



Society of Actuaries in Ireland

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Life Reinsurance and Innovation Forum  
Innovation in Asia

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Dori Dong, Otto Ho and Bryce Sheppard

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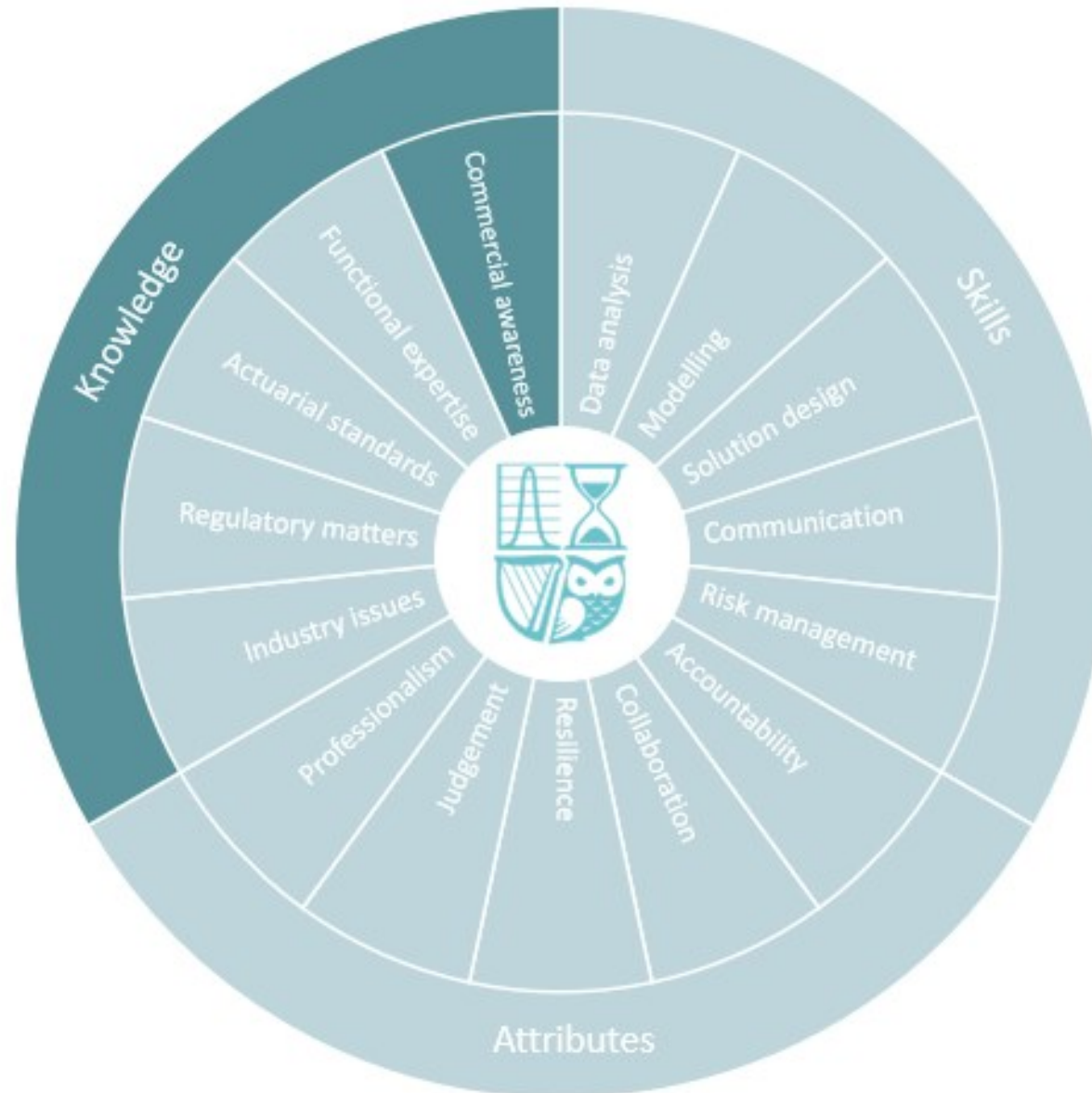
## Disclaimer

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**The views expressed in this presentation are those of the presenter(s) and not necessarily those of their employer(s) (if any) or the Society of Actuaries in Ireland.**



# Competency Framework Wheel





# Agenda

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- **Examples of Innovation in Asia**
  - **Artificial Intelligence developments in China**
  - **Banking Data for Underwriting**
  - **Critical Illness Innovation in Asia**
- **Panel Discussion & Q&A**



## Artificial Intelligence in China Insurance

Dori Dong, Hannover Re

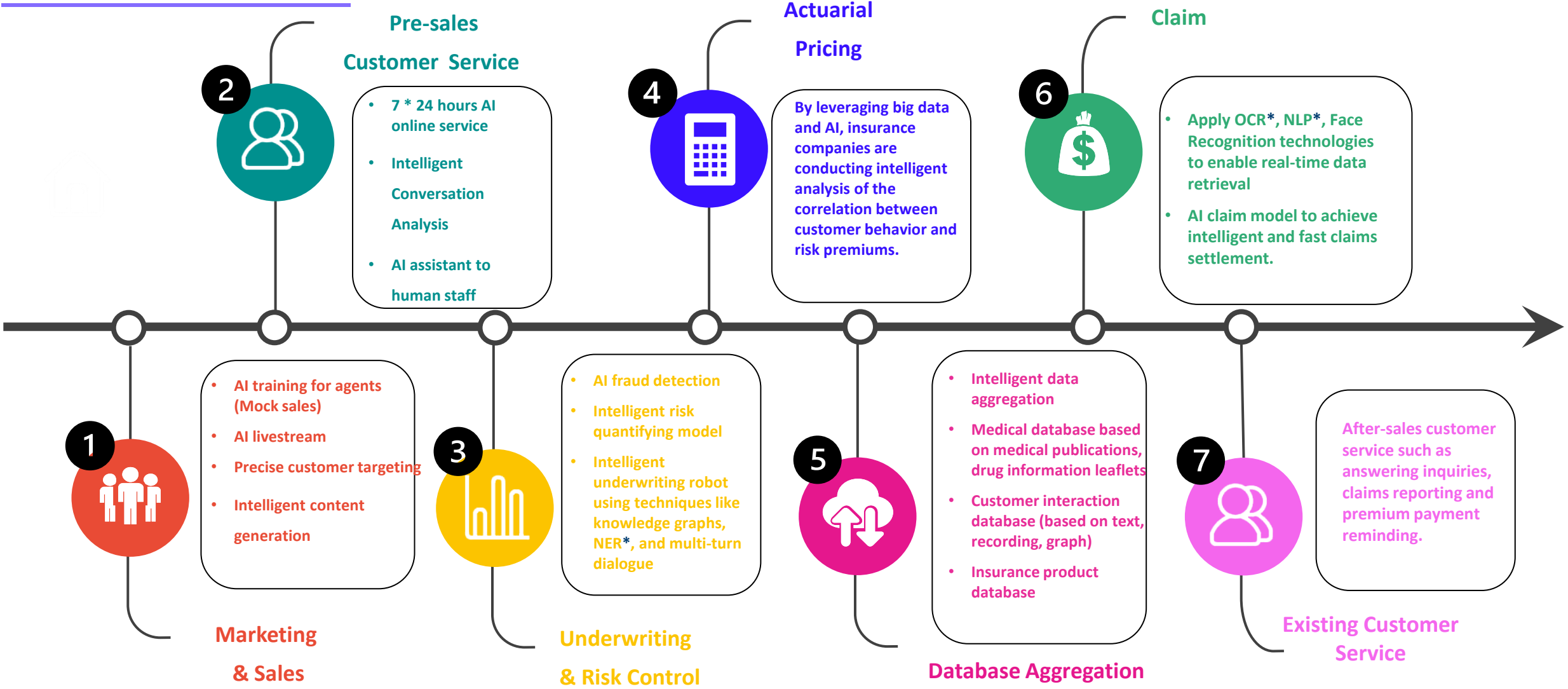
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somewhat different



# Artificial Intelligence in China Insurance

## Examples from the Big 5





# Artificial Intelligence in China Insurance

## Some Statistics

? %

UW decision by AI vs.  
UW decision by human senior  
underwriter

? %

Human customer service  
%



? %

Automated claim  
handling %



? %

New policy non-manual  
UW %



# Artificial Intelligence in China Insurance

## Some Statistics

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95 %

UW decision by AI vs.  
UW decision by human senior  
underwriter

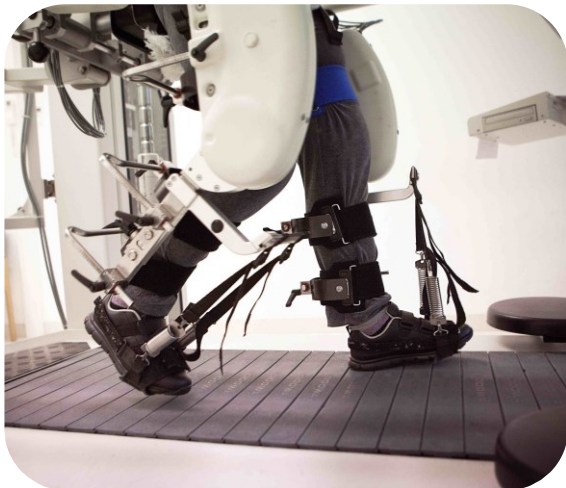
25 %

Human customer service  
%



56 %

Automated claim  
handling %



93 %

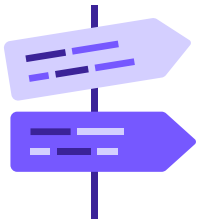
New policy non-manual  
UW %





# Artificial Intelligence in China Insurance Trend

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- ❖ From exploration to experiment to application
- ❖ From smart tools based on rules, data, and models to intelligent assistants that deliver actionable decision
- ❖ From single-node enhancements to holistic, intelligent optimization across the entire ecosystem and value chain
- ❖ What's next?



Hannover Re



# Critical Illness product innovation in Asia

Otto Ho, Senior Vice President  
Chief Pricing Actuary, Asia Pacific

Reinsurance Group of America

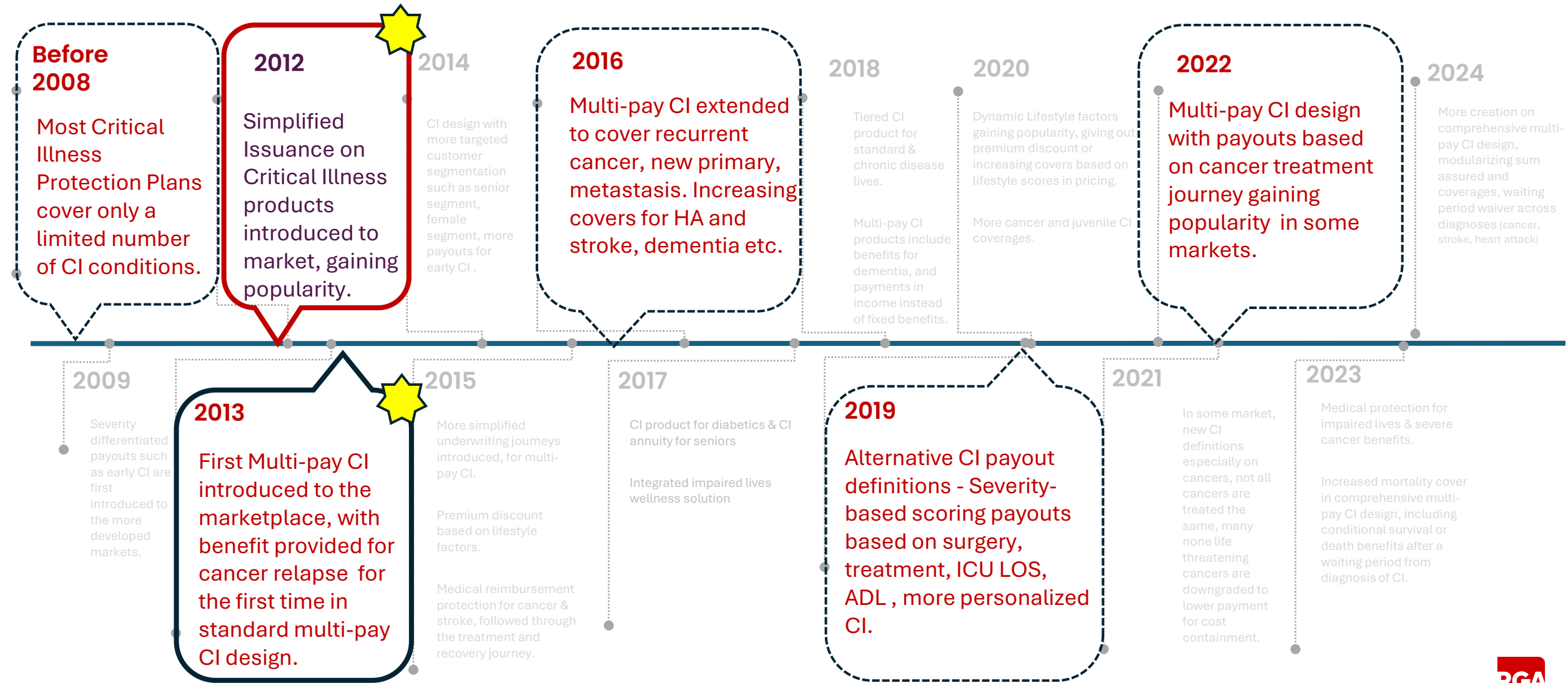
16<sup>th</sup> April 2025





# Evolution of Critical Illness products and solutions

## Success driven by continuous Innovations





# Medical Technology Advancements

Not only diagnosing CI earlier, but also improve recovery outcome, better survival and longevity

## Pre-2000

Targeted and Immunotherapies under development with few drugs tested for clinical trials.

## Early 2010s to-date

Commencement of Targeted and Immunotherapy drugs introduced as alternatives to radio-/chemotherapies.

Introduction of new cancer therapies has significantly improved recovery outcomes and survival rates post-diagnosis

## Early 2010

Research into liquid biopsies and circulating tumor DNA laid groundworks for Multicancer Early Diagnosis (MECD) tests.

## 2019

FDA granted breakthrough device designation to several MCED tests, including those developed by GRAIL and Thrive Earlier Detection.

## 2021 - 2023

Various clinical trials and FDA review processes are ongoing for various MCED tests. GRAIL Galleri tests available in laboratory, not yet public.

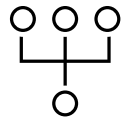
## Outlook

MCED expected to improve diagnosis earlier with higher accuracy.

# Opportunities for Critical Illness in Asia

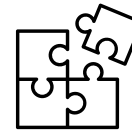
## Ranges from Simple Solutions to Comprehensive Covers

### Simplified Solutions for market scaling



- Simple and affordable CI design such as three CI or three Cancers
- Simplified underwriting and more tailored journey to enable speedy and early adoption of CI at targeted customer segmentation.

### More Comprehensive covers for Protection



- More comprehensive covers extending core Critical Illness coverages to multiple payouts, modularizing protection levels or payouts
- Severity based CI
- Enhancing CI design with Saving elements

### Packaging Value added services into products



- AI-Enabled Remote Patient Monitoring Devices, and Cloud-based Diagnostic Platforms enable early detection and intervention, increasing survival rate, improved health and recovery outcome
- Tele-ICU Solutions to monitor and manage critically ill patients from a distance, improving patient recovery journey and survival



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# Asia Innovation – Product & Underwriting

Bryce Shepherd

Head of Client Solutions,

Europe Middle-East Latin America

PartnerRe



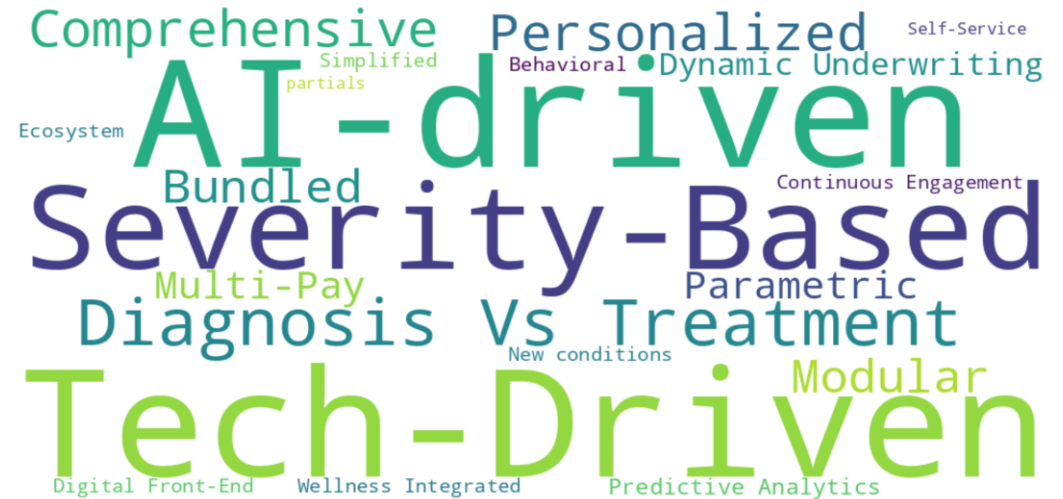


# Example #1: Product Innovation

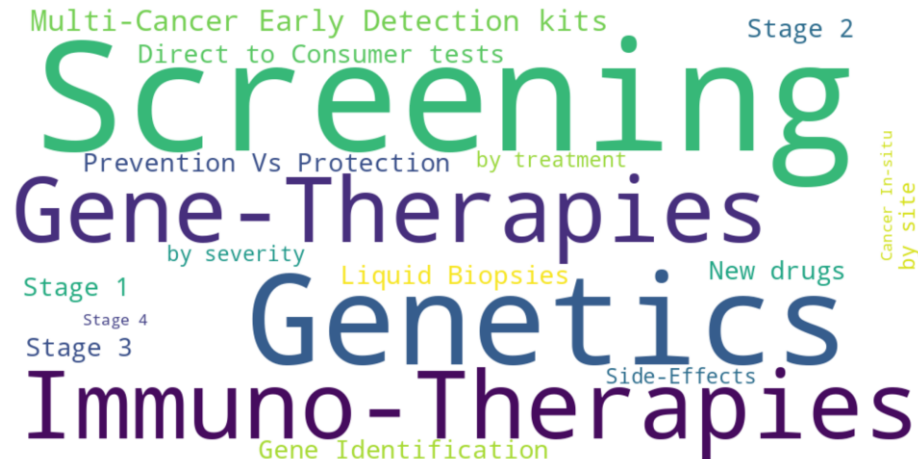
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**Product development** is primary business driver in many Asian markets!

- There are **many** product types / structures to choose from...all very innovative.
- Consider why the innovation works within the construct of that market, e.g., the distributions, the underwriting, the pricing, etc.
- Today I'll be going through **Cancer Risk** innovations. Cancer is prominent in Irish CI products, it's the most frequent, it's always resonate with customers.



- The Cancer topic itself have many innovations to discuss...
- Again, I approached this from the perspective of the Irish market and current CI products.
- **Evolution** not revolution.



# Example #1: Product Innovation

PartnerRe

## Cancer Impact Benefit

- *Sales considerations:* To add a benefit that gives **extra talking points** for sales and make the CI base plan **more comprehensive**
- *Product benefits:*
  - **Extra 20% SA** upon the below events within 3 years **due to cancer**:
    - Severe **facial disfigurement** requiring reconstruction
    - Total **mastectomy** of both breasts which is Medically Necessary
    - Permanent **stoma**
    - Permanent **tube feeding**
    - **Amputation**
- *Technical:* The benefits chosen strike a balance between **affordable** additions to the product and value-add.



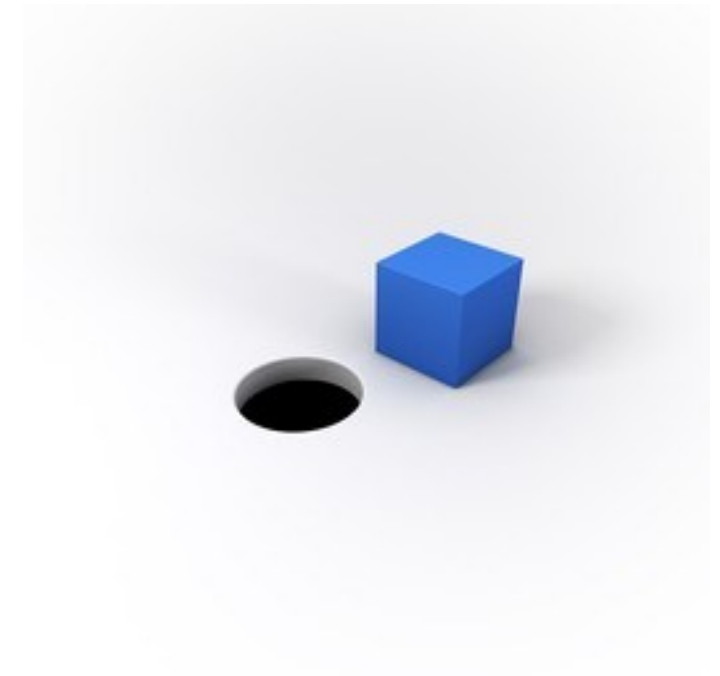
- ✓ Simple design
- ✓ Strong selling story. Easy for sales / customers to relate with experience from relatives / friends

# Example #2: Underwriting Innovation

## Bancassurance – Segmentation & Simplification for Sales Success

An innovative approach that aligns Pricing and Underwriting to drive competitive simplified propositions in Bancassurance.

- **Bancassurance protection pain points**
  - Mortgage-first focus can deprioritize Protection...
  - Regulatory friction increases drop-off...
  - Sales journeys and underwriting is long, repetitive, and poorly incentivized for bank staff....
- **Enablers for success**
  - Understand the pain points, remove barriers, 'think like a bank' with a 'life insurers risk assessment' 😊
  - Central to the concerns -> **Duration of process, data used, and ease of sale.**
- **What did we create?** A simplified Underwriting framework for their sales process.
- **What's the framework built on? Two key approaches:**
  1. Use bank customer profiles (e.g., Wealth, Salaried) to pre-segment risk.
  2. Use banking data fields (e.g., AUM, income, credit limits, transaction counts) as risk proxies to drive smart automation and reduce friction.



# Example #2: Underwriting Innovation

## Simplified Underwriting Framework

- Table displays a **differentiated** SIO GIO offer for Wealth Customers.
- It uses **Assets Under Management** at different levels as defined by the bank's customer profiles.
- Less underwriting** where risks more known,
- More underwriting** when less known.
- Higher conversions** for better business.
- With portfolio reinsurance rates the same, creates **more margin**.



NEW

Offers for Priority Banking Customers (in SG\$)			
Wealth segment			
	Priority Segment 1 (Minimum AUM 350,000)	Priority Segment 2 (Minimum AUM 1.5 Million)	Priority Segment 3 (Minimum AUM 5 Million)
SIO Limits For Term Cover	1 Million	2 Million	3 Million
SIO Limits For CI Cover	500,000	750,000	1 Million
**GIO Limits For Term Cover	150,000	300,000	500,000
**GIO Limits For CI Cover	50,000	100,000	200,000
** GIO: In first two years of diagnosis, benefit limited to return of premium			





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# Q&A