

# Case study: ERM in Tapiola General

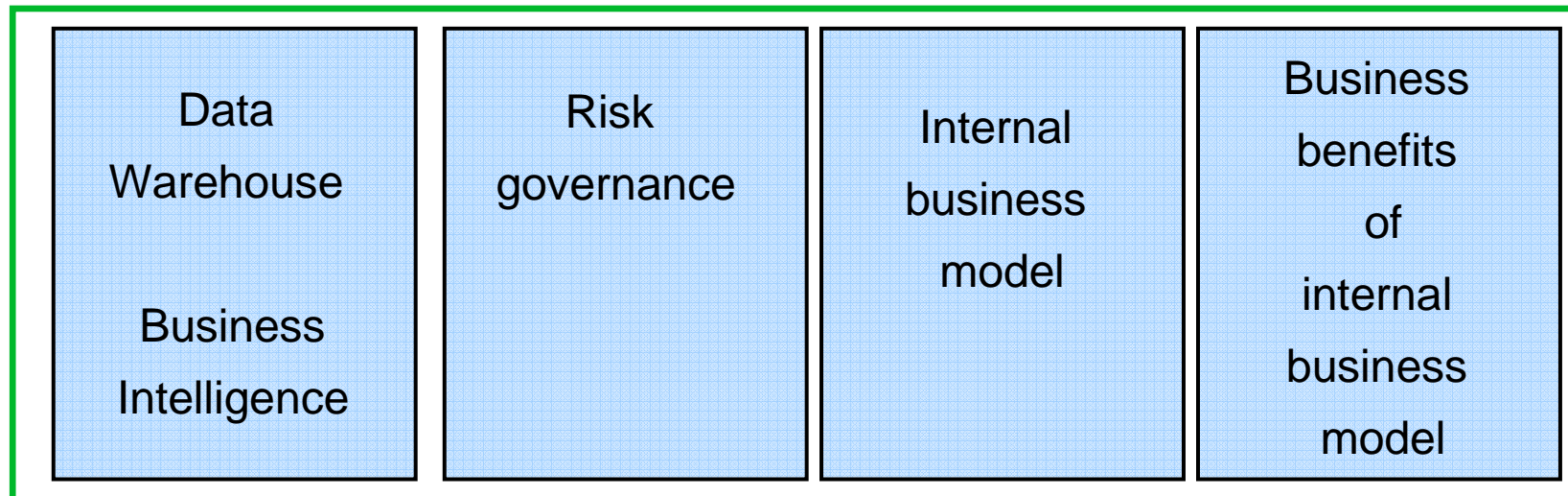
**The European Congress of Mutual and Cooperative Insurance  
Helsinki, 16-18 June 2008**

**Markku Paakkanen**

## Objective of Enterprise Risk Management-project

- to adopt best practices in ERM enabling significant business benefits
- to fulfil also the regulatory requirements (especially Solvency II).

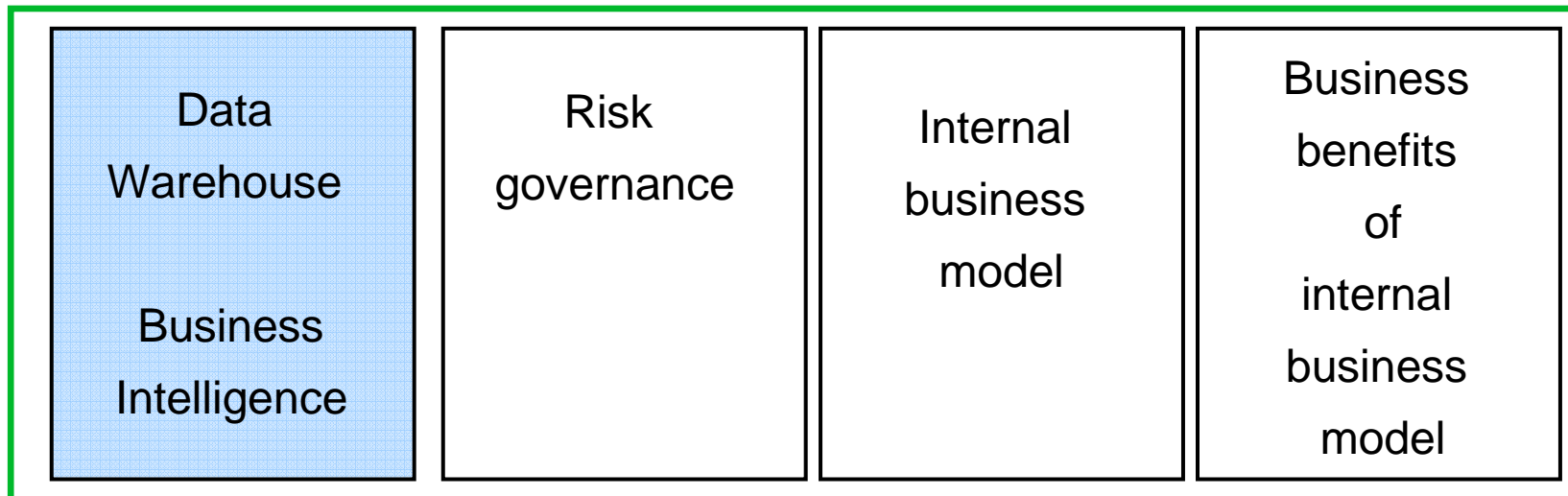
## Key areas in Tapiola's ERM



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## Key areas in Tapiola's ERM



# Development of Enterprise Data Warehouse and Business Intelligence-solutions

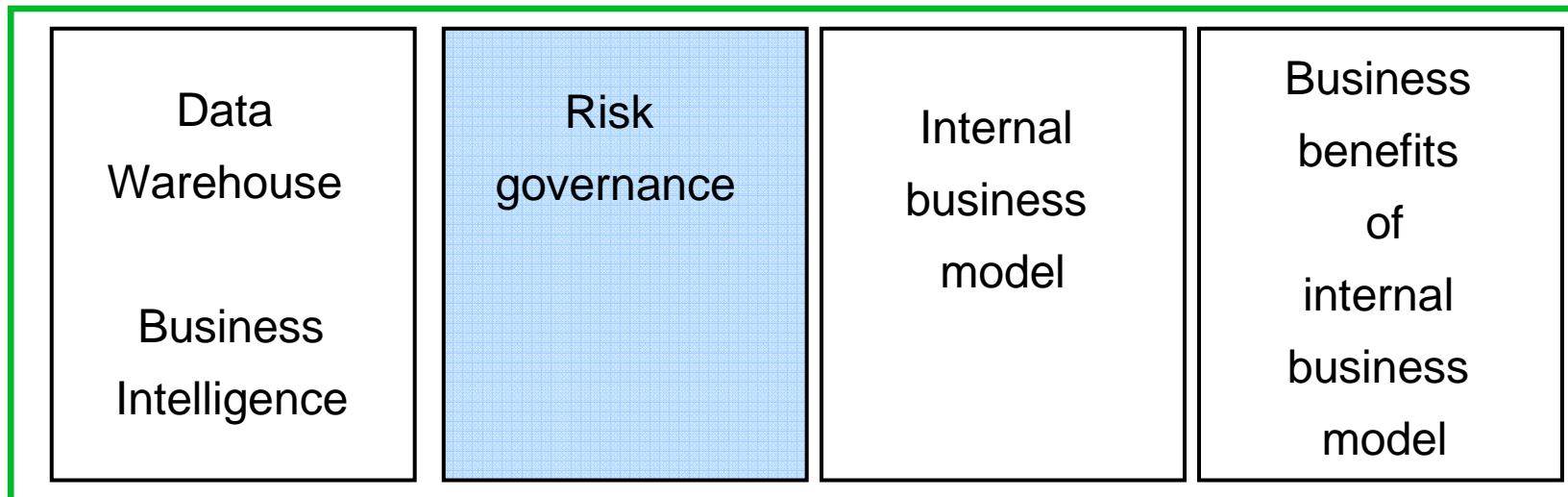
## Objectives in DW and BI

- Support better **strategic and operative management**
- Enable better analysis and management of different customer segments **(CRM)**
- Enable **more risk based pricing** and **better risk selection**

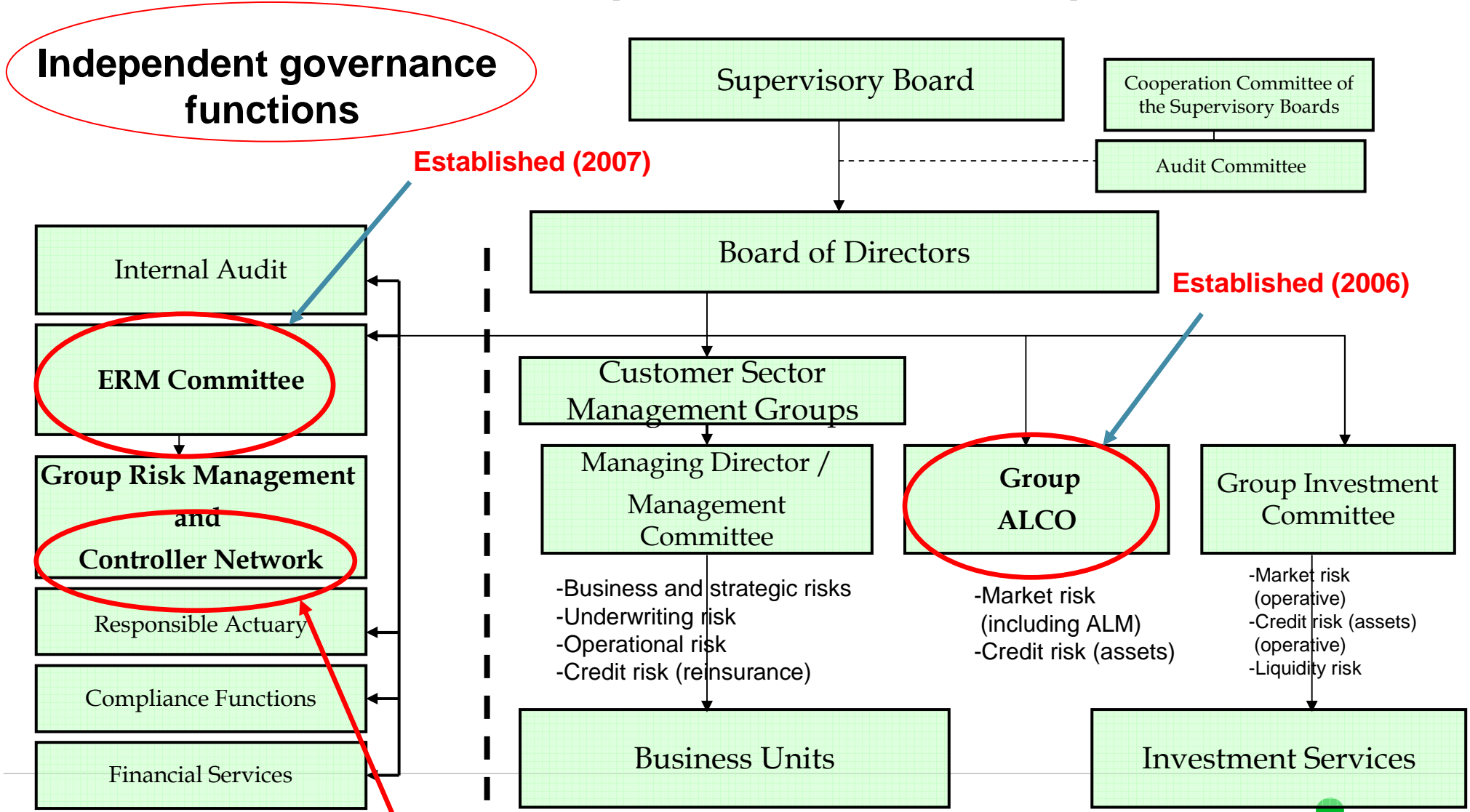
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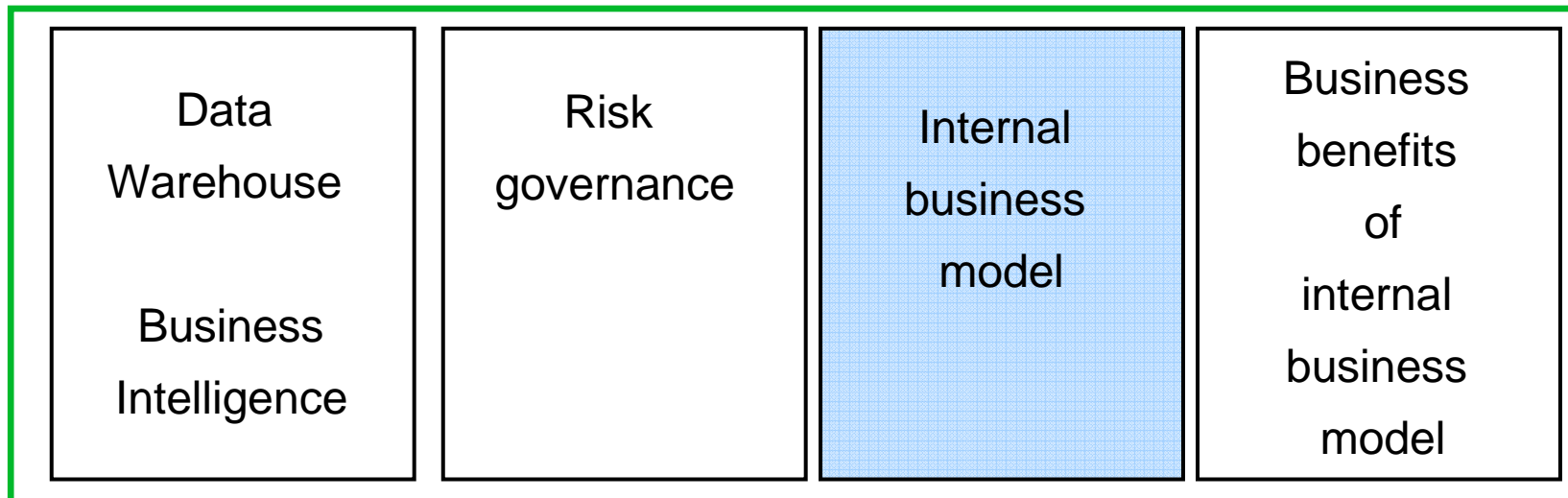
# Risk Governance of Tapiola General and Tapiola Life



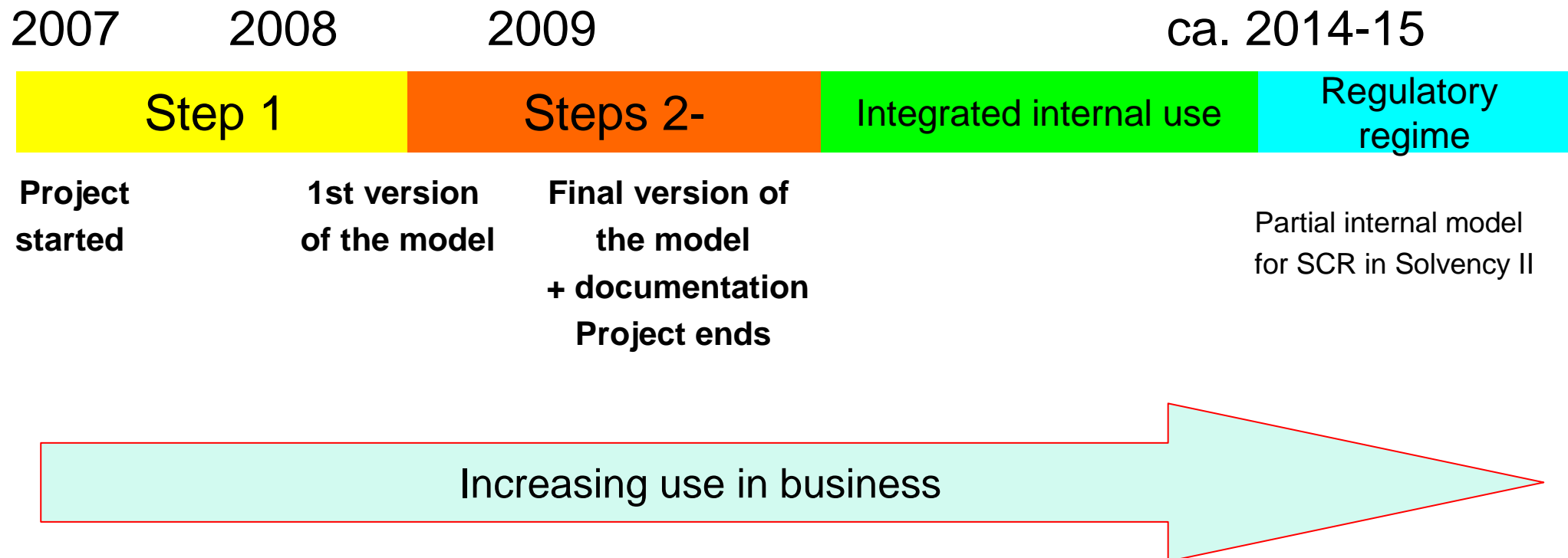
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## Key areas in Tapiola's ERM



## IM-project timeline

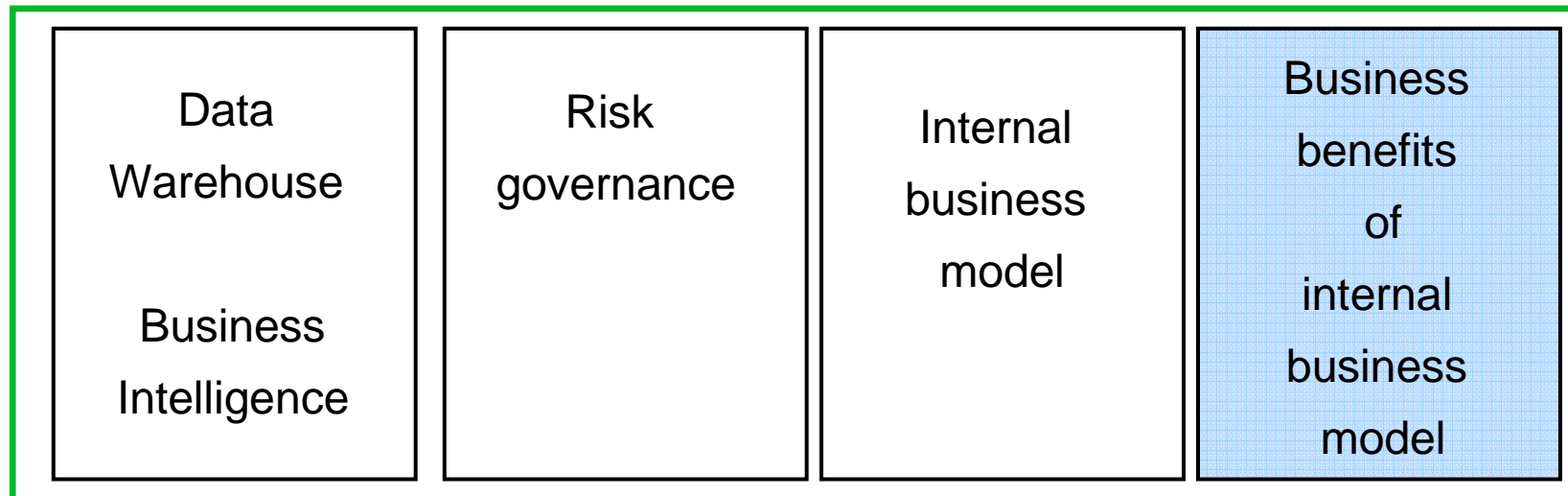




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## Key areas in Tapiola's ERM



## Tapiola's expectations on its ERM efforts

### Remarkable business advantages

As a result of Solvency II and ERM **projects progress is to be expected in**

- The group's **overall risk management** culture in terms of governance, reporting, documentation and information
- Determine **the risk-based capital (RBC)** and **allocate RBC to lines of business and customer segments**
- **Risk selection** in underwriting
- **Pricing of products** and product design

## Tapiola's expectations on its ERM efforts

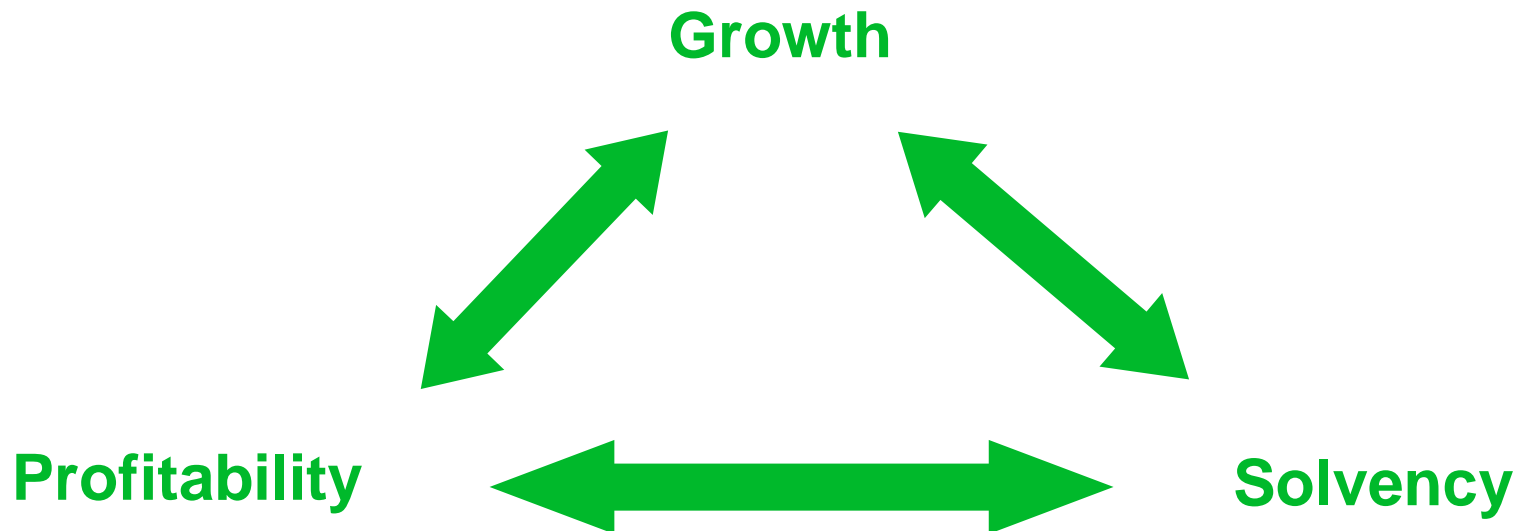
### Remarkable business advantages

As a result of Solvency II and ERM projects **progress is to be expected in**

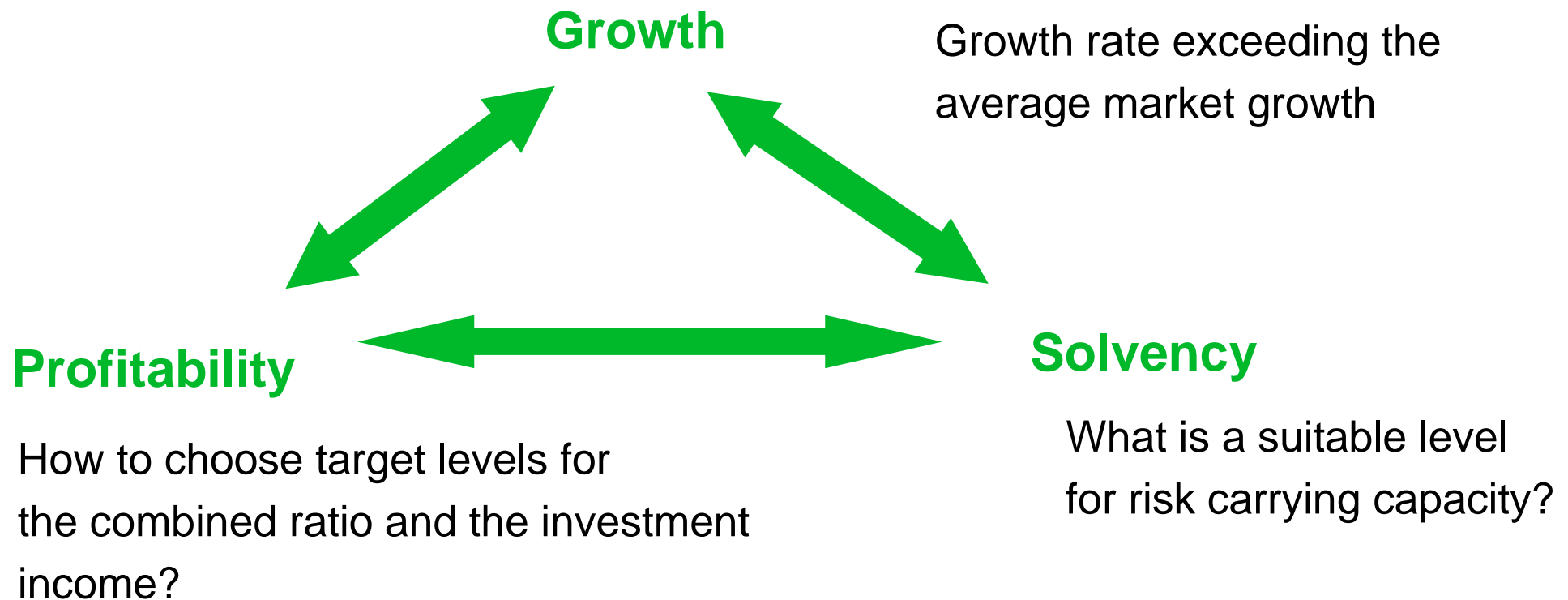
- Use of DFA/internal business models helps in
  - Strategic target setting (**multi-year** competitive strategies)
  - Operative business **planning**
  - Optimization of the **use of capital**
  - Optimization of
    - **reinsurance structures**
    - **investment policy**
  - Defining the level of **customer benefits**

# **Description of Tapiola General's factor-based regulatory capital model for describing growth, solvency and profitability**

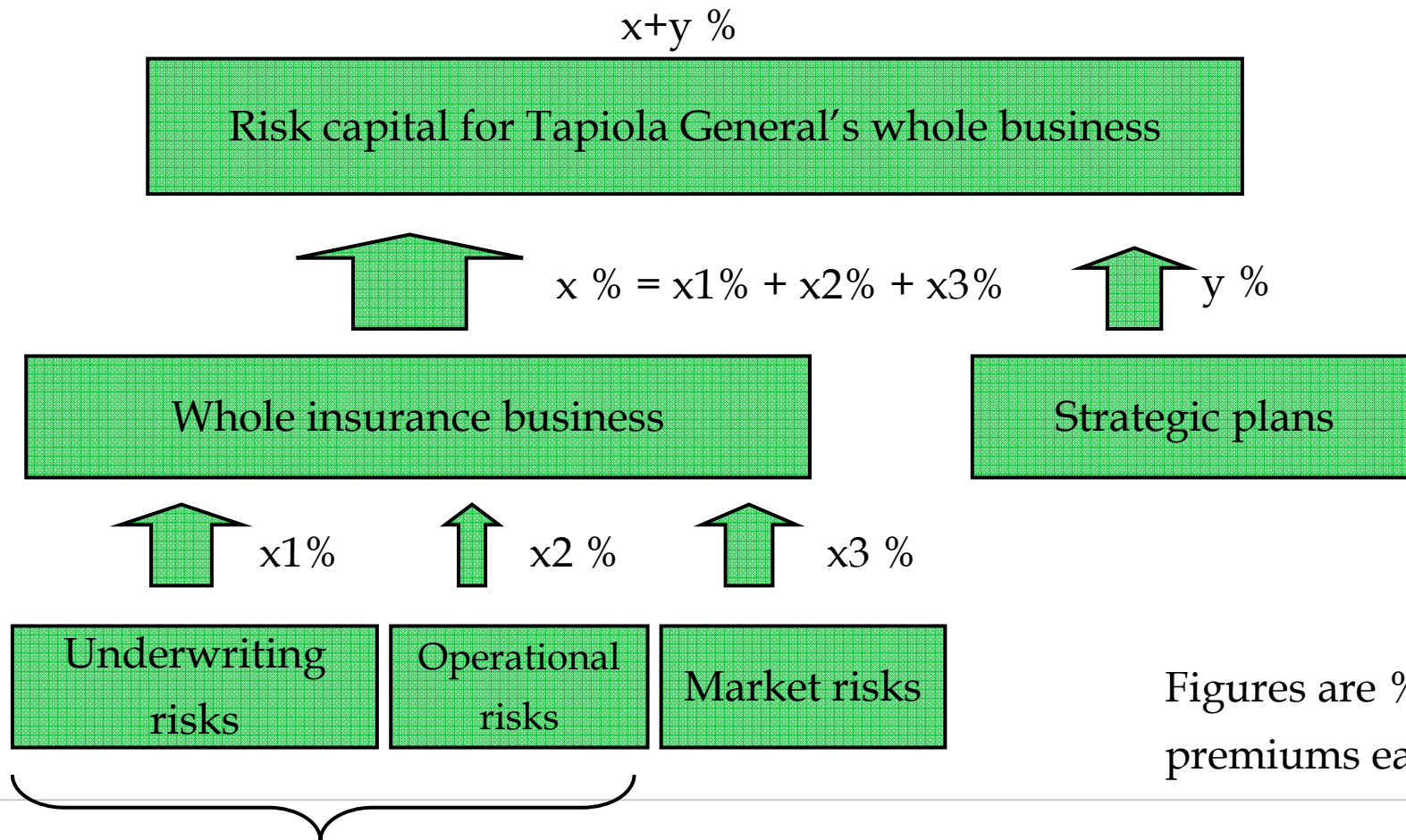
## Balanced development in Tapiola General's growth, solvency and profitability



# Balanced development in Tapiola General's growth, solvency and profitability



# Capital requirement for Tapiola General (internal minimum req.)



Figures are % of premiums earned

## Finnish solvency test is used to measure the underwriting and market risk

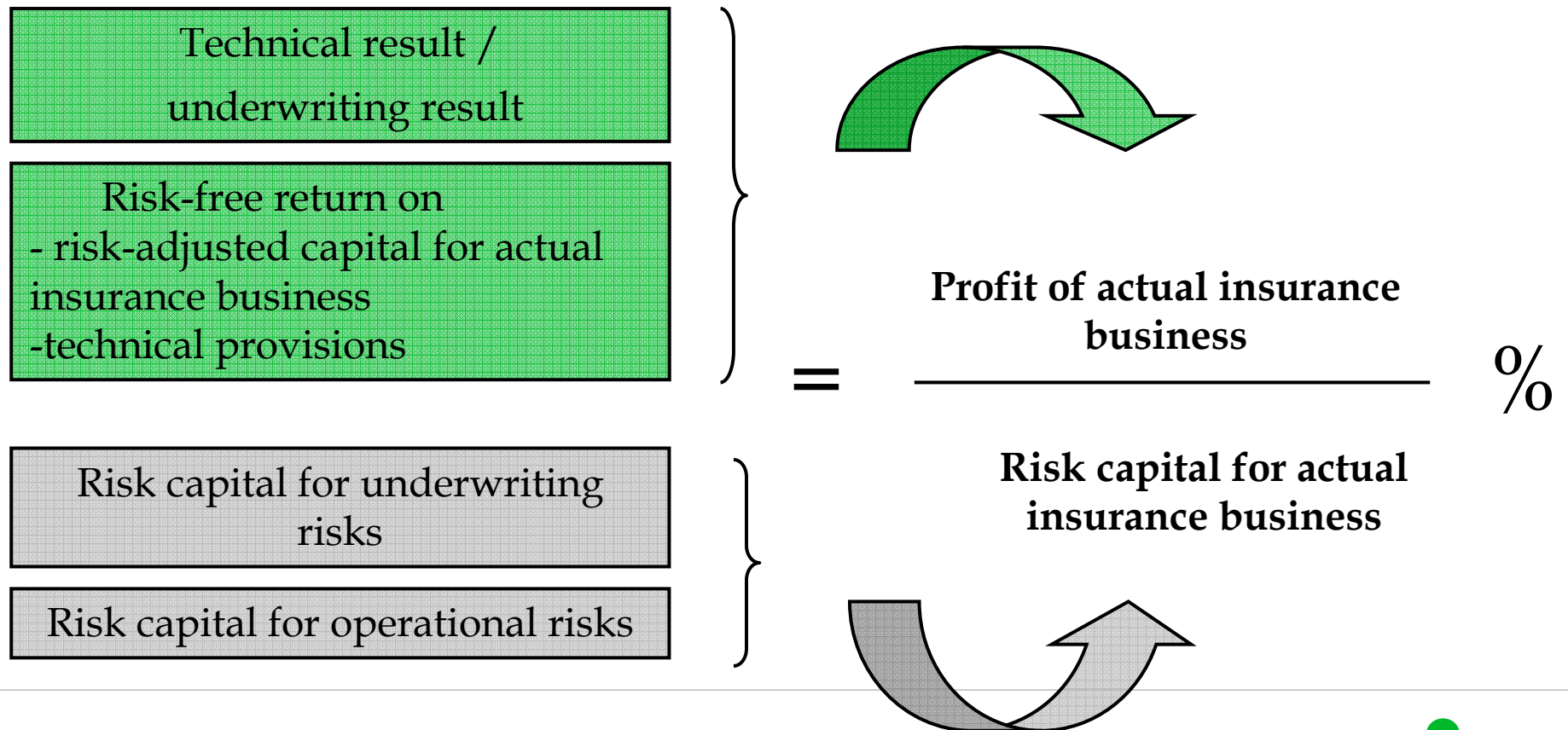
- ❑ Underwriting risk
  - factor-based standard model
  - parameters estimated from the common statistics of the industry in Finland
  
- ❑ Market risk:
  - value at risk-model
  - assets are classified in six categories: loans, market money, bonds, shares, real estate, other investments
  
- ❑ Simple estimations are used for other risks (operational and strategic risks)



## The determination of profit targets for insurance classes

- ❑ Tapiola General's whole risk capital is allocated to insurance business risks and strategic risks
- ❑ Within the insurance business the RBC is allocated to lines of business
- ❑ Equal requirements for the return on risk-adjusted capital (RORAC) for all lines of business

## The determination of profit targets for insurance classes



# Determination of customer benefits

**How?**

**What level?**

# The mission statement and values of the Tapiola Group

## Mission

Tapiola produces **benefits and enduring solutions** for well-being and success to its customers

## Values

**Customers' benefits**

Shared success

Entrepreneurship

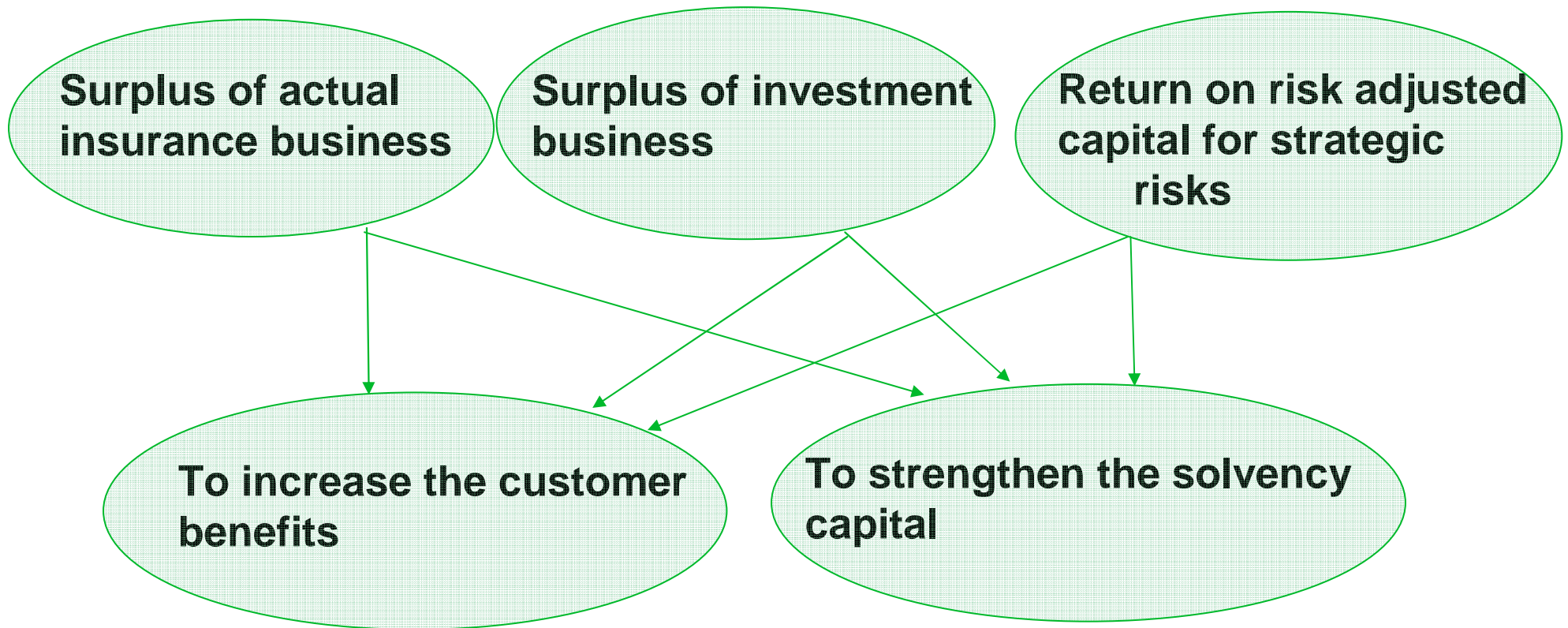
Ethical activity

## Determination of customer benefits

Essential factors influencing the size of rebates are:

- solvency position and its targets
- profitability of actual insurance business
- growth of premium income
- return on investments

# Allocation of surplus

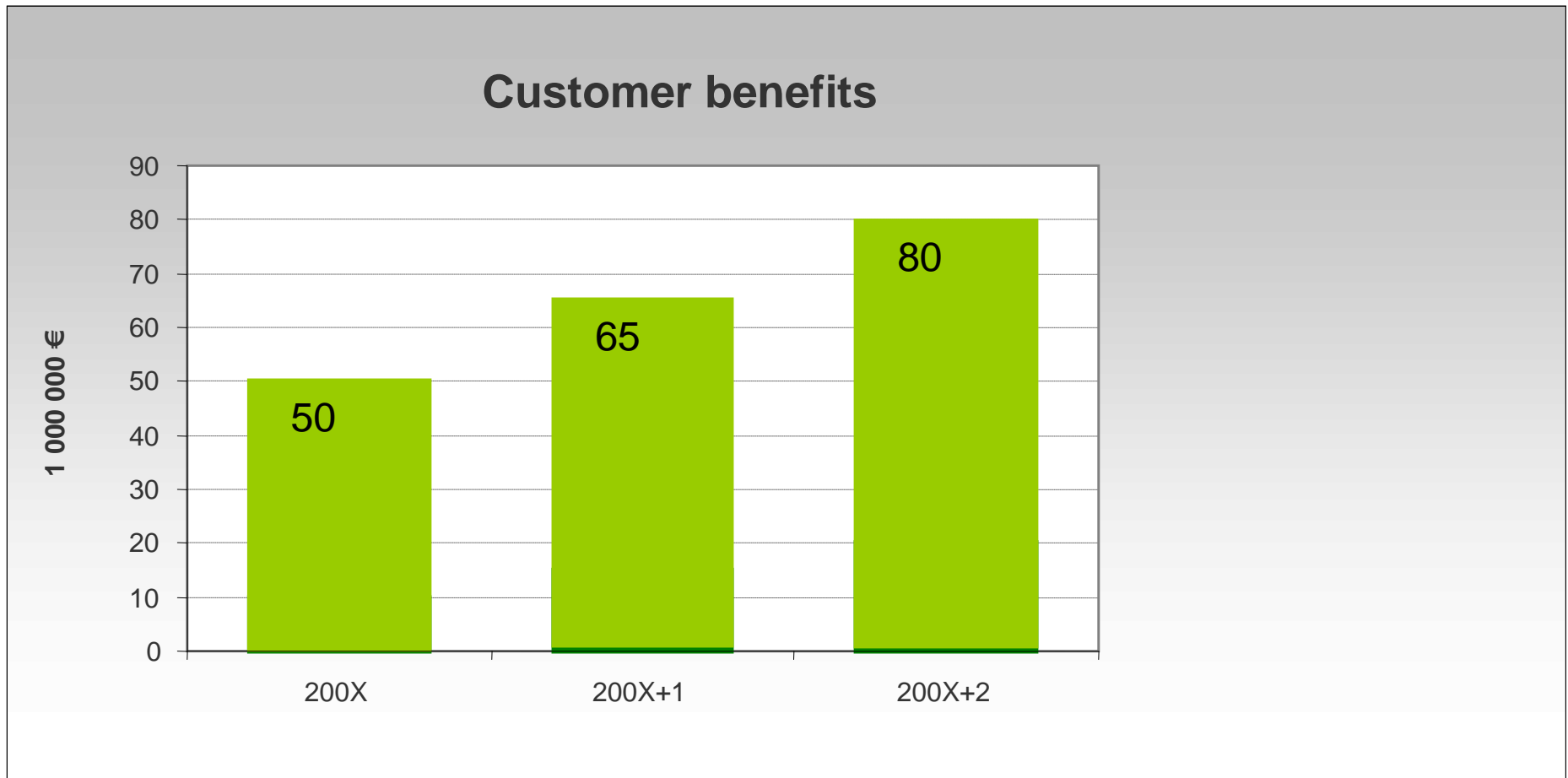


## Business plan: simulations



## Illustrative example

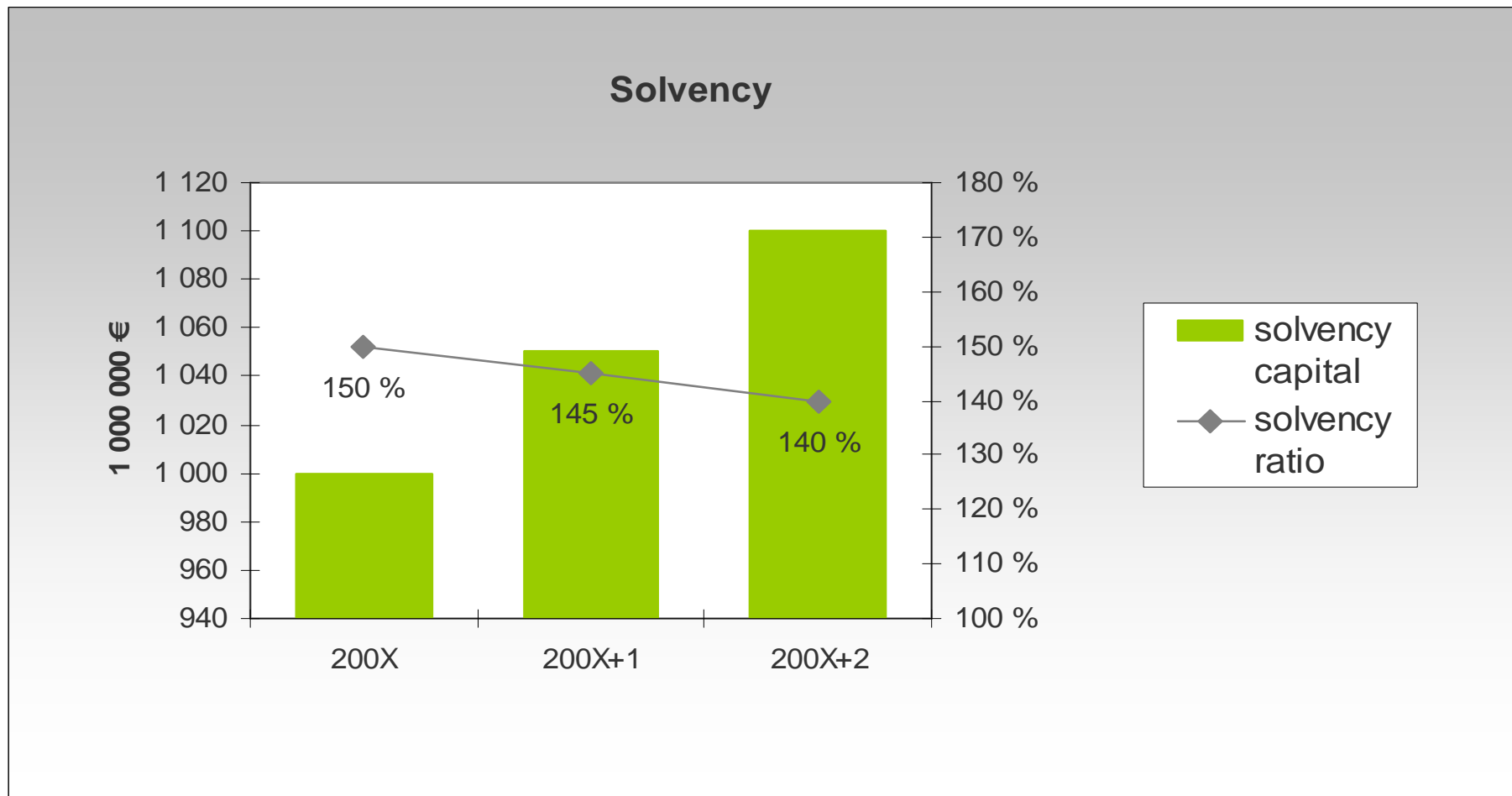
## Business plan: simulations



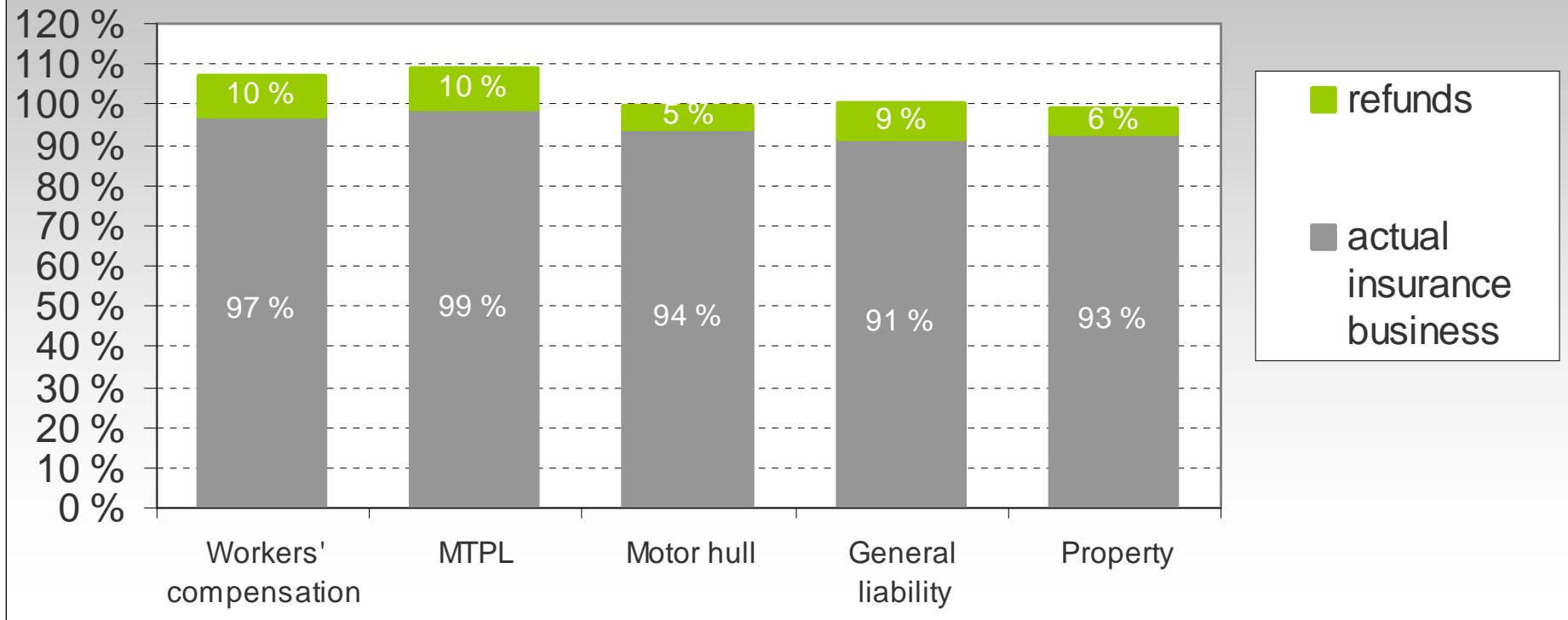
**Illustrative example**



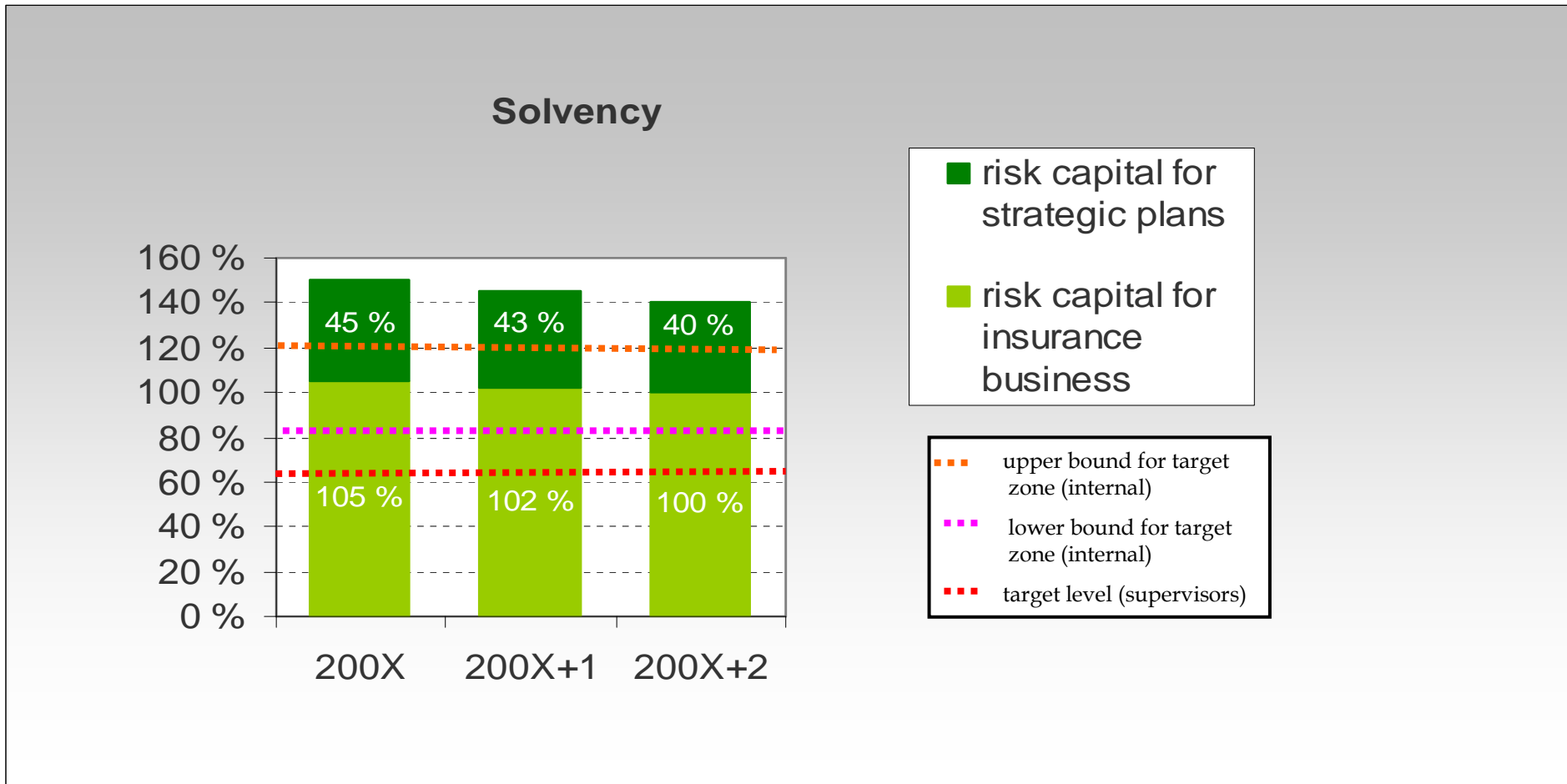
## Business plan: simulations



**Illustrative example**

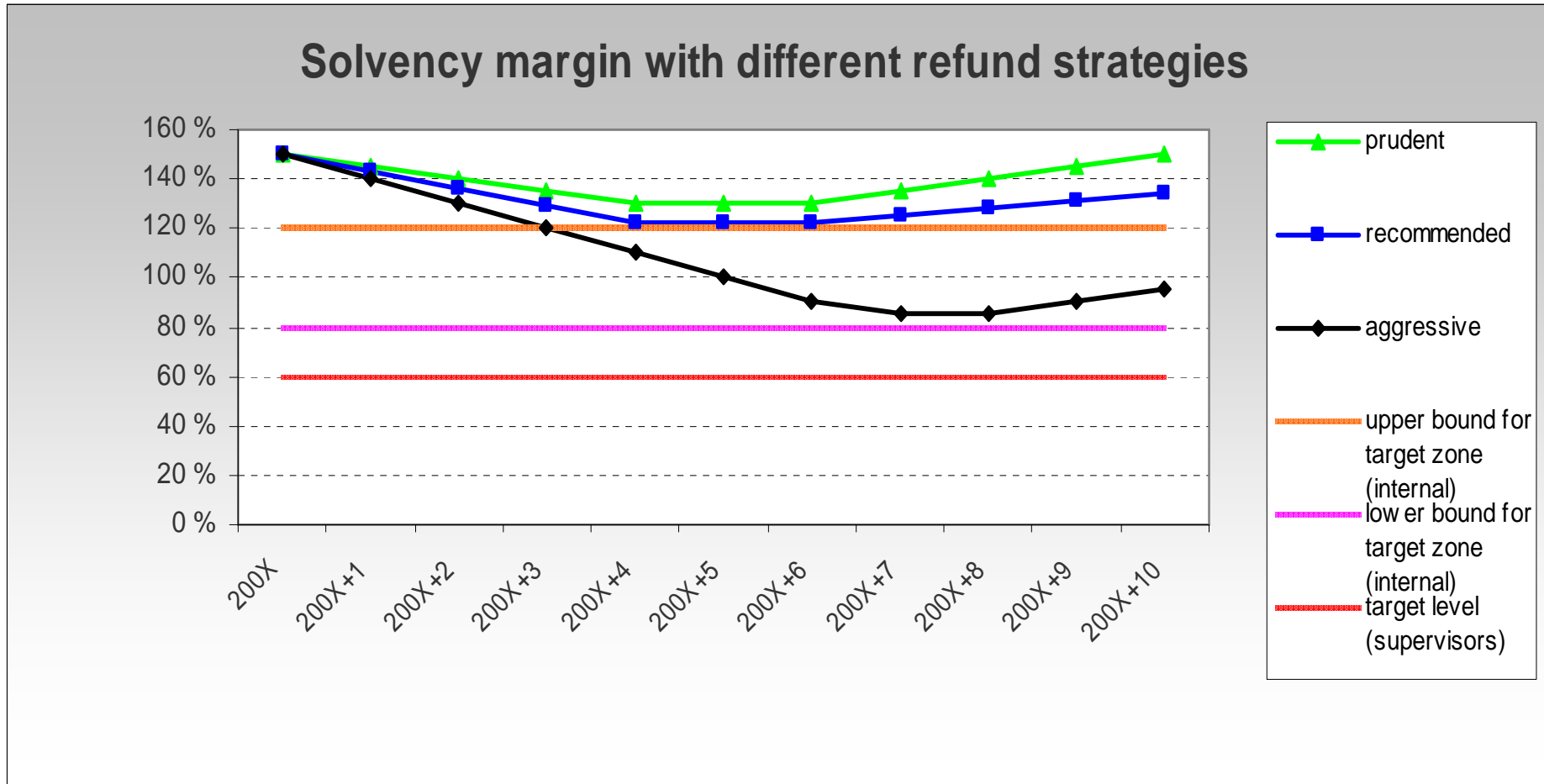
**Business plan: simulations****Combined ratio by line of business (year 200X)****Illustrative example**

## Business plan: simulations



**Illustrative example**

## Refund strategies I, II ja III



**Illustrative example**