

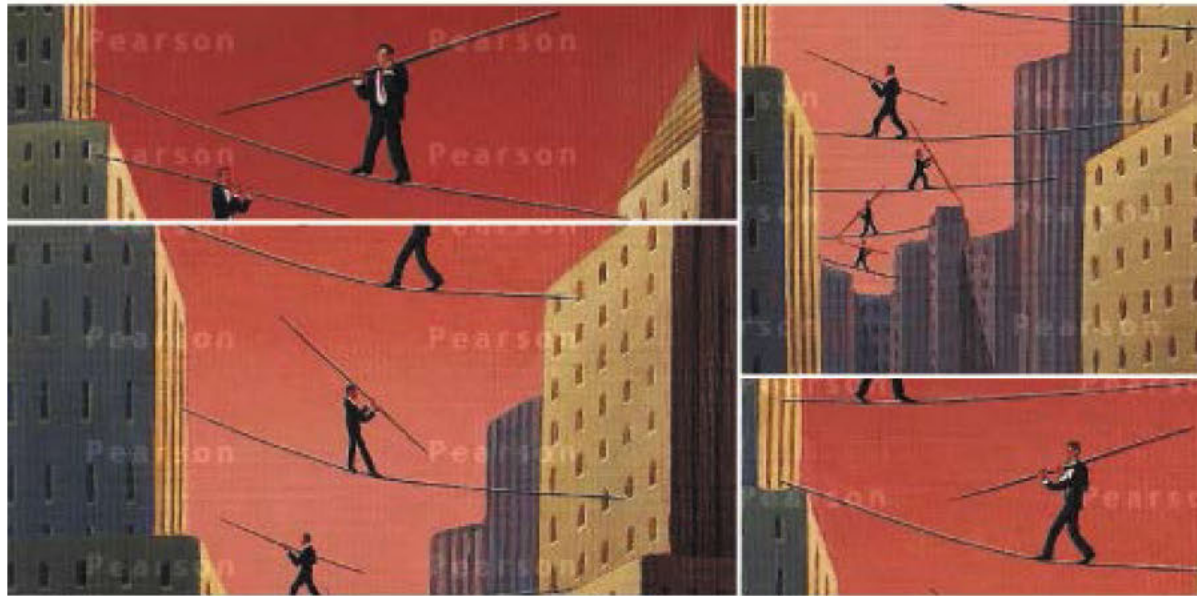
A GREAT SOFTWARE/SERVICE PROCESS IS GREAT ONLY IF IT IS IMPLEMENTED: A METHOD TO MANAGE THE 'SOFT SIDE' OF IMPLEMENTATION

Dr. Byron G. Fiman

Dr. Stan Rifkin

2014 SEPG North America Conference

Barry Boehm Richard Turner



Balancing Agility and Discipline

A Guide for the Perplexed

Addison Wesley, 2003

Agile and Plan-Driven Home Grounds

Agile Home Ground

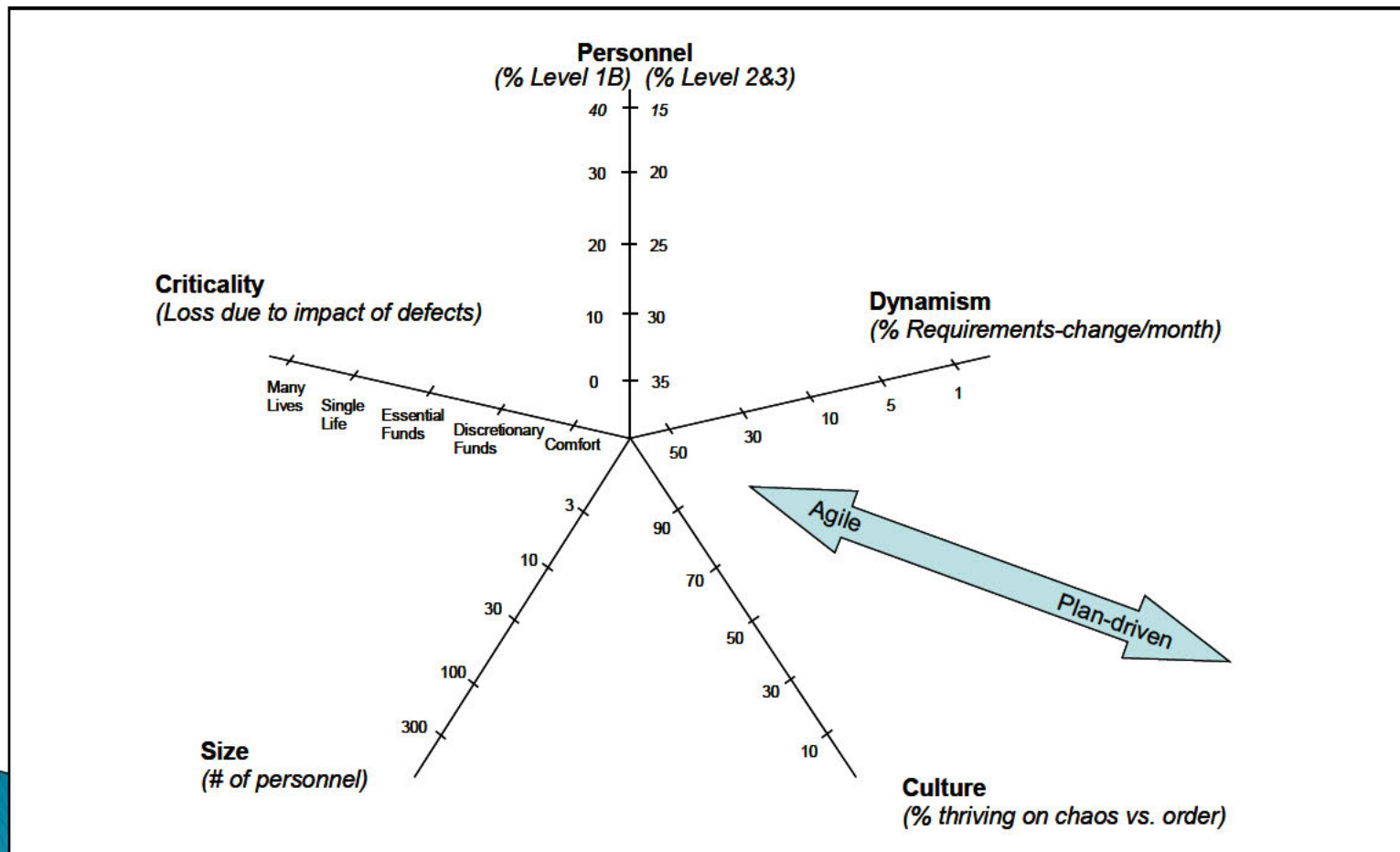
- ▶ Agile, knowledgeable, collocated, collaborative developers
- ▶ Dedicated, knowledgeable, collocated, collaborative, representative, empowered customers
- ▶ Largely emergent requirements, rapid change
- ▶ Architected for current requirements
- ▶ Refactoring inexpensive
- ▶ Smaller teams, products
- ▶ Premium on rapid value

Plan-Driven Home Ground

- ▶ Plan-oriented developers; mix of skills
- ▶ Mix of customer capability levels
- ▶ Requirements knowable early; largely stable
- ▶ Architected for current and foreseeable requirements
- ▶ Refactoring expensive
- ▶ Larger teams, products
- ▶ Premium on high-assurance

Five Critical Decision Factors

- Represent five dimensions:
Size, Criticality, Dynamism, Personnel, Culture

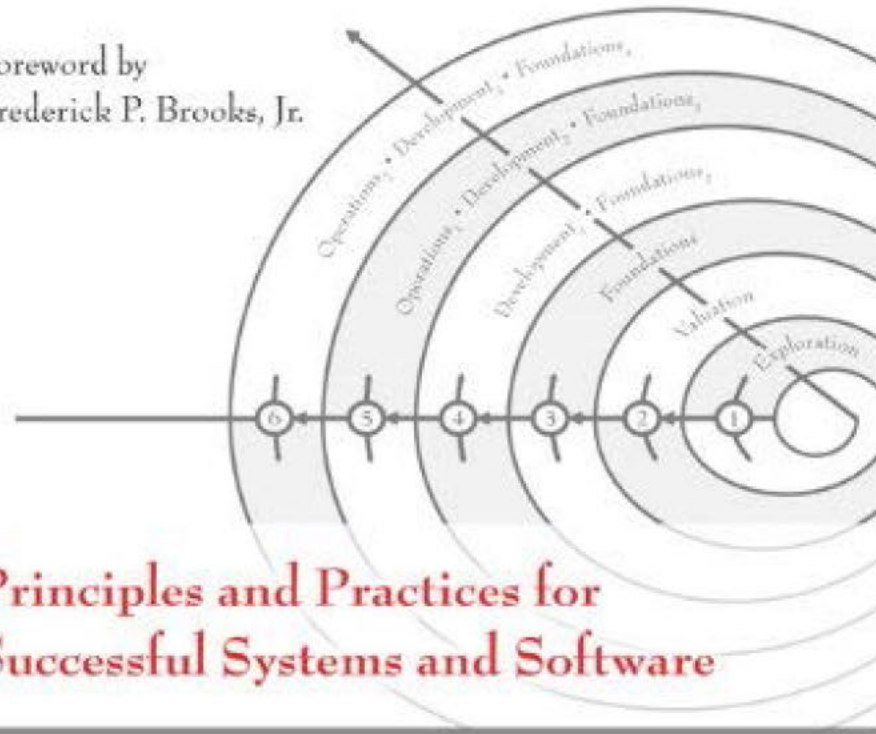


Barry Boehm • Jo Ann Lane
Supannika Koolmanojwong • Richard Turner



The Incremental Commitment SPIRAL MODEL

Foreword by
Frederick P. Brooks, Jr.



**Principles and Practices for
Successful Systems and Software**

Addison-Wesley, 2014

So, No Matter Which Methods Are Selected ...

- ▶ We need to address the human and organizational aspects, such as changes in skills, attitudes, values, roles, incentives, reporting structure & status.
- ▶ Sometimes they are the strongest determinates of success, as very few improvement initiatives fail for technical reasons.

Org Changes – Potential for Friction?

- ▶ Centralization -- agile teams by definition are decentralized and local.
- ▶ Formalization -- by practice and philosophy, agile teams have very low ritual.
- ▶ Authority -- the agile team as a whole is responsible; there is not one single person accountable.
- ▶ Span of control -- agile teams are relatively small and not geographically distributed.
- ▶ Standard operating procedures -- agile teams select the practices they agree to.
- ▶ Commitment process -- agile team members commit using their own internal methods (e.g., planning poker), which may or may not agree with the rest of the organization's history and methods of coming to agreement.

Types of Disruption on Individual Frames of Reference*

TYPE OF DISRUPTION	THREAT/LOSS	STRATEGY TO MANAGE
Status (Sense of importance relative to others)	Mastery, Role	Provide Learning Opps
	Relative Importance	Emphasize Relative Importance of Current or Past Role; Offer Public Recognition
Certainty (Need for clarity & ability to make accurate predictions)	Predictability/Pattern	Break Into Small Steps; Discuss Expectations
	Misery of Uncertainty	Increase Transparency, Increase Explicitness
Autonomy (Sense of control/ choice over events & behavior has an effect on outcomes)	Control	Decrease Real/Perceived Micromanagement; Present Options
		Increase Involvement Early
Relatedness (Connection to others)	Safety	Establish Commonalities, Buddy System
	Connectedness	Minimize Boundaries, Keep Groups Small
Fairness (Just & non-biased exchange)	Trust	Common Set of Rules; Increase Transparency
	Process & Outcome	Self-Directed Team

*Source: David Rock, 2008 & 2102

Session Goals

- Provide an overview of the Accelerating Implementation Methodology (AIM).
- Identify key barriers and strengths for your improvement initiative.
- Build a strategy to generate effective sponsorship.
- Address the inevitable sources of resistance.
- Develop next step strategies.

Implementation of Organizational Change Has a Poor Track Record

- Only 30% of change initiatives produced improvements in bottom line results.
- 70% of all major business change implementations have sub-optimized results.
- 70% of process changes in software fail.
- Less than 10% of companies implementing Six Sigma get results that affect the balance sheet.

“All of these improvement initiatives are meaningless unless supported by people.”

SPI Implementation Barriers

1996

- ▶ Pressure to meet schedules
- ▶ Lack of middle management commitment
- ▶ Lack of key resources
- ▶ Other organizational changes that distract focus
- ▶ Unclear rewards for SPI

2009

- ▶ Pressure to meet schedules
- ▶ Lack of middle management commitment
- ▶ Lack of key resources
- ▶ Other organizational changes that distract focus
- ▶ Lack of top management commitment

Lessons Learned: Life After the Appraisal – Two Years After the Assessment

	Higher is Better	Lower is Better
Developed Action Plans	94%	
Established Action Teams	86%	
Successful at Reassessment	31%	
Generated Disillusionment		46%
Exceeded Budget		59%
Exceeded Time Frame		76%

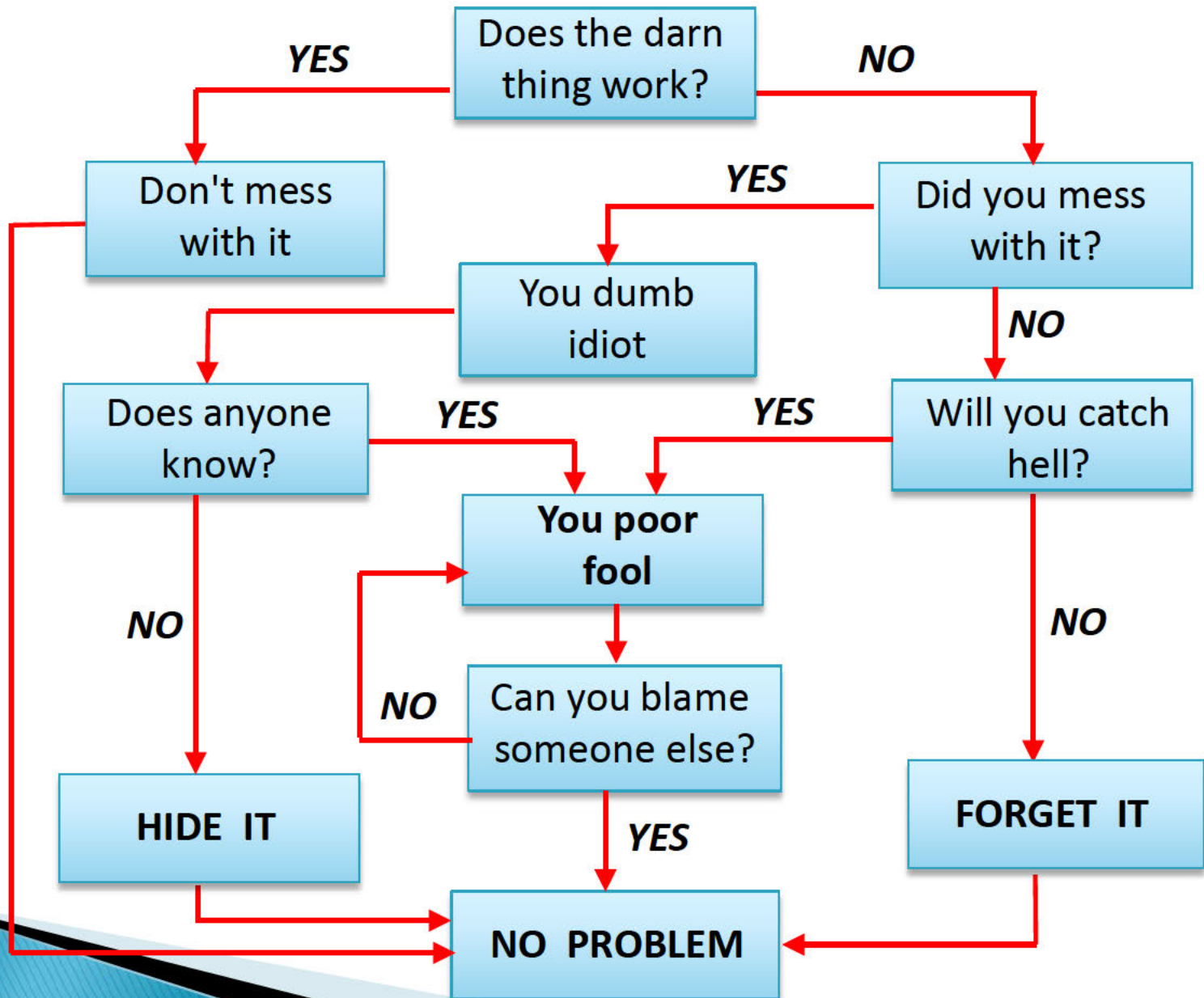
Implementation Best Practices

- Active Senior Management Monitoring.
- Tight Link Between Improvement and Business Goals.
- Clear Goals at All Levels.
- Dedicated and Respected Staff Resources.
- Involvement From Technical Community.
- Focus on Commitment Management Processes.
- Early Definition and Application of Metrics.

Success Requires the Right Decision and Managed Implementation

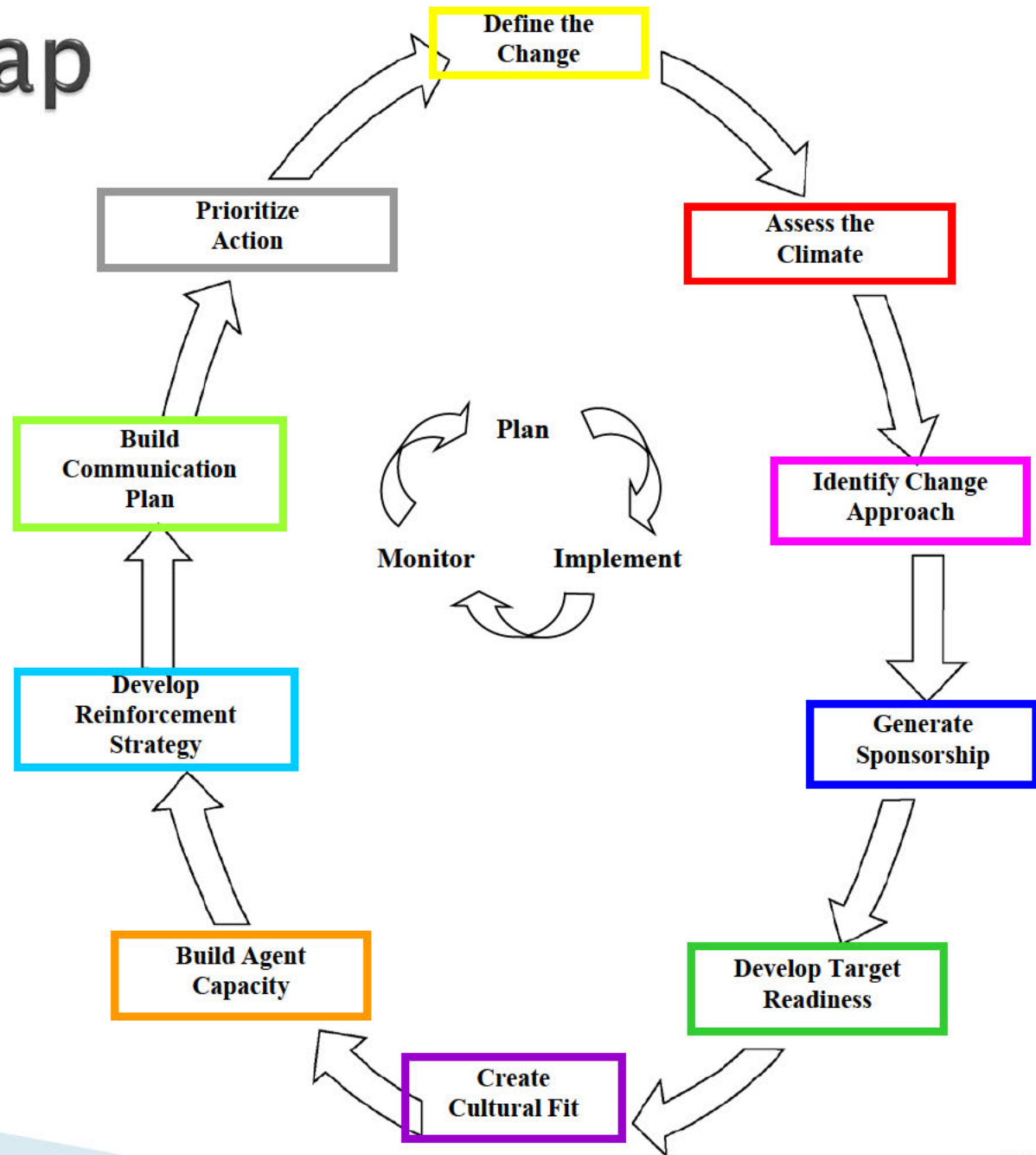
		Decision	
		Wrong	Right
Implementation	Unmanaged	Failure	Failure
	Managed	Failure	<i>Success</i>

Change Flow Chart

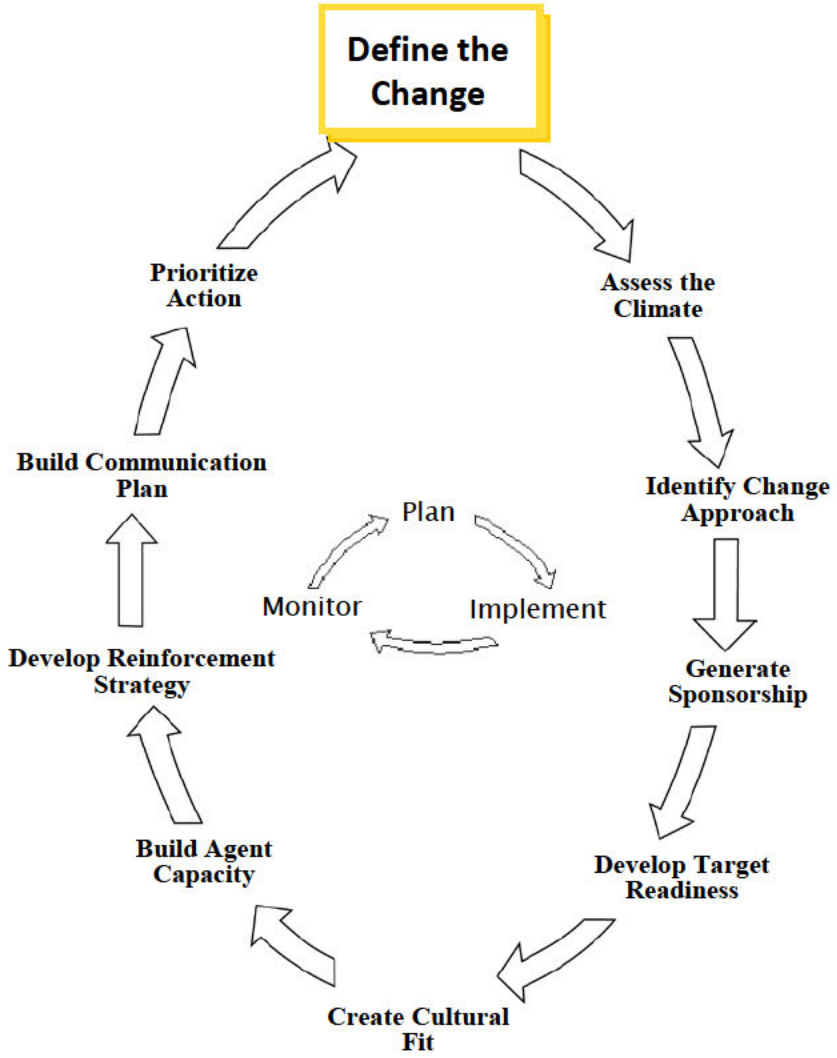


The Road Map

1. Based on Plan-Do-Check-Act.
2. Data-driven at each step.
3. Does not rely on change-agent intuition.
4. Step-by-step and sensitive to changes & new knowledge.
5. Method for planning. Execution based on data.

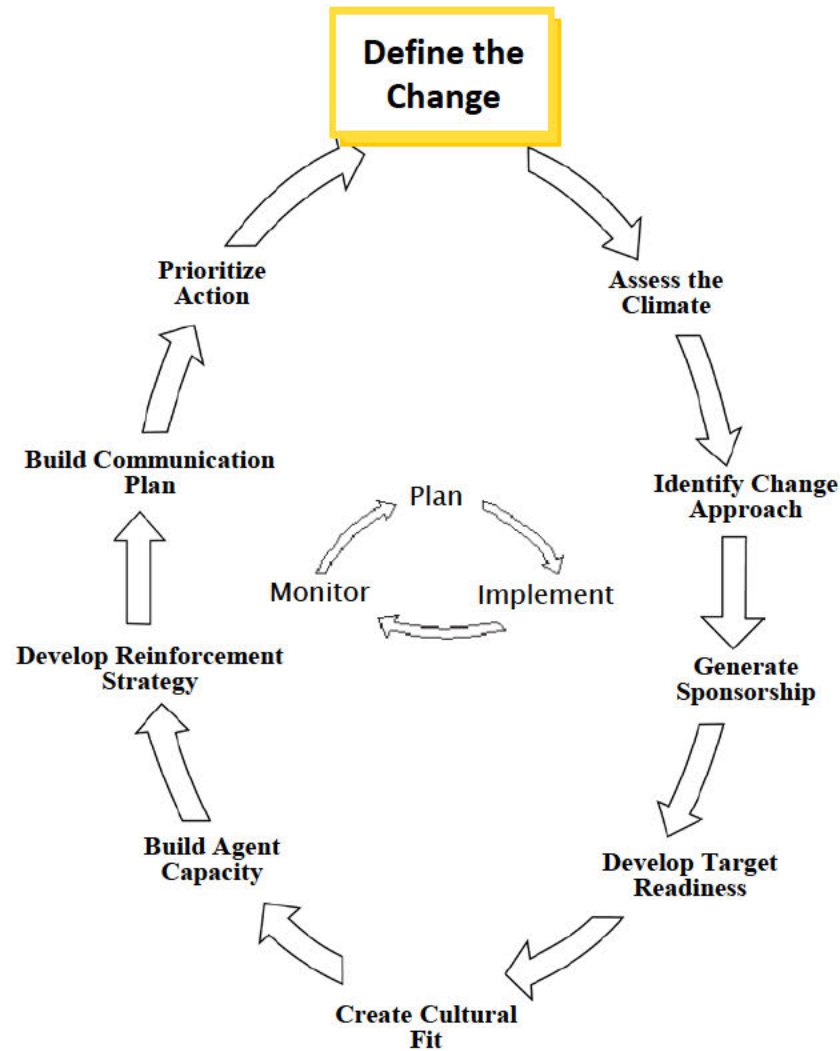


Accelerating Implementation Cycle: Road Map & Tools



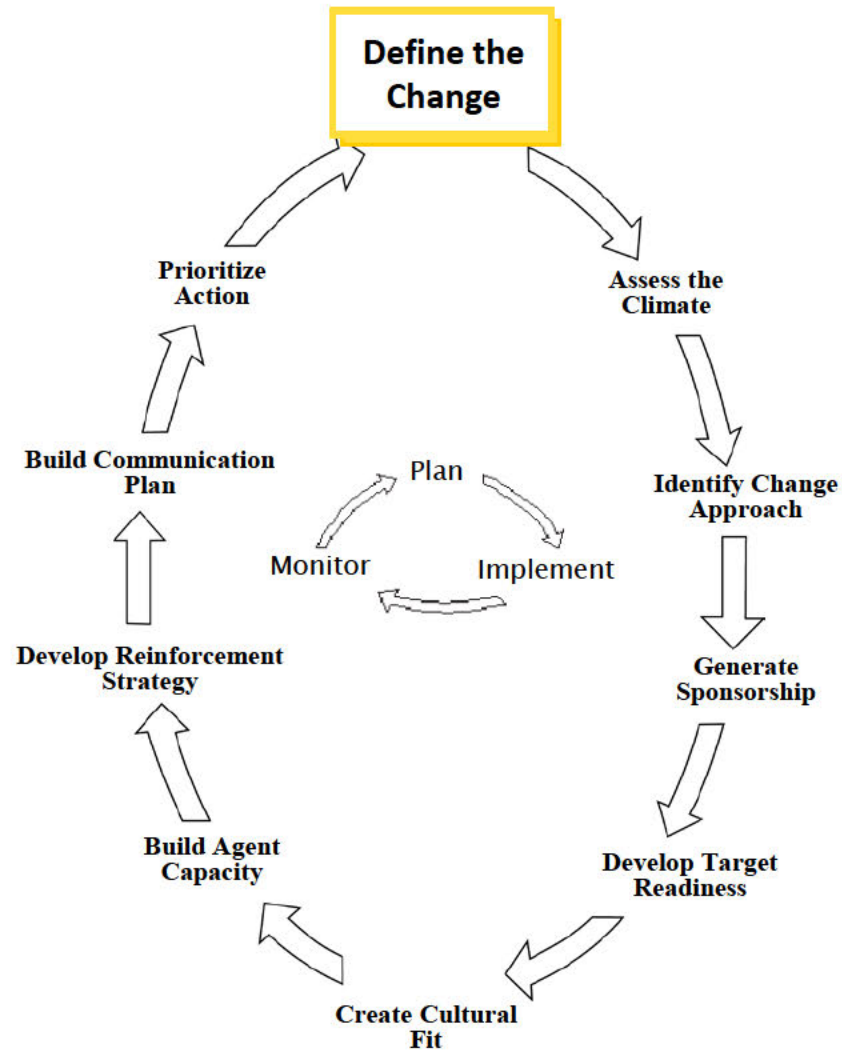
Accelerating Implementation Cycle: Road Map & Tools

➔ **Interactively
Generate
Shared
Definition
at Each
Level**

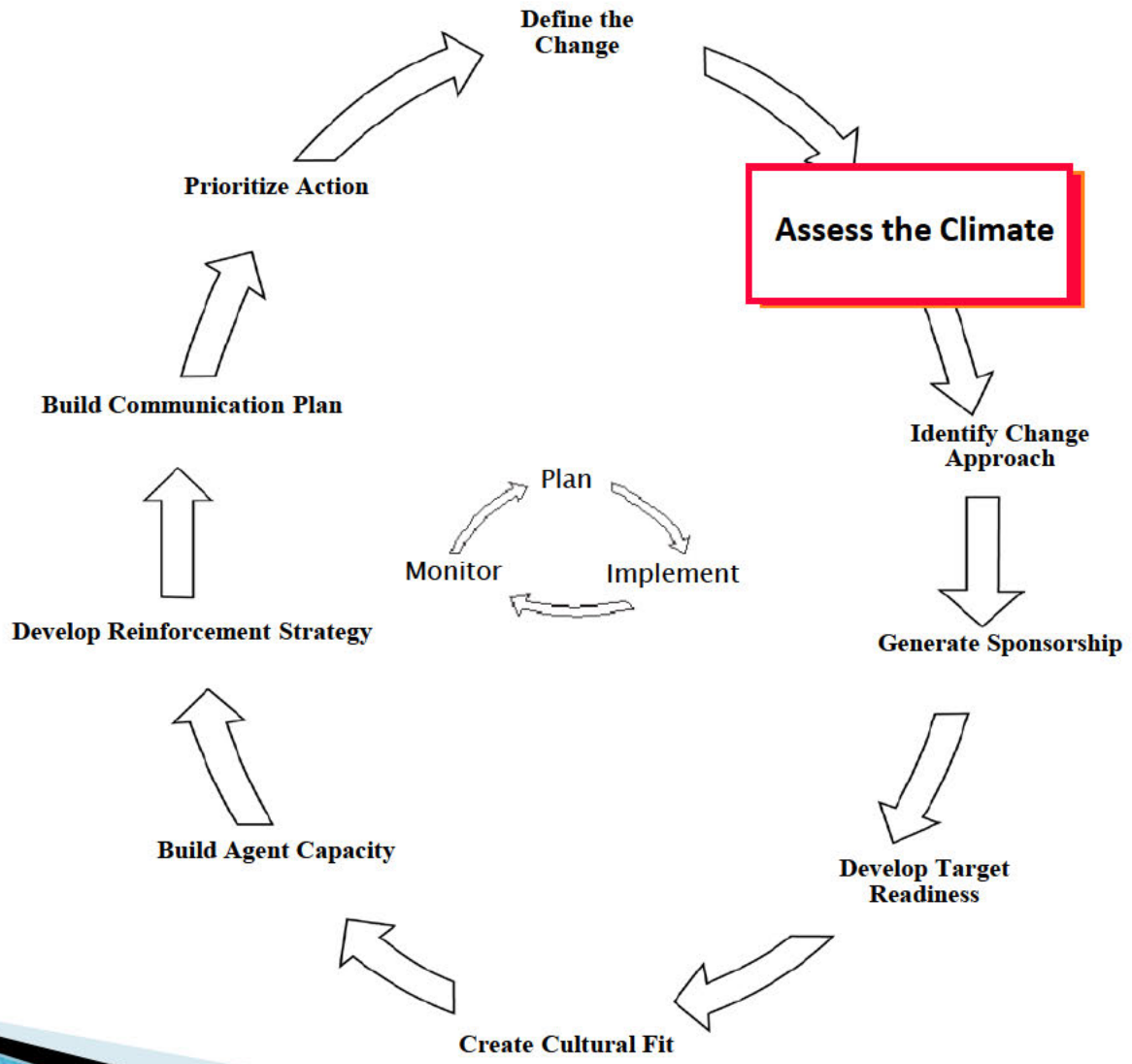


Accelerating Implementation Cycle: Road Map & Tools

➔ **Build
Powerful,
Urgent
Business
Case**

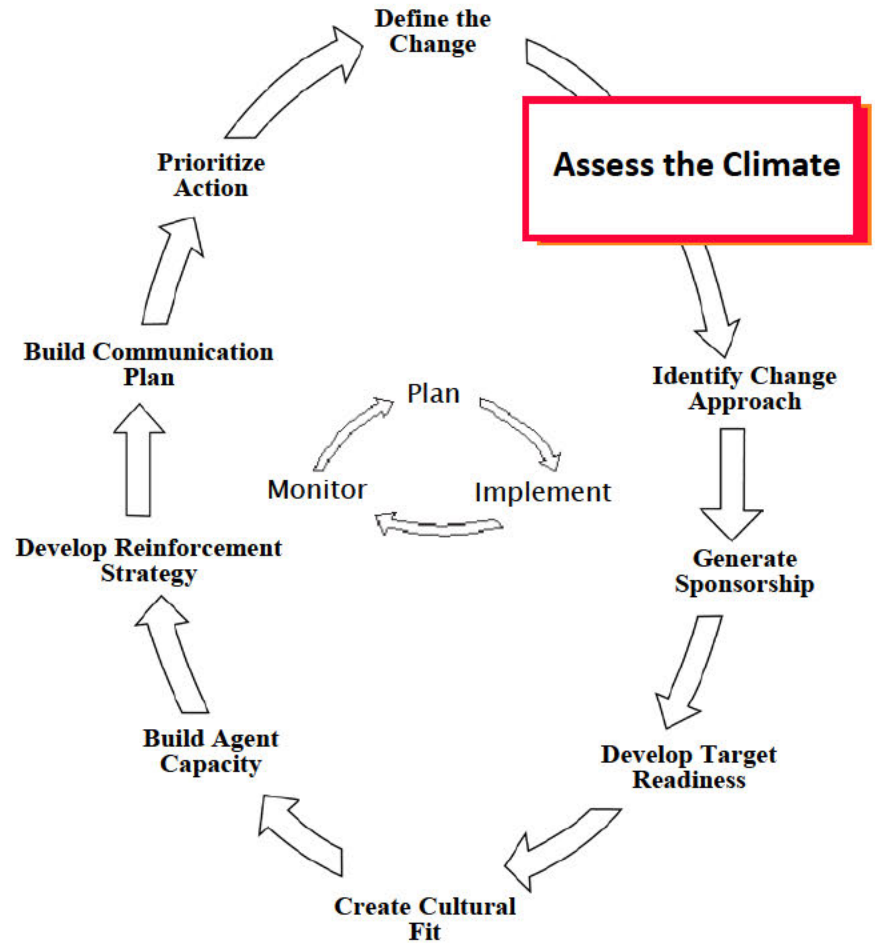


Accelerating Implementation Cycle: Road Map & Tools



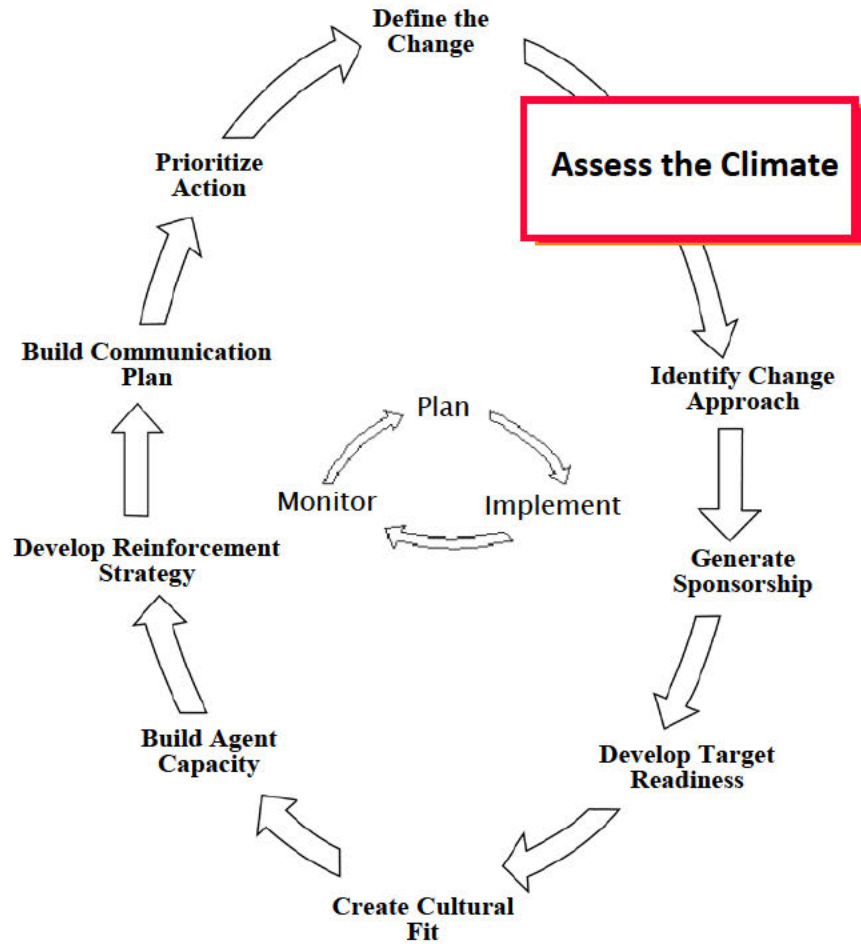
Accelerating Implementation Cycle: Road Map & Tools

➔ **Minimize Historical Barriers & Maximize Historical Strengths**

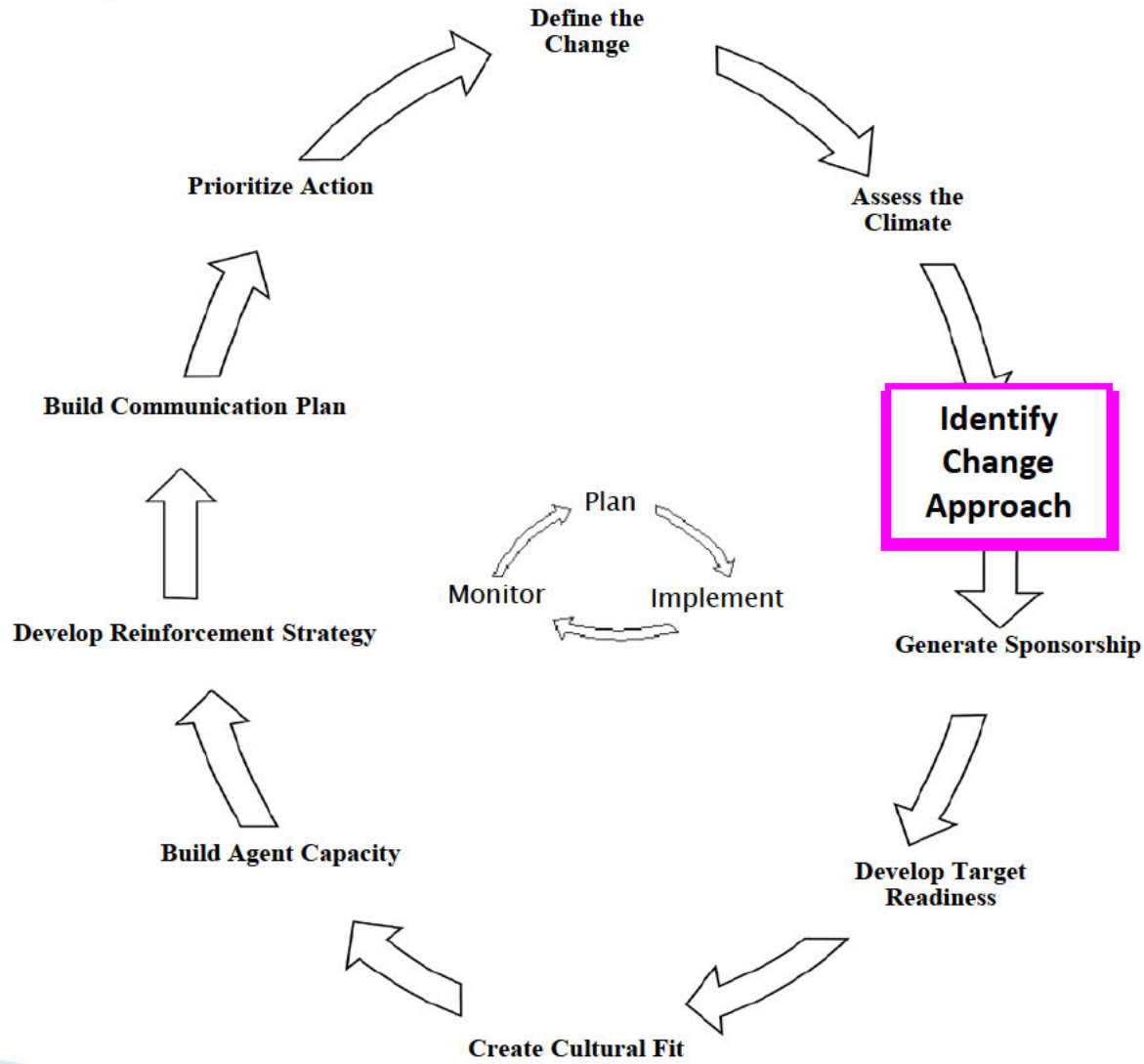


Accelerating Implementation Cycle: Road Map & Tools

➔ **Reduce
Conflicting
Priorities**



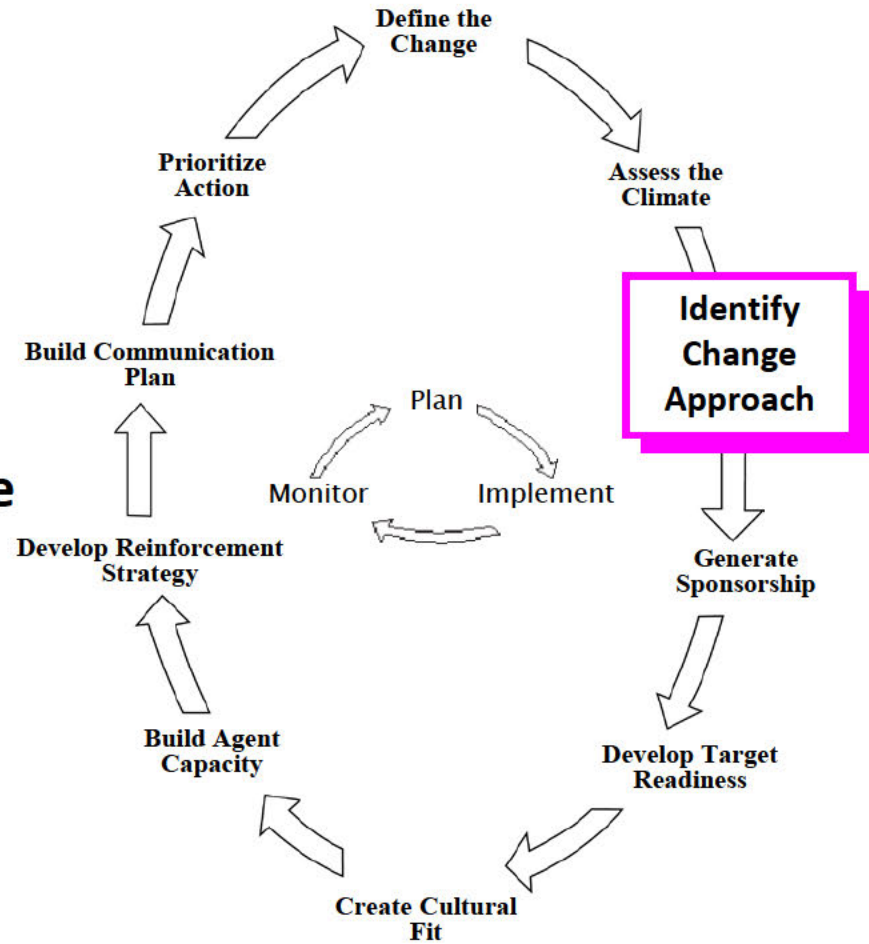
Accelerating Implementation Cycle: Road Map & Tools



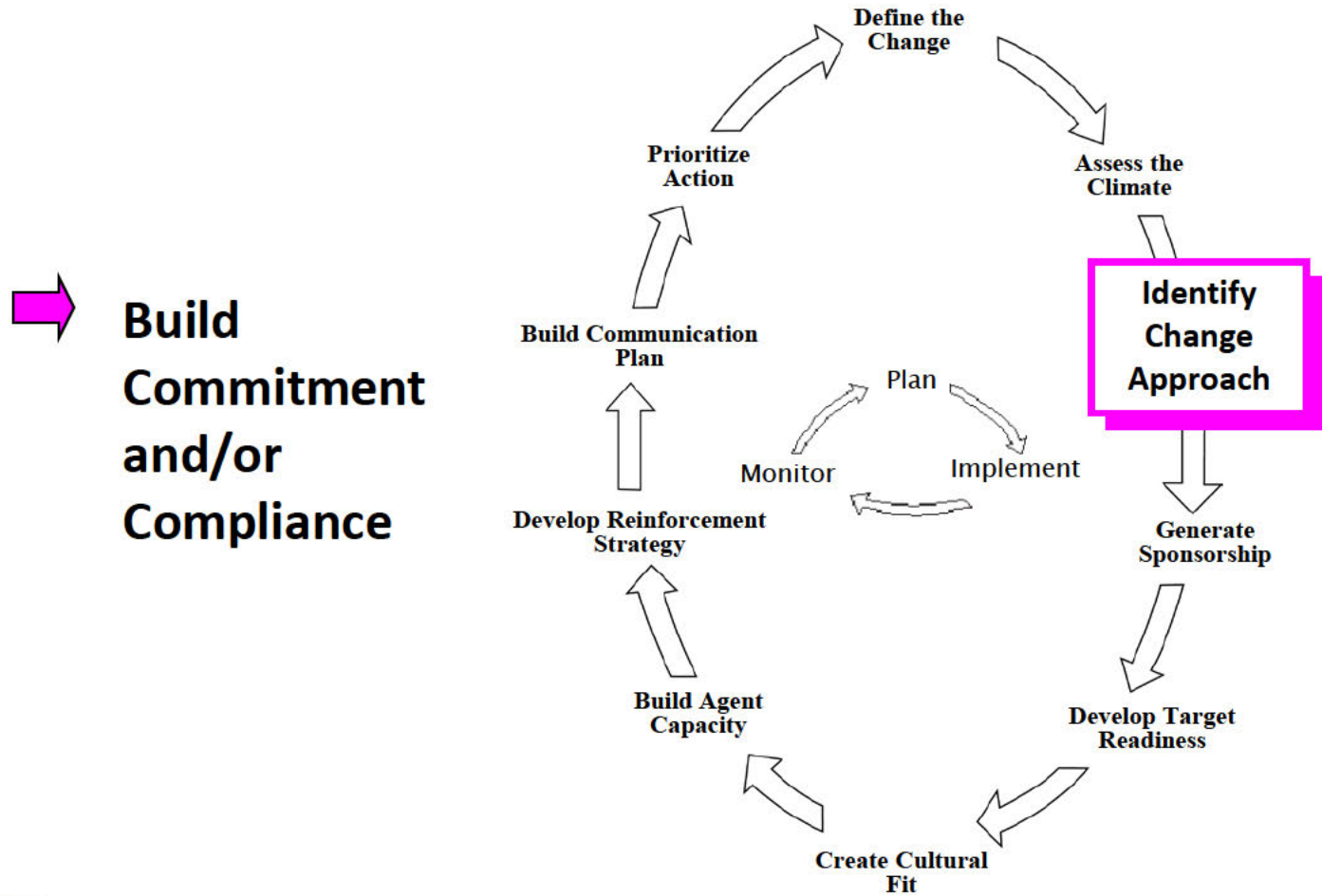
Accelerating Implementation Cycle: Road Map & Tools



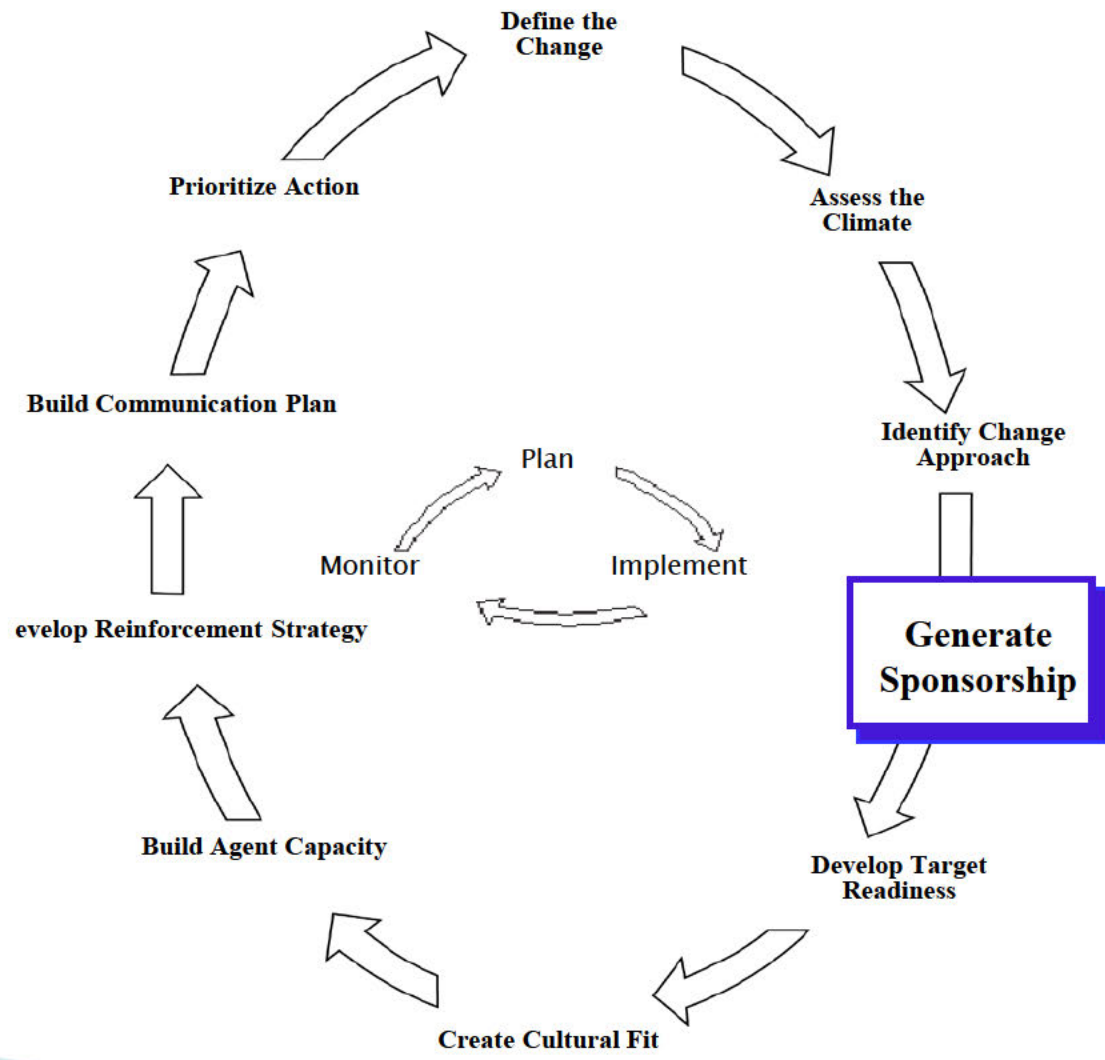
**Powerful
Picture of the
Future vs.
Burning
Platform**



Accelerating Implementation Cycle: Road Map & Tools



Accelerating Implementation Cycle: Road Map & Tools

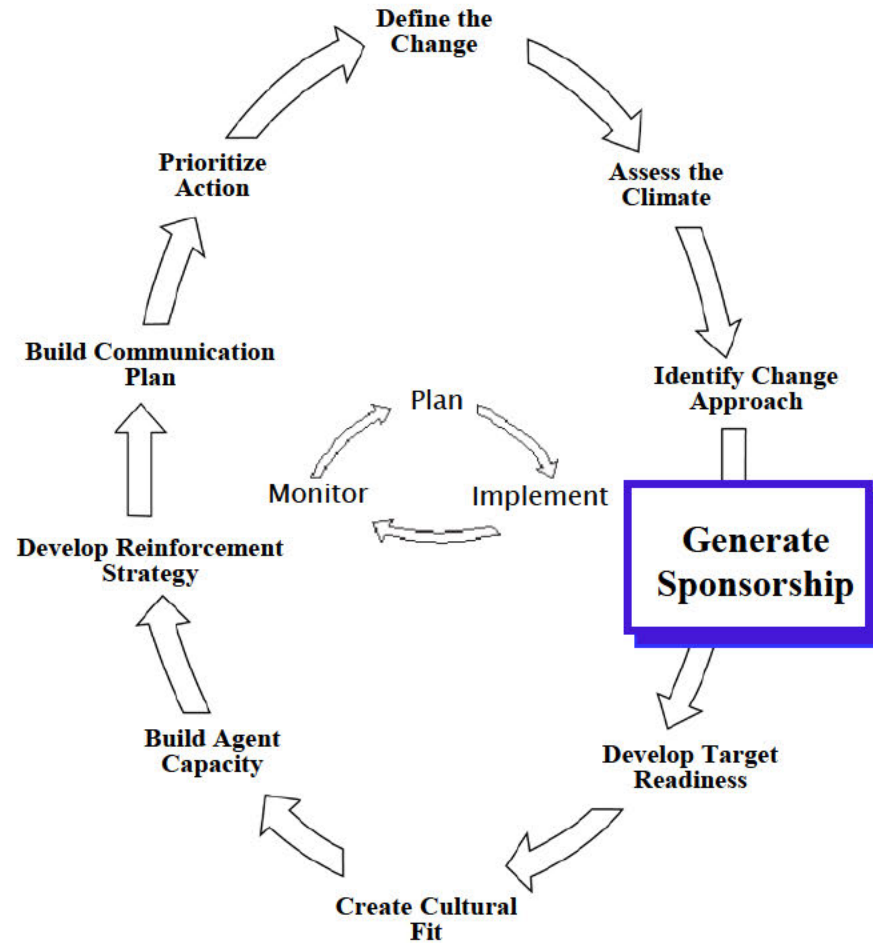


Sponsor Actions for Successful Reengineering

- Committed 25-50% of their time for enterprise-wide scope initiative.
- Continuously builds consensus at all levels.
- Generous with resources.
- Assigned best performers.
- Demonstrated tenacious pursuit of objectives.
- Used power strategically to manage resistance.
- Approached communication as an interpersonal activity.

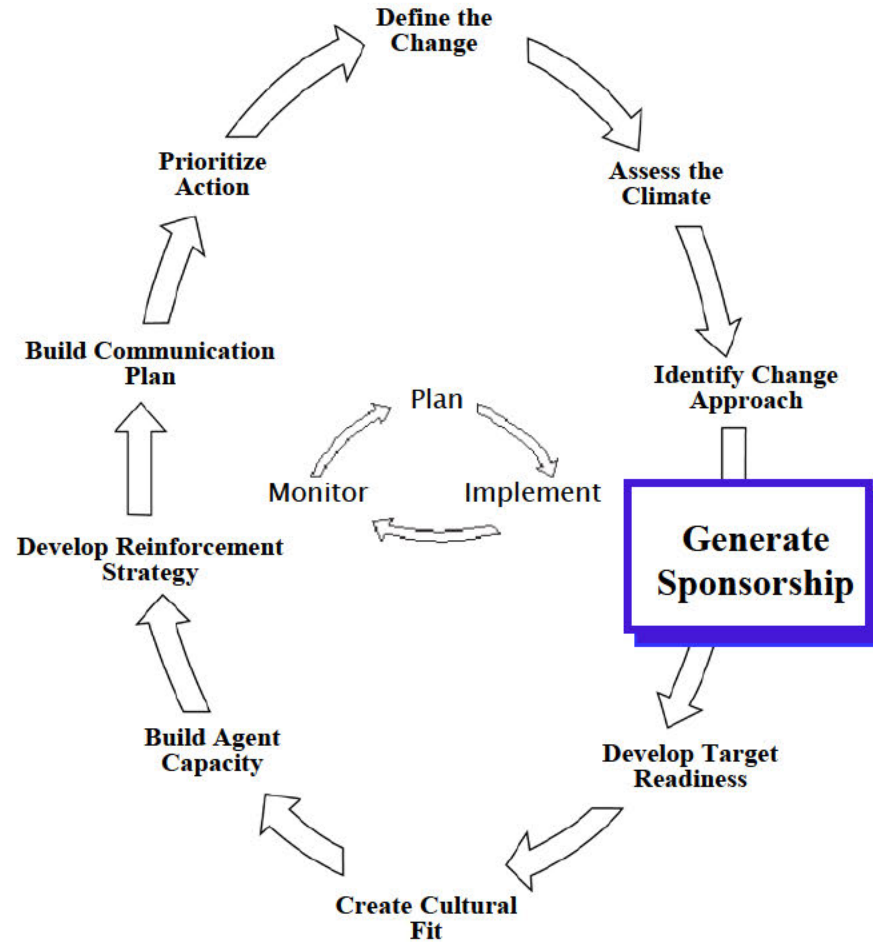
Accelerating Implementation Cycle: Road Map & Tools

➔ **Identify High
ROI Sponsor
Behaviors**

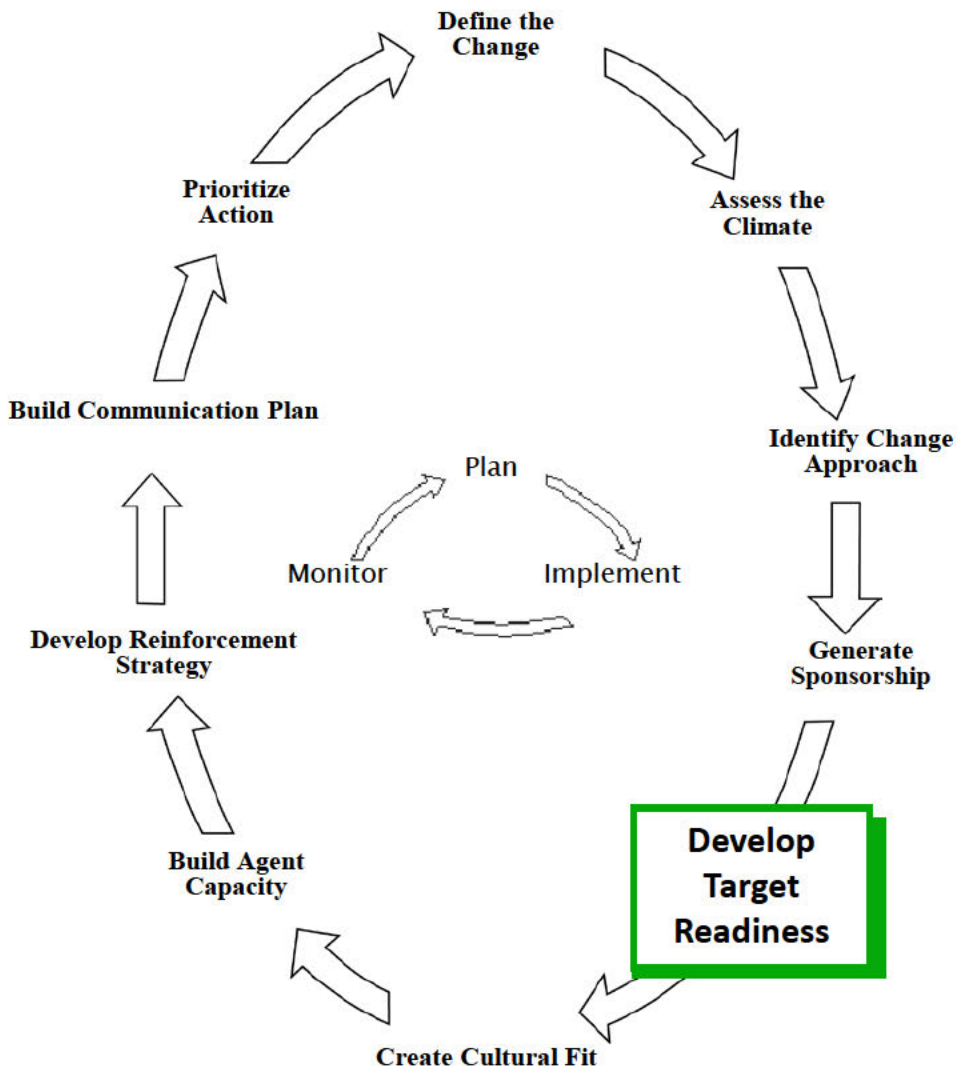


Accelerating Implementation Cycle: Road Map & Tools

➔ **Cascade
Commitment
Down/Across
Organization**

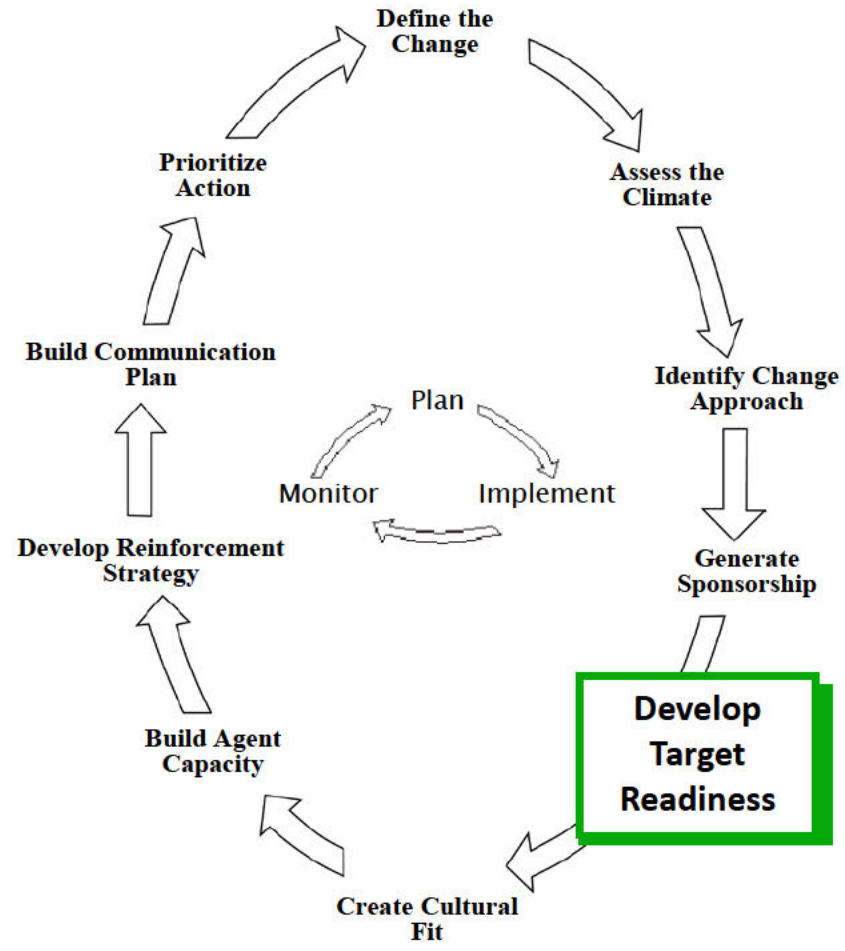


Accelerating Implementation Cycle: Road Map & Tools



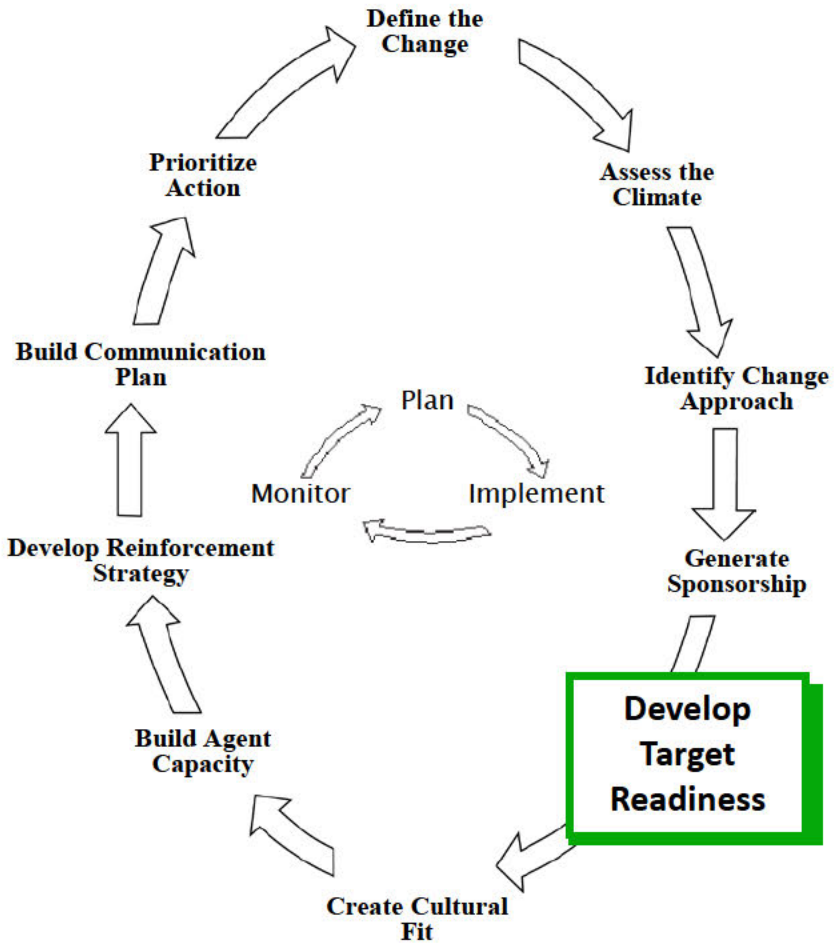
Accelerating Implementation Cycle: Road Map & Tools

 **Identify
Multiple FORs**



Accelerating Implementation Cycle: Road Map & Tools

**➔ Anticipate and
Manage
Inevitable
Resistance**



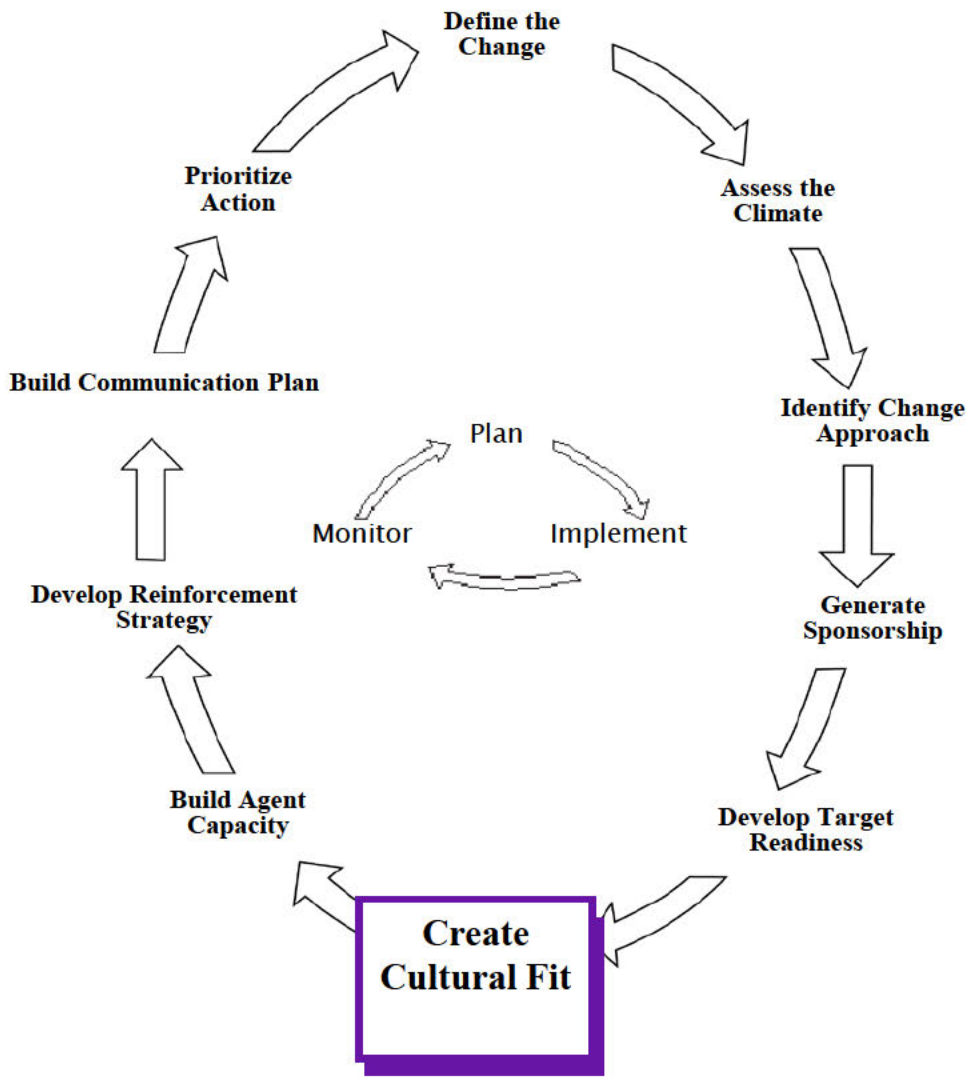
Frames of Reference (FOR) About Resistance

RESISTANCE...

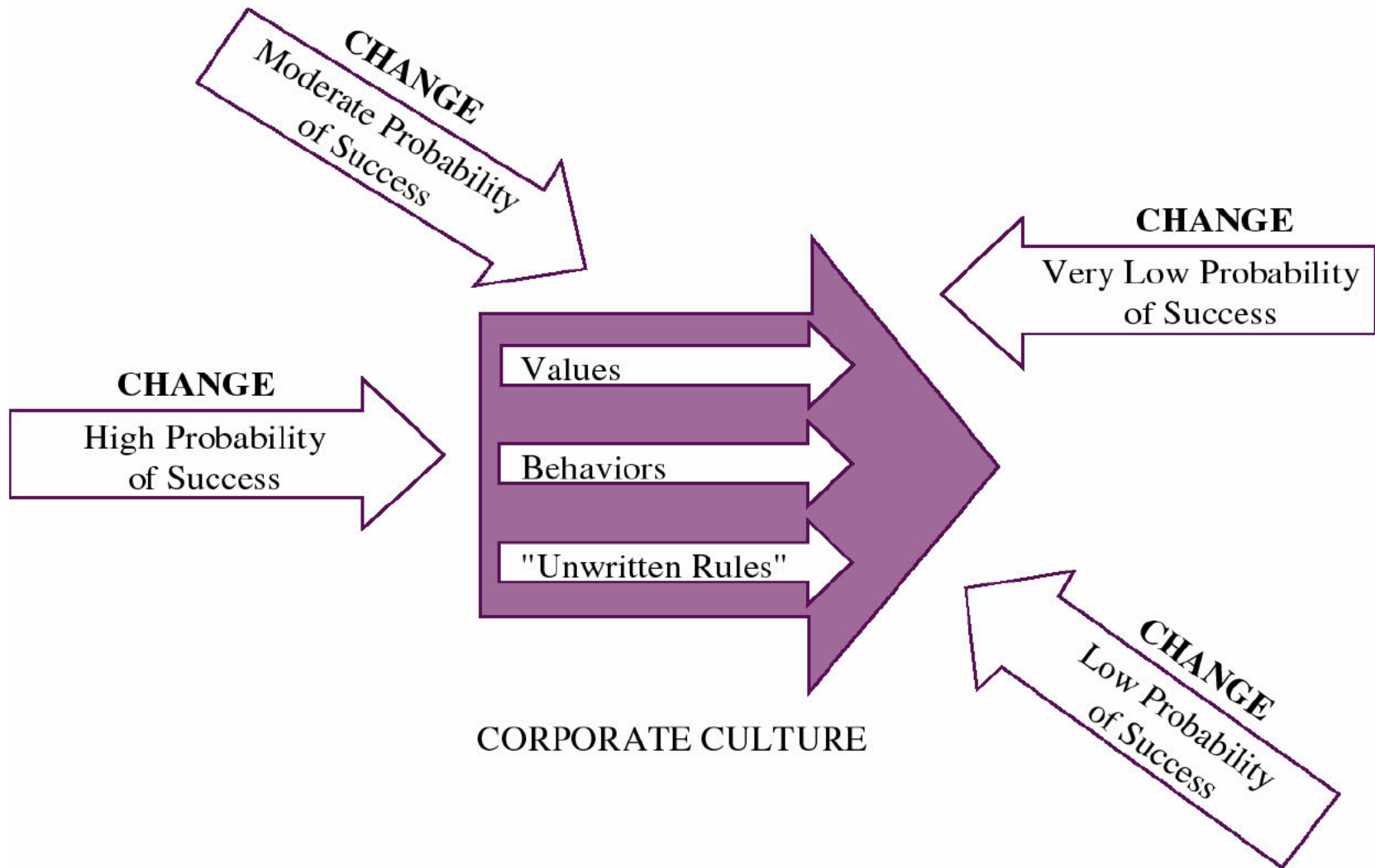
IS	IS NOT
Inevitable.	Necessarily logical.
A natural function of change.	A sign of disloyalty.
Manageable.	Something to overcome or combat.
An attempt to protect the individual FOR.	Aimed at you or to be taken personally.
A sign that you have touched on something important.	Designed to discredit your competence, despite the words being used.
A sign that the potential for change exists.	Indicative of poor performance.
A sign of controlling the change process.	A sign that the change process is out of control.
A learning process.	

- Resistance is an attempt to defend or protect the individual or collective Frames of Reference (FOR).
 - Resistance is a process and must be managed. Resistance cannot be combatted, solved, or overcome.

Accelerating Implementation Cycle: Road Map & Tools

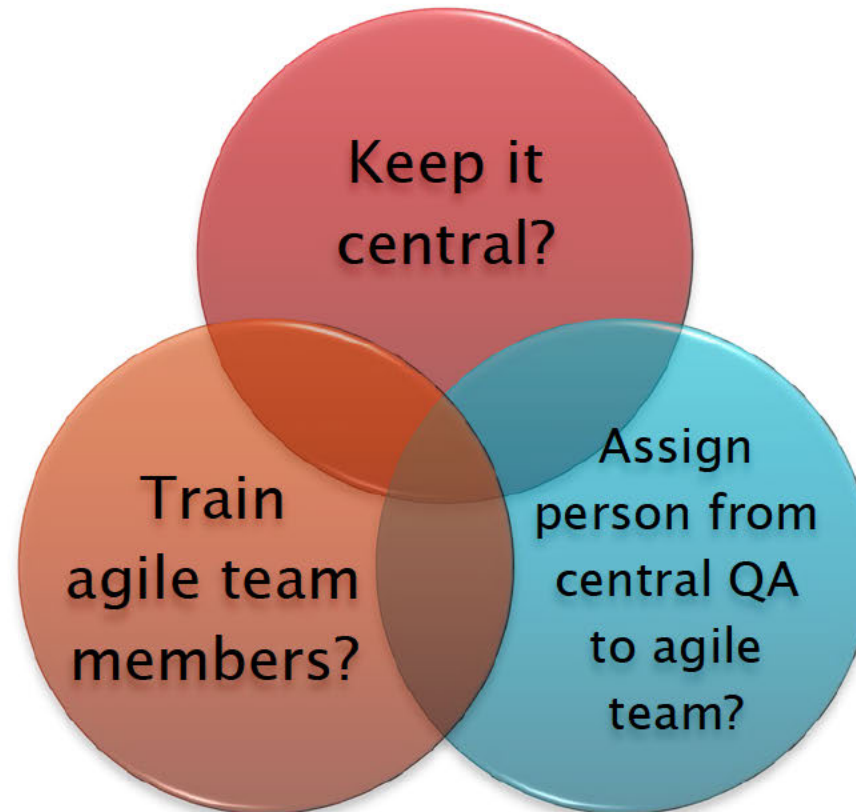


Change and Corporate Culture



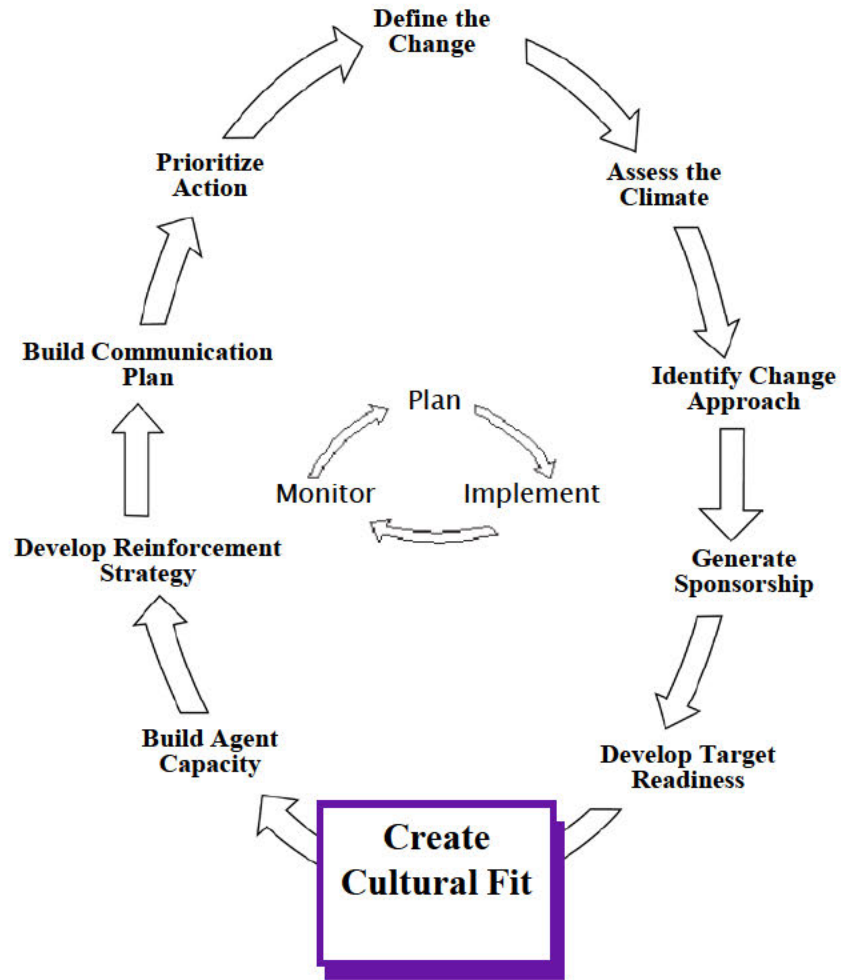
Change and Corporate Culture

Where to put QA in a centralized org that is considering agile methods?



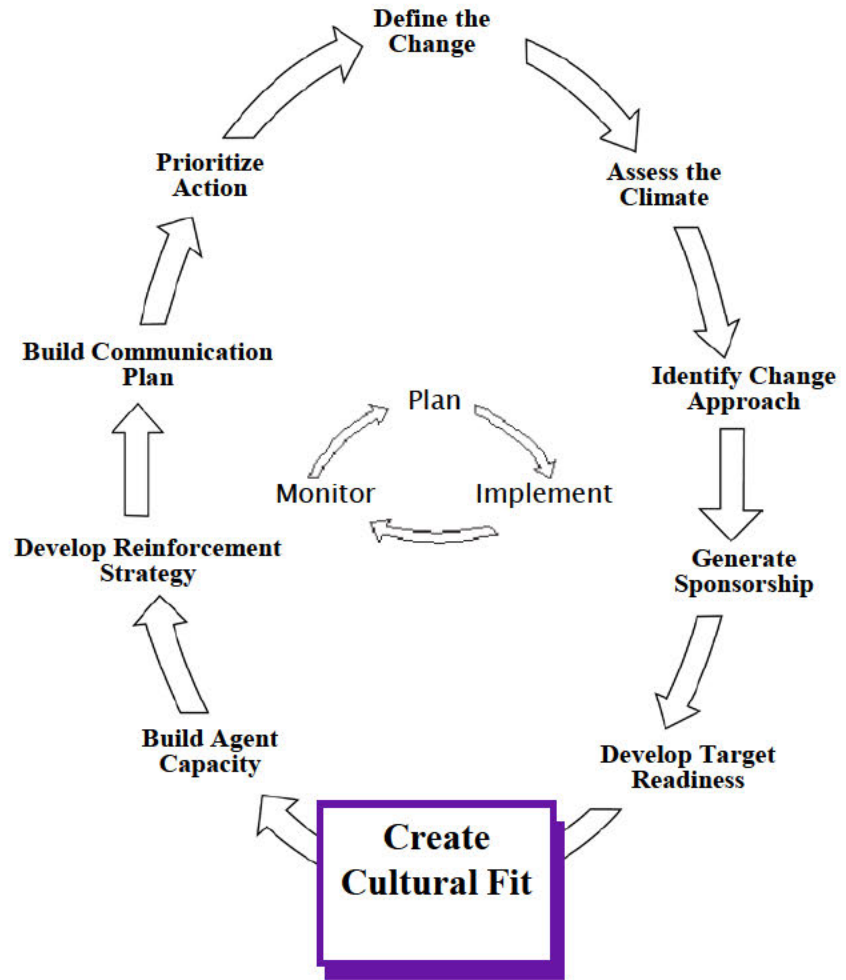
Accelerating Implementation Cycle: Road Map & Tools

➔ **Identify
Desired State
Culture**

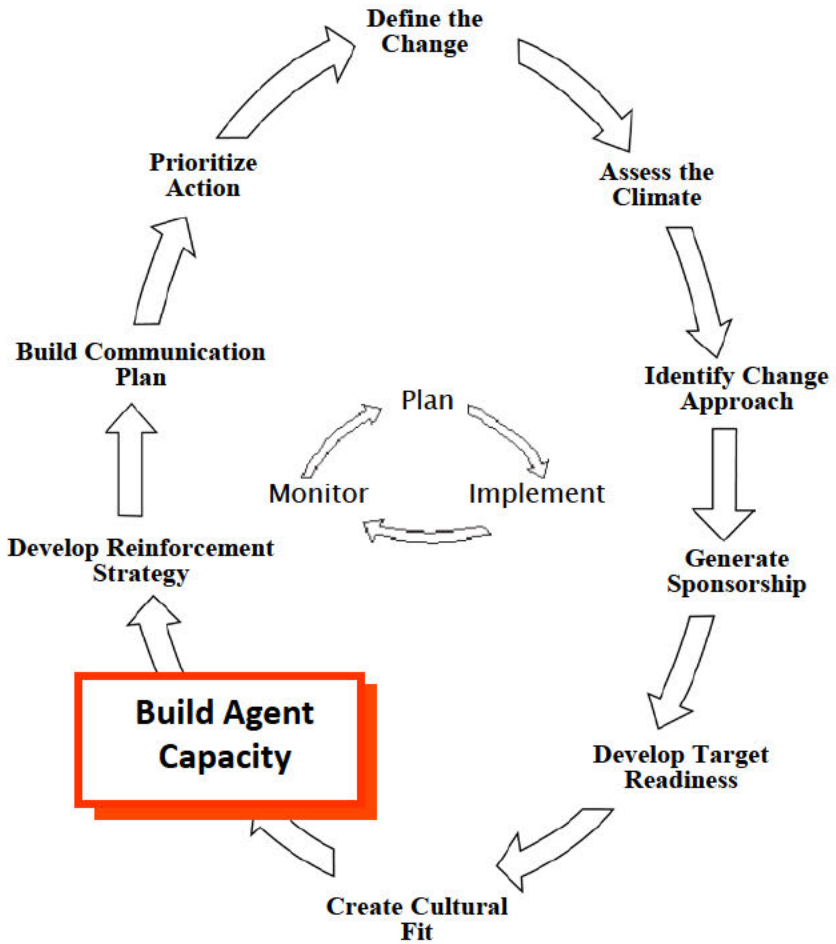


Accelerating Implementation Cycle: Road Map & Tools

➔ **Start At The
Top/Yourself
with Actions,
Not (Just) Words**

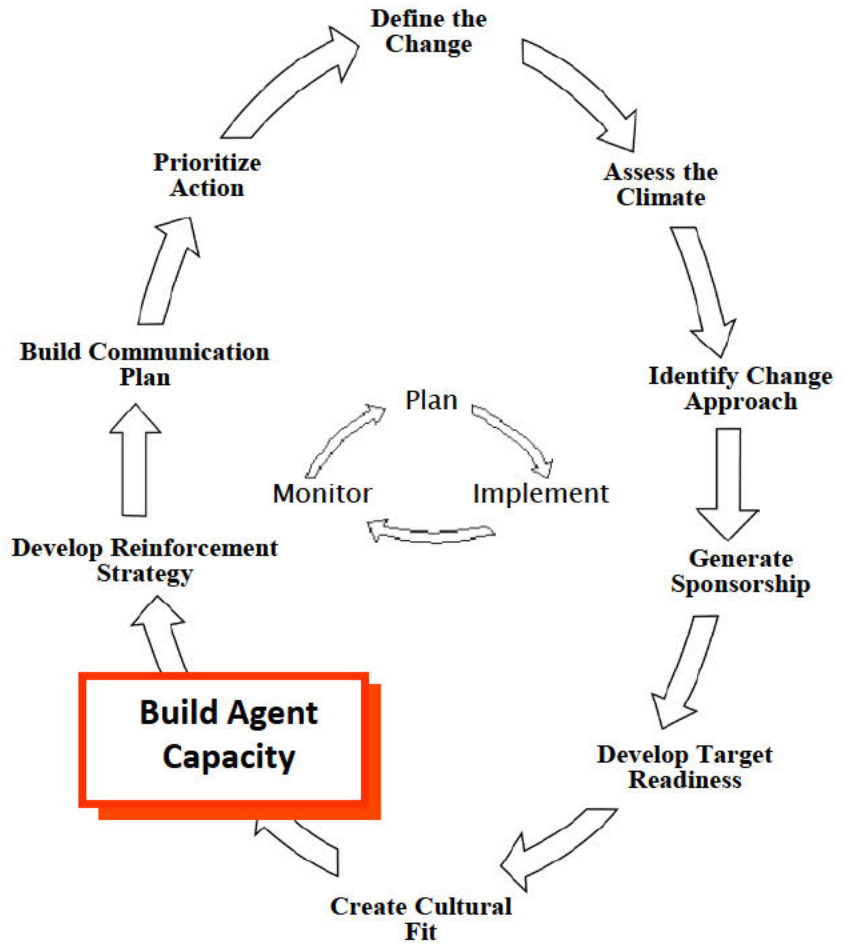


Accelerating Implementation Cycle: Road Map & Tools



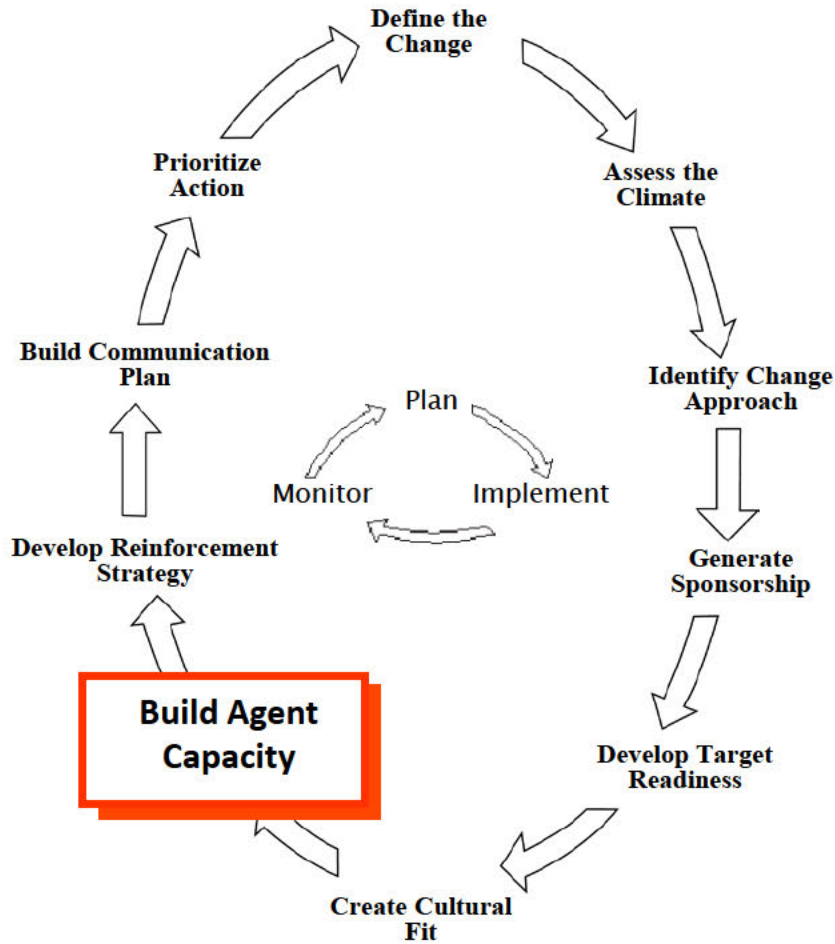
Accelerating Implementation Cycle: Road Map & Tools

 **Develop Individual Skills**

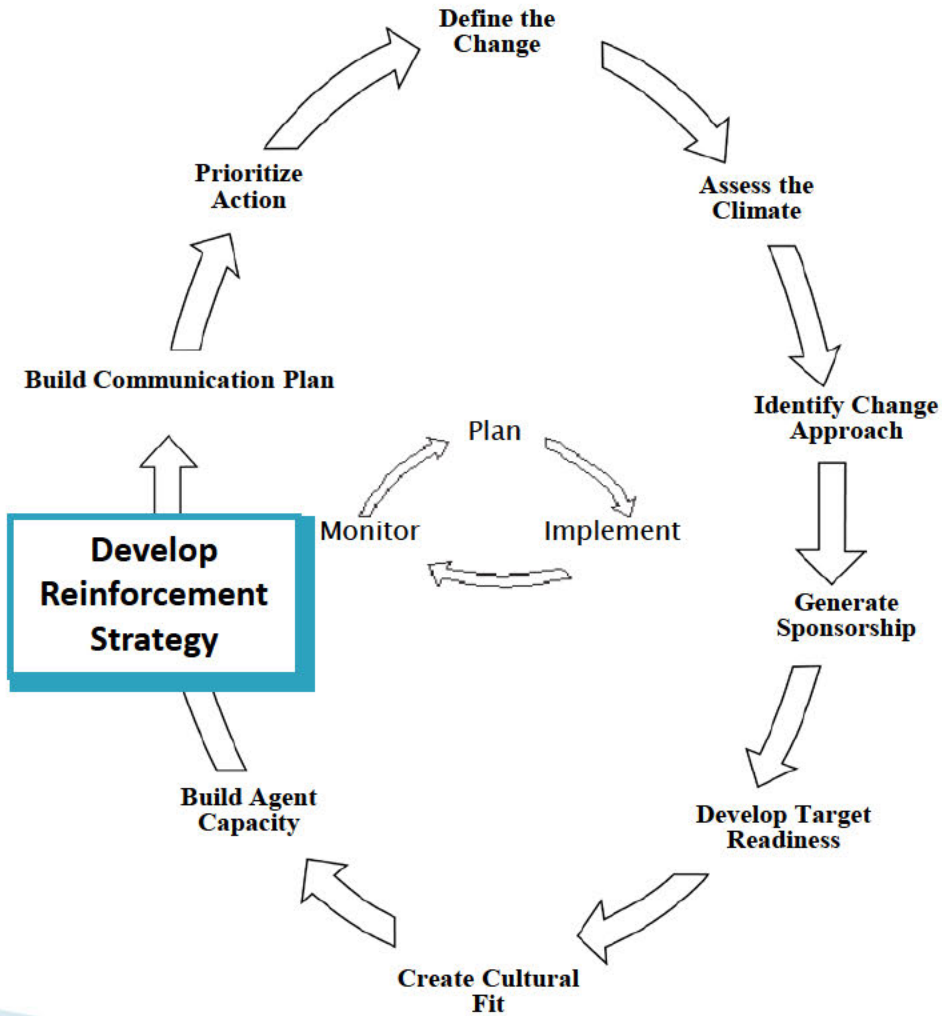


Accelerating Implementation Cycle: Road Map & Tools

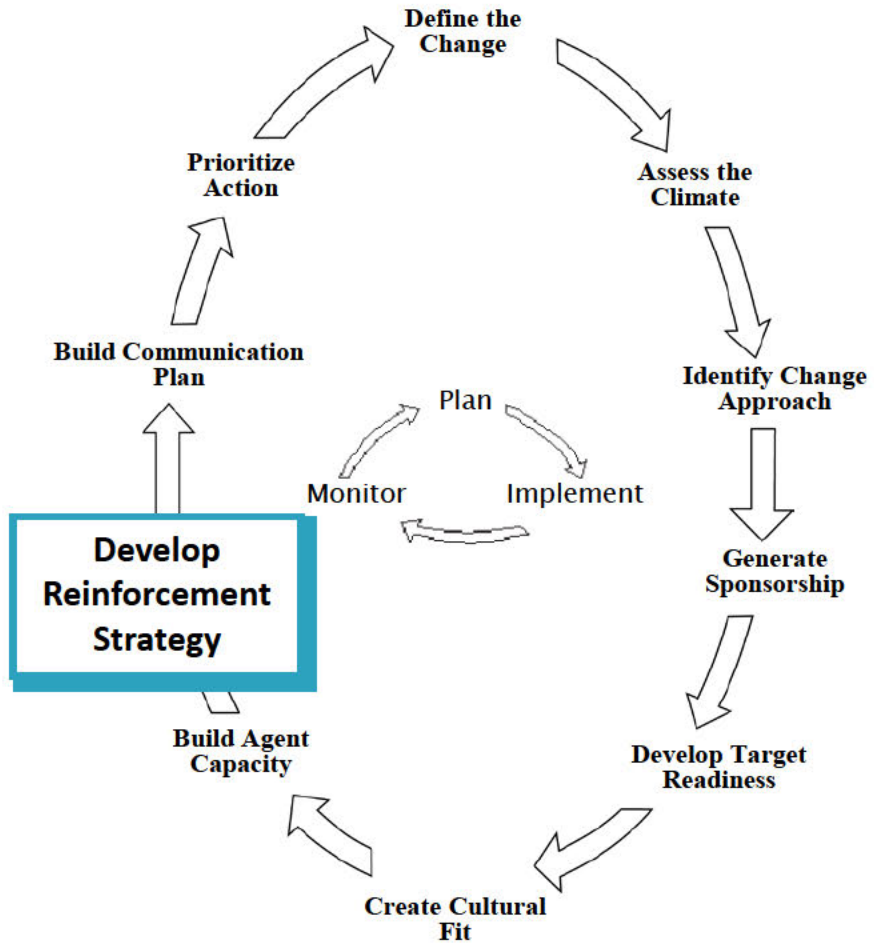
 **Establish
Organization
Capacity**



Accelerating Implementation Cycle: Road Map & Tools

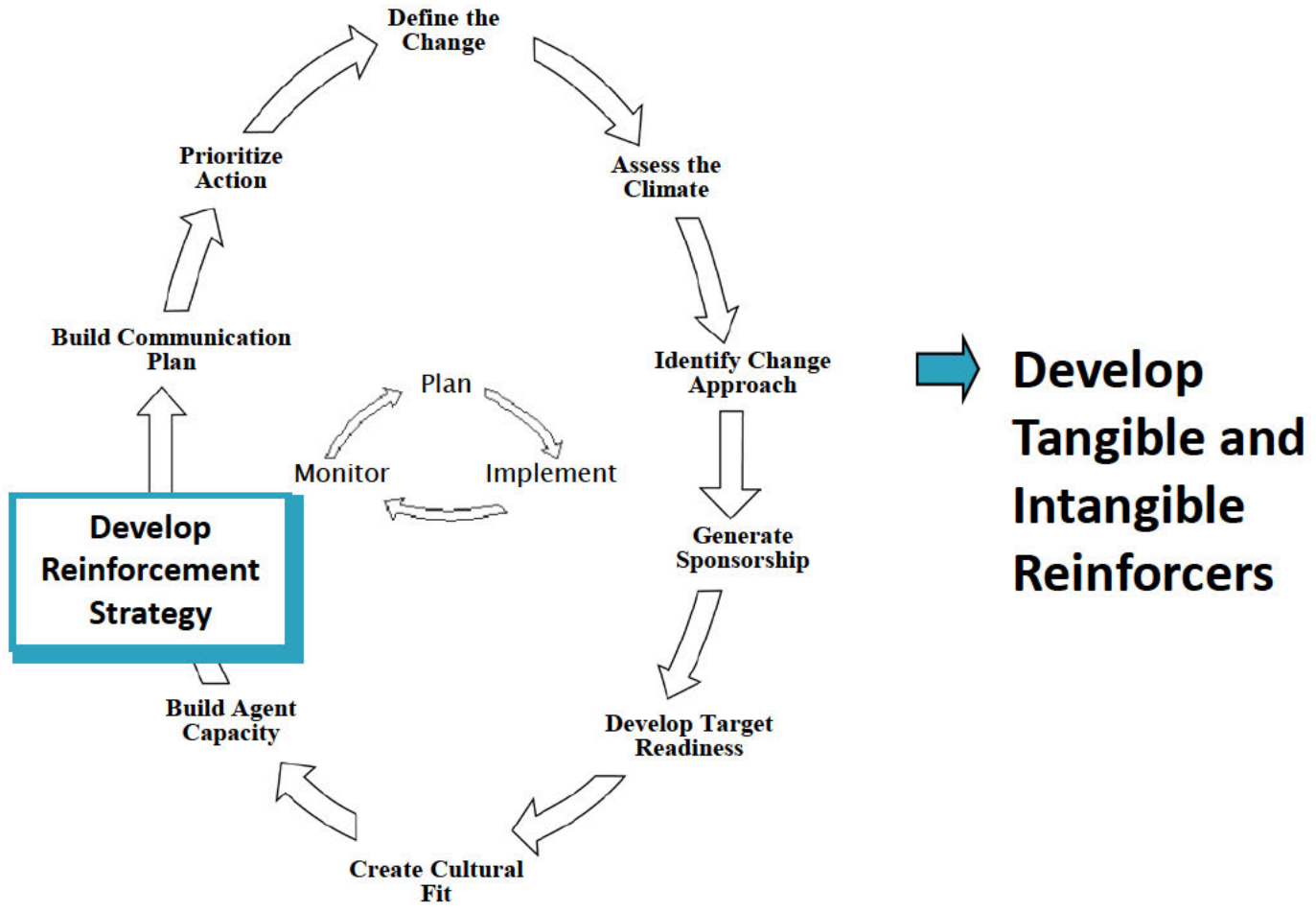


Accelerating Implementation Cycle: Road Map & Tools



**Align Rewards
With Desired
State**

Accelerating Implementation Cycle: Road Map & Tools



Reinforcement Management Tactics

Tangible Salary increase
Good wages
Awards
Bonuses, commissions
Prizes (trips, etc.)
Stock/profit Sharing
Perks

Tasks Assignment of new duties/roles
Relief from unpleasant duties
Relief from repetition
Varied duties
Preferred equipment

Development Access to training
Increased visibility
Project control
Professional recognition
Increased input
Influence over goals/tasks
Access to information
Supervise more people
High level input
Larger interdepartmental role

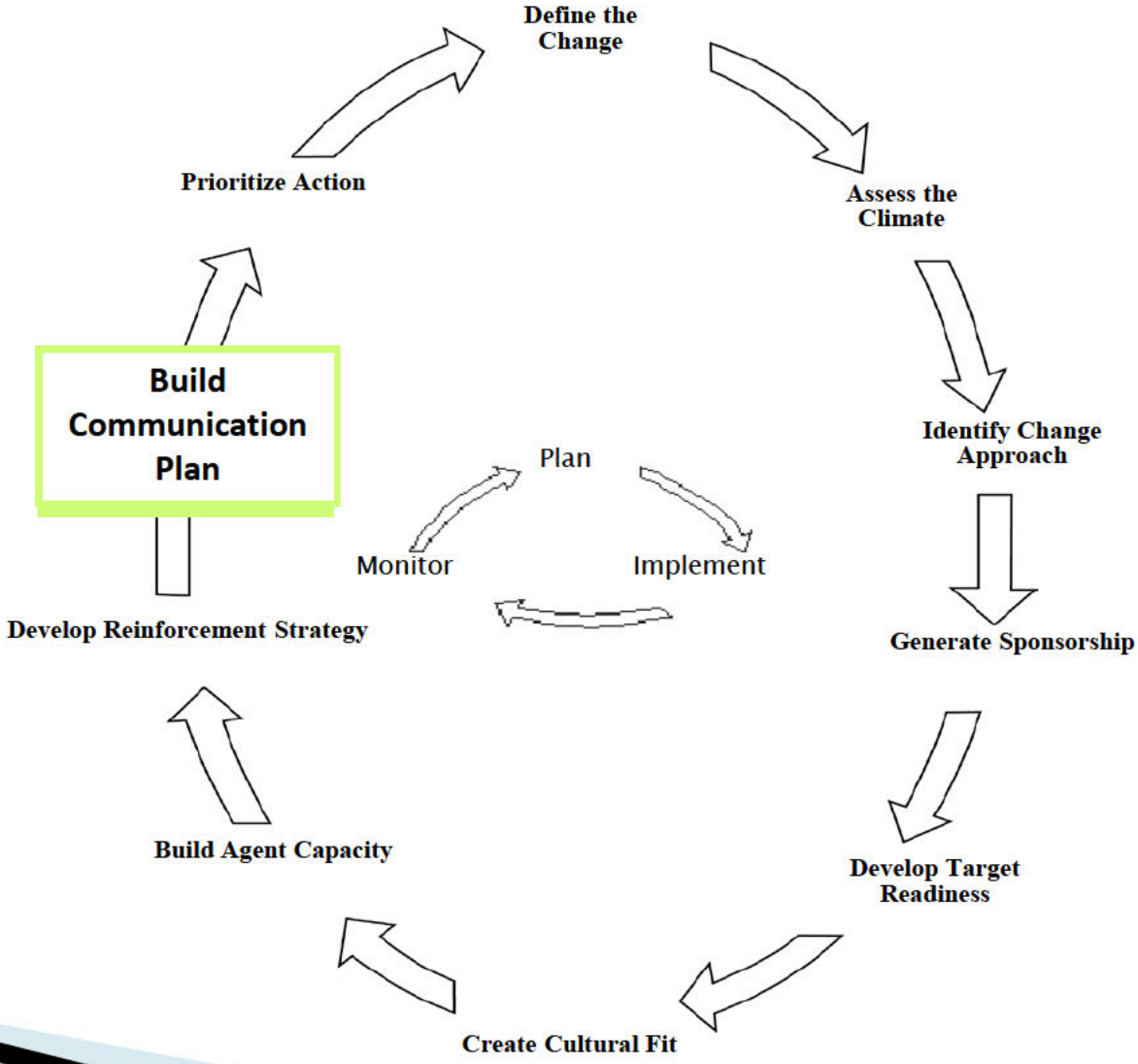
Control Exemption from policies
Personal control over time
Job security
Relief from threat of dismissal
Reduction in supervision

Recognition Public, positive
Public, negative
Private, positive
Private, negative

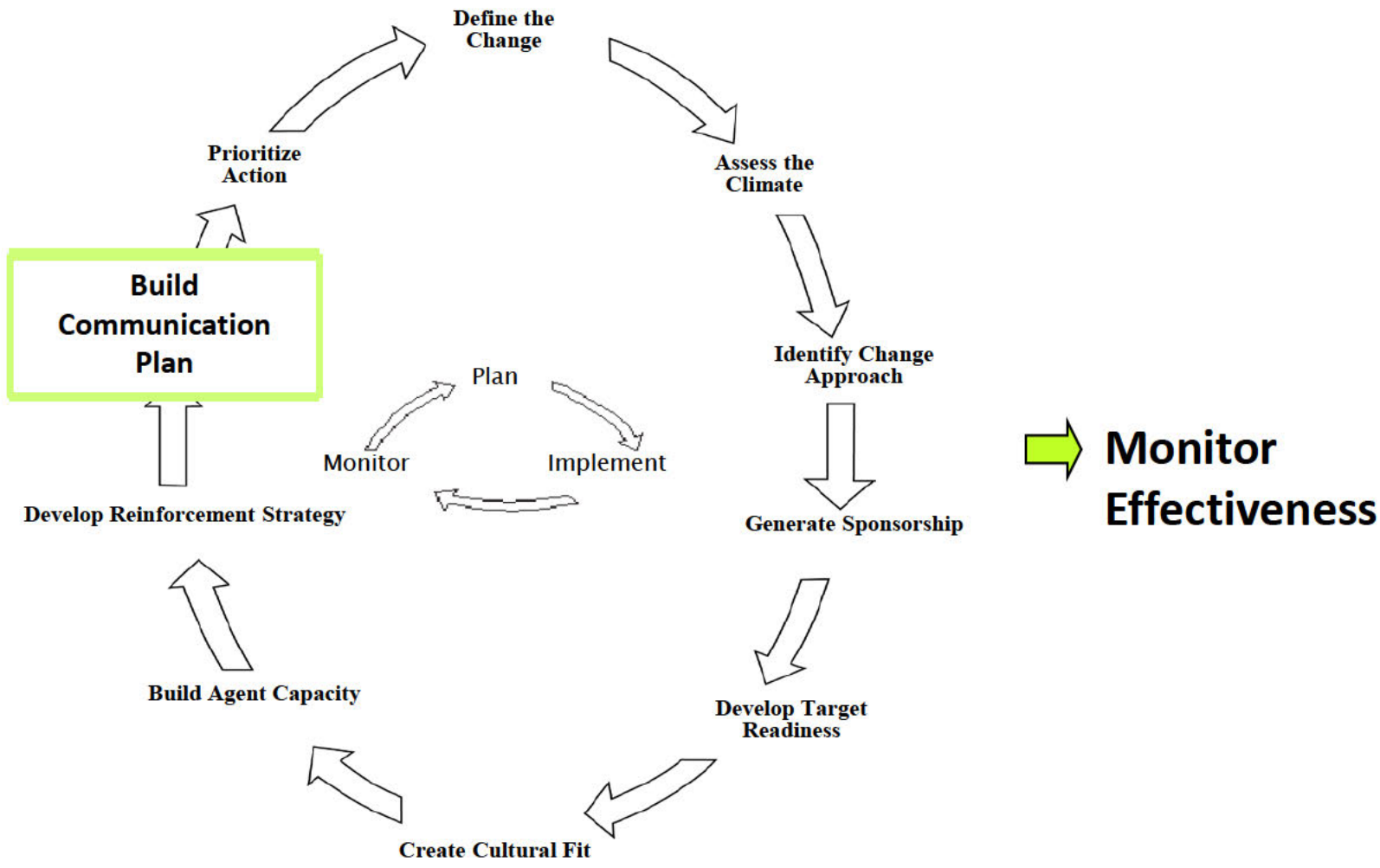
Personal Increase benefits
Cafeteria style benefits
Longer breaks
Increase vacation
Time off with/without pay

Intrinsic Challenge of a difficult task
Interesting work
Being part of a team
Doing your very best
Appreciation
Solving an important problem

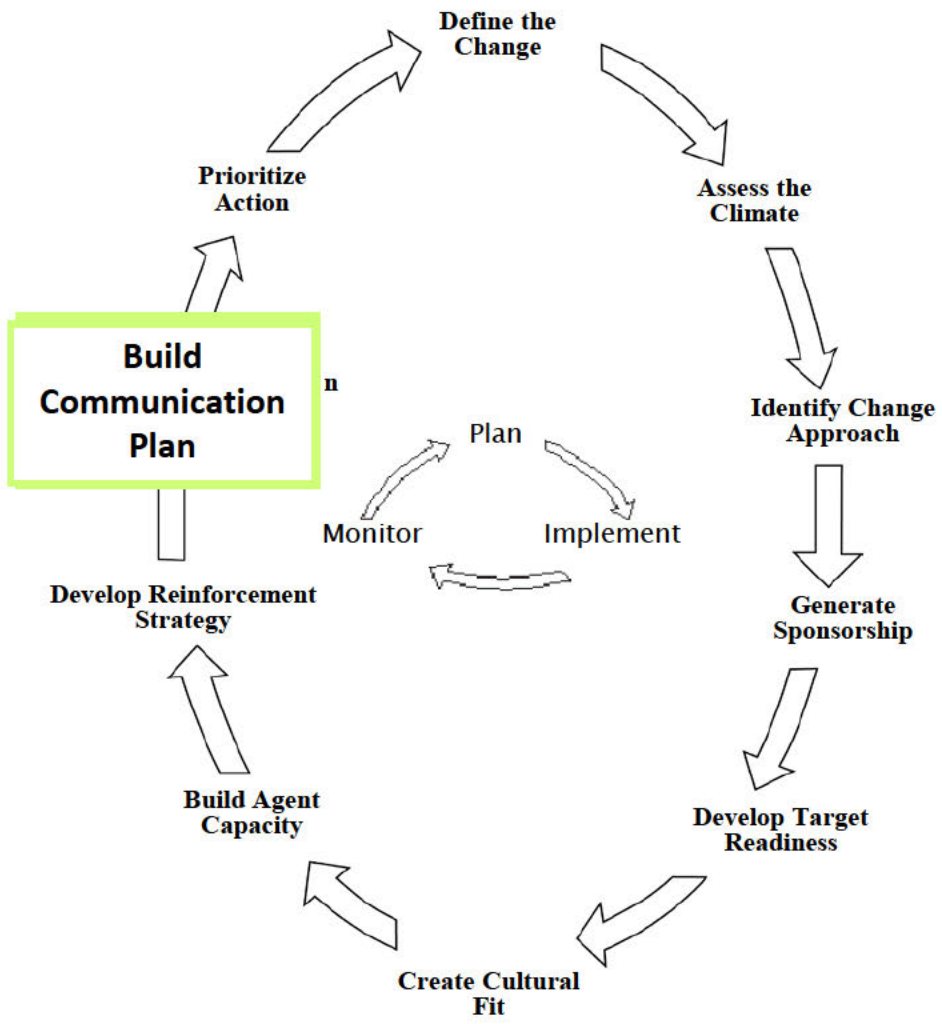
Accelerating Implementation Cycle: Road Map & Tools



Accelerating Implementation Cycle: Road Map & Tools



Accelerating Implementation Cycle: Road Map & Tools



➔ **Identify
Multiple FORs
and Vehicles
(7x7)**

Menu of Communication Vehicles and Characteristics

<i><u>Vehicles</u></i>	<i><u>Characteristics</u></i>					
	<i>Cost</i>	<i>Trust</i>	<i>FOR-Fit</i>	<i>Durability</i>	<i>Commitment</i>	<i>Information</i>
Newsletter	M	L	M	L	L	H
E - Mail	L	L	L	L	L	M
V-Mail	L	M	H	L	L	H
Town Hall	M	M	M	L	M	M
Small Group	H	H	H	H	H	H
Memo	L	L	L	L	L	H
Video Tapes	M	L	L	L	L	H
Web Page	H	M	L	M	L	H
E - BBoard	M	L	L	L	L	H
One-on-One	H	H	H	H	H	H

Frames of Reference (FOR) of Decision Makers*

<i>Type</i>	<i>Charismatic</i> (25%)	<i>Thinkers</i> (11%)	<i>Skeptics</i> (19%)	<i>Followers</i> (36%)	<i>Controllers</i> (9%)
<i>Characteristics</i>	Likes new ideas	Risk averse	Suspicious	Based on past decisions	Hates uncertainty
	Needs balanced information	Needs data	Take charge	Looks to trusted colleagues	Analytical
	Enthusiastic	Cerebral	Demanding	Cautious	Detail oriented
<i>Useful Language</i>	Action, focus, clear	Expert, proof, academic	Power, action, disrupt	Previous, similar, expedite	Facts, logic, reason
<i>Strategy to Influence</i>	Simple, straightforward	Data, data, data from all perspectives	Build credibility before contact	Use references and examples	Structured and credible

*Source: HBR 2002

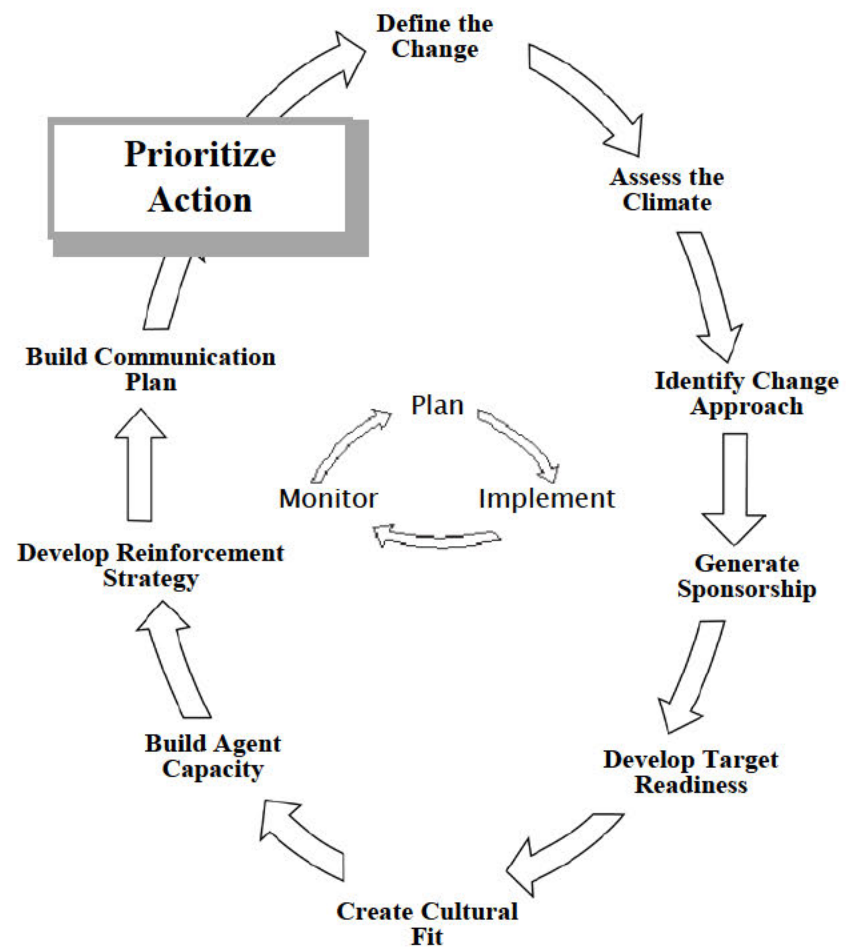
© IMA 2002

But How E-x-a-c-t-l-y Do You Communicate?

1. Begin with a meaningful context. Illustrate the current situation with immediacy & meaning. “We are at a potential turning point in our organization. The forces around us have changed and we have a chance to change, too.”
2. Dramatically demonstrate the vision. “Here is what I think we can become: the go-to place because of our special expertise and keeping our commitments to schedule, price, functionality and quality. No other place does that!”
3. Connect with the vision. “Here is where I see you creating the future: all commitments have to be voluntary and based on historical data.”
4. See, touch, and feel the results. “The new day in the life looks like this: dramatically fewer urgencies and emergencies, therefore many fewer missed moments outside of work.”

Source: Don Brush, Renova Corp.

Accelerating Implementation Cycle: Road Map & Tools



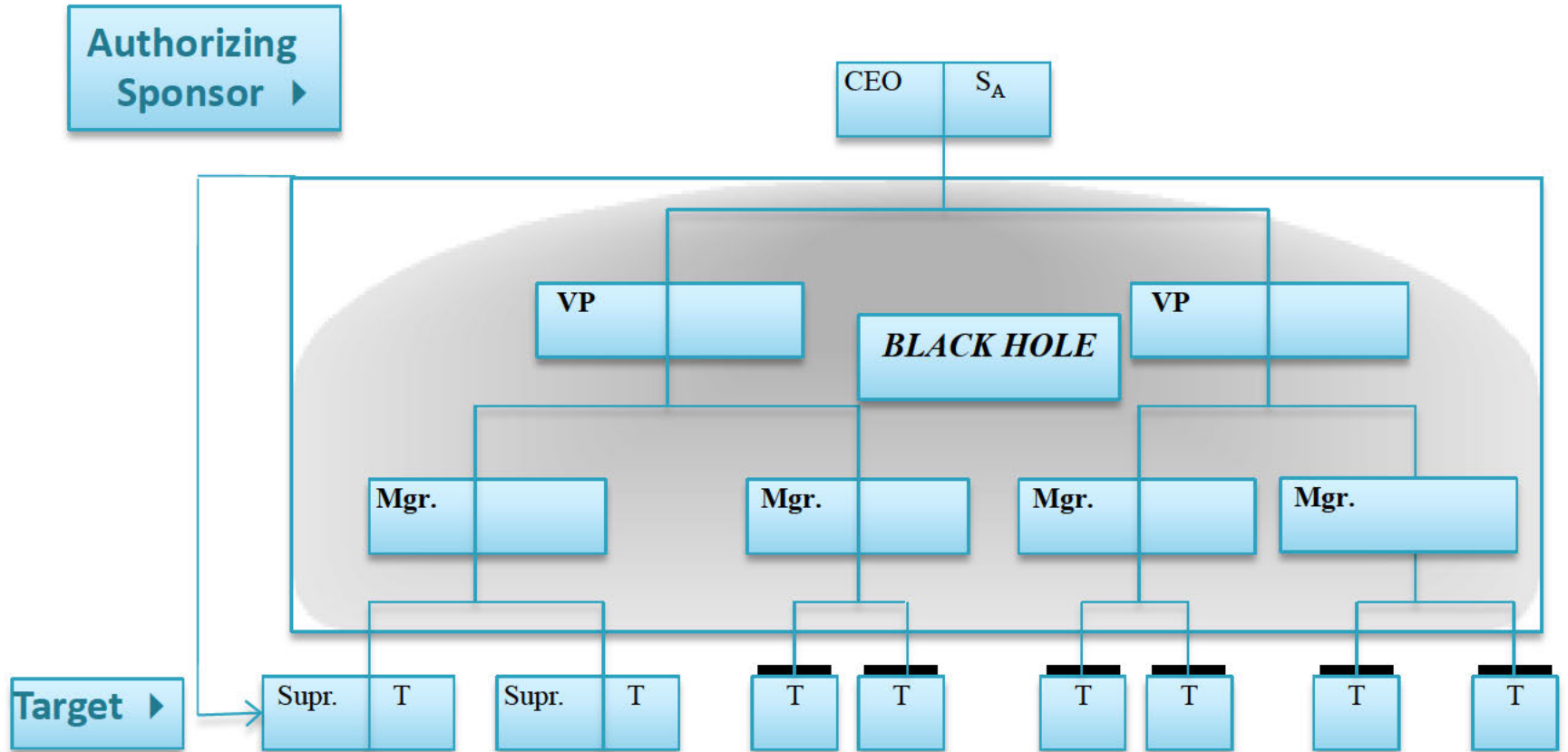
Cast of Characters

- C** **Champions** Individuals who want the change and attempt to obtain commitment and resources for it, but lack sponsorship. Implementation can be accelerated when the other three roles when they start as Champions.
- A** **Agents** Implement change by guiding the steps the Sponsors and Targets need to take next. Create and execute implementation architecture. At least part, if not all, of their performance is evaluated on success of improved behavior.
- S** **Sponsors** Authorize, legitimize and demonstrate ownership for the change: possess sufficient organizational power and/or influence to either initiate resource commitment (Authorizing Sponsor) or reinforce the change at the local level (Reinforcing Sponsor).
- T** **Targets** Change behavior, emotions, knowledge, etc.

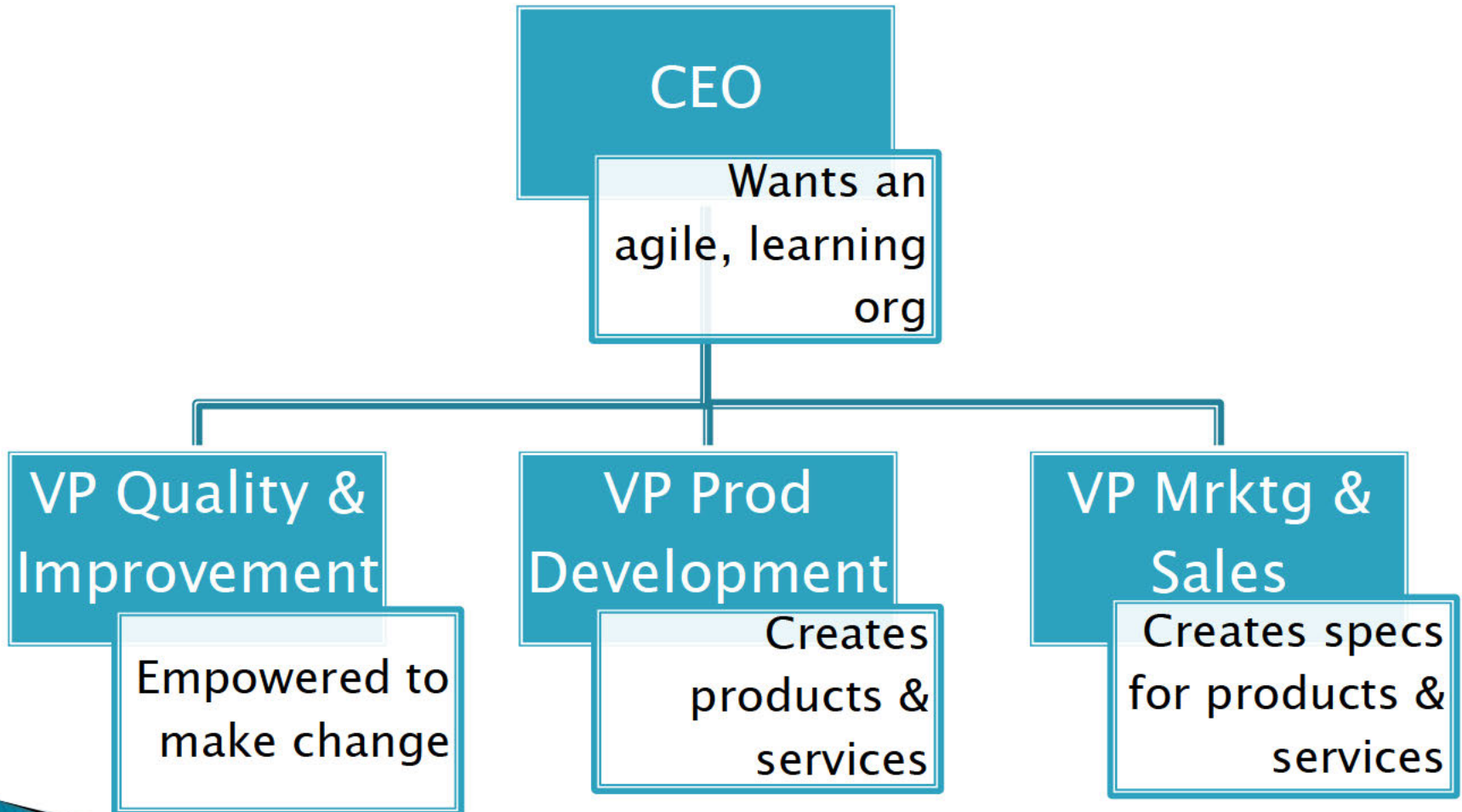
Overall Goal:

The right Sponsors doing the right things, cascaded down and across the organization.

Unsuccessful Sponsor Strategy



Whose is The Right Authorizing Sponsor?



Sponsorship Paradox

You can't expect to sustain top executive support without producing consistent bottom-line results ... yet consistent results are unlikely without sustained top executive support.

High ROI Sponsor Behaviors to Demonstrate Commitment

	Strongly Disagree (1)	Disagree (2)	Neither Disagree or Agree (3)	Agree (4)	Strongly Agree (5)
1. Provides a clear definition of the goals and objectives					
2. Clearly articulates the business case and rationale					
3. Communicates strong personal ownership					
4. Communicates an understanding of the impact to each affected group					
5. Prioritizes activities and resources to reflect the importance of the implementation					
6. Demonstrates the willingness to pay the ongoing personal and organizational price					
7. Is tenacious in pursuit of objectives					
8. Commits the necessary resources to achieve objectives					
9. Ties reinforcements directly to the implementation					
10. Closely monitors the progress of the implementation					

TOTAL = _____

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Fairness (Just & non-biased exchange)	Trust	Common Set of Rules; Increase Transparency
	Process & Outcome	Self-Directed Team

*Source: David Rock, 2008 & 2102

Next Step Strategies to Increase the Likelihood of Success for Your SPI Implementation

- ▶ 1. _____
- ▶ 2. _____
- ▶ 3. _____

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