MONASH University

Information Technology

FIT 3138
Real-Time Enterprise Systems

Lecture 8

ERP Implementation Life Cycle and Strategy

Unit Outline

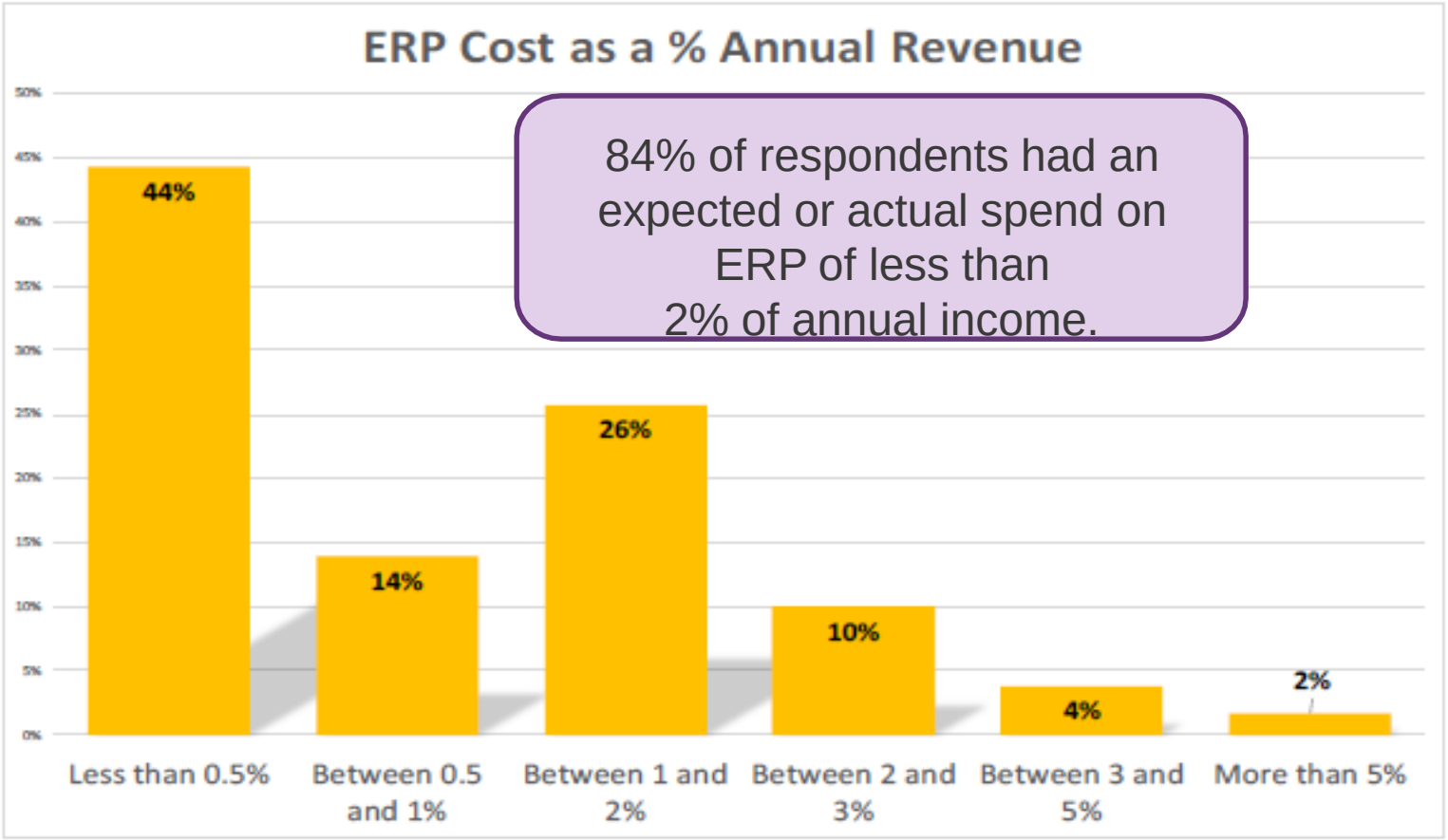
Week	W/C	Topic	Deadline:
1	25/07	Introduction to FIT3138; Introduction to Enterprise Systems	
2	01/08	Systems Integration - Role of ERP in Business Functions and Processes	Assignment 1 handed out
3	08/08	The Development of ERP Systems	
4	15/08	ERP in Sales and Marketing & CRM	
5	22/08	ERP in Production and Supply Chain Management	
6	29/08	Accounting in ERP Systems	
7	05/09	Process Modelling & Improvement	Assignment 1 due Assignment 2 handed out
8	12/09	ERP Implementation – Life Cycle & Strategy	
9	19/09	ERP Implementation – Risk Management	
Mid-semester Break (26 Sep – 30 Sep 2022)			
10	03/10	ERP Implementation Issues: Managing Change	
11	10/10	Technologies supporting real-time enterprise	
12	17/10	Exam Review	Assignment 2 due

Objectives

- Discuss the ERP implementation life cycle and strategy
- Discuss some pre-implementation tasks to kick off a seamless implementation.
- Discuss the ERP implementation challenges
- How to ensure a successful ERP implementation
- Understand the importance of good project management in an ERP endeavour
- Know the components of a project organisation and the roles and responsibilities

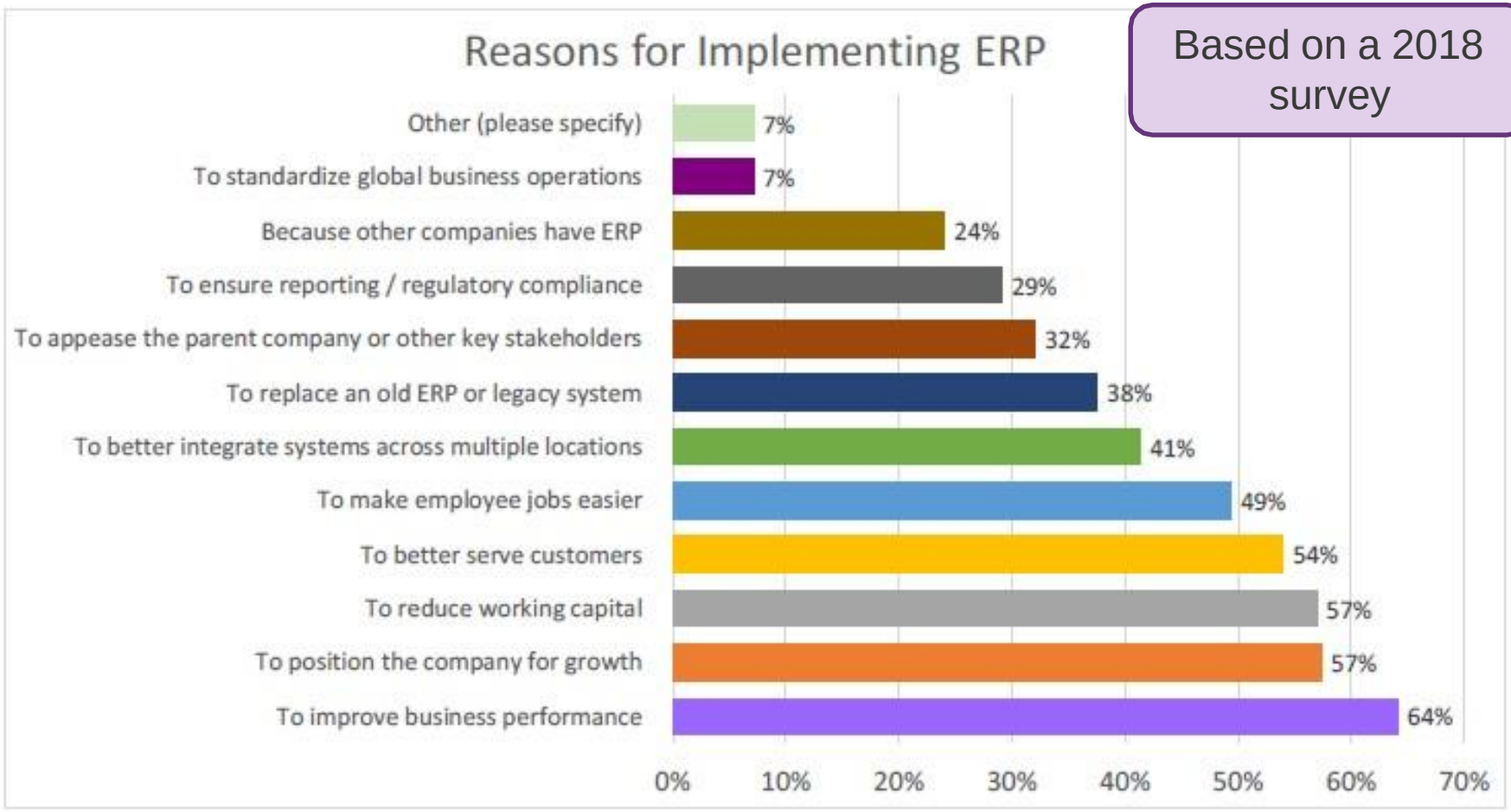
Introduction…

ERP Spending



Introduction…

Reasons for implementing ERP

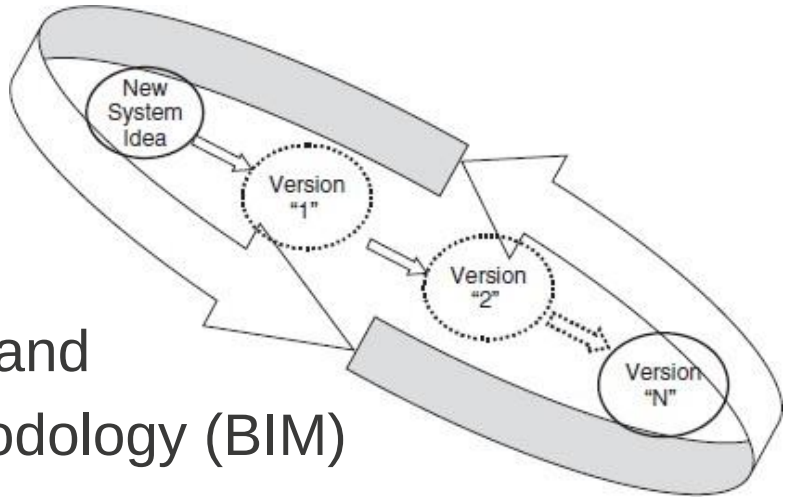


Based on a 2018 survey

ERP Implementation Life cycle

- Like SDLC (system development life cycle), an ERP development life cycle provides a systematic approach to implementing ERP software
- Different vendor-driven methodologies or approaches using either
  - Traditional ERP development life cycle, or
  - Rapid ERP life cycles – e.g.:
    - Total Solution,
    - FastTrack,
    - Rapid-Re,
    - Accelerated SAP (ASAP), and
    - Business integration methodology (BIM)

Refer to Motiwalla text Pg 100 – 105

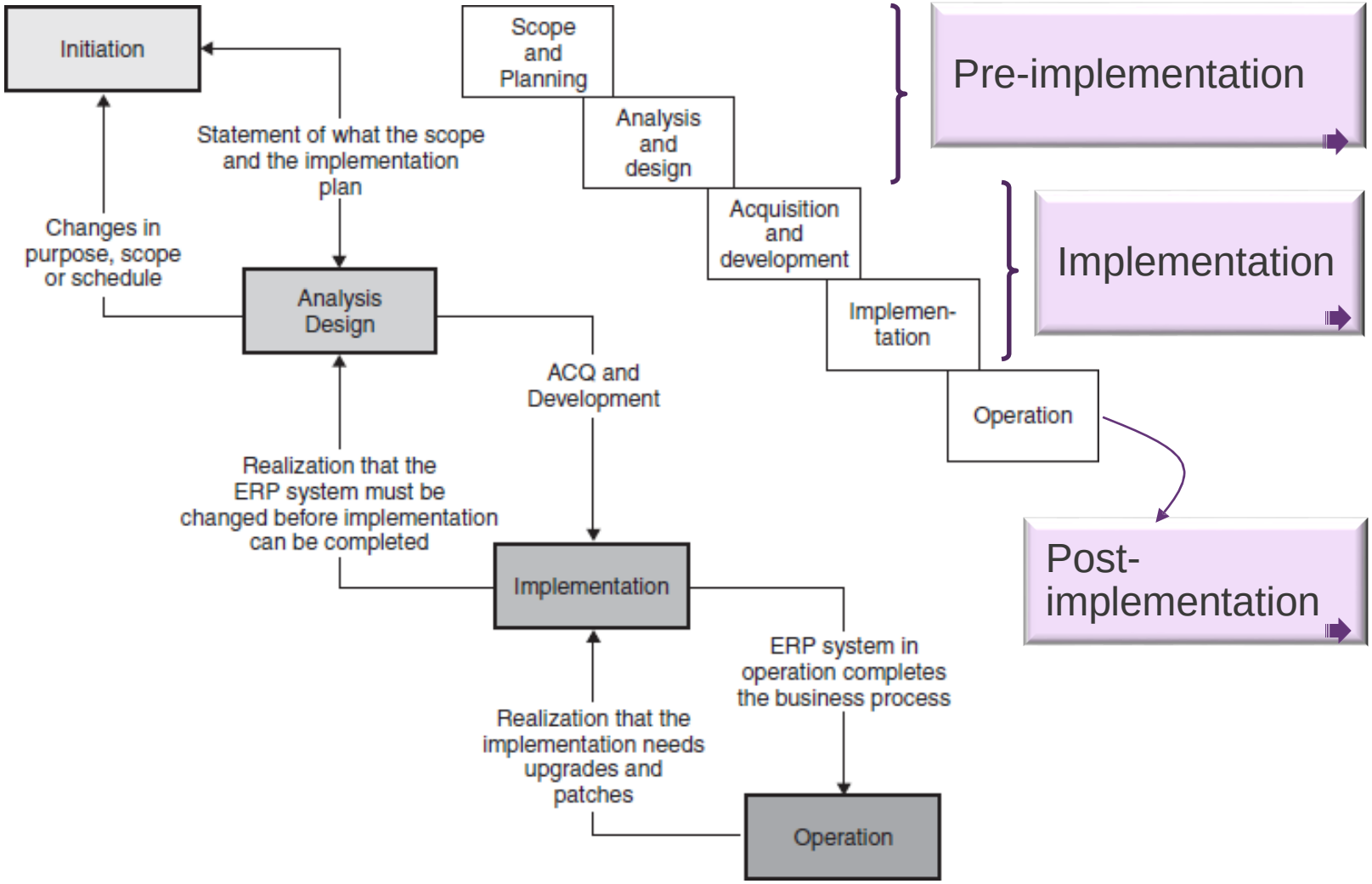


Accelerated SAP (ASAP)

- The ASAP roadmap is a detailed project plan by SAP that describes all activities in an implementation.
- Consists of five phases:
  - **Phase 1:** *Project preparation*
  - **Phase 2:** *Business blueprint*
  - **Phase 3:** *Realization*
  - **Phase 4:** *Final preparation*
  - **Phase 5:** *Go-live and support*

This was discussed in Lecture 7 (Slide 43 – 46)

Traditional ERP Life Cycle



Important Pre-implementation Steps

- STEP ONE: Identify success factors and potential risks
- STEP TWO: Determine implementation, integration and resource strategies
- STEP THREE: Define process, organisational and infrastructure changes
- STEP FOUR: Focus on data governance
- STEP FIVE: Determine future KPIs and reporting needs
- STEP SIX: Address organisational change management on the front-end
- STEP SEVEN: Leverage the expertise of an independent consulting firm

1. Identify success factors and potential risks

- Develop a business case.
- Determine the scope and what the system needs to do to achieve the project goals and success factors
- Identify potential risks and gaps.

List of Scopes and Commitments

Scope Type	Description/Key Decision Points
Gap Analysis	Gap analysis is the evaluation of the functions provided by the ERP system compared with the operational processes necessary to run your business
Physical Scope	Establishes which sites will be addressed, the geographical locations of the sites, and the number of users.
BPR Scope	Will the current processes be refined, replaced, or eliminated. What users, departments, sites will be affected?
Technical Scope	How much modification will be done to the ERP software? What processes will be utilized as is and which will be customized?
Resource Scope	How much time and budget is allocated for the project?
Implementation Scope	Which modules should be implemented? How should the modules be connected to the existing system?

2. Determine implementation, integration and resource strategies

- Identify the system functionality, modules, integrations prior to go-live and prioritize the essentials for the different phases.
- Ensure there is adequate time built into the project for testing and training.
- Plan for a realistic and achievable timeline.
- Maintain some “work around” to keep the transition manageable
- Identify which systems/applications are a must have on go-live
- ERP conversion strategy – Phased vs big bang approach or hybrid?
  - ➢ Decision depends on:
    - Overall company size
    - Complexity
    - Budget

3. Define process, organisational and infrastructure changes

- Develop and update standard operating procedure's (SOP's)
- Align with industry standards and leveraging best practice processes
  - identify processes outside of best practice
  - May require configuration/customization efforts; or
  - Be prepared to change processes
- Organisational changes
  - determining a new org structure that supports new roles and responsibilities
- Physical and network infrastructure changes
  - Identify potential to align and organise the system infrastructure,
  - Breaking down siloes and defining the new structure before the new system is implemented

4. Focus on data governance

- "Garbage in, garbage out."
  - Company should complete at least one thorough round of data cleansing before data migration.
  - Determine what is master data and reduce redundant entries.

- New systems would most likely have advanced data analytics or predictive analytics capabilities.
- In order to perform extensive data analysis, data needs to be captured and classified properly.
- Important to spend time classifying data groups for future reporting.

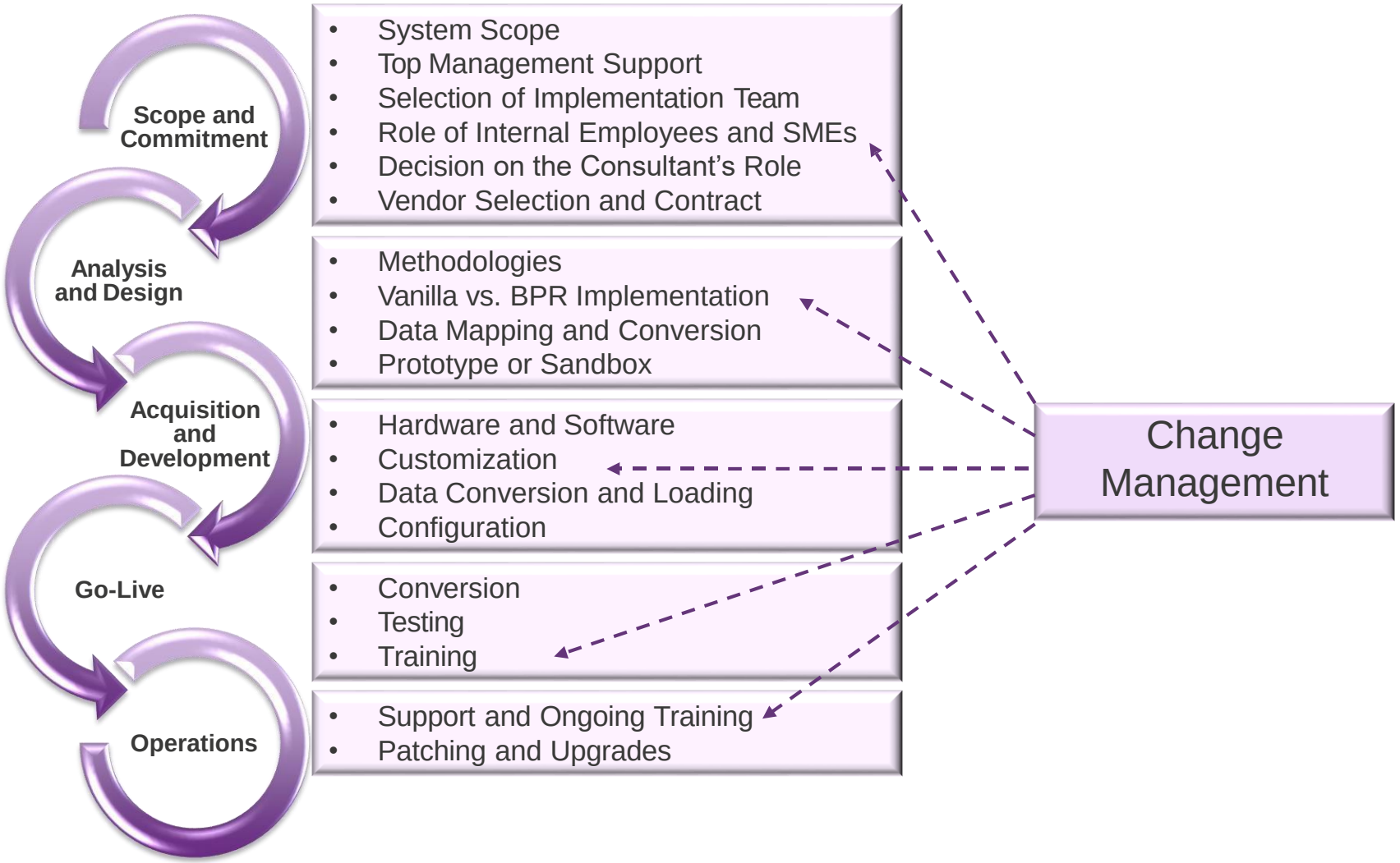
5. Determine future KPIs and reporting needs

- Define which key metrics are needed prior to implementation.
- Which standard reports will you be utilizing?
- Which custom reports will need to be designed?
- Determine the fields required to capture useable data for analytics and reporting.
- Create pre-project and post-project metrics to track.
- Creating benchmarks for all departments to gauge the success of the project.

6. Address organisational change management on the front-end

- It is never too early to start communicating with employees and stakeholders.
- There's bound to be resistance to change and gaining end user adoption of a new system or new process is crucial.
- Organizational change starts from the top
  - Executives need to have buy-in for the project and need to show support.
  - Leaders, subject matter experts and well-respected employees should be working on the implementation team.
  - Crucial to take time to form a strong implementation team – who should be the champion for change

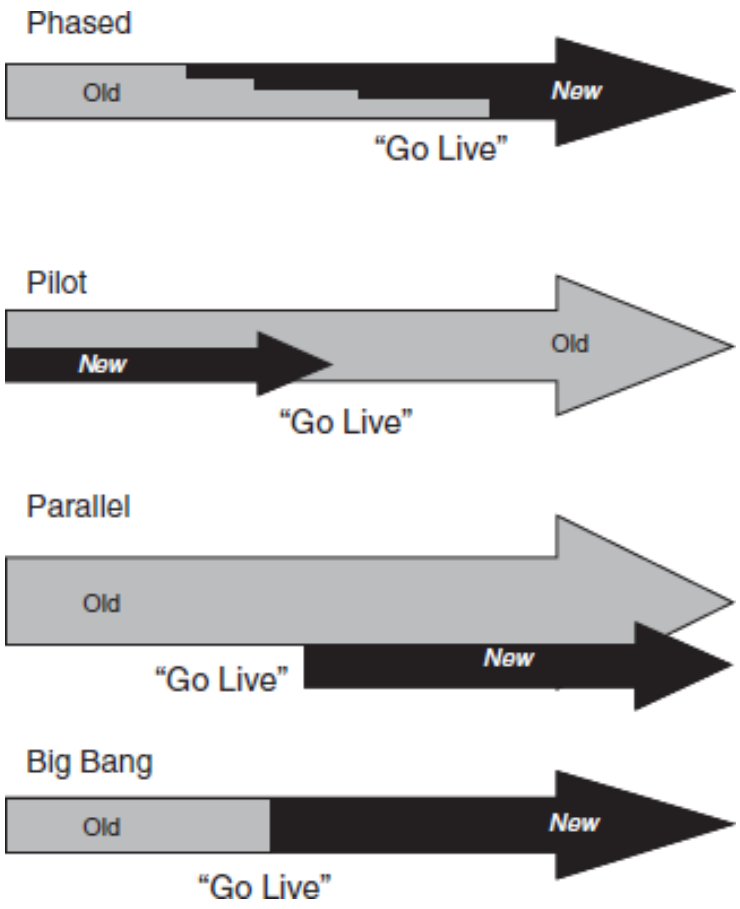
ERP Life Cycle Phases Summary

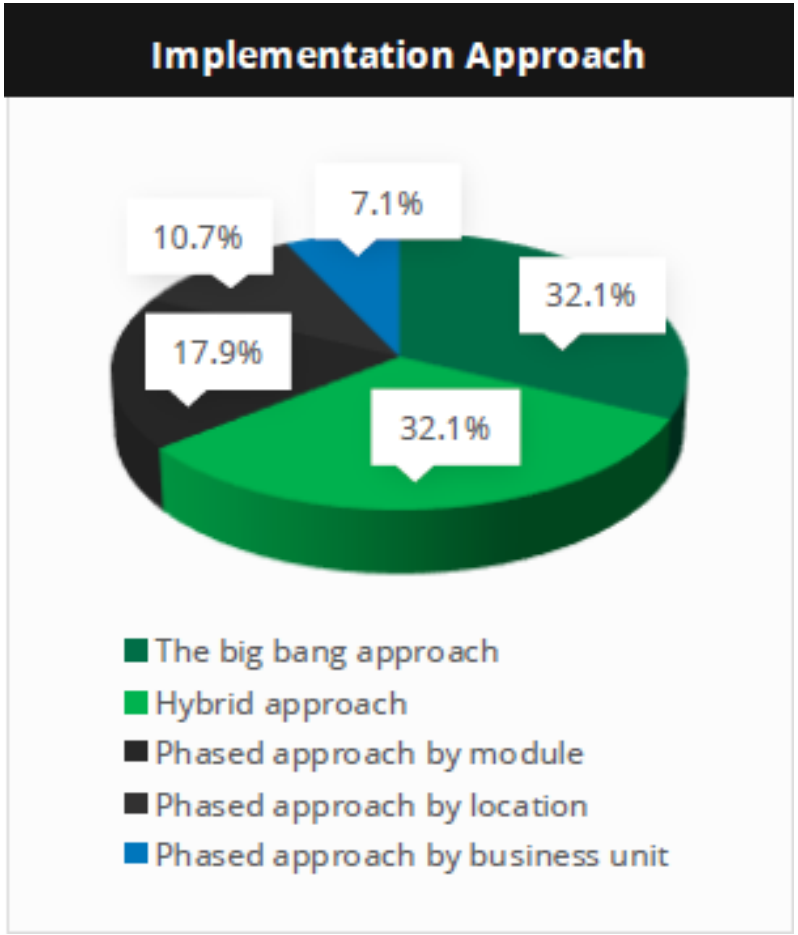


7. Leverage the expertise of an independent consulting firm

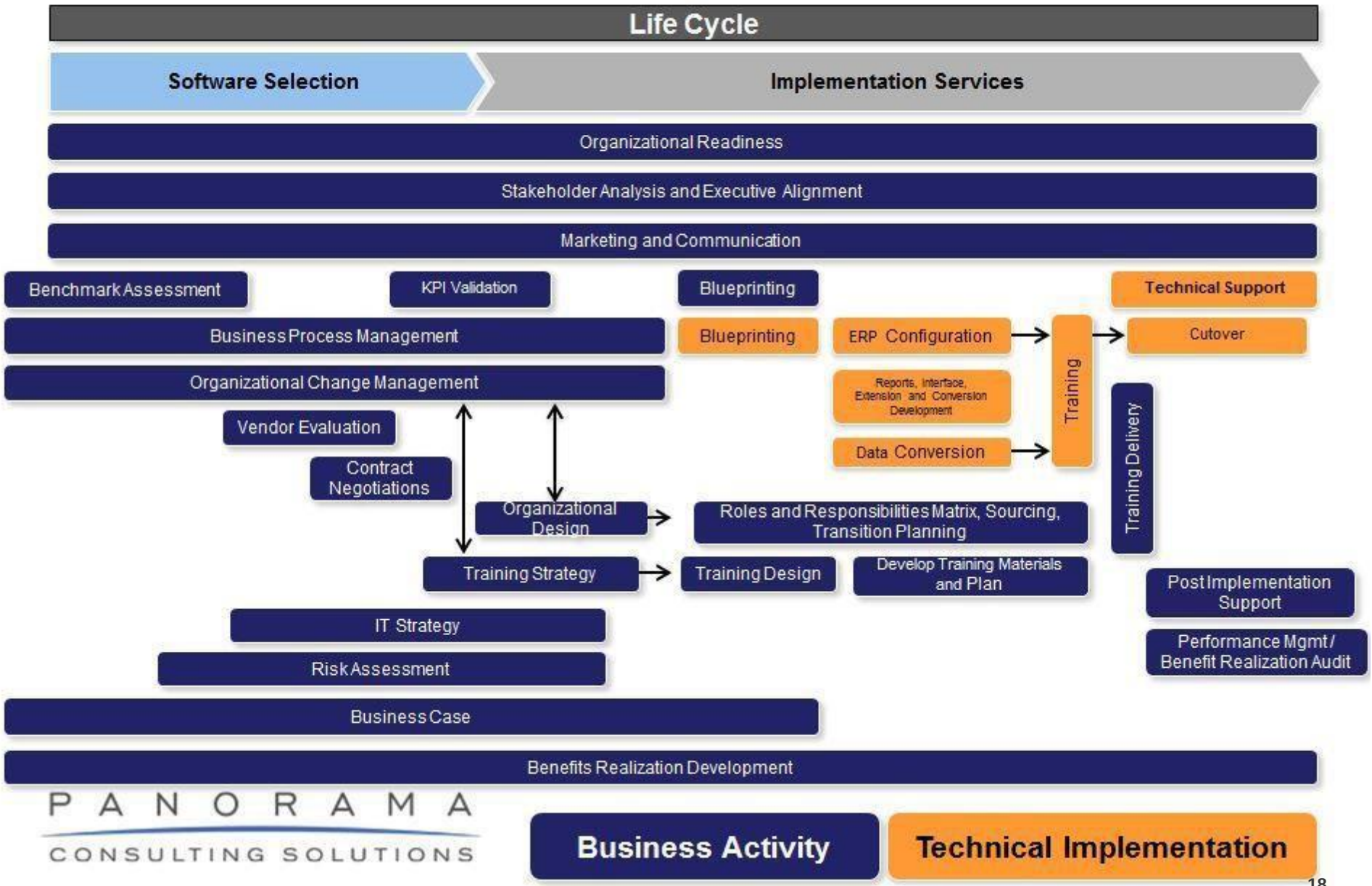
- Selecting the right ERP software and implementation requires the unbiased advice
- An independent ERP consulting firm has the expertise necessary to guide an organization through a successful and unbiased software selection
- An independent ERP consulting firm has no association with specific vendors and, therefore, no potential conflicts of interest and thus would act in the best interest of the client.
- No ERP system, no matter how advanced, automatically fixes inefficient business processes. This is why many independent consultants emphasize the importance of focusing on business process reengineering and organizational change management before software selection.

Implementation…ERP Conversion Approaches





ERP Project Life Cycle



ERP Implementation – Year-to-Year Comparisons

	2018 ERP Report	2019 ERP Report	2020 ERP Report	2021 ERP Report
Top Industries	Manufacturing and Distribution	Manufacturing and Information Technology	Manufacturing and information Technology	Manufacturing and information Technology
Annual Revenue	$439M	$1.78B	$1.98B	$28.4M
BPM Focus	49% improved most processes	30% improved most processes	37% improved most processes	50% improved most processes
OCM Focus	13% had an intense focus on OCM	18% had an intense focus on OCM	23% had an intense focus on OCM	23% had an intense focus on OCM
Budget Adherence	36% stayed on budget	55% stayed on budget	62% stayed on budget	40% stayed on budget
Top Reason for Budget Overruns Schedule Adherence	Unanticipated technical/organizational issues	Scope expansion	Scope expansion	Additional technology
Schedule Adherence	21% stayed on schedule	42% stayed on schedule	53% stayed on schedule	54% stayed on schedule
Top Reason for Schedule Overruns	Organizational Issues	Organizational Issues	Organizational Issues	Organizational Issues

IT Project Failure statistics

Standish Group (2001)

- US spends $275B per year on 200K projects
  - 28% of projects fail,
  - 46% were “challenged”,
  - 26% succeeded (out of 23,000 projects)

Projects deviate from budget, schedule and scope

- Over 50% of projects run over time
- *31.1% of projects will be cancelled before they ever get completed*

Standish Group, “CHAOS 2007”: (2007)

- A staggering 39% of projects with budgets over US$10 million failed
- Do not achieve their objectives
- Do not deliver the promised results
- Are not completed on time or within budget
- **WHY**?

http://www.standishgroup.com/chaos/introduction.pdf

Items in blue are directly or indirectly mitigated by an effective ERP OCM methodology

Top Reasons for ERP Failures

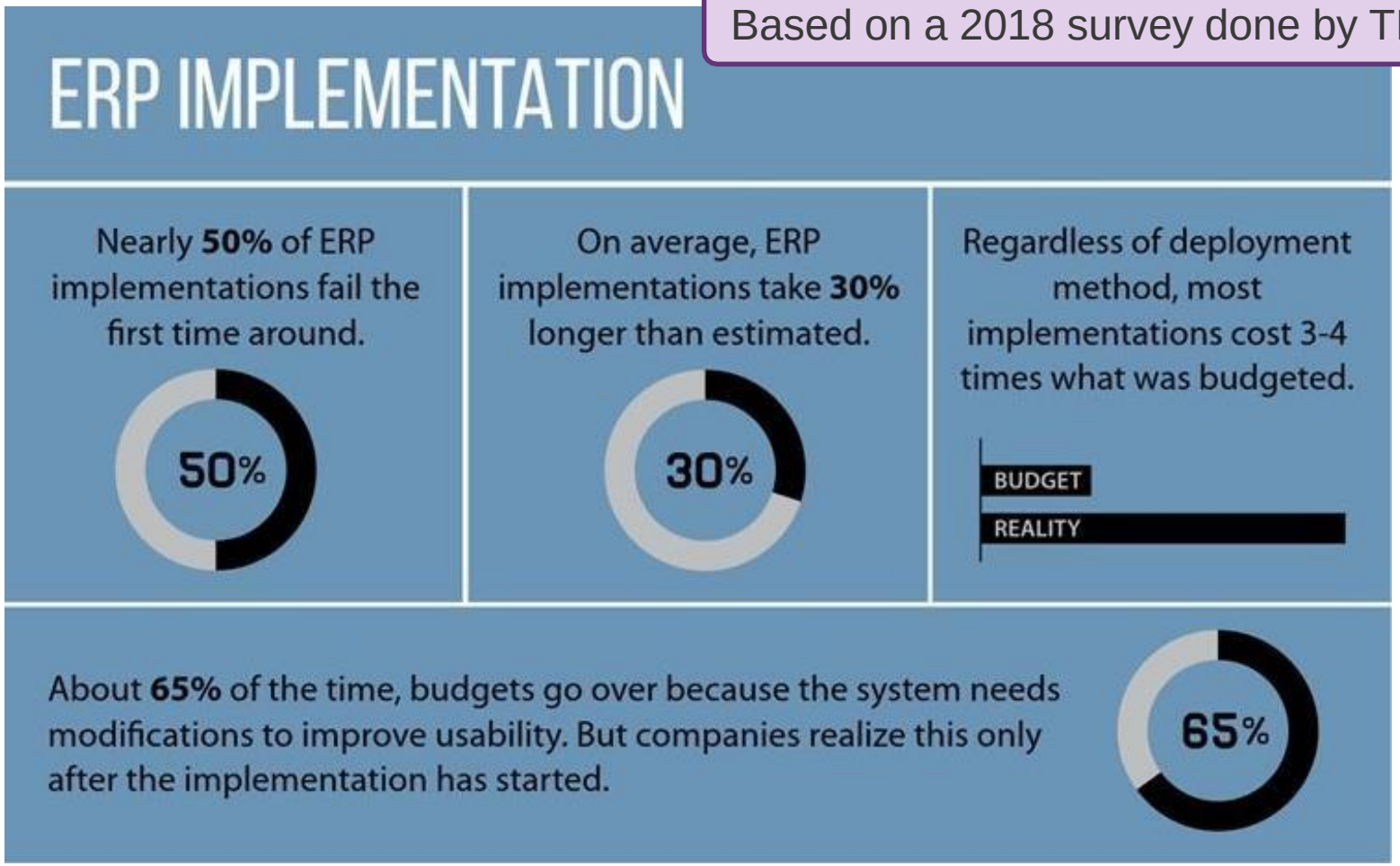
Lecture 10

- Lack of purpose for implementing ERP
- Not going into the project with the 'eyes wide open'
- Lack of executive and management buy-in
- Not leveraging the "A-Team" from the business
- Not choosing software that is aligned with the business and key requirements
- Misalignment between software configuration and business processes/workflows
- Lack of effective OCM and training
- Weak internal and external project management
- Underdeveloped business case to manage business benefits

- http://panorama-consulting.com/youtube-top-reasons-for-erp-failures/

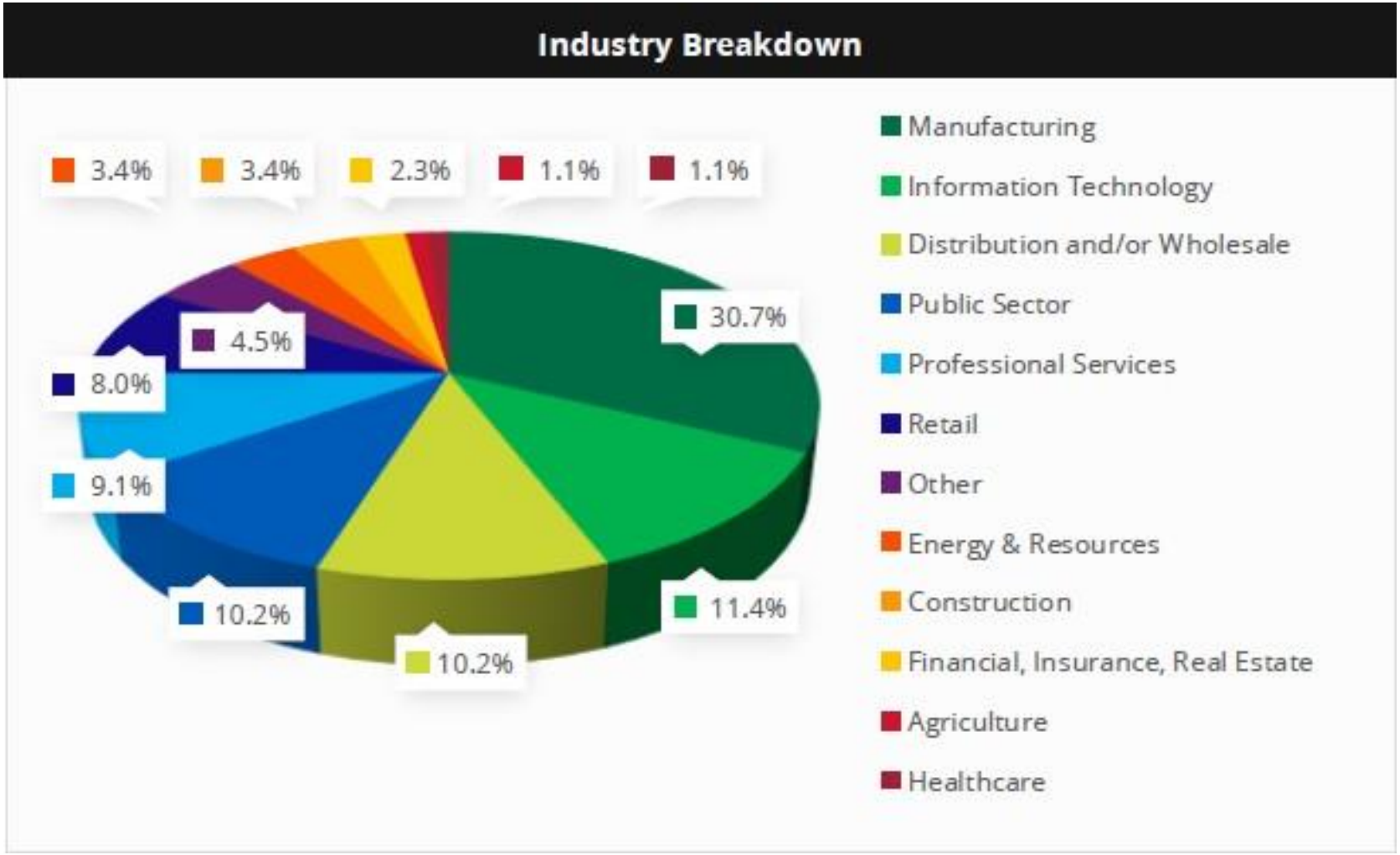
Some ERP statistics…

Based on a 2018 survey done by TEC



https://www3.technologyevaluation.com/getattachment/Content-Library/Research-TEC/2018/06/ERP-Software-Facts-Stats%E2%80%94and-Lessons-Learned/ERPFactsStats.jpg.aspx?lang=en-US

Some ERP statistics…



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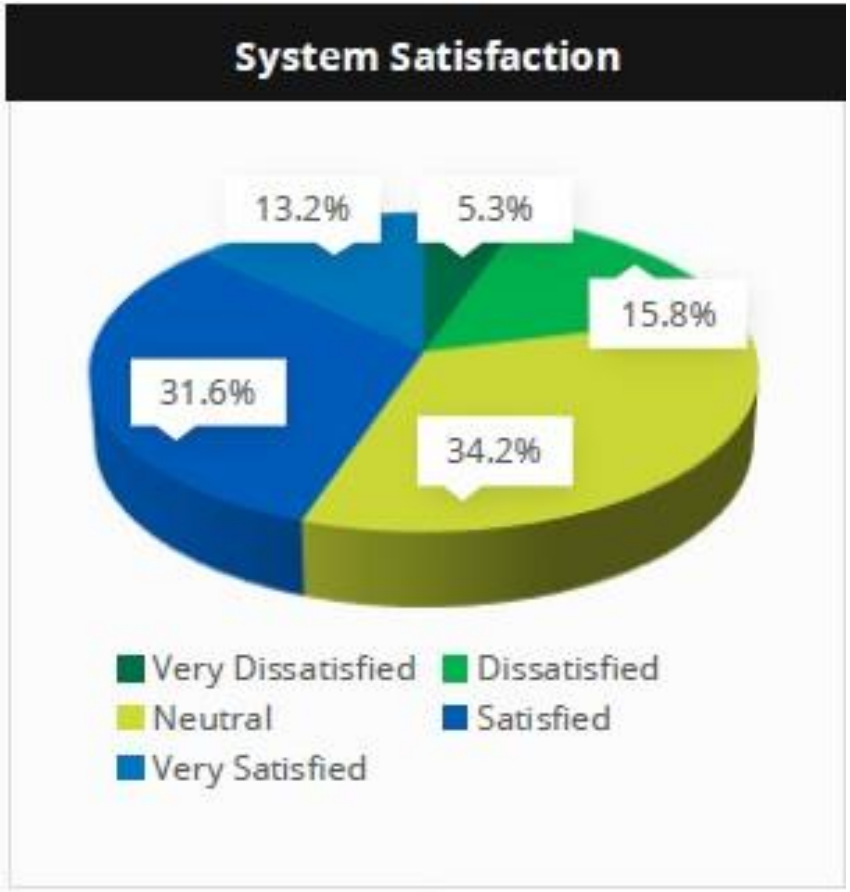
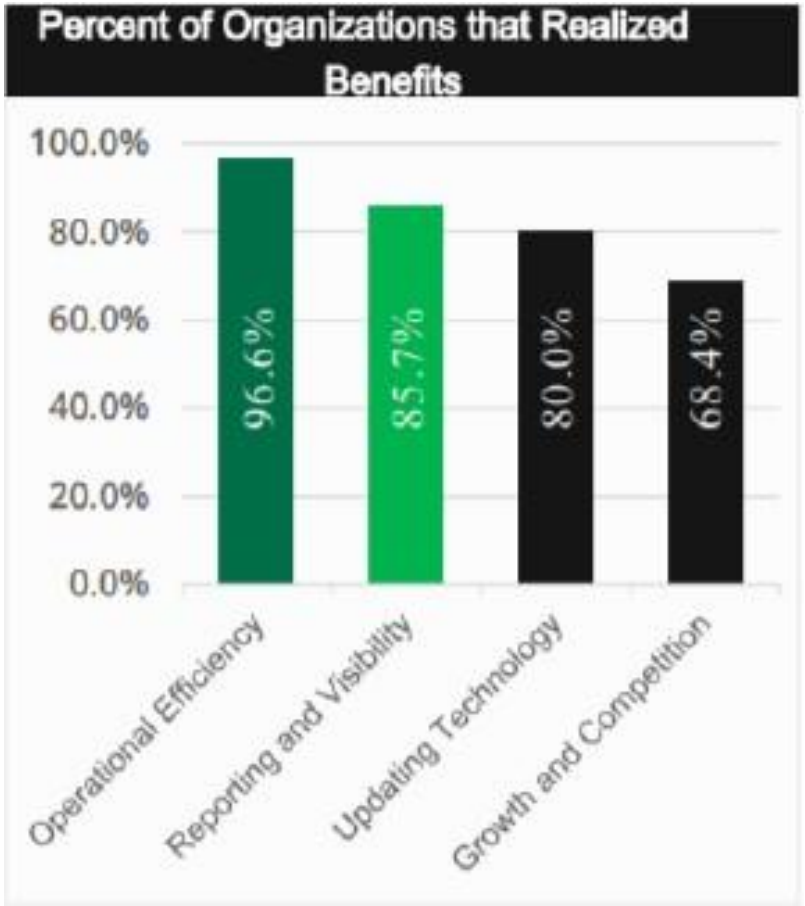
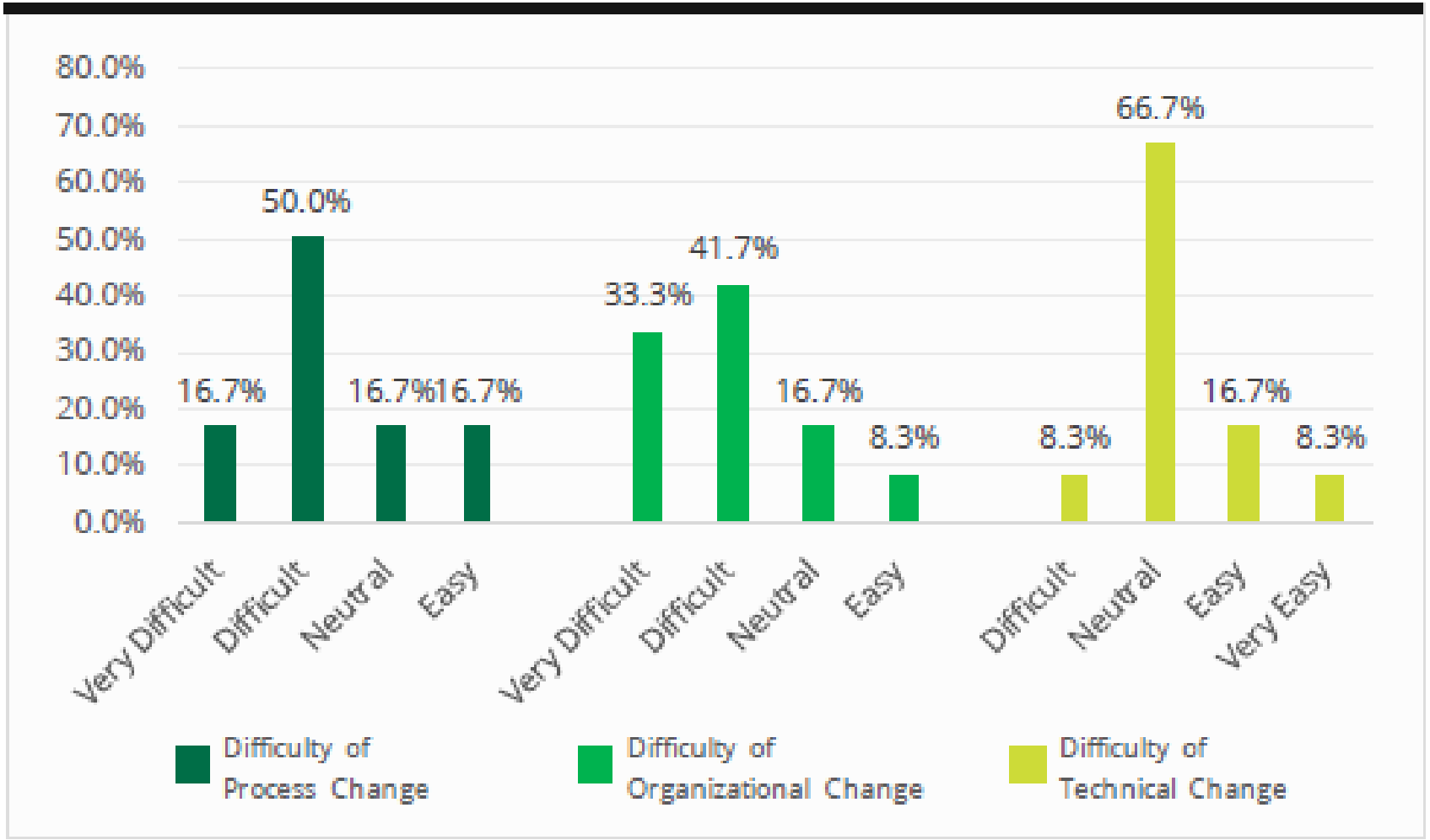




Difficulty of Different Aspects of Implementation



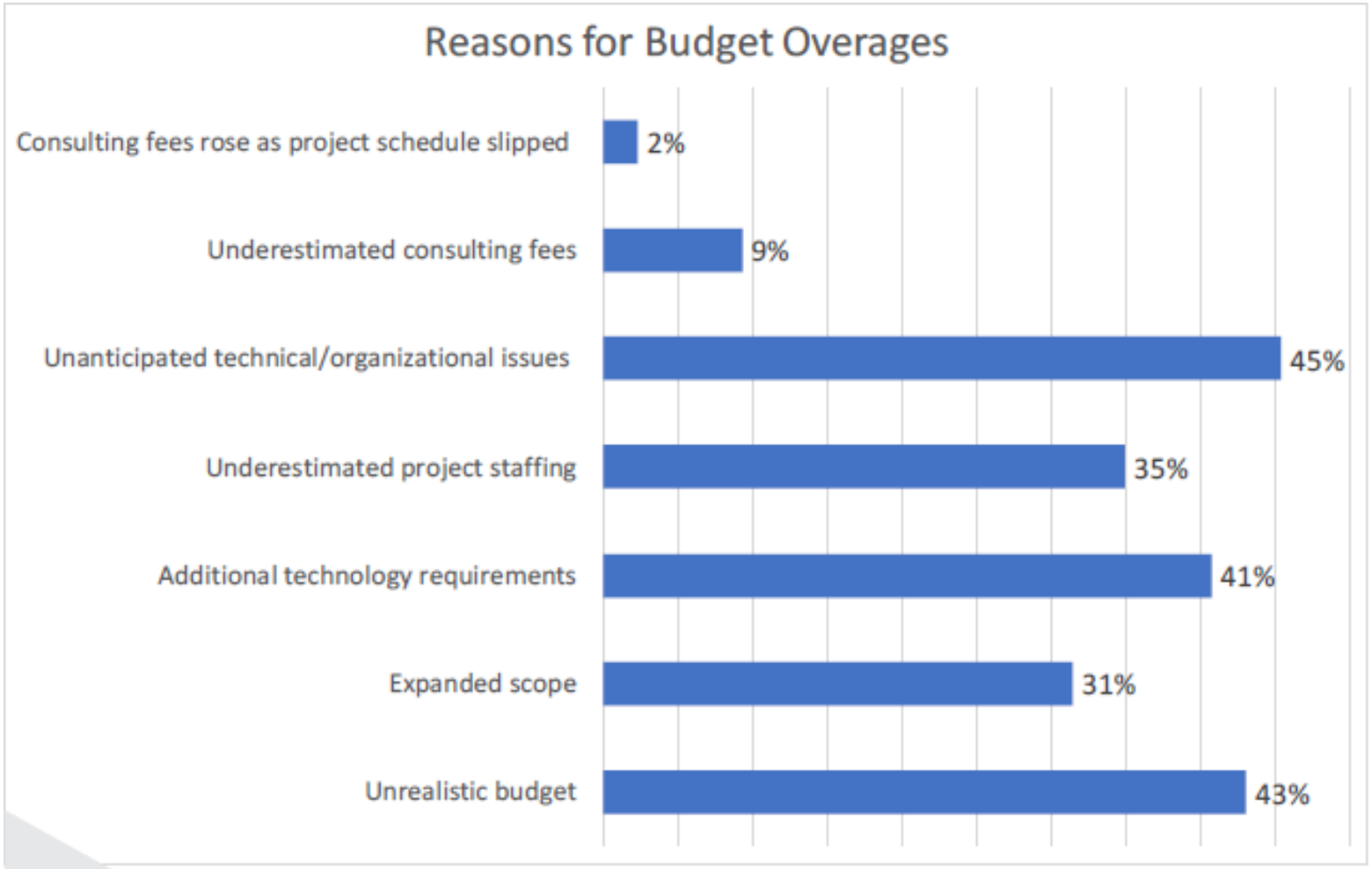
Budget Overrun

A COMMON REASON FOR IMPLEMENTATION FAILURES, OR IN THIS CASE BUDGET OVERRUNS, IS NOT HAVING EYES WIDE OPEN AS TO WHERE THE COST AND TIME DEDICATED TO THE PROJECT WILL ARISE.

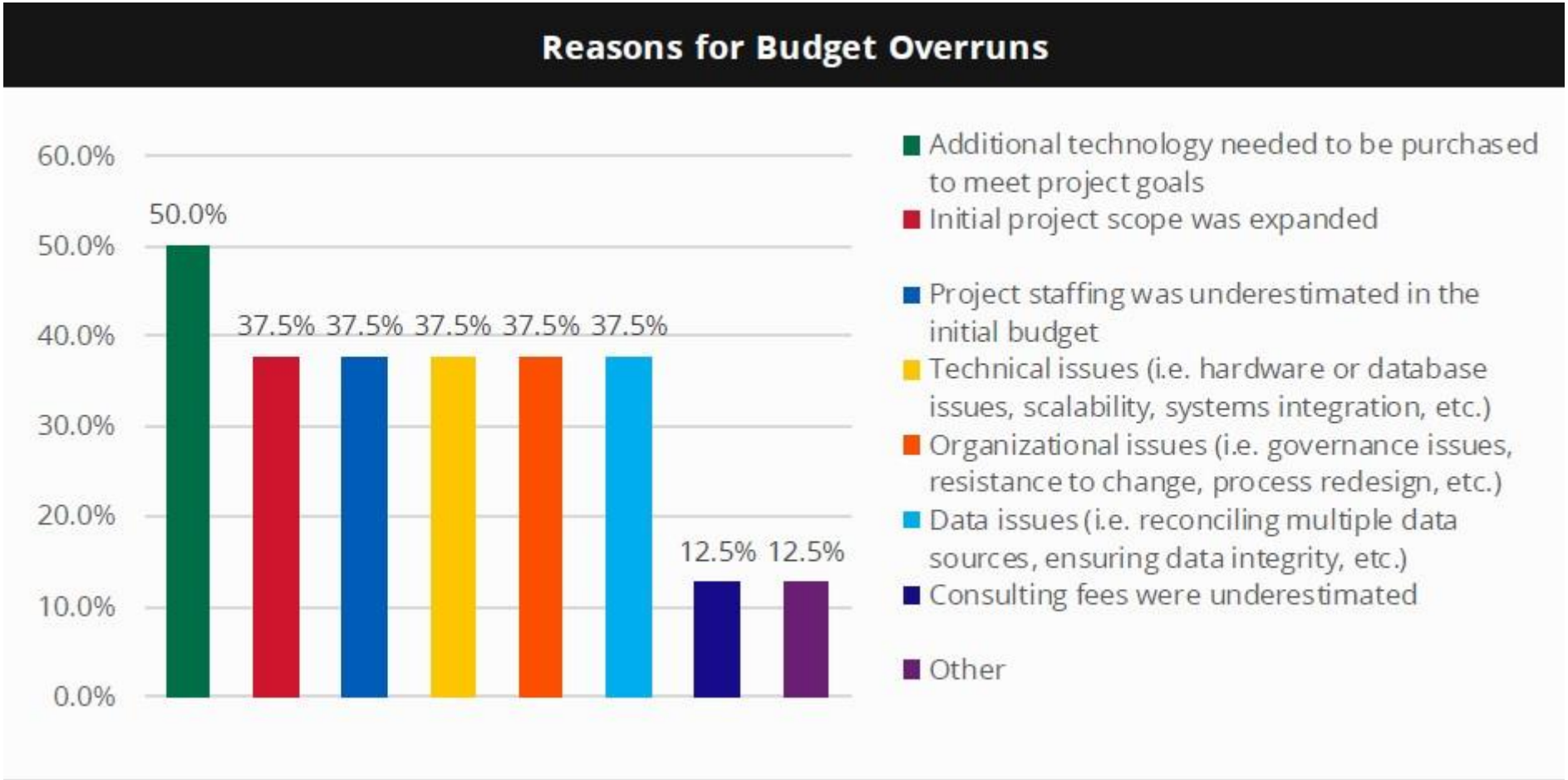
Top 3 reasons for budget overruns:

- unanticipated technical or organizational issues
- initial project budget was not realistic
- the addition of technology requirements

Reasons for Budget Overages



Reasons for Budget Overruns (2021)



Project Duration Overruns

Based on Panorama Consulting 2018 survey:

- 79% of the respondents reported that their projects exceeded their initial timelines, an increase of 20% from last year (2017)
- The average implementation duration was 17.4 months, compared to 16.9 months last year

To mitigate the possibility of a schedule overrun:

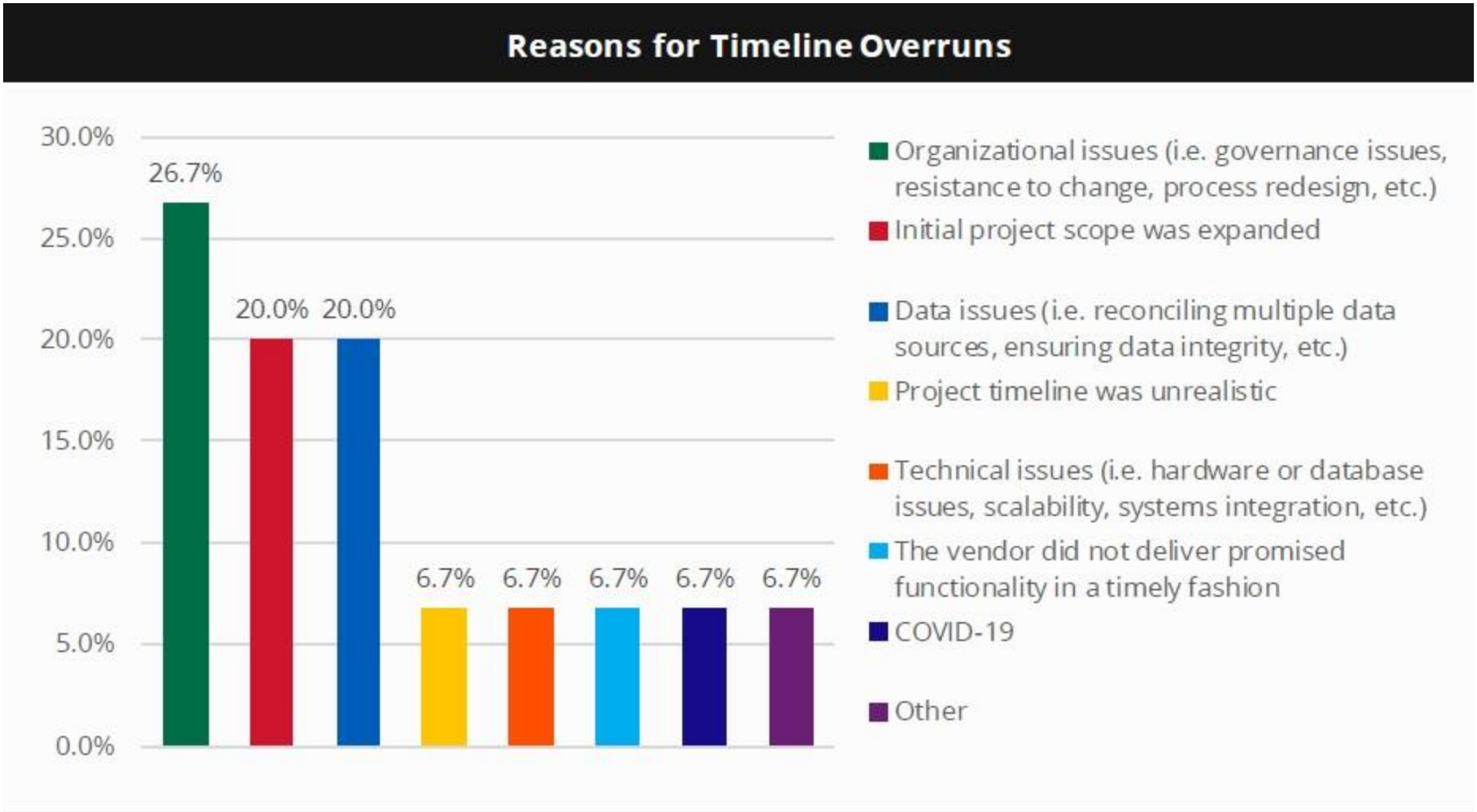
After the implementation has begun, it is still critical to look for warning signs of potential disruptions.

Monitoring end-user and process owner involvement is critical throughout all stages of the project.

Proactively implementing training and other change management exercises

Reasons for Schedule Overages

Reasons for Schedule Overages (2021)



Top 5 keys to successful ERP Implementation

1. Clear alignment with overall business strategy
2. Realistic expectations during implementation planning
3. Laser focus on people, organisational change management and workforce transition
4. Effective business process management and process improvement
5. Strong project management, governance and controls

Project vs Project Management (Yardley, 2002)

A project is…

- "*the achievement of a specific objective, involving a number of tasks and activities which consume resources.*
- *This objective is to be completed to a set specification and within a finite timescale*"

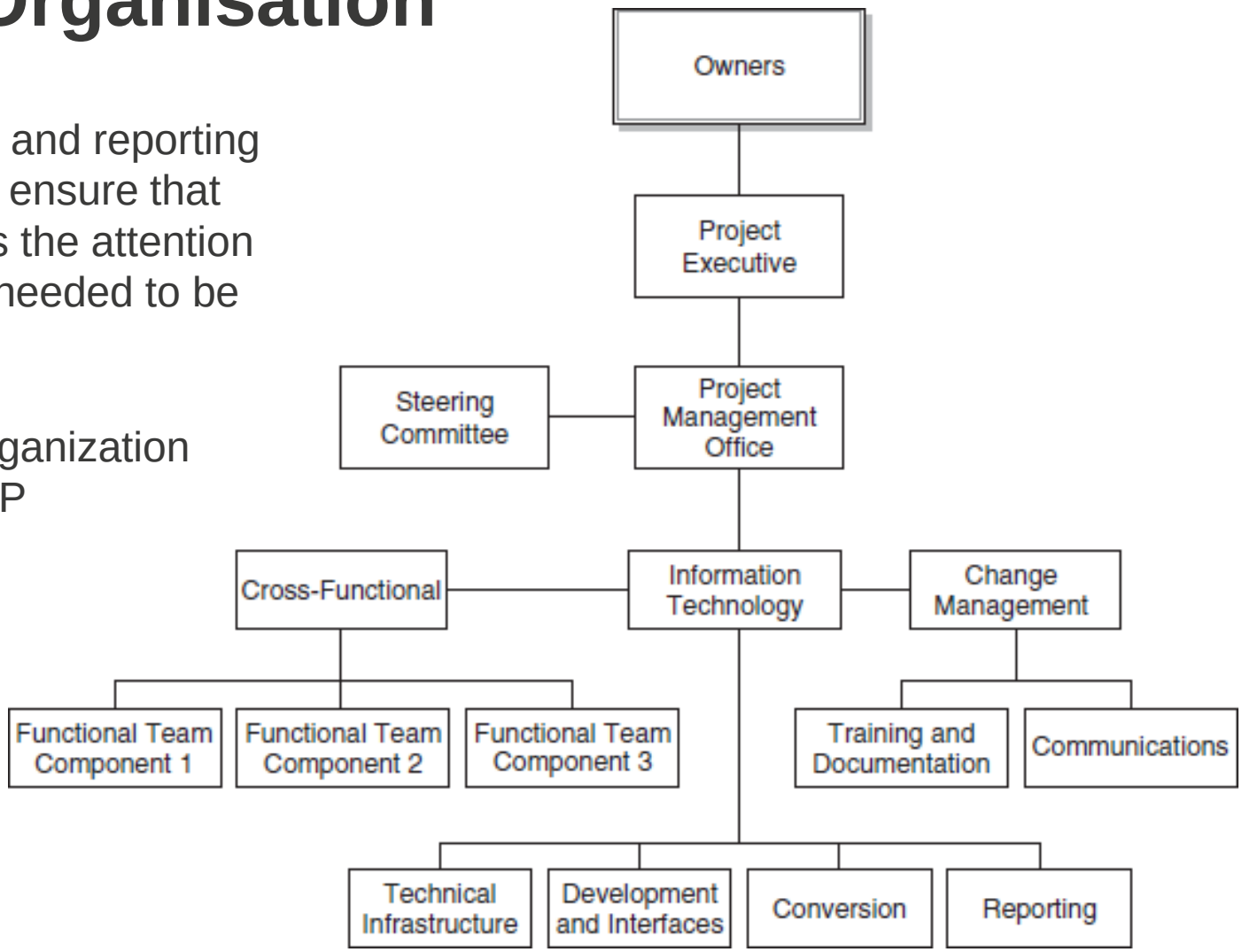
Project management is …

- "*the process of controlling the achievement of the project objectives …defining requirements and scope … allocating resources …monitoring progress …managing deviations when necessary*."

Project Organisation

A clear project plan and reporting structure will better ensure that the project receives the attention and accountability needed to be successful.

This is a sample organization structure for an ERP implementation.



Roles for ERP Implementation

- Owners (Client)
- Project Manager
- Functional Module Leads
- Technical Team Lead
- Development Lead
- Change Management Lead
- Conversion Lead
- Reporting Lead
- System Test Lead
- Module Team Members
- Etc. etc. …..

Successful …

Projects

- Deliver functionality & usability to users
- Achieve business and strategic goals
- Realise financial benefits
- Satisfy business stakeholders

Project management

- Completes project within budget, on time and within scope
- Provides project with appropriate quality standards and scope (PMBOK)

Successful projects – How??

- How to ensure you have a successful project leading to benefit realisation

Summary

- Current trend of increasing ERP Initiatives & ERP spending.
- Reasons for ERP Implementation
- ERP Implementation Life Cycle
- Traditional ERP life cycle
- Rapid ERP life cycle – ASAP
- Discuss seven important pre-implementation steps to ensure successful ERP Implementation

Summary (cont'd.)

- Discuss the warning signs that indicate an ERP Implementation Project may be in trouble
- Discuss the Top 5 keys to successful ERP Implementation
- Project and Project Management
- Project Organisation – roles and responsibilities

End of Lecture 8

References:

- 2021 ERP Report. 2021 Panorama Consulting Group. Located at: https://www.panorama-consulting.com/resource-center/erp-report/
- 7 Pre-implementation Steps for a Successful Implementation, 2018 Panorama Consulting Solutions. Located at: https://www.panorama-consulting.com/resource-center/7-pre-implementation-steps/
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- Schwalbe, K. (2004) '*Information Technology Project Management'*, Thomson Course Technology – 3rd (or 4th) Edition, Chapter 11