



# 18<sup>TH</sup> EAST ASIAN ACTUARIAL CONFERENCE

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Taipei International Convention Center in Taipei Taiwan

## How success looks like in Personal lines in Asia

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# Agenda

**Trends in the Personal Lines markets within Asia**



**Effective pricing and portfolio management in Asia**



**Chinese Case Study**



# Agenda

## Trends in the Personal Lines markets within Asia



# Key drivers of change

Regulation

Economic  
environment

Digital  
revolution

Distribution

Big data

Consumer  
awareness

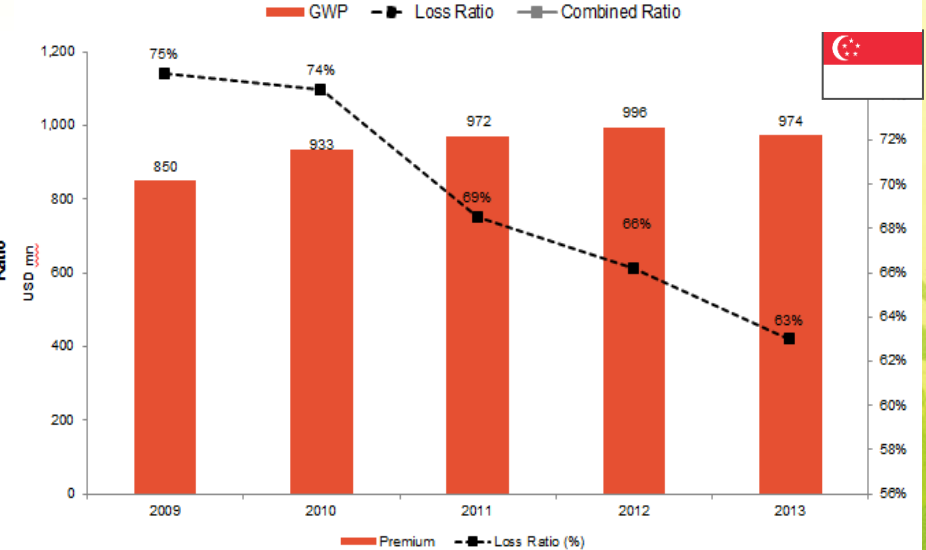
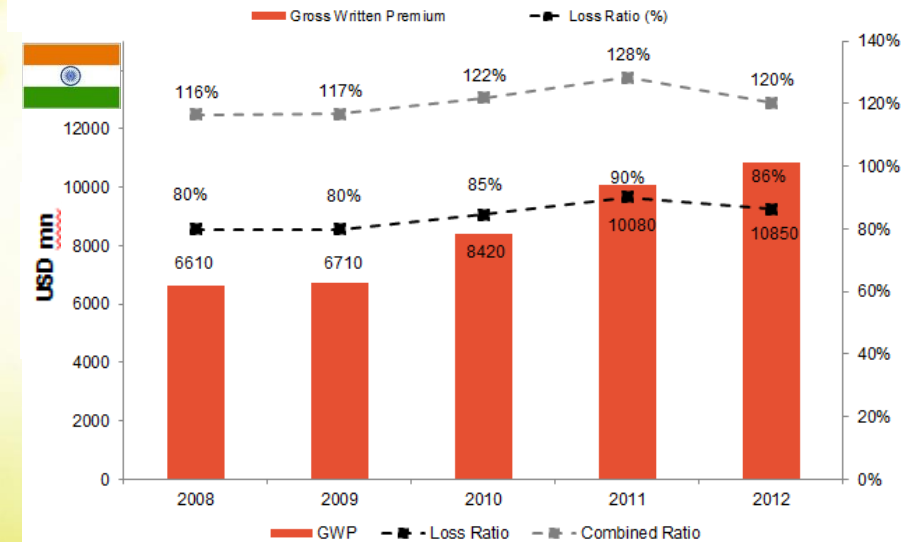
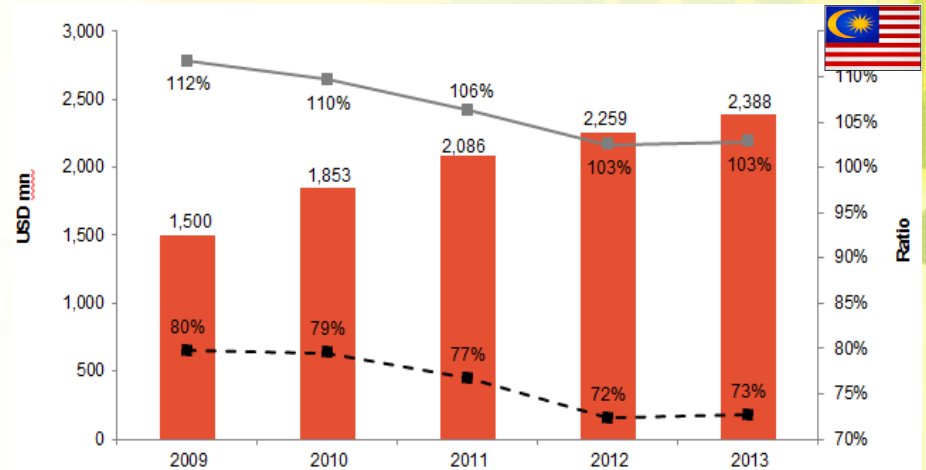
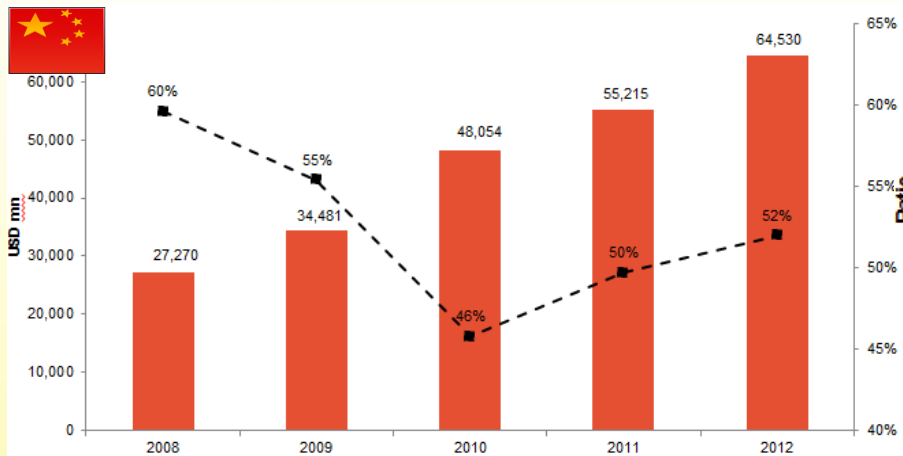
Global trend is increasing competition and  
more demanding customers



Data-driven strategy



# What is the impact on the market



# Agenda

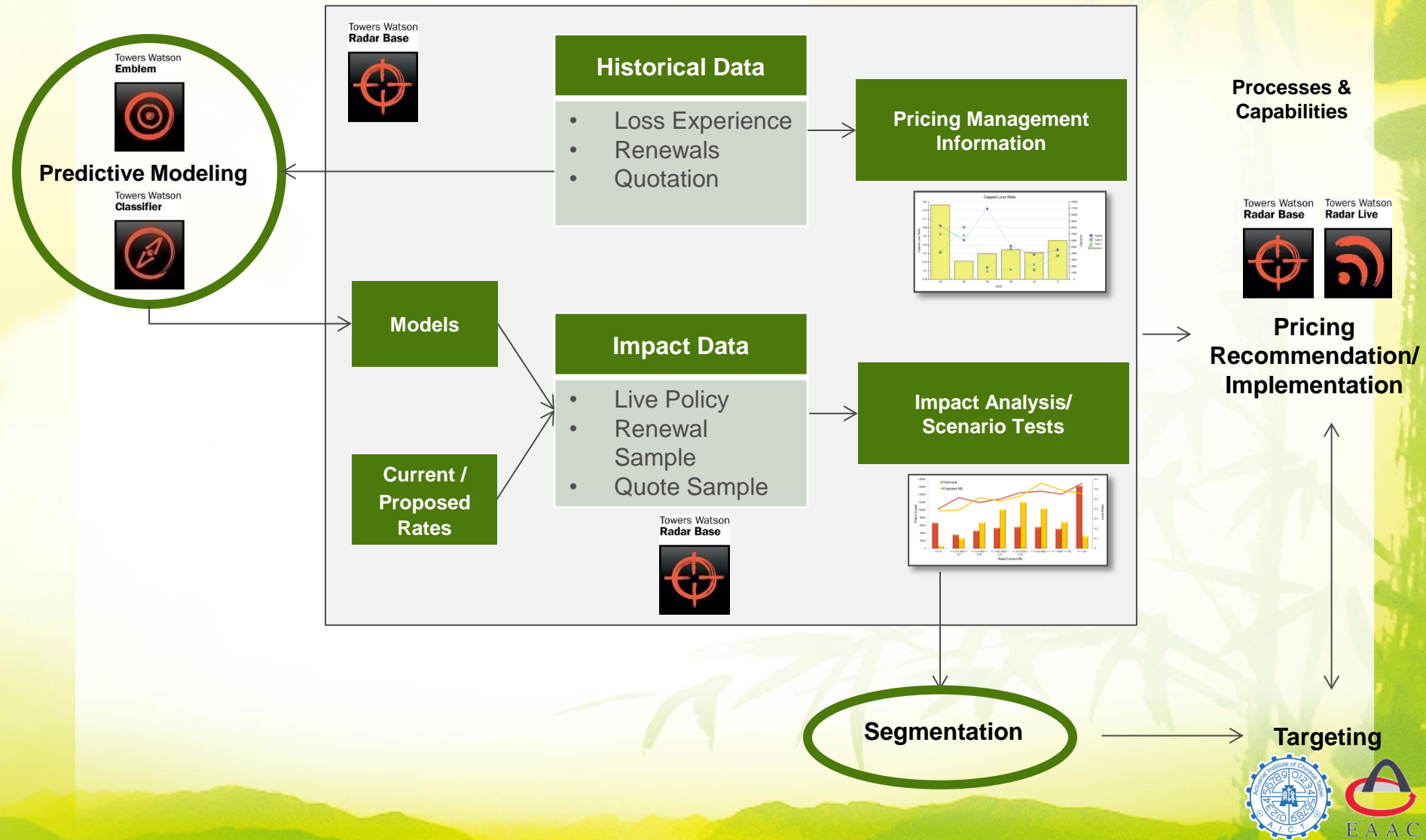
**Trends in the Personal Lines markets within Asia**



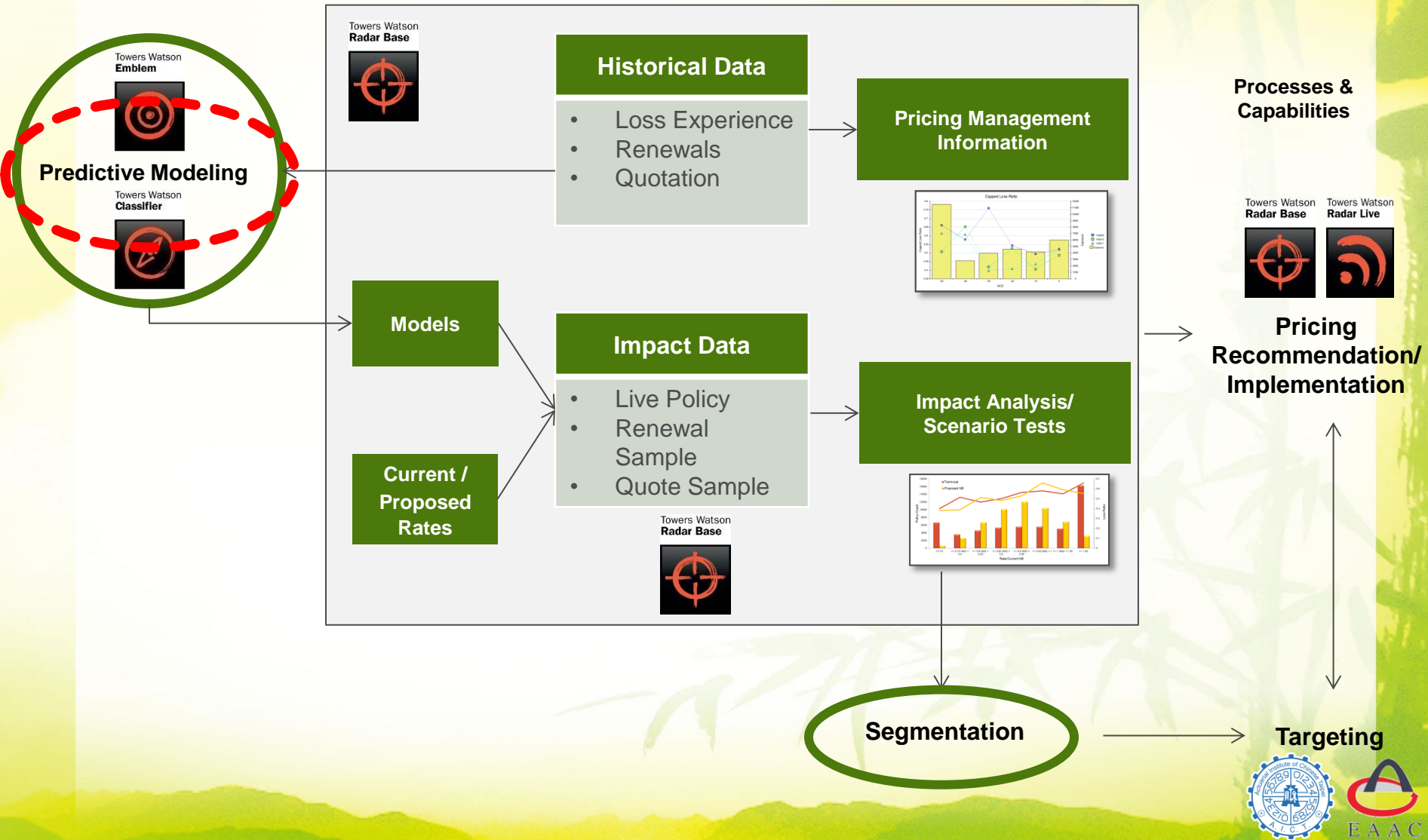
**Effective pricing and portfolio management in Asia**



# A framework for effective pricing and portfolio management



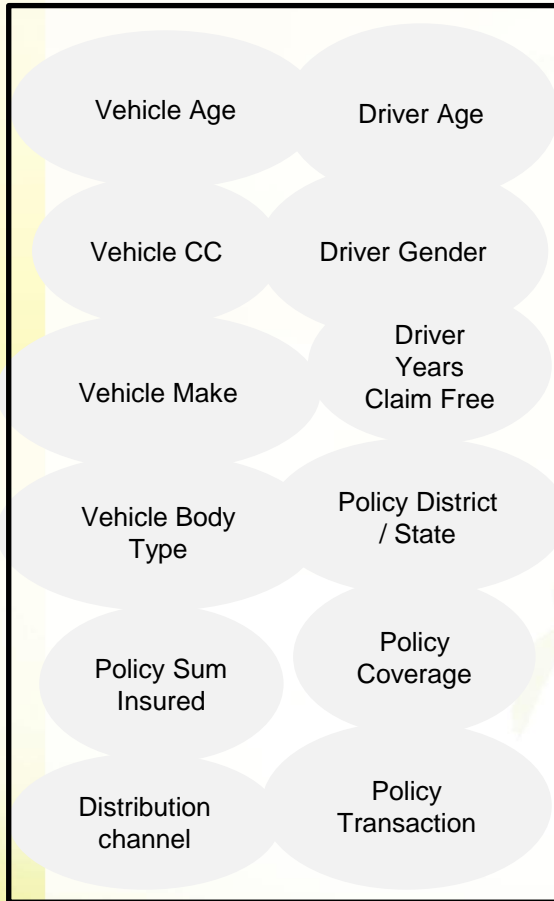
# A framework for effective pricing and portfolio management





# GLMs

## Many Factors



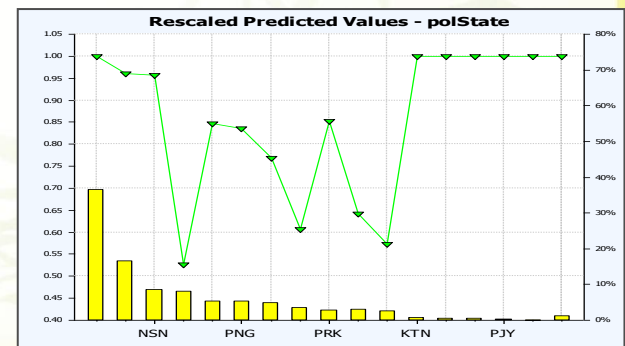
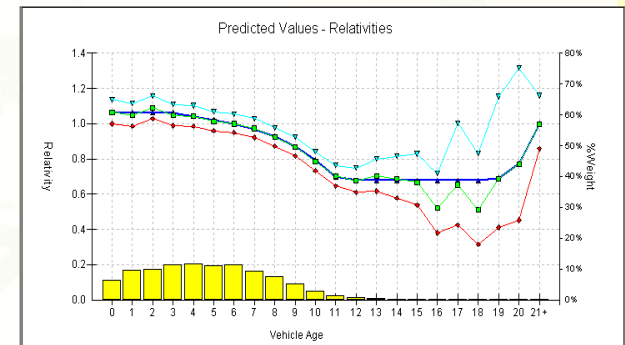
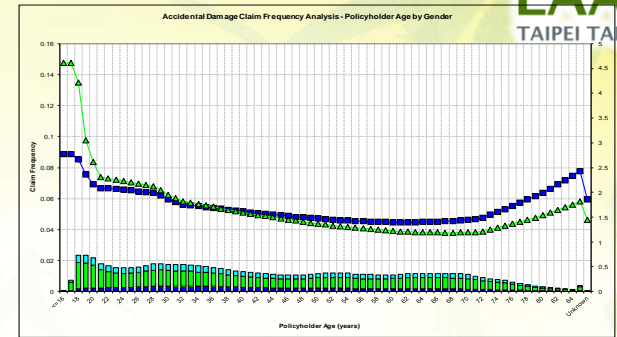
Pure Effects

Age x Gender

Vehicle Age

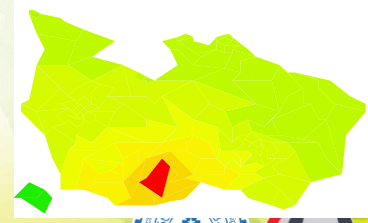
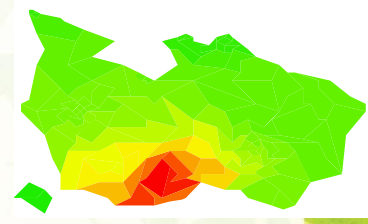
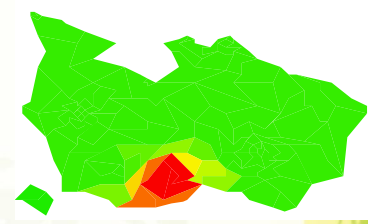
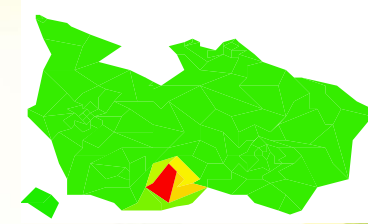
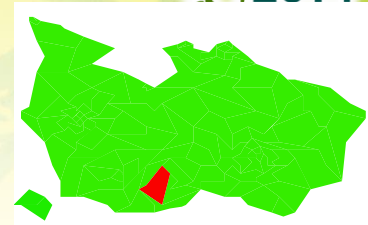
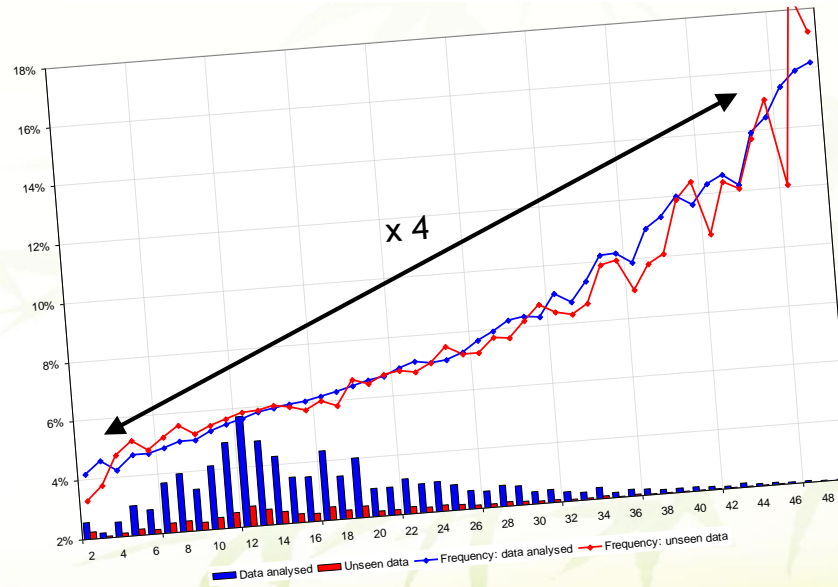
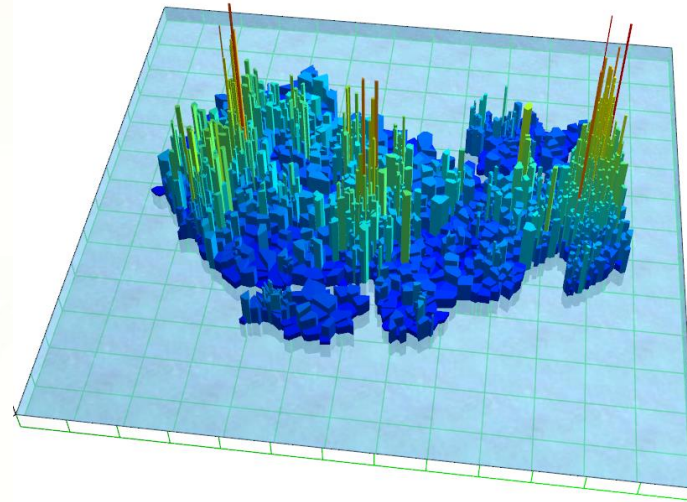
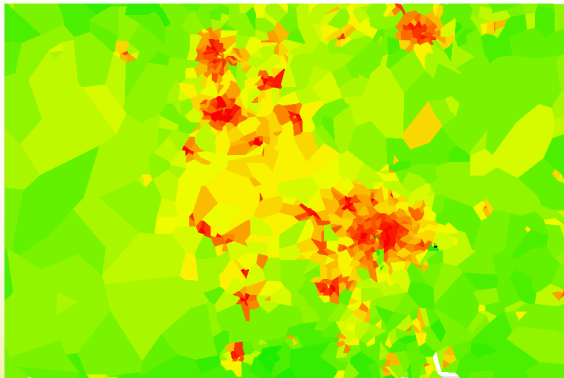
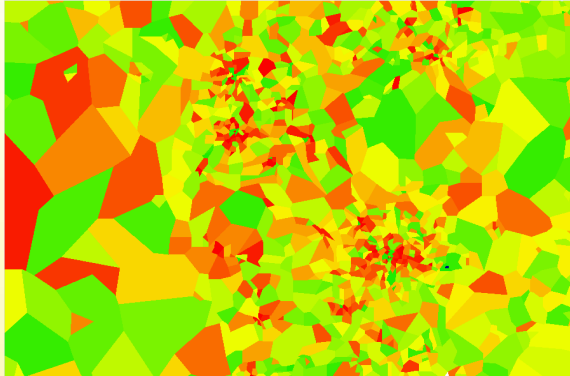
Rating Area

Etc.....



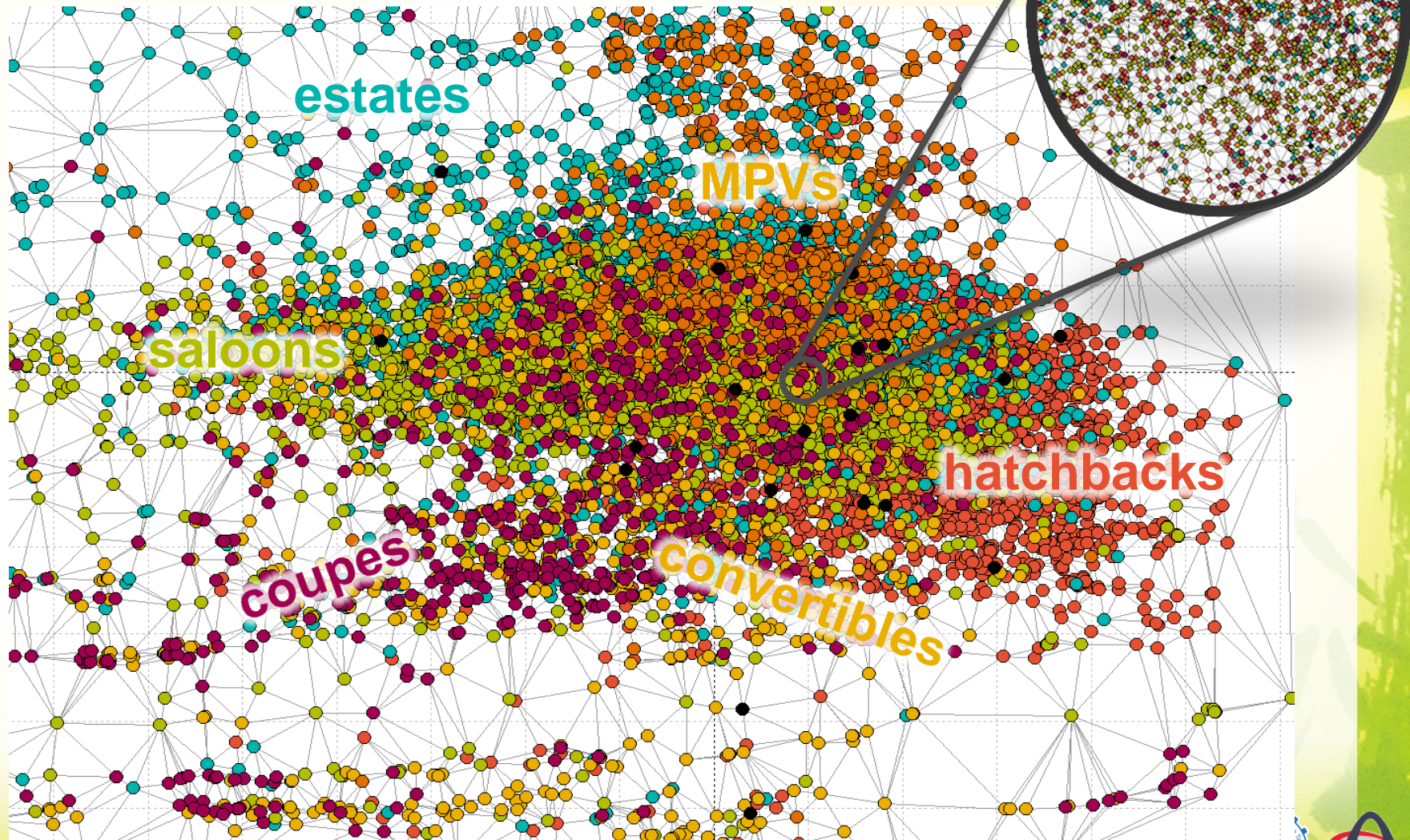
Simplifies a multiple dimensional problem to a series of one and two-way views ...

# Risk based pricing - area



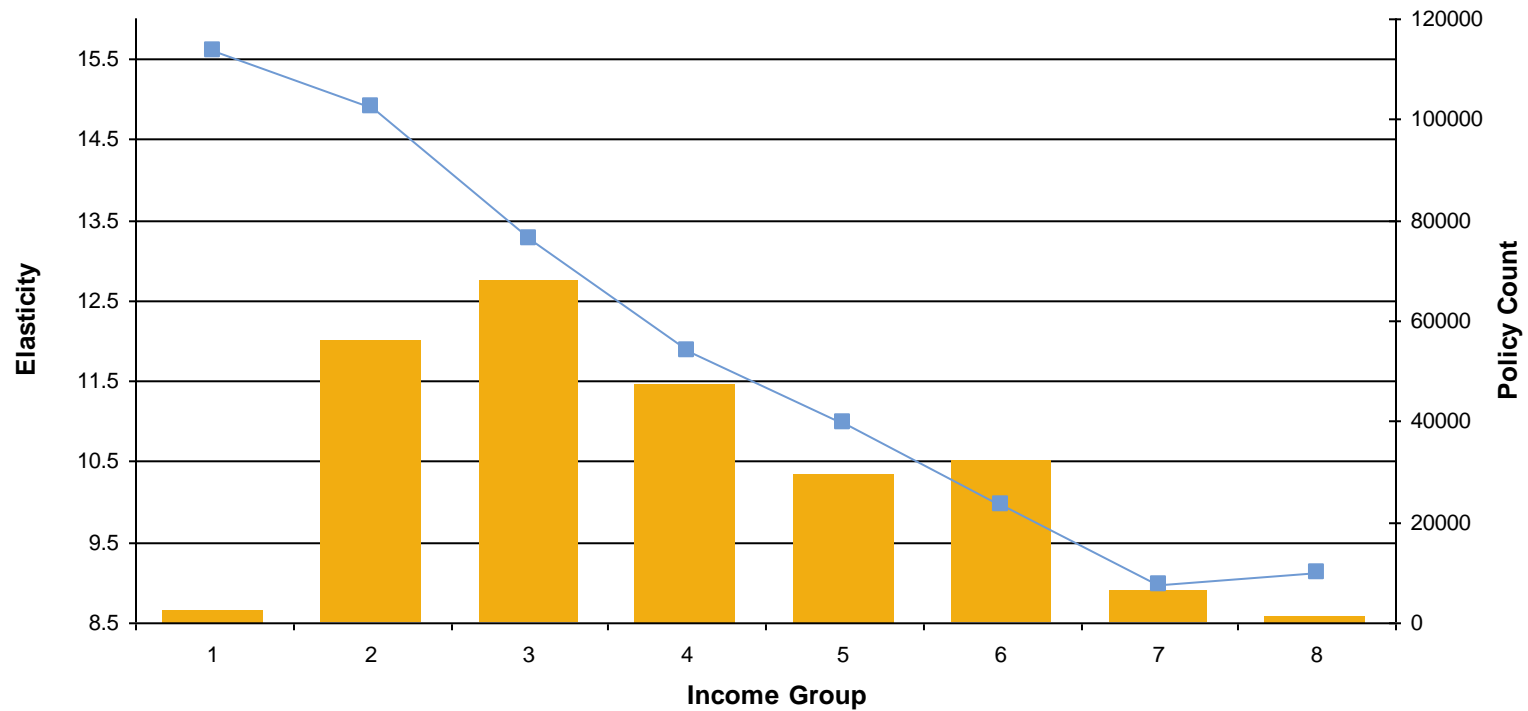


# Risk based pricing – vehicle



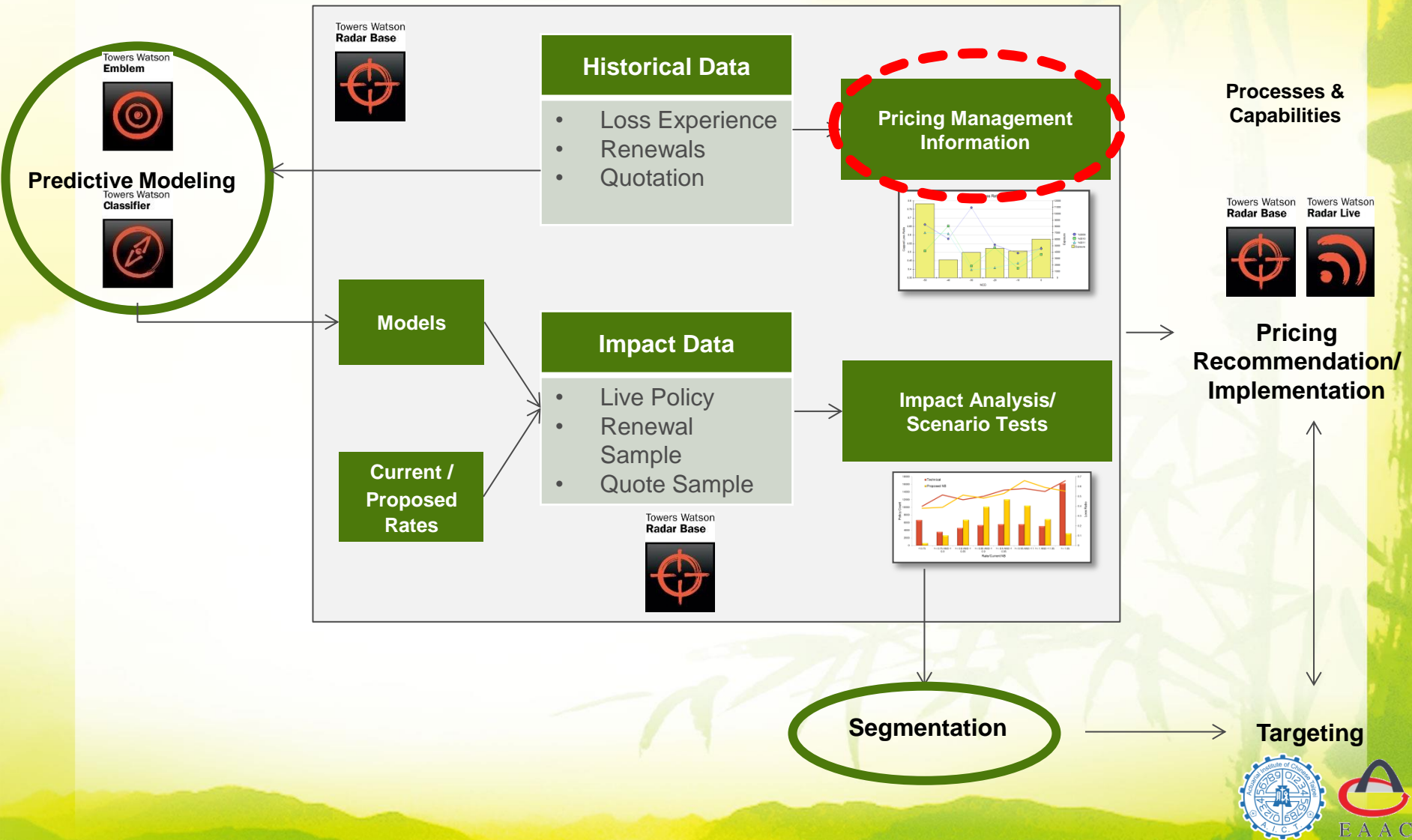
# Customer behaviour

## Elasticity Variation by Affluence

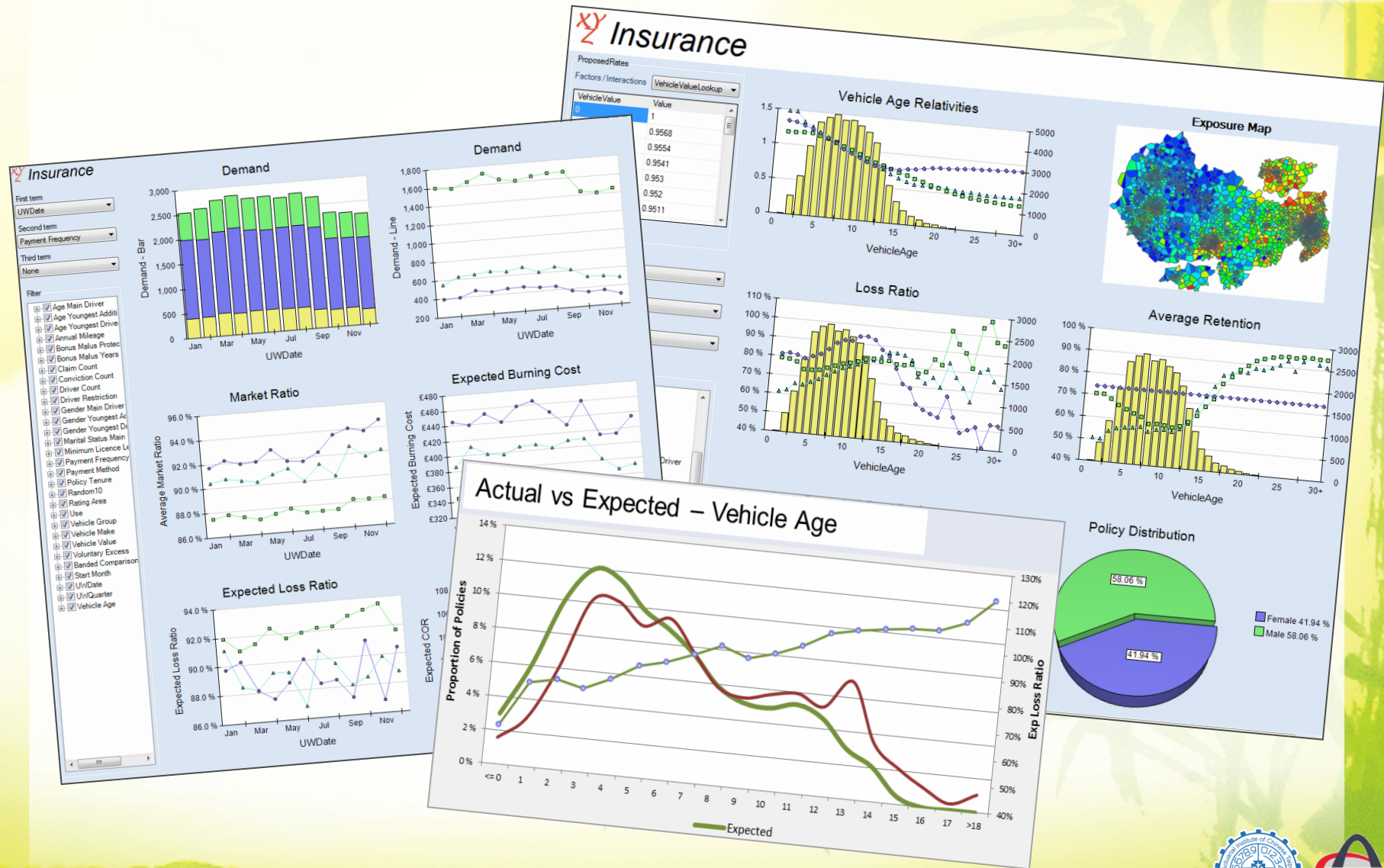




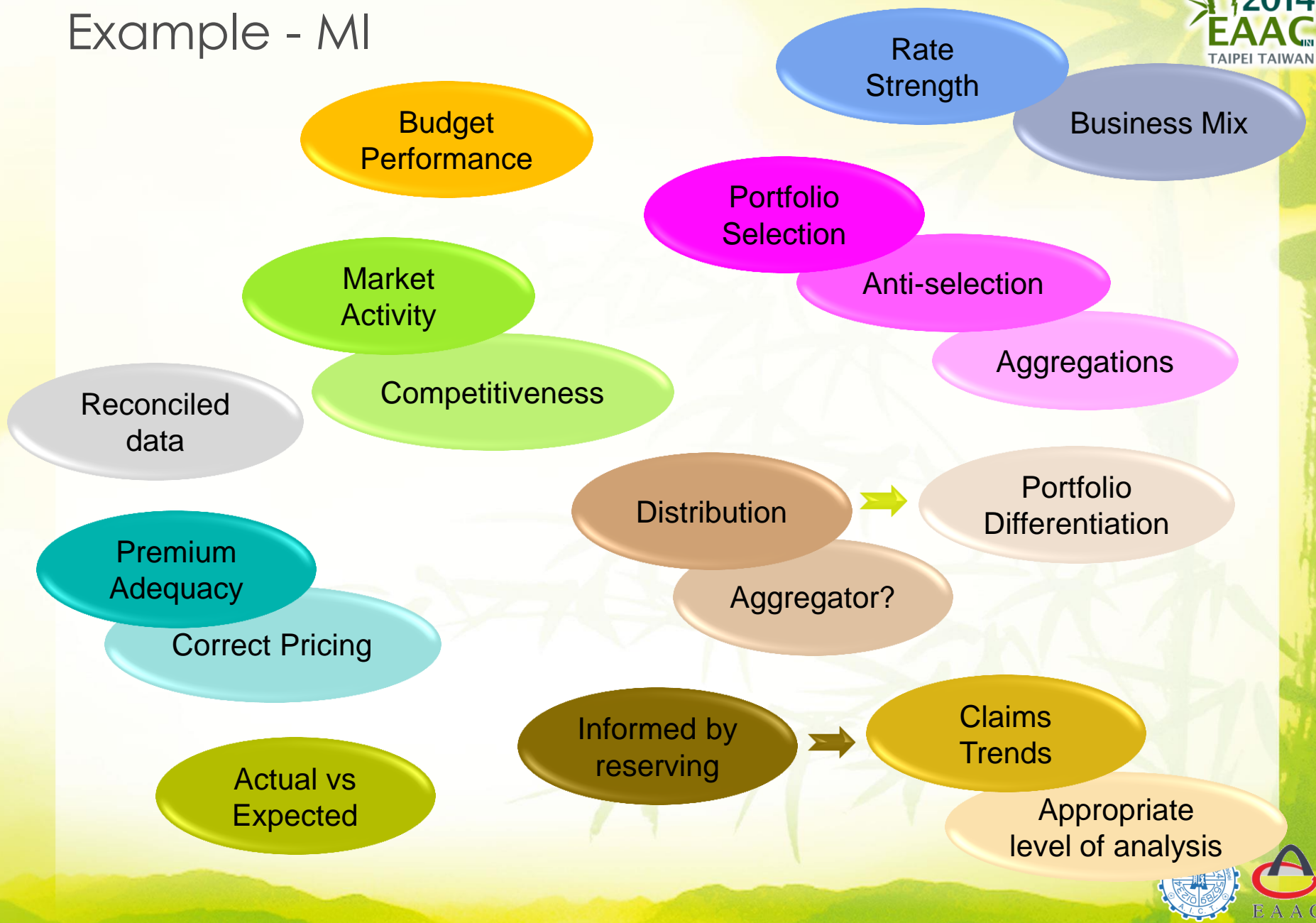
# A framework for effective pricing and portfolio management



# Monitoring and decision support

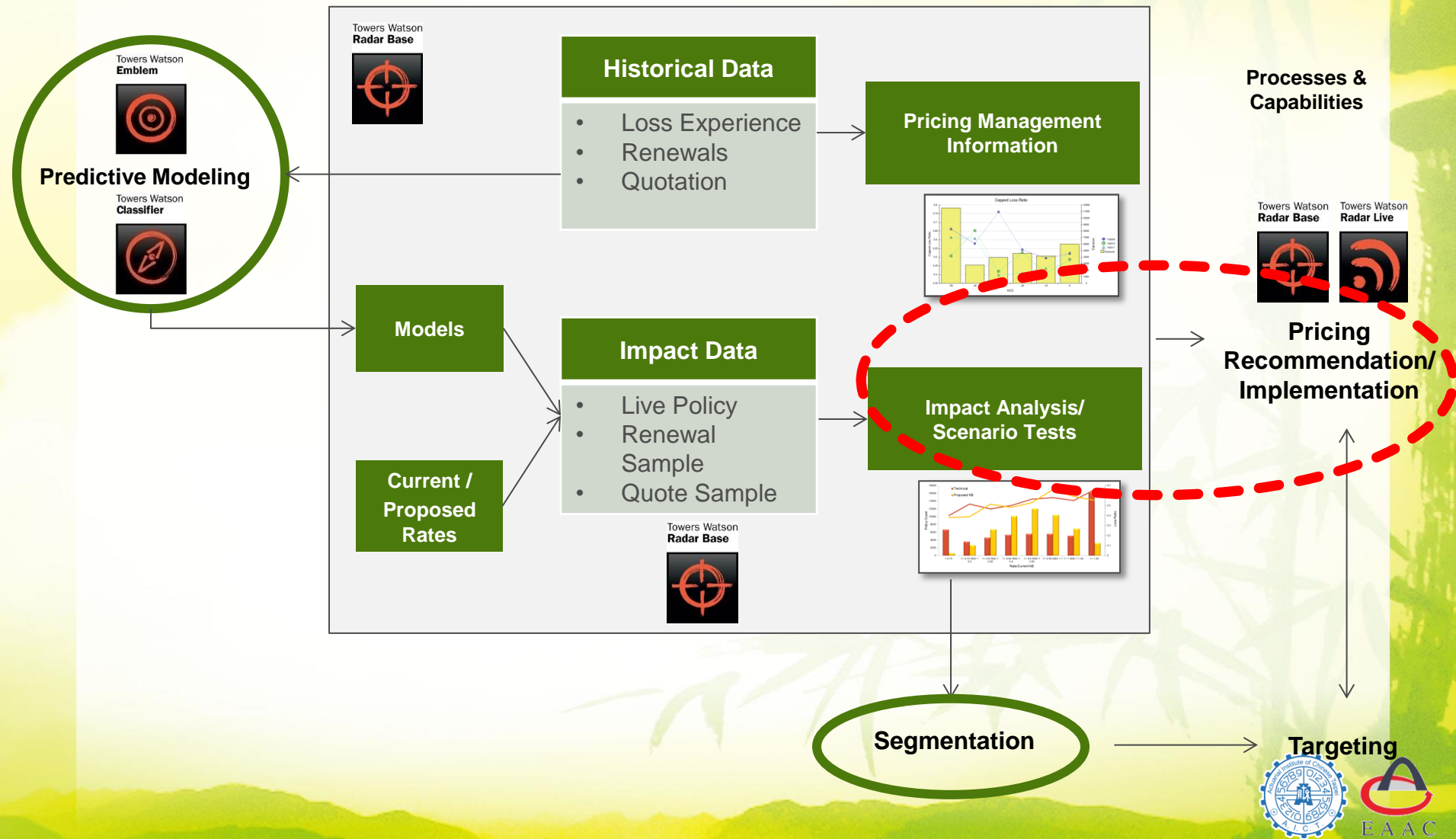


# Example - MI



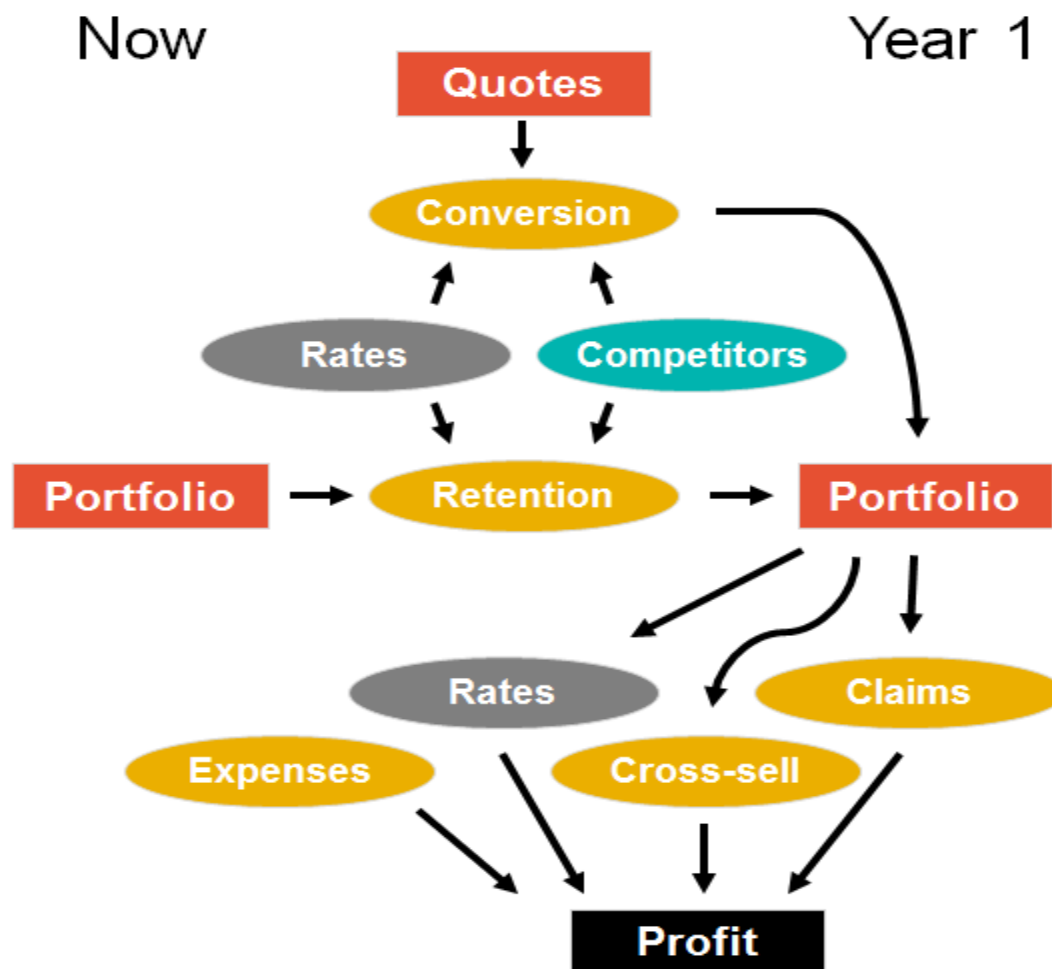


# A framework for effective pricing and portfolio management





# How are models applied in practice?



# Price assessment - scenario testing

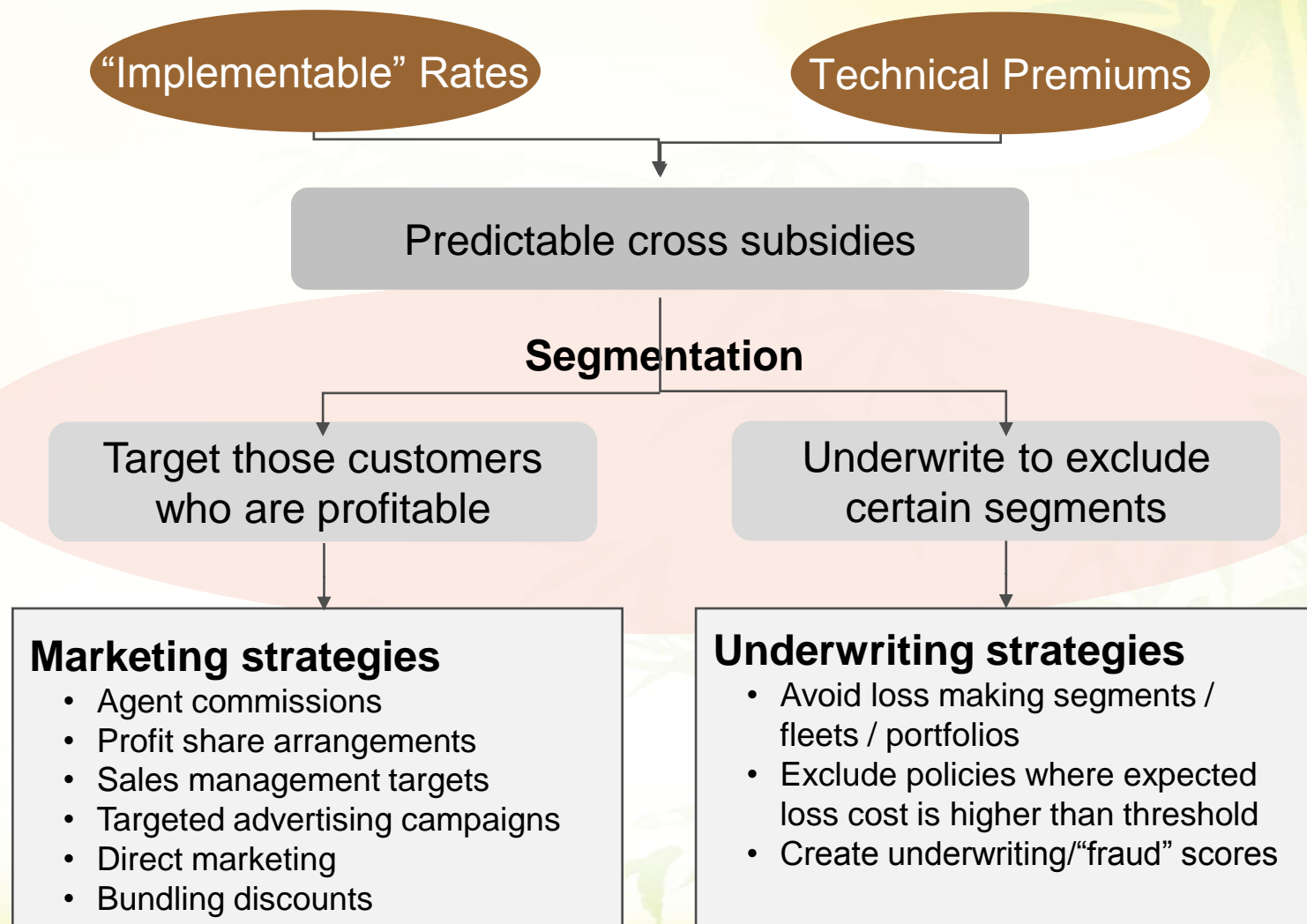


# Implementation and rate delivery



- Models
- Projections
- Metrics
- Selections
- Underwriting rules
- Strategy tests
- Price tests
- Optimisation

# Compare implementable rates to the technical premium





# Agenda

Trends in the Personal Lines markets within Asia



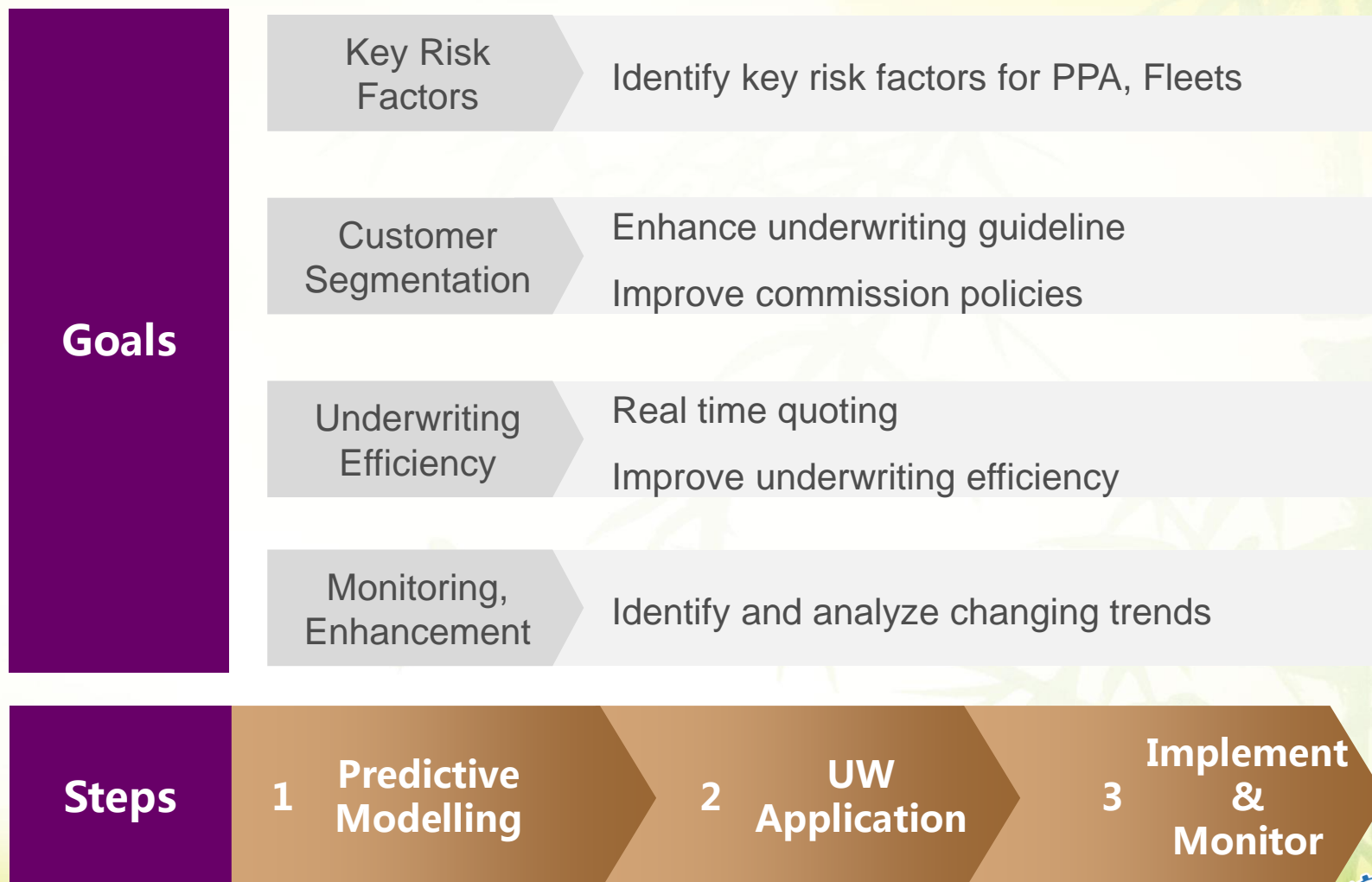
Effective pricing and portfolio management in Asia



Chinese Case Study



# Typical pricing project steps undertaken by Chinese insurers



# Enhance risk segmentation

## Current

### Existing Pricing Factors

- Sum insured
- No Claims Discount
- Renewals
- Vehicle Age
- Number of seats

## Enhanced

### Additional Driver Factors

- Policyholder Age
- Policyholder Gender
- Coverage Combinations
- ...

### Additional Sales Factors

- Branch
- Channel
- ...

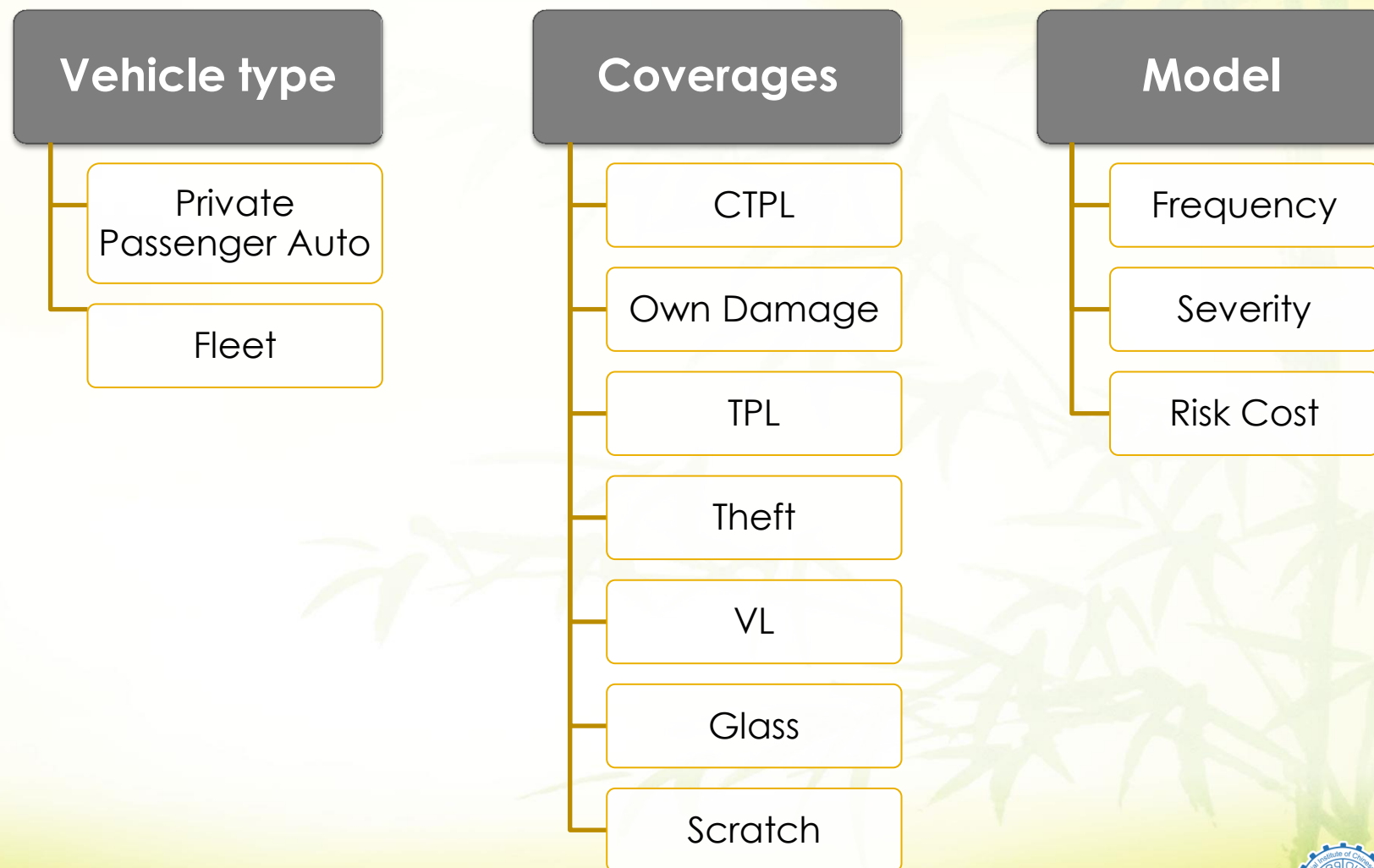
### Additional Motor Factors

- Air Displacement
- Purchase Price
- ...
- ...

### Additional Fleet Factors

- Fleet size
- ...

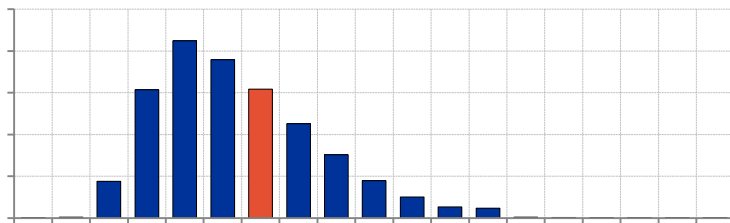
Numerous predictive Models are built to understand risk factors



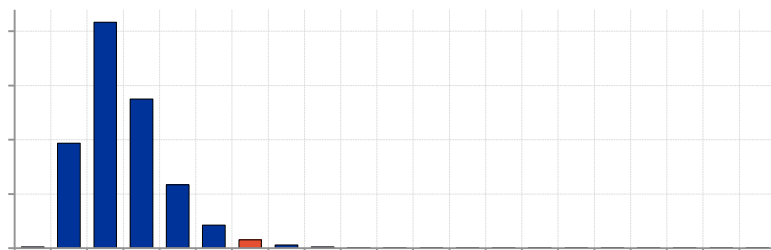


# Price restrictions mean significant cross-subsidies remain

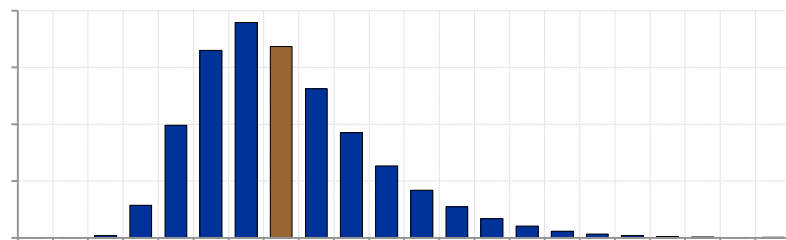
CTPL—Private car



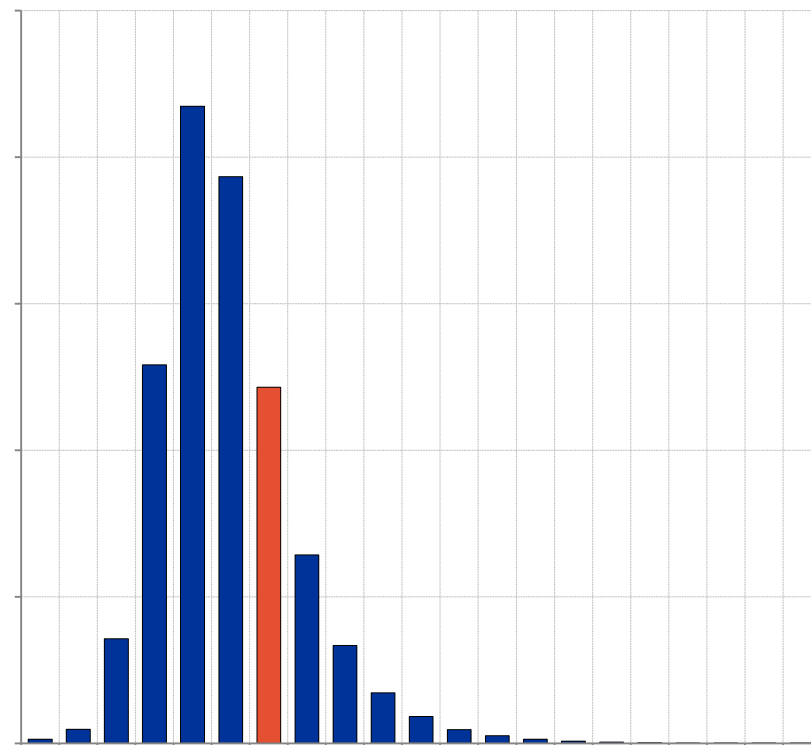
TPL —Private car



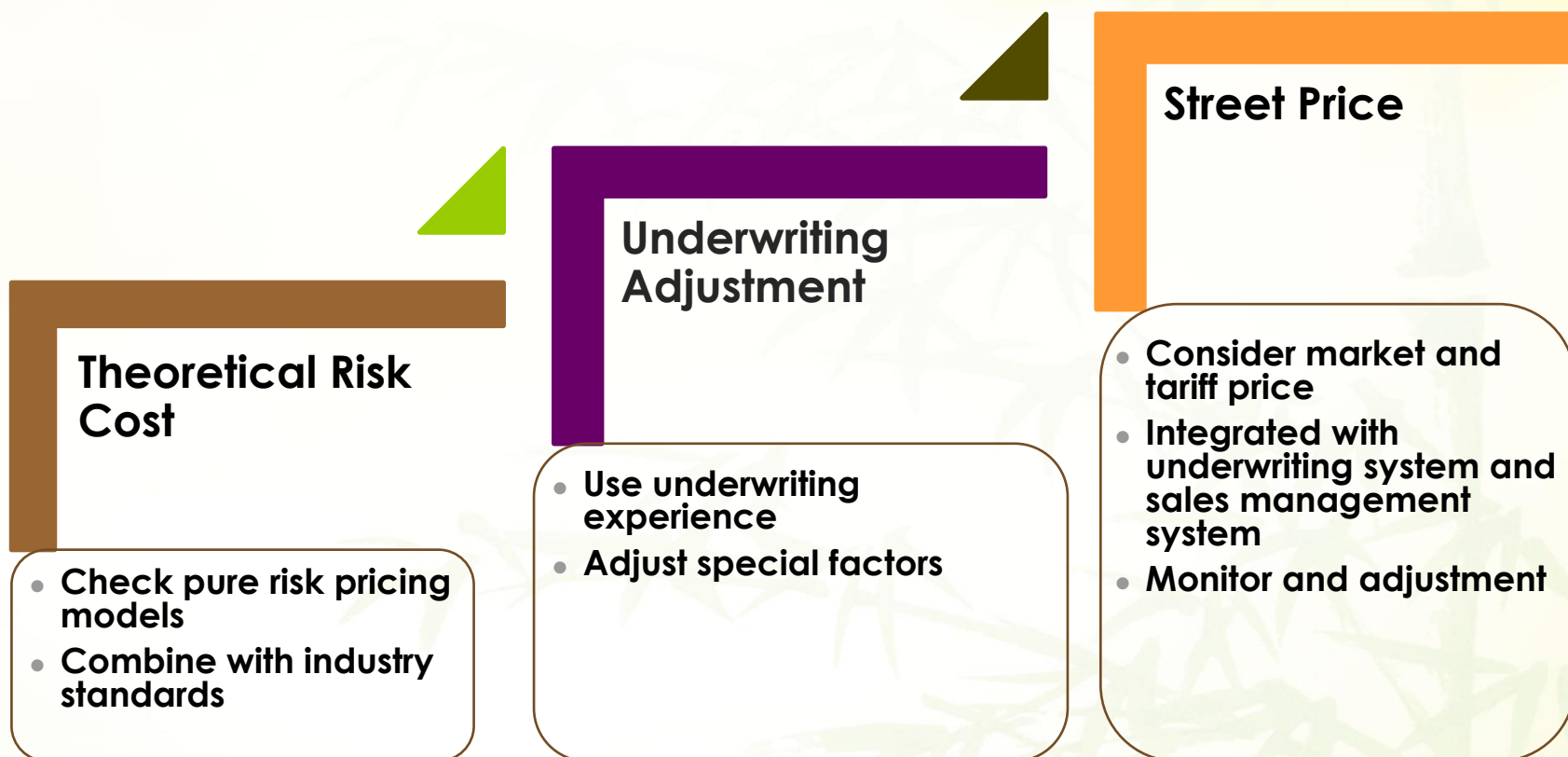
OD—Private car



Whole policy—Private car

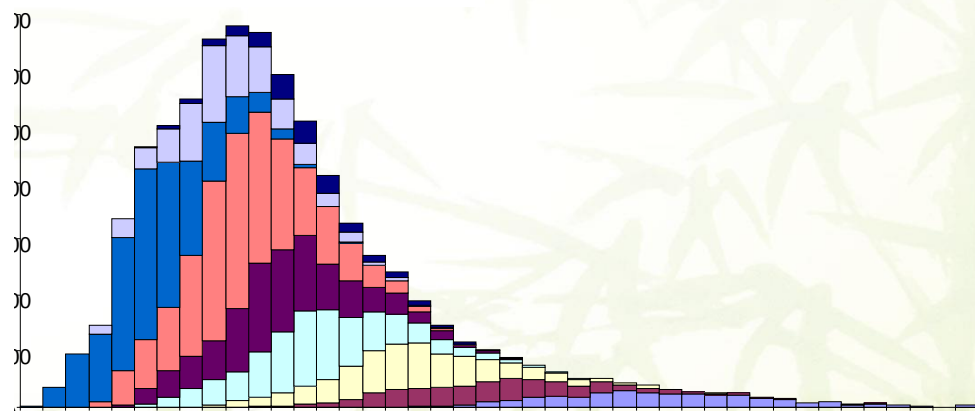
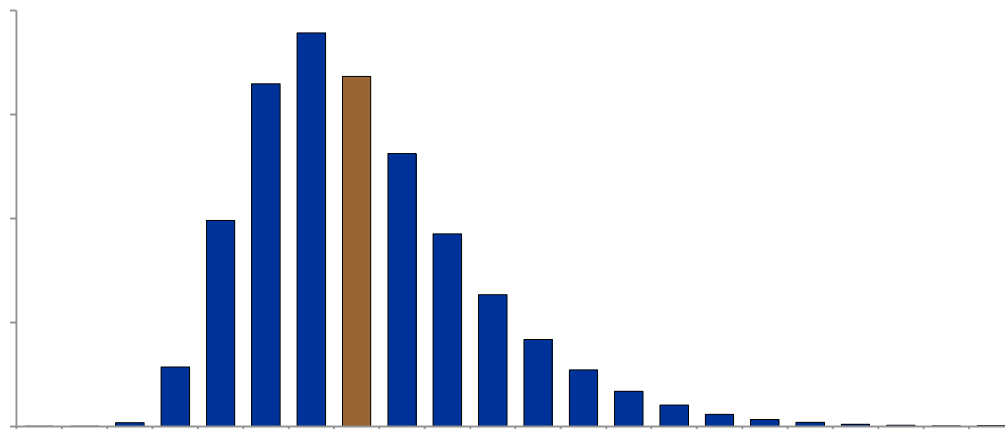


# Considerations for setting the actual premium for real time quotation

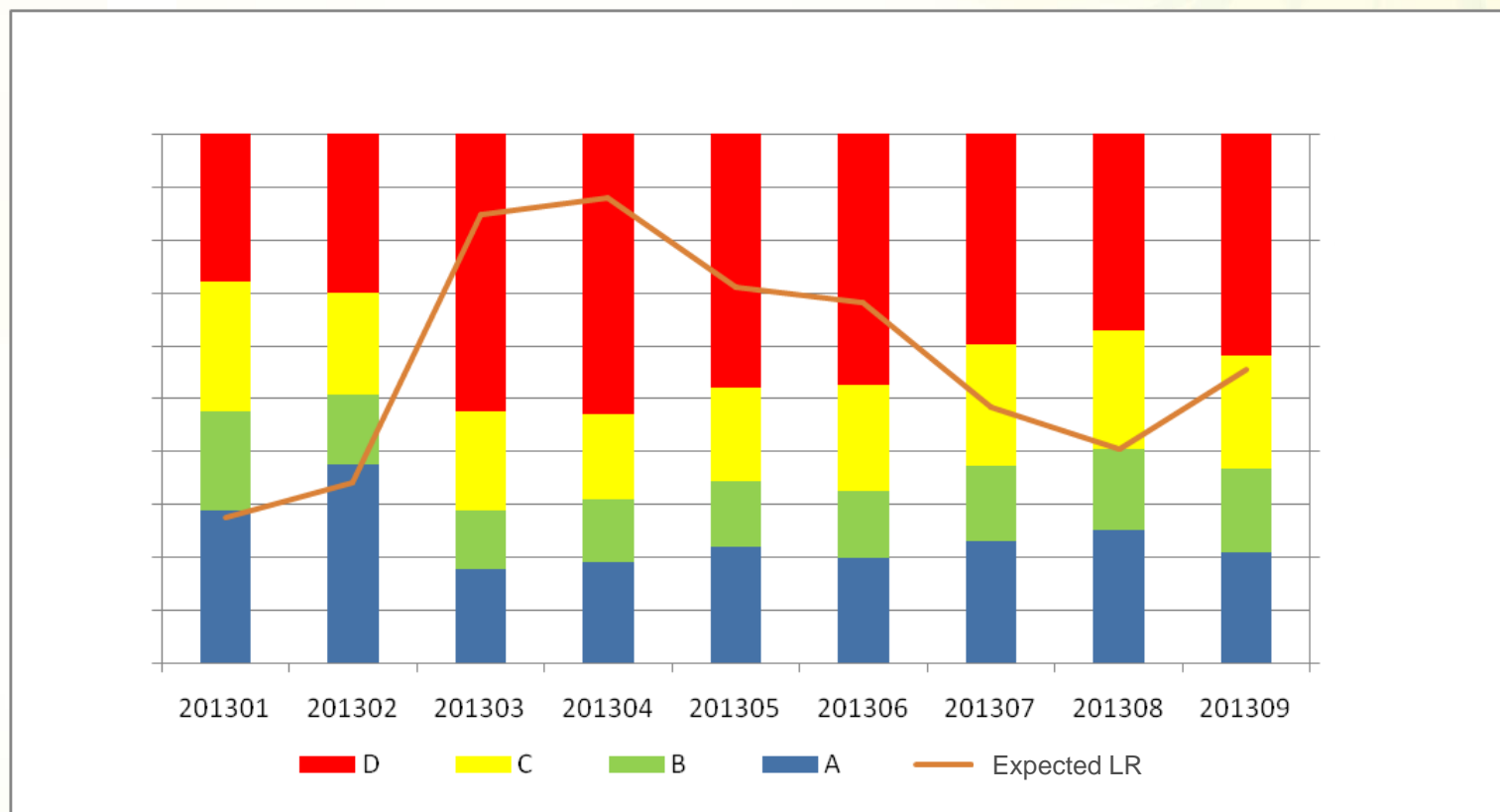


# Effective customer segmentation is key for underwriting rules

OD Distribution of Policy Quality



# Example on monitoring and diagnostics

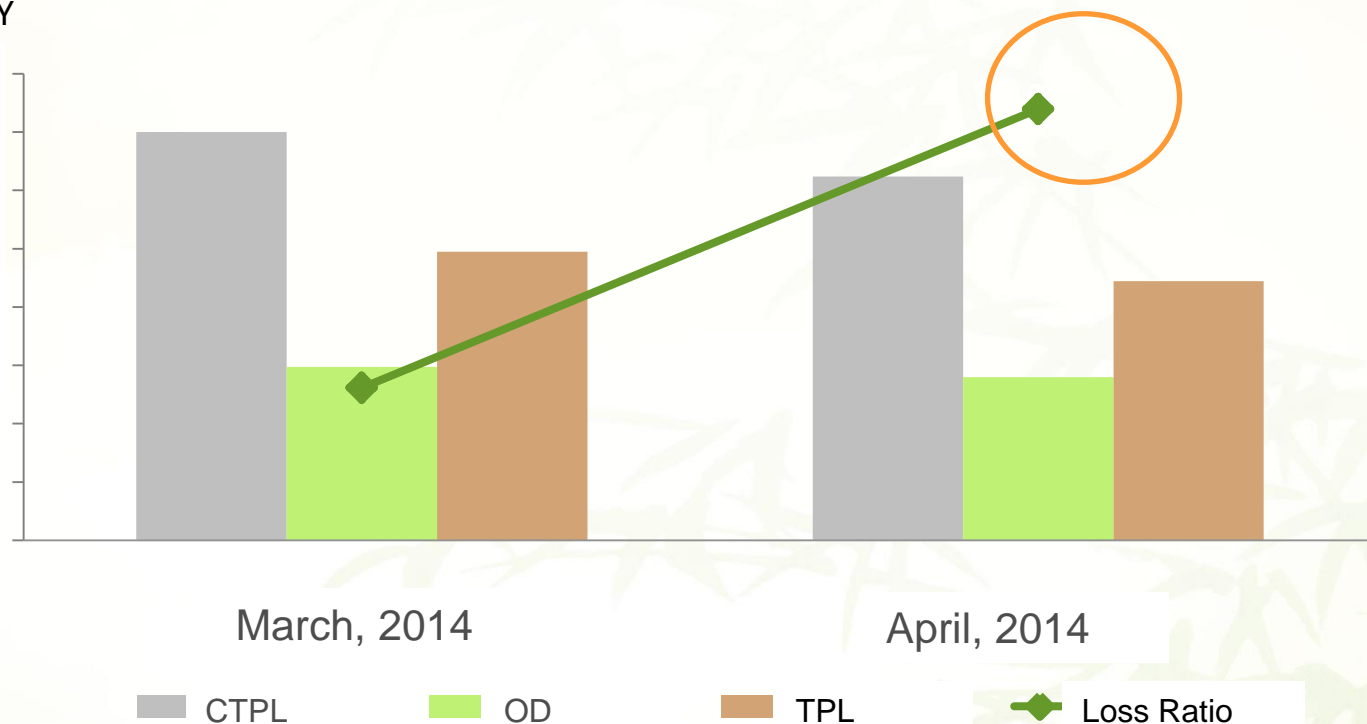




# Use appropriate tool and methodology for monitoring and analysis

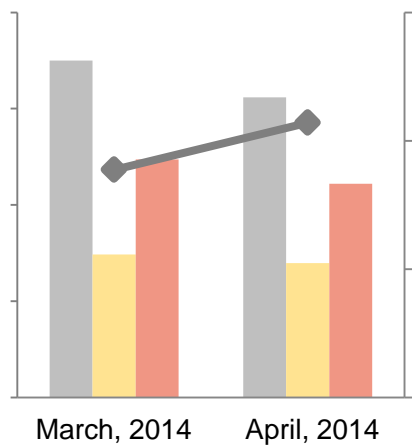
- At the end of April 2014, managers observed that the predicted loss ratio of underwriting business was higher **in that month**.

ECY

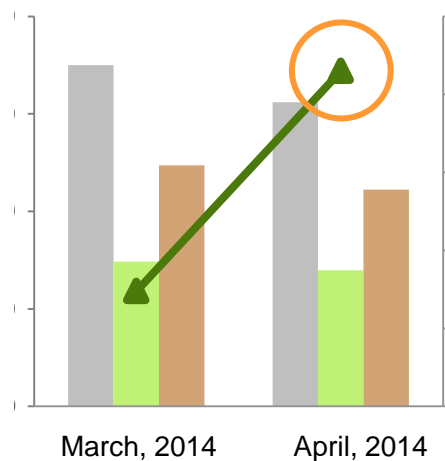


Explore  
by Insurance

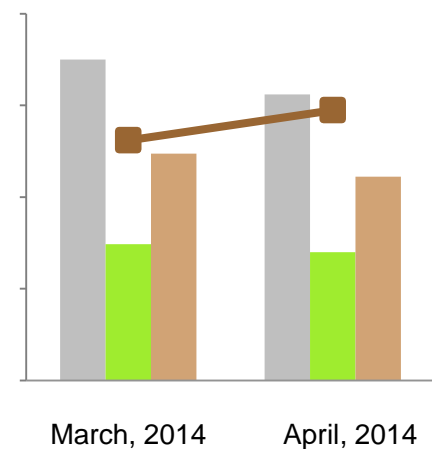
# OD is the main reason for the rise of loss ratio



CTPL



OD

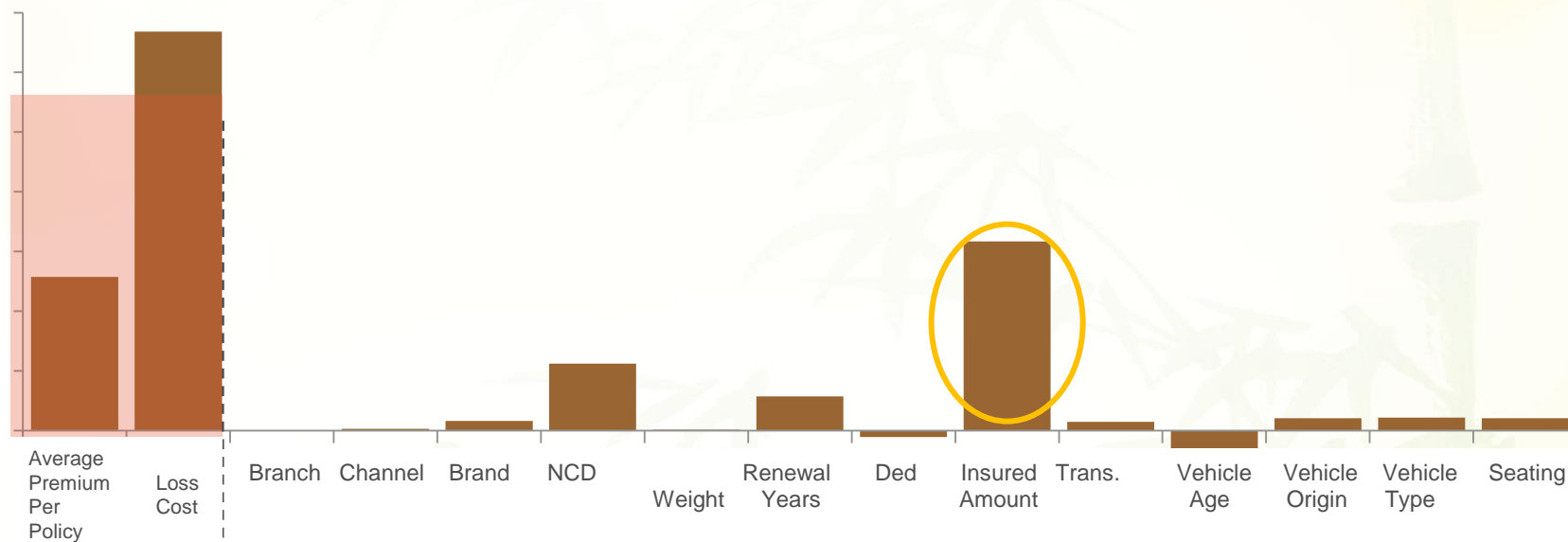


TPL

OD Exploration



# Identify the key contributing risk factor



Insured Amount  
Exploration

# Main challenges in effective pricing and portfolio management

**IT systems**

**Company's  
Culture**

**Data quality**

**Regulatory  
rules**

**Skills/Talent**

**Business strategy**

**Competitors**

**Current pricing  
structure**

**Underwriting  
acceptance rules**

**Ability to monitor  
business**

**Distribution – What  
will the agents  
accept**

**Culture – What will  
the customers  
accept**

Practical business constraints exist to limit what you can do



# Best practice pricing requires cross-functional engagement



A best practice approach to pricing requires aligned behaviour of all pricing stakeholders

# Thank You!

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