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ACTUARIAL CONFERENCE

12-15 October 2014

Taipei International Convention Center in Taipei Taiwan

# Actuarial 20/20: Modernizing the Actuarial Function

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October 15, 2014



# What is Actuarial Modernization?

## Vision

*Improving business value and effectiveness of actuarial functions*

## Goals

To establish a strategically oriented actuarial organization that helps drive the overall company strategy by effectively utilizing and grooming top actuarial talent, efficient processes, and best-in-class tools and analytics capabilities

### What is Actuarial Modernization?

- Assessing **actuarial processes**, based on industry leading practices, in order to measure efficiency and effectiveness
- Establishing an **end-state vision** and working to implement that vision
- “Freshening up” systems and related data and processes with state of the art tools and **end-to-end solutions**:
  - Fixing the foundation
  - Transforming the function
  - Enabling strategic capabilities
- Enhancing **data availability** and the effectiveness of supporting technology
- **Optimizing** actuarial **information** provided to management
- Redefining **Actuarial talent** strategies
- Building and embedding an **enhanced governance structure** around actuarial systems

# Why is Actuarial Modernization Needed?

***There are numerous drivers for the need for Actuarial Modernization, both internally-generated as well as in response to regulatory requirements***

## Why is Actuarial Modernization important?

- Senior management demand for ***greater and more timely analysis***
- ***Pressure on growth*** initiatives and capital demands
- ***Emerging regulatory change***, such as ORSA, Fed SIFI requirements, PBR
- Failure to align the Actuarial and Risk functions with ***enterprise IT frameworks***
- Lack of ***standardization, automation, and efficiency***
- Historic ***under-investment in actuarial systems and processes*** and supporting technology
- The typical Actuarial function ***one-off projects will not achieve*** broader company business needs

# Common Key Issues to Address

## Technology

- Outdated systems with limited functionality do not support changes in valuation methodology
- Capabilities and tools cannot efficiently respond to senior management requests
- Heavy reliance on manual processes and end-user computing (e.g. spreadsheets)
- Computing power to support actuarial projection systems is insufficient
- Decentralized and segregated actuarial systems lead to redundancies and inefficiencies

## Processes

- Current processes are manually intensive due to inefficiencies in the models and data
- A lack of technology tools results in manual processes
- Wasted time spent reconciling and/or explaining results
- Risk management prioritization varies across business units and functional areas
- Actuarial staff spend a material amount of time on data capture, validation and production, instead of analysis
- Lengthy valuation run times and actuarial close process

## Data & Reporting

- Intensive data collection process requires significant resources
- The lack of consistent data definitions undermines consistency, drives inefficiency and creates reconciliation requirements
- Sourcing and storage of data is performed inconsistently across actuarial processes
- Plan-to-actual variance analysis is not sufficiently granular undermining the ability to explain movements in results

## Governance

- Limited controls of coding changes in modeling systems result in integrity issues
- Decision rights, risk ownership, and venue for risk oversight discussions are unclear
- Limited governance of models and modeling production leads to inconsistency
- The process for risk oversight is informal and inconsistent
- Lack of documentation (e.g. undocumented controls)

***Addressing these challenges will require an integrated approach with long term view***

# What are the Benefits of Actuarial Modernization?

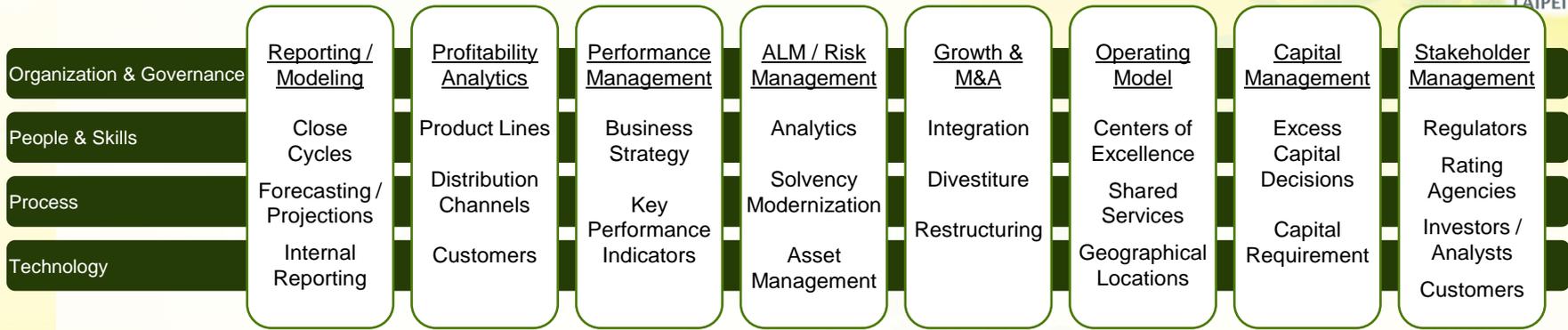
## *The benefits of a successful modernization program span:*

- *People*
- *Process*
- *Technology*
- *Governance*

## What are the Organizational Benefits?

- Timely results to inform *strategic decision making*
- *Flexibility to analyze* “what if” scenarios on a timely basis
- *Enhanced quality* and consistency of actuarial results
- Enhanced *risk awareness* capabilities and culture
- *Shift of focus* from operational to strategic activities
- More *effective teaming* between the company’s Actuarial and Technology functions
- Improved ability to *attract, manage and develop* top talent globally

# What are the Benefits of Actuarial Modernization?



## Improved Efficiency

- **Accelerate benefit realization** through standardized processes and integrated system environment
- **Standardize reports and metrics** to improve the management information need to accelerate the close process
- **Reduce manual processing** through automation and improve the effort needed to complete tasks
- **Reduce overall costs**

## Enhanced Controls

- **Provide “Single Version of the Truth”** for financial information
- **Reduce financial reporting and audit related risk** and decrease the potential for material misstatements
- **Improve risk awareness and capital management;** Increase accountability through governance, incentive mechanisms
- **Shift away from manual processes** to reduce the risk and improve the control environment

## Increased Effectiveness

- **Improve execution of business strategy;** enhance decision making capabilities
- **Provide timely, accurate, and meaningful insights** delivered across the enterprise to enable strategic partnering with the business
- **Improve financial forecasting predictability**
- **Improve confidence in information** produced by Actuarial functions

## Improved Talent Management

- **Improve ability to attract, manage and develop** top talent globally
- **Provide effective talent management** programs for professionals
- Provides Actuarial talent the opportunity to **focus on development of analytic skills** and reduce the time spent on manual processes

# Where Should Actuaries Spend Their Time?

Actuarial Modernization seeks to shift the Actuarial function from Operational roles into more Strategic roles for the business.

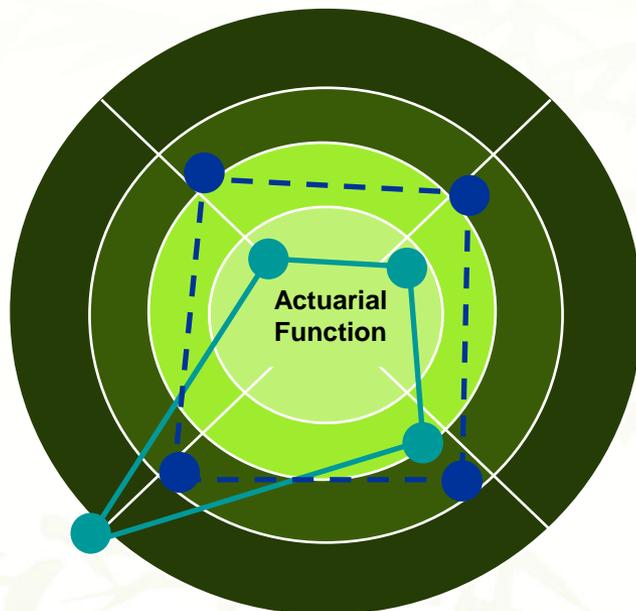
## “Four Faces” of Actuarial Capabilities

### Drive Strategy

- Identify strategic market opportunities
- Identify new product opportunities
- Set long term capital objectives
- Assess strategic fit of M&A opportunities

### Measure Risk & Financial Metrics

- Value actuarial assets and liabilities
- Conduct ALM and hedging
- Develop actuarial cashflows to support the development and updating of the financial plan
- Calculate Economic capital and other risk metrics
- Identify and measure risk
- Foster risk culture



— Current Role  
- - Future Role

### Embed Strategic Behaviors

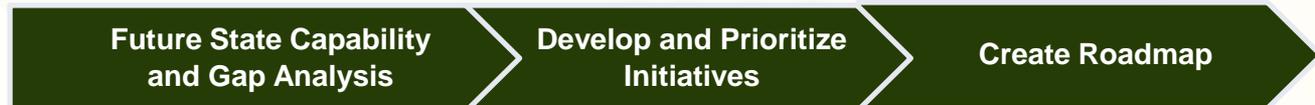
- Embed disciplined behaviors to execute strategic and financial objectives
- Create a risk-intelligent culture with appropriate risk oversight
- Optimize capital strategy based upon capital objectives
- Monitor experience against expectations to assess progress against plan
- Monitor and report source of earnings, changes in actuarial assets and liabilities, and overall experience to management

### Carry Out Operations

- Balance capabilities, talent, costs and service levels to efficiently fulfill the actuarial organization's core responsibilities
- Maintain actuarial models, process, and reporting tools
- Set economic and experience assumptions

**Goal for improvement is to provide more robust analysis and strategic business insight**

# Execution of an Actuarial Modernization Project



## Objectives

- Develop understanding of current organization, roles and responsibilities and key issues
- Develop end-state Finance function definition
- Develop/validate target architecture
- Develop and group initiatives and begin to prioritize
- Begin to sequence initiatives into an implementation plan
- Validate preliminary roadmap and high level cost estimates with internal and external subject matter advisors

***In order to create the critical path for system/process transformation, a diagnostic approach is needed to generate a strategic roadmap and set of initiatives for implementation which fulfills the needs of the business***

Questions?