



People: The Heart of Lean

“There are two major distinctive features of these [Toyota Production and Kanban] systems.

One of these is ‘just-in-time production’, an especially important factor in an assembly industry such as automotive manufacturing....

Second...is the **‘respect-for-human’ system** where the workers are allowed to display in full their capabilities through active participation in running and improving their own workshops”

Y. Sugimori, et al, Toyota

**“The soft stuff is the
hard stuff.”**

Chris Cool - Northrop Grumman

Learning Objectives

At the end of this module, you should be able to:

- **Explain why people are the key to improving productivity**
- **Realize that effective communication, shared goals and knowledge, and mutual respect lead to improved organizational performance**
- **Participate as a member of a team to achieve a positive outcome**

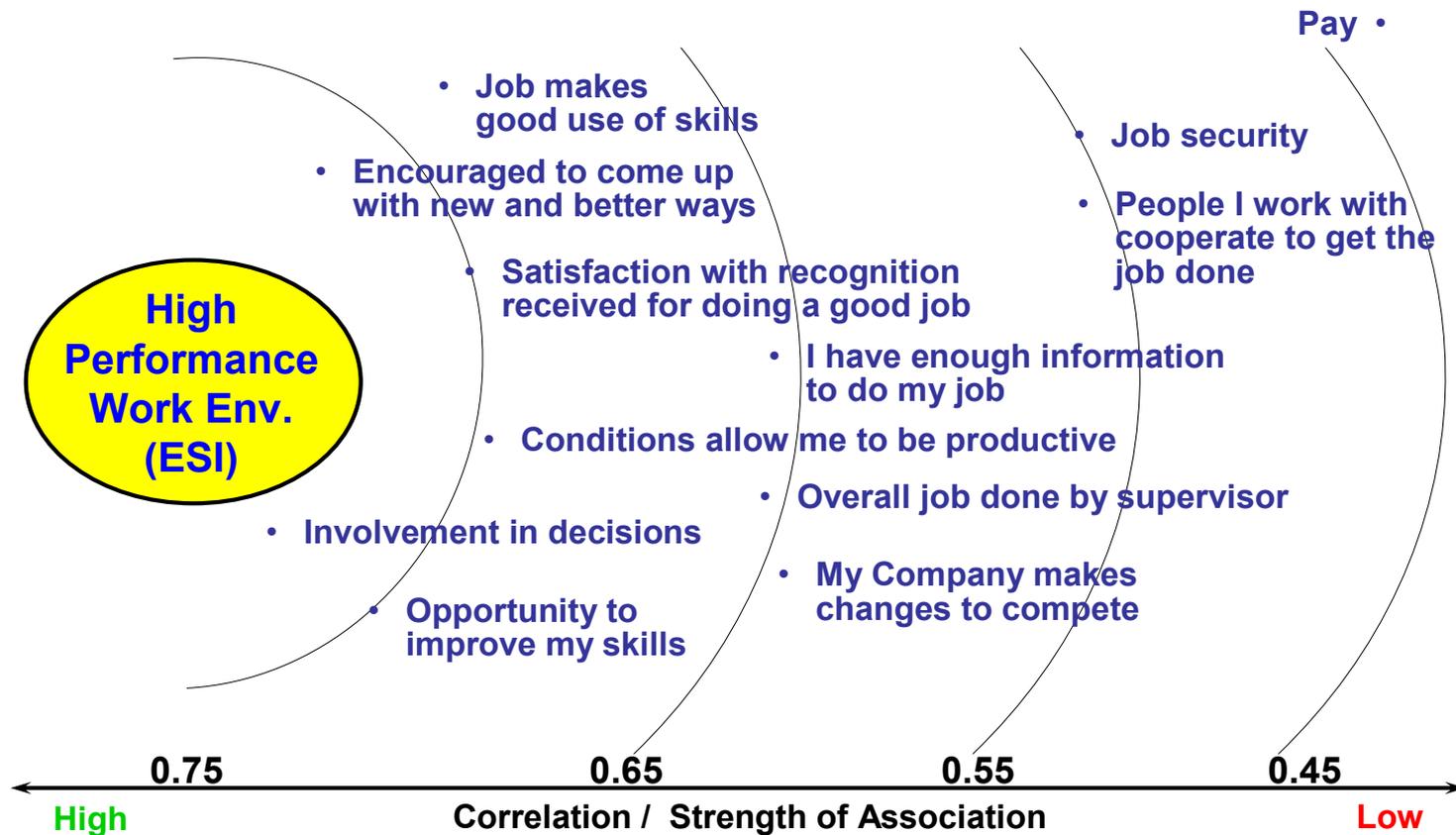
What are the most important things that contribute to your job satisfaction?



**Please contribute ideas,
then we will vote on them**

Drivers of Employee Satisfaction

2003 Employee Satisfaction Index Key Driver Analysis



Courtesy of Boeing. Used with permission.

“Theory X”

 **Workers don't like to work.
They must be *made* to work**

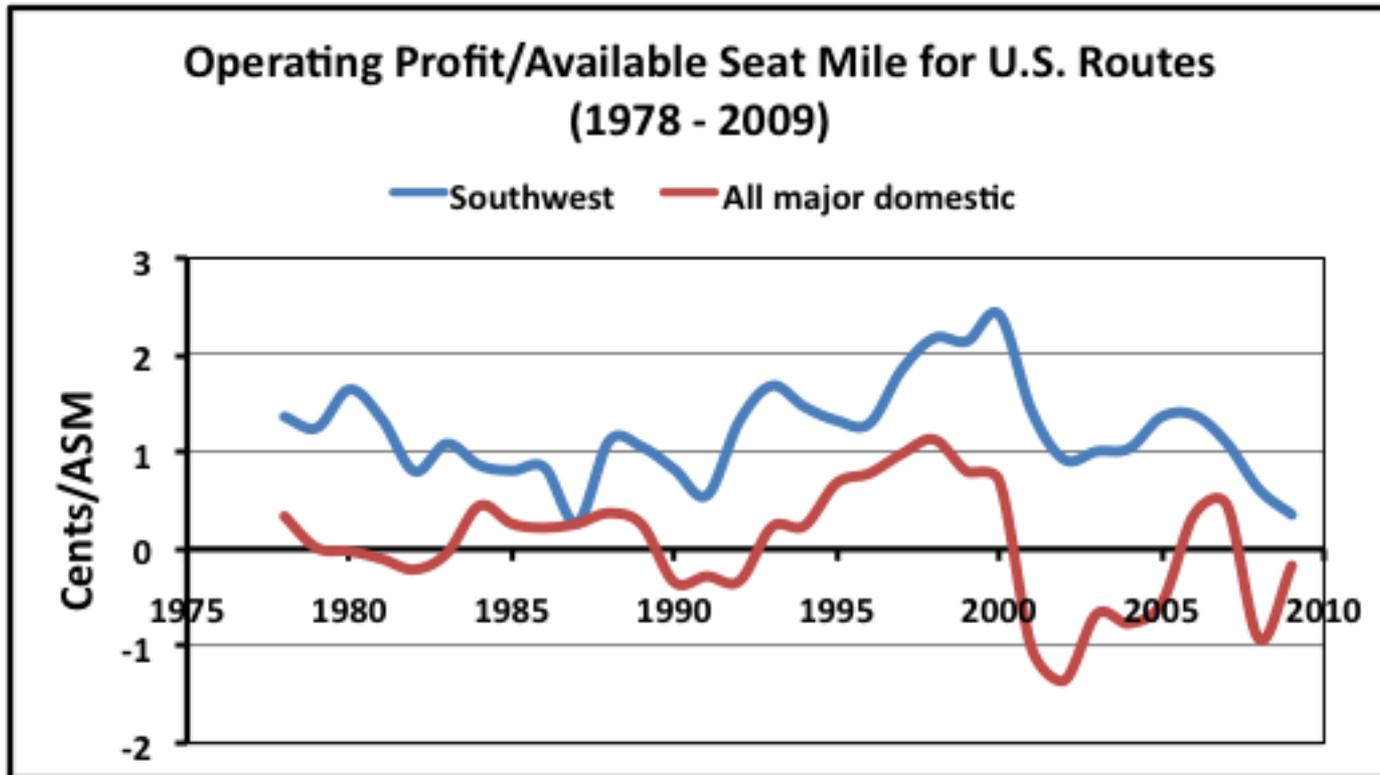
Elton Mayo's Human Relations Management (c 1920)

 **A happy worker is a productive worker**

Dick Kleine at John Deere (c 2000)

 **A productive worker is a happy worker**

Southwest Performance vs. Major U.S. Domestic Airlines



Southwest has made an operating profit every year for over thirty years!



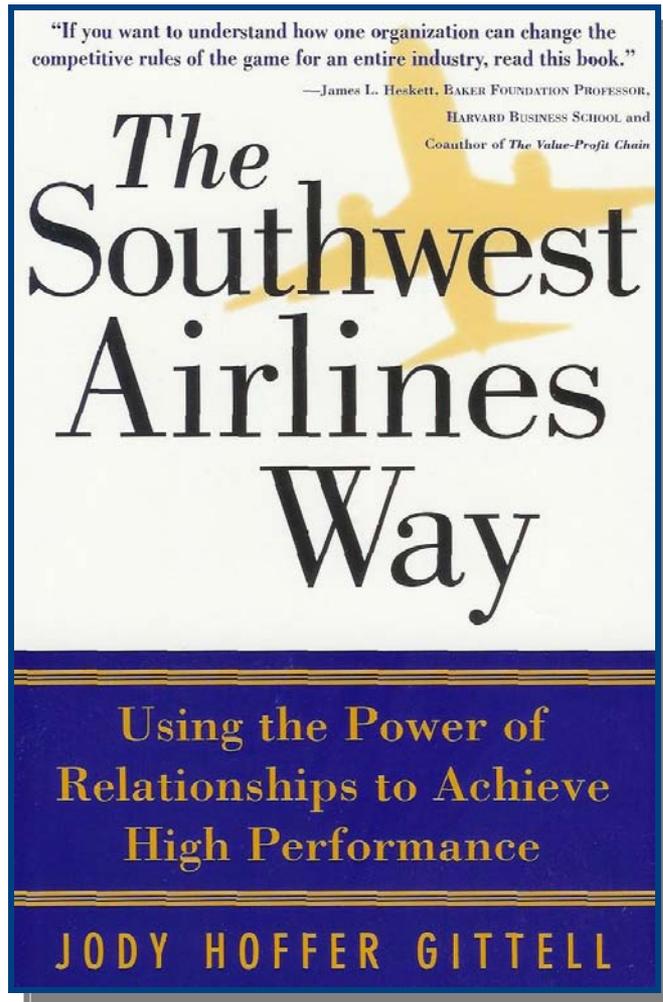
Courtesy of Southwest Airlines. Used with permission.

Southwest Airlines...

- Has had only one fatality in 35 years of operation - an overrun on a snowy runway at Midway on Dec 8, 2005
- Until the purchase of AirTran, flew only Boeing 737s
 - Simplifies training, maintenance, logistics
- Has never had a layoff of employees to reduce costs, including after 9/11
- Is the most highly unionized major U.S. airline
- Has a point-to-point, not hub-and-spoke, route structure
- Consistently offers some of the lowest fares available
- Is a favorite of both investors and employees

What makes Southwest so successful?

Organizational Competency



“In this book I argue that Southwest’s most powerful organizational competency... is its ability to build and sustain high performance relationships ... characterized by **shared goals, shared knowledge, and mutual respect**. Although these relationships appear simple, appearances are deceptive.”
(Emphasis added)

Relational Coordination

- **Shared Goals** *aligns* employees to prioritize organizational success over “just doing my job”
 - SWA: Safety, Satisfied Customers, On-time Departure
- **Shared Knowledge** *enables visibility* of the overall work process, and the linkages between different jobs
 - SWA: Functional groups help each other; Pilots help flight attendants, gate agents help baggage handlers,...
- **Mutual Respect** *reduces barriers* between employees and employee groups
 - SWA: No one employee group is more important than another

Supported by effective communication



Colleen Barrett, SWA President

Courtesy of Southwest Airlines.
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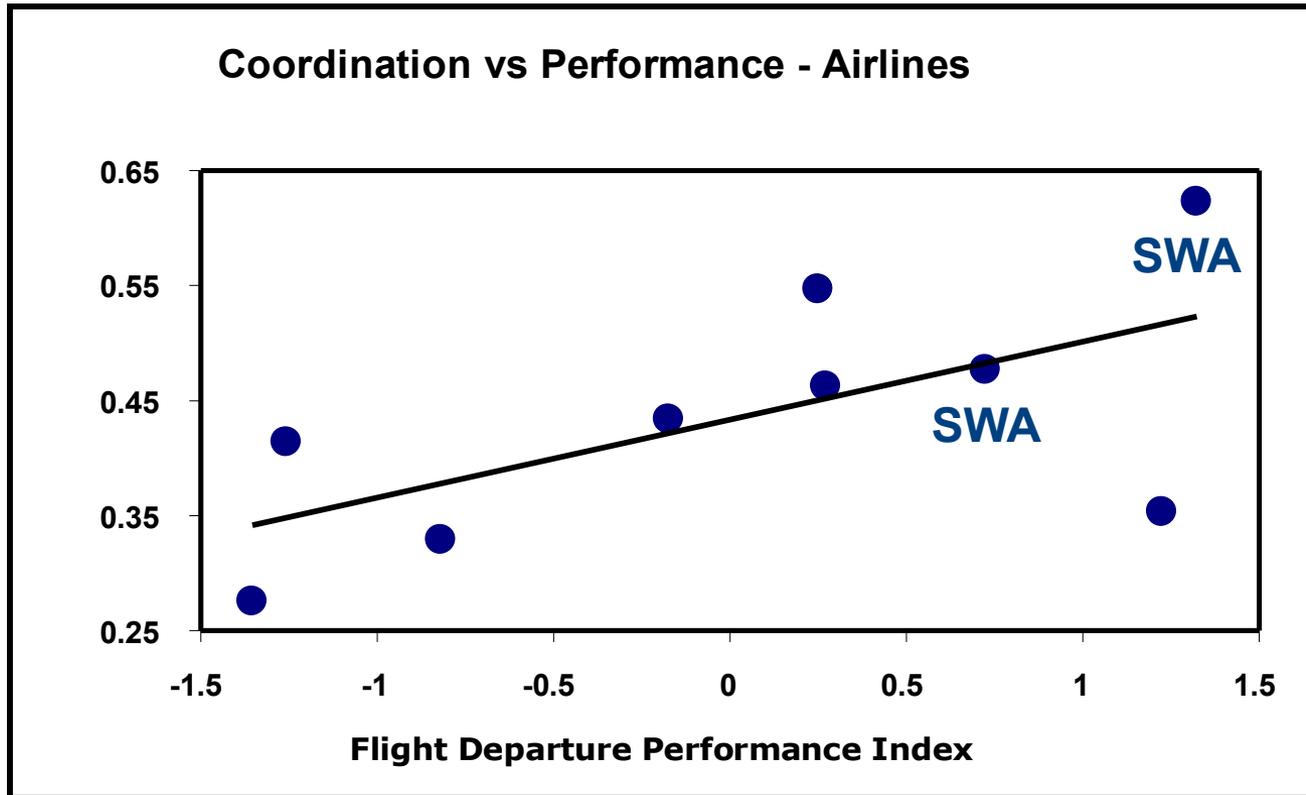
Communication

From *The Southwest Airlines Way*

- “With frequent, timely communication, Southwest employees could respond quickly to changing circumstances in a coordinated way.”
- “...Southwest employees communicate about the problem itself, rather than assigning blame when difficulties occur.”

Open and honest communication is a hallmark of lean thinking organizations

Coordination Correlates with Performance For Airlines

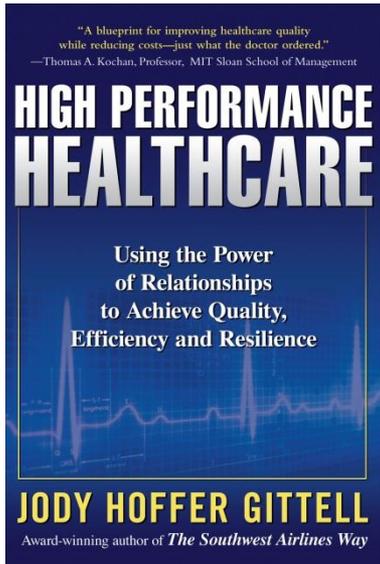


“The performance effects of relational coordination are large and statistically significant. This means you can be confident of achieving improved performance results if you can increase relational coordination.”

Relational Coordination Applies to Other Work Settings

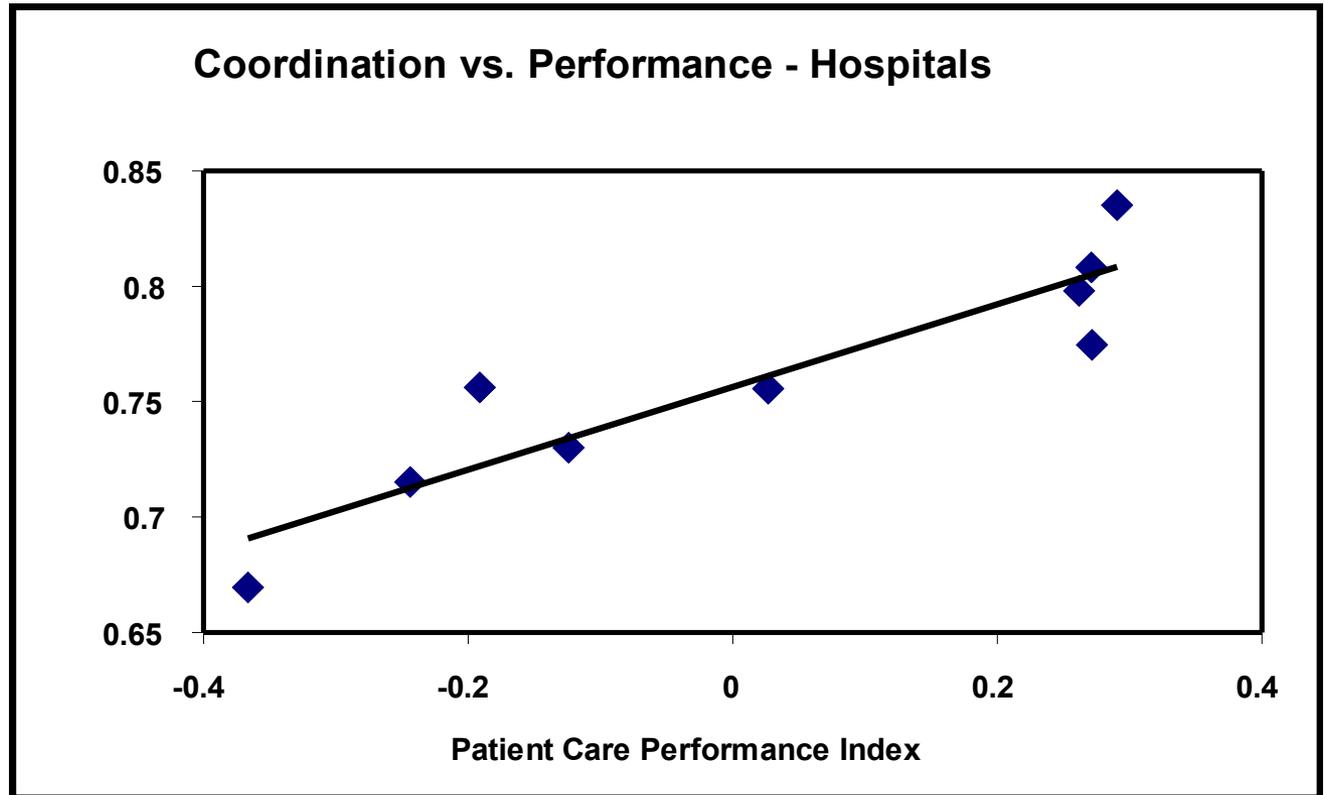
- **Work setting characteristics where relational coordination applies**
 - **Task interdependence - handoffs may require feedback and iterations**
 - **Uncertainty - adjustment of plans and updating**
 - **Time constraints - time buffers not feasible**
- **Example work settings where relational coordination applies**
 - **Healthcare**
 - **Product development**
 - **Can you think of others?**

Coordination Correlates with Performance For Hospitals



Courtesy of McGraw-Hill.
Used with permission.

**Joint Surgery
Case Studies
at 9 Hospitals**



“Relational coordination among care providers enables shorter hospital stays, higher levels of patient-perceived quality of care, and improved clinical outcomes.”

SWA Organizational Practices Supporting Relational Coordination

Lead with credibility and caring	Invest in frontline leadership
Hire and train for relational competence	Use conflicts to build relationships
Bridge the work/family divide	Create boundary spanners
Measure performance broadly	Keep jobs flexible at the boundaries
Make unions your partners	Build relationships with suppliers

Practices



Relational Coordination

Quality Performance
Customer complaints
Lost baggage
Late arrivals
Efficiency Performance
Turnaround Time
Staff Time Per Passenger

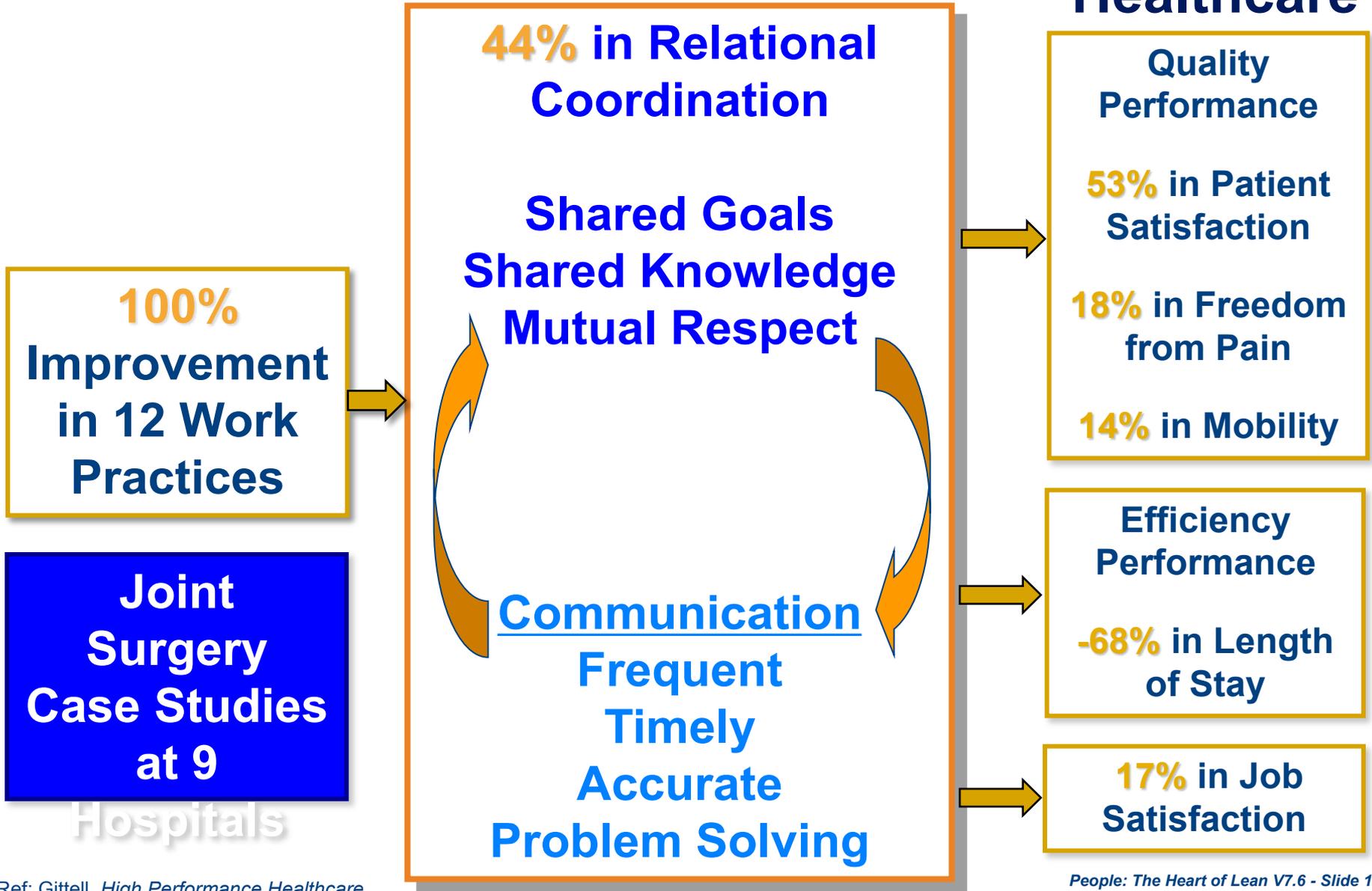
Outcomes

Outcomes of Relational Coordination

The SWA Study shows that increased Relational Coordination leads to:

- **Higher reliability**
 - Better on time performance
 - Fewer lost bags
- **Greater customer satisfaction**
 - Fewer complaints
- **Shorter turn around time**
 - Greater aircraft and gate productivity
 - Most passengers served per employee

Relational Coordination Impact on Healthcare



The Power of Workforce Productivity

Workforce productivity benefits

- Revenue generated from satisfied customers
- Revenue generated from utilized capital assets
- Reduced costs from low employee turnover
- Reduced costs from not having employees idle
- Happy, satisfied employees

Active Learning Exercise - A Class Debate!

Objective

- **With a team under a time constraint, articulate a clear and concise message**

AND observe

- **How differing viewpoints affect teamwork**
- **The process used for group decision-making**
- **How the completion of the task depends upon personal feelings and process**

*"The early bird may get the worm, but it's the second mouse that gets the cheese." Jeremy Paxman**

- **The bird's proposition**
 - Early adopters of lean thinking gain the greatest competitive advantage
- **The mouse's proposition**
 - Second followers of lean thinking gain the greatest competitive advantage
- **Which is it? - The class will decide!**



*"The early bird may get the worm, but it's the second mouse that gets the cheese." Jeremy Paxman**

Early adopters of lean thinking gain the greatest competitive advantage



Second followers of lean thinking gain the greatest competitive advantage

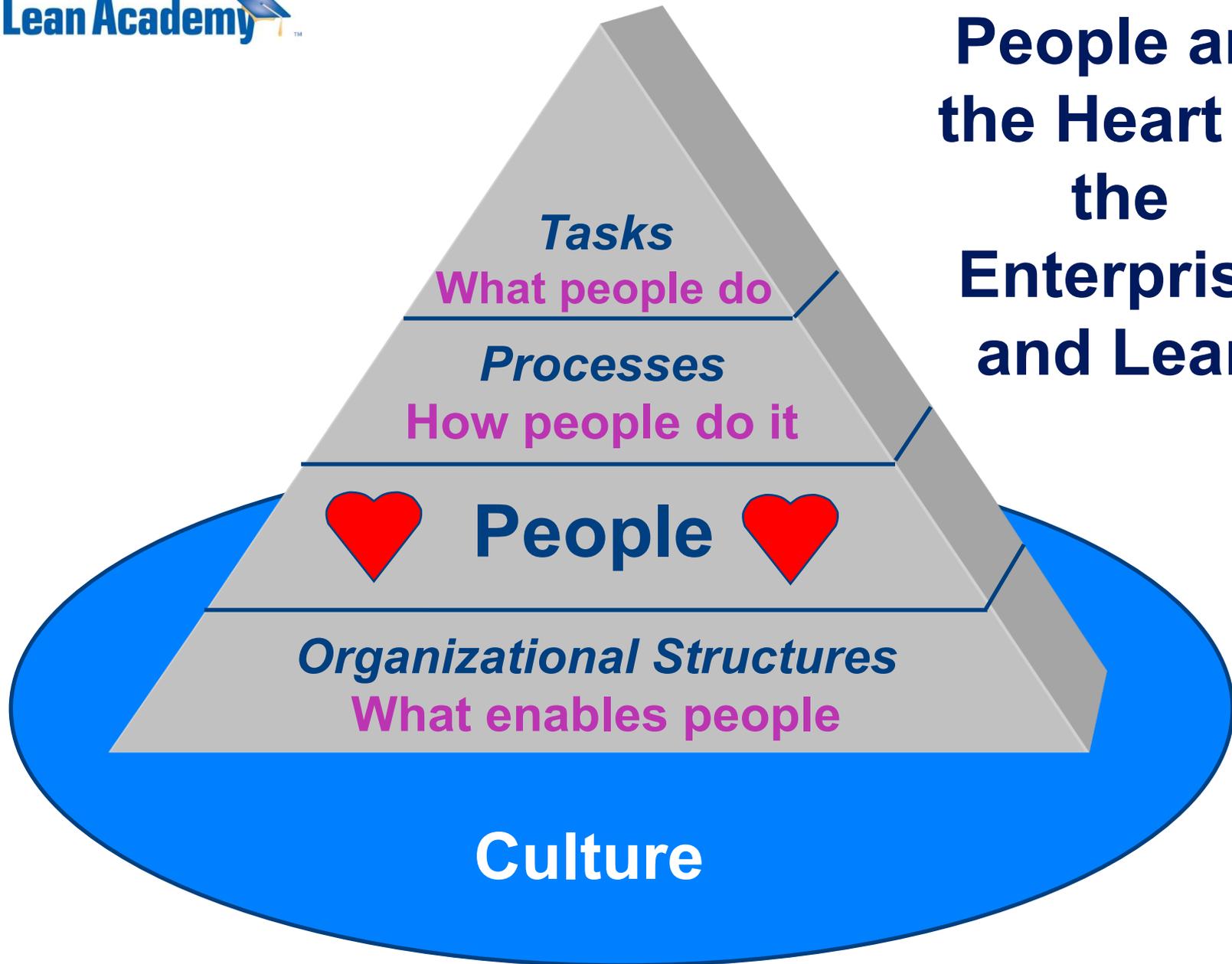


Vote your choice with a colored card

Team Experience

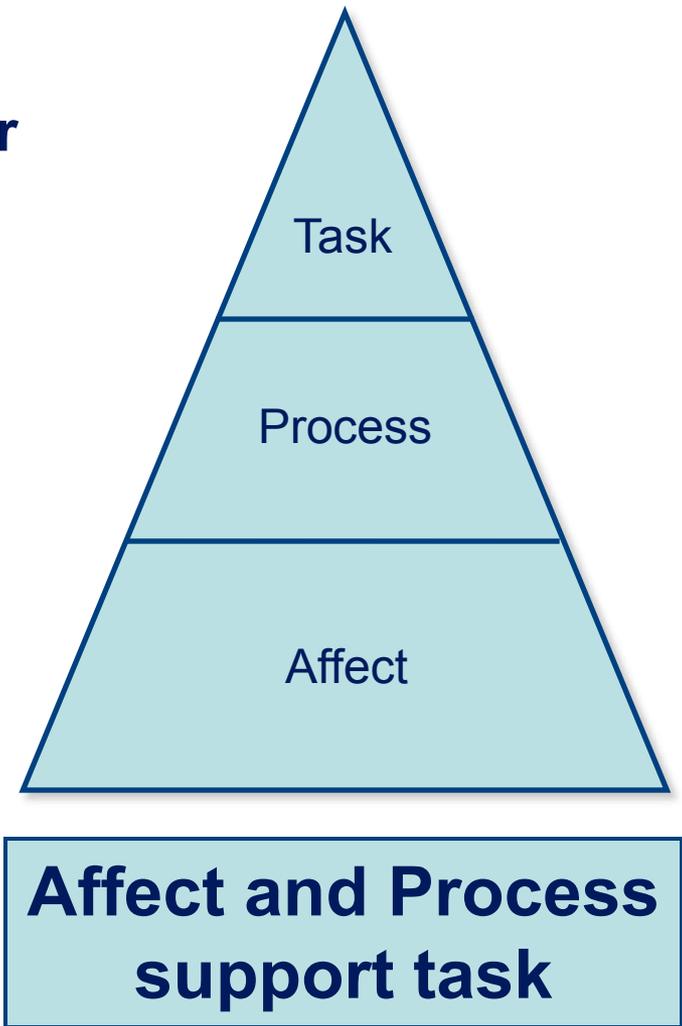
- **Dilemma of personal vs. team views**
 - **Adapting, compromising**
 - **Personal feelings, attitudes and perceptions of others**
 - **Wording of the statements**
- **Process used for your group to decide, discuss and present**
- **Satisfaction with the team outcome**

People are the Heart of the Enterprise and Lean



Three Elements of Collaboration

- **Task - What is being done together**
 - Conceptualizing, problem solving, implementing
- **Process - How the task will be accomplished**
 - Division and scheduling work, coordination, managing time and meetings, draft and revisions
- **Affect - Feelings about the work based upon:**
 - Prior experiences, culture, biases
 - Current experience



Benefits

- More ideas and new ideas
- Multiple areas of expertise
- Shared workload
- Stronger problem solving
- Improves design work



Photo by Hugh McManus

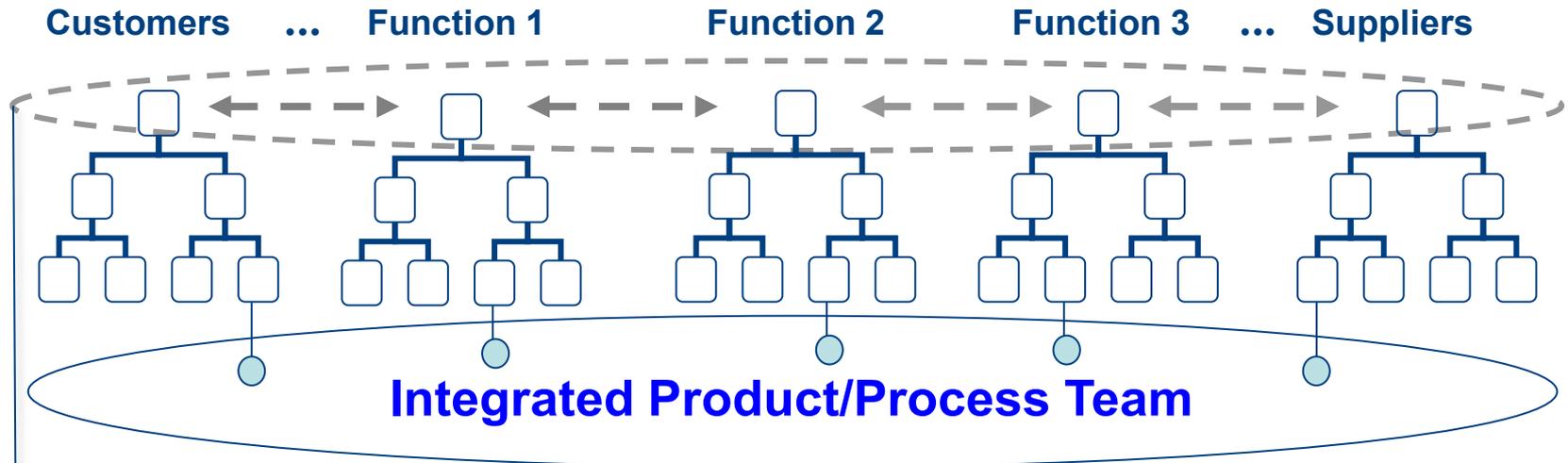
Challenges

- Different goals and values
- Not being skilled or practiced in it
- Defensive about work (ego)
- Preconceived notions
- Different work styles
 - “lone wolf”
 - “I’ll do it”
 - “me, mine”
- Previous unsuccessful collaboration

How to Meet the Challenges of Collaboration

- **Elaborate key ideas in writing and verbally**
- **Consider alternate ideas/solutions**
 - **Don't jump to consensus prematurely**
- **Pay careful attention to process**
- **Voice disagreements constructively, directly, and explicitly**
- **Give positive feedback directly and explicitly**

Integrated Product/Process Teams



Before IPT's

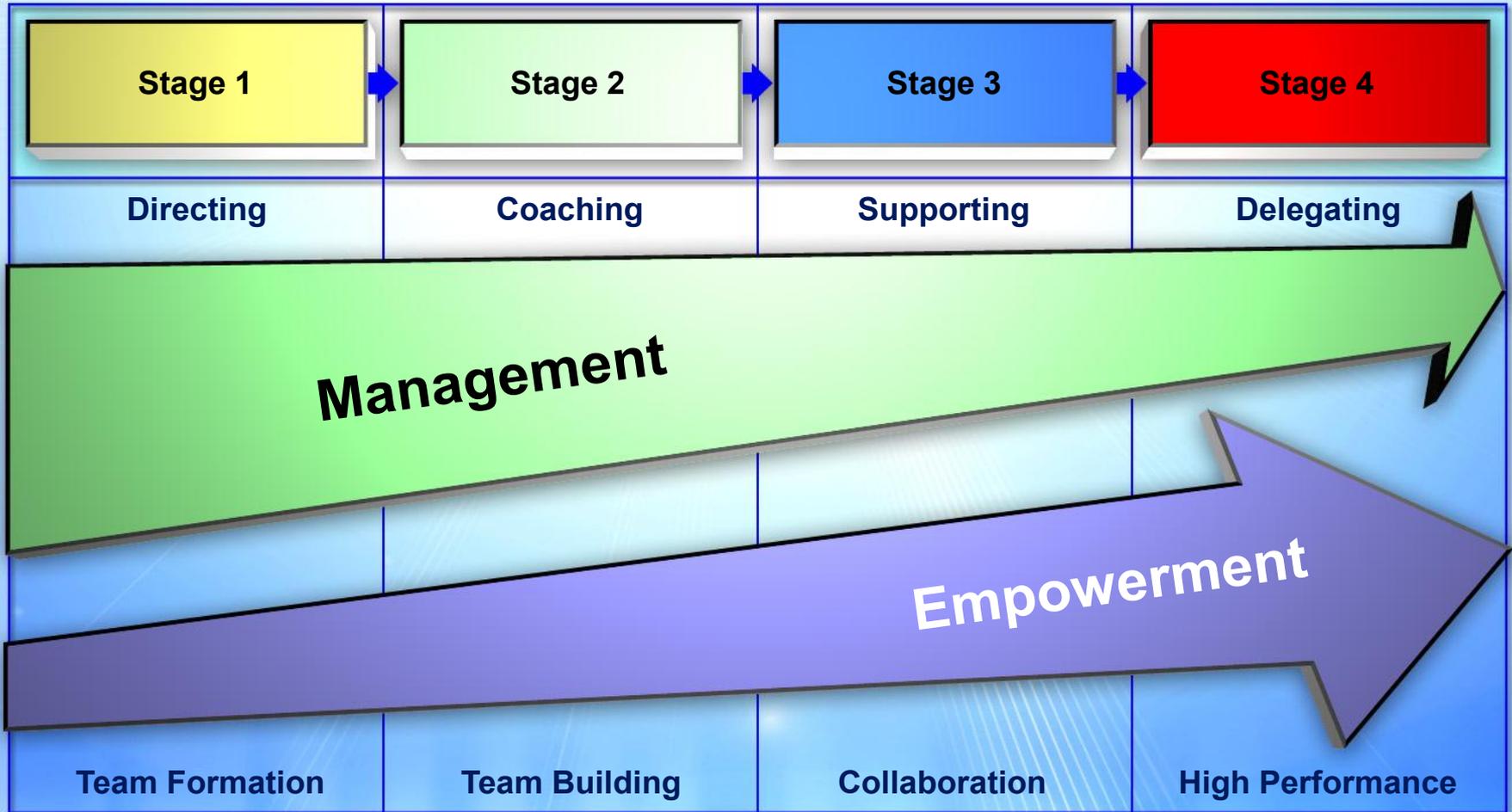
- Linkages occurred here
- Coordination meetings
- Traditional networks
- Grapevine-type communication

IPT Way

- Linkages occurred here
- Regular IPT meetings
- Defined members & leaders
- Every member keeps functional leadership informed

Effective IPTs require good teamwork and leadership

Integrated Product/Process Teams



Courtesy of Boeing. Used with permission.

- **Mutual respect for all people & jobs**
- **Encourage contribution by all team members**
- **Different opinions are valued**
- **Open, honest communication & feedback**
- **Aligned goals**
- **Continuous improvement of individuals and the team**
- **Synergy and cooperation**

People are the Heart of Lean



Photo by Earll Muirman

What is the most important thing you learned from this module?

Write a short answer on a 3 x 5 card

Cutcher-Gershenfeld, J., et. al., *Knowledge Driven Work*, Oxford University Press, New York, 1998

Fischer, R. and Urey, W., *Getting to Yes: Negotiating Agreement Without Giving In*, 2nd Ed, Penguin Books, New York, 1991

Gittell, J.H., *The Southwest Airlines Way*, McGraw Hill, New York, 2003

Gittell, J.H., *High Performance Healthcare*, McGraw Hill, New York, 2009

McGregor, D., *The Human Side of Enterprise, Updated with commentary by Joel Cutcher-Gershenfeld*, McGraw Hill, New York 2006

Senge, P., *The Fifth Discipline*, Doubleday, New York, 1990

Whyte, D., *The Heart Aroused – Poetry and the Preservation of the Soul in Corporate America*, Doubleday, 1994

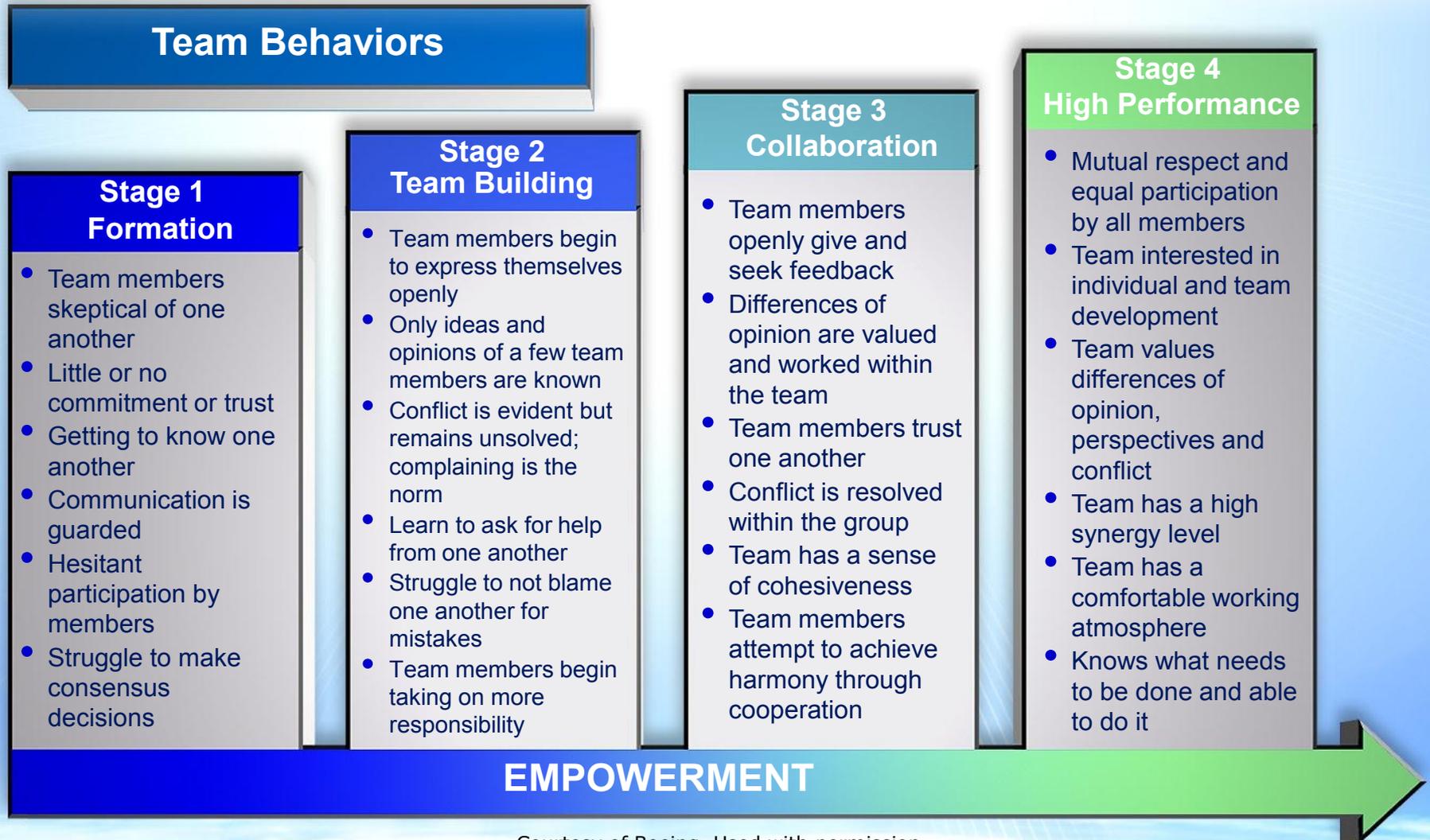
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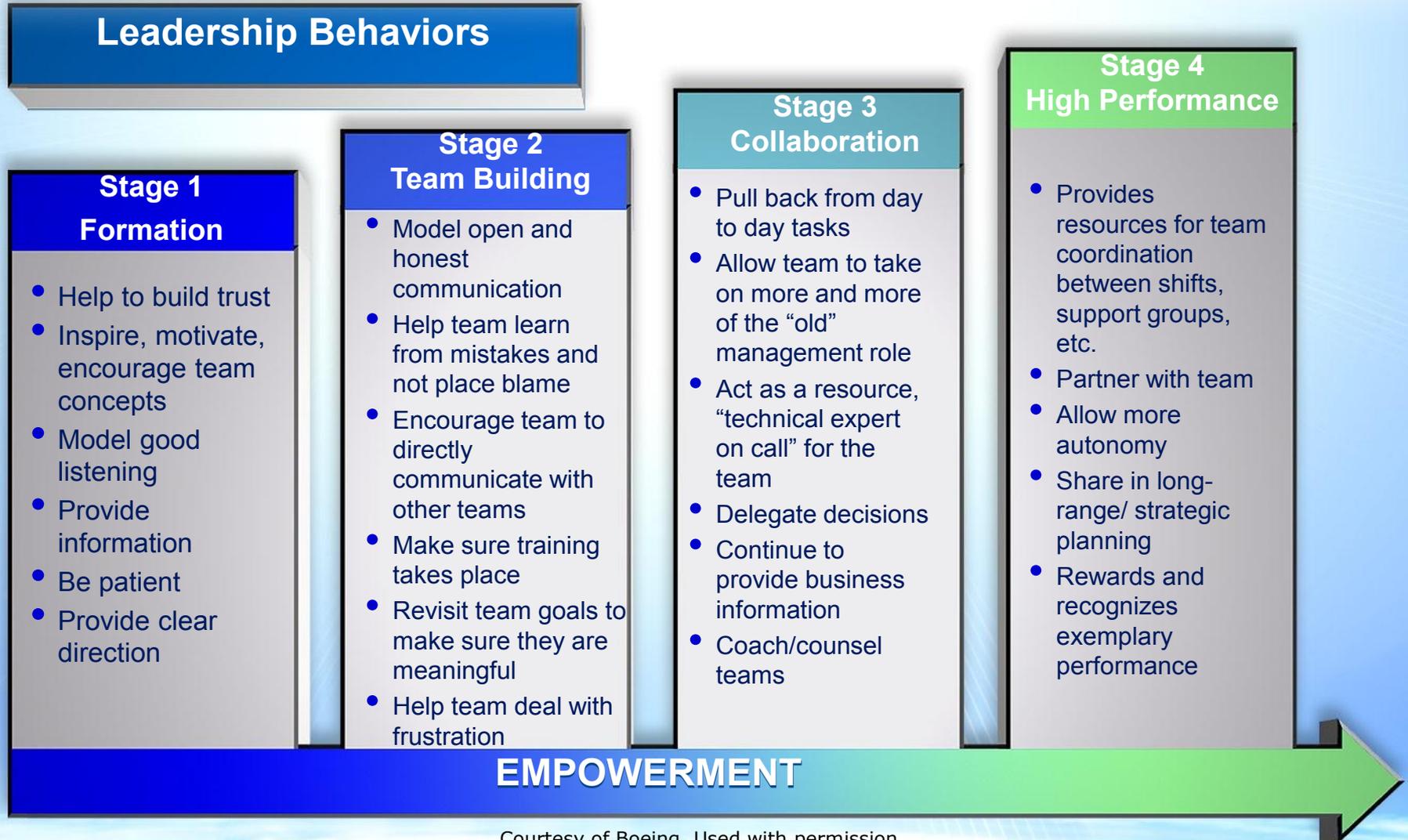
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Team Behaviors by Stage



Courtesy of Boeing. Used with permission.

Leadership Behaviors by Stage



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