

Actuaries Summit

Think Differently



**Actuaries
Institute**

21-23 May 2017 • Grand Hyatt Melbourne





Actuaries, who do we think we are?

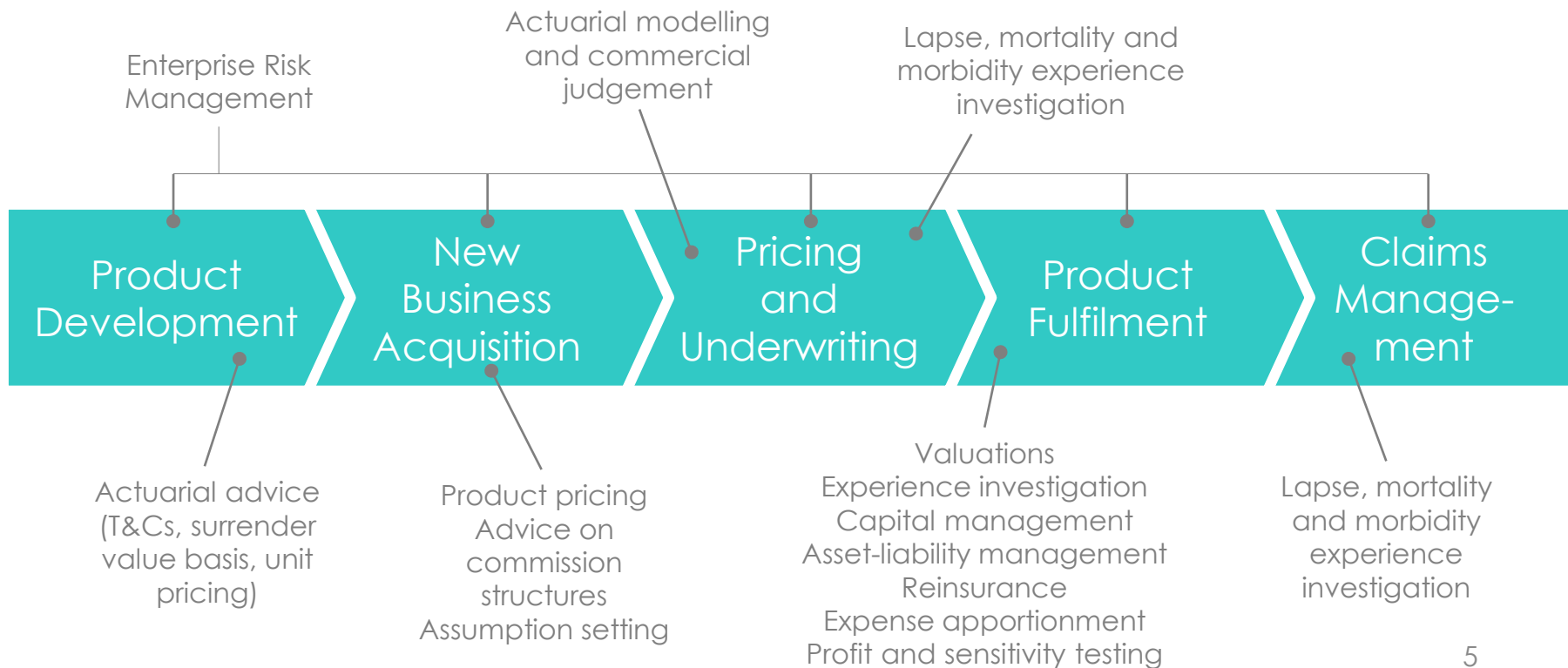
Nathan Colbert
Avanti Patki



- 1 Where do actuaries play today?
- 2 The headwinds for our profession
- 3 What do we do now...

1 Where do actuaries play today?

Where do actuaries play today?



2 The headwinds for our profession

What are the headwinds for our profession today?

1. **Data analytics** – the quantum physics to our Newtonian physics



2. New players making traditional insurance **product design** obsolete



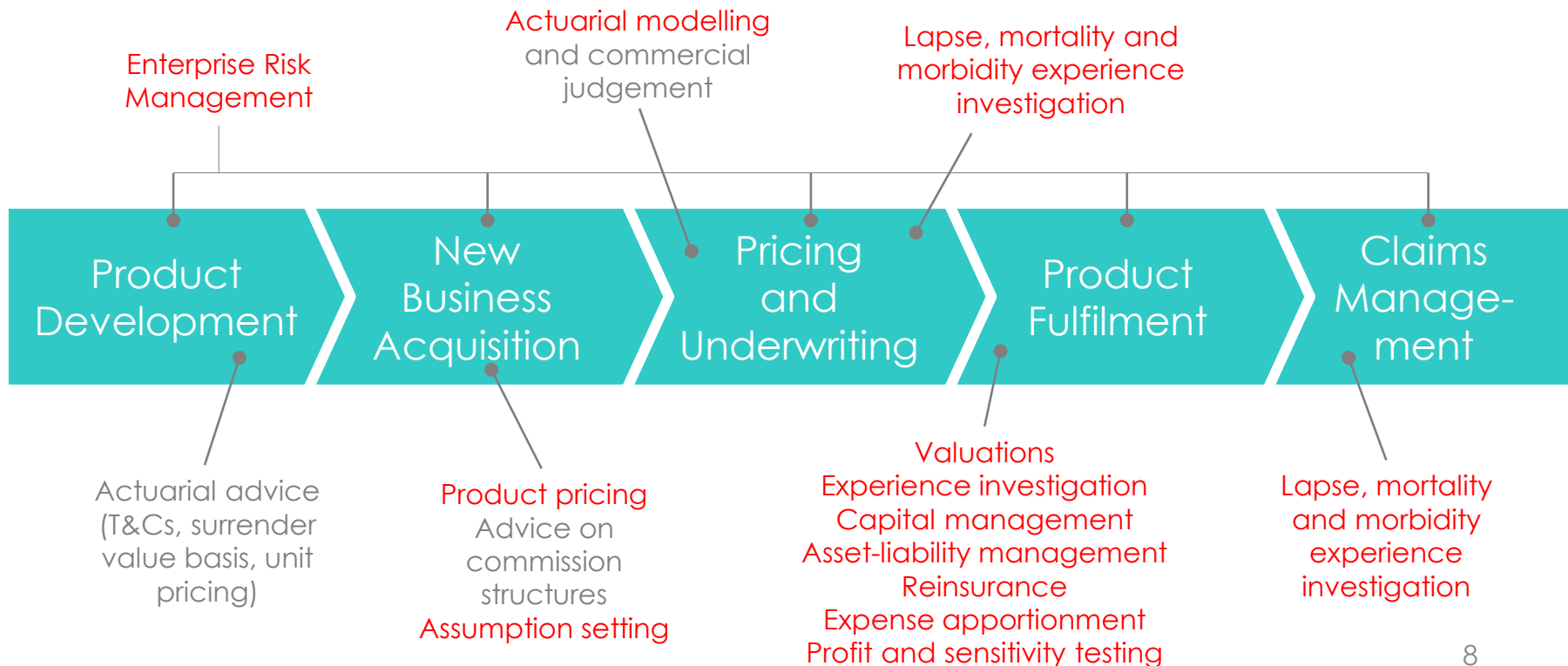
3. Virtual reality making strides in **wellness**



4. The **modular approach** to the insurance value chain



1. Data analytics



2. New players making traditional insurance product design obsolete

Traditional approach:

- Own car insured by an individual for their own use for a set period (year) to be garaged at a set location
- Pricing based on characteristics of driver, car, garage location



New world order:

- More flexible cover
- Cover for a driver that is not you
- Cover for a car that is not your own



Trying to shift the perception of underwriting



Collaborative consumption through the sharing economy



These services replace the need for you to own a car



It's not just cars, we can share our places of residence too



TESLA MOTORS

What if the car's driving itself...

3. Virtual reality making strides in wellness

Traditional approach at claims time:

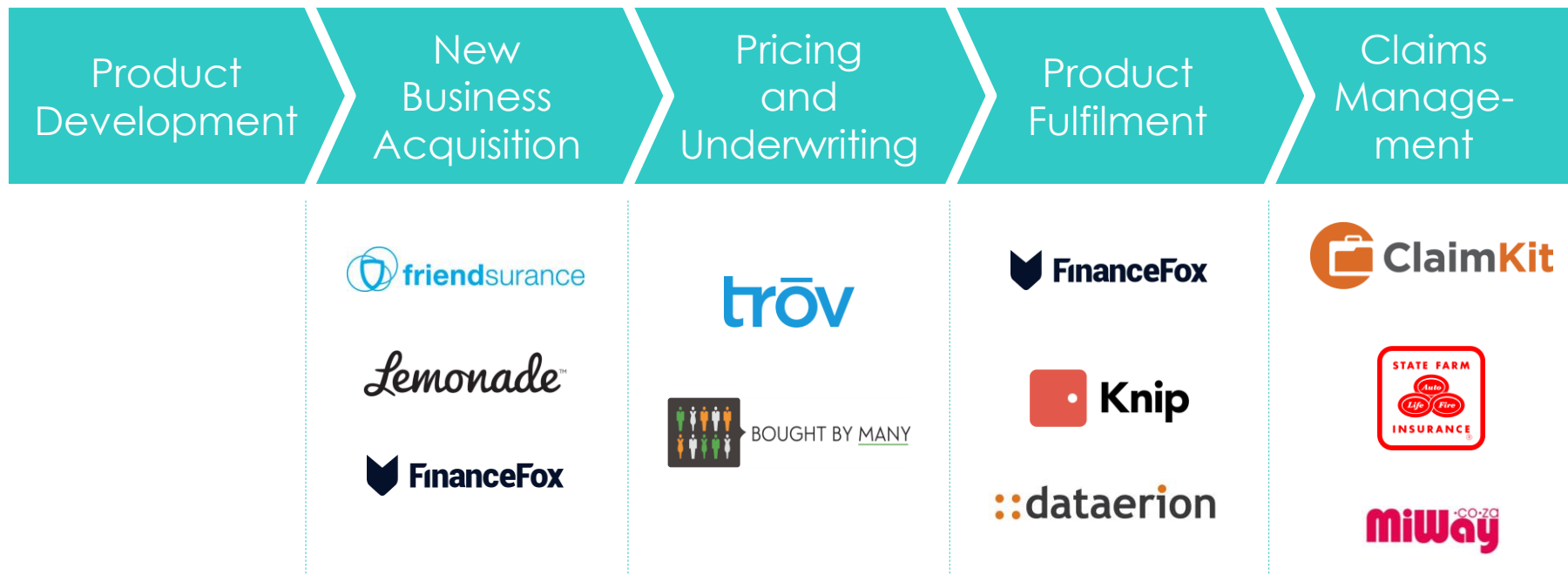
- To pay or not to pay?
- Deploy “Return to Work” strategies for IP / Workers Comp
- Love them and leave them



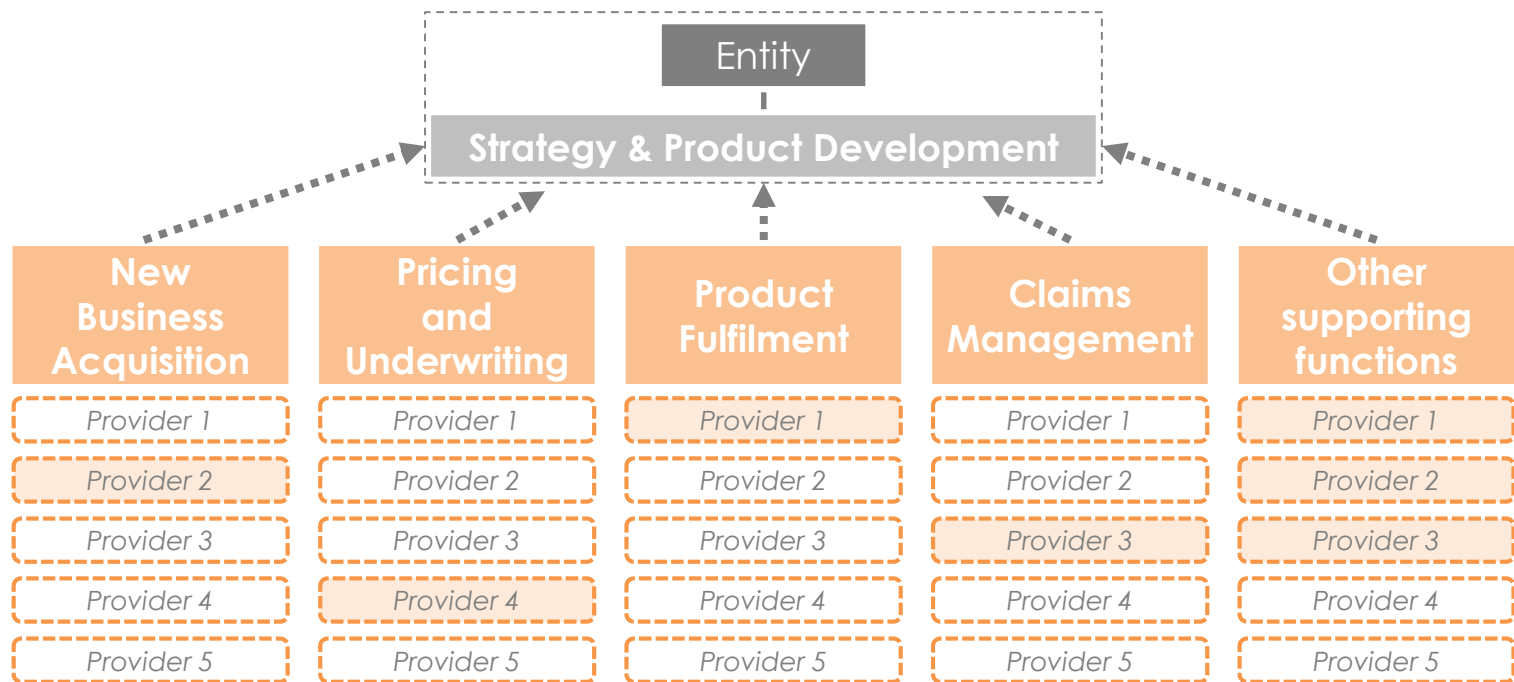
New world order:

- Superior injury rehab
- Faster recoveries
- A matter of ‘mind over matter’
- Life saving help at fingertips

4. The modular approach to the insurance value chain



4. The modular approach to the insurance value chain



If other professions that can do it better...

1. **Data** the quantum physics
Newtonian physics

**DATA
SCIENTISTS**

2. New players in traditional insurance
insurances... delete

**FINTECHS AND
SOFTWARE
DEVELOPERS**

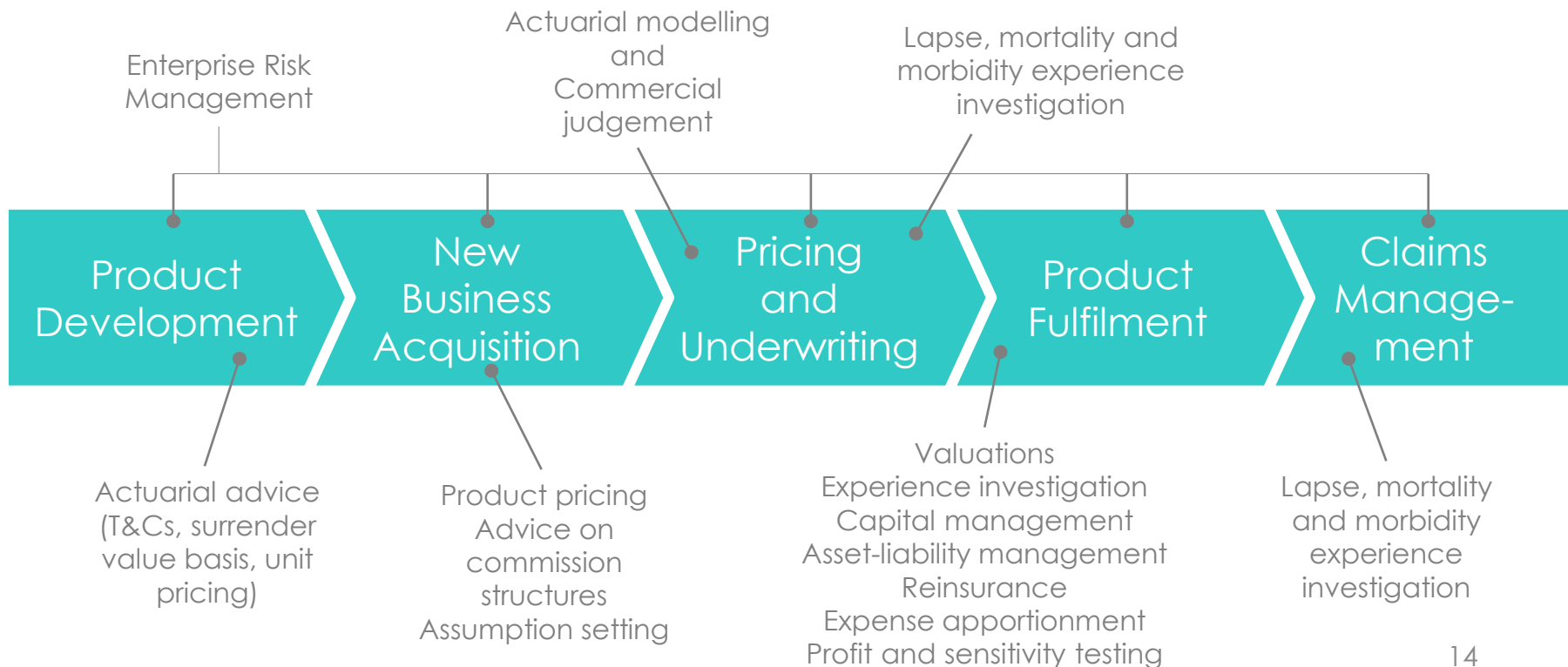
4. The **r** **uch** to the
value chain

3. Virtual reality in
business

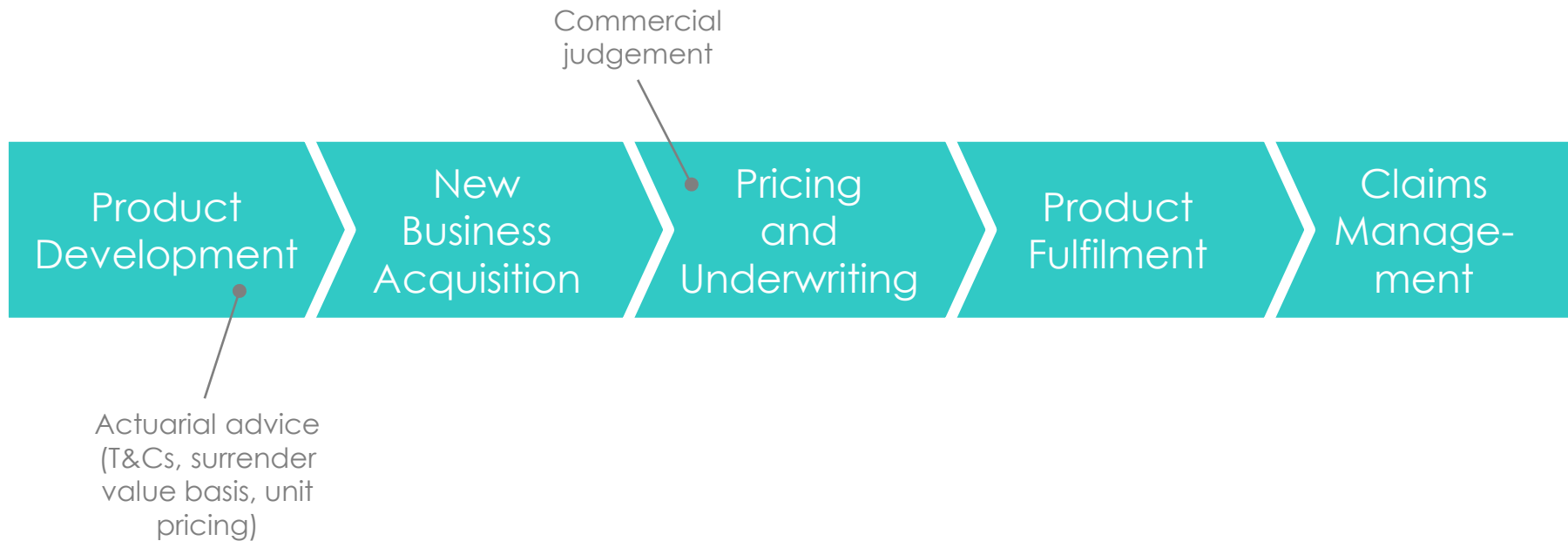
**VIRTUAL
REALITY
ENGINEERS**

...where do actuaries fit in??

Where do actuaries play today?



What is left for us...



3 What do we do now...



Should we...

Beat them?

...not with our current training

Join them?

...good for insurers, not so good for the actuaries



The Solution?

Do neither...

But start playing where we've never played before

without

losing our identity

Biodiversity...

Insurance Value Chain



Biodiversity Project



Actuarial Toolkit

- | | | | | |
|---|--|--|---|---|
| <ul style="list-style-type: none"> • Statistical sampling • Identify and manage risks • Mortality / longevity studies • Developing an MVO | <ul style="list-style-type: none"> • Assumption setting • Apply domain-specific knowledge to projections | <ul style="list-style-type: none"> • Financial modelling • Develop success metrics • Project uncertain populations & cash flows | <ul style="list-style-type: none"> • Monitor & report on experience • Review experience and assumptions | <ul style="list-style-type: none"> • Industry collaboration • Actuarial Control Cycle |
|---|--|--|---|---|

Food production...

Insurance Value Chain



Food Production



Actuarial Toolkit

- Actuarial pricing techniques for sell price of raw materials
- Actuarial pricing techniques for buy price
- "ALM" hedging against changes to underlying commodity prices
- A/E for procurement costs
- A/E for product sales



The way forward

The actuarial toolkit can be applied to a myriad of problems

Where we apply our skills is up to **us**

