

# **The Two Faces of Complexity *or* Seduced by Santa Fe**

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Too big to fail...



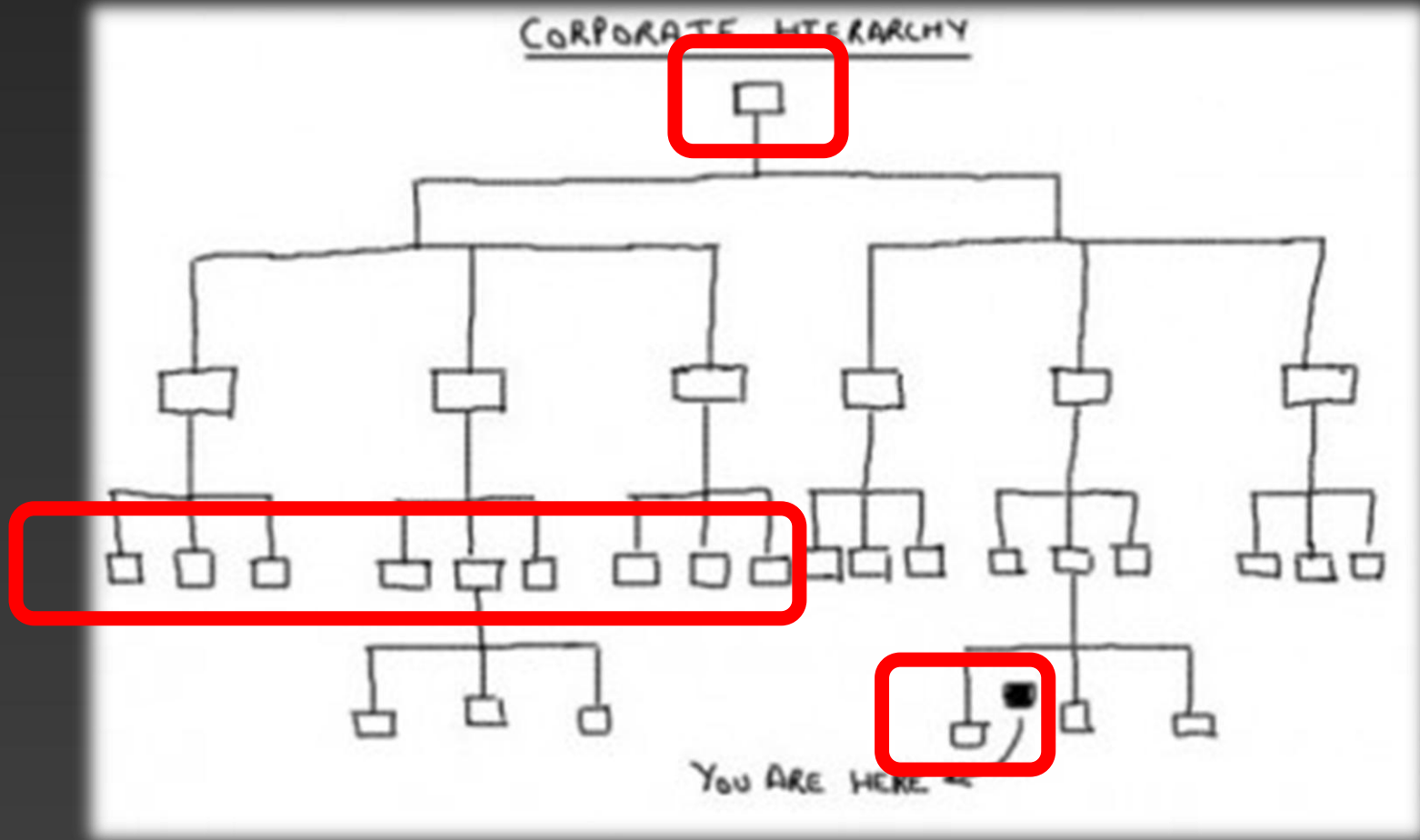
**JPMorganChase**

...but too complex to manage

# A personal anecdote



# Who is accountable?



# The two faces of complexity





# So what do we really mean by organisational complexity?



# OBJECTIVE COMPLEXITY

# EXPERIENCED COMPLEXITY

Number of activities  
x  
linkages between them

Inefficient systems  
Unclear accountabilities

“Difficult to  
get things  
done”

# How does complexity transpire?



## DESIGN PROCESS



# How does complexity transpire?



Power of Self-Organization

## EMERGENT PROCESS

# Applying the principle of emergence to organisations

Agile development  
Self-organising teams  
Organisational learning  
Strategy as simple rules  
Open space technologies  
Managing at the edge of chaos

# How does complexity transpire?

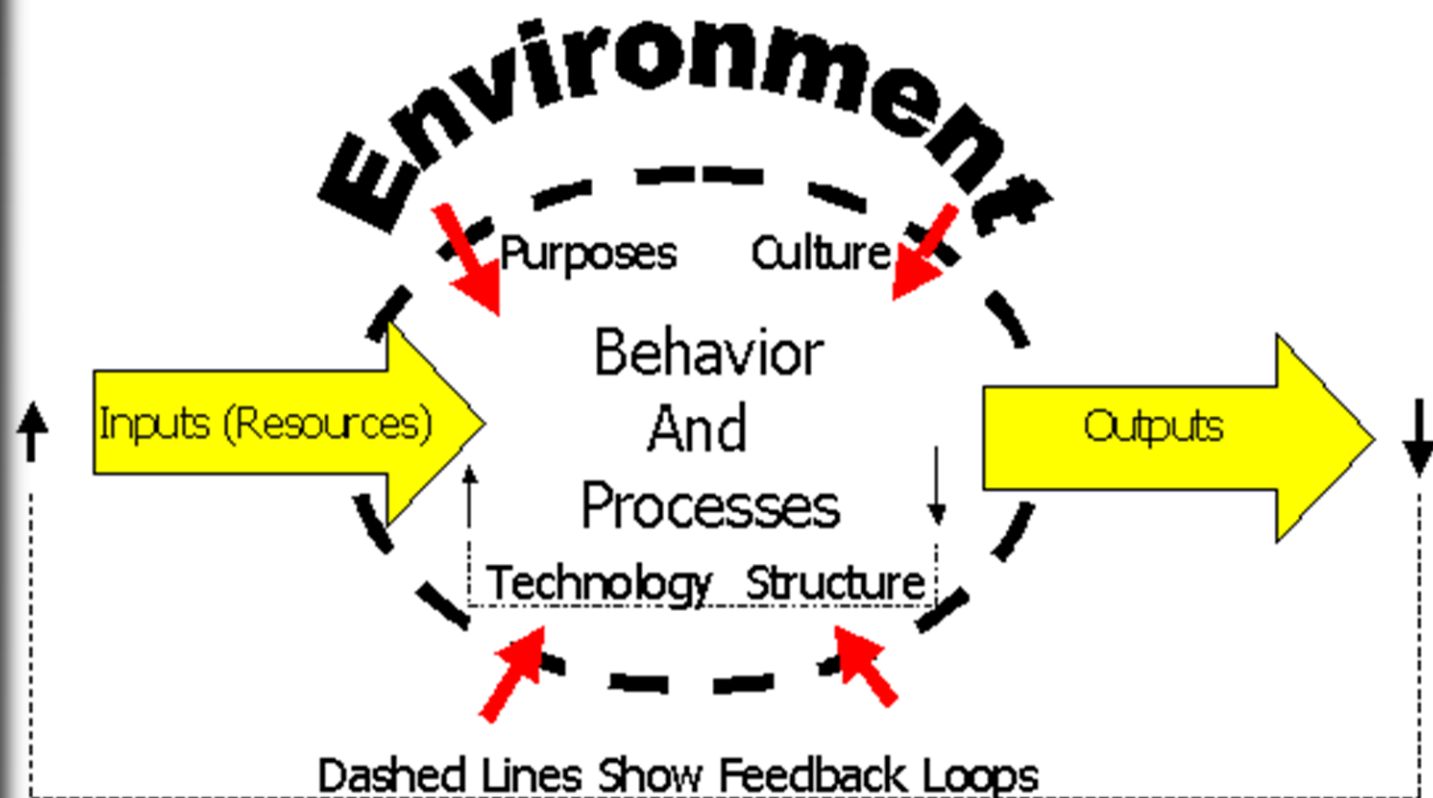


## ENTROPIC PROCESS

# Second law of Thermodynamics

*“The entropy of an isolated system never decreases, because isolated systems spontaneously evolve toward thermodynamic equilibrium—the state of maximum entropy”*

# Organization as Open System



Using The Open System Model, by Michael I. Harrison,  
Diagnosing Organizations, Newbury Park, CA: Sage  
Publications, Inc. 1987, pp. 23-48, 133-138



# Are organisations open systems?



*"It's always cozy in here. We're insulated by layers of bureaucracy."*

# What entropy actually looks like

Turf wars

Unclear roles

Steering committees

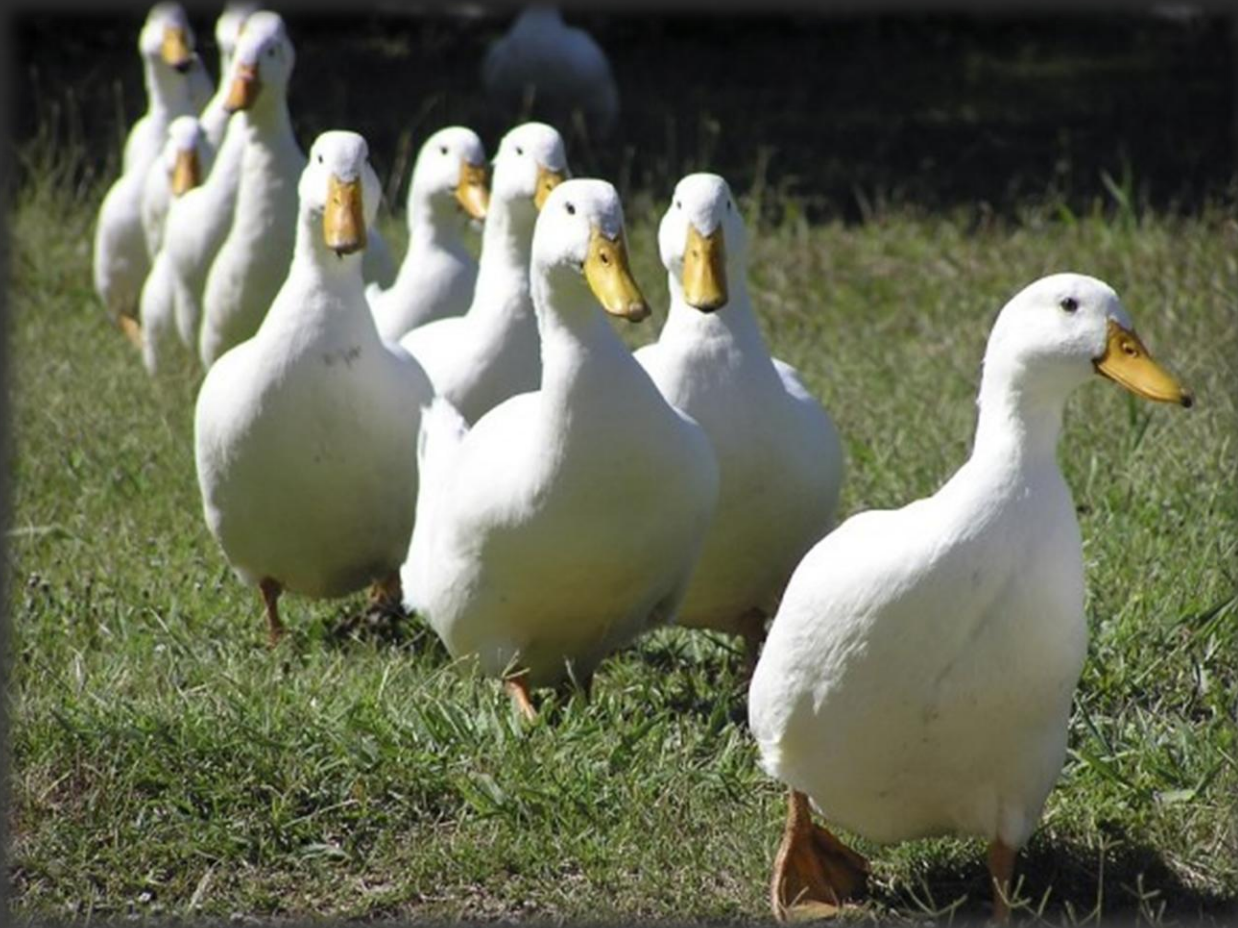
Layers of rules & procedures

Alienation and disengagement

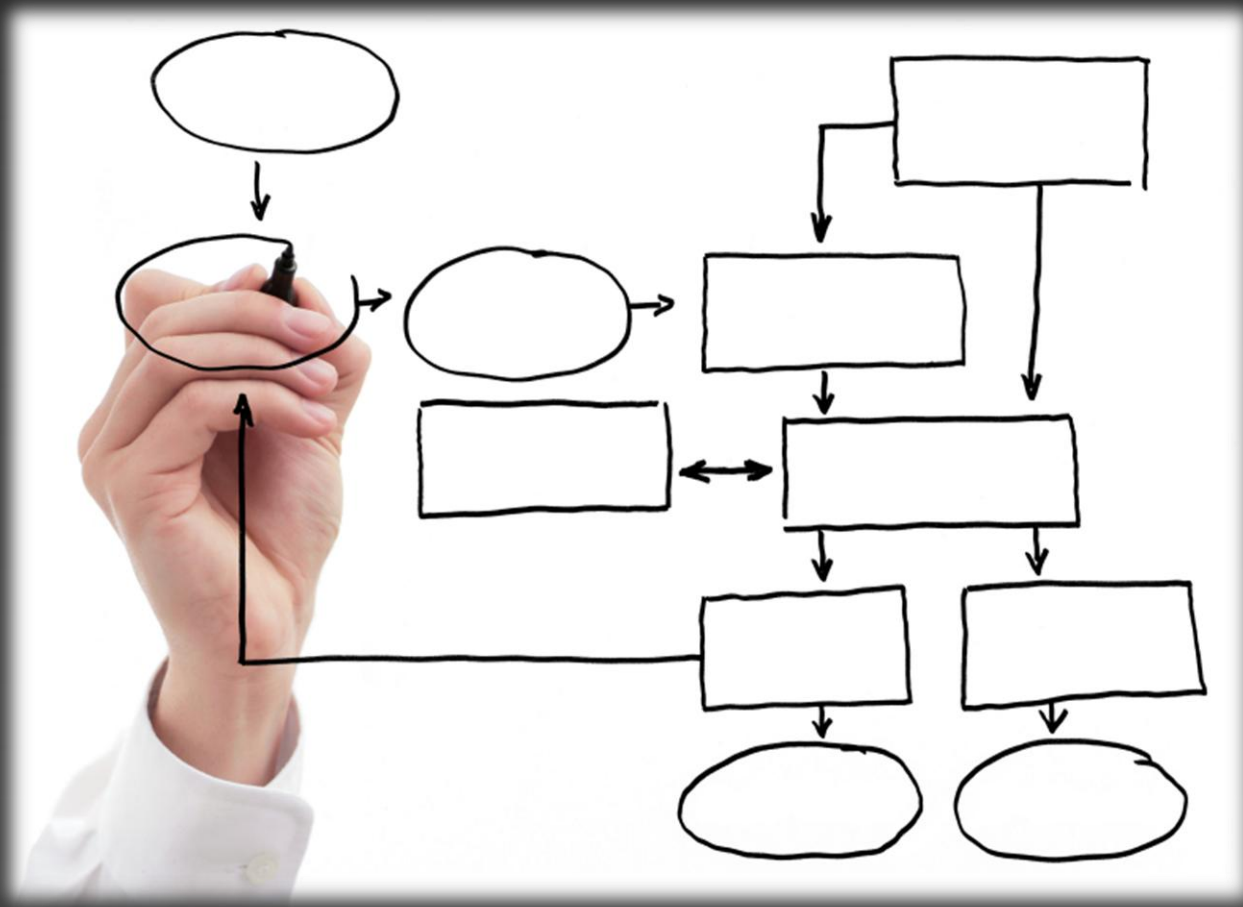
“That’s more than my job’s worth”

Redundant and poorly-run systems

# So what is the role of the leader in a complex organisation?



# I. Selective top-down structural interventions

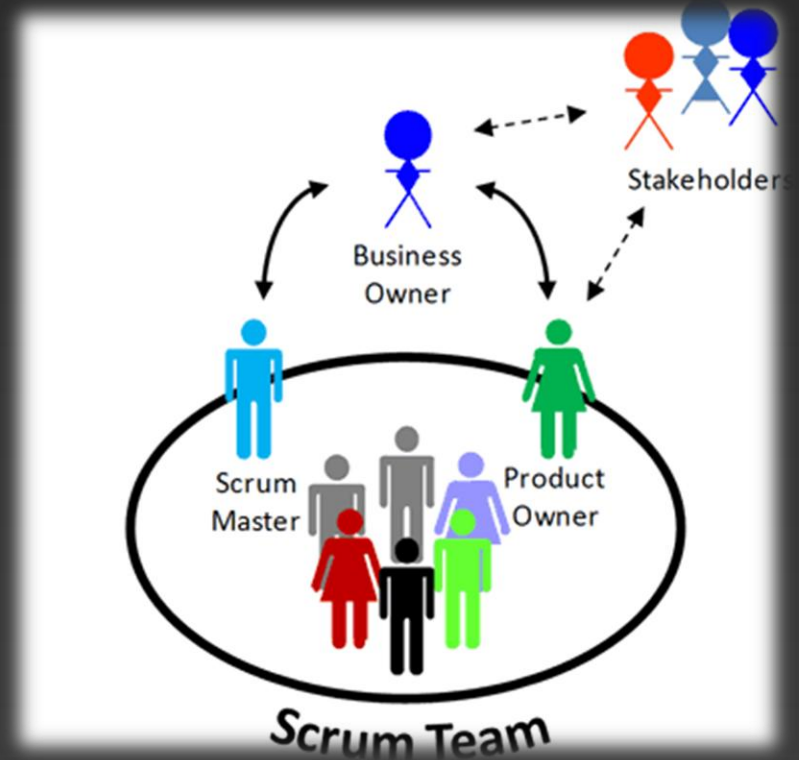


## 2. Keeping entropy at bay

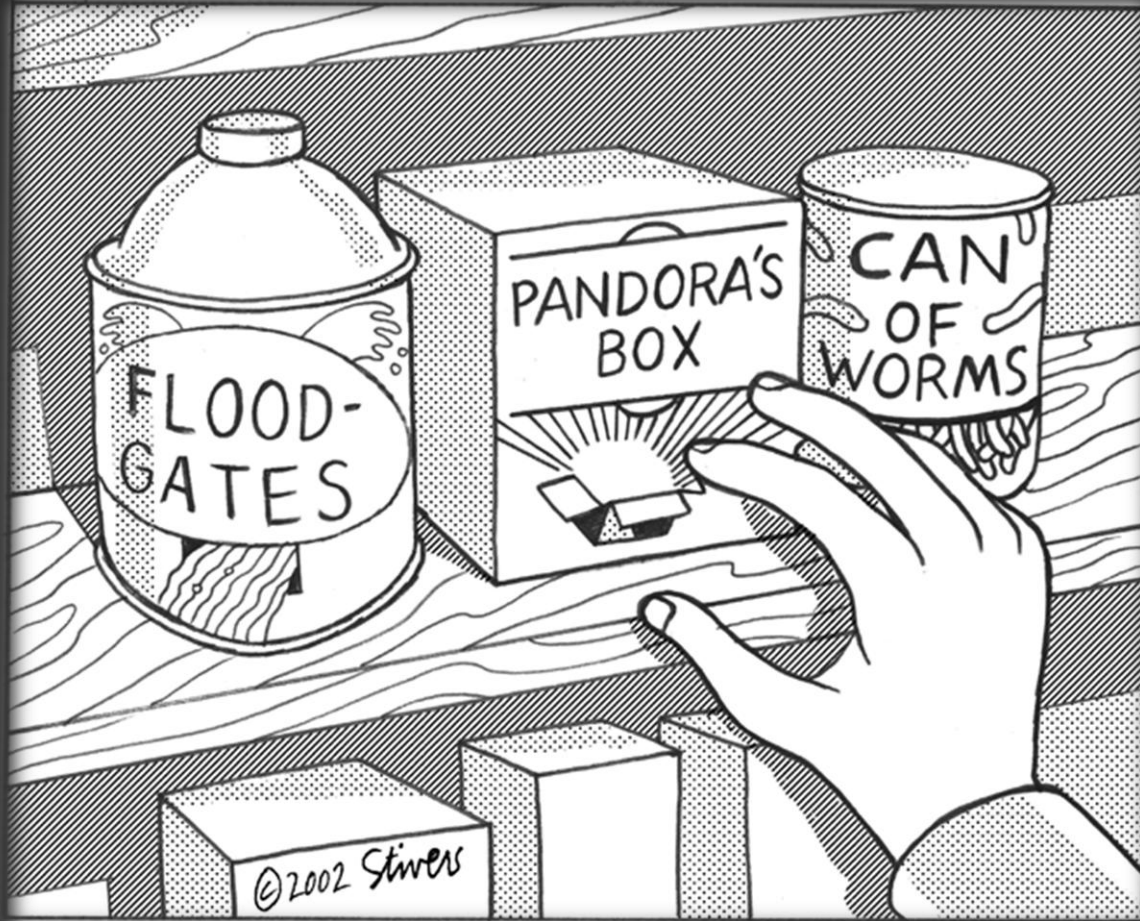




### 3. Fostering emergent order



# Overarching role of the leader: Making the system more open



# Jesper Ek, Head of Diabetes Care, Roche Sweden



***“To enable for people with diabetes to live their lives as unrestricted as possible”***