

S.C.I.P. Into the Future!

The best way to predict the future is to create it.

25 years
serving the
utility industry

90+ consultants
focused on utility finance/
organization/technology

*Raftelis has provided financial/
organizational assistance for*

1,000+ water/wastewater/
stormwater
utilities

including the utilities serving

33/50 of the nation's
50 largest cities.

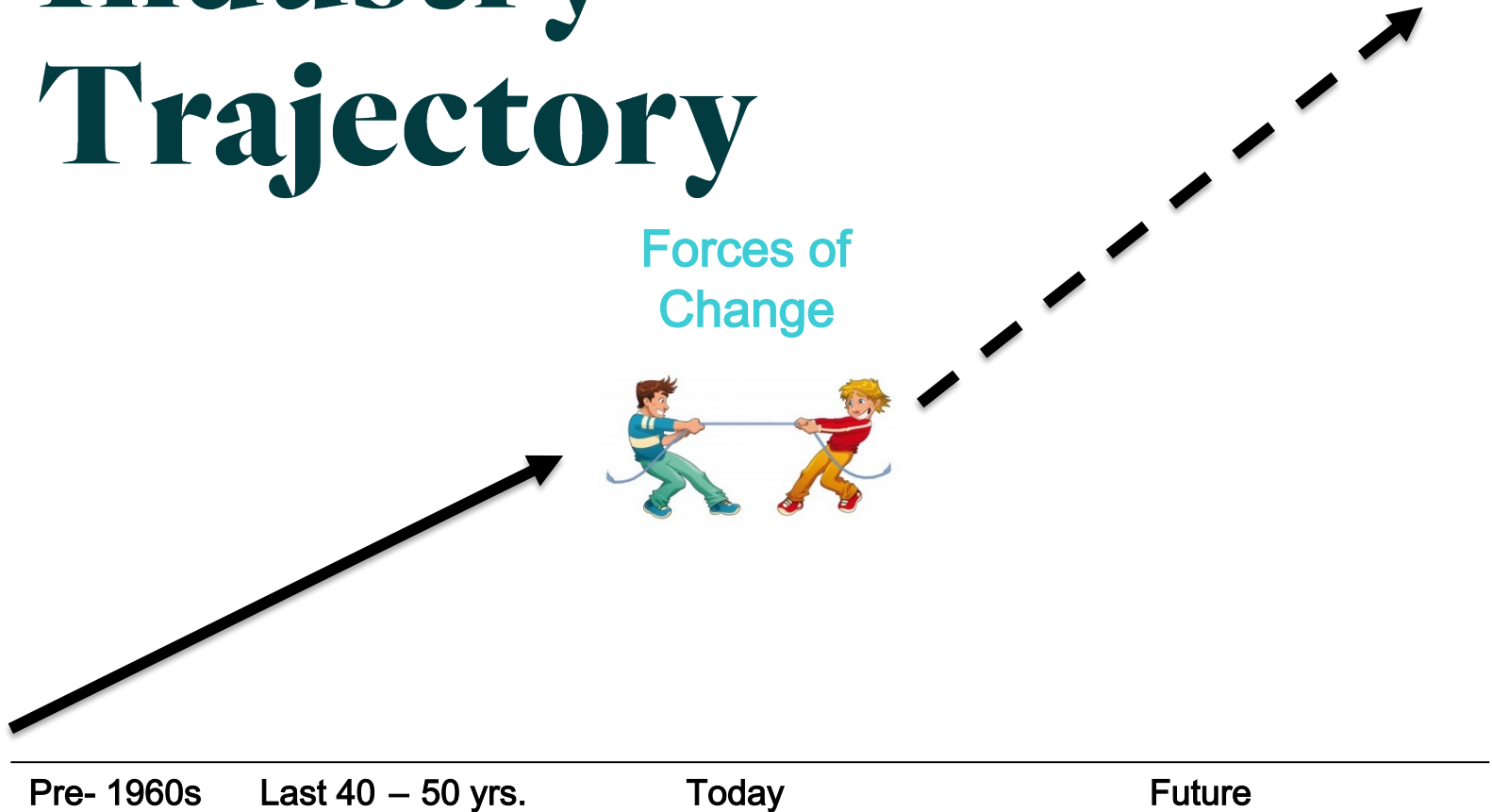
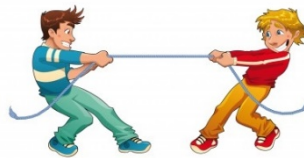
Who is Raftelis

**Largest & most experienced
utility financial/management
consulting practice in the nation**



Industry Trajectory

Forces of Change





10 TRENDS

TREND NO. 1

Population

- Variable and shifting
- Going vertical
- Income gaps growing

- Planning for growth
- Geographic expansion

TREND NO. 2

The Political Environment

- Getting more complex
- Interests are competing
- The “Politics of Water” are more visible

- Need to engage and inform – skyrocketing!
- Collaboration is key

TREND NO.3

Regulations

- Unfunded mandates increasing
- Increased resource requirements... “investments”
- National changes impact state and local levels
- Engage and influence
- Invest

TREND NO.4

Workforce Issues

- Different values and expectations
- Decreasing talent pools
- Increasing competition for talent
- Proactive recruitment and retention
- Culture and engagement matters
- Inspirational leadership

TREND NO.5

Technology

- Enabling increased efficiency and effectiveness
- Impacts everything and everyone
- Increasing the velocity of information transfer
- Leveraging for decision support
- Seen as a key to success
- Some are better than others... adoption leaders

TREND
NO.6

One Water Management

- One water, basin approach “still” evolving
- Often a regional issue
- Multi-jurisdictions present challenges
- Increased emphasis on stormwater

- Drives collaboration
- Advancing green infrastructure and sustainability planning

TREND
NO.7

Customer Expectations

- Increasing expectations
- Increasing Awareness
- “Thirst” for information

- Huge increase in communication and outreach
- Focus on more listening & learning what customers want

TREND
NO.8

Utility Financial Constraints

- Rates and fees increasing
- Per capita use is decreasing
- Costs expected to continue to rise

- Increased focus on demonstrating value and efficiency when seeking stakeholder support
- Affordability programs emerging

TREND
NO. 9

Energy/ Reuse

- Energy represents a big % of costs
- Big opportunity to gain efficiency
- Lower carbon footprint
- Target area for innovation
- Transitioning from energy user to resource recovery

TREND
NO. 10

Increased Risk Profile

- Climate change impacts being felt
- Increased awareness and vigilance remains compelling
- Cyber security concerns growing rapidly
- Emergency preparedness increasing focus
- Safety as a culture growing

OBJECTIVE

What is... "S.C.I.P" ?

Strategy...

Change...

Innovation...

Performance...

OBJECTIVES

Consider S.C.I.P Organizational Approaches

- » Drivers – Why?
- » Structure – How Many?
- » Services – Needs, Staff Skills?
- » Roles – Who Does What?

S.C.I.P- PRACTICES

The 500



City



Utility



S.C.I.P DRIVERS

The 500



Drivers

- Profit
- Improvement
- Optimization
- Succession

City



DENVER
THE MILE HIGH CITY



Drivers

- Political
- Transparency
- Improvement
- Change
- Optimization
- Training

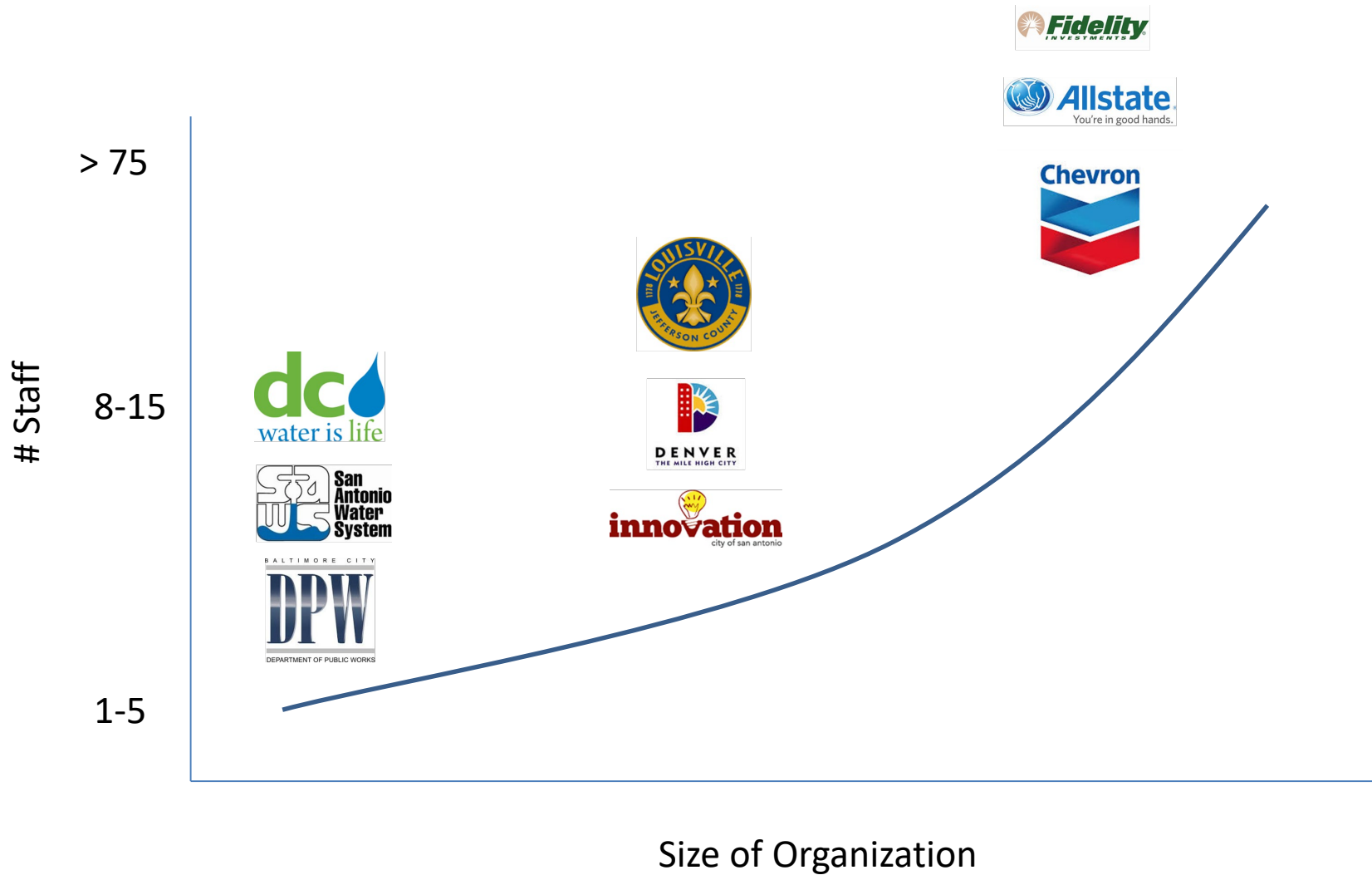
Utility



Drivers





- Political
- Leadership
- Support
- Understanding
- Optimization

S.C.I.P- STAFF



CURRENT & EMERGING BEST PRACTICES

Organizational Approach – Staff

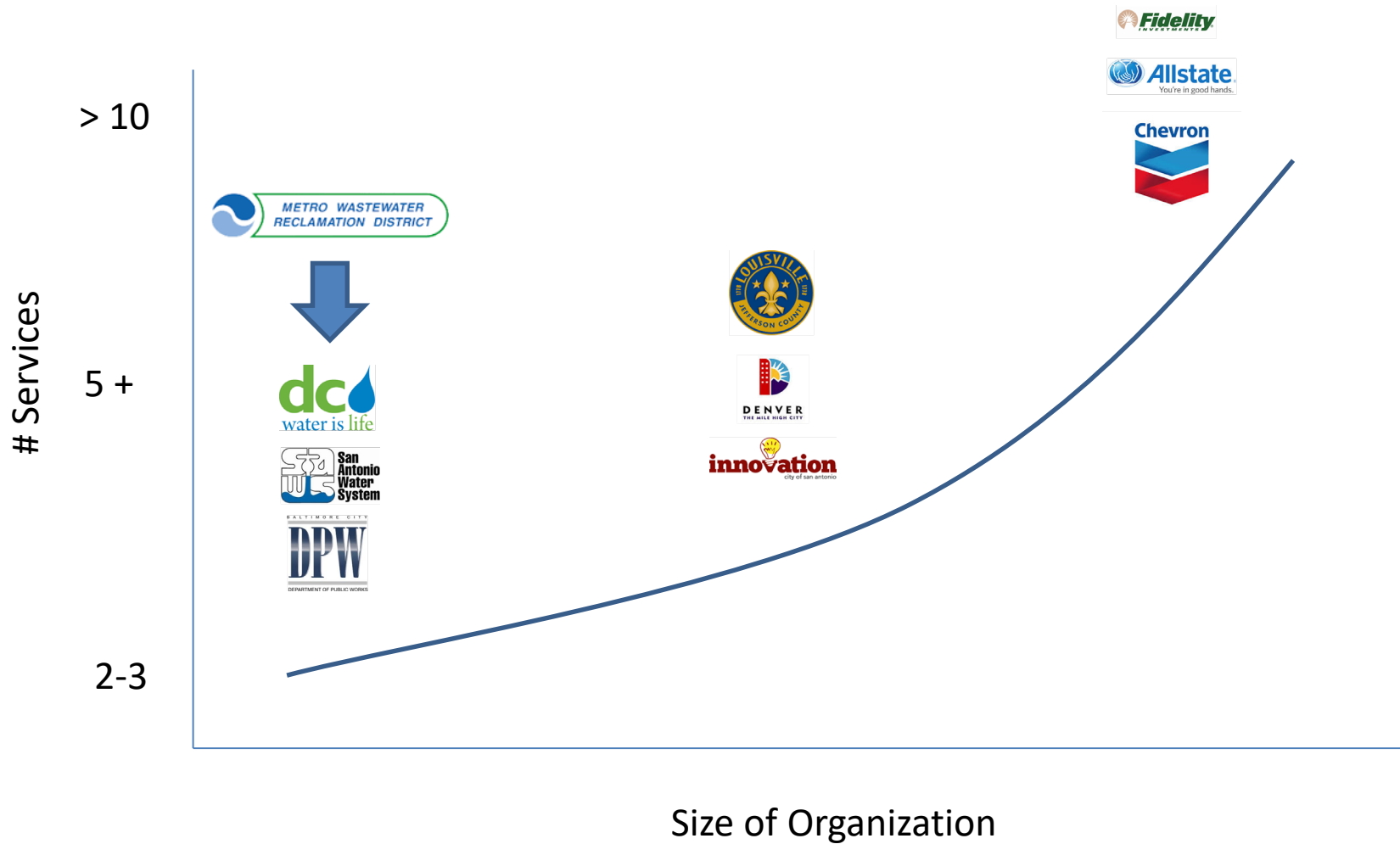
S.C.I.P Groups	Skills/Experience/Competencies	#
	<ul style="list-style-type: none"> • Ph.Ds., MBAs, Business Management • Most worked at big 5 firms 	>50
 	<ul style="list-style-type: none"> • MBAs, O.Ds, IT Analytics, Finance, Political Science • PMPs, CMP, Six Sigma 	10-15
	<ul style="list-style-type: none"> • PMPs, LEAN/Six Sigma • Finance • Not a lot of Engineers 	5

CURRENT & EMERGING BEST PRACTICES

Organizational Approach – Structure

S.C.I.P Groups	Reports To
 <p>The 500</p>	<ul style="list-style-type: none"> • Finance • C.E.O or Executive Leader
  <p>City</p>	<ul style="list-style-type: none"> • Mayor/City Manager • Finance
 <p>Utility</p>	<ul style="list-style-type: none"> • Commissioner of Public Works (Appointed)

S.C.I.P - SERVICES



CURRENT & EMERGING BEST PRACTICES

Organizational Approach – Services Offered

Utility	City	The 500
<ul style="list-style-type: none">• Facilitation and Coordination• Project Management• Business Analytics• Business Process Mapping• Performance Reporting	<ul style="list-style-type: none">• LEAN/Six Sigma Training• Change Management• Project Management• Training• Performance Reporting	<ul style="list-style-type: none">• General Consulting• Change Management• Research• Organizational Development• Business Analytics• Training & Development

CURRENT & EMERGING BEST PRACTICES

Organizational Approach – Roles

Service	Utility (Support)	City (Advise)	The 500 (Own)
Strategy	<ul style="list-style-type: none"> Coordinating Resource Report progress Support Implementation 	<ul style="list-style-type: none"> Drive City and Departmental Strategy Development 	<ul style="list-style-type: none"> Provide Strategy Consulting
Change	<ul style="list-style-type: none"> Training LEAN/Six Sigma Analysis 	<ul style="list-style-type: none"> Change Management Practitioners (CMP) 	<ul style="list-style-type: none"> Change Management Program Management
Innovations	<ul style="list-style-type: none"> Assist, Coordinate, Celebrate 	<ul style="list-style-type: none"> Drive and Advocate 	<ul style="list-style-type: none"> They Fuel the Machine!
Performance	<ul style="list-style-type: none"> Objective and KPI Monitoring/Reporting 	<ul style="list-style-type: none"> Management Program 	<ul style="list-style-type: none"> Build and Maintain Culture

What SCIP Helps You Achieve

- » Improvement of image
- » Opportunity to redefine and create a new culture
- » Identify, reduce, and eliminate inconsistencies
- » Incorporation of best business practices
- » Effective utilization of resources
- » Achieve data driven decision making
- » Skill development and knowledge expansion
- » Develop a visible and attainable roadmap
- » Identify key strategies and objectives to motivate
- » Understand and meet customer expectations



Defining Excellence



Identifying Where to Begin

Step 1: Perform Self-audited assessment to identify areas of improvement that would add the most value

- SWOT Analysis
 - Strategy used to help optimize performance
 - Subjective input and judgments which ultimately lead to the recommendations and deliverables
- Efficiency Assessment
 - High level or in-depth analysis
 - Provides specific recommendations for improvement
 - › Short, Medium and Long Term
- What is most important right now? Where should we begin our focus?
 - Delivery and Planning of Capital Projects
 - Process Improvement/Utilization
 - Competency Development

		Impact				
		Trivial	Minor	Moderate	Major	Extreme
Probability	Rare	Low	Low	Low	Medium	Medium
	Unlikely	Low	Low	Medium	Medium	Medium
	Moderate	Low	Medium	Medium	Medium	High
	Likely	Medium	Medium	Medium	High	High
	Very likely	Medium	Medium	High	High	High

Consider a Typical SWOT

Strengths	Weaknesses	Opportunities	Threats
Passionate	More heart than head	Realignment to mission and vision	Existing employees not buying in
Talented	Lack of understanding of BBP	Put talent in the right places to add value	Lack of coordination due to animosity
Knowledgeable	Culture influenced by various leadership	Improve BBP	Poor Morale if not communicated properly
Capable	Lack of experience in resource and enterprise process management	Refine LOS and Resource management with training	Ineffective if org structure not fully vetted
Stewards	Government hierarchal tenure impedes growth	Implementation of Org Structure that adds value	Change and more change!
Experienced	Best people not in position to make decisions	Increase pay and performance with improvement	The Nay Sayers
	Inability to identify waste	Improve public image and relations	
	Lack of oversight and alignment	Identify overlapping responsibilities	
	Lack of cohesiveness and coordination	Coordination with other agencies	

What Projects and Processes Should I Improve First?

- » Define your departmental core business model
 - What role do you play in the value stream? What are you responsible for? What is your purpose?
- » Answering key questions will help to define model
- » Begin core business process mapping
 - Who are my customers?
 - What are my deliverables?
- » Use visual tools to help identify key processes
 - Process Hierarchy/Swim Lanes
- » Determine which processes impact success
 - Where are time, budget and resources focused?
 - What is the level of customer satisfaction?
 - Which processes will have the strongest ROI?



Identifying Core Functions

» Helps to focus efforts on processes that have value

» Processes organized

» Identified deliverables

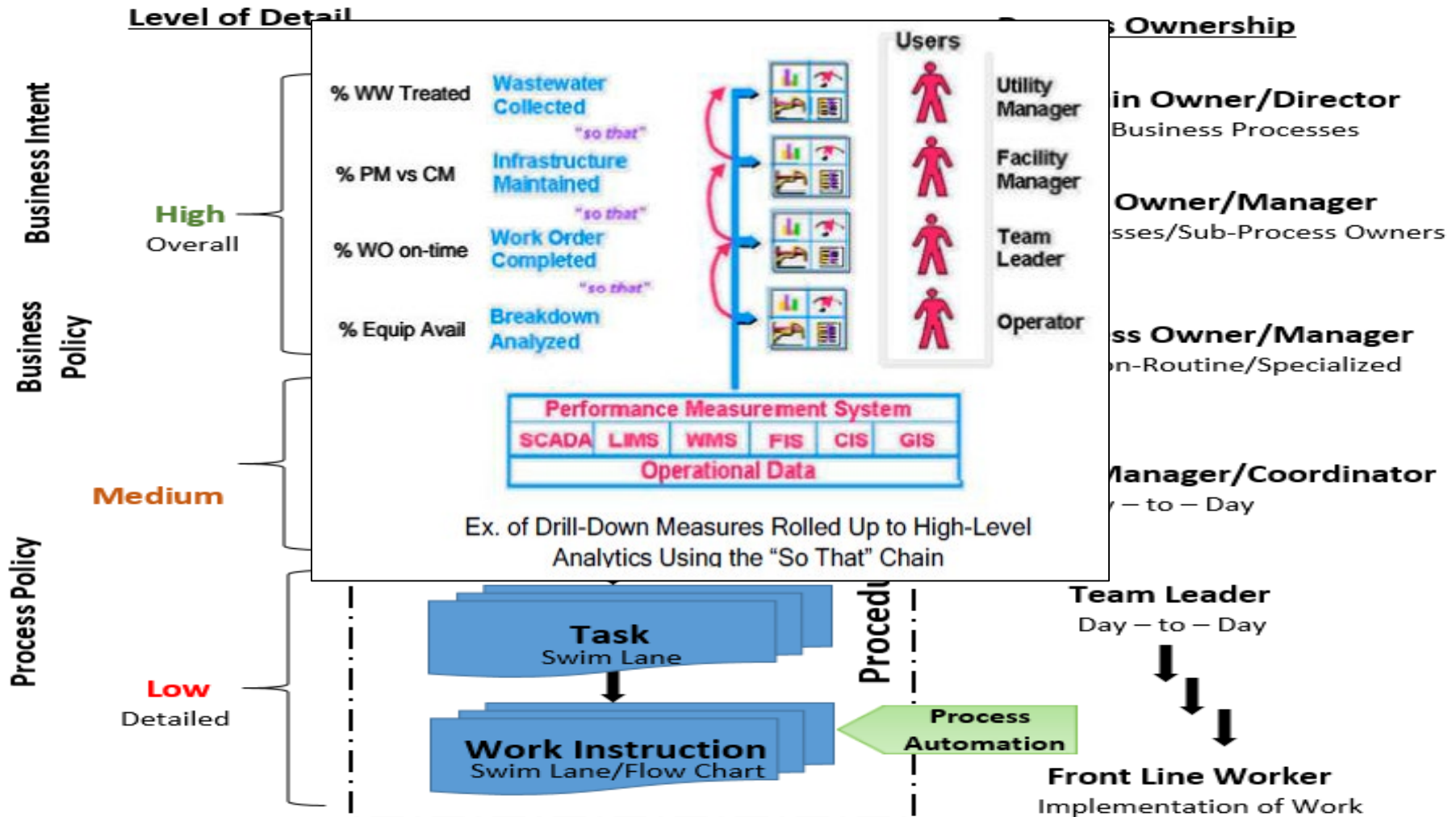
» Imported processes

» Helps most resources

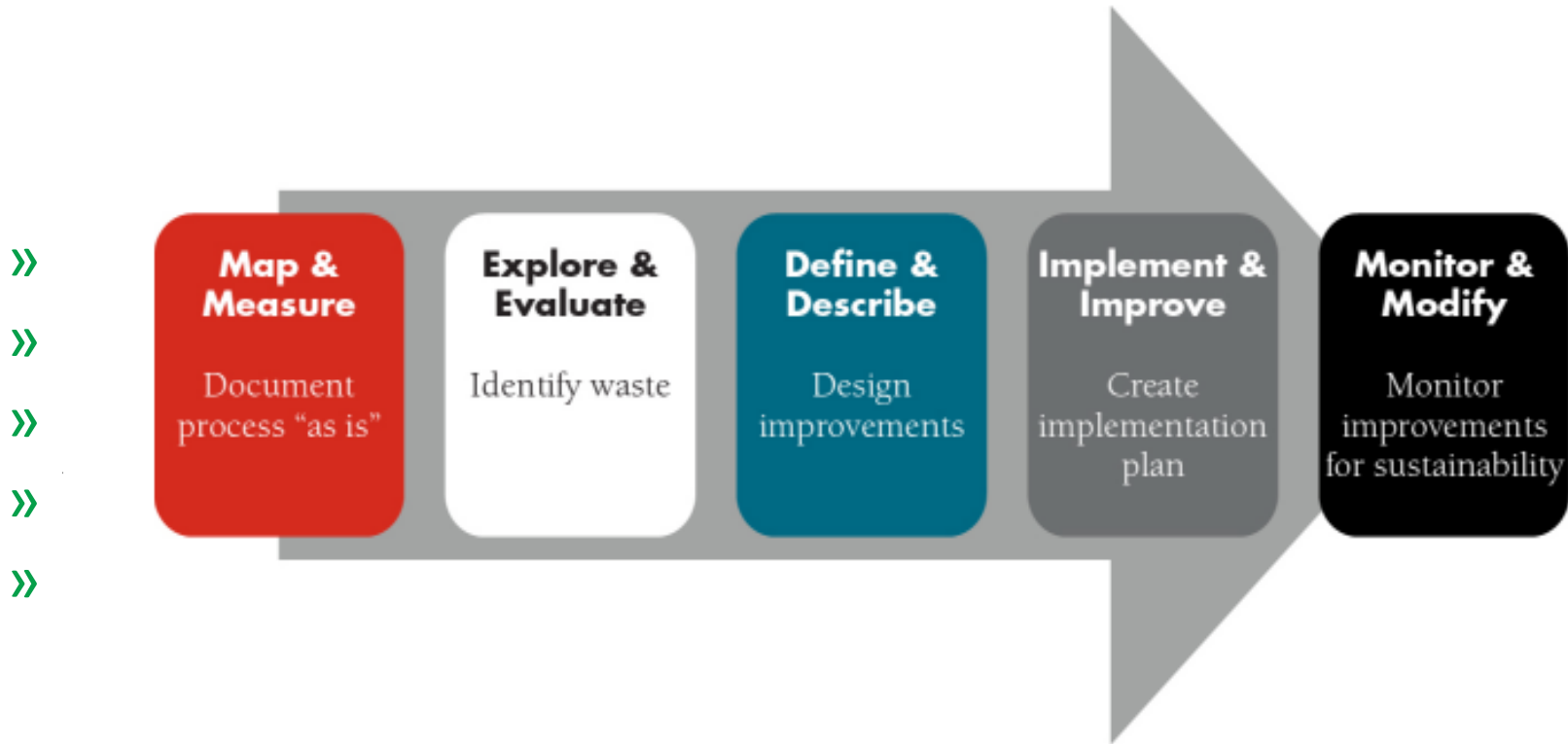
Definitions	
State of Readiness	
1 - Reactive/No Data/No Procedures	
2- Reactive/ Some Data/Rough Workflow Procedure	
3- 50% Reactive/Proactive/1 to 2 years worth of Data/Draft Guideline/Workflow/Procedure	
4- 25% Reactive/75%Proactive/2 or more years of data/ Final Guideline/Workflow/Procedure	
5 - 6 to 1 Proactive vs. Reactive, 5+ years of historical data/Final Procedure or Guideline/Business Process Mapping Complete/KPI Established)	
Criticality	
1 - Low - Minimal impact to business, Low Frequency	
2- Minimal business impact, some resource commitment	
3- Medium business impact, media potential, 10% to 25% resource commitment	
4 - Important, High Media Impact, 25% resource commitment	
5- High Criticality, High Media Impact, 35% resource commitment, High Frequency	

Utilizing EUM Tools

Core Process Hierarchy Conceptual Guide



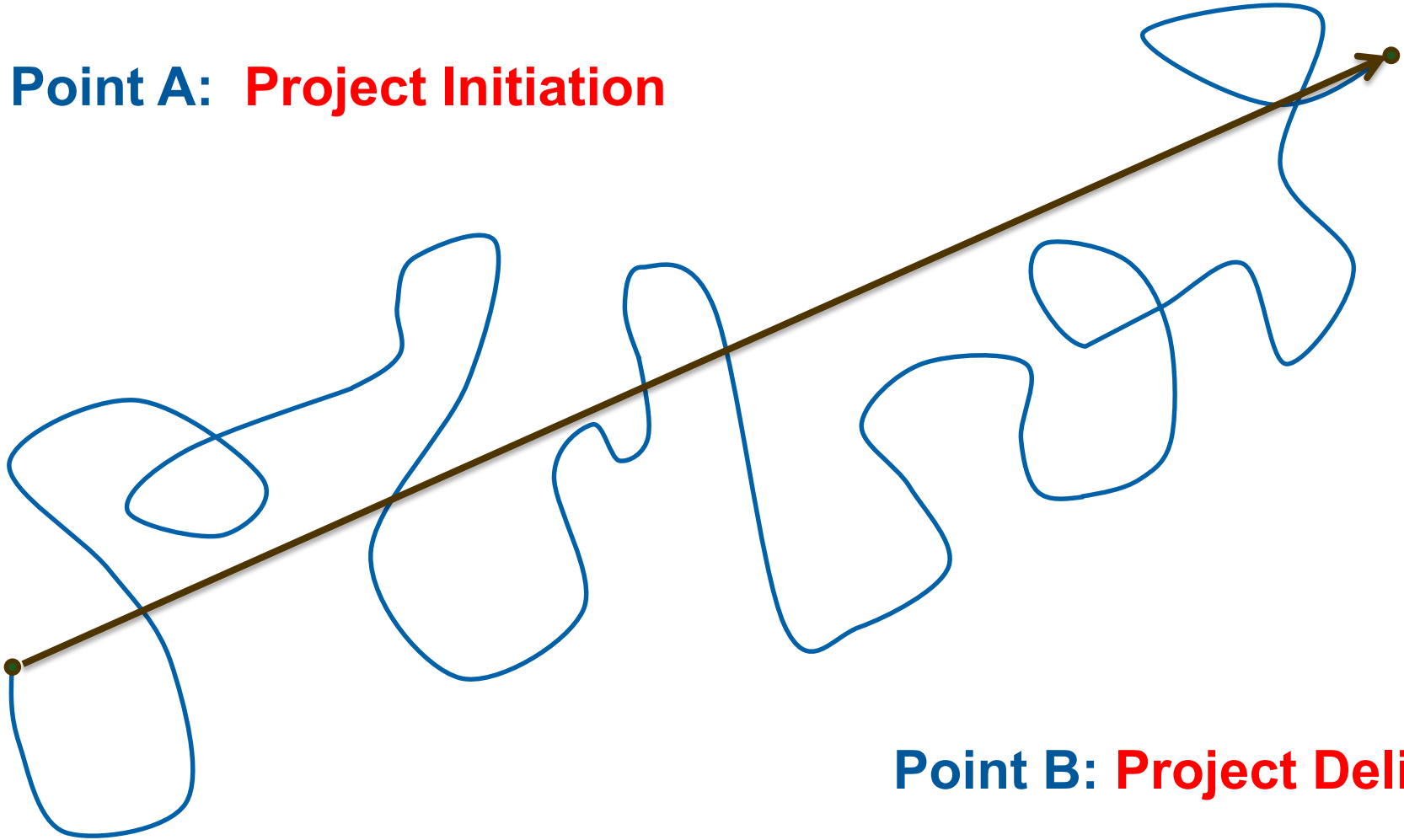
LEAN Practices Will Lead the Way



quality for the customer

Processes Tend To Be Invisible

Point A: Project Initiation



Point B: Project Delivery

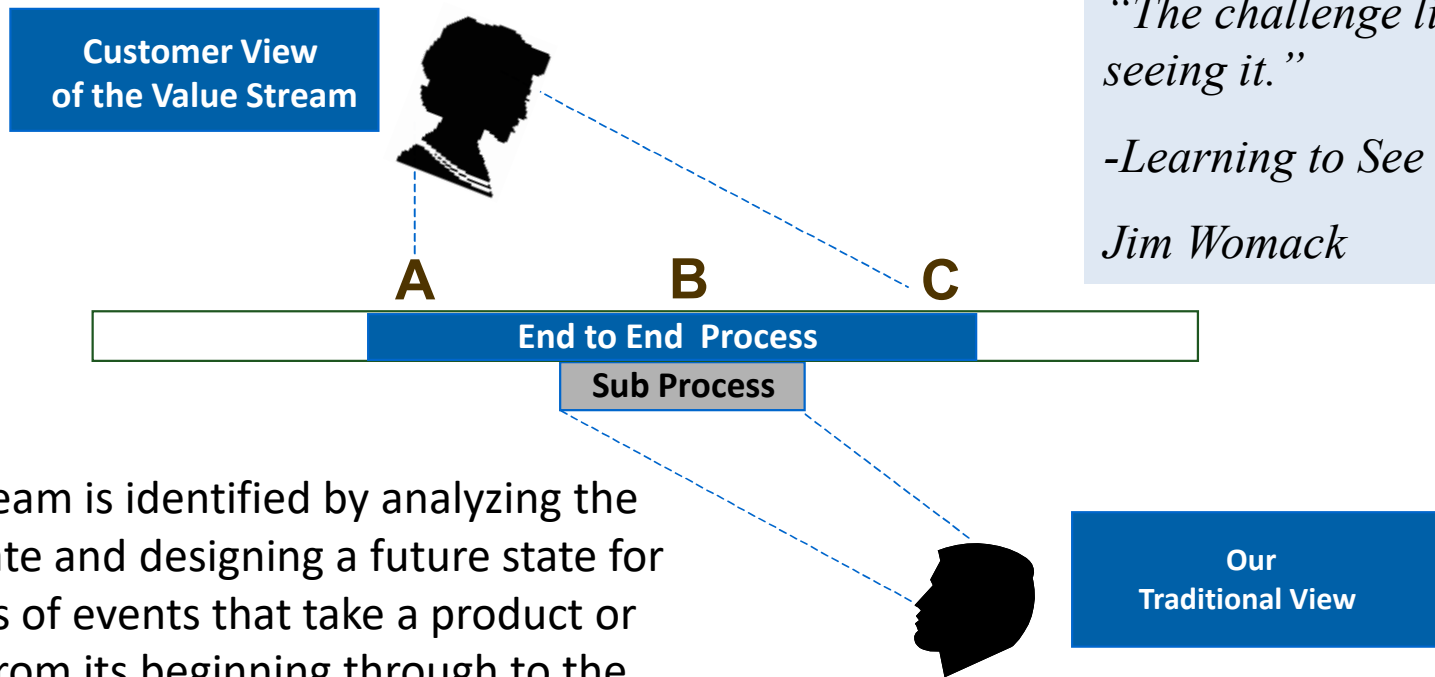
Creating a SCIP Culture

- » Culture is an idea arising from experience
- » Starts with our Leader's behavior
- » Develop specific expectations & routine practices
- » Reduce waste to achieve efficiency
- » Understand the value stream and core processes
- » Utilize process performance measurements and LOS as a compass
- » Improve work habits, daily routines, and the way we think about problems
- Reinforces accountability
 - *“Take care of your process and the process will take care of you.”*
- » Culture is a result of the management system



Customer Focus

Value Stream vs. Traditional View



“Whenever there is a product or service for a customer, there is a value stream.”

“The challenge lies in seeing it.”

-Learning to See

Jim Womack

Value stream is identified by analyzing the current state and designing a future state for the series of events that take a product or service from its beginning through to the customer.

Consistency through Standardization

- » Customer always get the same answer no matter who they ask regardless of the time of day
- » Customer must always get on-time, complete, and accurate information
- » Operations are most efficiently and safely completed after identifying all tasks involved
- » Uses the most effective combination of resources
- » Provides data and metrics that are accurate and valuable
- » Reduces the time required to identify and fix inefficiencies and errors

Use a Root Cause Analysis

- » A method that separates the symptoms from the true cause of the issue or problem
- » 5- Why Analysis:
 - The 5 Whys can be used individually or as a part of the fishbone diagram.
 - Once all inputs are established on the fishbone, you can use the 5 Whys technique to drill down to the root causes.
- » When to use 5-Whys
 - Problems involve human factors or interactions
 - In day-to-day business life

Avoid Sub-Optimization

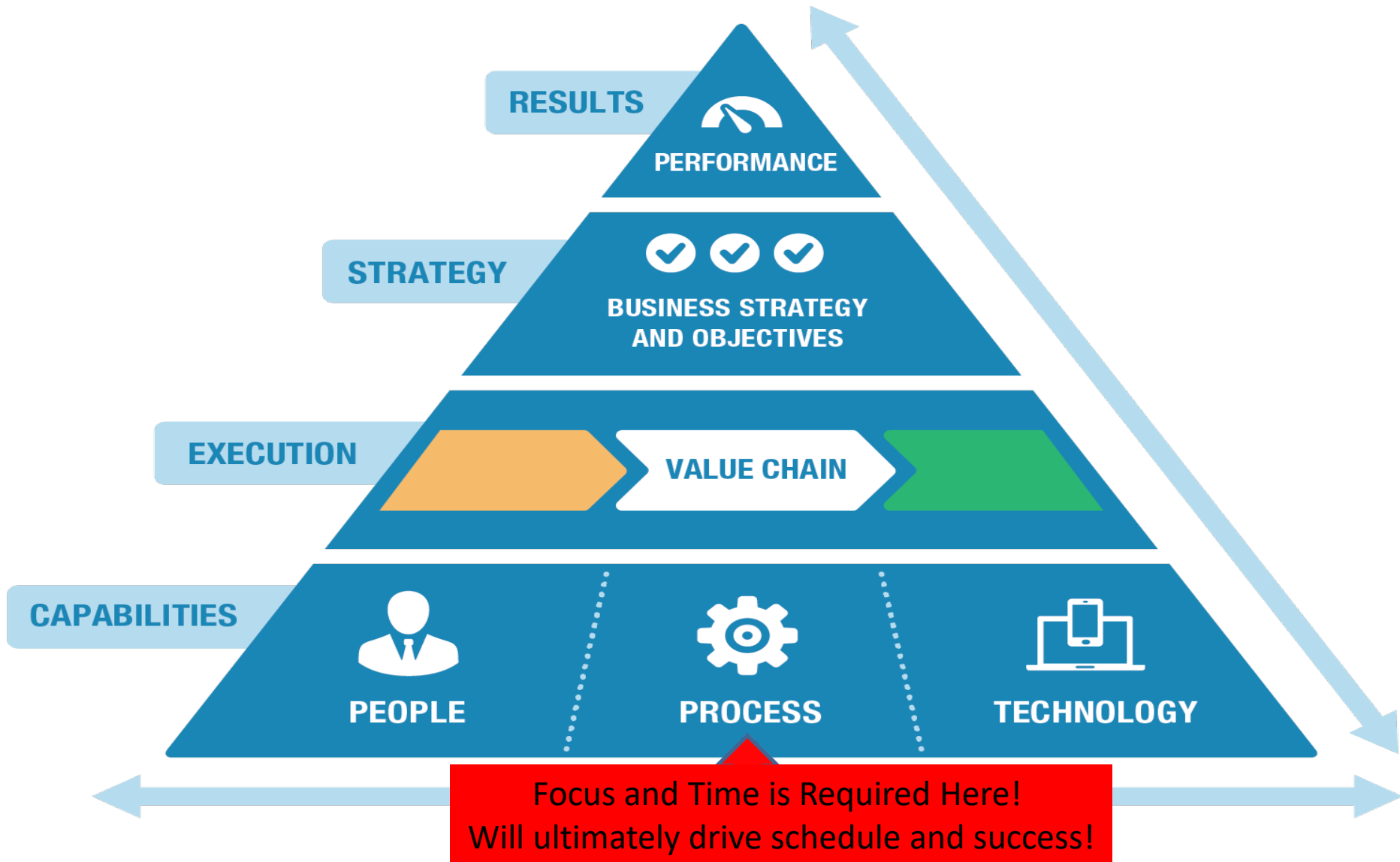
Sub-Optimization is improving one process at the expense of another

- Improvement projects are interrelated with other processes
- Only sub-optimize if agreed upon
- Communication
- Entry points and customer identification in SIPOC is key
- Sub-processes may be processes for someone else



Creating a change in an existing process without upstream and downstream customers in mind may result in more waste created.

Build the Foundation First!



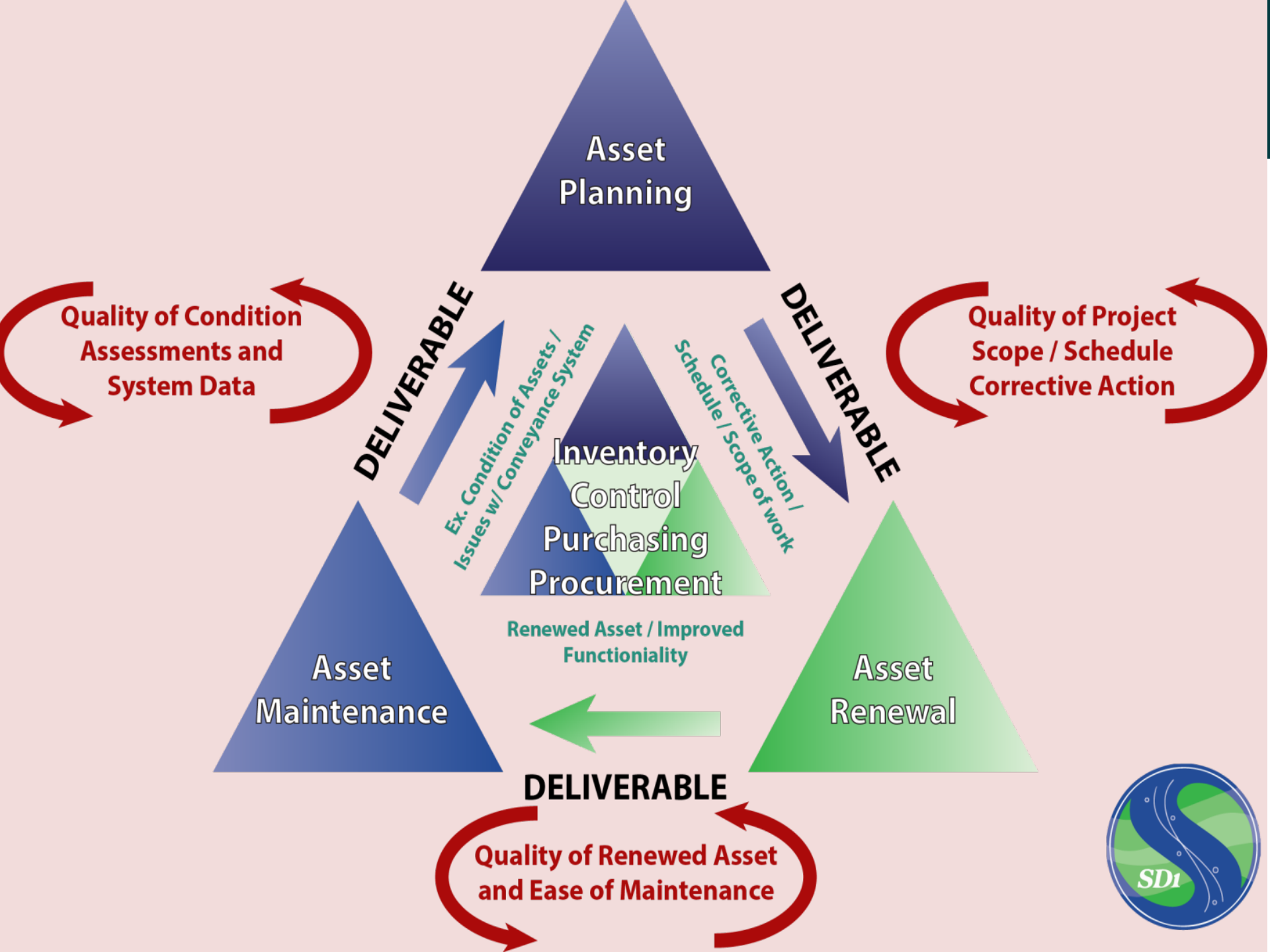
It's Difficult to Manage Chaos



Consider the SCIP Concept

- » Utilize technology and more of it!
- » Consistent O&M Processes
- » Better Scheduling and Procedures
 - Planned vs. Reactive
 - Risk Management
- » Transparency and Fiscal Responsibility
- » Better Utilization of Resources
- » Operational Checks and Balance
- » Customer Impact





Customer Impact

- » How does our management of operations impact the customer?
- » Consider internal and external customers
- » Difference between private and public
 - Public profit in the form of efficiency
- » Understanding of level of service
- » Program limitations will affect customer
- » Meeting customer expectations



Identifying Key Initiatives

- » *“The power or opportunity to act or take charge before others do.”*
 - Ex. “we don’t want to lose the initiative and allow our opponents to dictate the subject“
- » How does this relate to you?
- » SBP gives us a destination but not a road map?
- » How do we see ourselves running our business in the future?
 - SBP doesn’t provide a level of service? We define the LOS.

S
Strategy

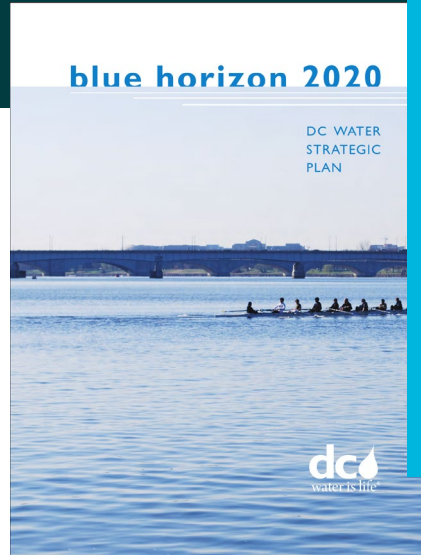
C
Change

I
Innovation

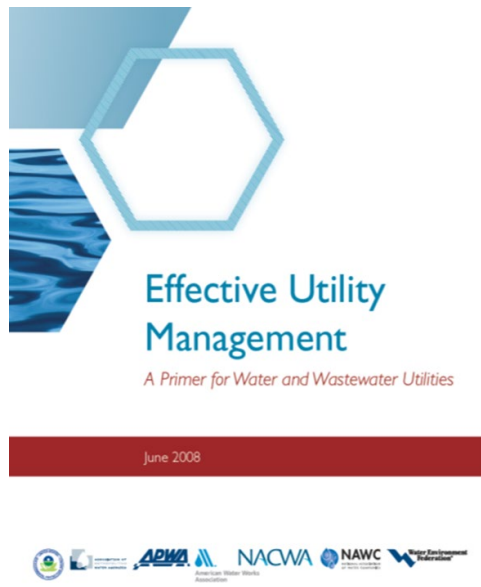
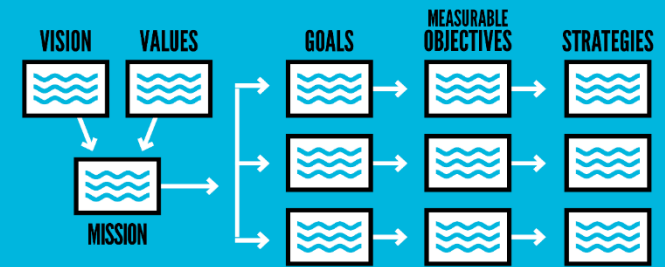
P
Performance

**How is the
Industry
Reacting to
the Forces of
Change?**

Strategy

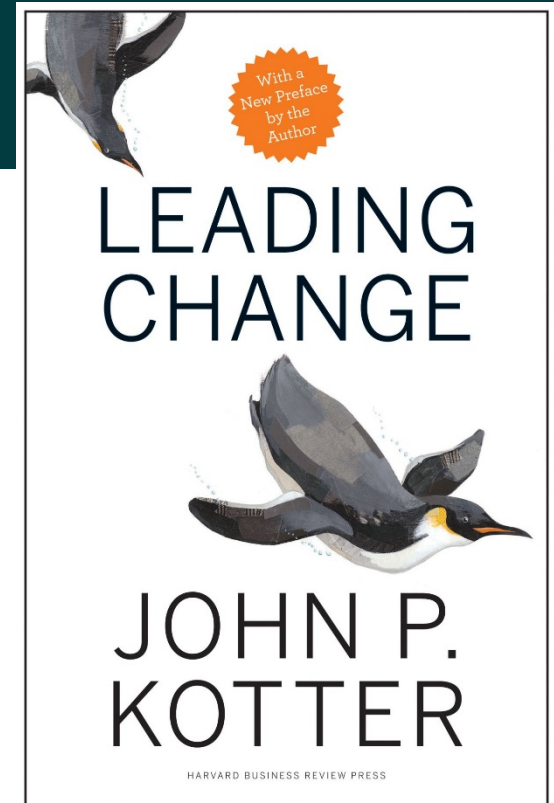


STRATEGIC FRAMEWORK

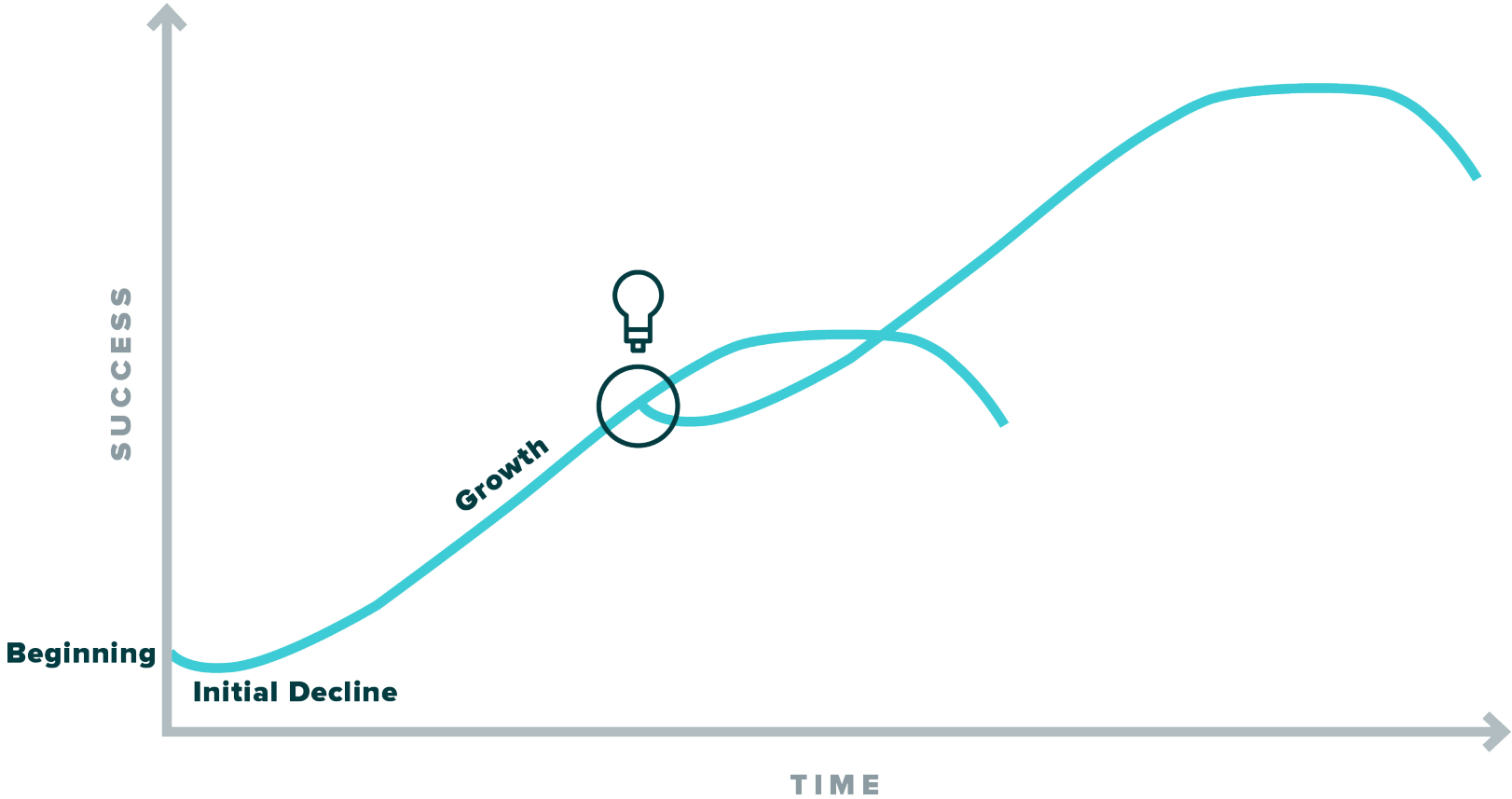


- Product Quality***
- Customer Satisfaction***
- Employee/Leadership Development***
- Operational Optimization***
- Financial Viability***
- Infrastructure Stability***
- Operational Resiliency***
- Community Sustainability***
- Water Resource Adequacy***
- Stakeholder Understanding/Support***

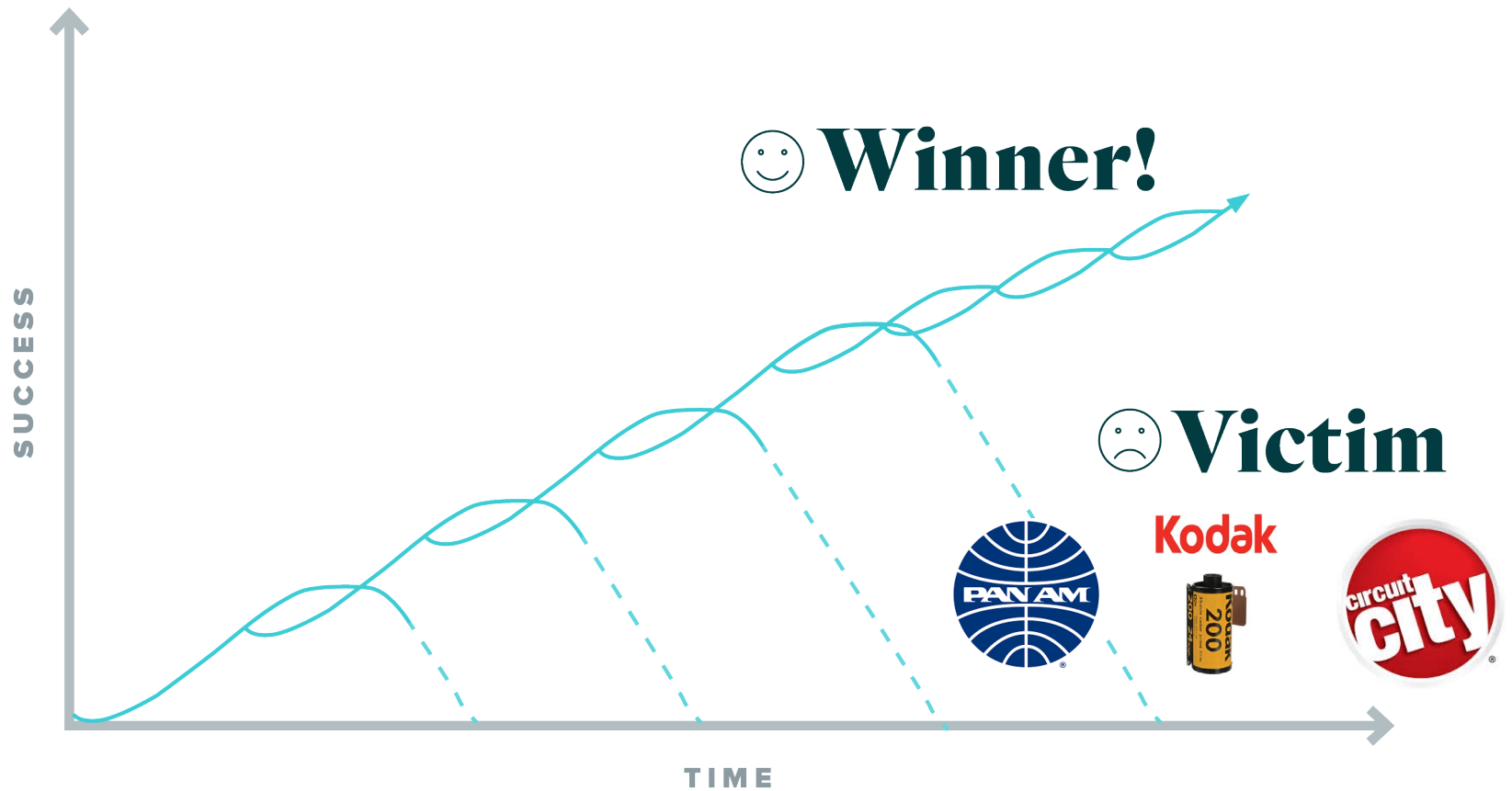
Change



Change



Change



Innovation

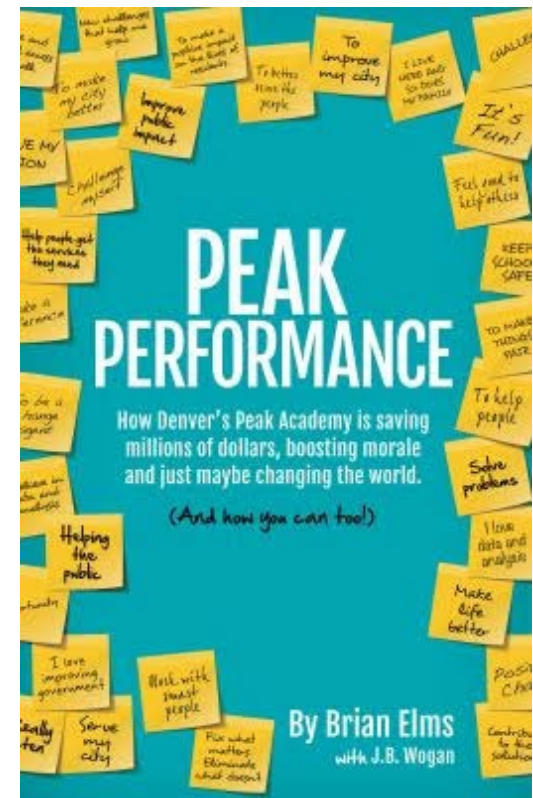
As a Culture vs. a Project



CREATING A CULTURE OF
INNOVATION



blue
drop



Performance

HEADWATERS PGH2O HOME DOCUMENTS FEEDBACK HELP ABOUT LOG IN

Pittsburgh Water and Sewer Authority Performance Management Dashboard

PWSA is a highly responsive and trusted public utility, recognized for excellence and valued by our community. PWSA supports community vitality by protecting public health and the environment through safe, reliable and cost-effective delivery of drinking water, wastewater and stormwater services.

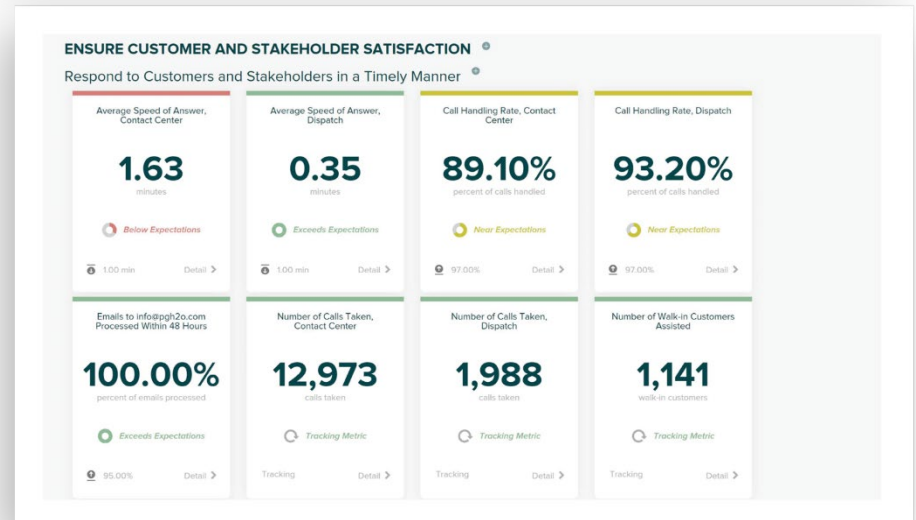
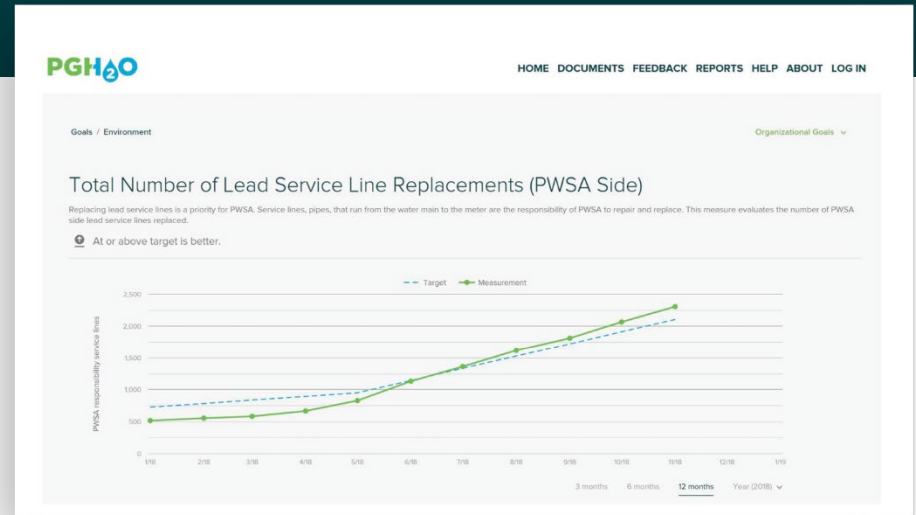
ORGANIZATIONAL GOALS

- Protect Public Health and the Environment Needs Improvement
- Maintain a High-Performing Workforce Near Target
- Ensure Customer and Stakeholder Satisfaction On Track
- Improve Infrastructure and Reliability On Track
- Be an Efficient and Effective Organization On Track

DEPARTMENT VIEWS

- Communications
- Customer Service
- Engineering
- Executive
- Field Operations
- Finance
- Human Resources
- Management Information Systems
- Water Treatment Plant

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If I was in your shoes.....

- » Look for innovators
- » Mine strategic plans
- » Offer to perform joint experiments “innovations”
- » Develop a go to market strategy that aligns with

S*trategy*

C*hange*

I*nnovation*

P*erformance*

Thank You!!

Contact

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