



# End-to-end actuarial system implementation

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# Agenda

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7. Systems implementation approach
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# Introduction

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- Across the insurance industry, the demands on actuarial functions are increasing; leaders are facing the complex challenge of transforming their organizations to deliver additional higher-quality services with increasing cost effectiveness. Innovations in data, technology and managed services are driving the need for operational efficiency.
- Actuarial systems implementations or enhancements are often complex, multidisciplinary endeavors that benefit from standard methods and approaches in order to work cohesively across work streams.
- Implementing actuarial systems and processes requires a standardized approach to work effectively with cross-functional teams. This approach can apply to models, data feeds, data warehouses, general/subledger, experience studies, hedging and risk systems: all systems that involve coordination with actuarial.

# Objectives

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- This presentation describes a standard approach for end-to-end actuarial system implementations and helps address the following:
  - How to create an approach aligned to a typical systems development life cycle (SDLC) for a consistent, quality-controlled approach to actuarial system implementations?
  - What are the activities and deliverables that bring structure and definition to the processes of an actuarial system implementation?
  - What is an example of a standardized approach to defining clear work products, clear definitions of completeness and the work breakdown structure of an end-to-end actuarial system implementation project?

# Who are the key stakeholders?

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- Below are some of the users, suppliers, beneficiaries and parties that have a vested interest in the integrated (coordinated) process:

## Stakeholders

Actuarial teams (valuation, projections, risk/asset liability management, pricing, etc.)

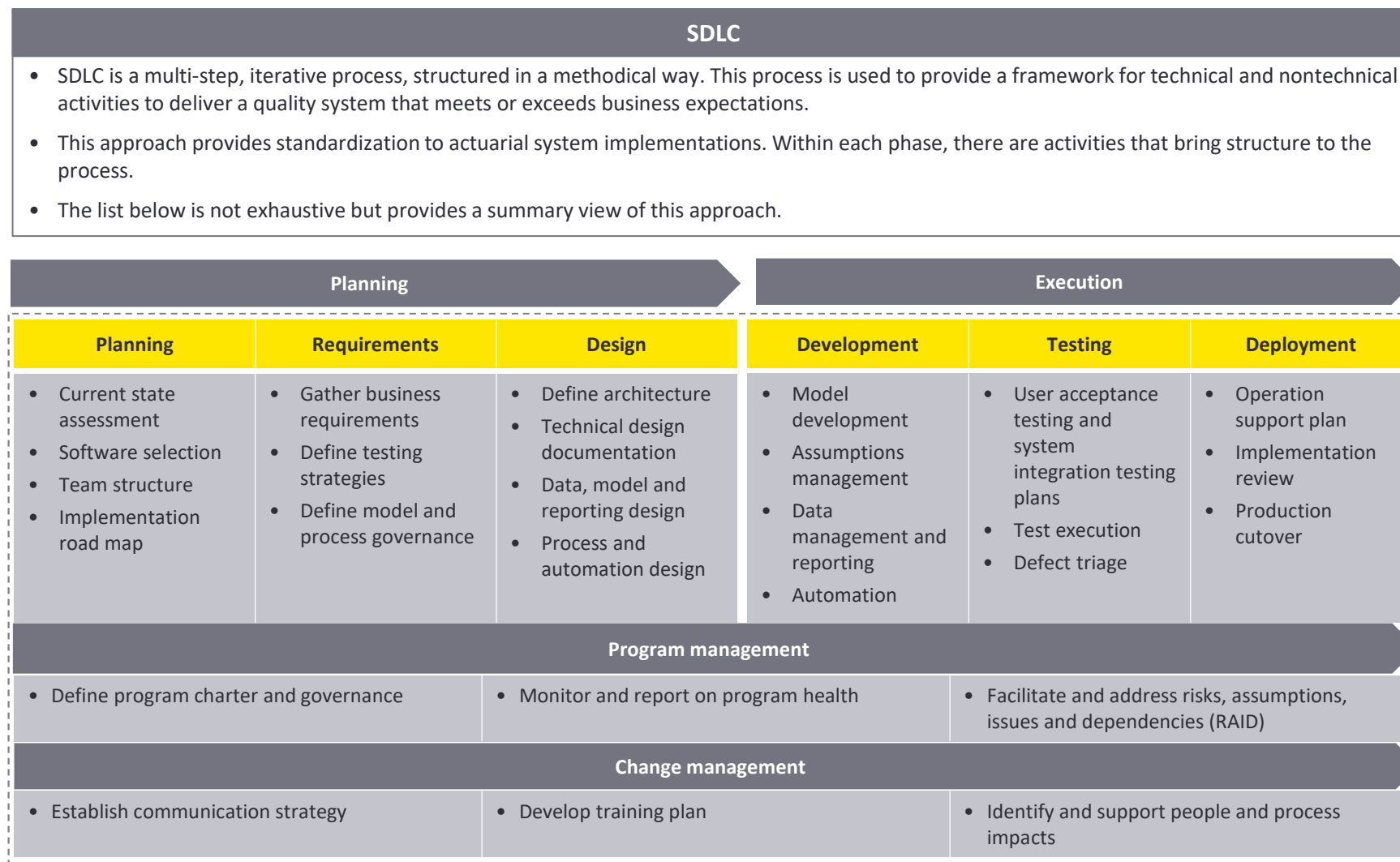
Vendors (model platform, finance and risk systems, etc.) and other system integrators

Information technology (architecture, data etc.)

Modeling Center of Excellence, Project Management Office (PMO), Change Management Office (CMO) and Testing Center of Excellence

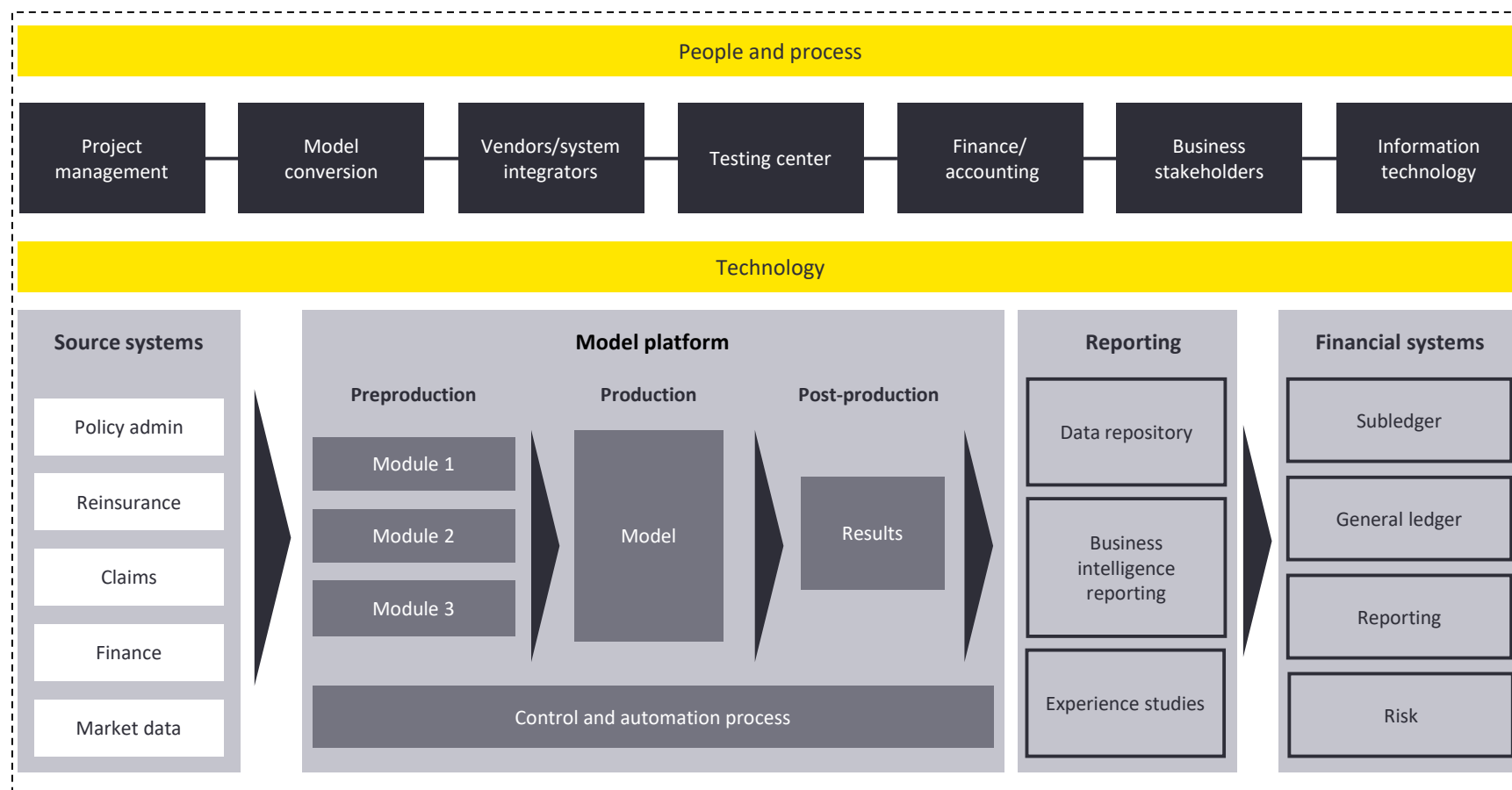
Finance, Accounting, Risk, Treasury, Corporate, Reinsurance, Model Risk Management

# System development life cycle (SDLC) structure



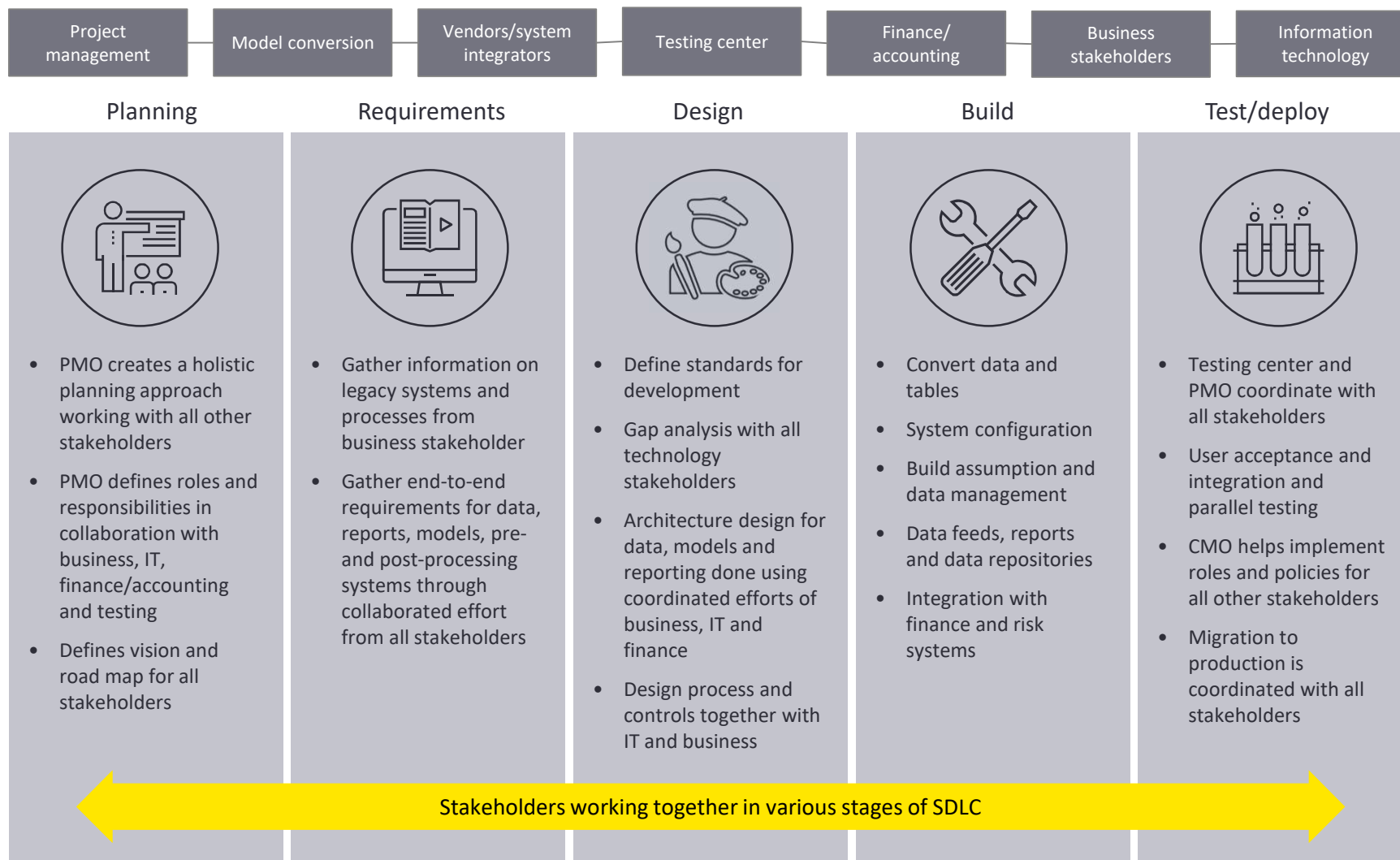
# End-to-end view of the integrated actuarial system implementation

A successful actuarial system implementation requires an integrated (coordinated and unified) approach across work streams and components. An integrated transformation approach across people, process and technology should drive the planning and implementation work.

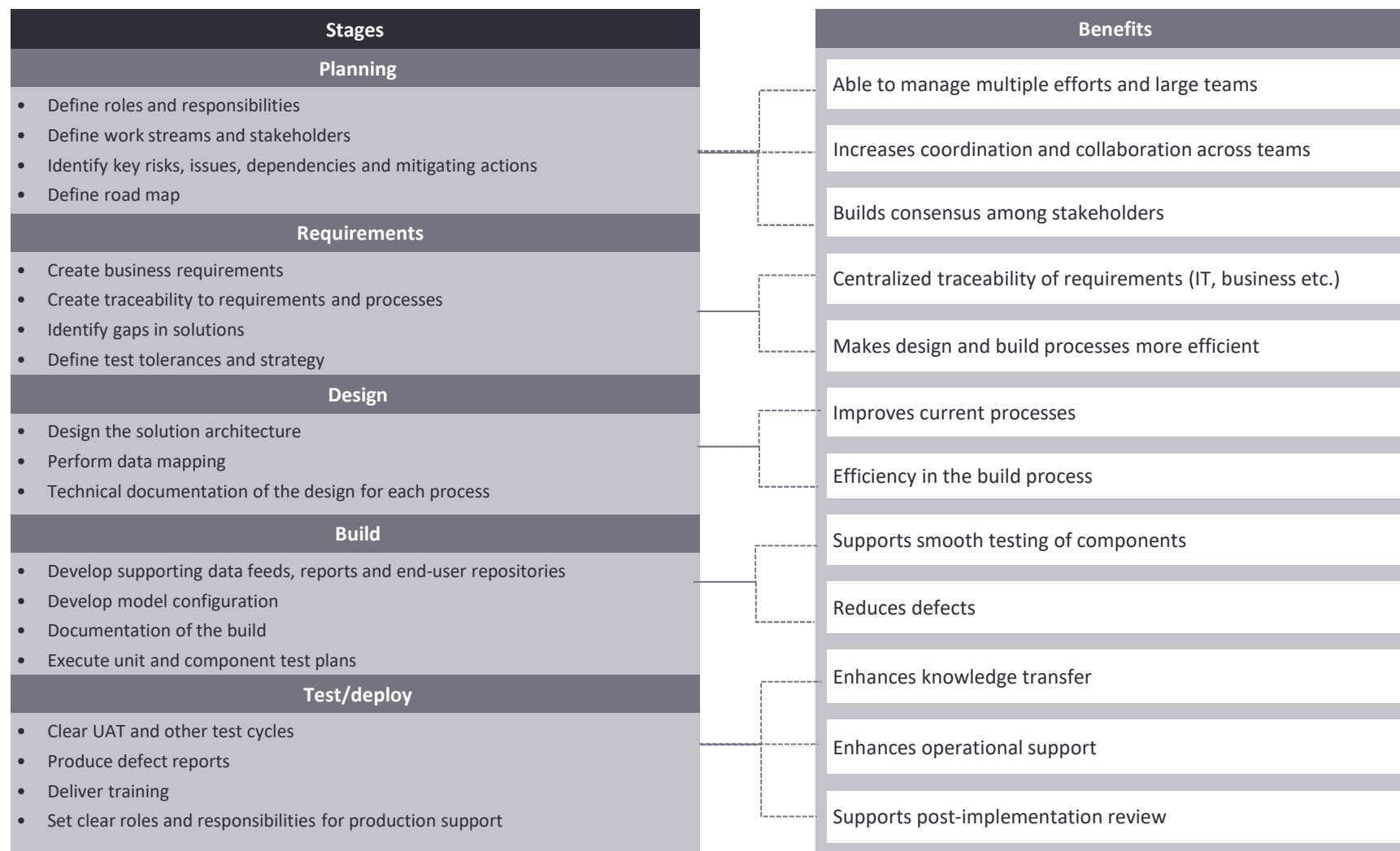




# How do they work together?



# Key activities and benefits



# Lessons learned

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## Planning

- Engage all stakeholders early
- Plan for resource gaps
- Plan for time constraints
- Identify subject-matter resources

## Requirements

- Understand the critical path capabilities
- Develop training plans early on
- Understand and plan for all reports up front

## Design

- Plan for all data integration up front
- Develop a pilot model basis

## Testing

- Allow adequate user acceptance testing (UAT) time
- Create test automation processes

## Deployment

- Test migrations from development to quality assurance to production domains early on
- Develop training plans early on

## Build

- Design coding standards up front
- Reserve additional time for unanticipated complexity in the build

# Conclusions

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- Considering the complex nature of actuarial system implementations, leveraging the principles of a standardized system development life cycle (SDLC) structure can be an effective tool when it comes to delivering a high-quality, effective and cost-efficient actuarial system implementation.
- This does not only apply to model conversions, but also to several other actuarial transformations and implementations such as finance/accounting transformations (LDTI, IFRS), data analytics and experience studies, hedging/risk management projects, etc.
- Alignment and coordination of all key stakeholders throughout the SDLC is an important part of the process.
- A successful actuarial system implementation requires an integrated (unified/combined) approach across work streams and components. An integrated transformation approach across people, process and technology should drive the planning and implementation work.

# Questions?

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