Key Steps for a Successful LIMS Implementation
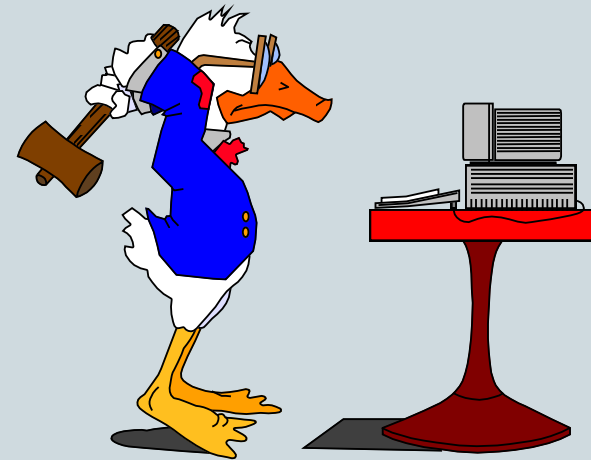
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2014 NEMC

Nearly 60% of LIMS are never fully implemented

- Lack of a good user requirements specification or request for proposal
- Insufficient resources ($$, staff, time)
- Non-acceptance by users

LIMS Critical Success Factors

- Thorough understanding of wants and needs
- Selection of the right product(s)
- Dedication of sufficient resources
  - Time
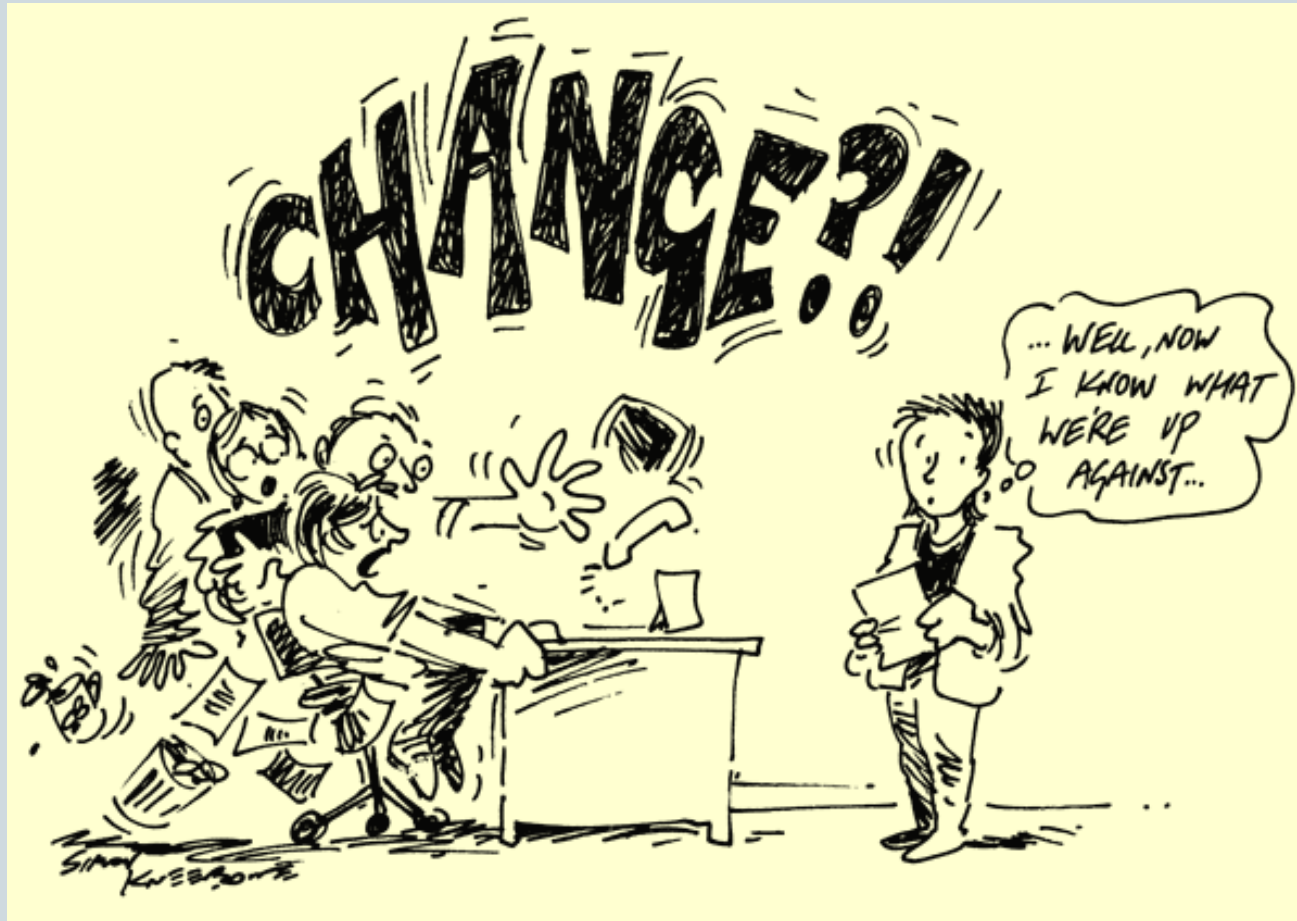 - Staff
  - Funding
- Change management

Common Changes In a Lab

- New Instrumentation
- New Methods
- New Processes and Procedures
- Organizational Change
- Technological Changes
  - LIMS
  - Barcoding

Natural Reluctance to Change

Why Resist?

- Nothing is so messed up that somebody does not like it exactly the way it is.
- Change always means giving up something – the greater the personal sacrifice, the greater the dragging of the feet.
- The future is feared more than the past is loved.
- A desire to punish the organization by resisting change.
- Some see a real problem with it that others do not.

Resistance

- At the start
  - 20% of the people get on board quickly.
  - 50% are on the fence.
  - 30% are against the change.
- Spend the majority of your time with the first two groups.
- But give the resisters some time.
- Your star performers may be the most resistant to change – they may have the most to lose.
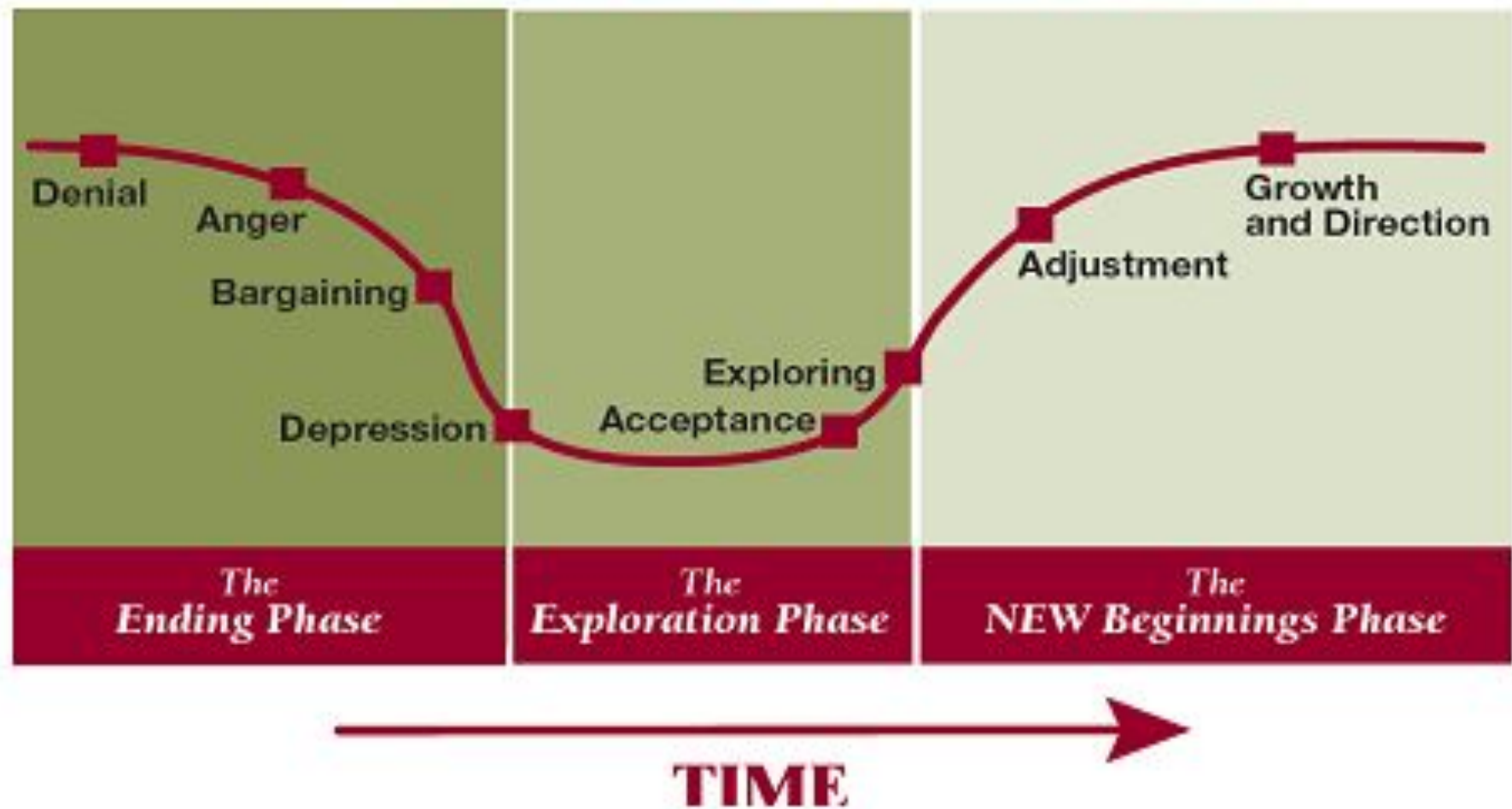
Why Change Fails

- Absence of a compelling vision.
- Lack of a sound business case.
- Failure to get a supporting coalition from multiple levels.
- Failure to take into account the people aspects of change.
- Under communicating.
- Failing to create short term wins.
- Declaring victory too soon.
- Neglecting to anchor changes firmly in the culture.

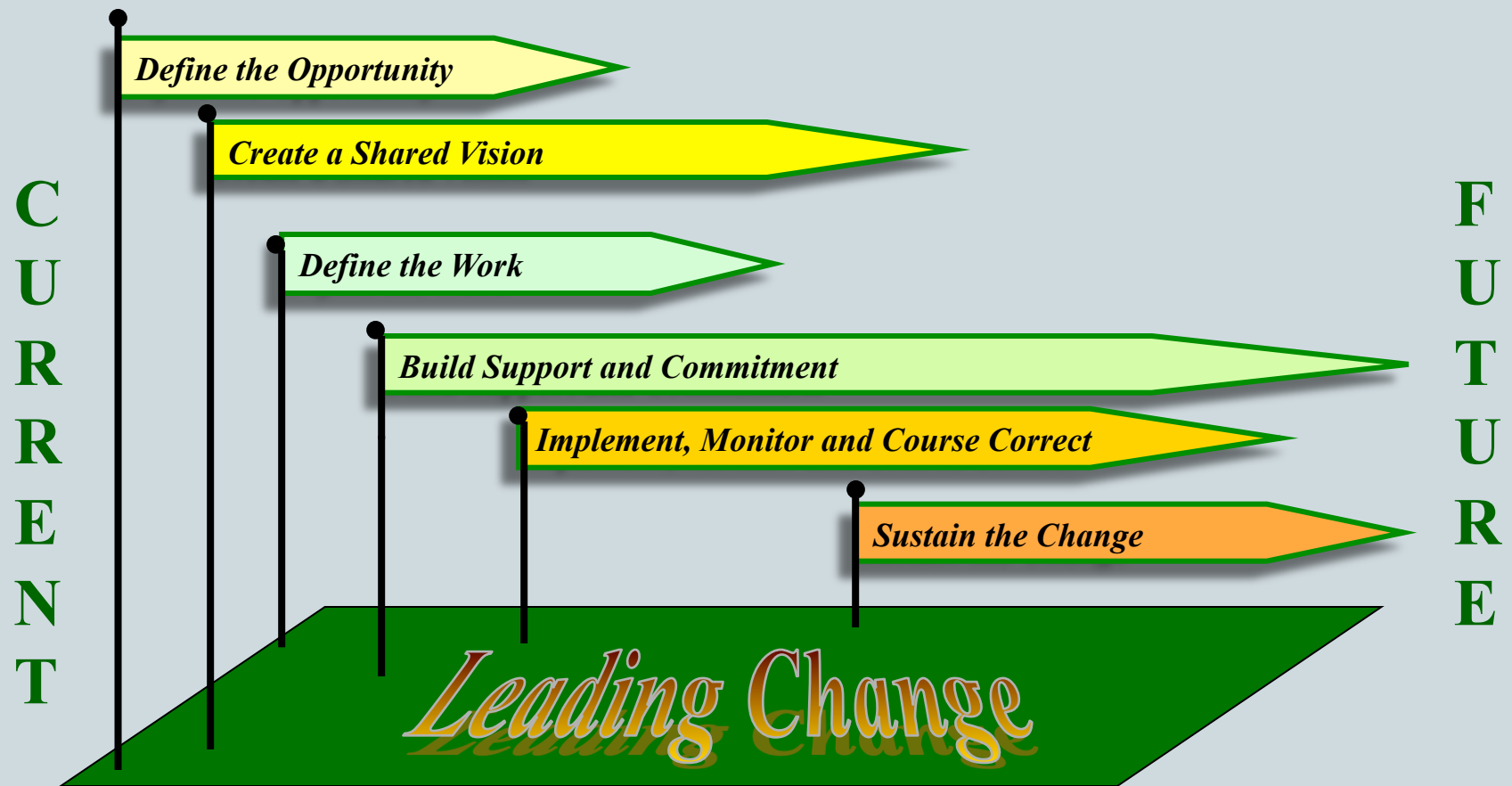The PHASES of CHANGE

10 Change Management Principles

1. Keep performance results the primary objective.
2. Continually increase the number of individuals taking responsibility for their own change.
3. Ensure each person always knows why his/her performance and change matters to the purpose and results of the whole organization.
4. Put people in a position to learn by doing.
5. Embrace improvisation

10 Change Management Principles

6. Use team performance to drive change.
7. Concentrate organization designs on the work people do.
8. Create and focus energy and meaningful language.
9. Stimulate and sustain behavior-driven change.
10. Leadership based on courage to live the change.

Douglas K. Smith

Change Management Process

C U R R E N T

Define the Opportunity

Create a Shared Vision

Define the Work

Build Support and Commitment

Implement, Monitor and Course Correct

Sustain the Change

F U T U R E

Leading Change

1. Define the Opportunity

- Organize data in a relational database
- Control access to the data
- Automate report generation
- Data validation and approval procedures
- Relate QC data to samples
- Instrument integration

2. Create a Shared Vision
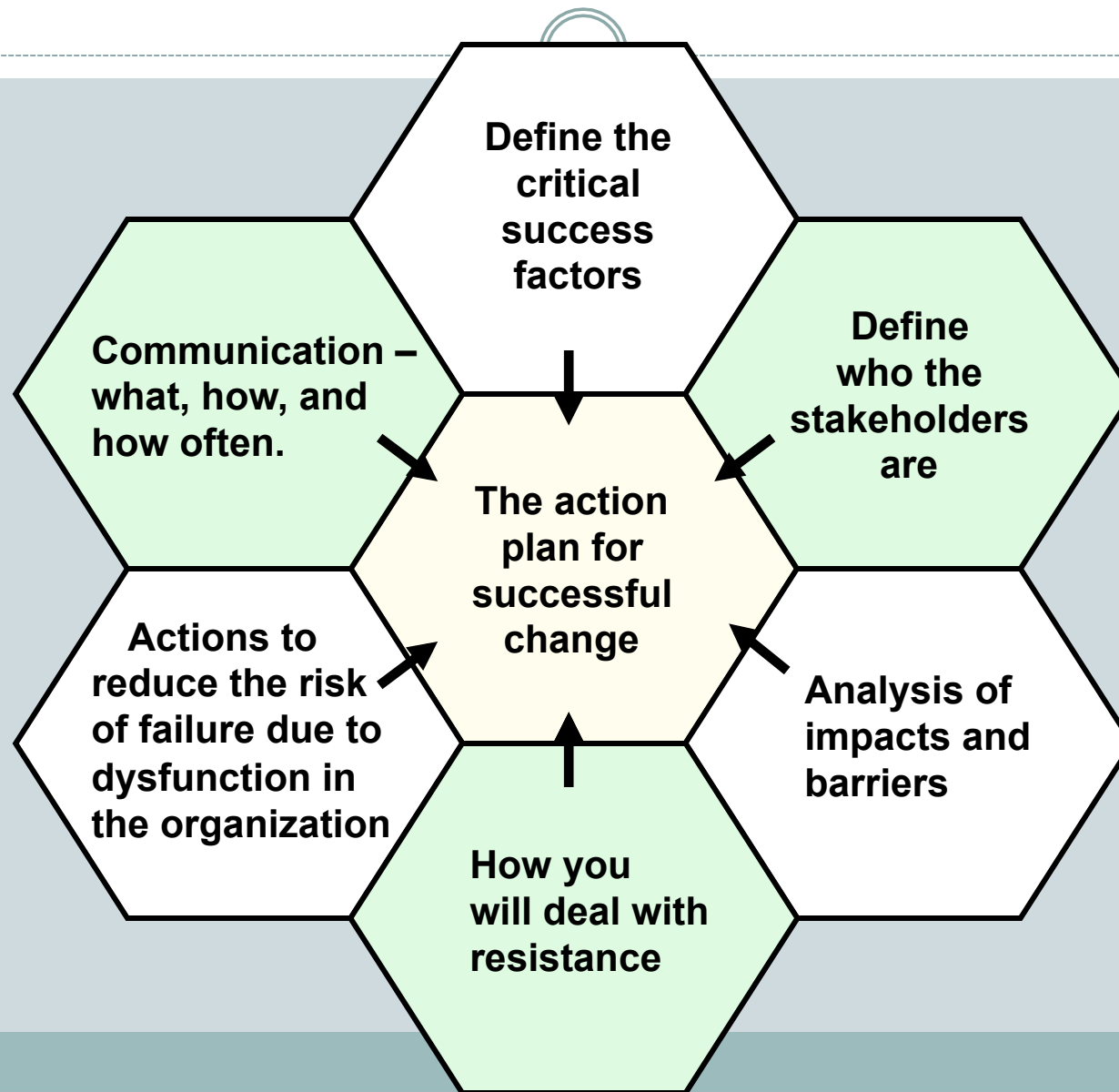
Why

o What is the business case for change?

What

o Define the destination, what will the change achieve.

o Include a description of the current state, the opportunity, and the end result.

Share

o Be able to articulate it succinctly and consistently – develop an "elevator speech."

3. Define the Work (Action Plan)

Define the critical success factors

Communication – what, how, and how often.

Define who the stakeholders are

The action plan for successful change

Actions to reduce the risk of failure due to dysfunction in the organization

Analysis of impacts and barriers

How you will deal with resistance

4. Build Support and Commitment

- Connect to your stakeholders.
- Understand change from each of your stakeholder's perspectives.
- Get support from above.
- Cascade sponsorship downward.
- Effectively deal with resistance to change.

Stakeholders

- Identify everyone who will be impacted by the change.
- How will they be impacted?
- Can they derail or facilitate the change?
- How will you involve them?
- Be sensitive to your top performers – Give your top performers reason to stay – what will they gain from the change – they may have the most to lose since they were successful in the old system.

Communication is Essential

- Develop an aggressive, two way plan.
- Under-communication is one of the primary reasons why changes fail.
- If you do not tell people what will happen, they will imagine it themselves, and they usually focus on the worse case scenario (and spend a lot of time talking about it).
- Get top performers in the loop upfront – they can take on a role in the effort.
- Stick with the plan.

Why? What? How? How will I be impacted?
What's in it for me? How can I participate?

In the beginning stages of any change:

Amount of information *available* at the start of a change

Amount of information *desired* at the start of a change

How to Communicate

- Leaders should aim to over communicate.
  - Don't worry about redundancy.
  - Never suppose the obvious is apparent to others.
- Communicate face to face as much as possible.
- If you do not know, say so.
- Silence is a sin – the information vacuum will be filled in.
- Talk too much, explain too frequently, listen excessively.
- Tell the why before the what or how.
- Don't shoot the messengers – show that you want feedback.

5.Implement, Monitor and Course Correct

- Broaden involvement, mobilize the workforce.
- Assess progress against your critical success factors.
- Assure that progress is made on both the business and human level – progress on the transition curve.
- Anticipate, understand, and utilize resistance.
- Do not be discouraged.
  - Problems are to be expected – it is a natural side effect of change.
  - Often initially there is a down turn in effectiveness.
- Communicate and celebrate successes, but do not declare victory too soon.
- Make corrections that help you reach your destination.

6.Sustain the Change

- Ensure accountability is in place.
- Establish metrics.
- Reward those who have made the journey.
- Continually reinforce the change – If the change fades away, the next change will be more difficult.
- Deal with resisters.
- Celebrate.
- Do not let the old co-exist with the new.

LIMS Implementation
Case Studies

Company A

- VP purchased a LIMS
- Rumor: Purchase based on vendor promise company could eliminate a staff position
- No input solicited from staff on features of LIMS
- Staff sent to training off-site prior to product installation in lab
- Vendor contracted to set up LIMS (tests, reports, customers) with minimal input from staff
- Staff highly resistant to LIMS
- End Result – Never implemented
- Cost (product, training, staff time) - $500K+

Company B

- Lab management discusses LIMS with staff
  - Benefits of system
  - Required changes
  - Realistic time frames
- Committee composed of end users, management, IT
- Input solicited on desired features
- RFP and Scripted Demo
- End Result – implemented in 5 months
- Cost (product, training, staff time) - $250K+

Why Did Process Fail for Company A ?

A   B

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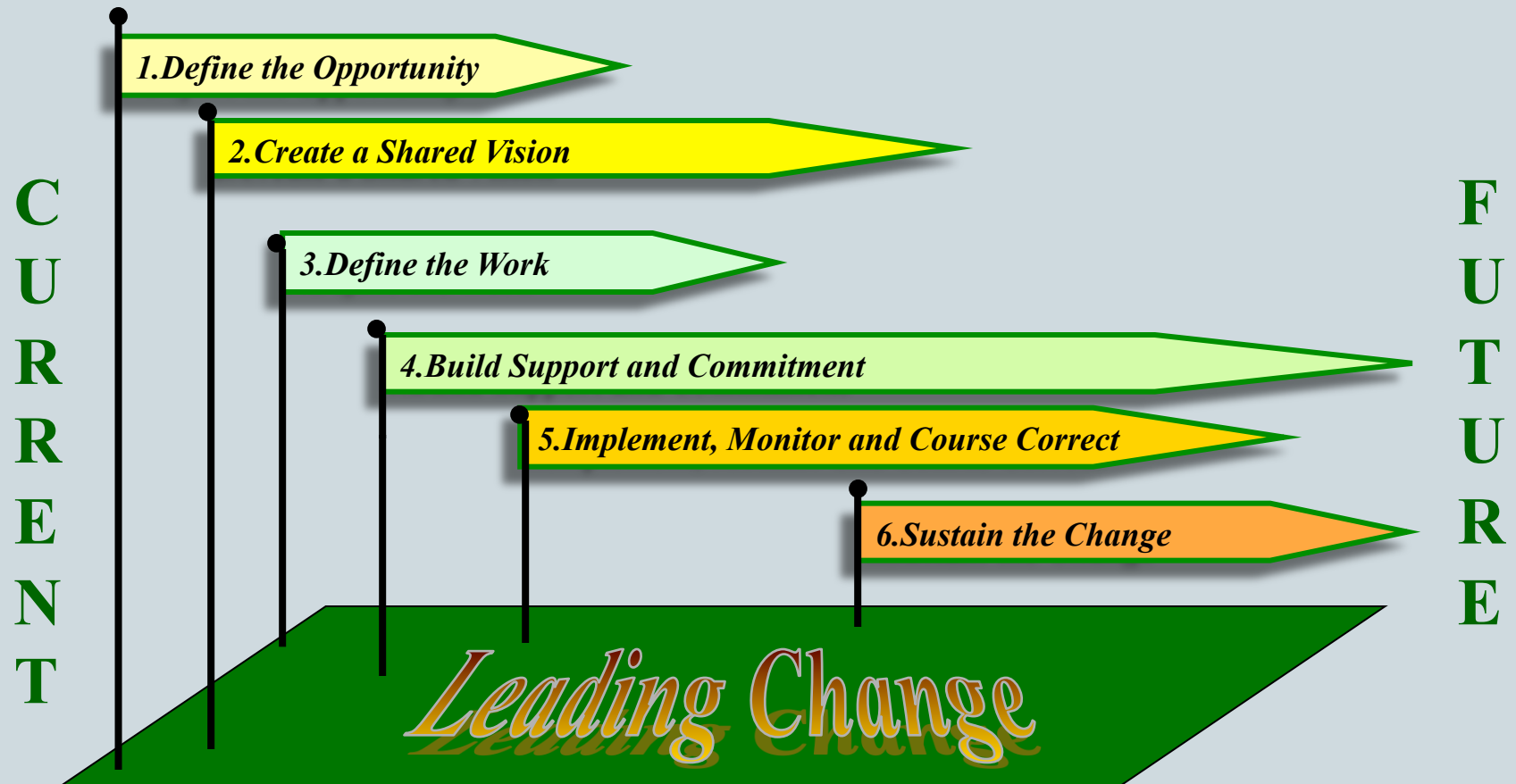
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A　B

6. Use team performance to drive change.

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Remember –
Change Management Process

CURRENT

FUTURE

1. Define the Opportunity
2. Create a Shared Vision
3. Define the Work
4. Build Support and Commitment
5. Implement, Monitor and Course Correct
6. Sustain the Change

Leading Change

Managing Change can be Exhausting!

- Change can be a drain on your physical and psychological energy.
- Learn stress management.
- Do not let the change occupy all of your time.
  - Need time to relax.
  - To exercise.
- Do not let the hall talk and rumor mills get to you.
- Instead of worrying about what might go wrong, invest your imagination in doing the job well.

Continued Resistance

- Some will carry a continued resistance to the change.
- Determine:
  - Is their resistance disruptive and potentially a threat to the change?
  - If so, handle as a performance issue.

Reality Reminder

Realize that change takes time and should not be forced to occur too quickly.

"Can anything that is useful be accomplished without change?"
Emperor Marcus Aurelius (A.D. 121 - 180) -