2021 Annual **INCOSE** international workshop

Virtual Event
January 29 - 31, 2021

MBSE – Culture Change Panel

www.incose.org/IW2021

Digital Transformation Journey

Requires
Reality

Siloed, Analog, State

Compelling Vision/ROI
Siloed, fuzzy plan

Engaged C-Suite
Delegated project

Common Priorities & Plans
Competing Priorities & Plans

Re-invent the Company
Digitized Siloed Work Processes

Tech & Org RL 4.5
Org. RL 1.5

Years needed
Months promised and budgeted

Integrated, Digital State
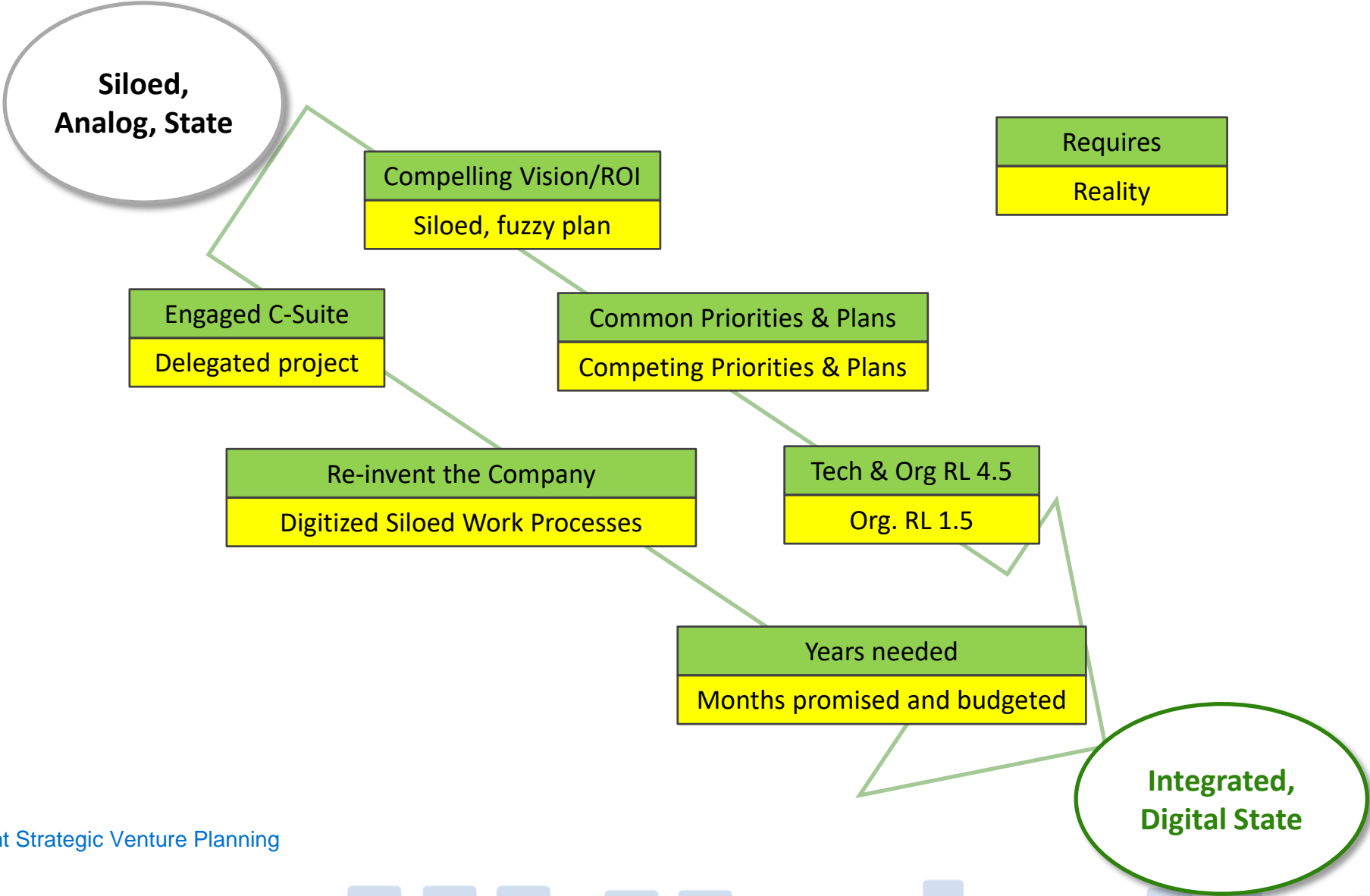
Most large enterprises are remarkably siloed
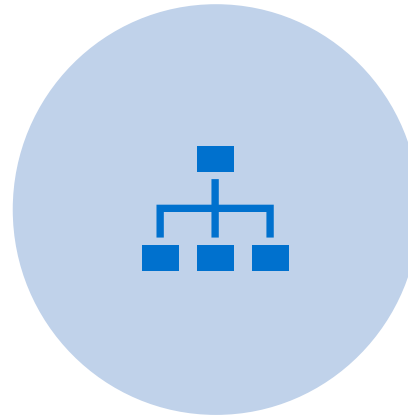Bounded rationality is the norm

Bounded Rationality

- Bounded rationality is the idea that rationality in individual's decisions is limited by:
    - the tractability of the decision problem
    - the cognitive limitations of the mind
    - the time available to make the decision
    - the perceived or actual limits of their view or knowledge (boundaries)
    - some combination or all of the above

- Decision-makers, in this view, act as <u>satisficers</u>, seeking a satisfactory (local) solution rather than an optimal (systemic) one.

Source: Simon, Herbert; *Models of Man*

Bounded Rationality

3 fundamental corporate processes drive BR
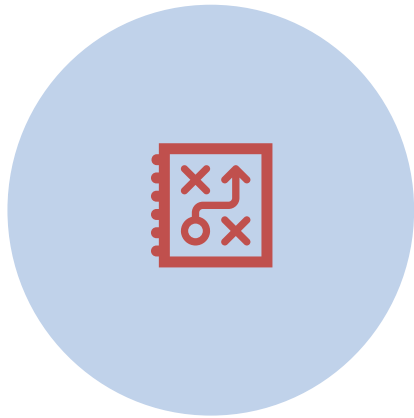
STRATEGY DEVELOPMENT and DEPLOYMENT (OKRs)

OPERATIONAL TOTAL SHAREHOLDER RETURN (OTSR)
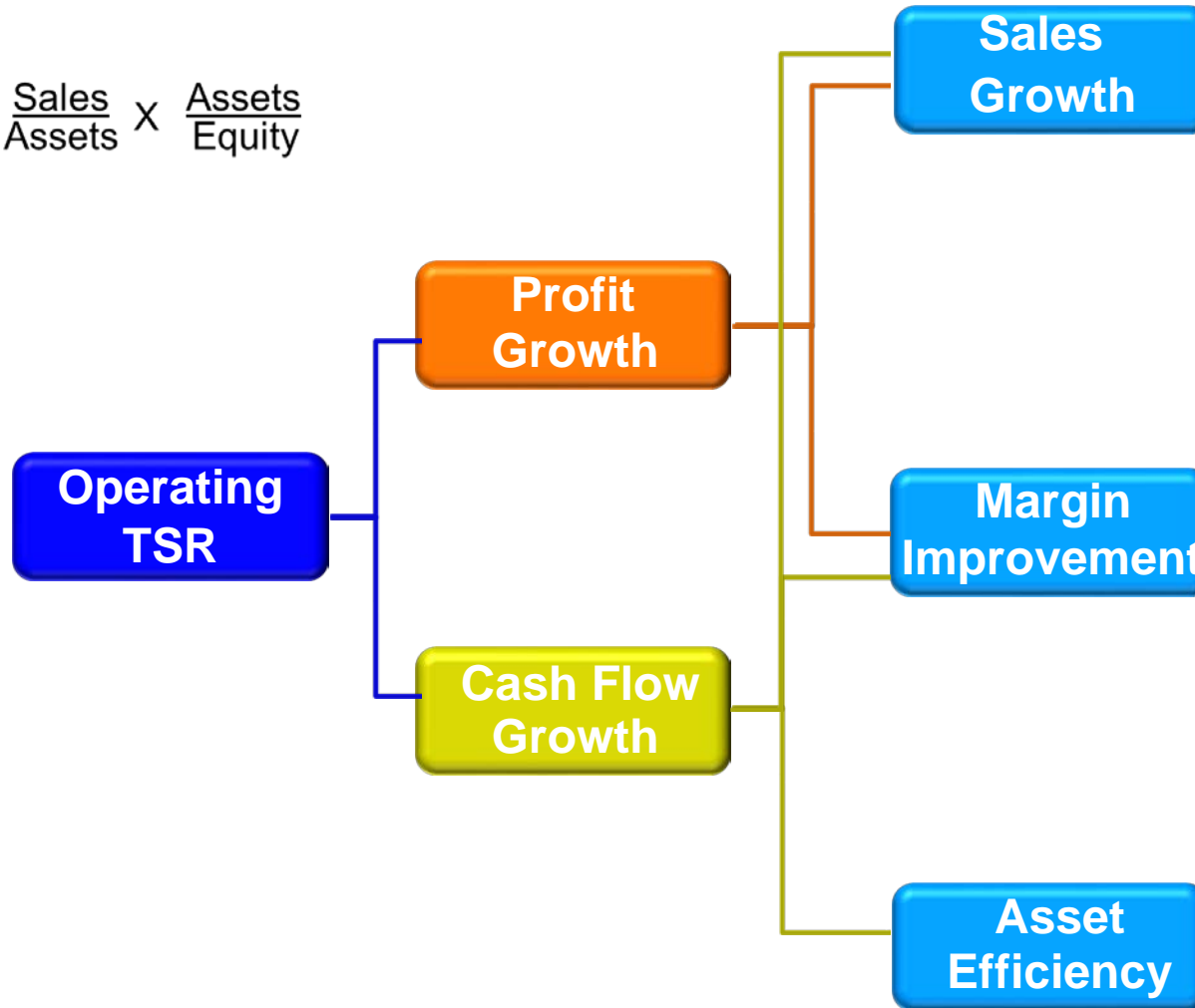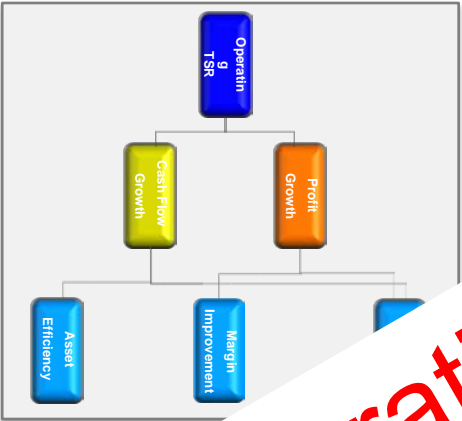
INCENTIVES ($$)

OKRs

Top Level — MyMobileGame

MyMobileGame
Startup Objective:
Raise $1M in 6 Months

Key Results
KR1: Discuss Term Sheet with 6 Investors
KR2: Get 50k Installations
KR3: Validate Value Proposition

MyMobileGame
Discuss Term Sheet with 6 Investors
Assigned to: CEO

Key Results
KR1: Go to 2...
KR2: Ge...
KR3: ...

...Marketing

Key Results
KR1: Be Featured in 20 Blogs
KR2: Launch 3 Media Campaigns
(Facebook, Twitter & Minimob)

MyMobileGame
Validate Value Proposition (Product-Market Fit)
Assigned to: Development

Key Results
KR2: [Activation] More than 30% Daily Active Users
KR1: [Acquisition] Average CPI < $1.3
KR3: [Retention] Monthly Churn Rate < 20%

More Levels

Reductionist: bounded rationality risk

Source: http://www.okrcoaching.com/

du Pont Identity)

$$RoE = \frac{Net\ Income}{Equity} = \frac{Net\ Income}{Sales} \times \frac{Sales}{Assets} \times \frac{Assets}{Equity}$$

Operating TSR

Profit Growth

Cash Flow Growth
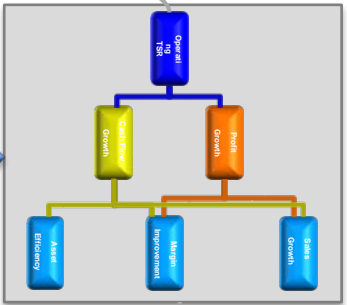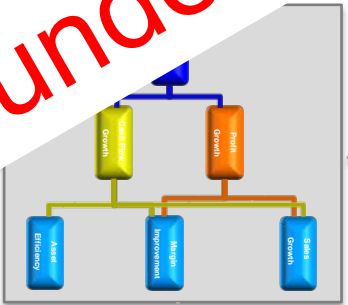
Sales Growth
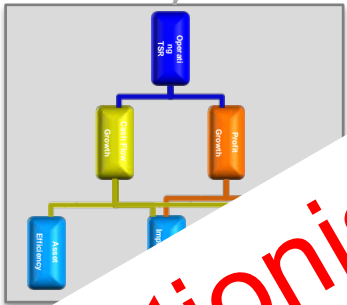
Margin Improvement

Asset Efficiency

**Mathematics
vs
Transformation
Synergy**

Reductionist: bounded rationality risk

Synergy?

WagePayment Plan

Time Rate System — Piece Rate System — W...

Time-ba...

Productivity-based Approach

Halsey Plan — Row... — ...lan

...rrick Plan — Gantt Plan

Straight Piece Rate with minimum guarantee — Differential Piece Rate
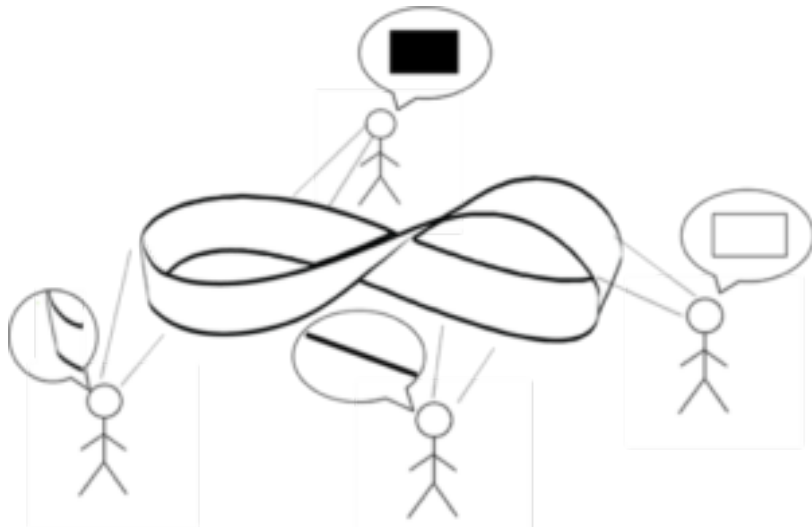
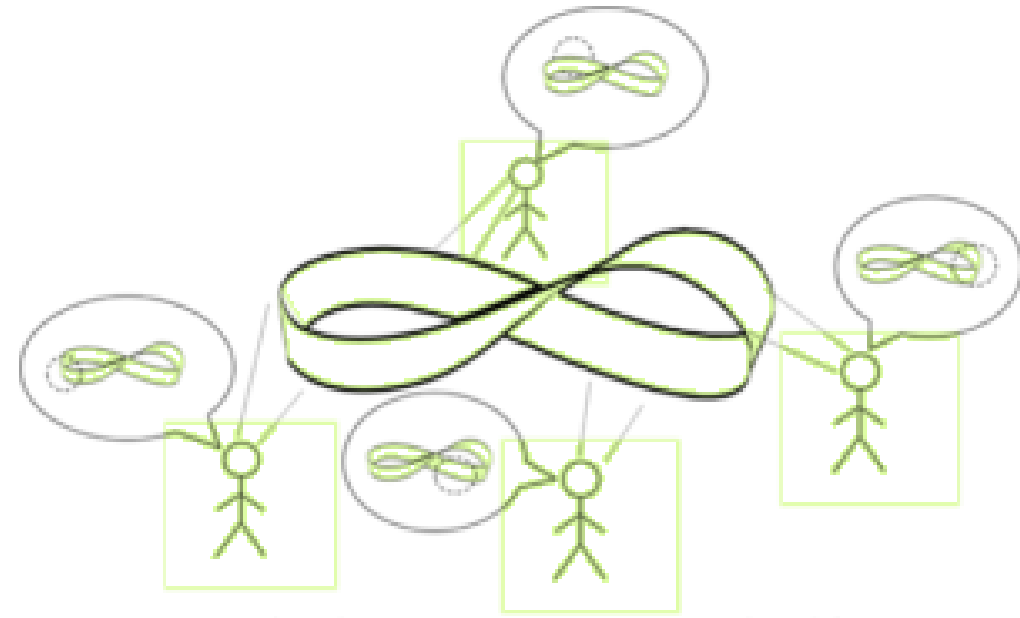*Overlaid on top of first two assures bounded rationality is the norm*
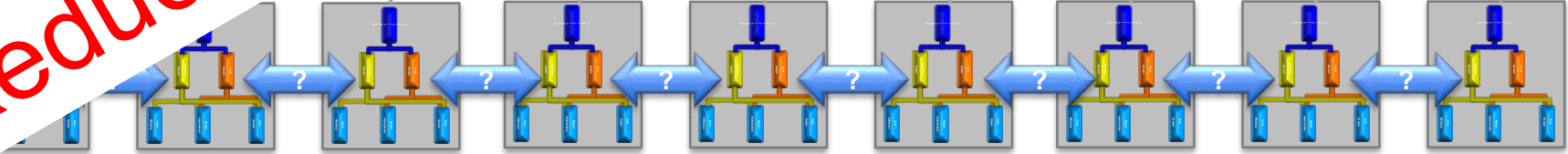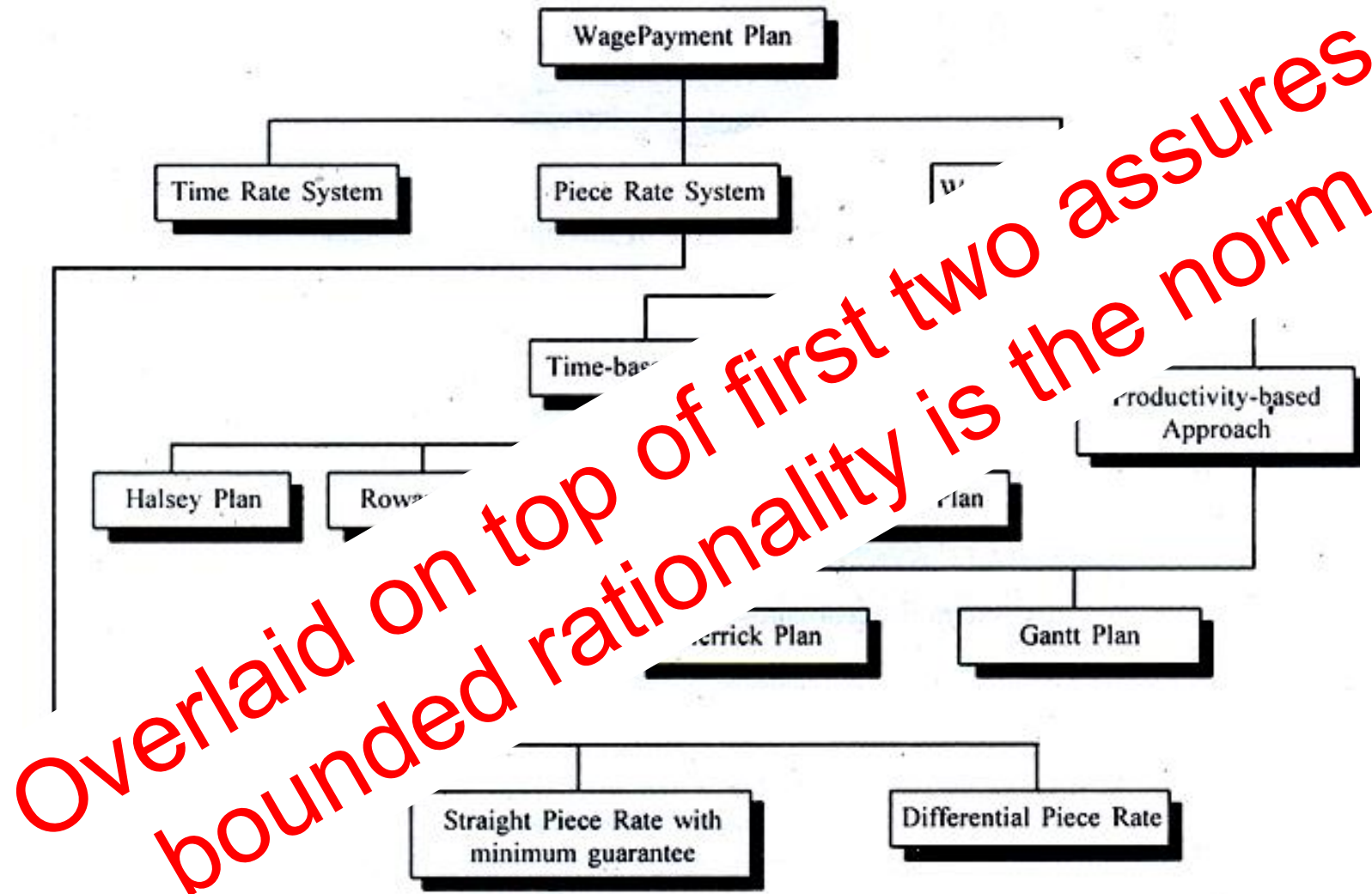
Systematic vs. Systemic

Siloed Views – Bounded Rationality

Shared System View – Common Mental Models

Deming on Systems

- The *Appreciation of a system* involves understanding how interactions (i.e., feedback)

    - between the elements of a system can result in internal restrictions

    - that force the elements in the system to behave as a single organisms, not as system elements (holons), that automatically seeks a steady state (bounded rationality).

- It is this "steady (bounded) state" that determines the output of the system rather than the individual elements.

    - Thus it is the structure of the organization (read system) rather than the employees, alone, which holds the key to improving the quality of output.

"Steady State"

"The way we/I have always done it"

Three Keys (and challenges)

1. Must get C-Suite to think in systems (systemic and systematic)

   - Very rare!

2. Must have C-Suite support and engagement

   - Engagement is rare and support is usually lip-service.

3. Must have compelling reasons for transformation - Strategic, ROI, preferably both

   - Rare, usually aspirational happy talk and effort is viewed as an expense (a corporate tax at the division/local level), and therefore, resisted.

Olivier de Weck
MIT

David Long
Vitech

Mark Sampson
Siemens

Tom McDermott
SERC

Troy Peterson
SSI

Willy Donaldson
SVP/CNU