### ICA Cancun 2002

# Learning from Experience

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18 M arch 2002



# Objectives

#### To help a Product Manager to

- Understand the impact on the insurer's financials
- Identify the key risk factors
- Learn from experience
- Modify strategy and tactics

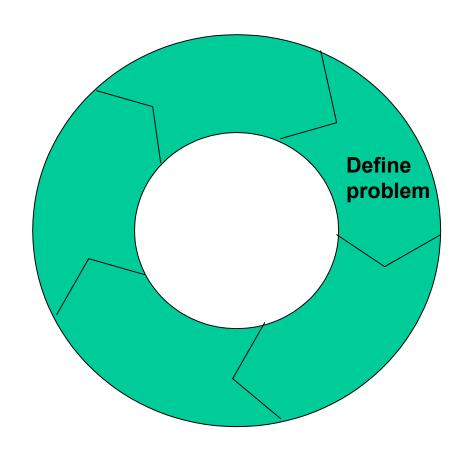


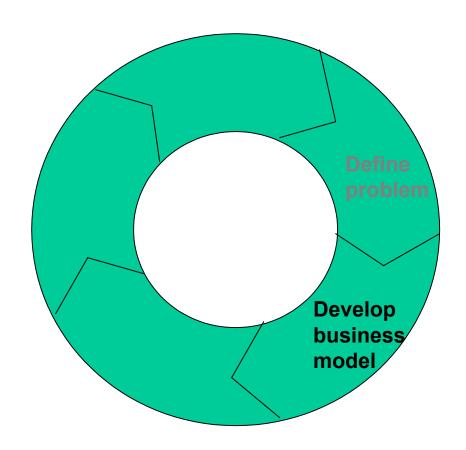
### Health Insurance Products

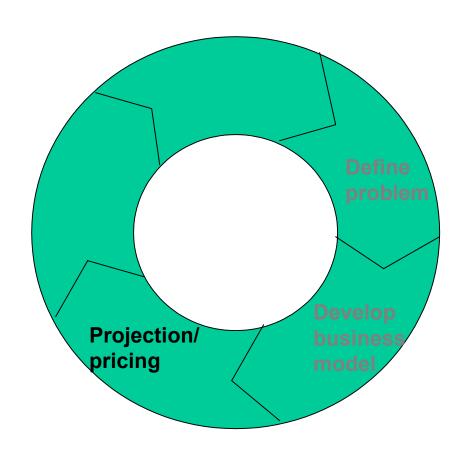
- Critical Illness
- Income Protection
- Long Term Care
- Medical Expense
- •

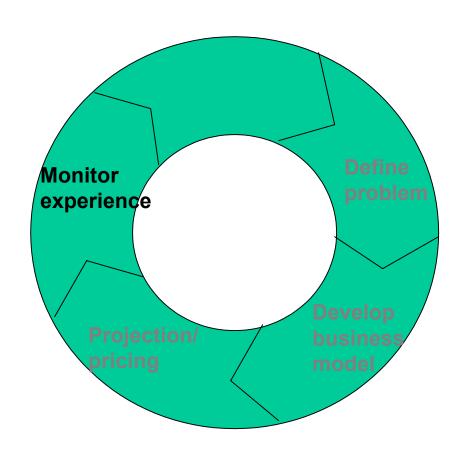
# Scope

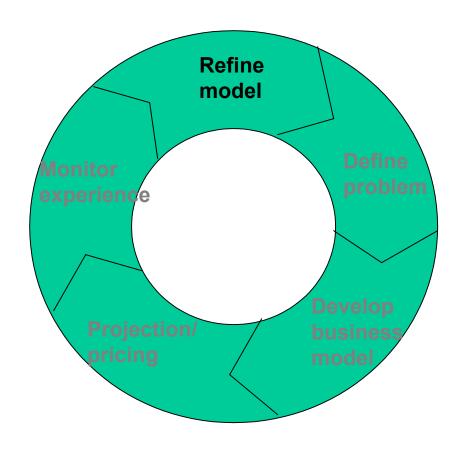
- Product Design
- Distribution
- Pricing
- Reserving

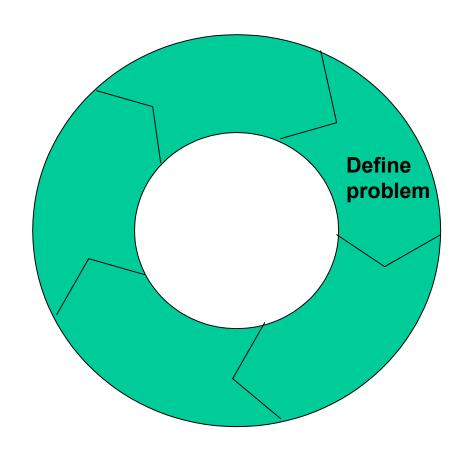










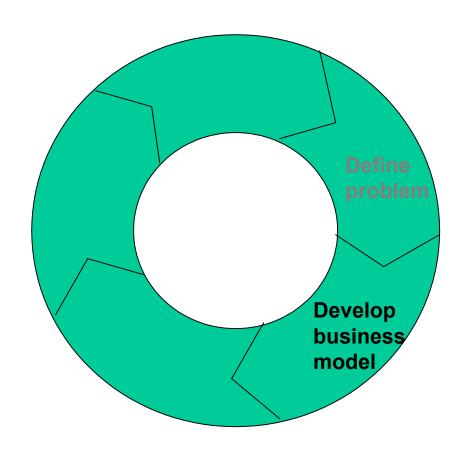


### Define the Problem

#### Establish objectives

- Volume
- Profitability/contribution to overhead
- Modernise product range
- Timescale





### **Business Model**

#### Input items

- Product Design
- Distribution Strategy
- Anticipated Experience
- Reinsurance
- External costs and inputs
- Reporting Framework(s)



### **Business Model**

#### Output items

- Projected Revenue
- Projected Capital needs
- Projected use of other resources
- Sensitivities



# Product Design

- Benefits scale
- Benefit definitions
- Guarantees
- Options

# Distribution Strategy

- Channel
- Target Market(s)
- Model Points
- Pricing Structure
- Underwriting Strategy

# Anticipated Experience

- Product Related

- One-off Development Cost
- Morbidity
- Persistency

# Anticipated Experience - Distribution Related

- Development Cost
- Volumes
- Mix

### Reinsurance

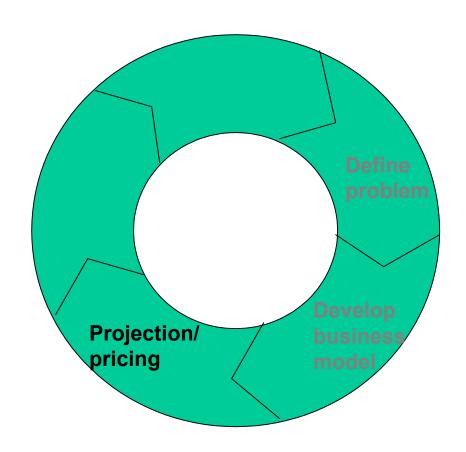
- Method
- Reinsurance Limits
- Reinsurance Terms

# External Costs/Inputs

- Capital
- Issue Expense
- Maintenance Expense
- Tax
- Investment Income

# Reporting Framework

- Accounting Conventions
- Reserving algorithms
- Solvency Capital
- Possible future changes



# Projected Revenue

- On all the bases that matter
- Monthly intervals
- Full revenue account
- Surplus/deficit
- "Drill-down" facility

### Resource Utilisation

#### Capital

- Accumulated Statutory deficit
- Solvency Margin
- RoCE

#### Other

People, space, IT capacity....



### Sensitivities

- Deterministic versus Stochastic
- Single parameter tests
- Environment tests
- Combination "Doomsday" tests
- Identify key risk factors....and manage

### Model Overview

- Own the Model
- Document
- Communicate key findings



# Parameter Setting

#### Sources

- Own experience
- Colleagues
- Market Experience
- Reinsurers
- Official Statistics
- Professional papers



# Pricing Benchmark

- Price to achieve profit target
- Compare with peer group
- Investigate differences

# Benchmarking Review

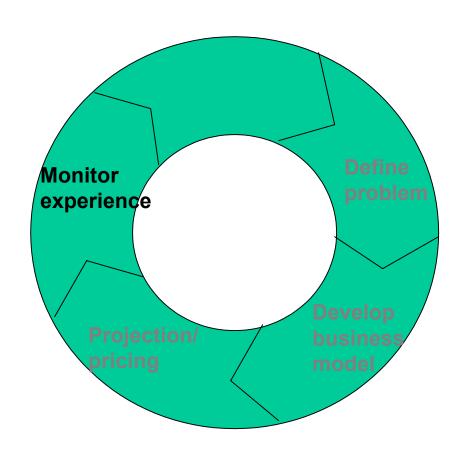
- Confirm approach
- Modify approach
- Abandon?



### Systems

#### Objectives

- Collect any data that might indicate a risk factor
- Collect detailed claims data
- Facilitate changes to product design



### Evaluate Experience

#### Tools

- Whole account studies
- Single factor studies
- Progressively refine if/when data allows
- Multiple regression analysis

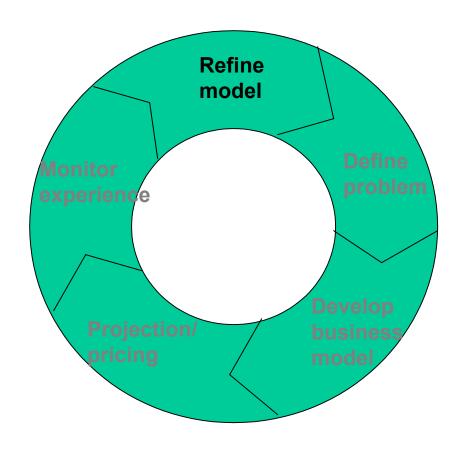
### Things to look at....

- All the assumptions in the model
- Numbers <u>vs</u> amounts
- Decrements rates <u>vs</u> anticipated actual
- Analysis of surplus under different regimes
- Projected revenue: outturn
- Peer group performance



### Research Programme

- Prioritise
- Rolling program
- Standardise
- Automate
- Contribute to industry studies



### Learning the Lessons

- Identify the best parts of the portfolio
- Identify the worst-performing parts of the portfolio
- Modify Business Plan
- Reprice

# Product Design

- Benefits scale
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# Distribution Strategy

- Channel
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### Overview

Control cycle is a vital tool

Provides early clues as to best route through largely uncharted territory

Key elements

- documentation
- projection
- data collection
- analysis
- modification of policy

