Designing Natural Tension into the Design of Adaptive Enterprises -- "Context and Coordination" in the Sense & Respond Organization

David Ing & Ian Simmonds -- IBM

International Society for Systems Sciences
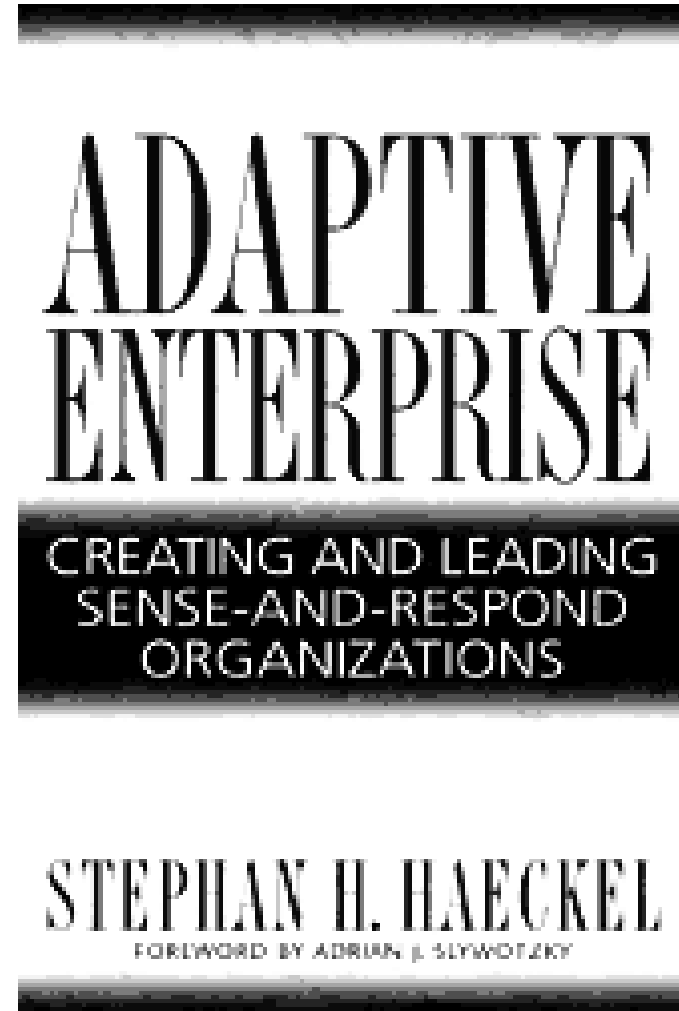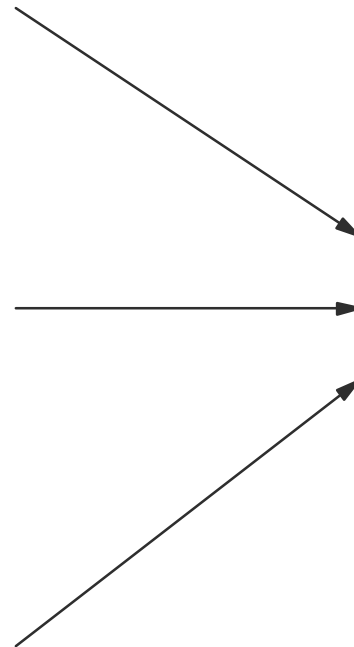at Asilomar, Pacific Grove, CA
July 27 to July 2, 1999

1.0 Introduction
Organizational models for asynchronous, multinational e-business?
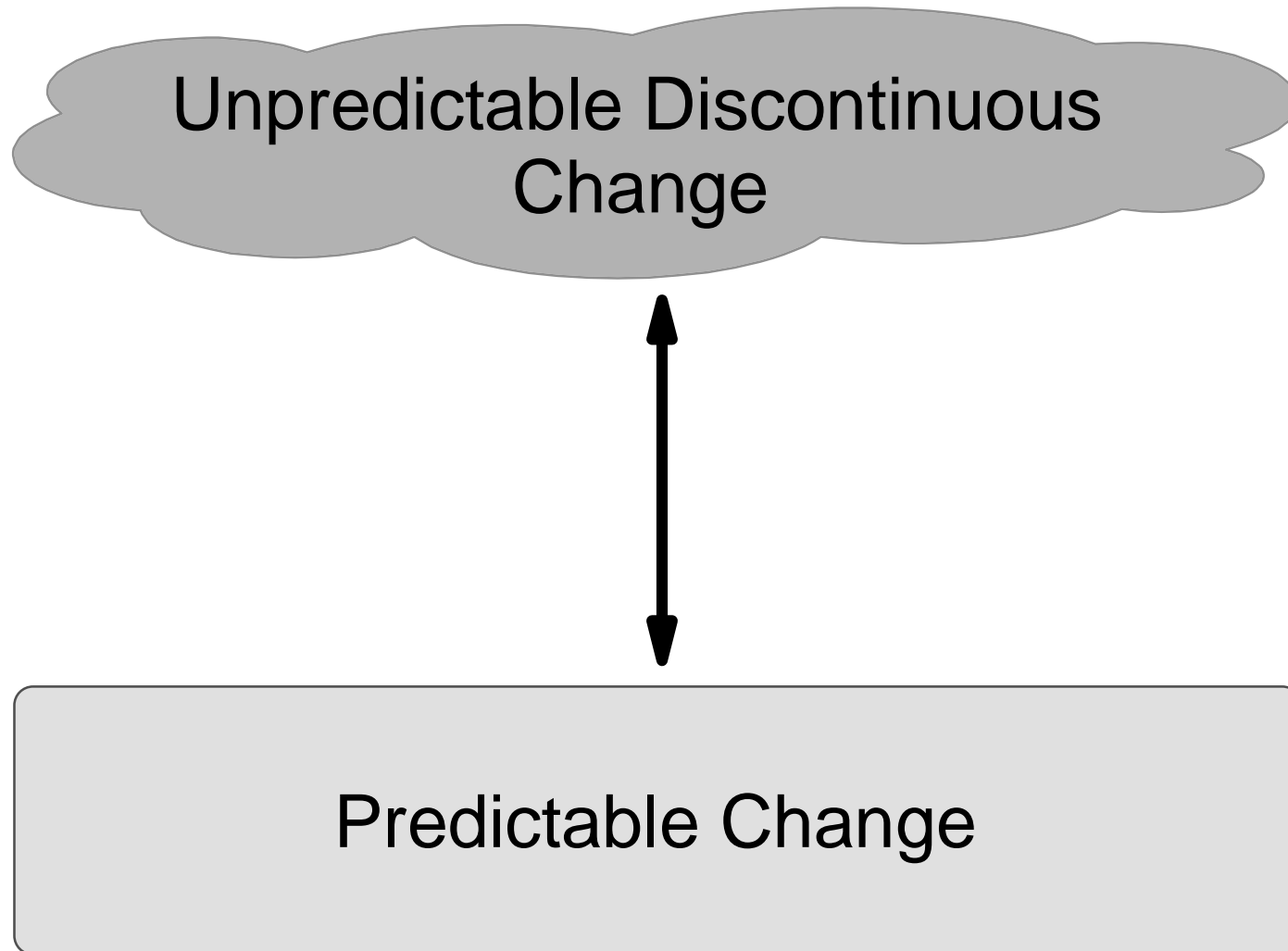
multinational enterprise

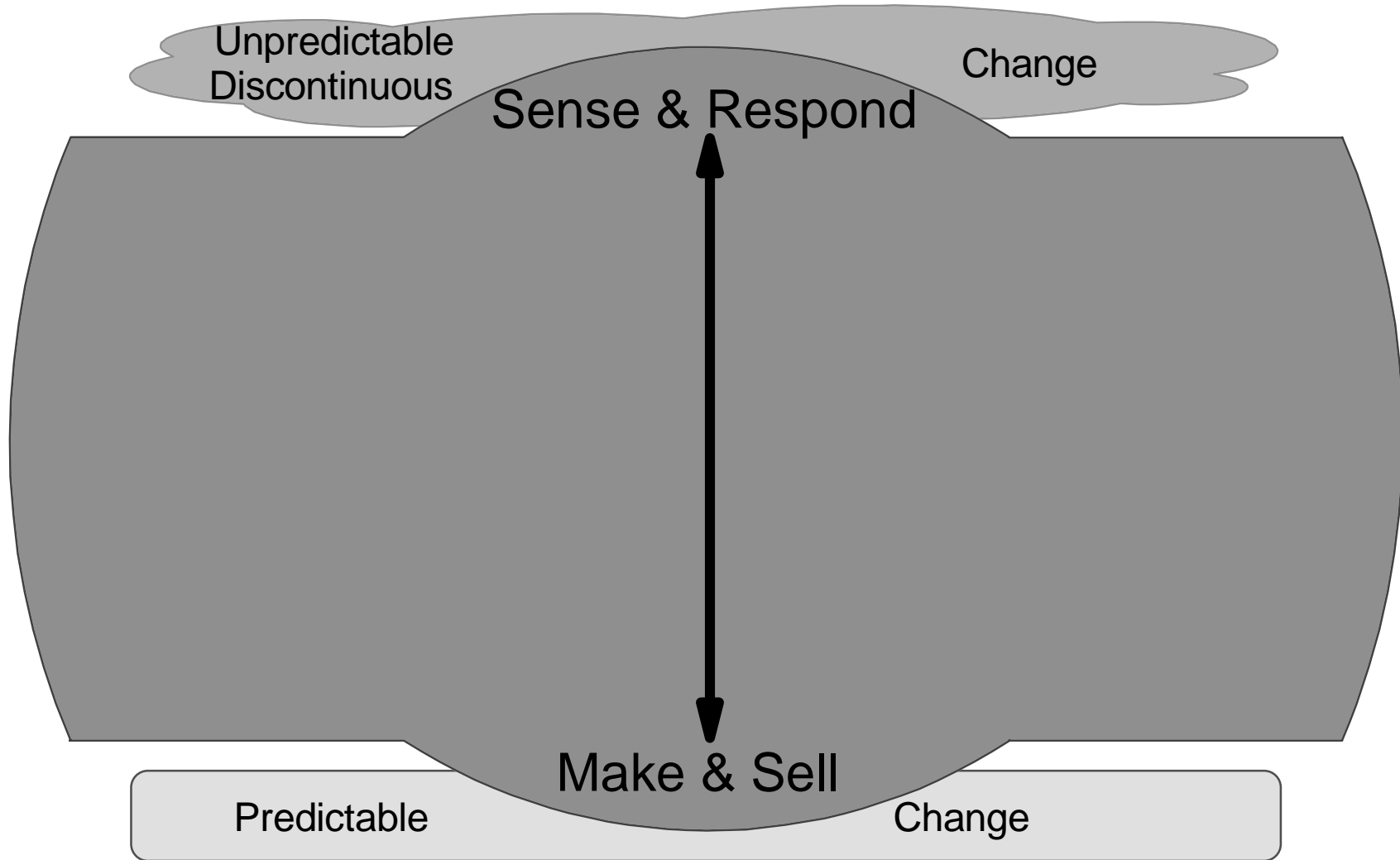| network form of organization, and "co-opetition" |
|---|

asynchronous, electronic intermediation

ADAPTIVE ENTERPRISE

CREATING AND LEADING SENSE-AND-RESPOND ORGANIZATIONS

STEPHAN H. HAECKEL

FOREWORD BY ADRIAN J. SLYWOTZKY

How does change impact strategy?

Unpredictable Discontinuous Change

Predictable Change

Sense & Respond <--> Make & Sell

Unpredictable
Discontinuous
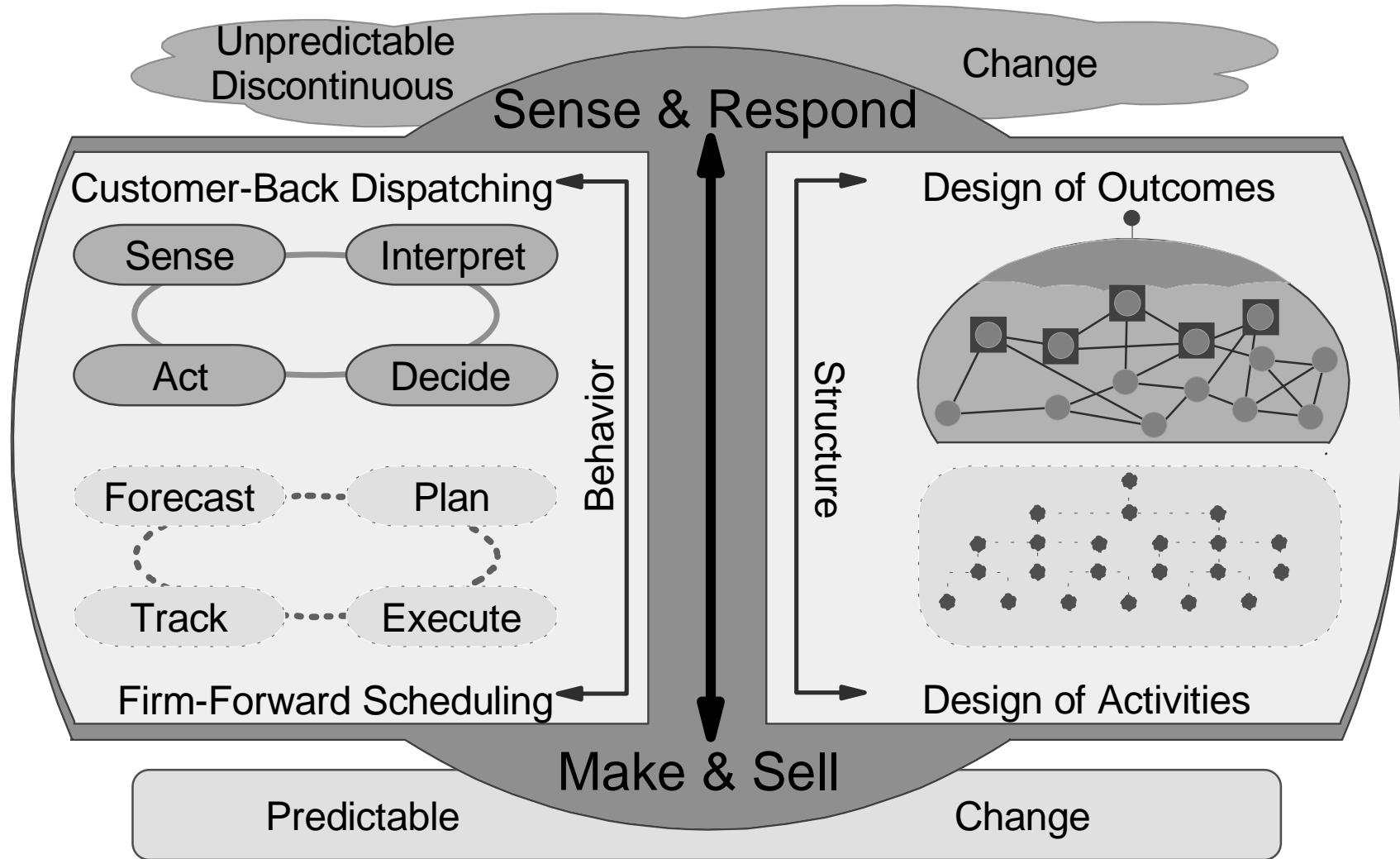
Change

Sense & Respond

Make & Sell

Predictable

Change

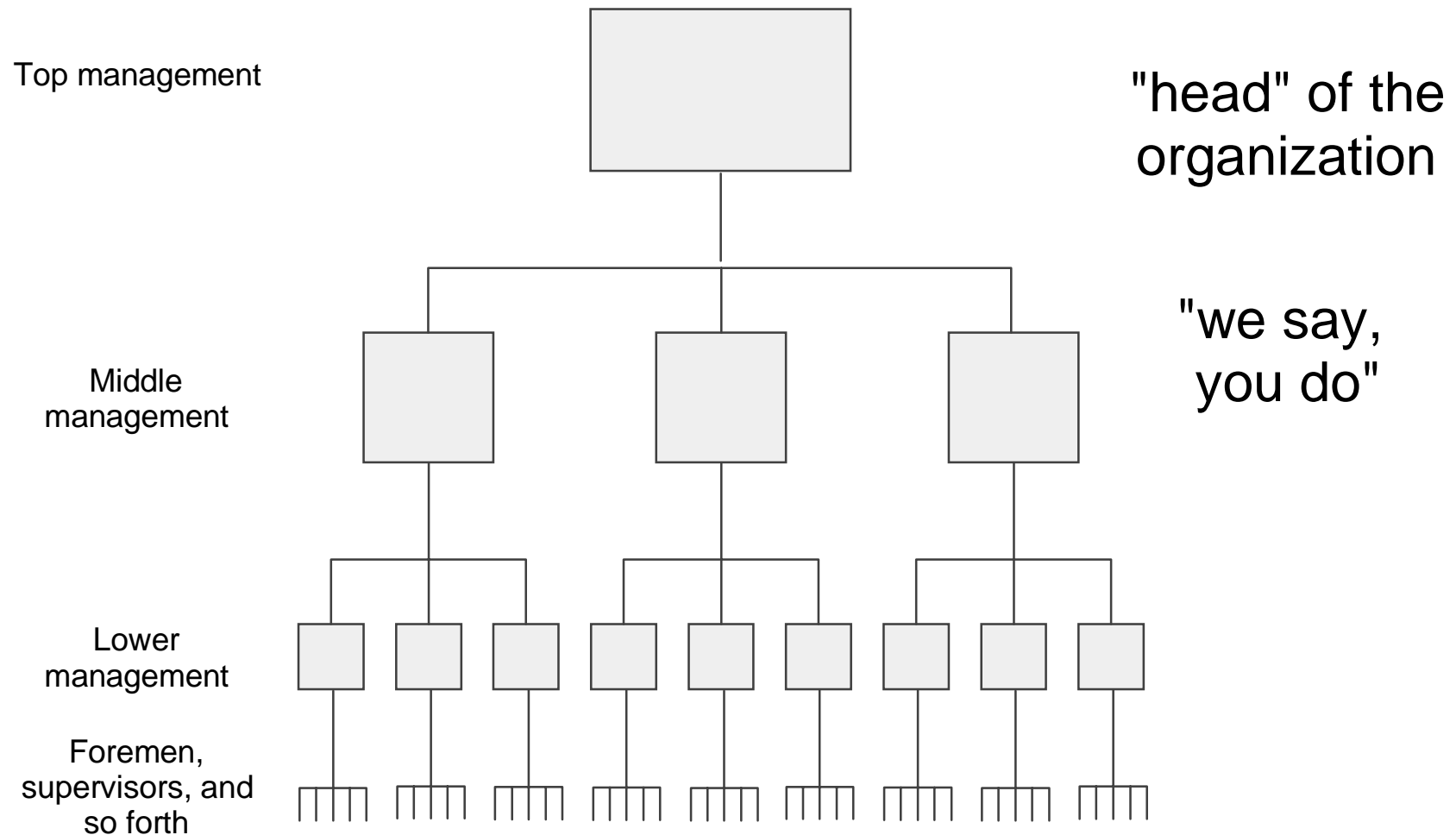# Strategy = behavior, expressed as structure
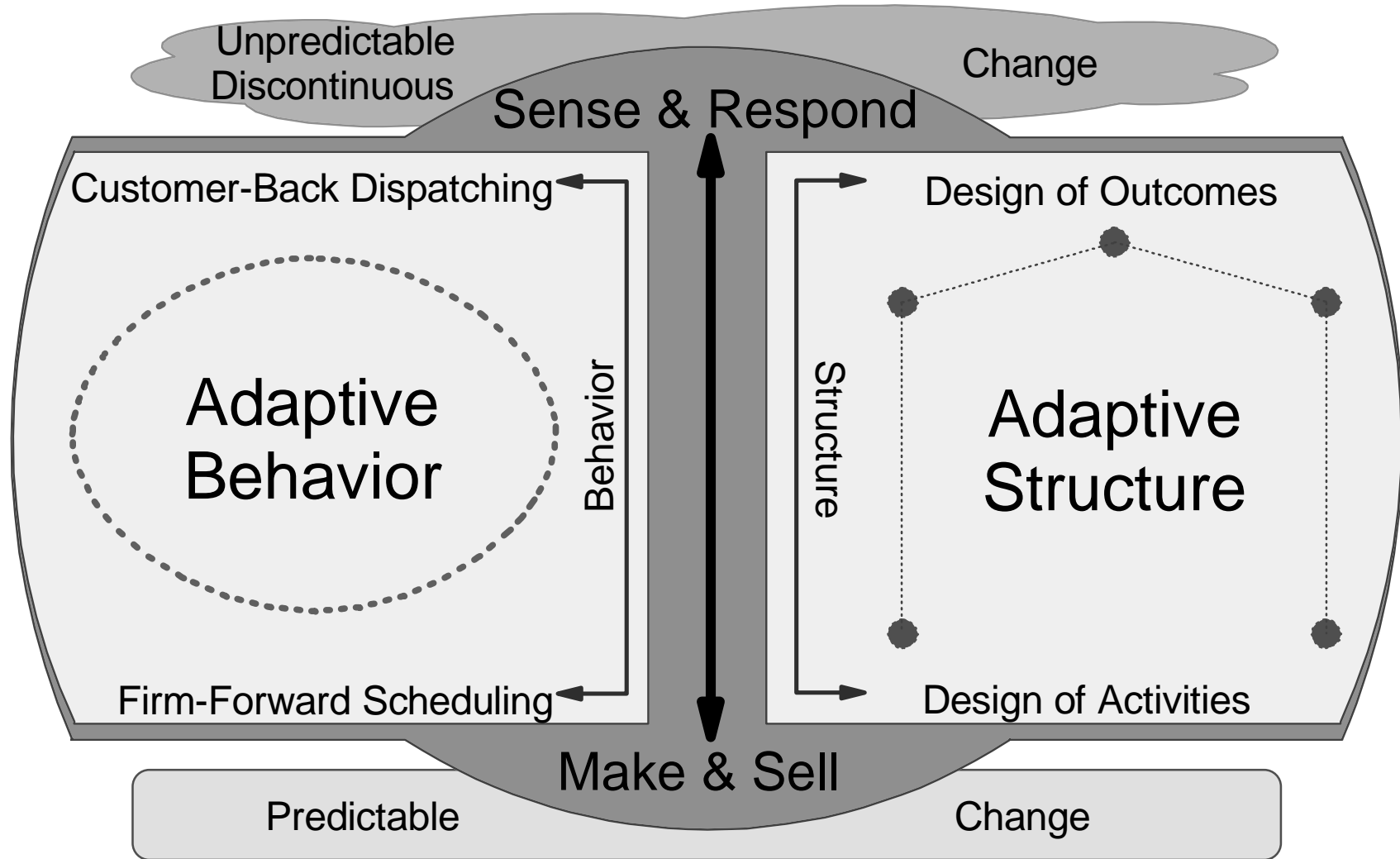
1. Introduction ...
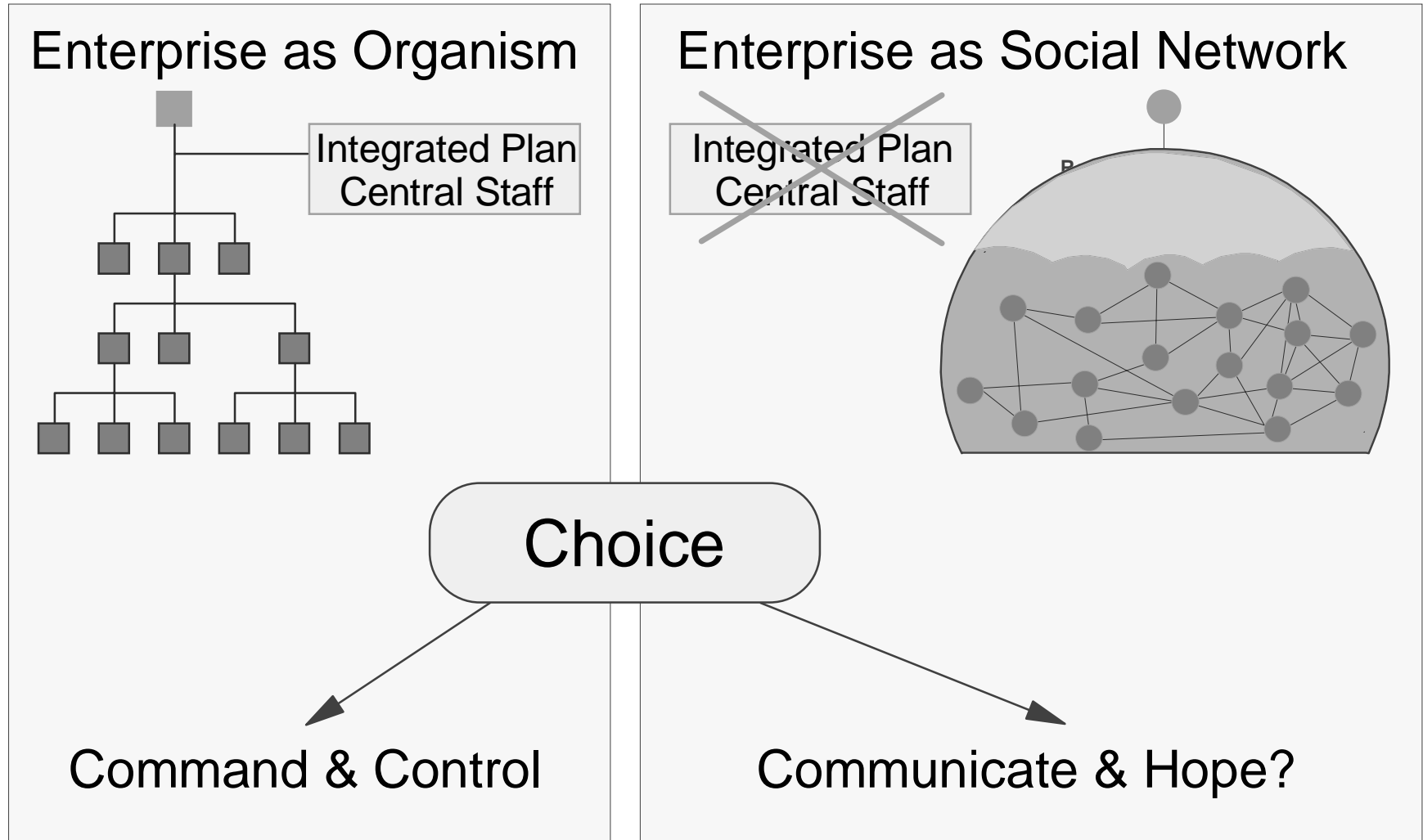## In this paper, we focus on structure (as the design of outcomes)

2.
Command & Control is based on an organismic view of the enterprise

Top management

Middle management

Lower management

Foremen, supervisors, and so forth

"head" of the organization

"we say, you do"

Command & Control, when ineffective, becomes Communicate & Hope

Enterprise as Organism

Integrated Plan
Central Staff

Enterprise as Social Network

Integrated Plan
Central Staff

Choice

Command & Control

Communicate & Hope?

2.2 ...
Emergence produces a challenge in coherency of purpose and consistency in response

Intended Strategy

Deliberate Strategy
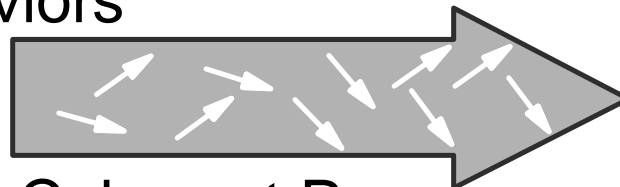
Unrealized Strategy

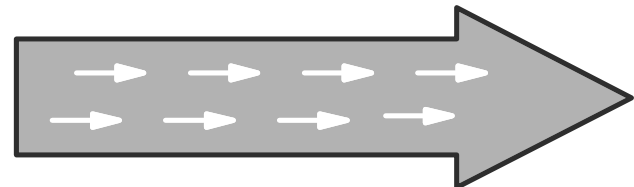Emergent Strategy

Realized Strategy
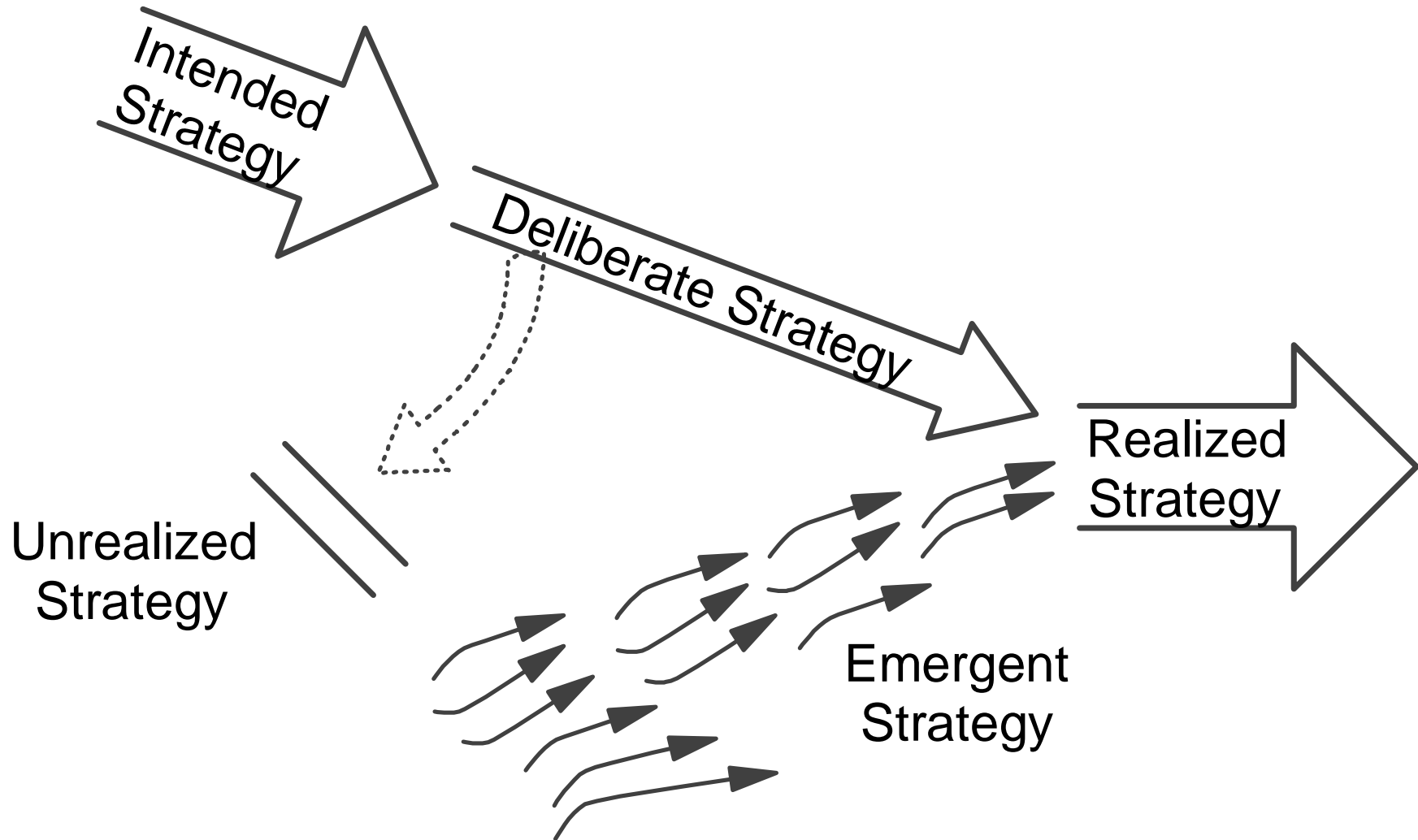
Emergence produces a challenge in coherency of purpose and consistency in response
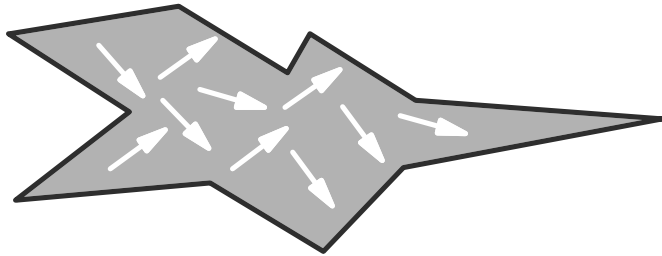
Incoherent Purpose
Inconsistent Behaviors

Coherent Purpose
Inconsistent Behaviors
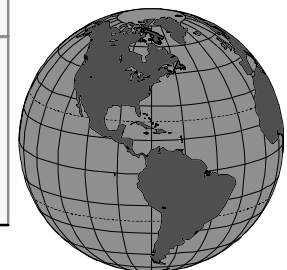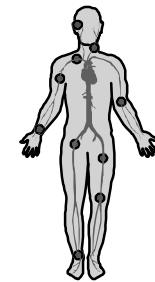
Coherent Purpose
Consistent Behaviors

A social system acts purposefully both in its parts and as a whole
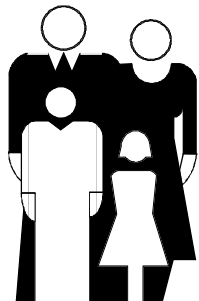
Systems & Models	Parts	Whole
Deterministic	Not purposeful	Not purposeful
Animated	Not purposeful	Purposeful
Social	Purposeful	Purposeful
Ecological	Purposeful	Not purposeful

Source: Ackoff (1984); Ackoff & Gharajedaghi (1996)

3.2 Context & Coordination ...
Organizational Context includes Purpose & Bounds, Capabilities and Role Structure
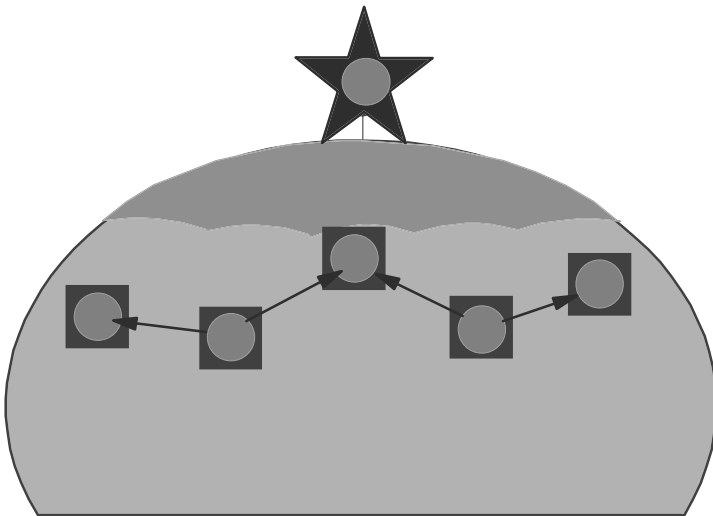
3.21 Purpose is the primary function of the enterprise as a whole

3.22 Bounds are expressed as governing principles

3.23 Capabilities are the subsystems with potential to produce outcomes

3.24 Accountabilities for capabilities are mapped into roles to be filled

3.25 Adaptation of the context is the accountability of the leadership

3.3 Context & Coordination ...
Coordination of Outcomes includes *Commitments to Fill Roles* and *Commitments to Deliverables*
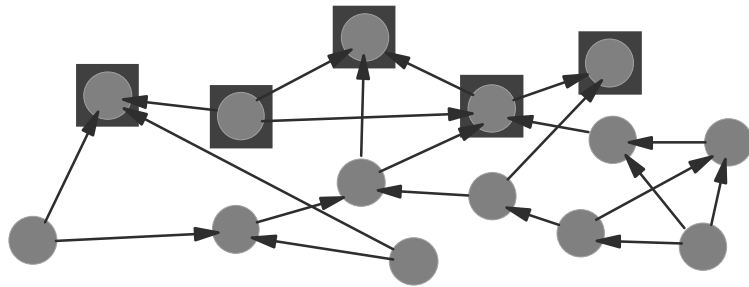
3.31 Coordination occurs through *"Conversations"* and *"Coupling"* of the Outcomes

3.32 Conversations can be about two types of outcomes

3.33 Adaptive coordination loops emerge through commitments and renegotiation

4.1 Layers of differing rates of change ...
Layers which change at different rates "shear" against each other

Stuff

Space Plan

Services

Structure

Skin

Site
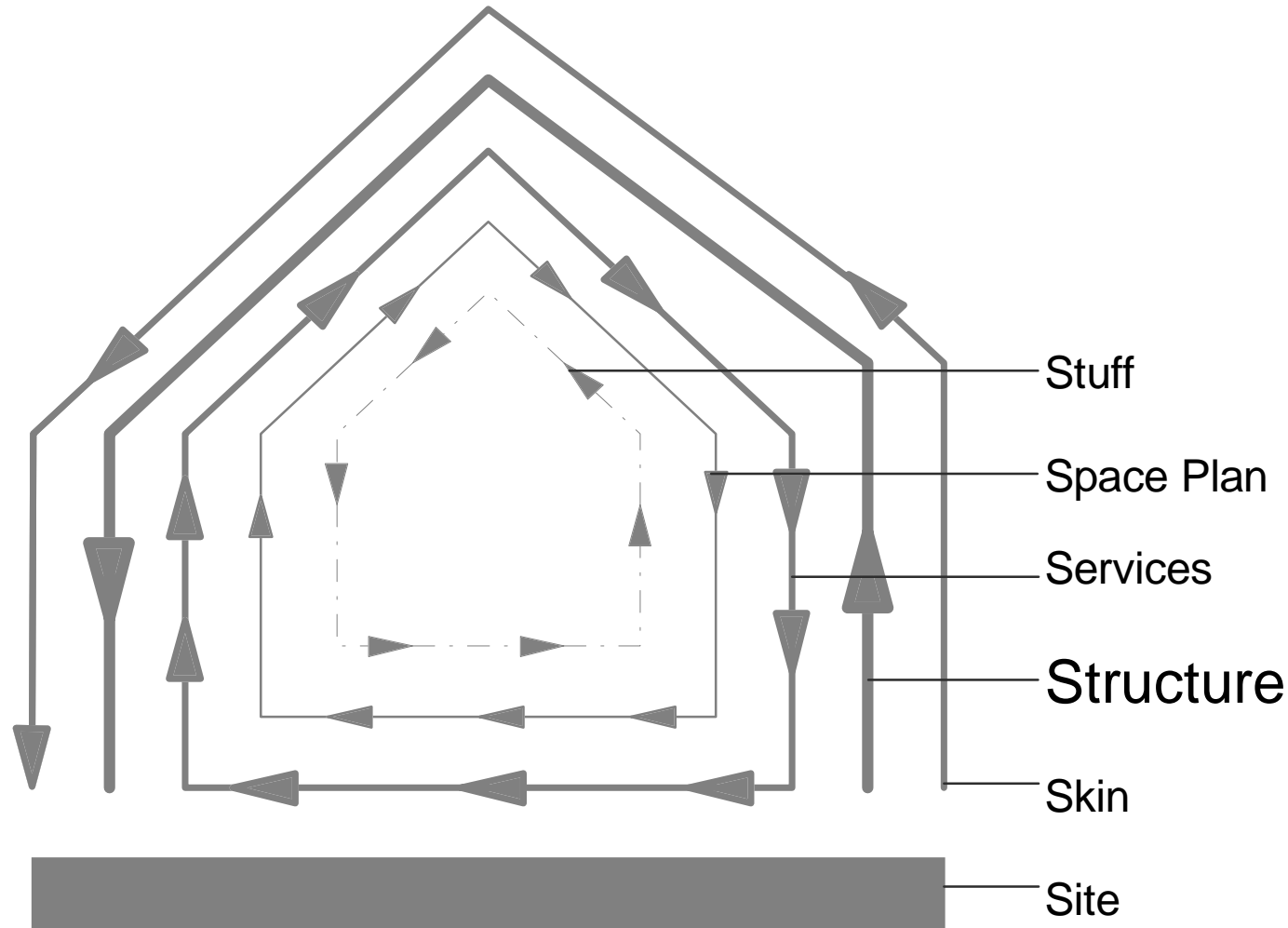
4.2 Layers of differing rates of change ...
The time horizon of ends can be expressed as shearing layers

Ideals

↓

Objectives

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Goals

4.3 Layers of differing rates of change ...
Understanding of Context & Coordination can be refined with more layers

2-layer
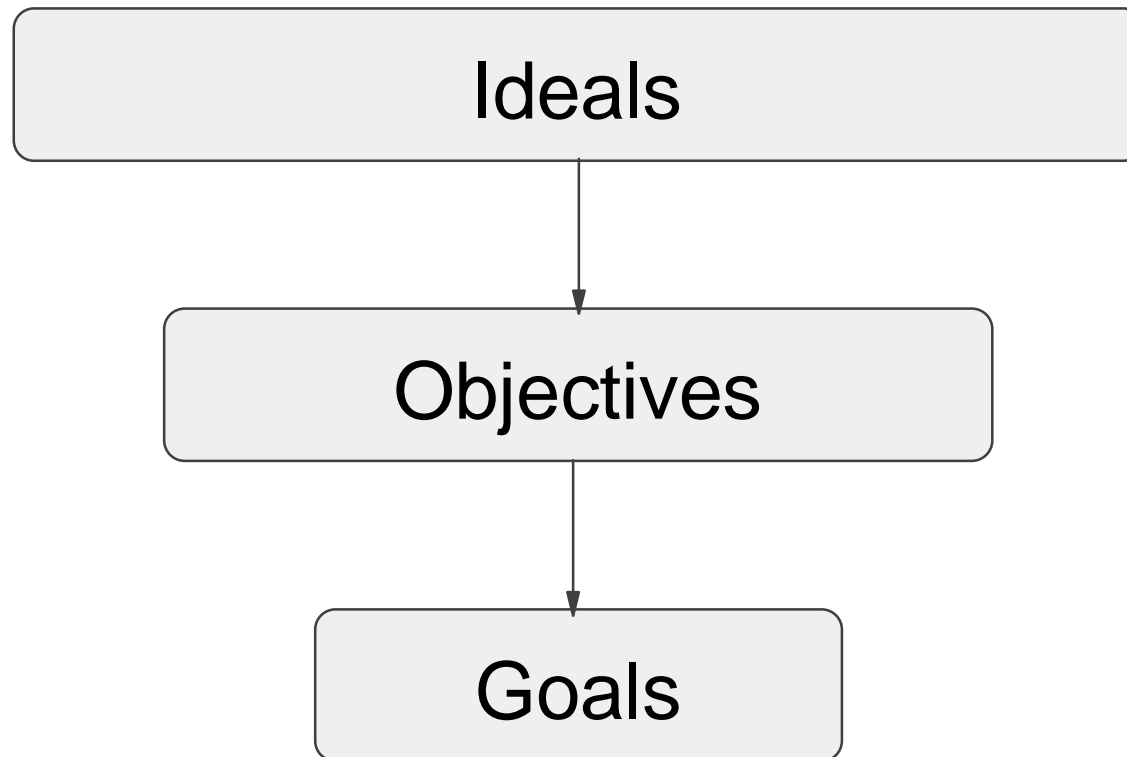
Context

Coordination

4-layer

Purpose

Bounds

Roles

Commitments

6-layer

Organizational purpose

Bounds on acceptable behavior

Capabilities

Role structure

Commitments to fill roles

Commitments to produce deliverables

Tension occurs as a faster-changing layer shears against a slower one

Organizational purpose

5. Are the bounds placed on the enterprise appropriate with its purpose?

4. Are capabilities appropriate to organizational purpose and bounds?

Bounds on acceptable behavior

Capabilities

3. Is the structure of roles appropriate to the capabilities established?

2. Have individuals agreed to fill roles essential to the enterprise design?

Role structure

Commitments to fill roles

1. Is the volume of deliverables consistent with the number of individuals in roles?

Commitments to produce deliverables