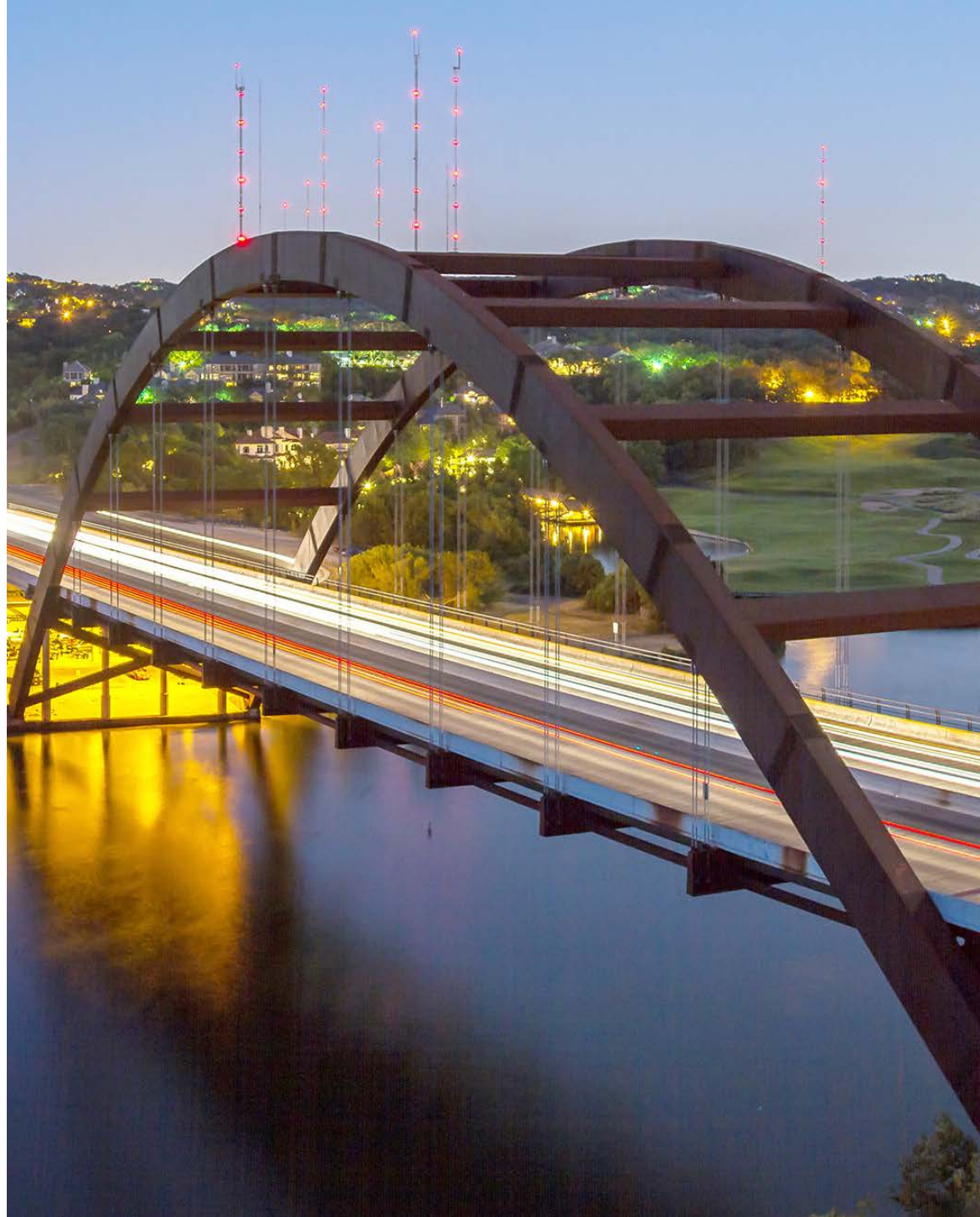




2016 Engineering & Construction Conference

June 15–17, 2016
The Westin Austin Downtown
Austin, Texas



Technology Solutions for E&C Growth

8:30 a.m. - 10:00 a.m.



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Deloitte Consulting LLP



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Deloitte Consulting LLP

Agenda

Module/Topic

Growing the Business

Best of Breed Strategies

Integration Strategies

What are SaaS, PaaS, IaaS?

ERP Latest Functionality

Oracle JDE SolutionPrint for E&C

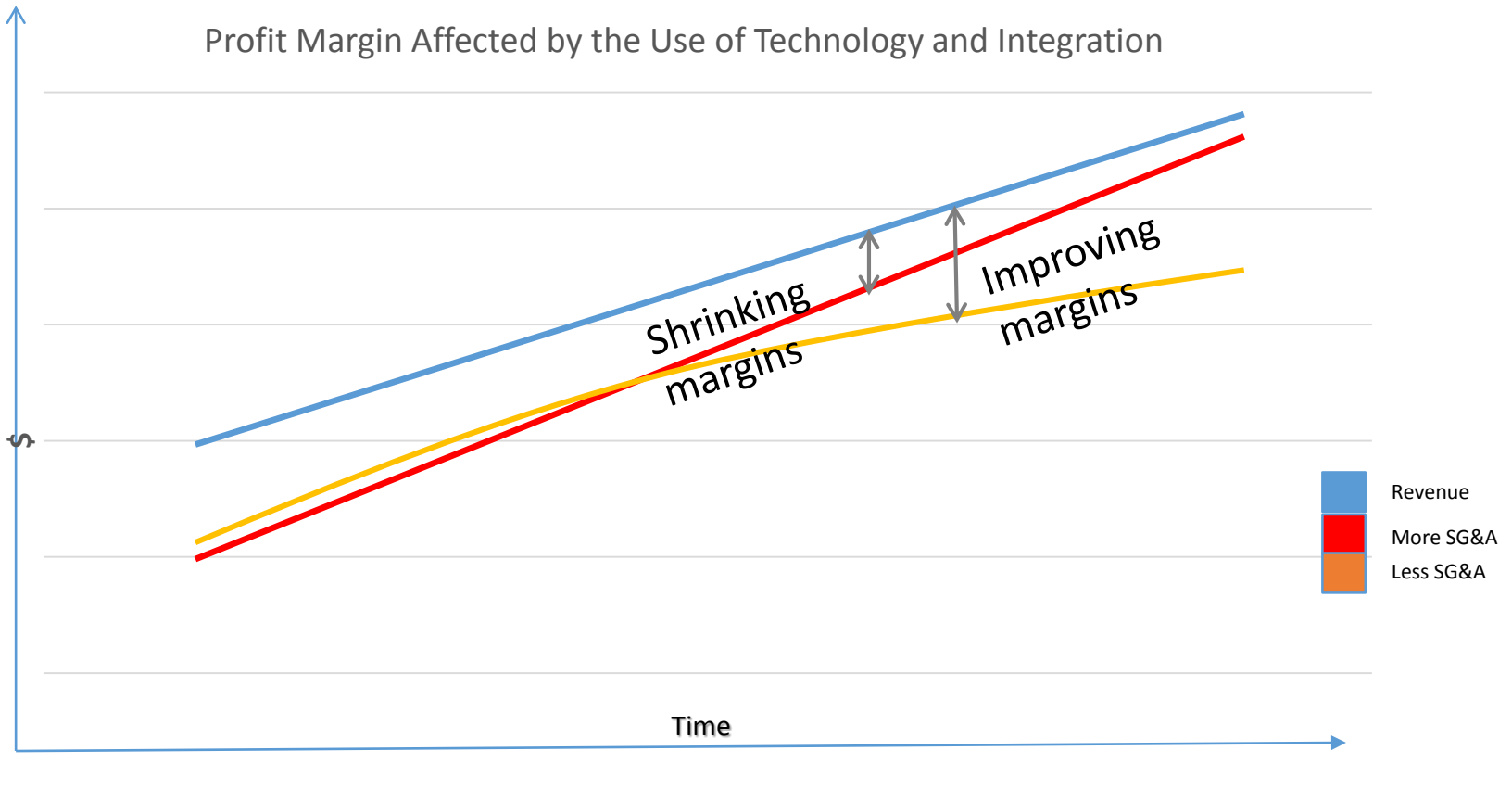
Q&A

Growing the Business

How Does Technology
Provide for Growth?

Argument for Growing your Technology Spend

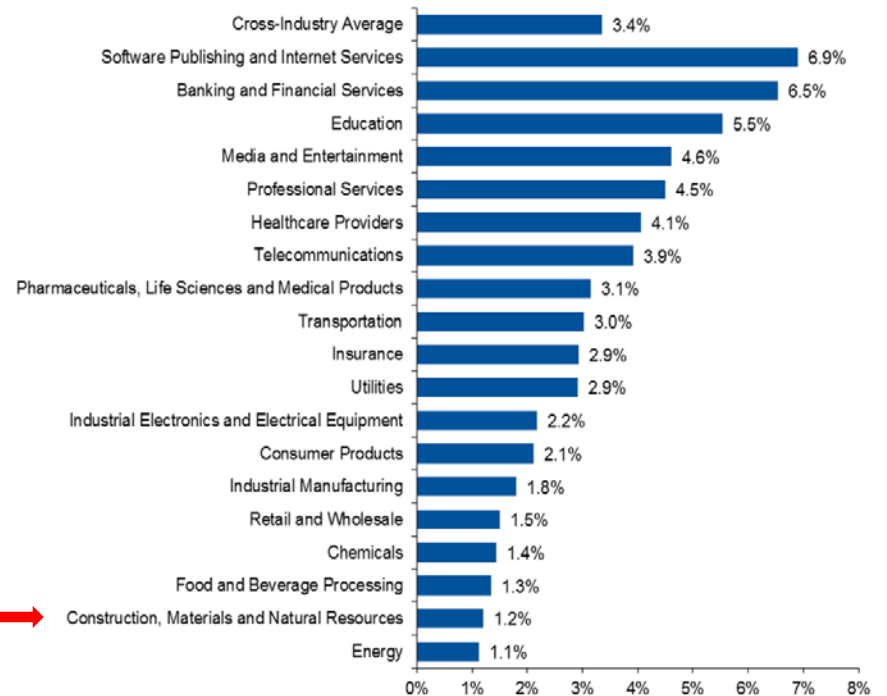
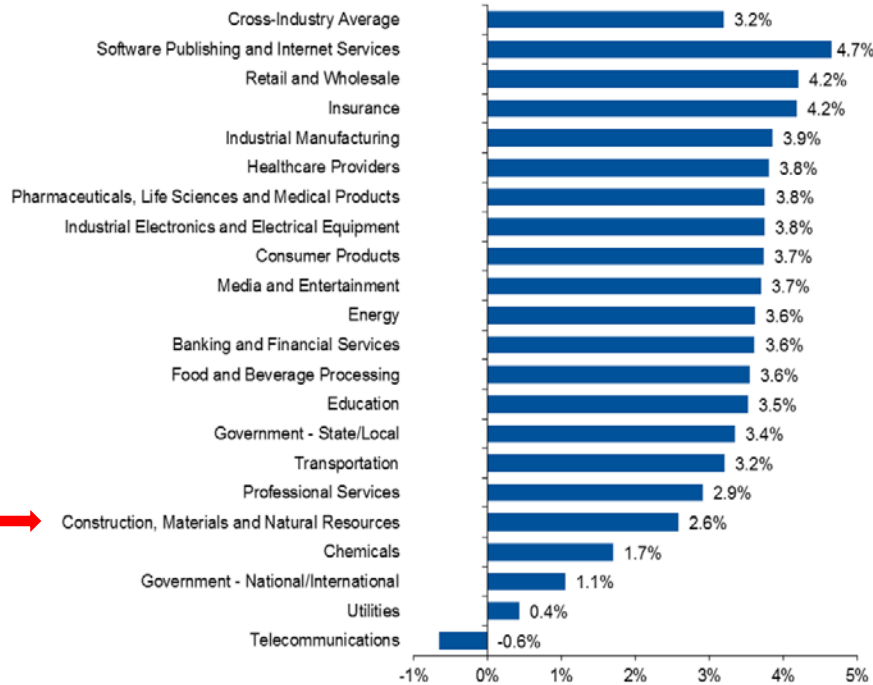
Investment in technology are likely to have different effects on profit margins by reducing SG&A. Technology allows companies to deliver larger revenue projects with the same or reduced support team. Use of technology and integration may result in higher initial costs but bigger margins in the long run.



The State of Technology Spend in E&C

IT Spending Percent Change, by Industry, 2014 to 2015

IT Spending Percent of Revenue, by Industry, 2015

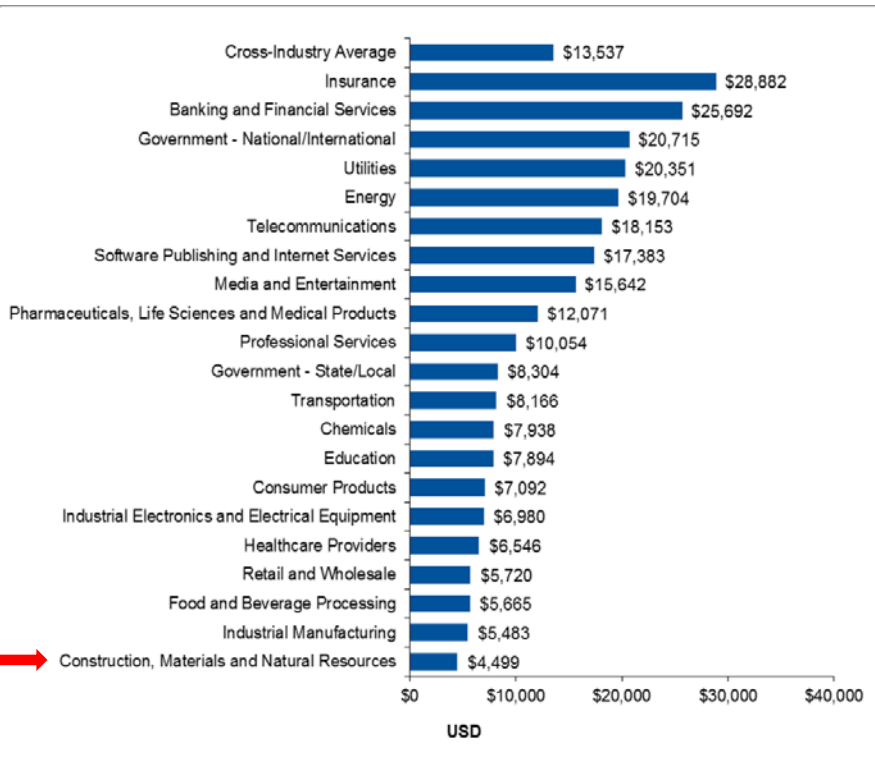


*SOURCE: GARTNER IT KEY METRICS DATABASE, 2012

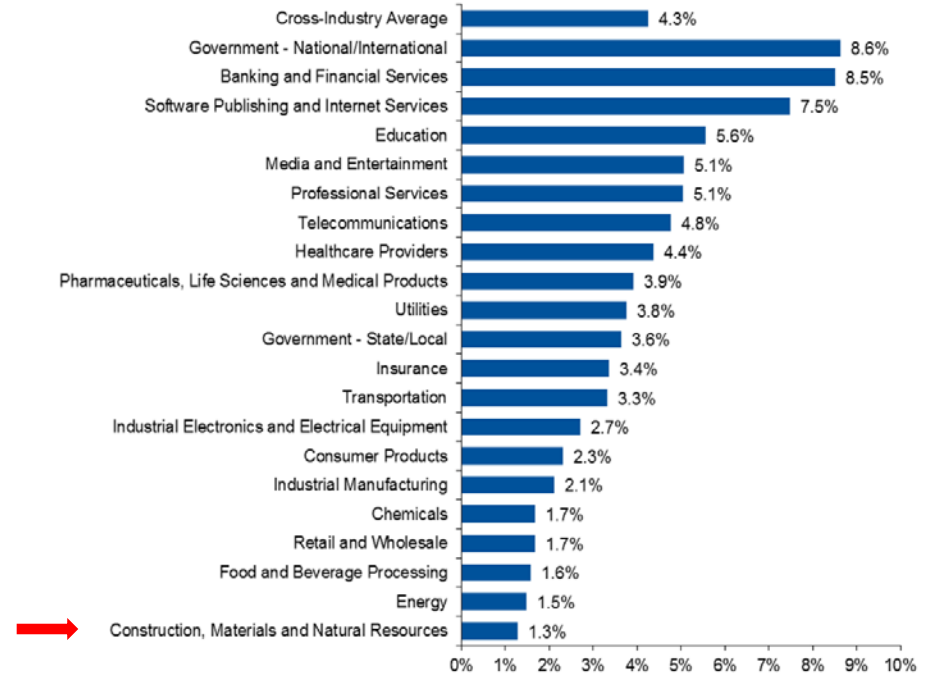
**ENR, March 2016

The State of Technology Spend in E&C

IT Spending per Employee, by Industry, 2015



IT Spending Percent of Operating Expense, by Industry, 2015



*SOURCE: GARTNER IT KEY METRICS DATABASE, 2012
 **ENR, March 2016

The State of Technology Spend in E&C

- Construction industry is last or near last in IT spending compared to 21 other industries
- The smaller revenue companies actually spend more on IT by Revenue, by Operating Cost, and by Employee than the larger companies
- Underspending on IT may be a short sighted strategy
- 70% of US productivity growth comes from IT*
- IT investment is one of the key drivers in attracting and retaining young talent, 69,000 construction jobs will be filled with millennials this year**

- **Are you putting yourself in a competitive disadvantage?**

*SOURCE: GARTNER IT KEY METRICS DATABASE, 2012

**ENR, March 2016

Best of Breed

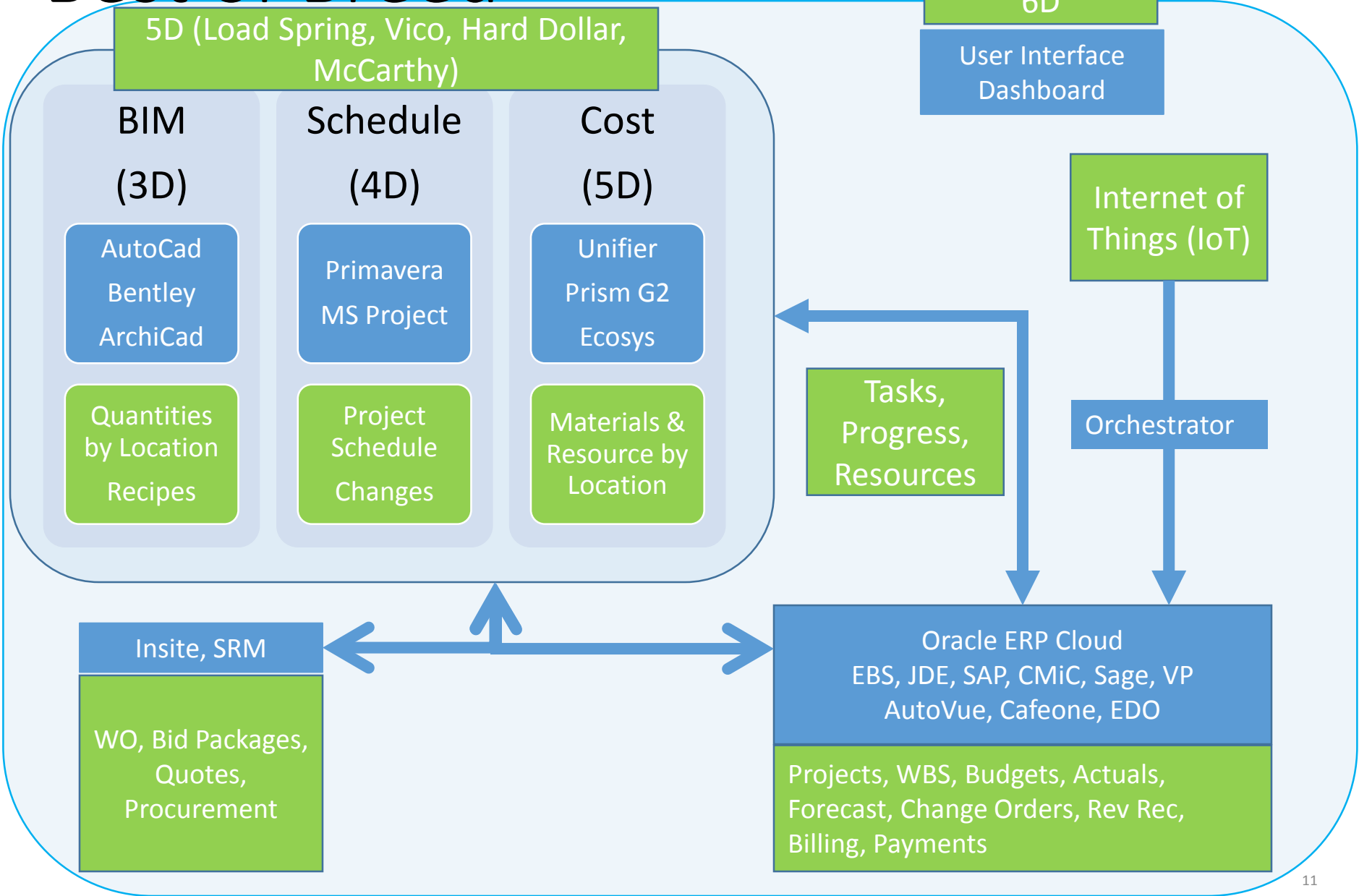
What is it and how does it work together to provide for Growth?

How Should Technology Solutions

Work?

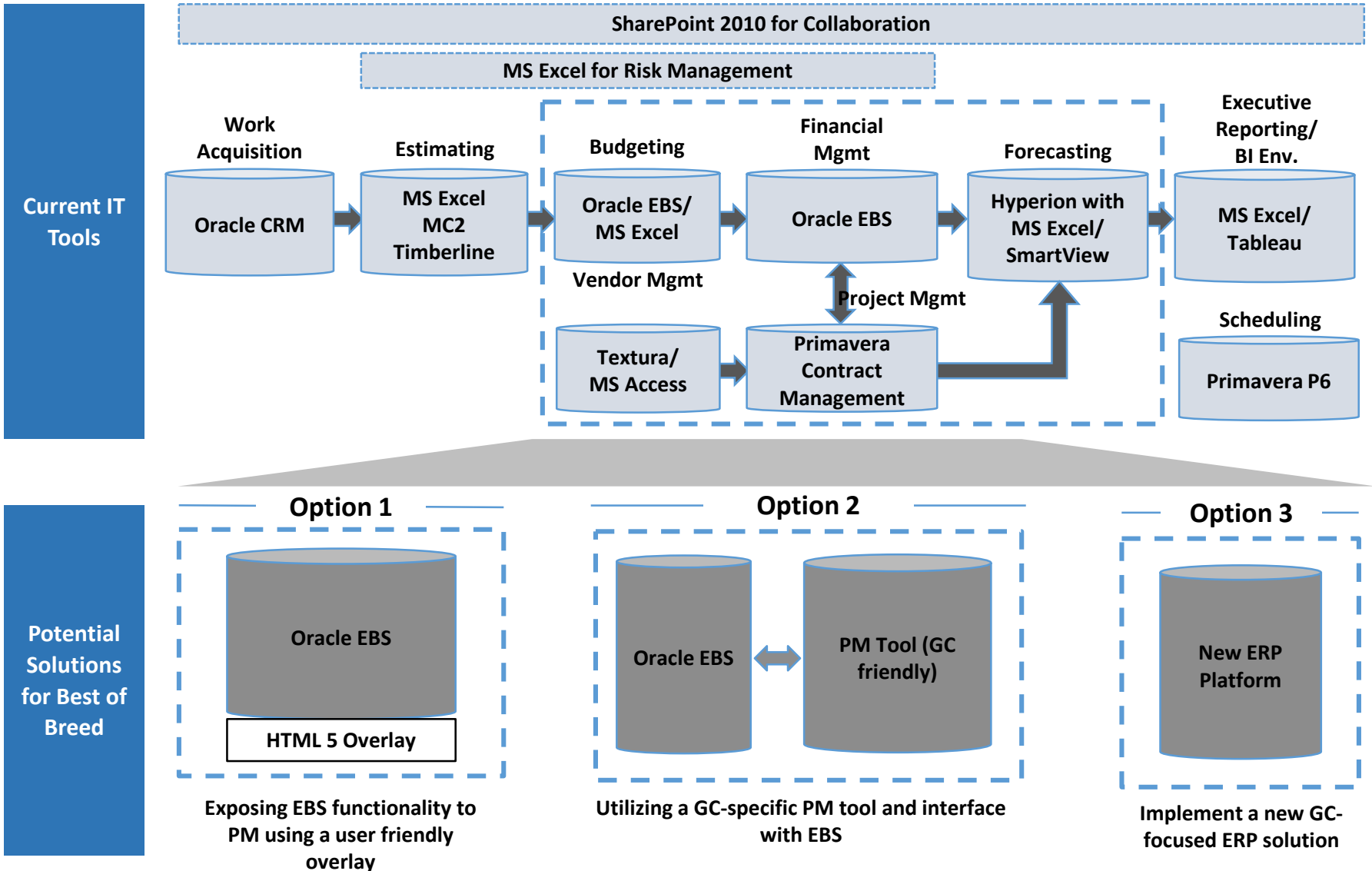
- Overview
 - Start with the end in mind. Where are you spending the most time for the least value. Allow technology to deliver more work with less effort.
- Data View
 - Start with the end in mind, think Big Data to Small Data
 - Create a Master Data Management (MDM) strategy
 - Use a governance model to support the strategy
- Application View
 - Resign the fact that ERP does not do “Everything”
 - Resistance is futile, Cloud is here to stay
 - Use a Best of Breed approach to support business competencies and to fill functionality gaps
 - Plan and test integrations to be invisible
 - Provide a comprehensive application roadmap so the entire company can see the vision and understand the timeline

Best of Breed



Example of Best of Breed Decisions for PM Tool

Analysis is focused on the project management component of the current IT architecture – how best to manage forecasting, budgeting, and change orders, while addressing key pain points of duplicate and manual entry.



Integration

What is the current vs.
latest thinking?

Integrations

Plan and Test integrations to be invisible and simple

Current	Latest
Eliminate Manual spreadsheets	Implement solutions to delegate time entry for jobs to the field, enter of productivity units and equipment utilization
Master Data Management Strategy – “We’ll get to it later, it’s a technology solution”	Construction companies have grown through acquisitions over the last 10 years and by having standards enable you to have 1 source of truth for data and eliminate the need to enter into multiple systems
How do I improve job cost controls?	Automating the use and approvals of purchase orders, forecasting and integrations to best of breed PM tools
Creating Key Performance Indicators that are meaningful to Project Managers and Top Level Executives rather than traditional reports	Think more about the use of visible “Dashboards” that you can access on mobility devices
Forecasting once a month may identify surprises with your budget vs. actuals	Setup Watch list to be proactive in providing you with alerts if you incur cost over a certain threshold by WBS.
Managing suppliers and subcontractors across your organization is cumbersome	Get real-time updates on subcontractors to include reason codes for sub-par performance and quality of work

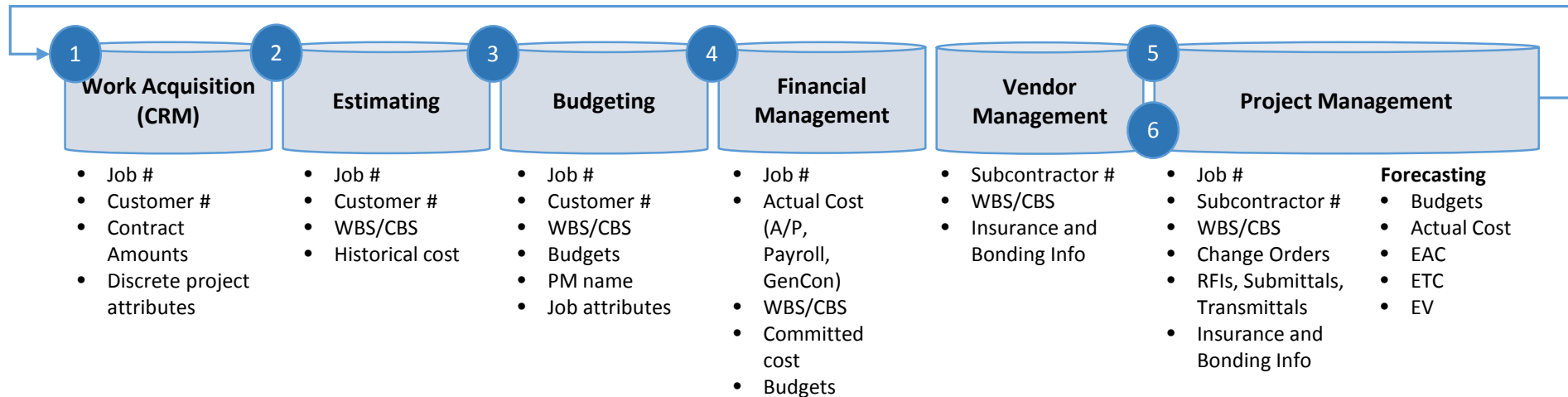
Systems Integration and MDM Representation

Given below is a representation of various steps of the construction process lifecycle, illustrating the data fields at each step, along with integration points throughout the process. (Job # gets entered 1 time!)

SharePoint 2010 for Collaboration

Risk Management

Scheduling - P6



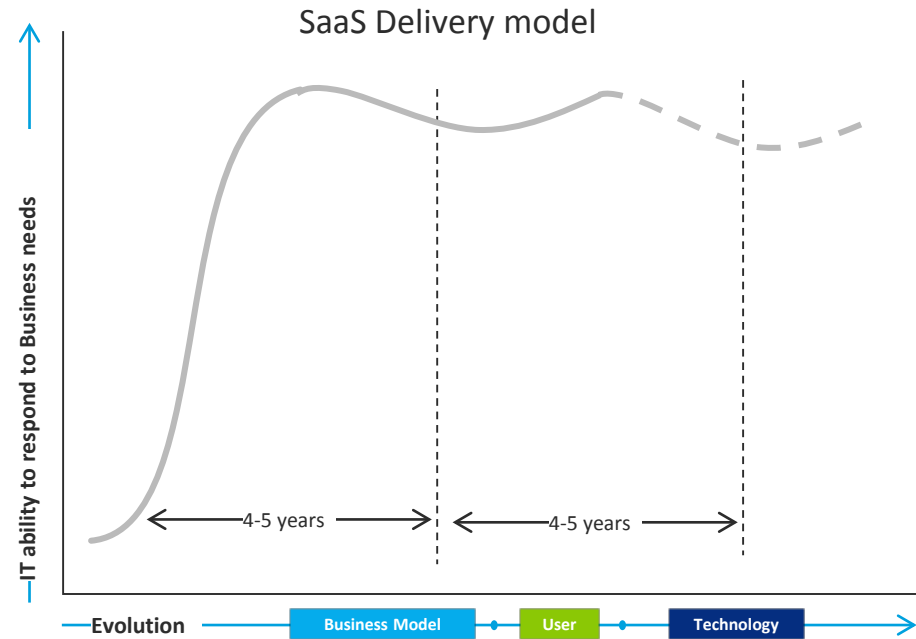
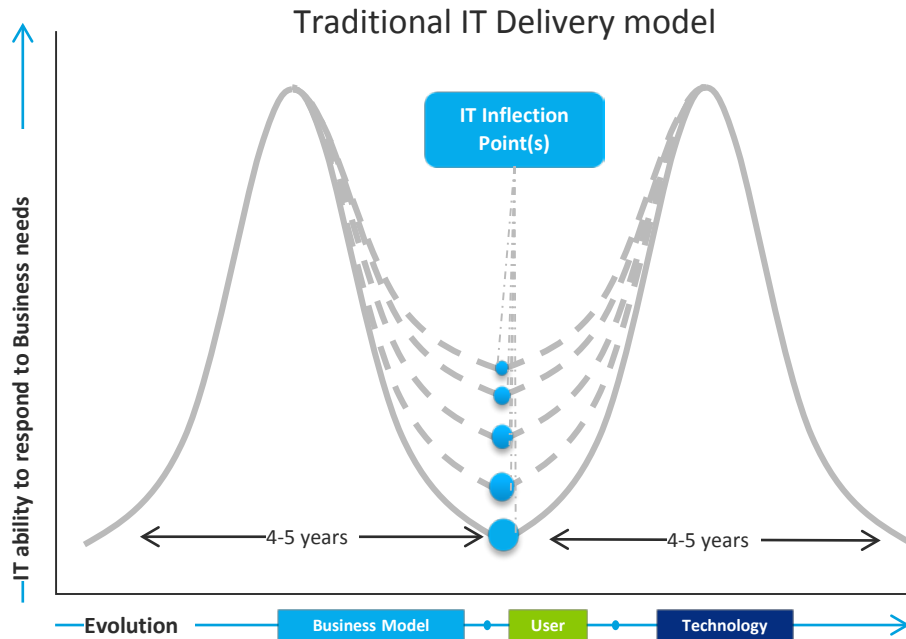
Integration Points

- 1** Integrate Historical Project information from Financial / Vendor / Project Management
- 2** Integrate Job # and Customer # from CRM
- 3** Integrate Job #, Customer #, and WBS/CBS from Estimating
- 4** Integrate Job #, WBS/CBS, and Budgets from Budgeting
- 5** Integrate Subcontractor # and Insurance and Bonding information from Vendor Management
- 6** Integrate Job #, WBS/CBS, Budgets, and Actual Costs from Financial Management

SaaS, PaaS, IaaS

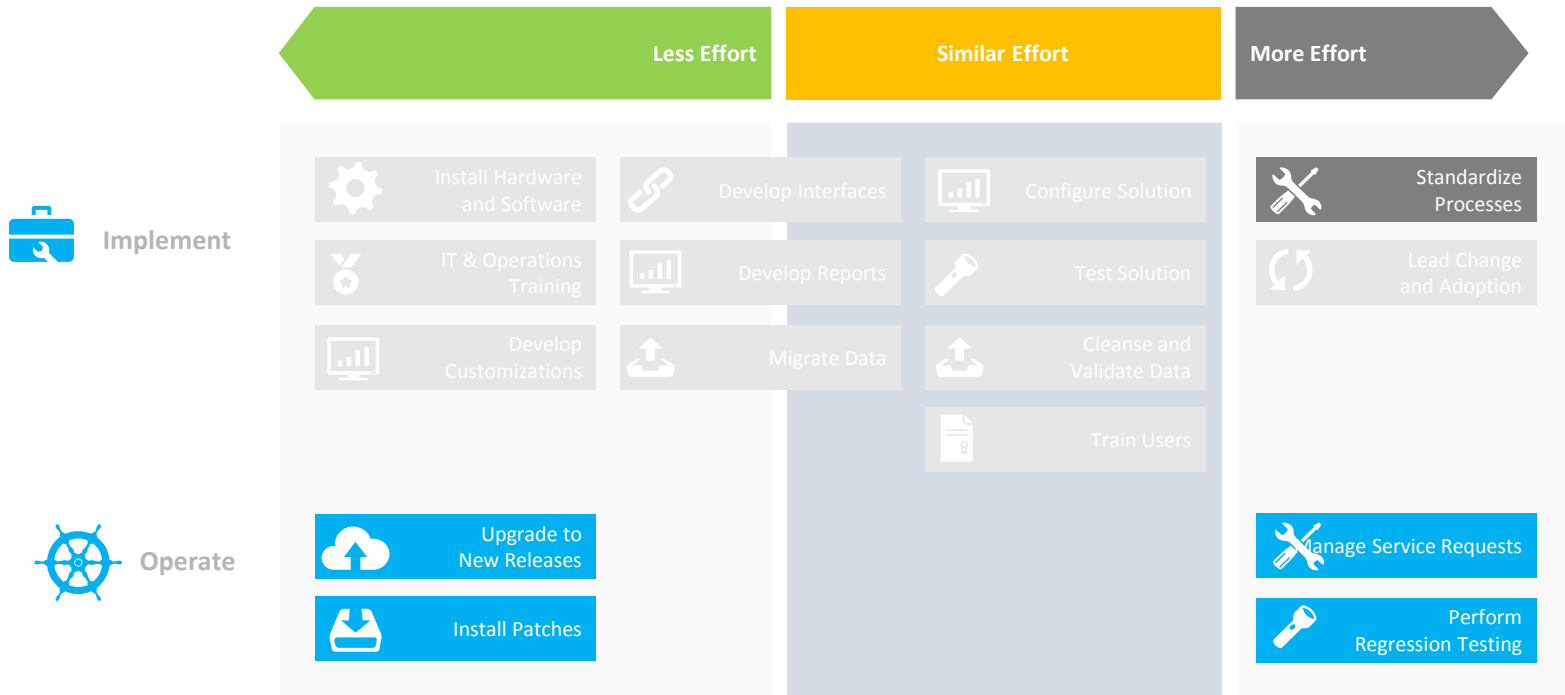
What is it and how does it
impact my business?

IT Delivery Model with SaaS for evolving Business and IT needs



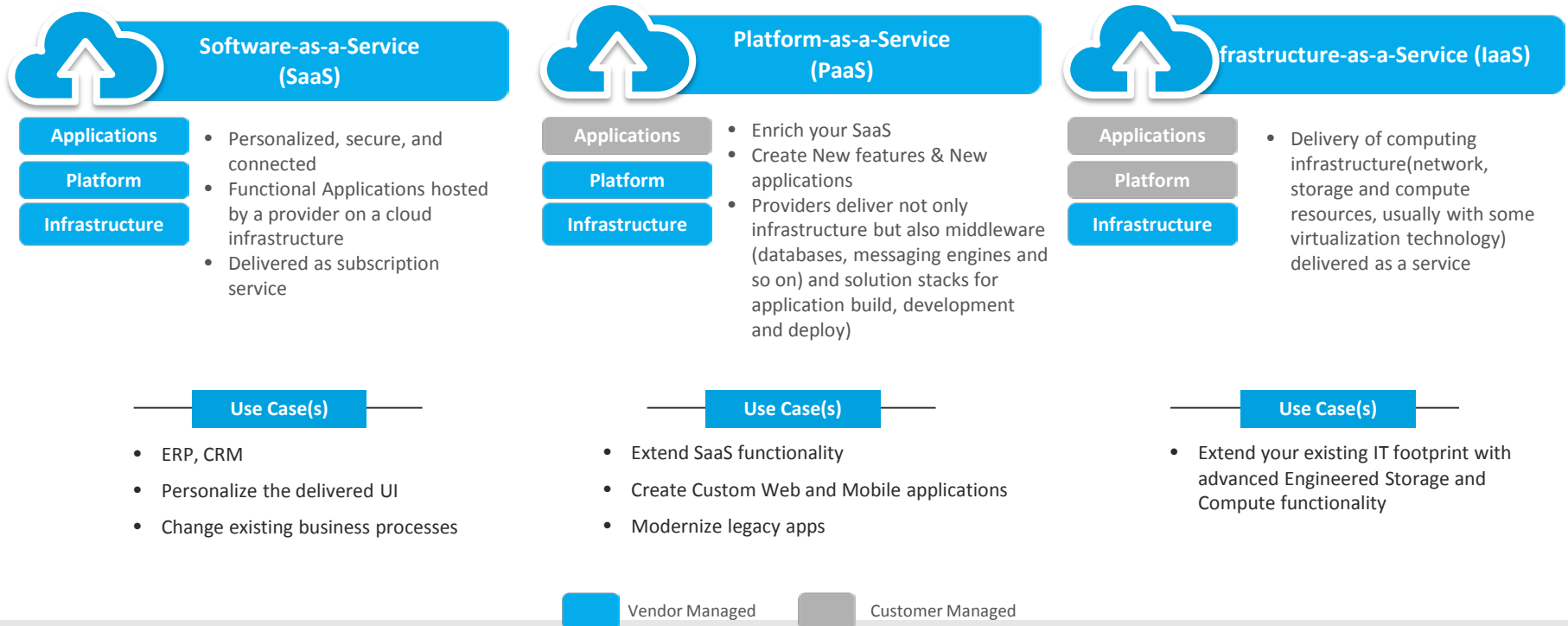
Cloud offers the agility, scalability, and continuous updates to features in order to meet business, users, & IT's evolving needs

How does the effort compare to on-premise ERP Implementations?



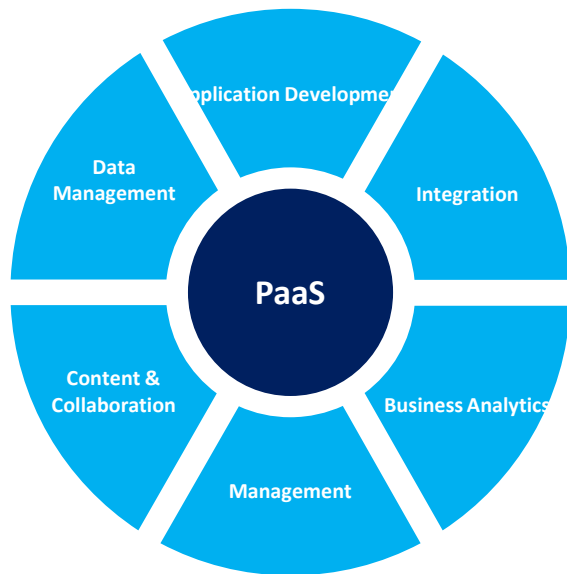
What is Cloud?

Cloud computing is a model for enabling convenient, on-demand access to a **shared pool of configurable computing resources** (e.g. networks, servers, storage, applications and services), over the internet, that can be **rapidly provisioned** and released with **minimal management effort** or **service provider interaction**.



Oracle Platform as a Service

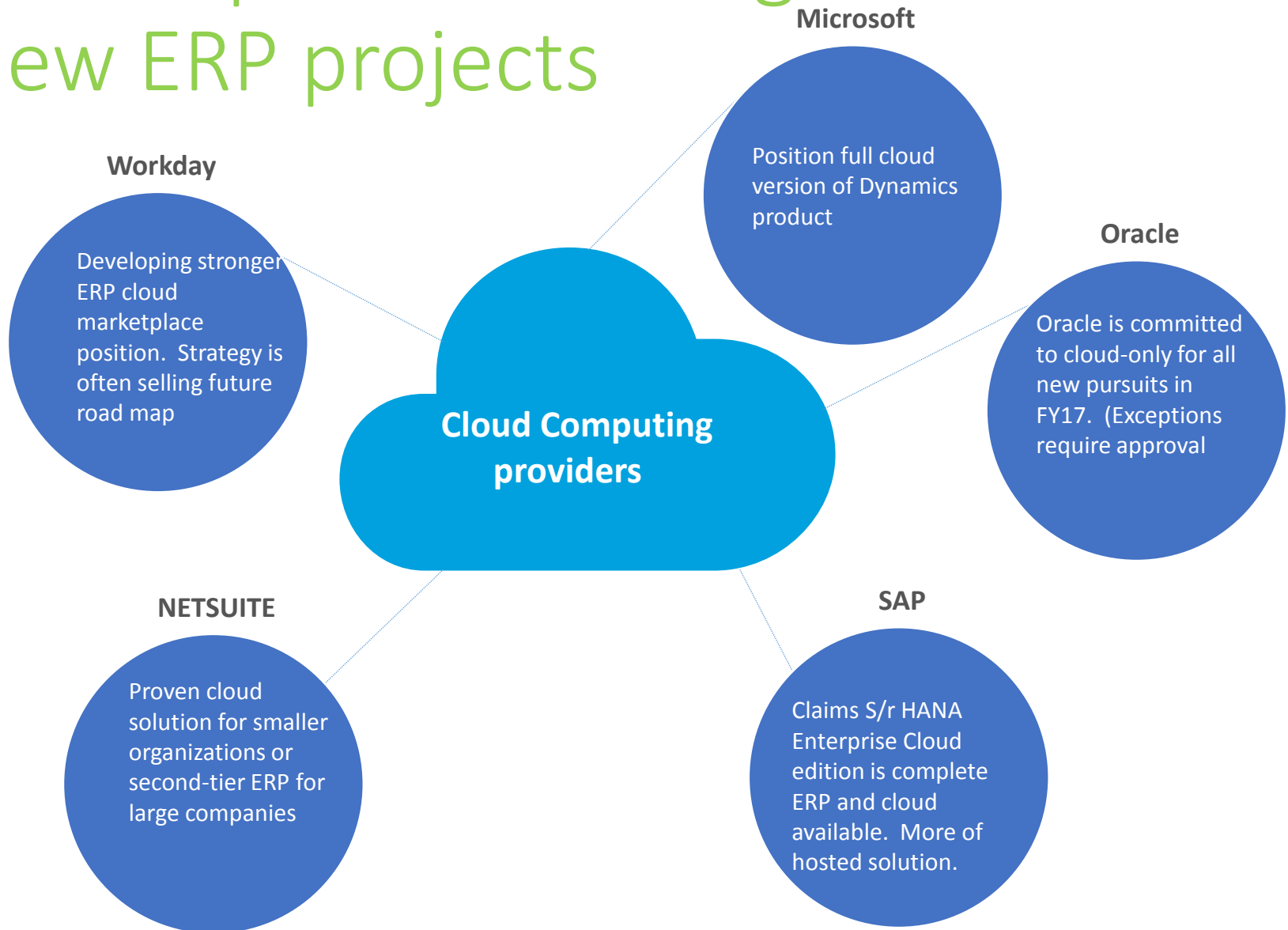
Oracle Platform as a service is a cloud service model that provides a platform for customers to develop, run and manage applications in the cloud. Oracle hosts software and hardware on its own infrastructure and delivers it as a service to customers.



Complete stack of software and infrastructure products to build and extend Oracle ERP Cloud and non-Cloud ERP solutions

- Eliminate the cost of maintaining applications, databases, middleware and the underlying infrastructure that supports them
- Provide platforms that facilitate faster development and deployment of applications, integrations, and business analytics
- Enable customers to innovate and transform their business operations leveraging a combination of cloud product offerings
- Well-suited for hybrid cloud scenarios due to binary compatible on-premises and cloud and dev/test in cloud and Prod on-premises
- Range of products provides clients ability to “mix and match” best-of-breed products from the PaaS suite, based upon need
- Protects investments made in IT staff and leverages their knowledgebase in Oracle’s on-premises products

Marketplace is moving to cloud for new ERP projects



Example Oracle's Cloud Offerings



Software-as-a-Service (SaaS)

ERP Cloud

- Oracle Financials Cloud
- Oracle Procurement Cloud
- Oracle Supply Chain Cloud
- Oracle Project Portfolio Management Cloud
- Oracle Accounting Hub Reporting Cloud

Customer Experience Cloud

Enterprise Performance Management Cloud

Human Capital Management Cloud



PaaS

(partial listing of PaaS services)

Java Cloud
Integration Cloud
SOA Cloud
BI Cloud
Mobile Cloud
Database Cloud



IaaS

Compute Cloud
Storage Cloud
Private Cloud

Managed Cloud



Cloud Devices

(currently for PaaS and IaaS)

Enterprise Resources Planning Solutions

What's new and how does
it impact my business?

Enterprise Resource Planning – ERP Cloud

New Functionality

- ERP Cloud now contains: Financials, Accounting Hub, Project Execution Portfolio and Financials Management, Risk Management, Revenue Management, Procurement, HCM and SCM (limited)
- Project Controls, Costing and Task Management

How do I Prepare?

- Upgrade to the latest version of your software
- Reduce customizations
- Prepare for business discussions the answer the question “Why Not?”

Why is it Important?

- ERP Cloud continues to add functionality at a rapid pace
- Will soon be a viable alternative to On-Prem
- Can be integrated to On-Prem for best of breed solutions

Enterprise Resource Planning – JDE

New Functionality

- Environmental Accounting
- Health and Safety
- Project & Government Contract Accounting
- Project Portfolio Management
- Advanced Job Forecasting
- IFRS Revenue Recognition Model
- Mobile user and Store and Forward

How do I Prepare?

- Upgrade to the latest version E1 9.2
- Assign a functionality champion
- Get trained
- Download the ASU for Revenue Performance Obligations
- Review functionality in Advanced Job Forecast around the use of work orders (new HA ledger), new MOC, and detailed ETC calculations
- Prepare for JV Accounting changes
- Leverage JDE mobile applications
- Consider Best of Breed to leverage components of ERP Cloud

Why is it Important?

- JDE continues to invest in industry-specific functionality
- JDE is very IoT centric
- JDE continues to invest in the user experience through User Defined Objects (UDO) and Cafeone

Enterprise Resource Planning – EBS

New Functionality

- Modern User Experience and Mobility
 - Converged look and feel with Cloud
 - Optimized Tablet user interface
 - Endeca Information Discovery
- Functional Advancements
 - Advanced Asset Management
 - Procurement Command Center
 - Advance Project Planning
 - Schedule of Values
 - Map Visualization
 - OTL Timecard Automation

How do I Prepare?

- Upgrade to the latest version 12.2.5
- Prepare for more mobility
- Get trained
- Align EBS and Cloud vision
- Consider Endeca

Why is it Important?

- EBS continues to invest in industry-specific functionality
- Closer to the Cloud User Experience

Enterprise Resource Planning – SAP

New Functionality

- Optimized project management
- Mobility
- Performance analytics
- Visual design & construction
- Team collaboration
- Subcontractor collaboration
- SAP HANA enhancements

How do I Prepare?

- Upgrade to the latest version SAP ERP 6.0
- Consider an SI partner that has pre-built solutions (Kiewit)
- Prepare for functionality gaps and the need for development

Why is it Important?

- SAP continues to invest in industry-specific functionality, although more slowly than Oracle
- SAP continues to invest in HANA, needs development resources
- SAP still struggling with a complete Cloud solution

Enterprise Resource Planning – CMiC

New Functionality

- Integration with Vico (3D, 4D, 5D)
- New Revenue Performance Obligation
- Scheduling with Primavera
- New mobile solutions
- Cloud ready

How do I Prepare?

- If you are considering a change, be sure to understand the Selection Process.
- Concentrate on business process and functionality, not bells and whistles
- Use scripted demos with weighted scoring and results
- Don't be swayed but the most dominant player on the team

Why is it Important?

- CMiC leads the pack in solution completeness
- CMiC is Cloud enabled
- CMiC is 10 years old and a credible Tier 2 ERP
- Limited large client experience

Enterprise Resource Planning – Sage

/ ViewPoint

New Functionality

- Sage
 - Affordable Care Act
 - Payroll Outsourcing Interface
 - Integration to Sage CRM
 - Employee Self Service
 - Not a pure Cloud solution
- ViewPoint
 - ViewPoint Buys Maxwell Systems
 - Compliance with EEO, Certified Pay, DOT, OSHA, and ACA
 - Navigation still needs work

Why is it Important?

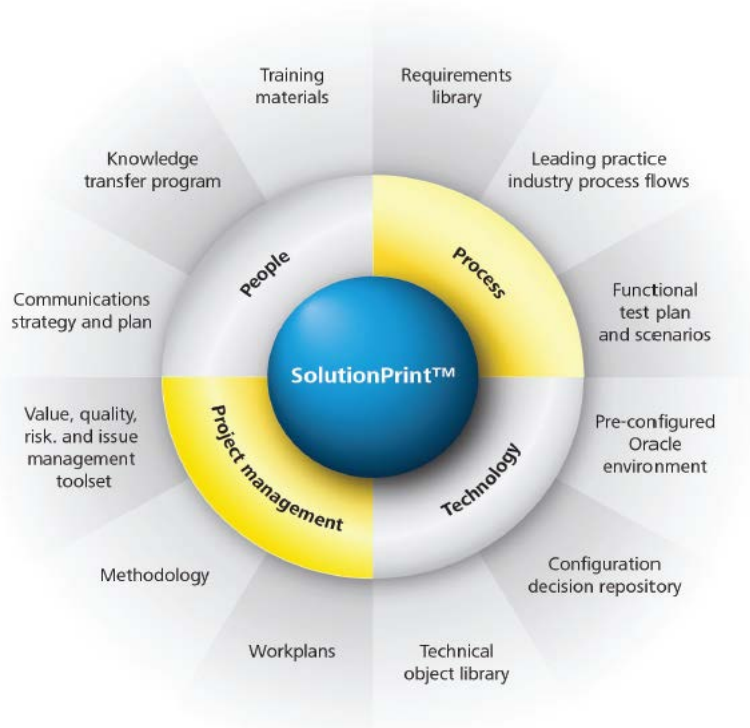
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Pre-Configured Solution

Introduction to the new
Oracle JDE SolutionPrint
for E&C

What is SolutionPrint™?

- Deloitte SolutionPrint™ is a package of ready-to-use instances and documentation sets that can be leveraged to improve the affordability of Oracle projects. The SolutionPrint™ includes:



Process Flows	100's of industry-specific detailed flows covering key process areas (OTC, PTP, PTM, RTR, etc.)
Requirements	1000's industry-specific requirements linked to the associated process steps
Project Plan	Single ~4000-line project plan encompassing all threads and phases of the implementation
Technical Objects	~100 objects typically leveraged in implementations
Configurations	Tested and industry-pertinent configurations of all modules within the solution

Increased Quality

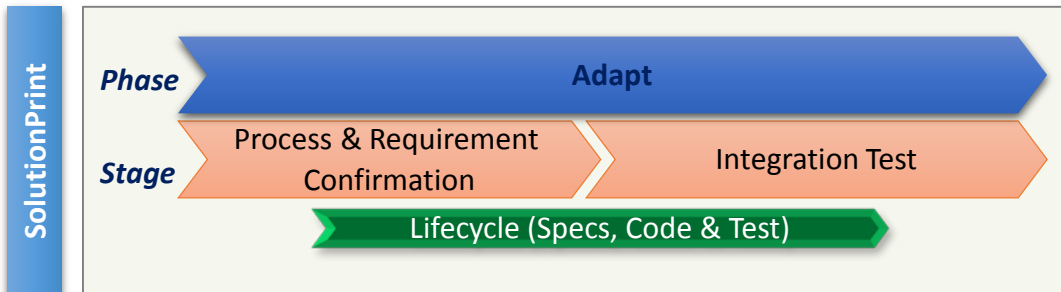
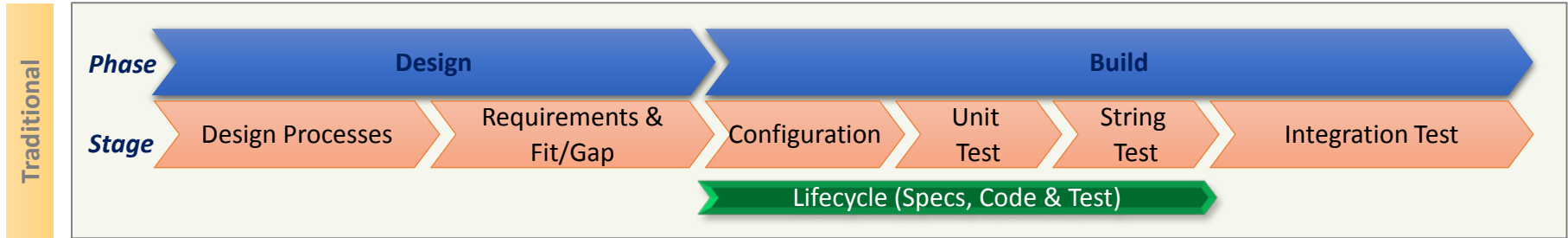
Time to Value

Project Affordability

Reduced Risk

The SolutionPrint™ Difference

- By collapsing the traditional “Design and Build Phases” of a waterfall approach into an initial “Adapt Phase”, SolutionPrint helps our clients to accelerate the project, focus on the most critical aspects of their business with the agility necessary to ensure their to-be processes are aligned with leading practices.



- “Cloud” delivery of a pre-configured JD Edwards instance provides greater agility
- Immediate Process Confirmation allows development to start

SolutionPrint Differentiators

Leverage industry specific best-practice processes	Minimize configuration, unit testing and string testing stages
Leverage industry specific system as part of design confirmation	Jump directly into integration testing
Early identification and head start on development and data	Timely Oracle knowledge transfer to client due to early system exposure

Introducing the NEW SolutionPrint™ for Engineering & Construction

- Meets E&C specific requirements around:
 - Environmental Accounting
 - Health and Safety
 - Project & Government Contract Accounting
 - Project Portfolio Management
 - Advanced Job Forecasting
 - IFRS Revenue Recognition Model
 - DSI mobility integration

This preconfigured JDE solution from Deloitte with accelerators addresses many of the pressing issues facing the core ERP functions found in E&C today and provides our clients with a shorter time to value and reduced Total Cost of Ownership. This SolutionPrint is based on Deloitte's deep industry expertise and knowledge and addresses Key Design Decisions, KPIs, JDE gaps and the JDE roadmap.

Cloud Decision Tree

A move to Cloud can be positioned as a transformative event for IT organizations as they educate, equip and prepare themselves to be the next generation, modern IT organization. Cloud fuels a shifts of focus from traditional to higher value added activities. Same is true for business organizations and their operations. A well thought out decision making process is essential to keep the right focus

