to motivate, monitor and reward achievement of specified goals.
These feedback systems are the backbone of traditional management control and are designed to ensure predictable goal achievement.

Robert Simons, "Levers of control"

DIAGNOSTIC CONTROL SYSTEMS



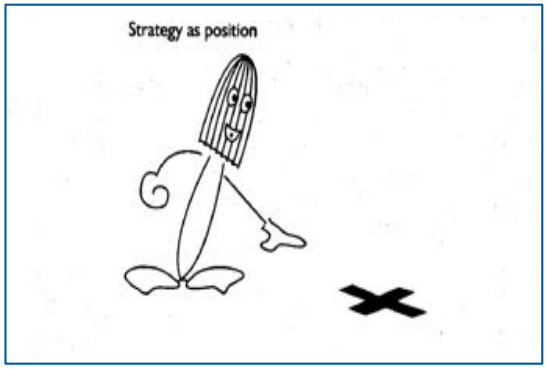
CECKLIST SUMMARY OF LEVERS OF CONTROL

DIAGNOSTIC CONTROL SYSTEMS

WHAT	Feedback systems that monitor organizational outcomes and correct deviations from preset standards of performance
WHY	To allow effective resource allocation To define goals To provide motivation To establish guidelines for corrective action To allow ex post evaluation To free scarce management attention
HOW	Set standards Measure outputs Link incentives to goal achievement
WHEN	Performance standards can be preset outputs can be measured Feedback information can be used to influence or correct deviations from standard Process or output is a critical performance variable
WHO	Senior managers set or negotiate goals, receive and review exception reports, follow-up significant exceptions Staff groups maintain systems, gather data, and prepare exception reports

BOUNDARY SYSTEMS

STRATEGY AS POSITION



[Another possible] definition is that strategy is a position– specifically, a **means of locating an organization in** what organization theorists like to call an **"environment."**
By this definition, strategy becomes the mediating force – or **"match,"** [...] – between organization and environment, that is, between the internal and the external context.

Henry Mintzberg, "The Strategy Concept I: Five Ps For Strategy"

KEY STRATEGIC VARIABLE ⇨ **RISK TO BE AVOIDED**

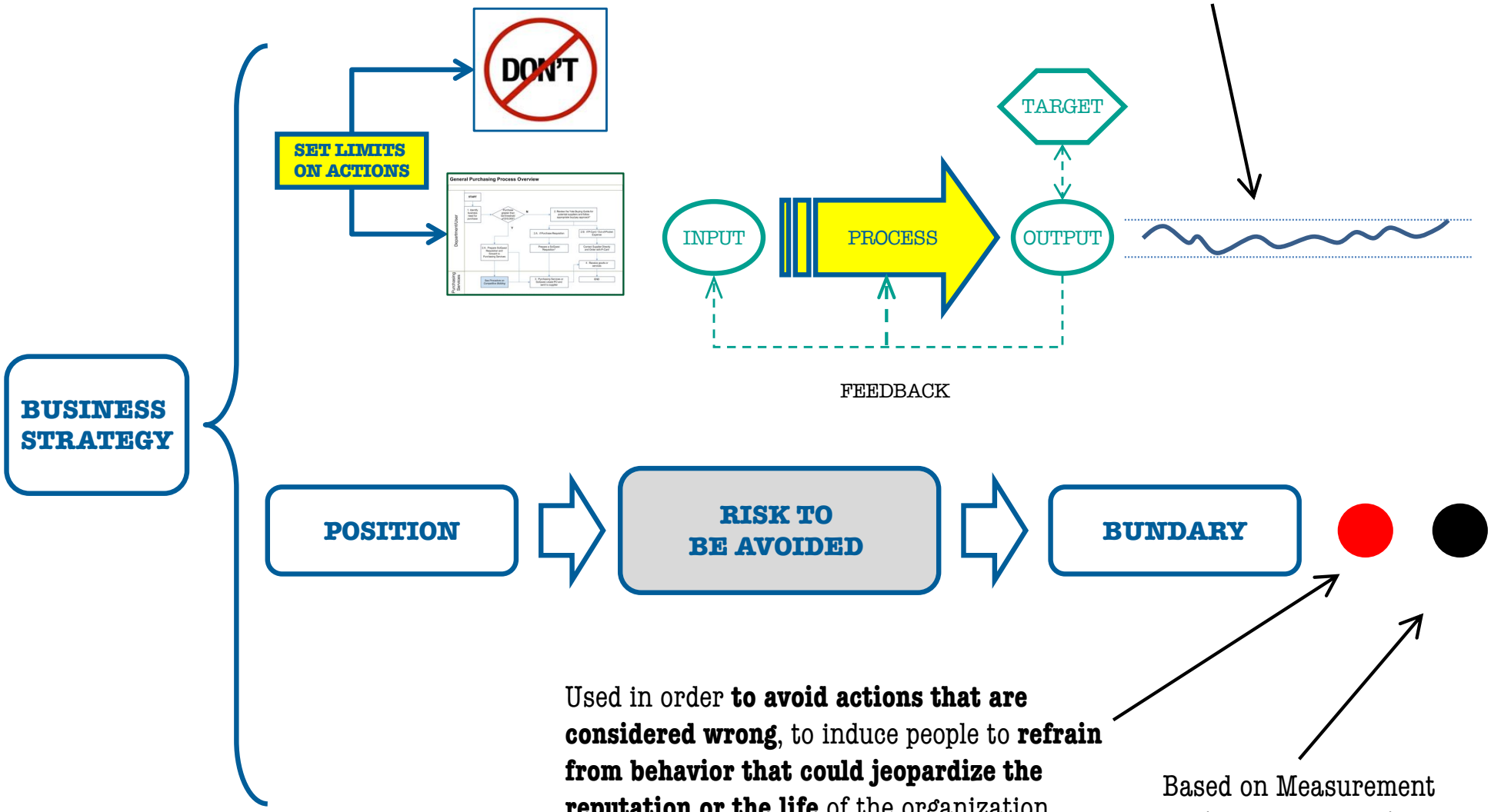
CONTROL SYSTEMS ⇨ **BOUNDARY**

Are used to delineate the acceptable domain of activity for organizational participants.
They establish limits, based on defined business risks, to opportunity-seeking.

Robert Simons, "Levers of control"

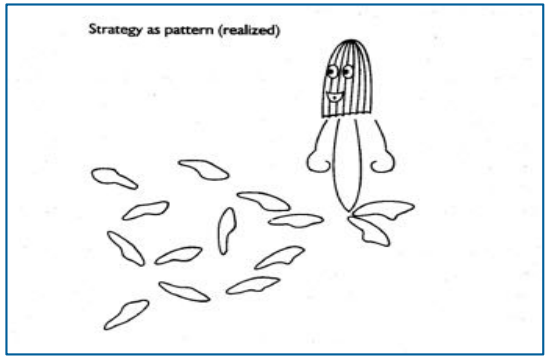
BUNDARY SISTEMS

Six Sigma (**6σ**) is a set of techniques and tools for process improvement. It was introduced by American engineer Bill Smith while working at Motorola in 1986.[1][2] Jack Welch made it central to his business strategy at General Electric in 1995. A six sigma process is one in which 99.99966% of all opportunities to produce some feature of a part are statistically expected to be free of defects.



INTERACTIVE CONTROL SYSTEMS

STRATEGY AS PATTERN



> [Another definition of strategy can be] proposed: strategy is a pattern– specifically, a pattern in a stream of actions. In other words, by this definition, strategy is consistency in behavior, whether or not intended.
> To paraphrase Hume, strategies may result from human actions but not human designs.
>
> Henry Mintzberg, "The Strategy Concept I: Five Ps For Strategy"

KEY STRATEGIC VARIABLE ⇨ **STRATEGIC UNCERTAINTIES**

CONTROL SYSTEMS ⇨ **INTERACTIVE**

> Are used to stimulate search and learning, allowing new strategies to emerge as participants throughout the organization respond to perceived opportunity and threats.
>
> Robert Simons, "Levers of control"

CECKLIST SUMMARY OF LEVERS OF CONTROL

LEVER # 4: INTERACTIVE CONTROL SYSTEMS

WHAT	Control systems that managers use to involve themselves regularly and personally in the decision activities of subordinates
WHY	To focus organizational attention on strategic uncertainties and provoke the emergence of new initiatives and strategies
HOW	Ensure that data generated by the system becomes an important and recurring agenda in discussions with subordinates Ensure that the system is the focus of regular attention by managers throughout the organization Participate in face-to-face meetings with subordinates Continually challenge and debate data, assumptions, and action plans
WHEN	Strategic uncertainties require search for disruptive change and opportunities
WHO	Senior managers actively use the system and assign subjective, effort-based rewards Staff groups act as facilitators

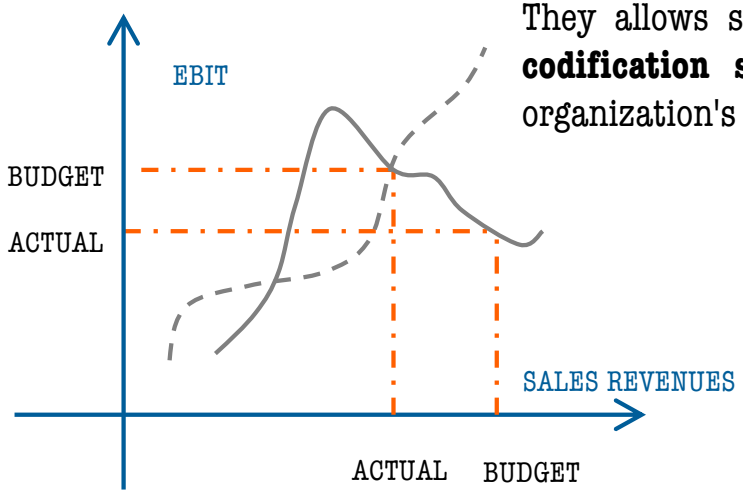
INTERACTIVE CONTROL SYSTEMS

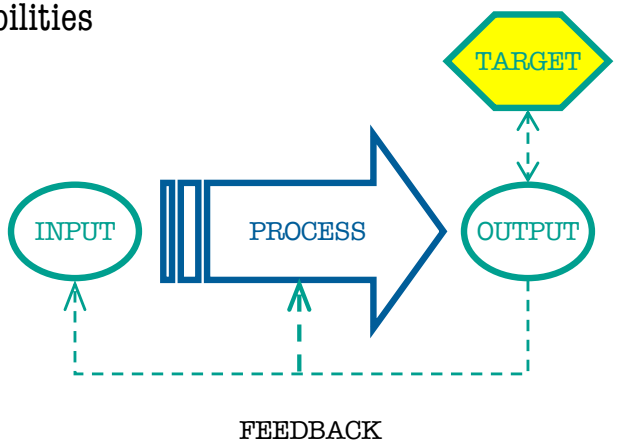
STRATEGY AS... KEY STRATEGIC VARIABLES CONTROL SYSTEMS

They **encourage innovation, learning and the search for new solutions,** which trigger the emergence of new strategies, as their participants interact and respond to emerging opportunities and threats.

They allows simultaneously the **creation of a best practices codification system,** in order to stabilize and diffuse the organization's abilities

BUSINESS STRATEGY





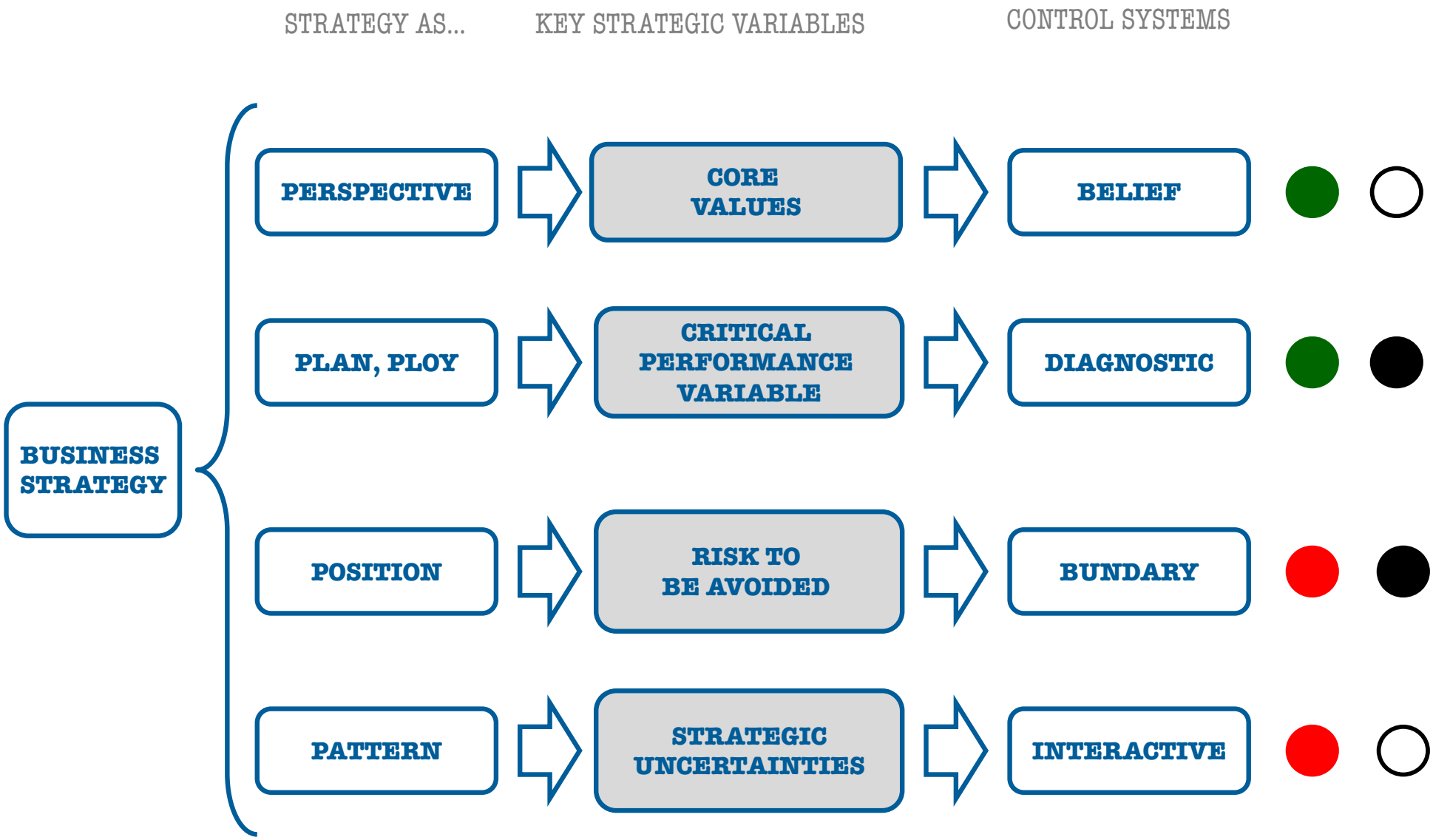
PATTERN → **STRATEGIC UNCERTAINTIES** → **INTERACTIVE**

A SYNTHESIS

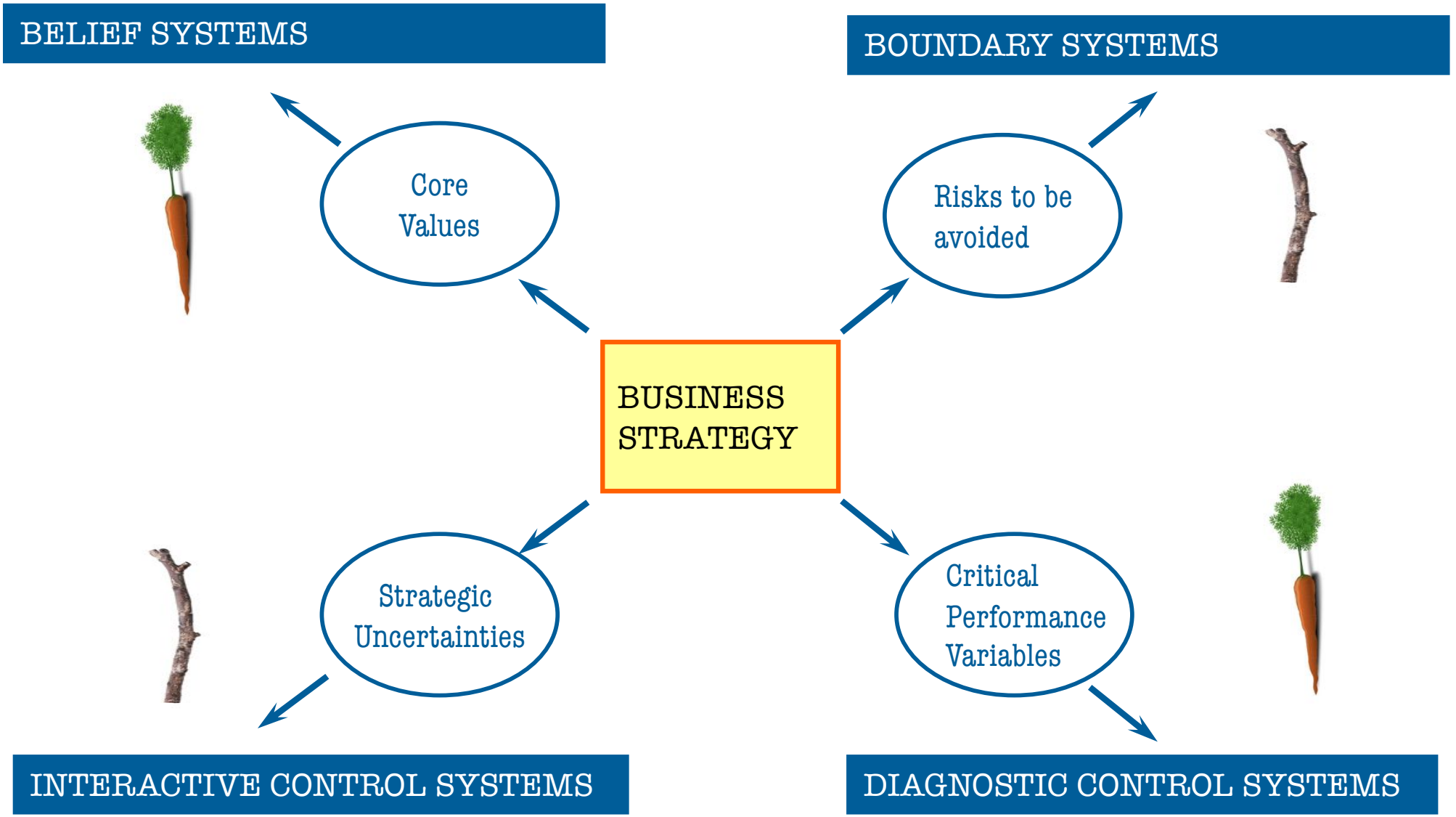
POTENTIAL	ORGANIZATIONAL BLOCKS	MANAGERIAL SOLUTION	CONTROL LEVER
To contribute	Uncertainty about purpose	Communicate core values and mission	Beliefs Systems
To do right	Pressure or temptation	Specify and enforce rules of the game	Boundary Systems
To achieve	Lack of focus or resources	Build and support clear target	Diagnostic Control Systems
To create	Lack of opportunity or fear of risk	Open organizational dialogue to encourage learning	Interactive Control Systems

Robert Simons, "Control in a Age of Empowerment"

IN CONCLUSION ...



CONTROLLING BUSINESS STRATEGY



MINTZBERG TRIANGLE

STRATEGY AS A PERSPECTIVE
Belief Systems

ART

STRATEGY AS A POSITION
Boundary Systems

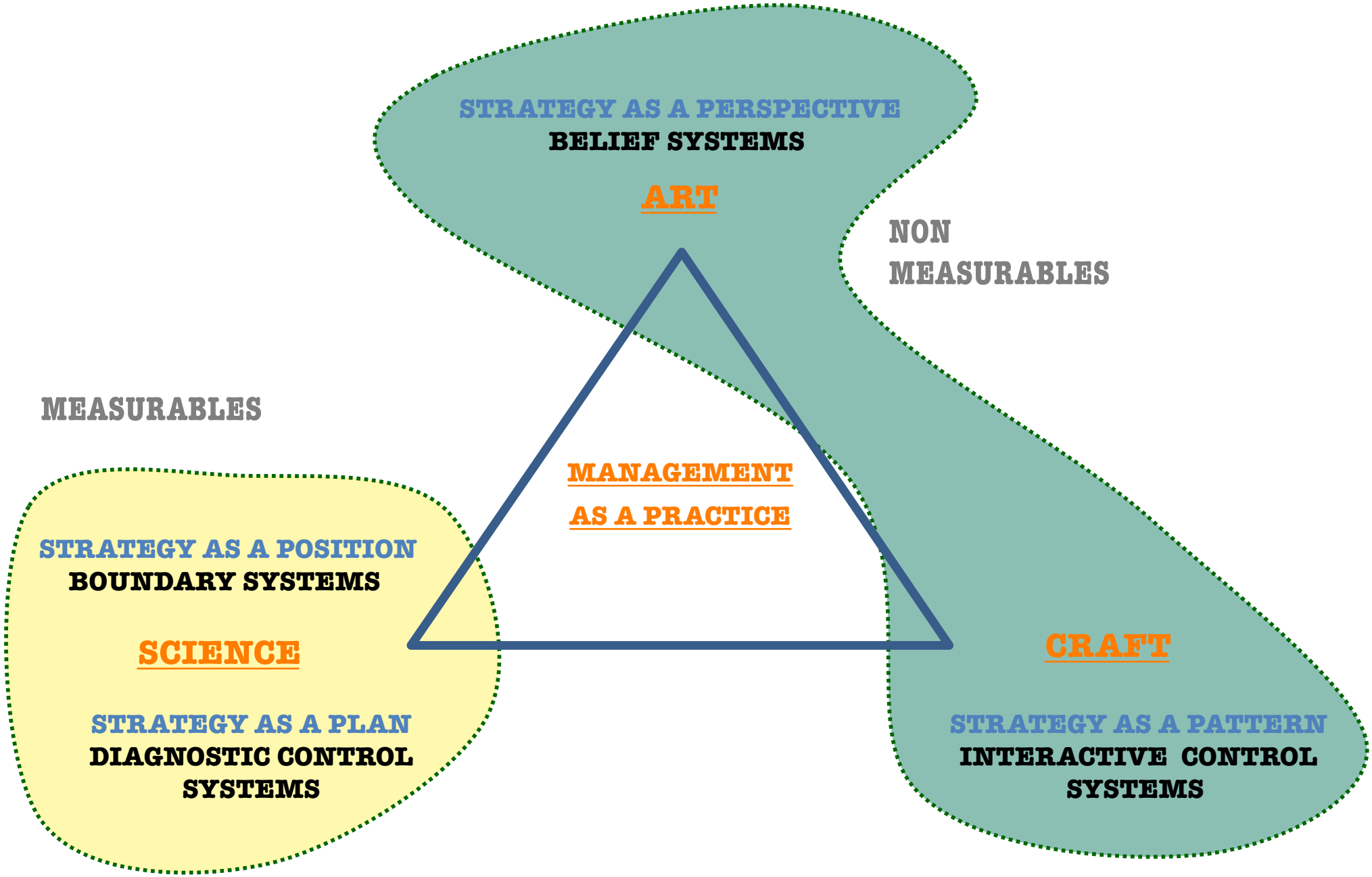
SCIENCE

CRAFT

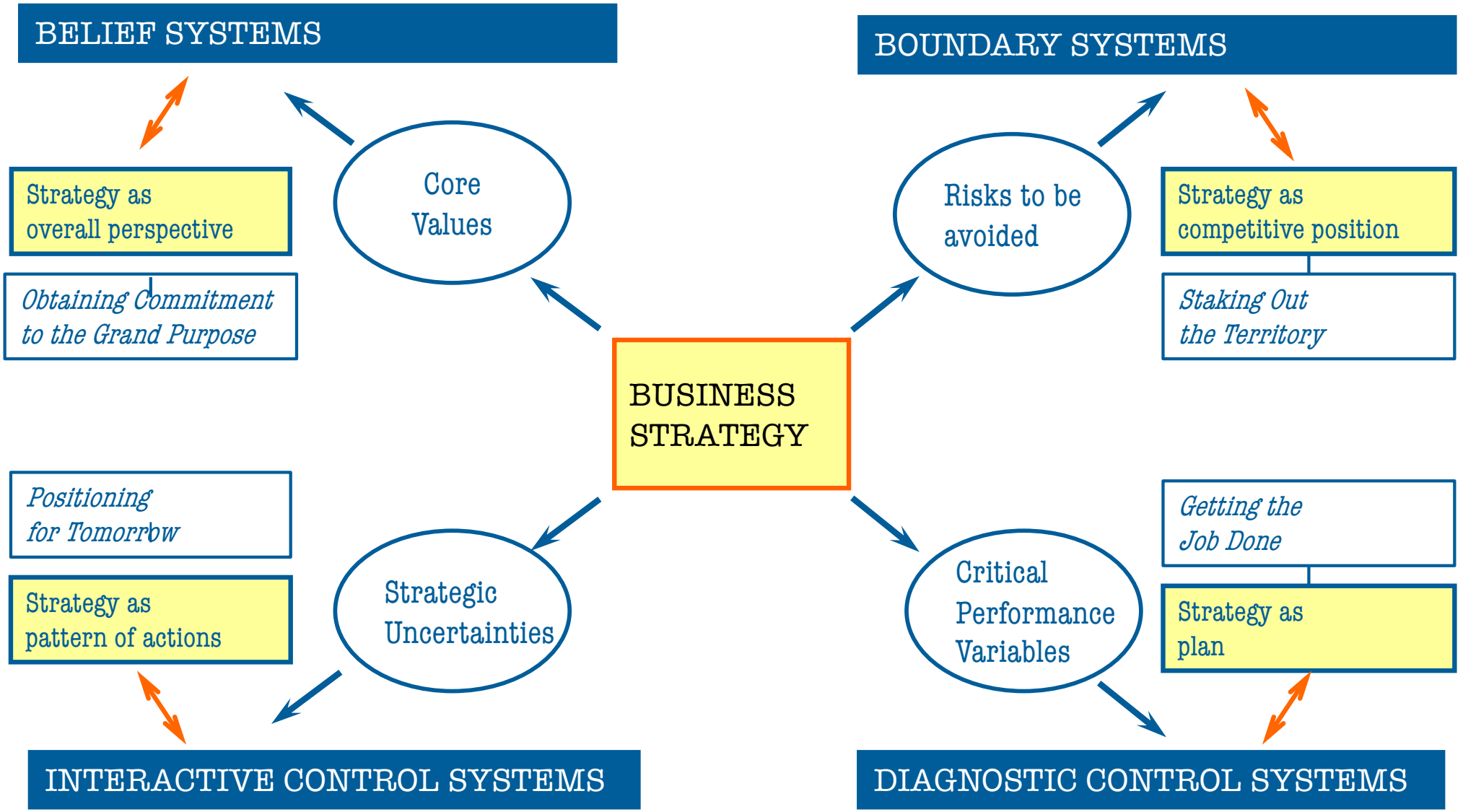
STRATEGY AS A PLAN
Diagnostic Control Systems

STRATEGY AS A PATTERN
Interactive Control Systems

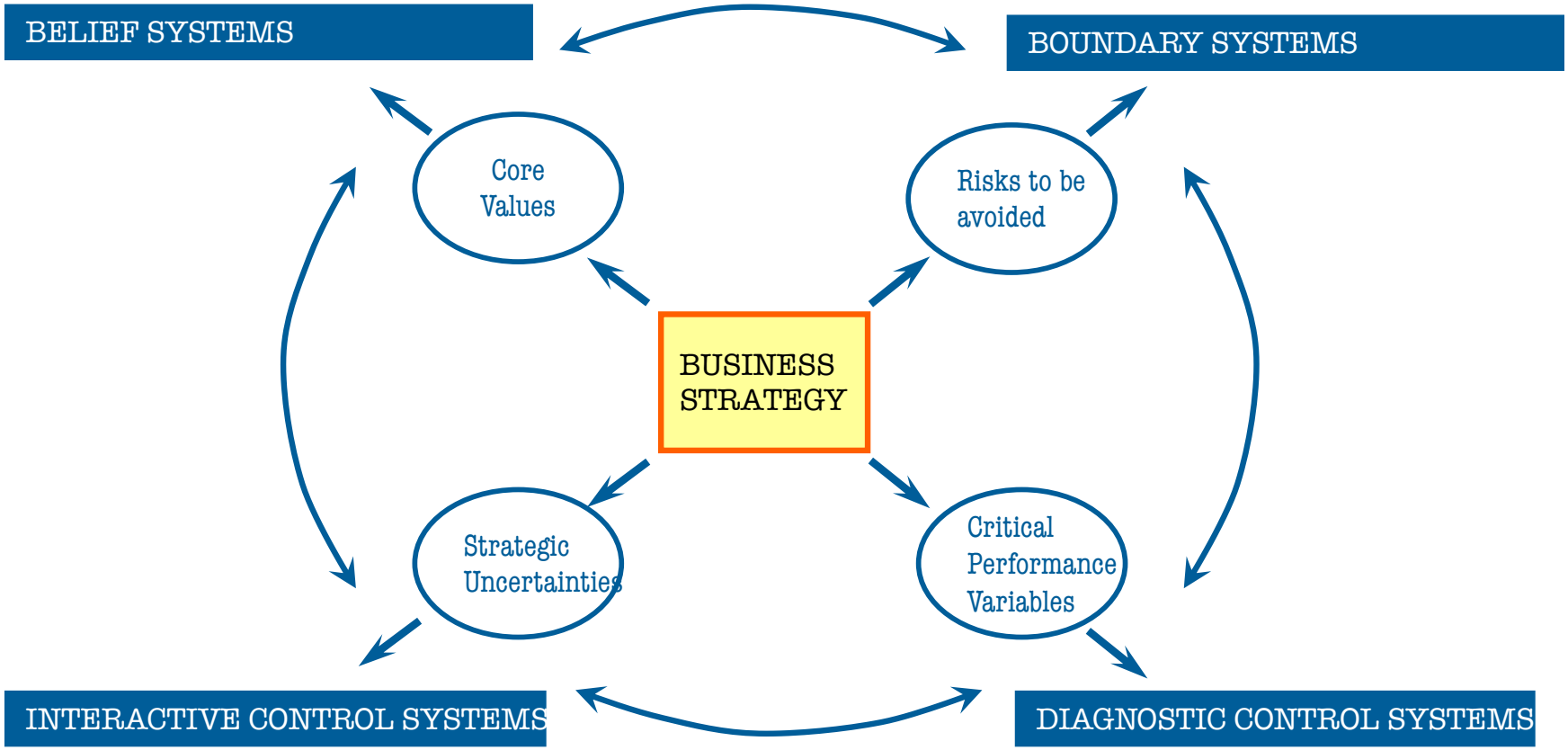
MINTZBERG TRIANGLE



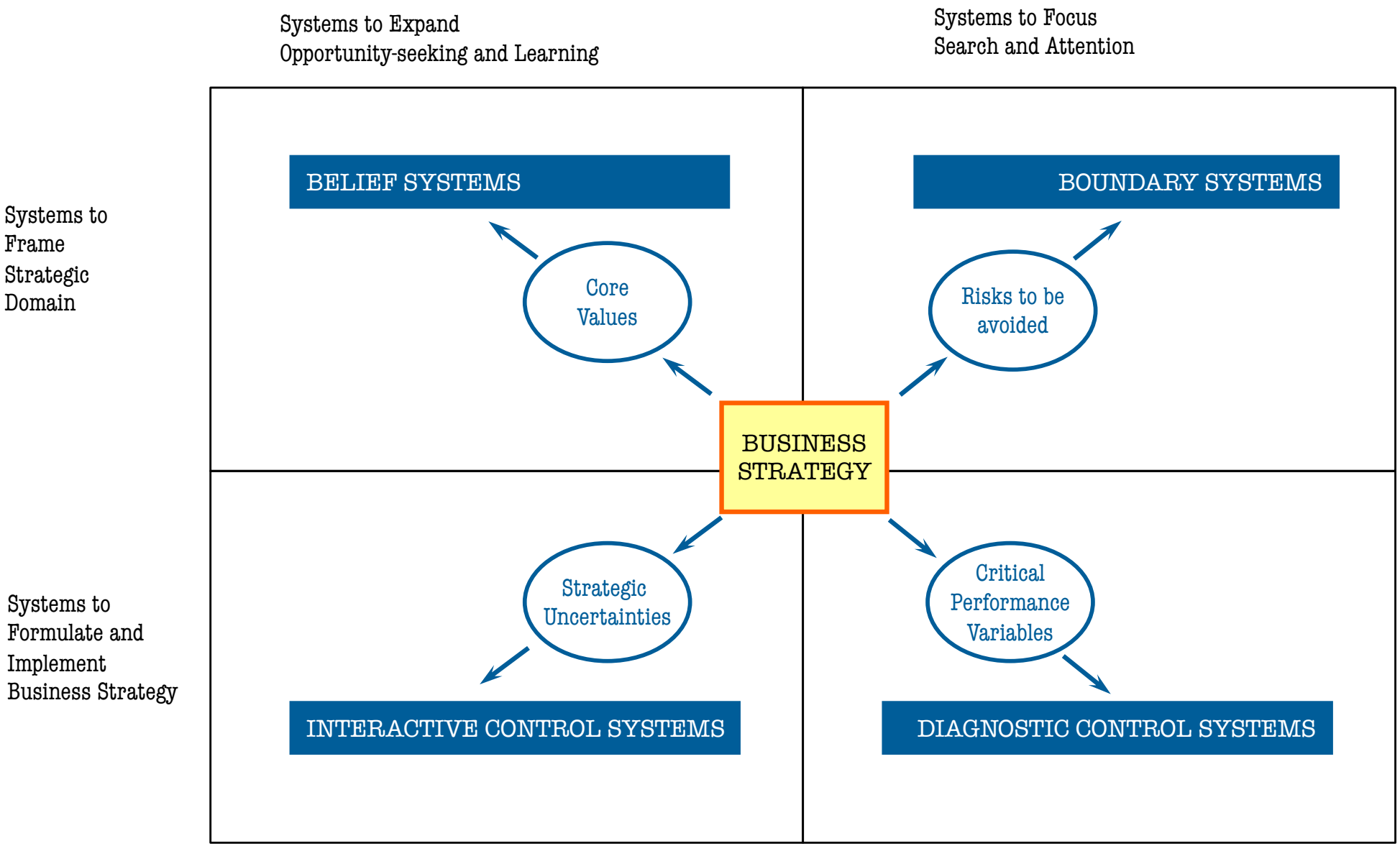
CONTROLLING BUSINESS STRATEGY



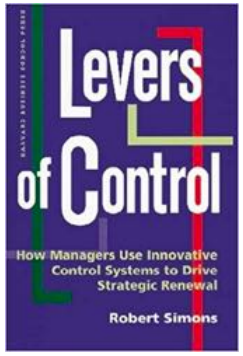
DYNAMIC INTERPLAY OF FORCES



LEVERS OF CONTROL



READING SUGGESTIONS



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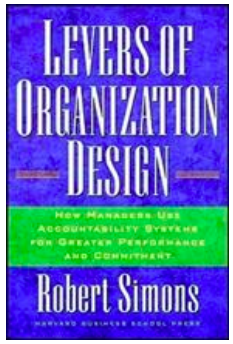

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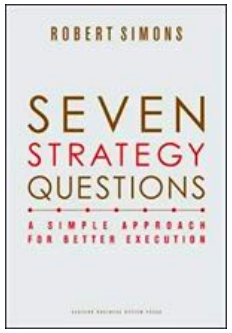

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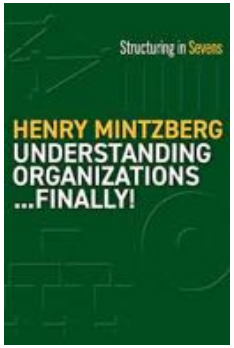

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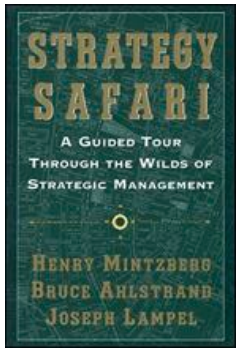

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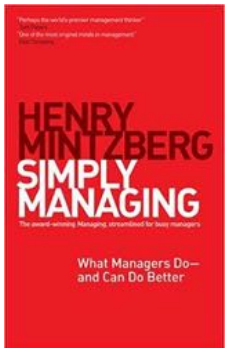

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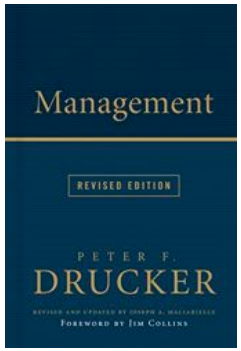

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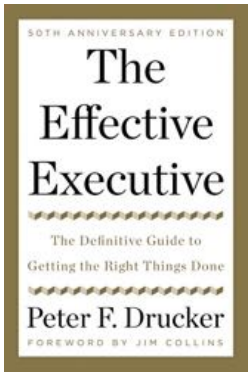

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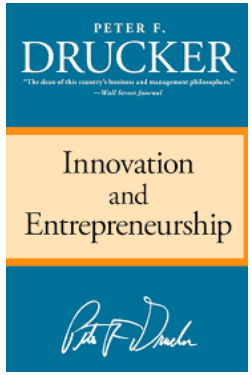

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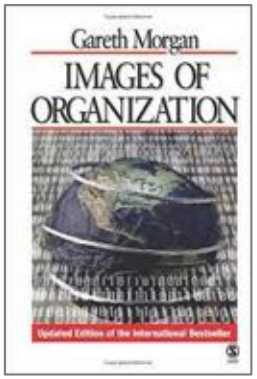

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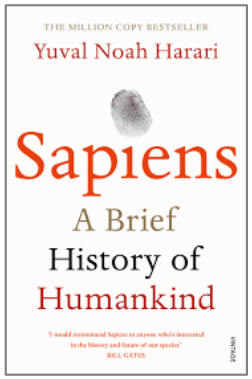

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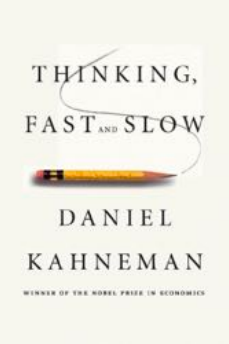

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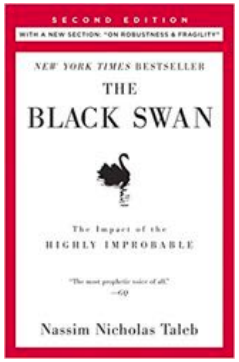

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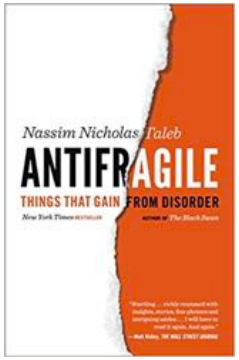

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