Webinar:

Digitalizing Operations Quality in Regulated Environments
Key Takeaways from Hundreds of Software Deployments

SIMCO   **QUALITYDIGEST**

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40-year veteran, based in Silicon Valley, CA, USA

Experience:

- Chief Commercial Officer for SIMCO Electronics
- Previous executive roles with AT&T Bell Labs, Silicon Graphics, several high technology start-ups

Education:

– Executive Dev. Program, Northwestern University
– MS Electrical Engineering, Purdue University
– BS Electrical Engineering, Rutgers University

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SIMCO Fast Facts:

- Calibration & Repair Services +
- CERDAAC Cloud Software for Regulated Operations Excellence

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16 of top 20 Biomed manufacturers

14 of top 20 Aerospace & Defense

3K Customers

350 Employees

60 Years of service

CERDAAC

Connected suite of solutions for regulated operations excellence

To learn more about SIMCO / CERDAAC:
- Visit us at www.simco.com
- Email us at info@simco.com
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We're embracing new digital technologies at an **accelerating rate**

My digital investment:

Application Platform	# of Apps
Phone	149
Tablet	118
Computer – Personal	93
Computer – Work	57
TV	20
Other Cloud Apps - Personal	15
Other Cloud Apps - Work	17
Total	**469**

Wow, that was a surprise!

The Promise of Digital is Real

- **More consistent quality**
- **Faster, leaner processes**
- **Cleaner, accessible data**
- **More informed decisions**
- **Reduced cost, more profit**

Digital is Especially Appealing to Regulated Manufacturers

Regulated Manufacturers:

1. Face a continuously rising bar on quality and regulatory compliance

2. Constantly striving to deliver more and newer products, more profitably

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Not every software deployment is a success

14% of IT Projects Are Failures
CIO Magazine

30% of Application Deployments Fail
Wired Magazine

25% of Technology Projects Fail Outright
Forbes

70% of Digital Transformations Fail
McKinsey & Company

More than half of all prof. service projects are delivered past deadline or over budget
Wellingtone

… not by a long shot

The digital projects that promise the

greatest impact

are often the most complex and difficult to deploy

Fortunately, there are some common and avoidable pitfalls

Will share key takeaways from:

- ✓ Hundreds of software deployments in highly regulated environments

- ✓ Analysis of research on why digital projects fail

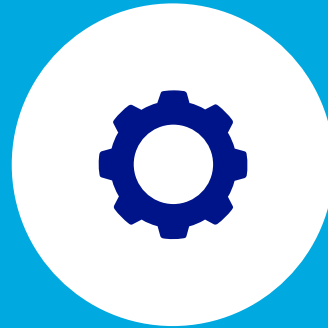- ✓ Frequent blunders on my own path to digital transformation

Terminology
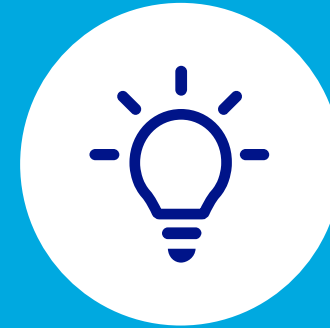
Digitization

Conversion
(Data)

Migrate your data
from analog to digital

Digitalization

Adaptation
(Process)

Improve your processes
by leveraging digital tools
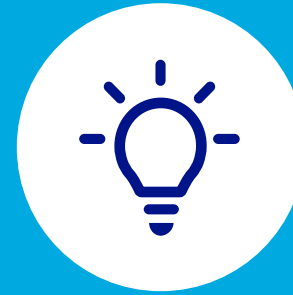
Digital Transformation

Creation
(Business)

Transform your business
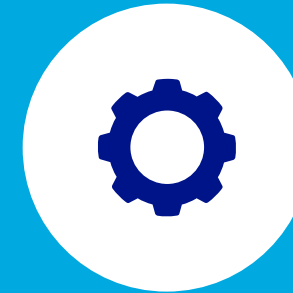to new digital models

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Terminology *(continued)*

Few agree on digital definitions

All agree on the progression

Understanding the progression is key to successful deployment

Digital Transformation

Digitalization

Digitization

Increased Risk & Reward

Terminology – *Example*

Personal example: my family's most prized possessions

Digitization
(scanned jpegs)

Digitalization
(restored, tagged jpegs,
stored in cloud)

Digital Transformation
(several new digital entities
made this possible)

Terminology – *Example*

Professional example: paper form, filled out, then manually routed to set of approvers

Digitization
• Create electronic duplicate of paper form • Route electronic form as email attachment

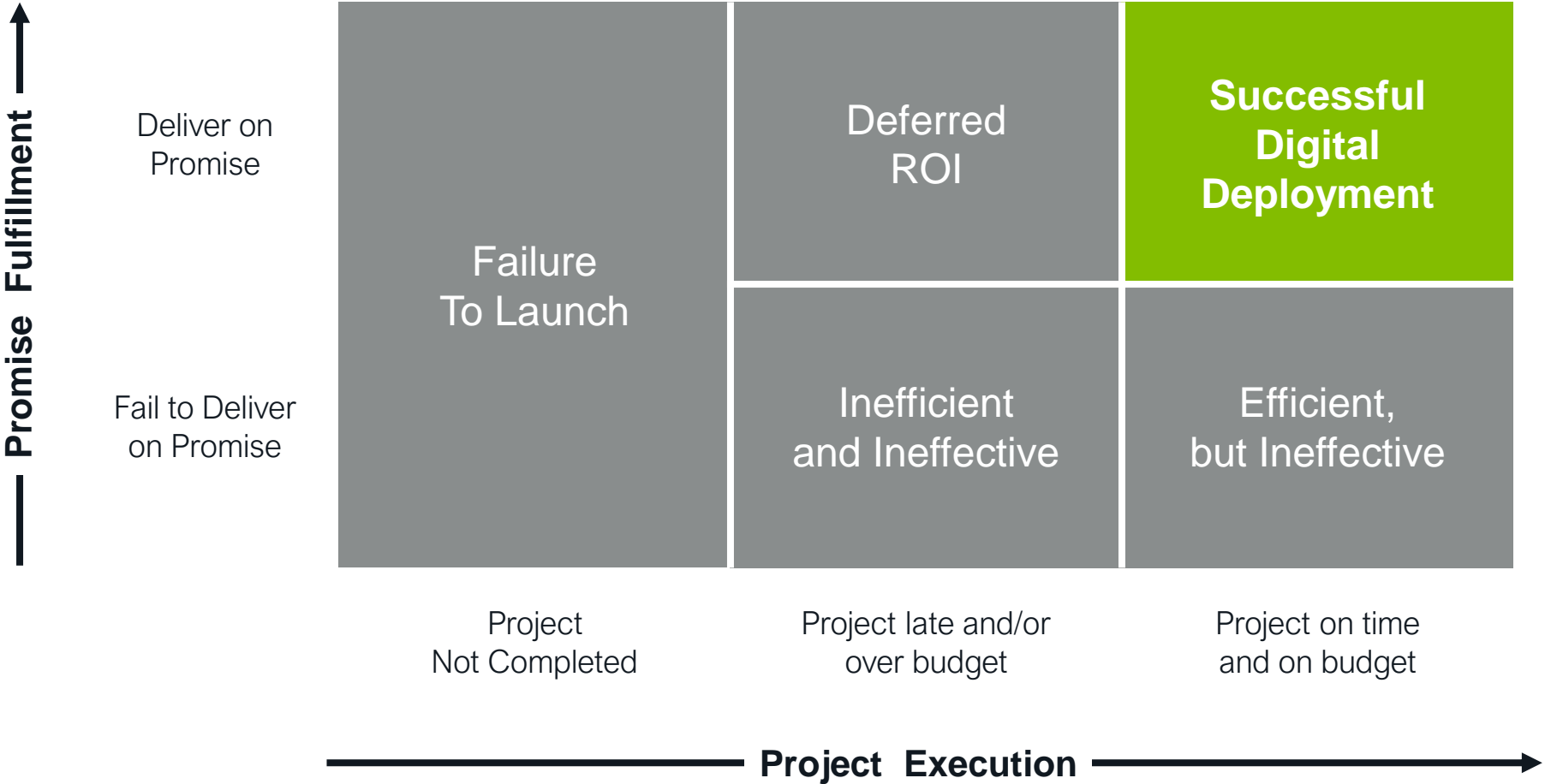| Digitalization |
| --- |
| **A better electronic form:**
  – Define required and optional fields
  – Create computed fields
  – Create conditional fields
  – Replace open text fields with drop-down menus
  – Provide pop-ups that define each field
Accelerated approvals via in-app routing:
  – Automate routing with recipient alerts
  – Establish conditional routing, based on form data
  – Escalate when approval is stalled
Actionable insights via automated reports :
  – Track form volume, analyze form data
  – Track routing status, time to approve, other KPIs |

Seize the opportunity to digitalize!

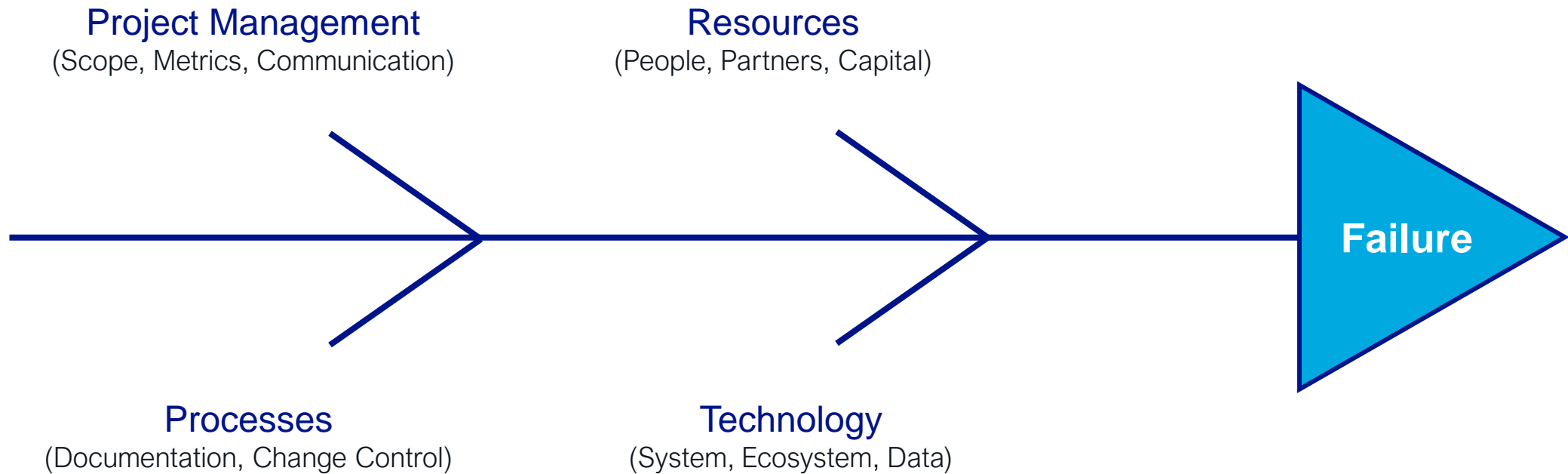## Digitalizing Operations Quality in Regulated Environments

Our experience: helping Quality and Operations teams in highly-regulated, lives-at-stake industries to drive operational excellence via digital technology

We're helping manufacturers to **digitalize** their operations quality – leveraging technology to drive leaner, faster, more compliant processes

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Four Paths to Failure, One to Success

Promise Fulfillment →

Deliver on Promise

Fail to Deliver on Promise

Failure To Launch	Deferred ROI	**Successful Digital Deployment**
	Inefficient and Ineffective	Efficient, but Ineffective

Project Not Completed   Project late and/or over budget   Project on time and on budget

Project Execution →

Digital Deployment Failures – *Root Cause Analysis*

Project Management
(Scope, Metrics, Communication)

Resources
(People, Partners, Capital)

Failure

Processes
(Documentation, Change Control)

Technology
(System, Ecosystem, Data)

Project Management *(Scope, Metrics, Communication)*

Digital deployments demand project management:

- ✓ Scope / Requirements – *Keep solution out of it, include what's not in scope*

- ✓ Processes and people impacted – *should be the primary focus, but often an afterthought*

- ✓ Success metrics – *promise fulfillment (i.e., opex savings); execution metrics (i.e., time to value)*

- ✓ Resources required & roles assigned – *establish clear accountability, decision authority*

- ✓ Communication plan – *within project team and with all those impacted by change*

- ✓ Schedule and budget

Warning Signs
Leading with solution
Unclear objectives
No budget or schedule
Scope creep

★ **Best Advice**

- Don't underestimate the need for project management in digital deployments

- Match the project management investment to the project scope

- Even the smallest projects demand written requirements and clear roles

Resources *(People, Partners, Capital)*

Obtain needed resources & roles upfront:

- ✓ Project manager
- ✓ Executive champion
- ✓ Process expert / owner
- ✓ System / ecosystem owner

- ✓ Data owner
- ✓ Validation and documentation
- ✓ System admin / training / support
- ✓ Capital needed to fund project

Warning Signs
Unavailable resources
Conflicting priorities
Decision paralysis (unclear who decides)

Best Advice

- One missing resource is enough to stall or kill a digital deployment
- Clear decision authority helps avoid decision paralysis
- Involve resource managers to avoid shifting priorities mid-project

Processes *(Documentation, Change Control)*

Put process improvement front and center:

- ✓ Identify all impacted processes and process experts / owners
- ✓ Obtain process documentation (if it exists)
- ✓ Identify who needs to be involved in process changes
- ✓ Identify and quantify the waste in each process
- ✓ Set targets for process improvements – *i.e., hours saved, errors reduced*

Warning Signs
Affected processes not identified until solution is deployed
Solution fails to deliver on promise of improved quality, speed, profits

Best Advice

With every project, seize the opportunity to not only digitize, but **digitalize** – leveraging technology to drive leaner, faster, more compliant processes.

Combining Lean 6σ with Digital can double your savings – *Bain & Company*

Technology *(System, Ecosystem, Data)*

Technology:

- ✓ Don't put the cart before the horse – requirements should drive technology
- ✓ Your needs are rapidly evolving – choose technology that can evolve with you
- ✓ Planning to add or replace systems? Opportunity to consolidate systems?
- ✓ Need for system integration? If yes, what will be system of record?
- ✓ Seize opportunity to improve data – making it cleaner and more accessible
- ✓ Plan for legacy system and legacy data – retain, retire, archive?

| Warning Signs |
| --- |
| Unclear technology selection criteria |
| Unclear data migration & integration plan |
| Solution selected ahead of project plan |

★ Best Advice

- Seek opportunities to consolidate systems – fewer is often better
- Plan for system verification & validation – leverage vendors for assistance
- Legacy data – consider ongoing access vs. costly migration to new systems

Summary

Avoid digital myopia

Take the broader view to ensure success when digitalizing operations quality
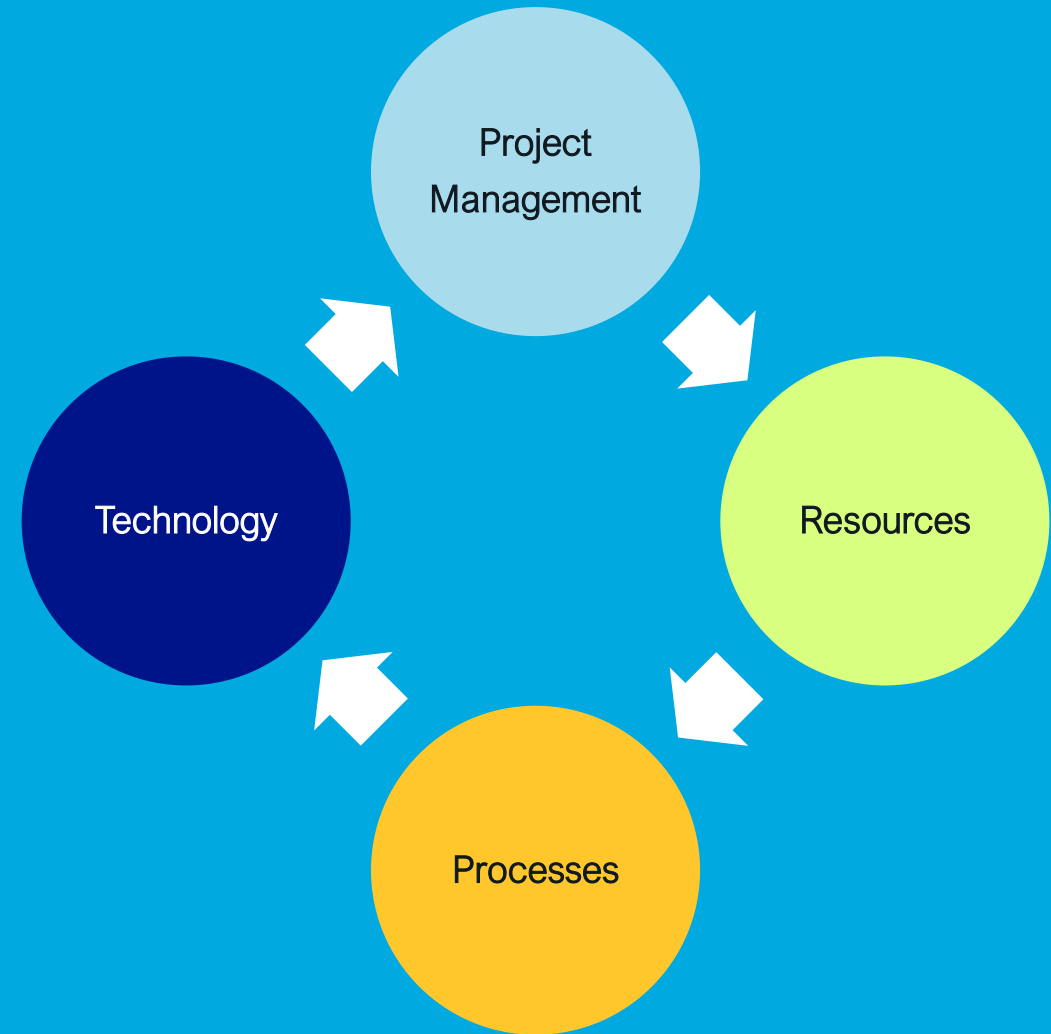
Project Management

Resources

Processes

Technology

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Audience Poll

?

Audience Poll:

In the past 24 months,
how many work-related
digital deployments or upgrades
would you estimate
you have experienced,
in any capacity?

(influencer, decider, project manager, process owner, sys admin, user …)

?

Audience Poll:

What percentage of
those digital deployments
or upgrades would you
consider successful –
on budget, on time,
and delivering on its promise?

Q&A

Thank You

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