



# Creating High Performance Extended Enterprises

Alexis Stanke

PhD Candidate, Engineering Systems Division

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Committee: Profs. John Carroll, Earll Murman, John Van Maanen

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# Motivation and Background

## Observed Phenomenon

- Typically, there is a trade-off between meeting cost, schedule, and technical requirements in aerospace programs - but not always!

## Key Question

- What distinguishes exceptionally successful (high performance) programs?

## Terms

- Performance is both efficiency and effectiveness
- Programs are enterprises or interorganizational networks with distributed leadership

## Foundations

- High performance teams
- Organizational theories
- Program management



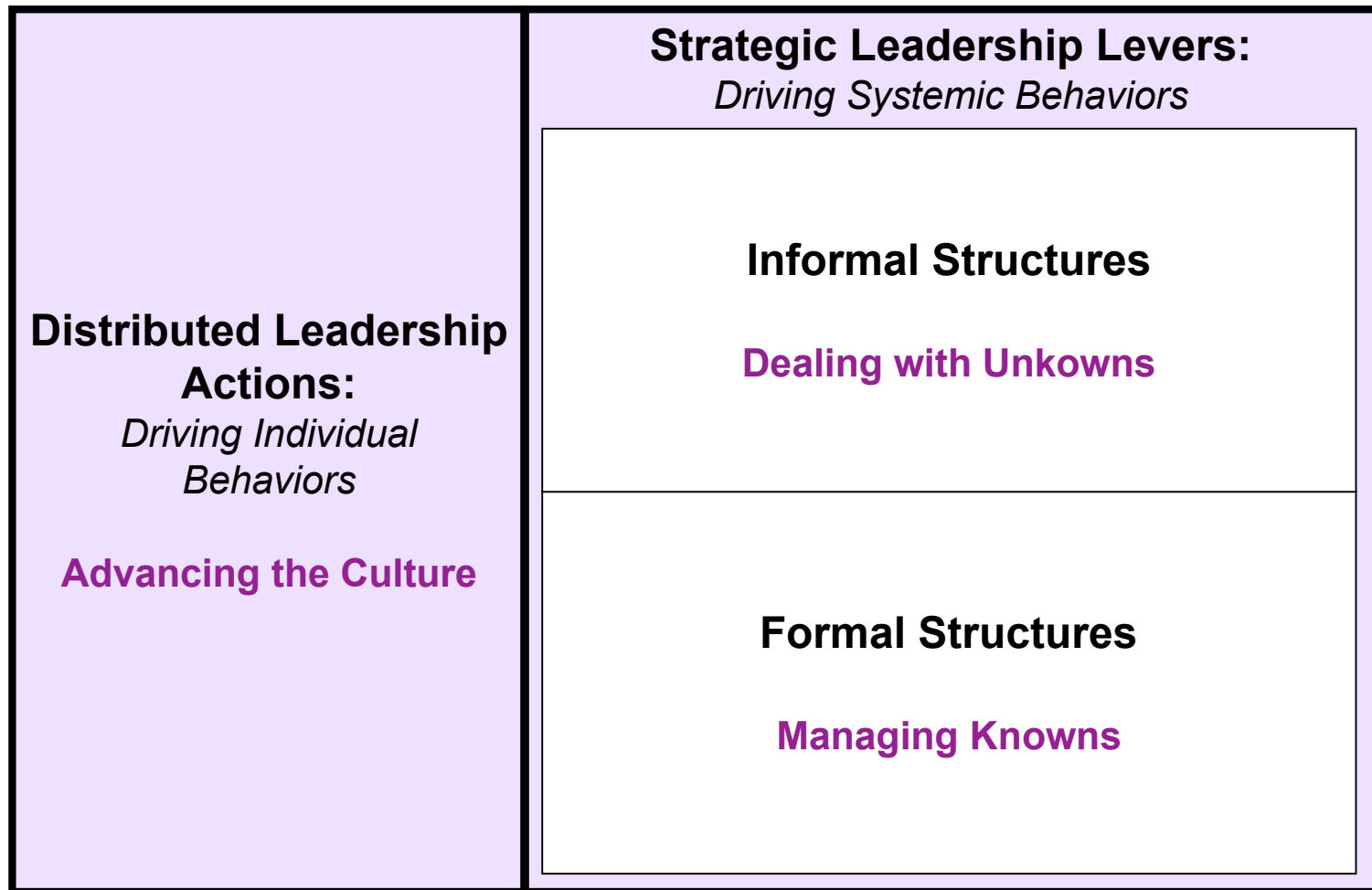
# Research Approach

- 19 mini-case studies
  - Focus on program management at the system integrator or major subcontractor
  - Represent 9 different companies
  - Span the industry: missiles, aircraft, engines, spacecraft, electronics
  - Defense and commercial practices
  - Various lifecycle phases and levels of technological risk
- 1 in-depth case study and literature review
  - Span customer, system integrator, and major subcontractors
  - Supplement with existing literature



# Enterprise Framework:

*Balancing Structure and Behavior*





# Distributed Leadership Actions:

## *Driving Individual Behaviors*

- Boundary spanning activity across organizations in the enterprise
- Developing and utilizing a social network
- Exhibiting commitment to customer satisfaction
- Fostering and maintaining personal accountability of plans and outcomes

**Results: goal congruency and empowered workforce**  
***Robust Enterprise***



# Examples of Distributed Leadership Actions

- Boundary spanning activity across organizations in the enterprise  
=> Manage interdependence between organizations
- Developing and utilizing a social network  
=> Leverage resources beyond the enterprise
- Exhibiting commitment to customer satisfaction  
=> Goal congruency through fully internalized enterprise objectives
- Fostering and maintaining personal accountability of plans and outcomes  
=> Prompt feedback on performance and ability to manage behavior

*High Performer: system integrator worked hand in hand with R&D sister division to create technology roadmaps and smooth technology transitions*

*Mediocre: material shortage at a supplier resulted in late delivery for the entire system*

*High Performer: Program Manager's personal connections from a previous job were used to secure a development partner*

*Mediocre: outside experts were only used to review poor performance*



# Informal Structures :

## *Driving Systemic Behaviors*

- Boundary spanning activity with the enterprise environment
- Requirements and incentives for open information sharing
- Veteran core group to institutionalize behavior

**Results: effectiveness of outcome**  
***Flexible Enterprise***



# Examples of Informal Structures

- Boundary spanning activity with the enterprise environment  
=> Enterprise proactively understands and influences its environment
- Requirements and incentives for open information sharing  
=> Honest information sharing with no surprises
- Veteran core group to institutionalize behavior  
=> Sustained high levels of interorganizational trust

*High Performer: requirement to end all program briefings with a request for any help needed*

*Mediocre: filtering of information that gets reported to the customer*

*High Performer: assumed trust between organizations despite turnover of individual leaders*

*Mediocre: relationships work well only as long as everything on the program is going smoothly*





# Formal Structures :

## *Driving Systemic Behaviors*

- Balanced risk through work share and teaming arrangements
- Common contract structure
- Standardized program management practices (metrics and reporting systems)

**Results: efficiency of execution**  
**Agile Enterprise**



# Examples of Formal Structures

- Balanced risk through work share and teaming arrangements  
=> Sustainable enterprise value proposition
- Common contract structure  
=> Single, aligned incentive system
- Standardized program management practices (metrics and reporting systems)  
=> Less friction in interactions and interorganizational learning

*High Performer: contract structure between customer and system integrator (e.g. fixed price) was mirrored between system integrator and suppliers*

*Mediocre: contracts with both customers and suppliers that are in the best interests of the system integrator*

*High Performer: common risk management and analysis system used by customer, system integrator, and subcontractors*

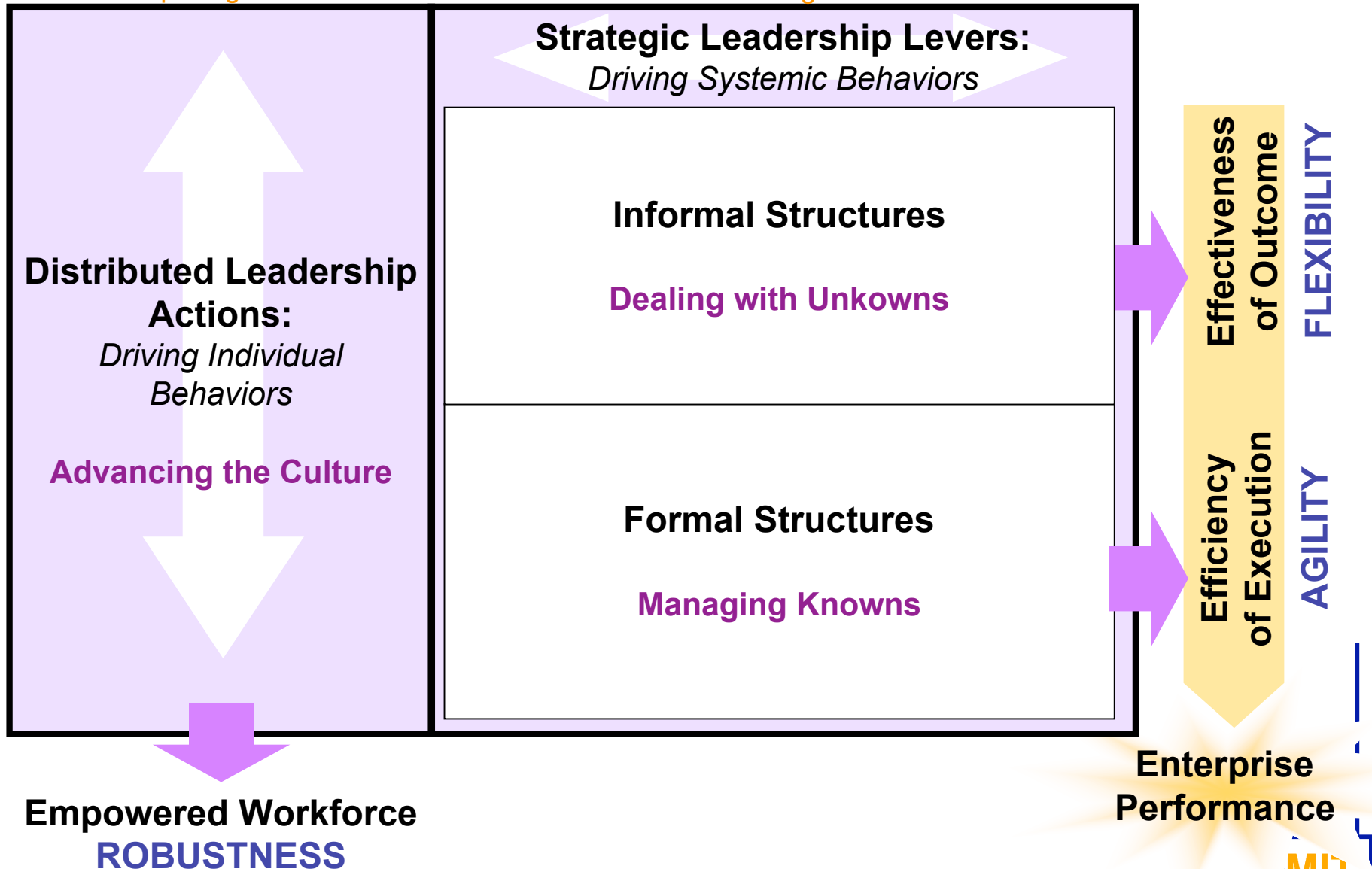
*Mediocre: data from system integrator systems had to be reformulated to meet customer requirements*



# Framework Significance

“Deep” Alignment

“Broad” Alignment



**Empowered Workforce**  
**ROBUSTNESS**

**Enterprise Performance**



# Implications

- How does your enterprise perform?
  - High performance enterprises observed were proficient with every section of the framework
  - Less successful enterprises focused on observable and explicit elements, taking for granted the underlying implicit structures and behaviors
- Where is the focus of your enterprise?
  - Systemic behaviors are driven through a balance between formal and informal structures
  - Systemic behaviors must be supported with individual behaviors and distributed leadership



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