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Managing Change in Microbiology:

Leading Your Team to Cut Costs, Consolidate Testing and Implement Automation

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Objectives

- Determine if your organization is prime for change

- Establish a vision that is better than the now

- Develop a plan and take the first step towards your goal

- Manage resistance change

Technology is poised today to change the landscape of clinical microbiology laboratories

All those involved in delivering clinical microbiology results have to keep up with technology
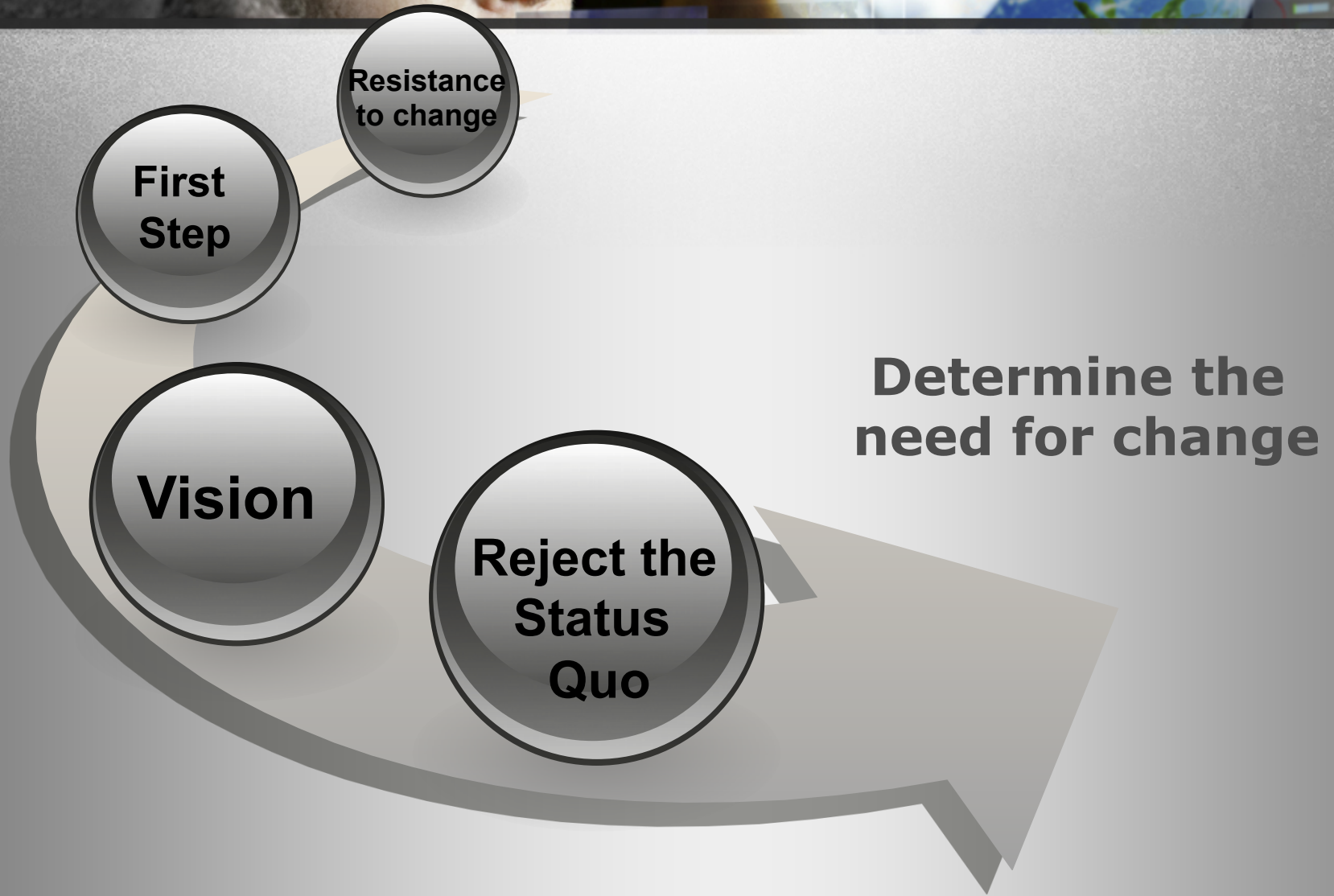
Today's market is rapidly growing and offers many choices

Making the right decision for your laboratory

Status Quo

- **Microbiology has not changed in d e c a d e s**

- **Microbiology has been and still is in the CAVE**

- **Technology in Micro is just beginning where Chemistry was 30 years ago**
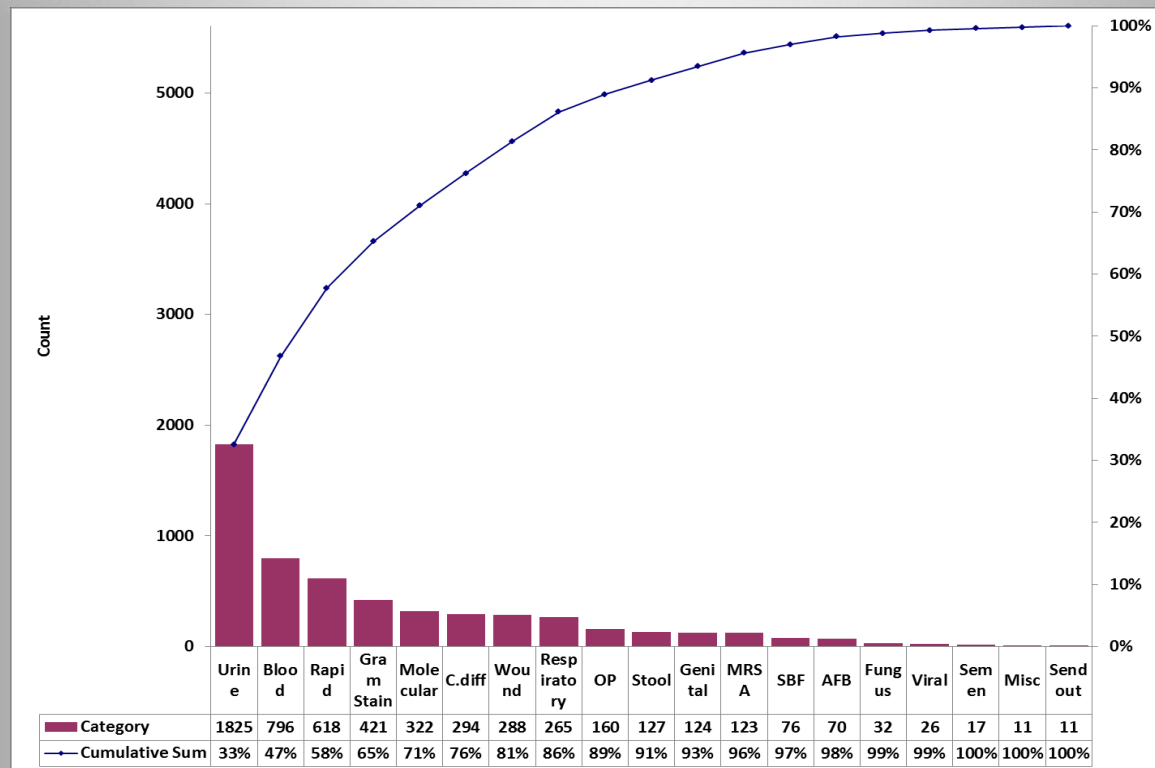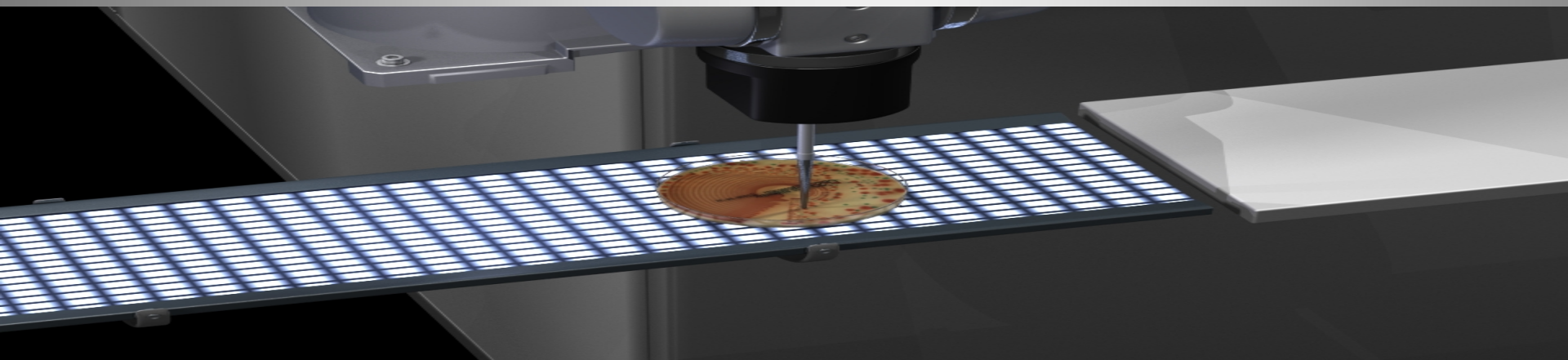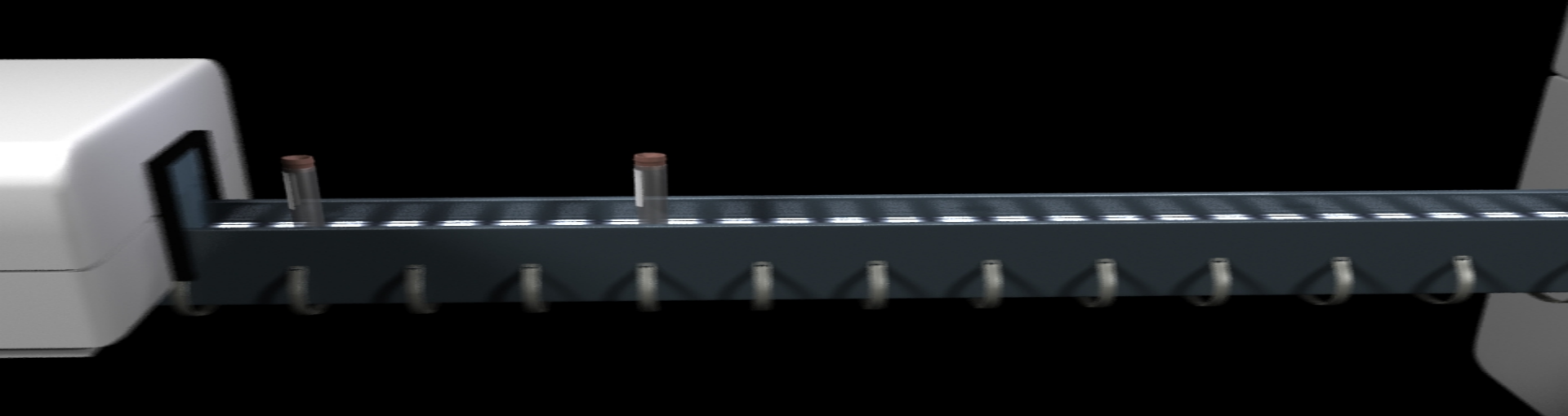
Early Microbiologists

Is the Status Quo still working for you?

- Are physicians asking for more rapid results?
- Is administration looking to cut cost?
- Is your microbiology still mostly a day shift operation?
- Where are the skilled technologists?

Microbiology testing profile

|	Urine	Blood	Rapid	Gram Stain	Molecular	C.diff	Wound	Respiratory	OP	Stool	Genital	MRSA	SBF	AFB	Fungus	Viral	Semen	Misc	Send out
Category	1825	796	618	421	322	294	288	265	160	127	124	123	76	70	32	26	17	11	11
Cumulative Sum	33%	47%	58%	65%	71%	76%	81%	86%	89%	91%	93%	96%	97%	98%	99%	99%	100%	100%	100%

The WOW! Factor

- All that glitters is not gold!
  - Dazzled? It may look futuristic
- Affordable?
  - To acquire, operate and maintain
- Intimidating?
  - Is it really (human) touch-free
- Complex?
  - Will you need to retain and redeploy staff
- Space?
  - With lab consolidation trends, space limitation & renovation costs what is feasible?
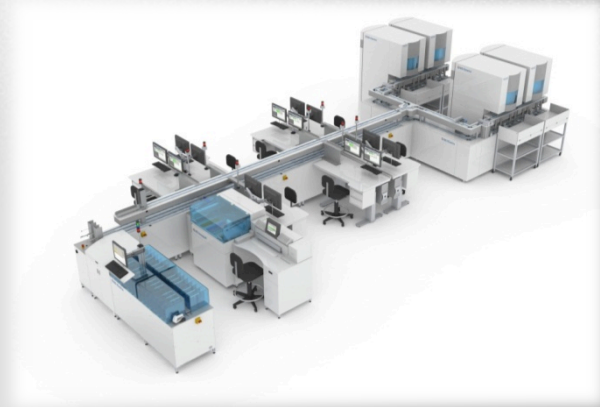
Transformation of specimen to result

– Is it total automation or a combination of human touch and automation?

– What is being automated?

Collect

Transpo

Perform & call Gram Stain

Special testing

Validate

Release

What tasks are your automating?

🟨 Current Required Task*   🟦 Potential Waste

Initial Receipt   Typer   Set Up   Planter   18 Hours Incubation   Read Plates   ID/AST   Release Results
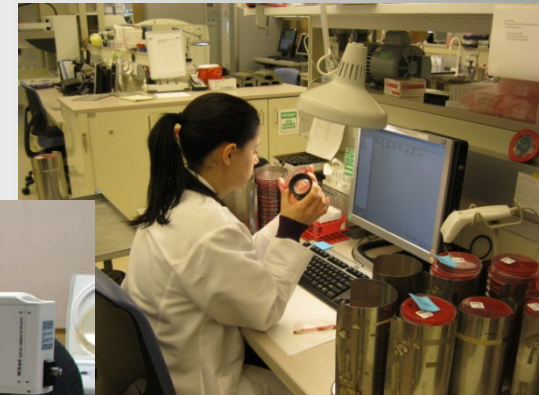
How much incremental time do you gain?

* May or may not meet lean definition of Value Added task

Are cognitive decision making still required?

– Microbiology is highly complex
  - test
  - process
  - results

What drives your vision?

- Centralize or decentralize testing?
- Volume vs. rapid results
- What are the benefits?
- How does it impact your labor resource?
- What is the right fit for your laboratory?

Setting Clear Goals and Objectives

- Deciding what it is you want?

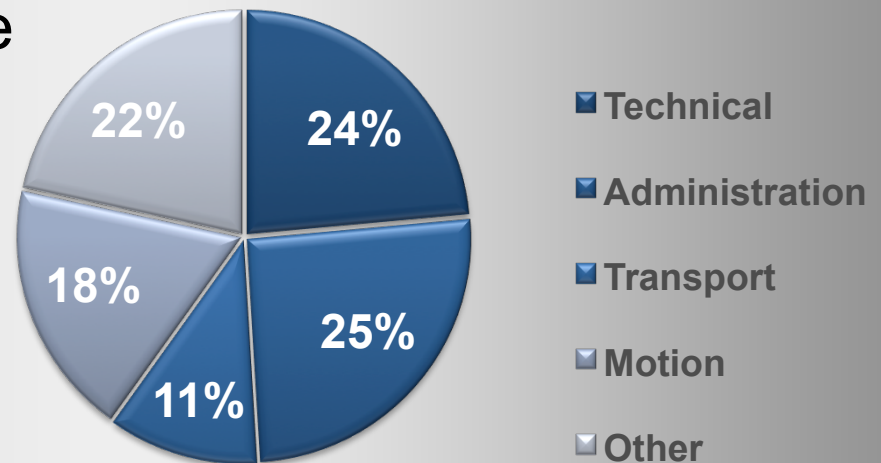| Specific	Measurable	Attainable	Relevant	Time Bound

Understand your current state

- How are your resources being utilized?
- Perception vs. Reality
  - For every paid hour there is 15 minutes of actual technical work done

22%	24%
18%	25%
11%	

■ Technical
■ Administration
■ Transport
■ Motion
■ Other

Data collected across 25 labs

Current Process – within the laboratory

 Current Required Task*   **Potential Waste**

* May or may not meet lean definition of Value Added task

Current State Tasks – Required Tasks

🟨 Current Required Task*   🟦 Potential Waste

Initial Receipt   Typer   Set Up   Planter   18 Hours Incubation   Read Plates   Vitek for 10 Hours   Vitek release

* May or may not meet lean definition of Value Added task

Current State Tasks – Potential Waste

🟨 Current Required Task*   🟦 Potential Waste

Waiting to be transferred to MPA, potential over processing

Waiting for full bin, processing batch

Waiting to load into incubator

Available to Read but Waiting beyond 18 Hours

Waiting to be loaded into Vitek

Waiting to be released

Initial Receipt

Typer

Set Up

Planter

18 Hours Incubation

Read Plates

Vitek for 10 Hours

Vitek release

* May or may not meet lean definition of Value Added task

TAT Improvement Opportunities

■ Current Required Task*   ■ Potential Waste

Waiting to be transferred to MPA, potential over processing

Waiting for full bin, processing batch

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CPA to MPA

Role Consolidation

Transfer to incubator

Shift optimization pilot

Continuous Vitek prep at bench

Shift optimization pilot

Shift optimization pilot

* May or may not meet lean definition of Value Added task

Quantifying TAT Improvement Opportunities

Current Required Task*   Potential Waste

Waiting to be transferred to MPA, potential over processing

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Vitek for 10 Hours

Vitek release

1.5   2.5   7.4   4.5   7.8

CPA to MPA

Role Consolidation

Transfer to incubator

Shift optimization pilot

Continuous Vitek prep at bench

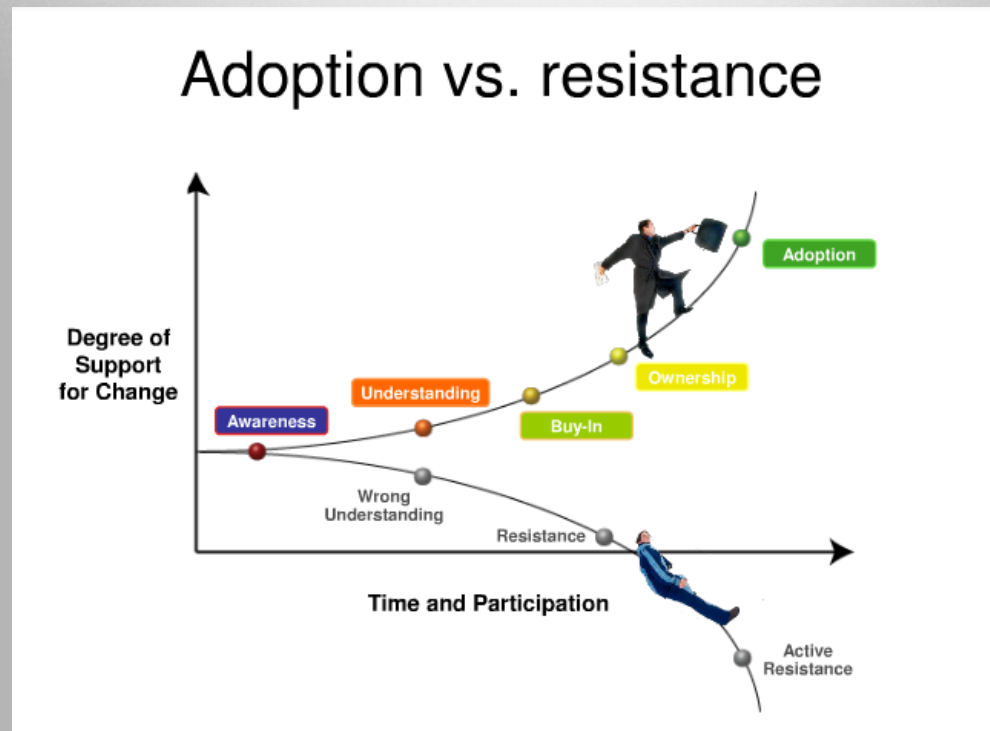Shift optimization pilot

Average Waiting Time = 23.03

What is the cost of waiting?

- Competitive advantage
- Direct impact on health cost bottom line
- Staffing cost
- Resource allocation
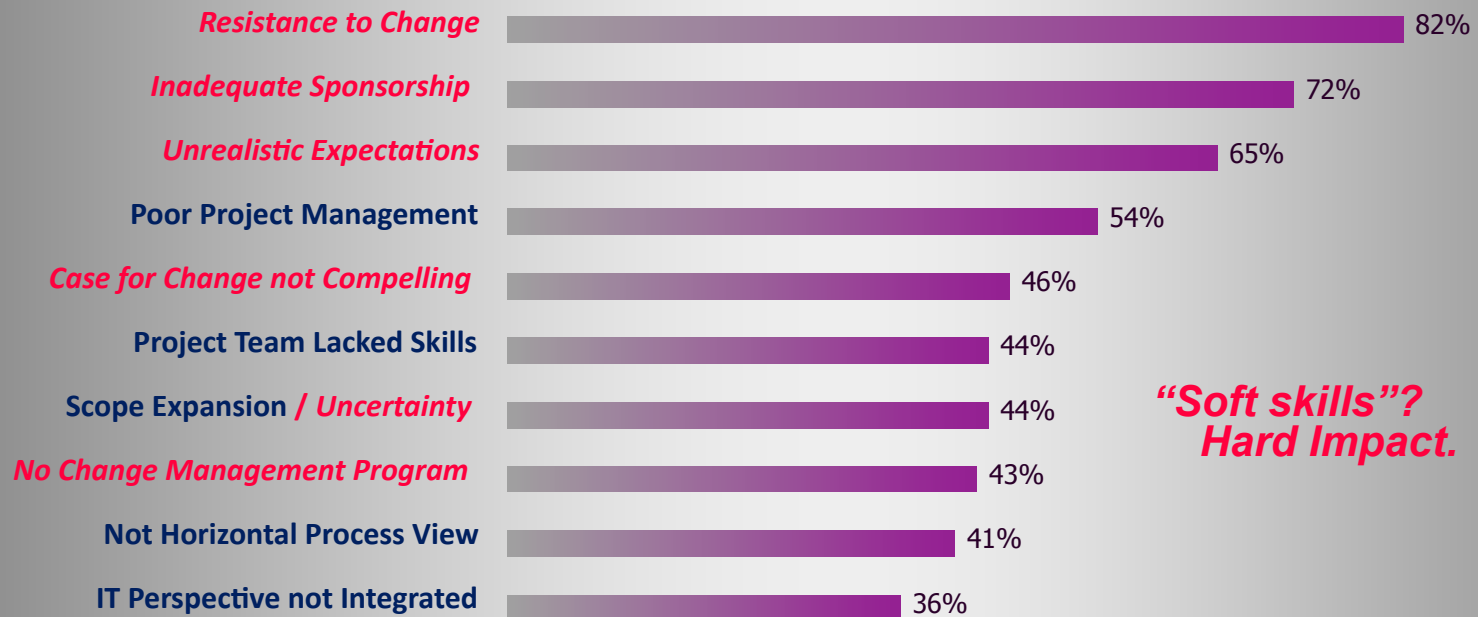- Patient outcomes

How do you implement it in your laboratory?

- People: The limiting factor of *Change*

Resistance to change is a significant barrier to realizing results and savings

When pursuing transformations, organizations rarely realize the benefits or retain the value they anticipated. While there are many reasons for this, the following survey of CEO's shows that 5 out of the top 10 business transformation showstoppers are 'people and organizational' issues.

Top 10 Barriers to Success

Barrier	Percent
Resistance to Change	82%
Inadequate Sponsorship	72%
Unrealistic Expectations	65%
Poor Project Management	54%
Case for Change not Compelling	46%
Project Team Lacked Skills	44%
Scope Expansion / *Uncertainty*	44%
No Change Management Program	43%
Not Horizontal Process View	41%
IT Perspective not Integrated	36%

PERCENT OF FIRMS

"Soft skills"?
Hard Impact.

Top 5 keys to success for managing change

- Who will implement – the right team
- Communication - is key
- Create urgency – Why are we doing this?
- Develop a strategy and action plan
  - People in the organization have to own this
- Facilitate – remove obstacles

Where do you go from here?
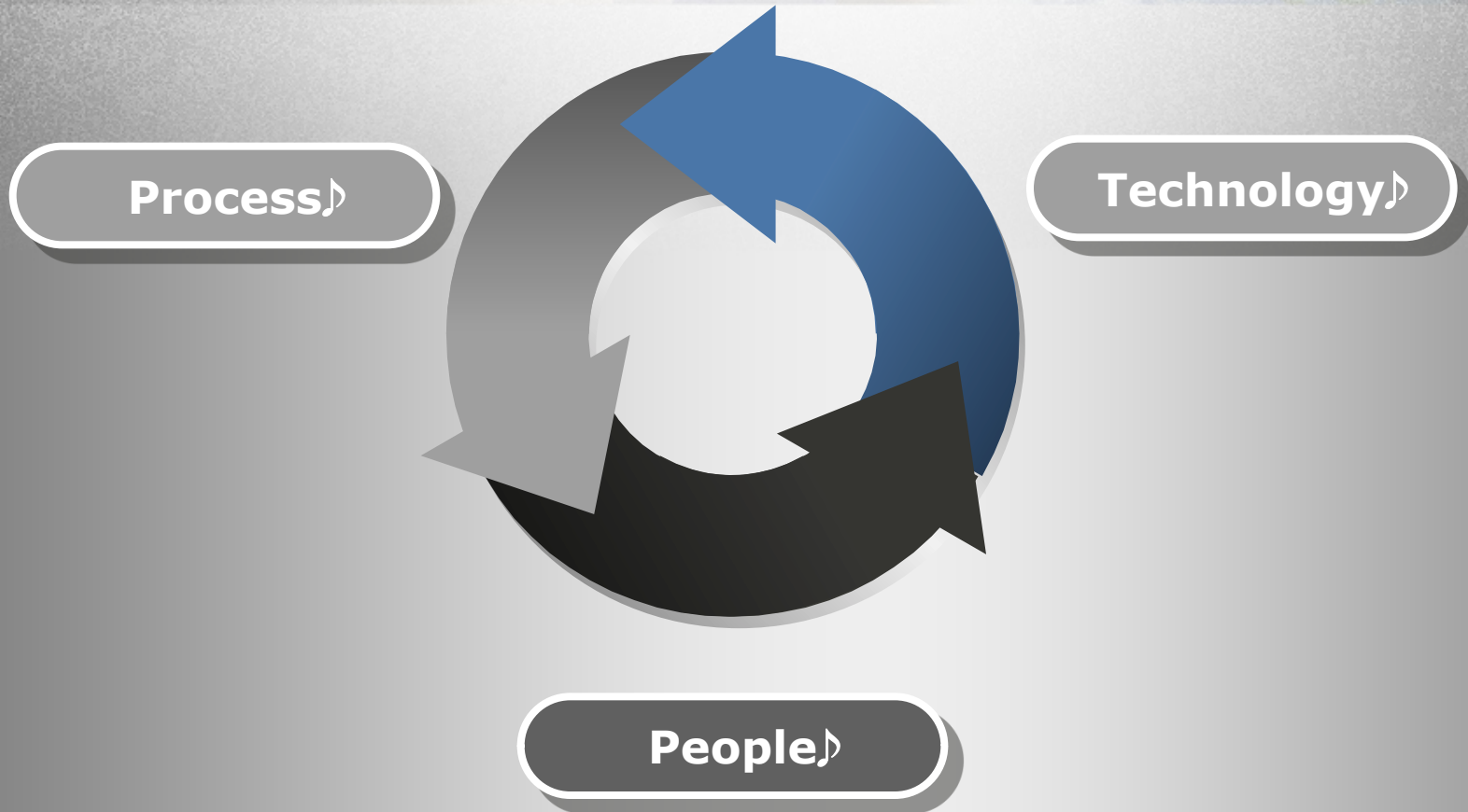
New Technology is enticing all of us

Determine the need for change, identify what needs to change, and implement with success

- Decide to no longer accept the status quo
- Vision – have a clear picture of your future
- First Step – create a plan and move forward

    Overcome Resistance to Change

D + V + FS > R

Process♪

Technology♪

People♪

Process, People, Technology define your future

Execute

- Know where your are
- Plan where you are going
- Take the first step to get there

Thank You!

Questions?