



**International Actuarial Association Health Section**  
**2007 Colloquium**

13th - 16th May 2007 **Cape Town, South Africa**

**IAAHS 2007**

IAA Health Section Colloquium

13<sup>th</sup> – 16<sup>th</sup> May 2007

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## **Risk Sharing Models for Private Healthcare Insurance**

**George Orros**

**CEO, Universal Health Consultants**

## Key Messages from Paper

### 1. Complementary/supplementary health insurance models

- a) United Kingdom and other countries
- b) Insurers and their customers
- c) Medical service provider relationships

### 2. Risk Selection and Premium Rating

- a) Medical risk selection and underwriting policy
- b) Community rating schemes
- c) Risk equalisation schemes

### 3. Value Innovation

- a) Blue Oceans and Value Creation
- b) Physical and Virtual Value Chains
- c) ERM and TCF

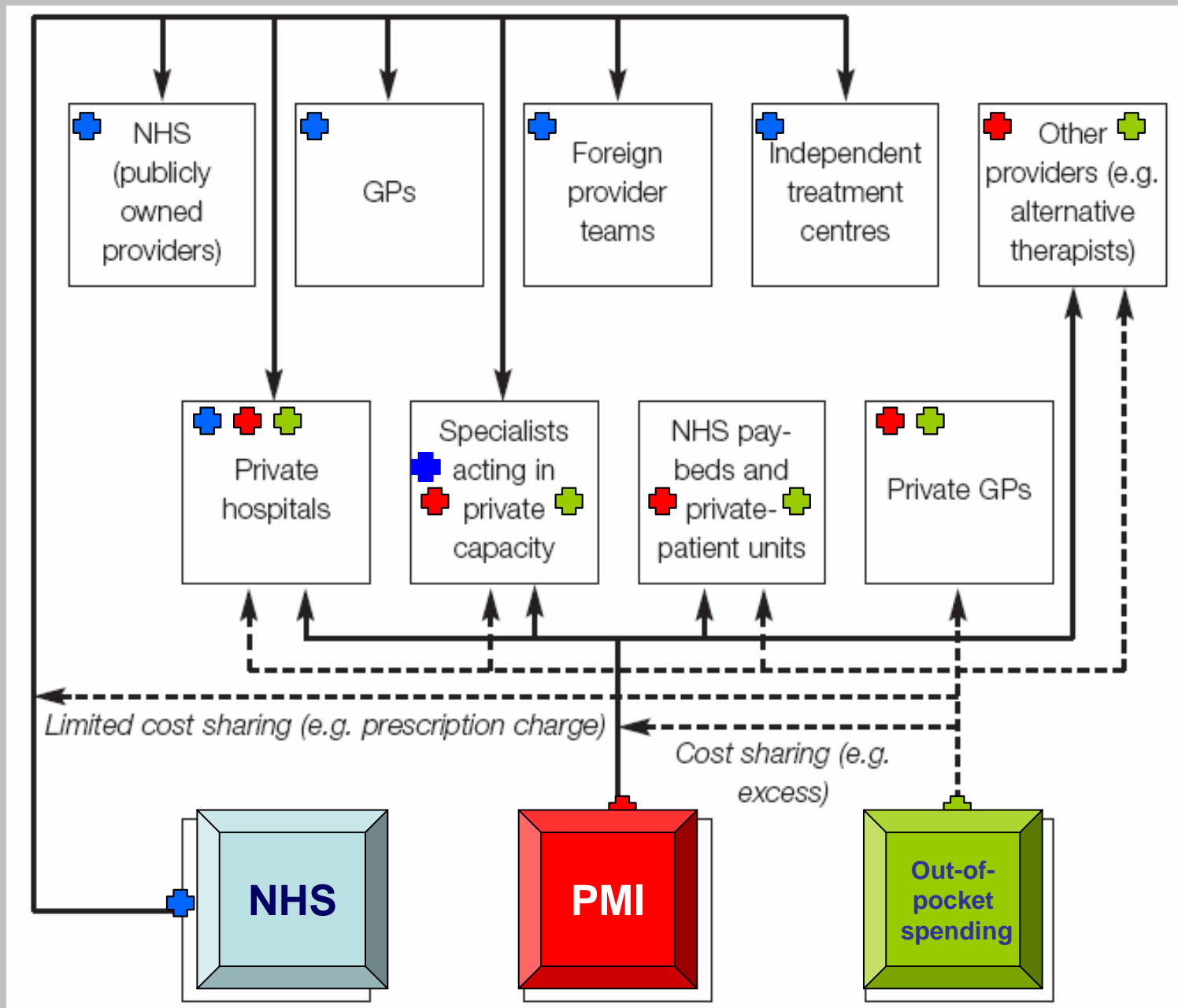
## International Risk Adjustment - Models A

Country	United Kingdom	Ireland	Netherlands	Germany	Switzerland
Risk adjusters	Age / gender; prior utilisation; local factors	Age / Gender; Hospitalisation; Weighted with current expenses	Age / Gender; Region; Disability	Age / Gender; Disability	Age / Gender; Region
Restrictions on premium contributions	Zero premium contribution	Community rating	Community rating	Community rating	Community rating per region
Risk-sharing	Outlier risk sharing	See risk adjusters above	Outlier/proportional risk sharing	No	No
Number of Health Plans	2,500 (early 1996)	2 (until 1997: 1)	25	1200	166
Modality A or B	A	B	A	B	B
Open entry for new health plans	Yes	Yes	Yes	Yes	Yes
Open enrolment and frequency	No open enrolment guarantee	Year	Year	Year	Half Year
Is long-term care included	No	No	No	No	No
Mandatory or voluntary membership	Voluntary	Voluntary	Mandatory	Mandatory	Mandatory
Year of implementation	1991	1996	1991	1994	1993

## International Risk Adjustment - Models B

Country	Russia	Czech Republic	Belgium	Israel	Columbia
Risk adjusters	Many different regional experiments	Age	Age / Gender; Region; Disability; Unemployment; Mortality	Age	Age / Gender
Restrictions on premium contributions	Zero premium contribution	Community rating	Community rating	Zero premium contribution	Zero premium contribution
Risk-sharing	Many different regional experiments	No	Proportional risk sharing - at least 85%	Severe diseases (6% of expenses)	No
Number of Health Plans	100's	26	6	4	24
Modality A or B	A	B	A	A	B
Open entry for new health plans	Yes	Yes	No	Yes	Yes
Open enrolment and frequency	Year	Year	Quarter	Half Year	Year
Is long-term care included	No	No	Yes	No	No
Mandatory or voluntary membership	Mandatory	Mandatory	Mandatory	Mandatory	Voluntary
Year of implementation	1993	1993	1995	1995	1994

# UK Mixed Economy of Care

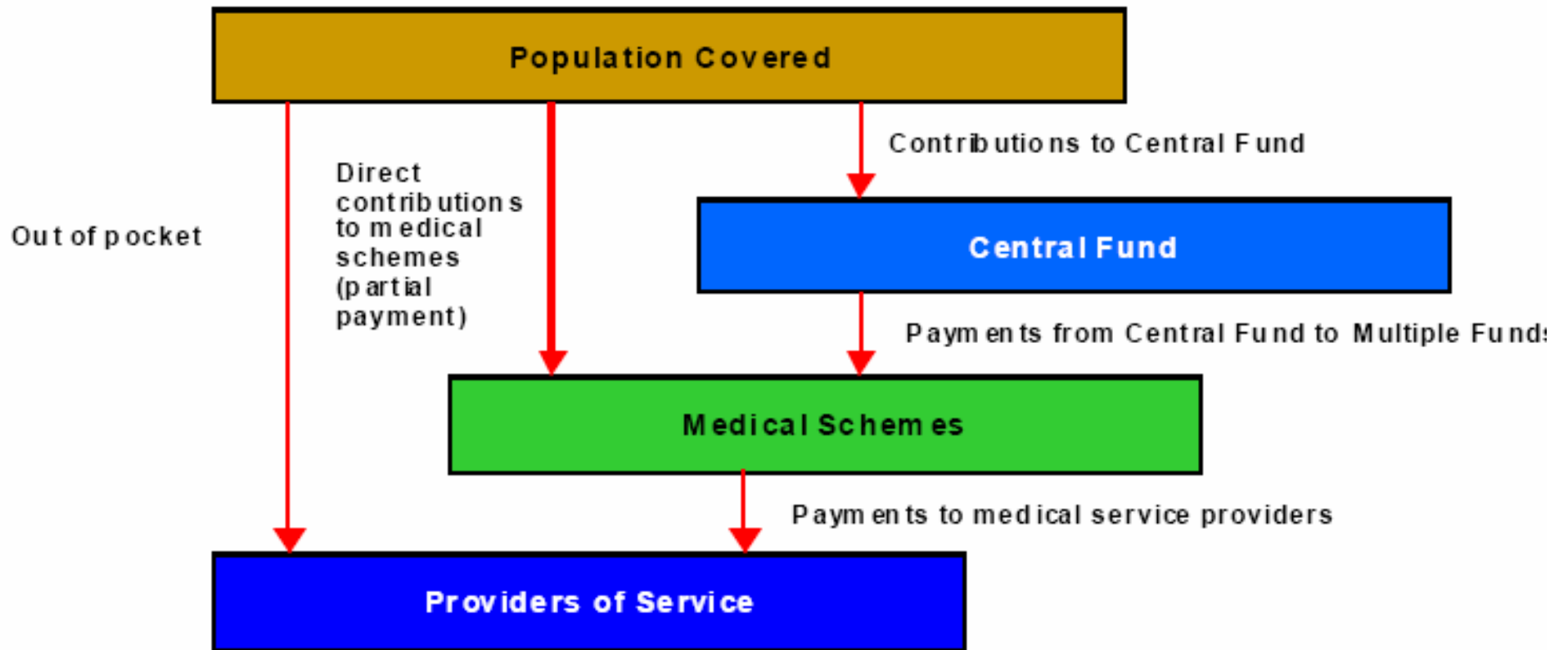


## Risk Equalisation - Ireland

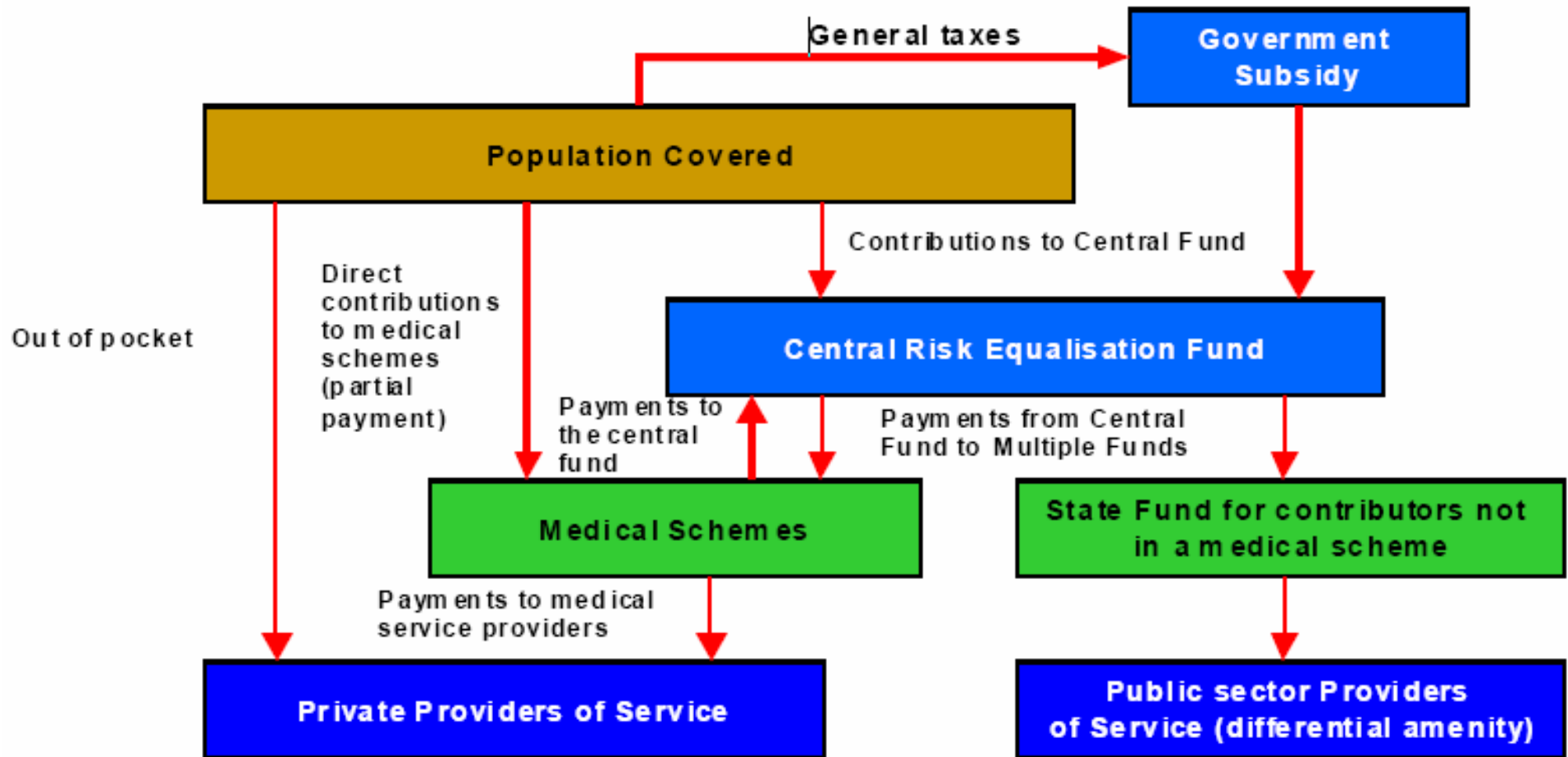
Based on intergenerational solidarity, whereby the young subsidise the old by paying the same premium rates.

- 1. Community Rating:** health insurers charge same price for the same level of cover regardless of age/gender/health.
- 2. Open Enrolment:** all applicants for private health insurance must be accepted by a health insurer.
- 3. Lifetime Cover:** all consumers are guaranteed the right to renew their policies, irrespective of claims history.
- 4. Minimum Benefits:** health insurers must cover a particular set of treatments and procedures and cover all public hospitals.
- 5. Risk Equalisation:** aims to neutralise differences in health insurers' costs due to risk profile variations and results in cash transfers from the lower to the higher risk profiles.

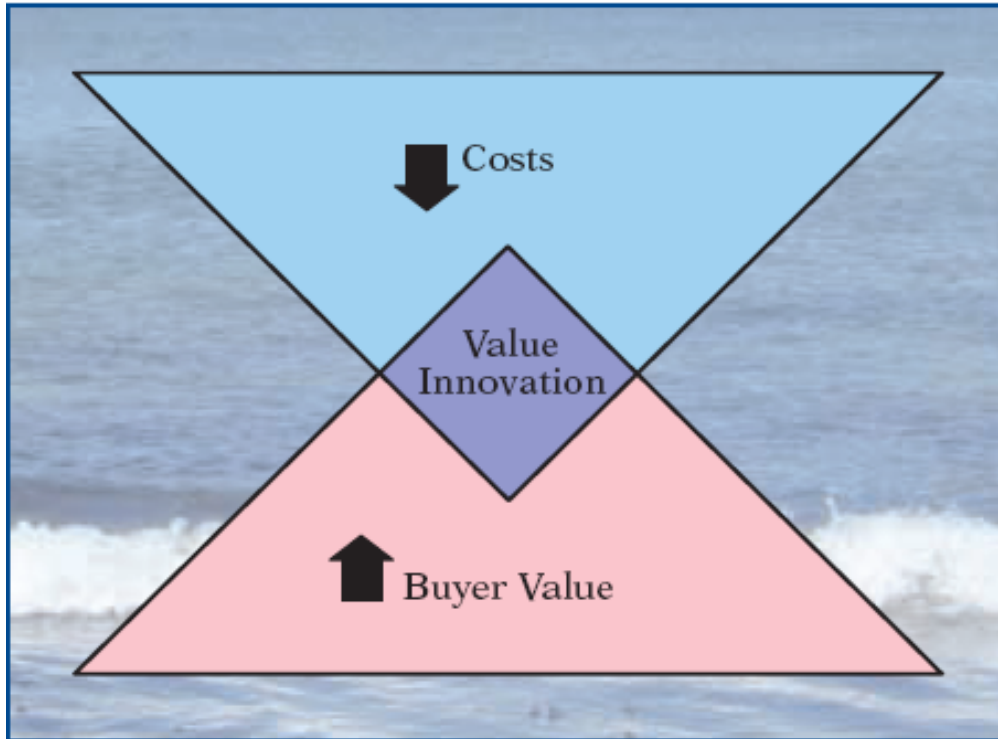
# Risk Equalisation - The Netherlands



# Risk Equalisation (potential) – South Africa



# Healthcare Insurance - Creating Value Innovation



## Creating Value Innovation

Value innovation is created where a company's actions have a positive impact on both its cost structure and its perceived value to its customers. Cost savings are made by eliminating or reducing the factors on which an industry competes. Customer value is improved by raising and creating elements that the industry has not previously offered. Over time, costs are reduced further due to the economies of scale created by additional volumes of business.

# Value Innovation: The Four Actions Framework

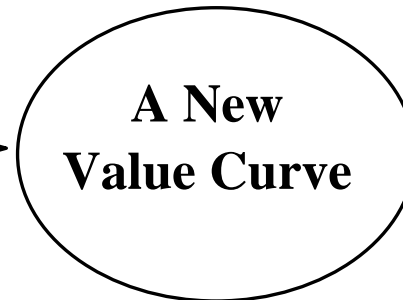
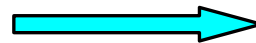
## Reduce

Which factors should be reduced **well below** the industry's standard?



## Eliminate

Which of the factors that the industry takes for granted should be **eliminated**?



## Raise

Which factors should be raised **well above** the industry's standard?



## Create

Which factors should be **created** that the industry has never offered?



# Blue Ocean Strategy: Principles

## The Six Principles of Blue Ocean Strategy

### Formulation principles

1. Reconstruct market boundaries
2. Focus on the big picture, not the numbers
3. Reach beyond existing demand
4. Get the strategic sequence right

### Execution principles

5. Overcome key organisational hurdles
6. Build execution into strategy

### Risk Factor each principle attenuates

- ↓ Search risk
- ↓ Planning risk
- ↓ Scale risk
- ↓ Business model risk

### Risk Factor each principle attenuates

- ↓ Organisational risk
- ↓ Management risk

# Four actions framework – Private Healthcare Insurance

## Reduce

Product range  
Healthcare cash benefits  
Prices (relative to market)  
Cross subsidies  
Long term benefit guarantees

## Eliminate

Unprofitable risk groups  
Inefficient business processes  
Low-value health cash benefits  
Obsolete products & services  
Obsolete computer systems

A New  
Value Curve

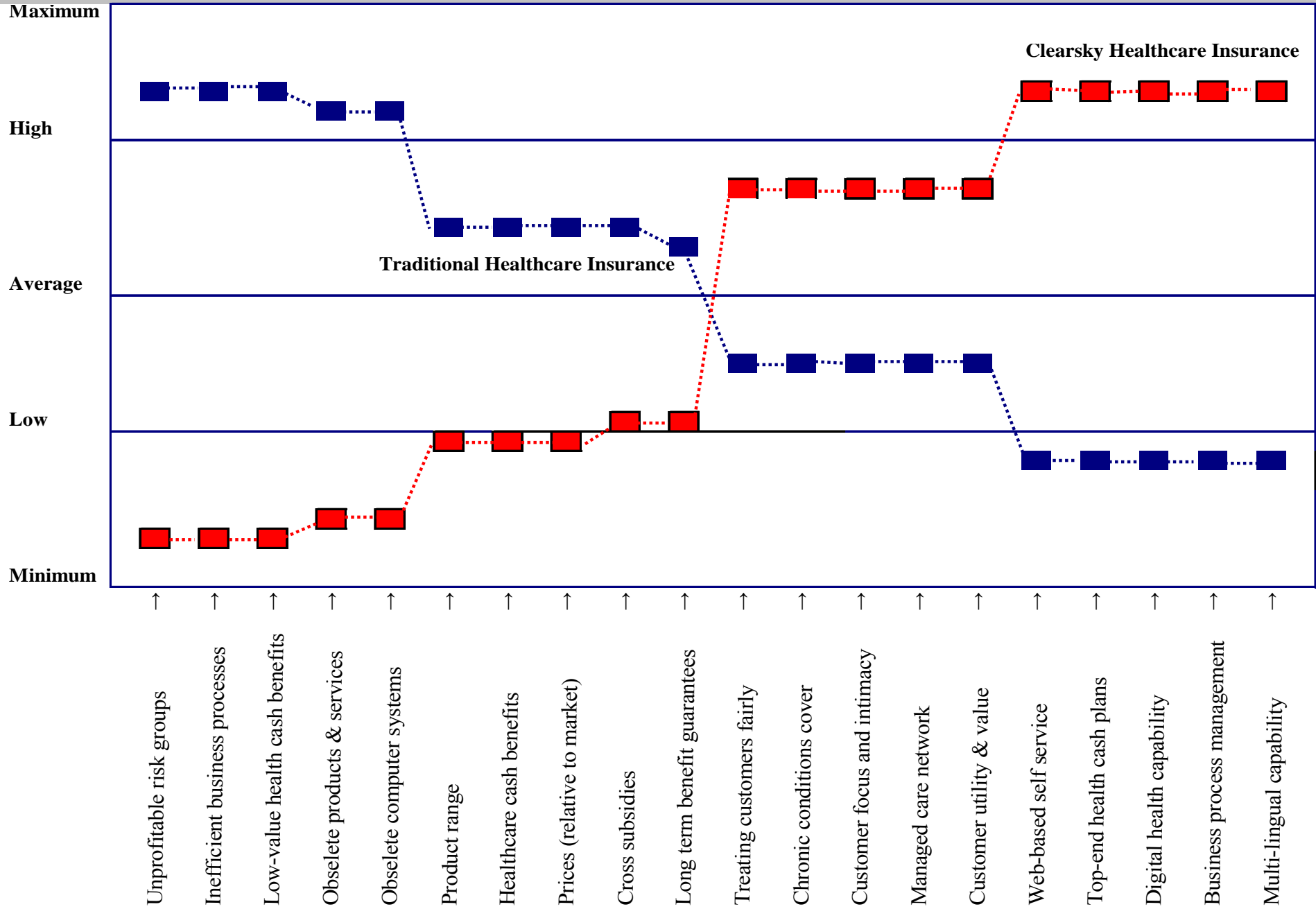
## Create

Web-based self service  
Top-end health cash plans  
Digital health capability  
Business process management  
Multi-lingual capability

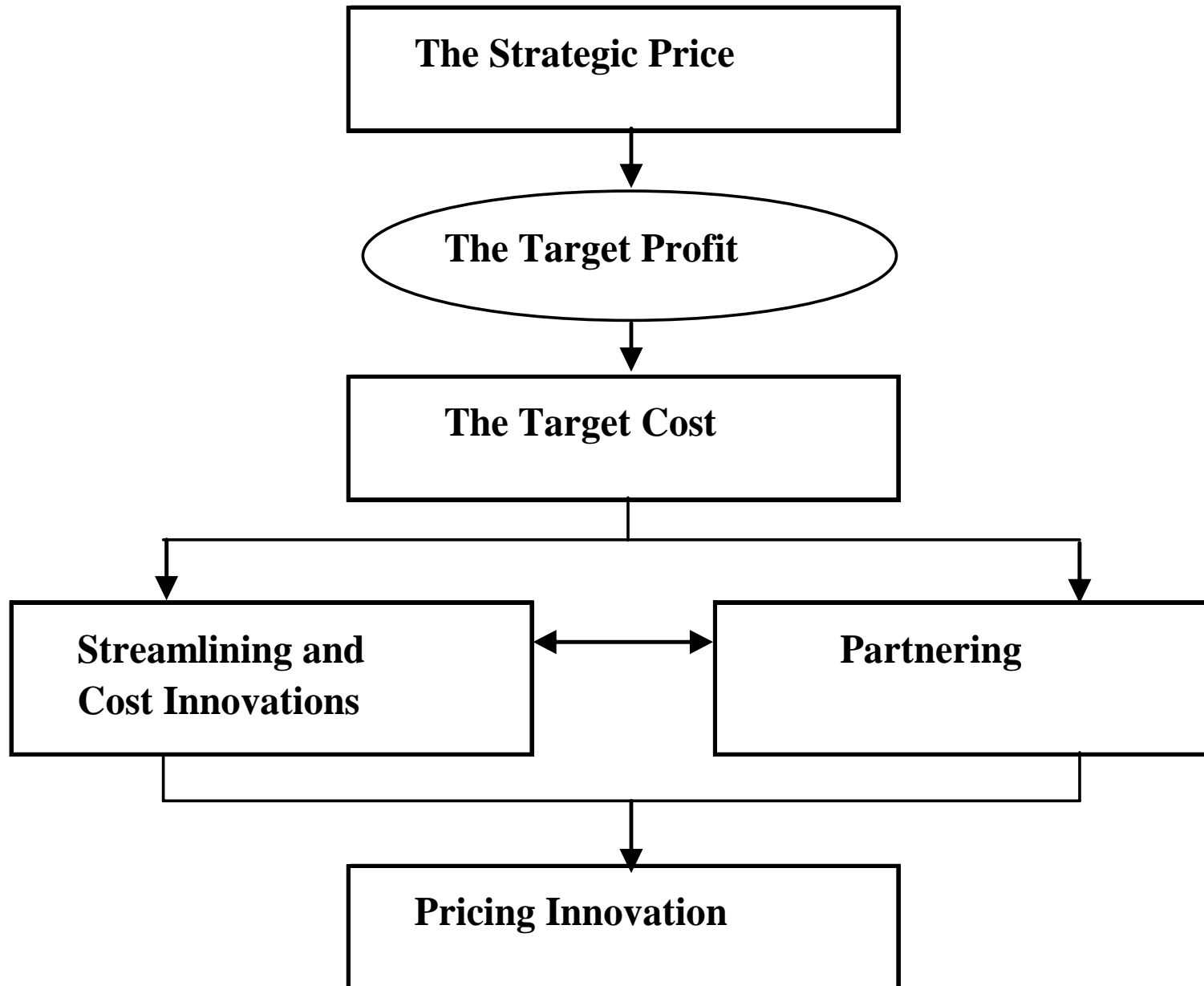
## Raise

Treating customers fairly  
Chronic conditions cover  
Customer focus and intimacy  
Managed care network  
Customer utility & value

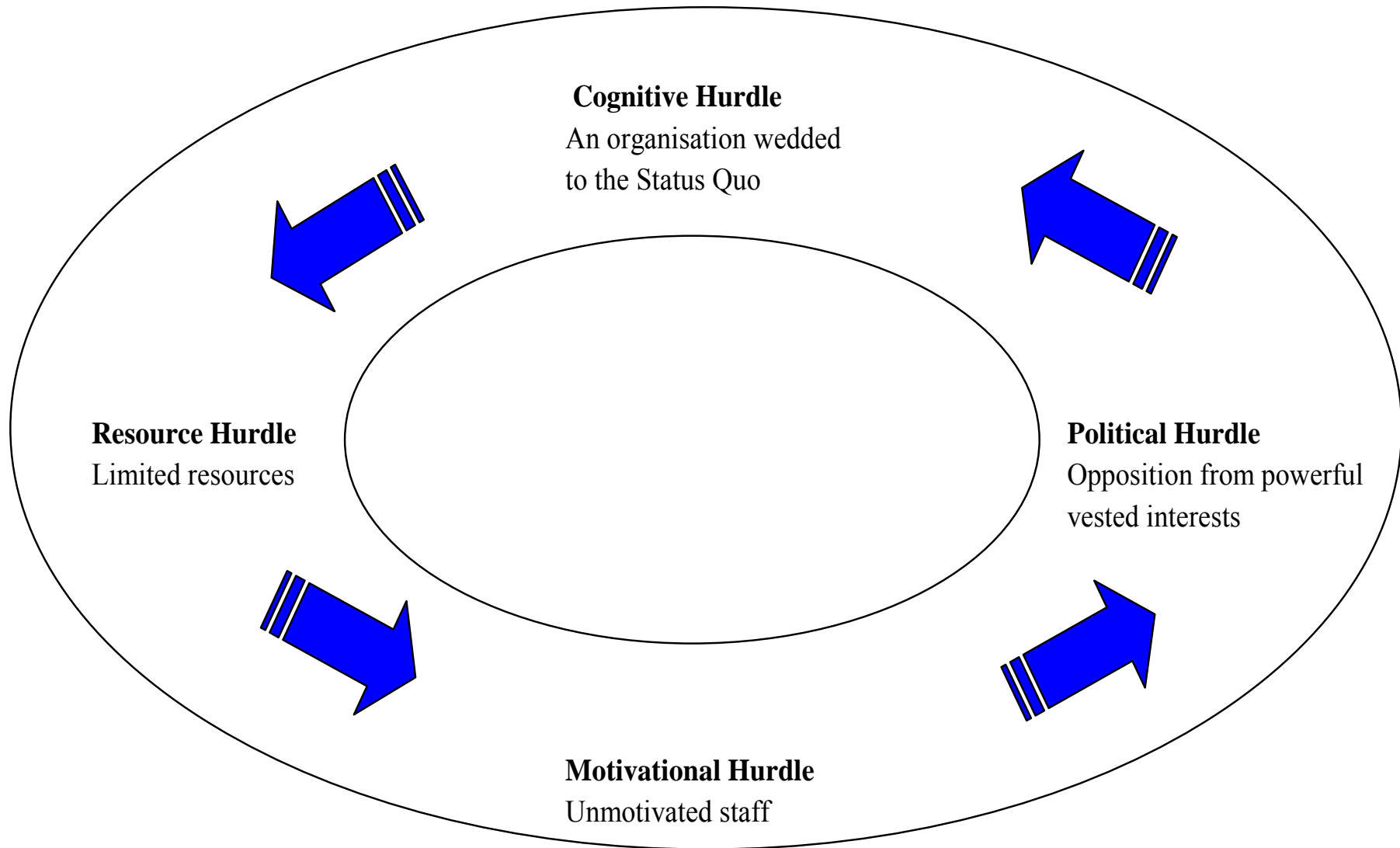
# Strategy Canvas: Private Healthcare Insurance



# Profit Model for the Strategic Price



# Organisational Hurdles to Strategy Execution



# How Fair Process Affects Peoples' Attitudes and Behaviour

**Strategy  
Formulation  
Process**



**Fair Process**  
**Engagement**  
**Explanation**  
**Expectation Clarity**

**Attitudes**



**Trust & Commitment**  
**"I feel that my opinion  
counts"**

**Behaviour**



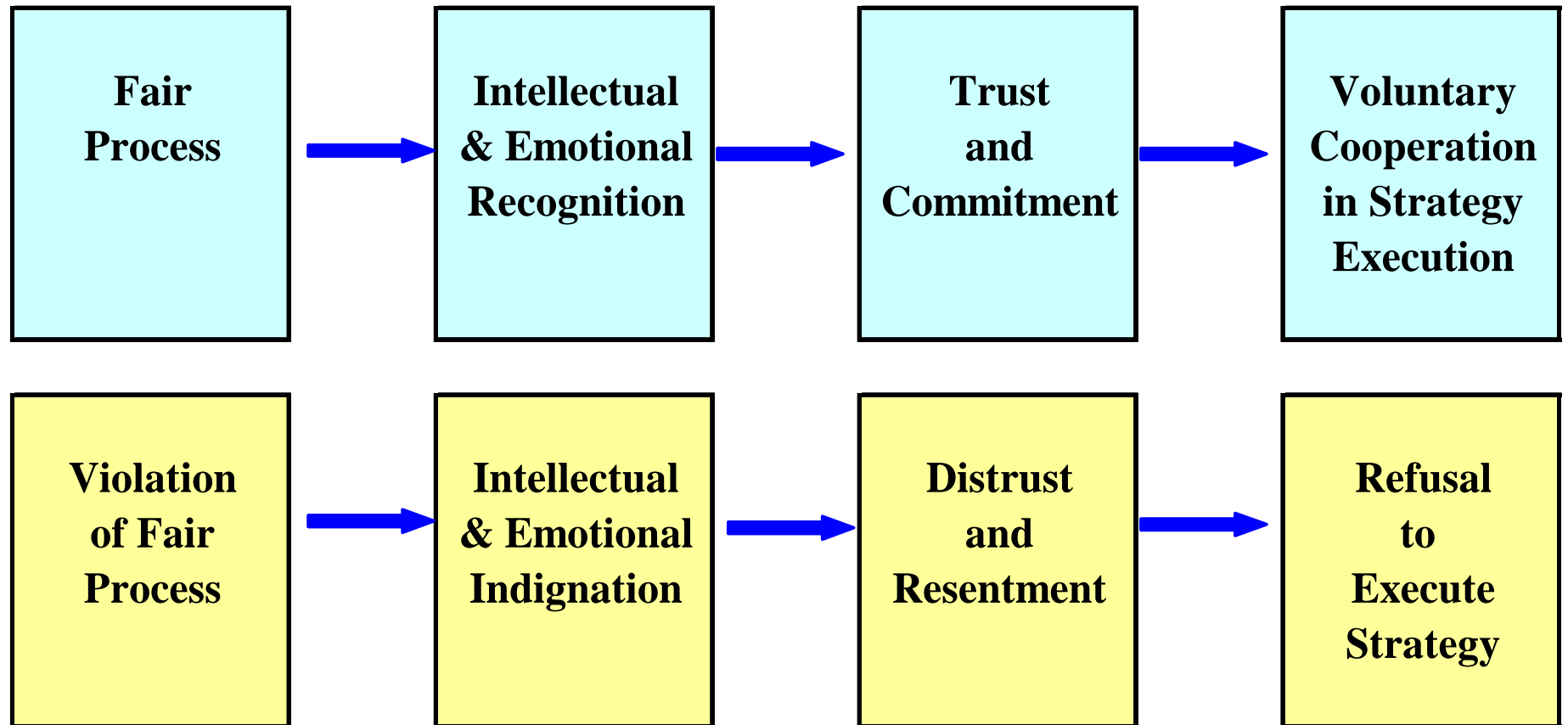
**Voluntary Cooperation**  
**"I will go beyond the call  
of duty"**

**Strategy  
Execution**

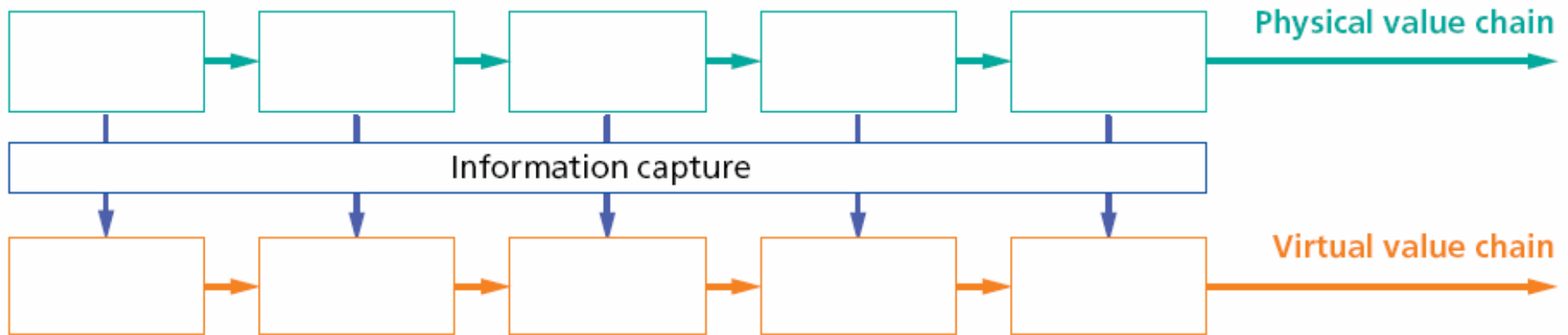


**Exceeds Expectations**  
**Self initiated**

# Execution Consequences of the Presence and Absence of Fair Process in Strategy Making



# Virtual Value Chains

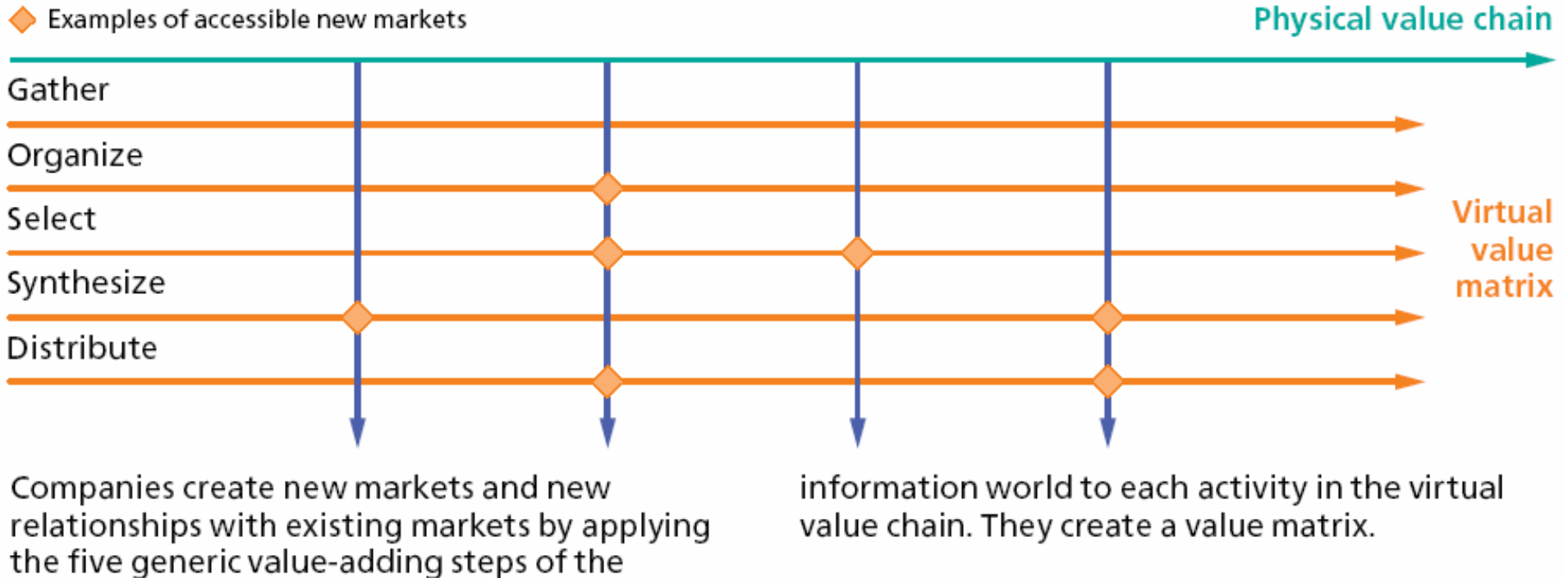


With an integrated information underlay in place, companies can begin to perform value-adding activities more efficiently and effectively through and with information. In other words, these information-based activities mirror steps in the

physical value chain. When companies move a number of value-adding activities from the marketplace to the marketspace, they exploit a virtual value chain.

**Virtual value chain** uses integrated information to help organisations perform physical value chain activities more efficiently and effectively.

# Physical and Virtual Value Chains



**Virtual Value Chains** help companies create new markets by adding new value-adding steps to Physical Value Chain steps.

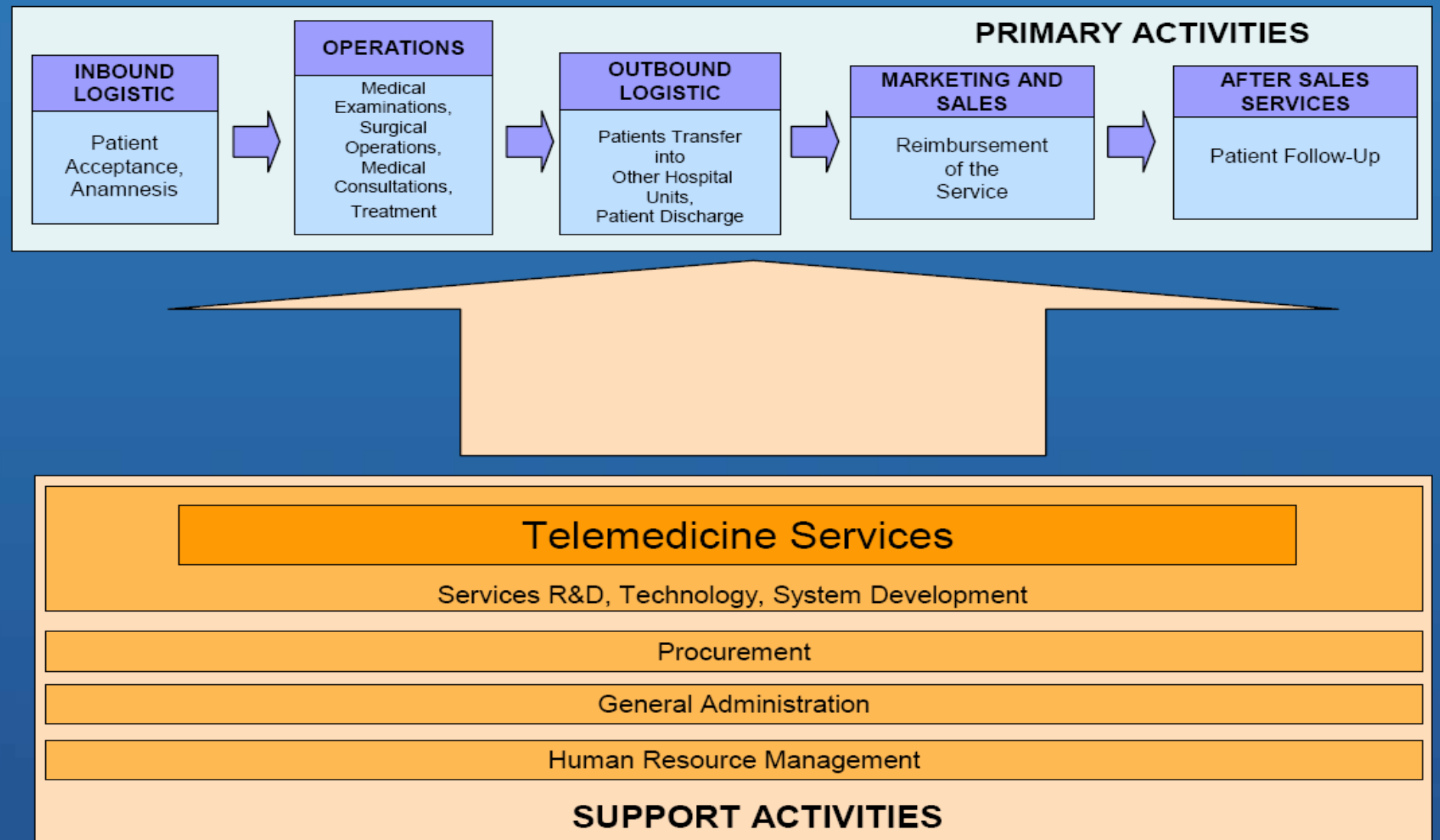
## Telemedicine - Physical and Virtual Value Chains



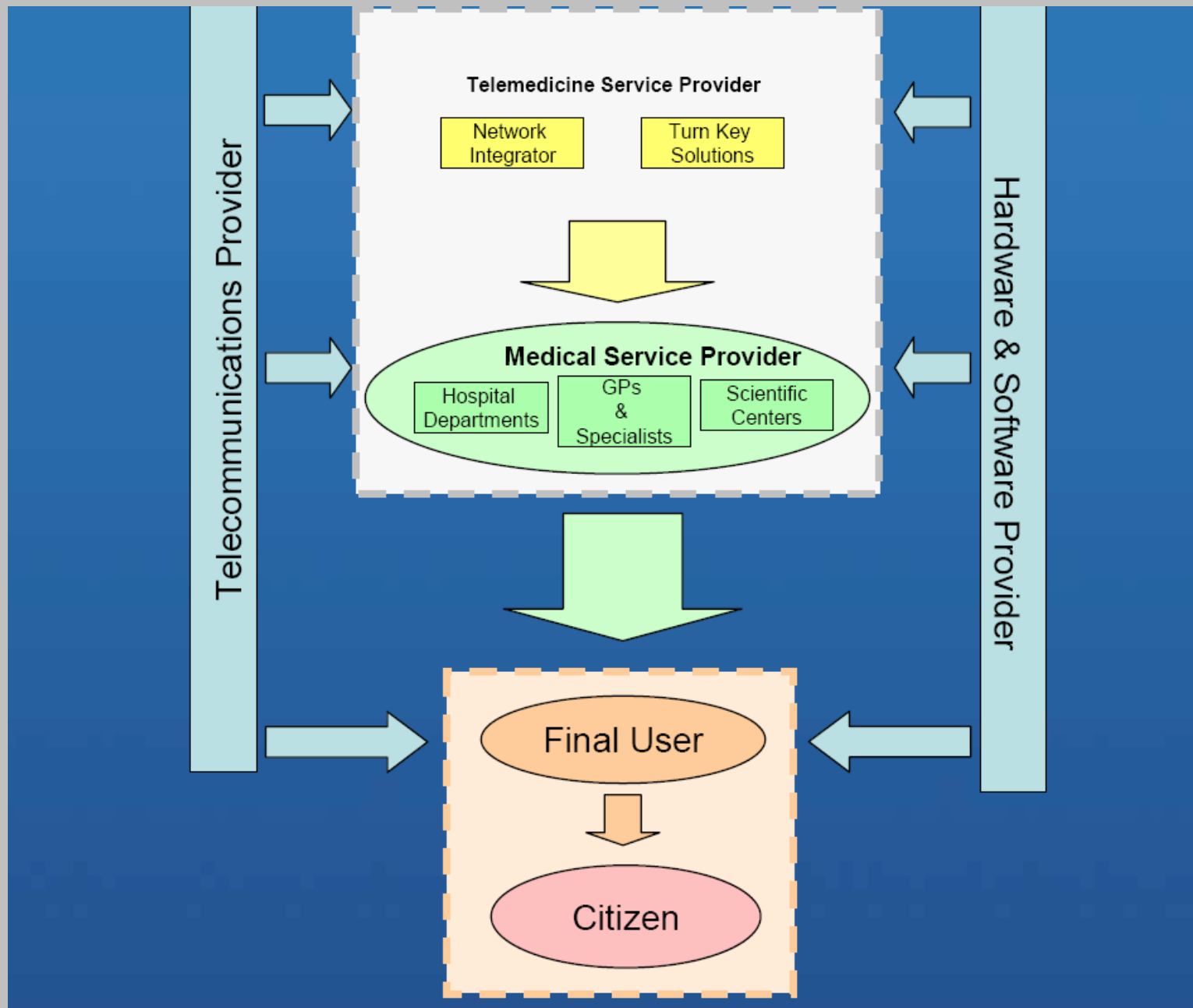
Physical value chain includes telemedicine as a peripheral support activity.

Virtual value chain can link telemedicine services directly to medical providers and drive care delivery through its own physical and virtual value chains.

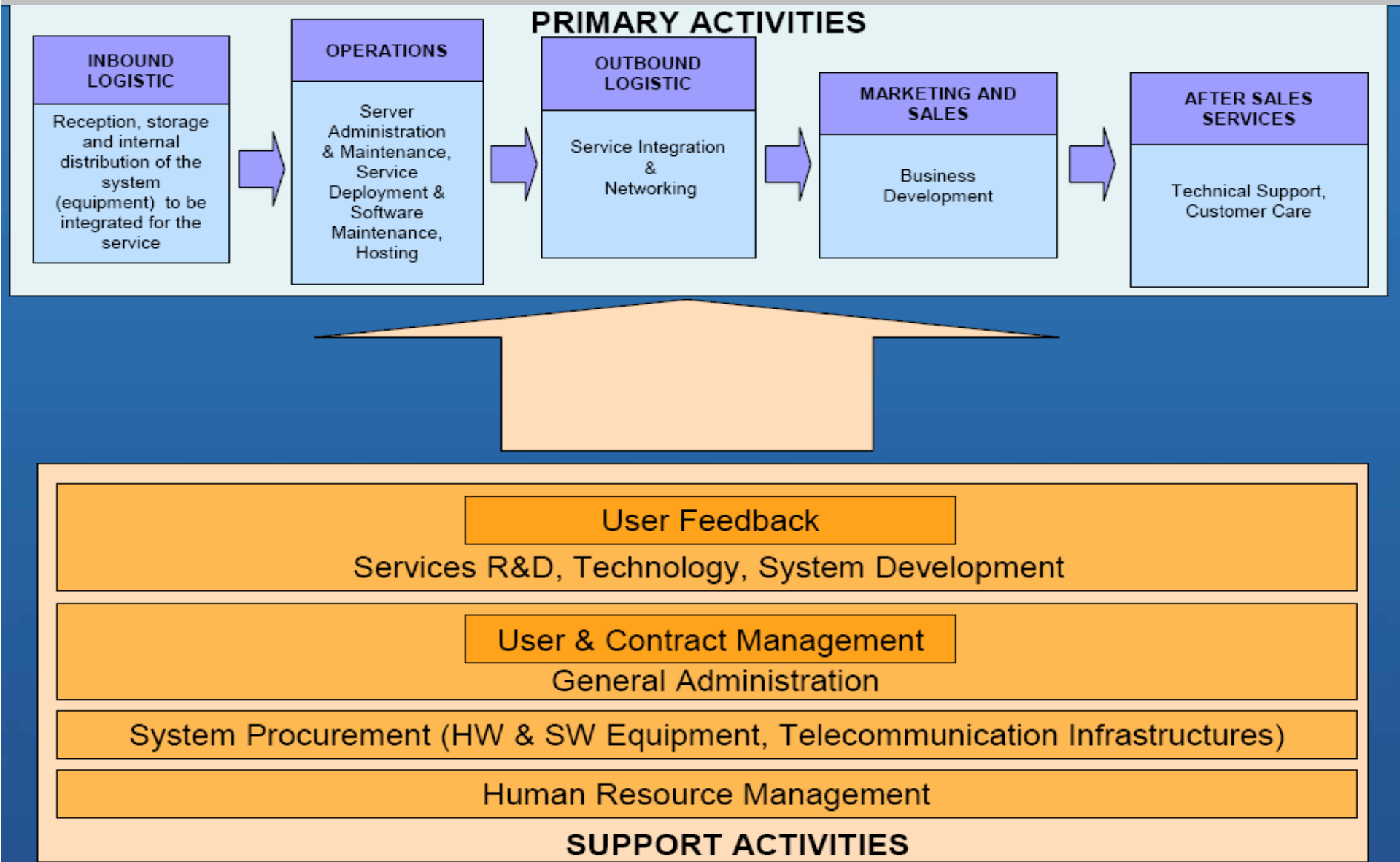
# Telemedicine - Physical Value Chain



# Telemedicine - Virtual Value Chain activities



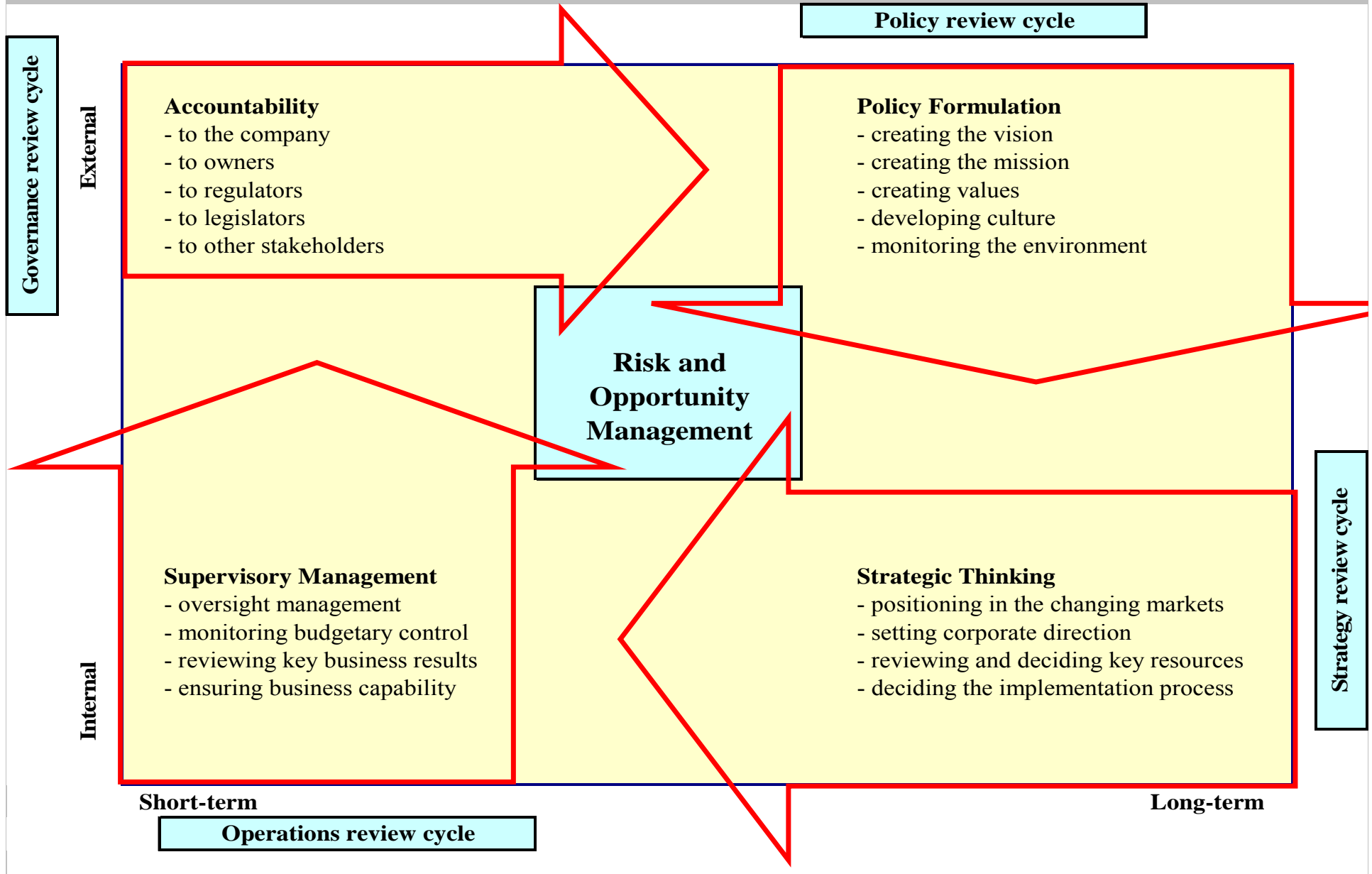
# Telemedicine - Virtual Value Chain



# ERM for Risk and Opportunity Management



# ERM for Risk and Opportunity Management



# The Enterprise Risk Management Framework

## 1. Corporate Governance

(Board oversight)

## 2. Internal Control

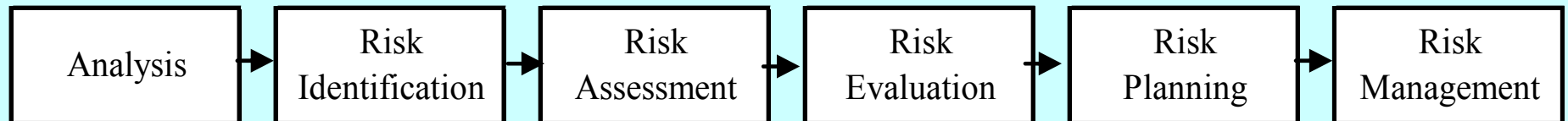
(sound system of internal control)

## 3. Implementation

(appointment of external support)

## 4. Risk Management Processes

(incremental phases of an iterative process)



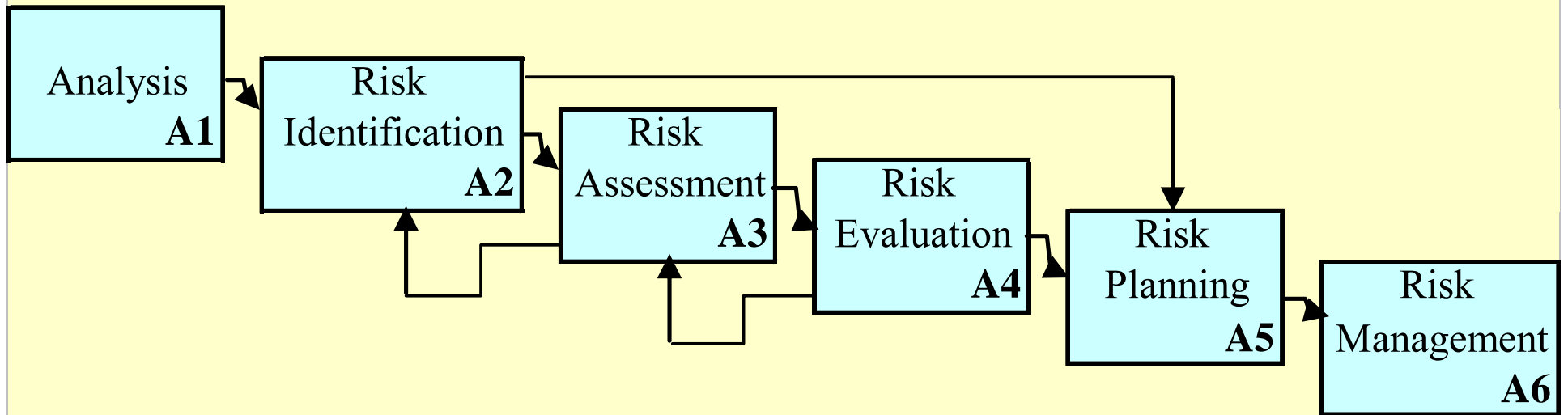
## 5. Sources of Risk

(internal to a business and emanating from the environment)

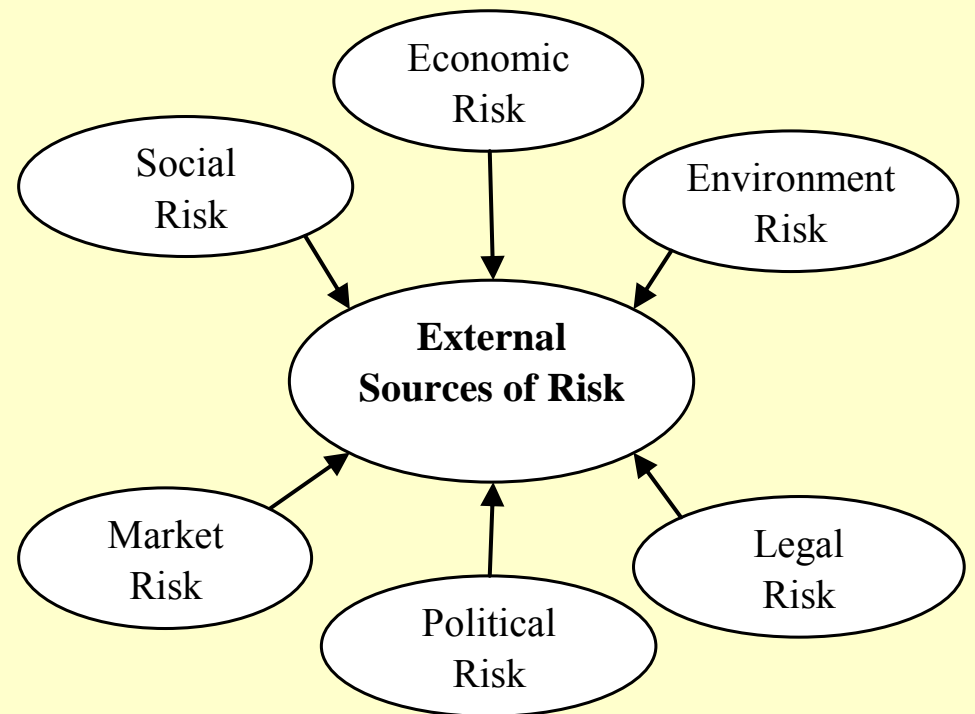
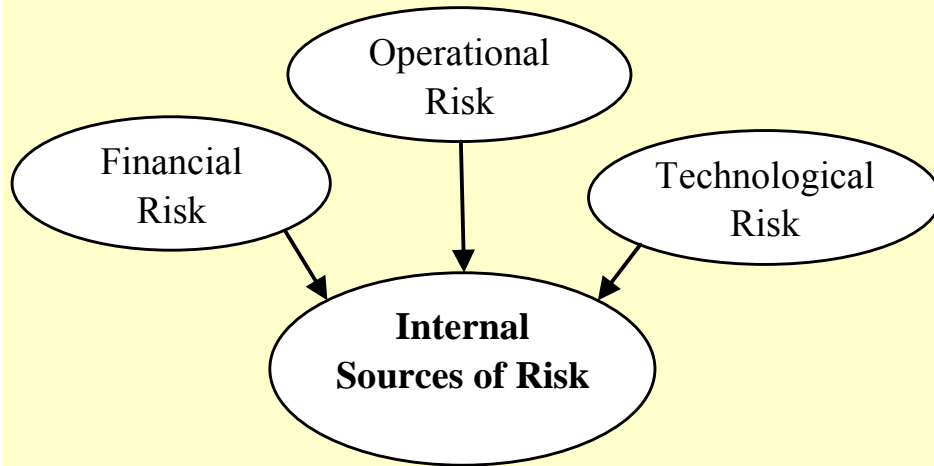
Internal Processes

Business Operating Environment

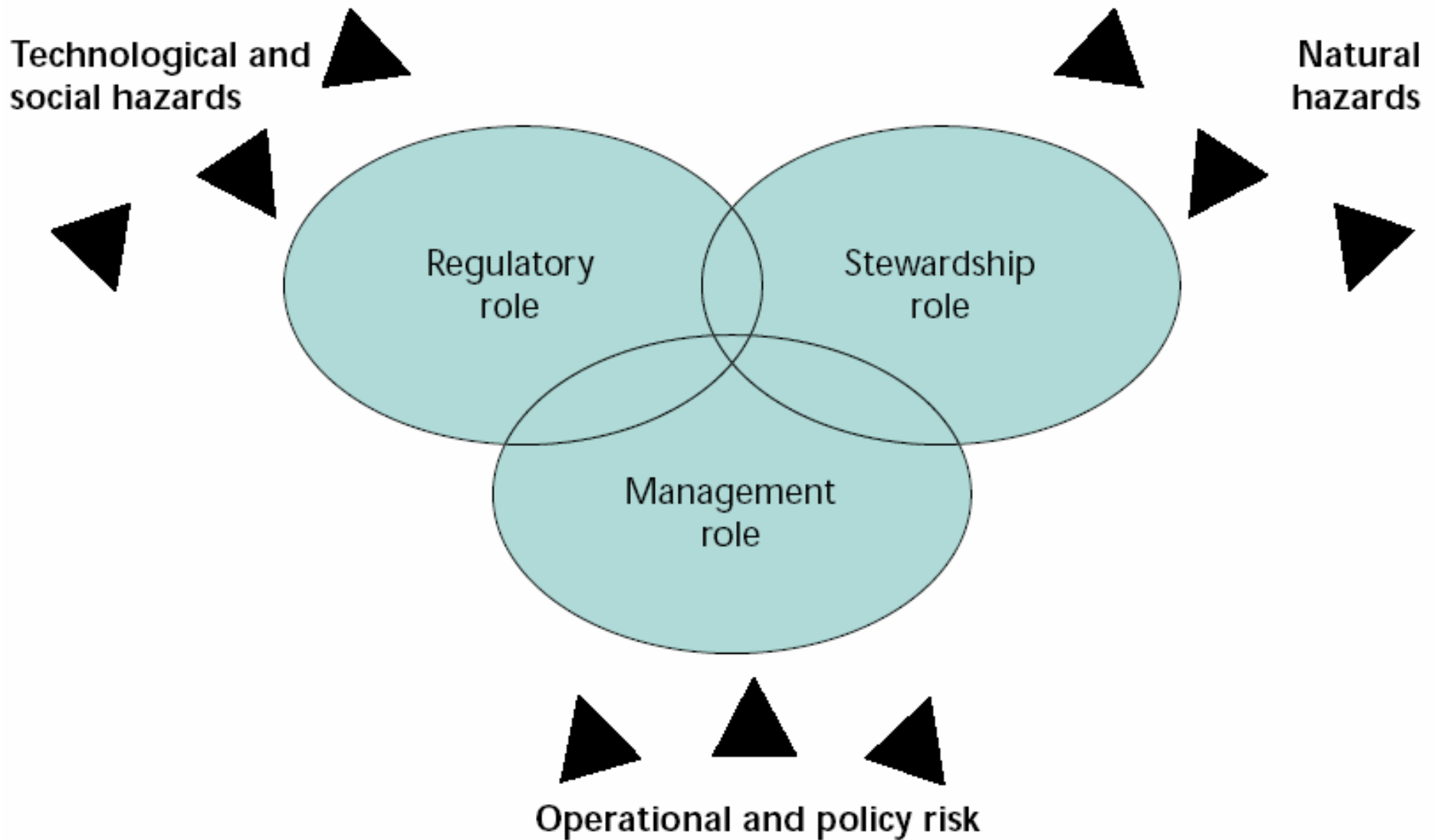
# Stages in the Risk Management process



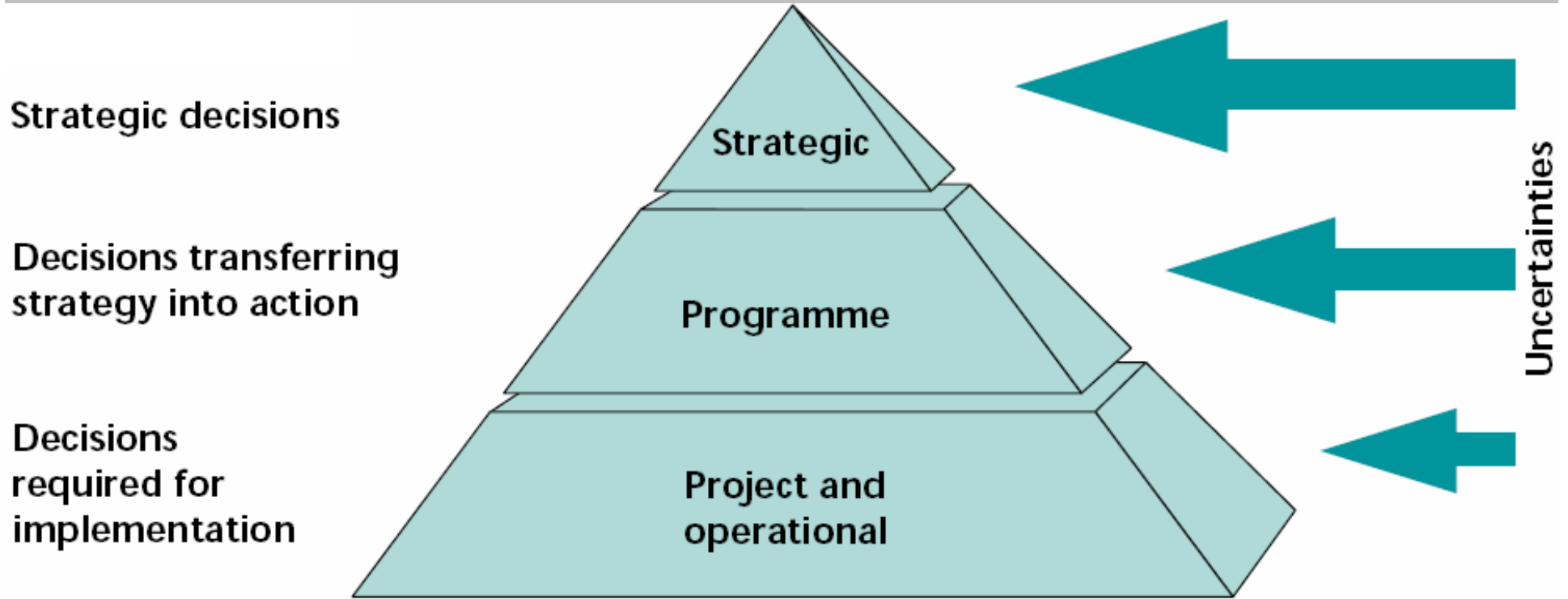
# ERM – External and Internal Sources of Risk



# UK Public Sector - Corporate Governance Perspective



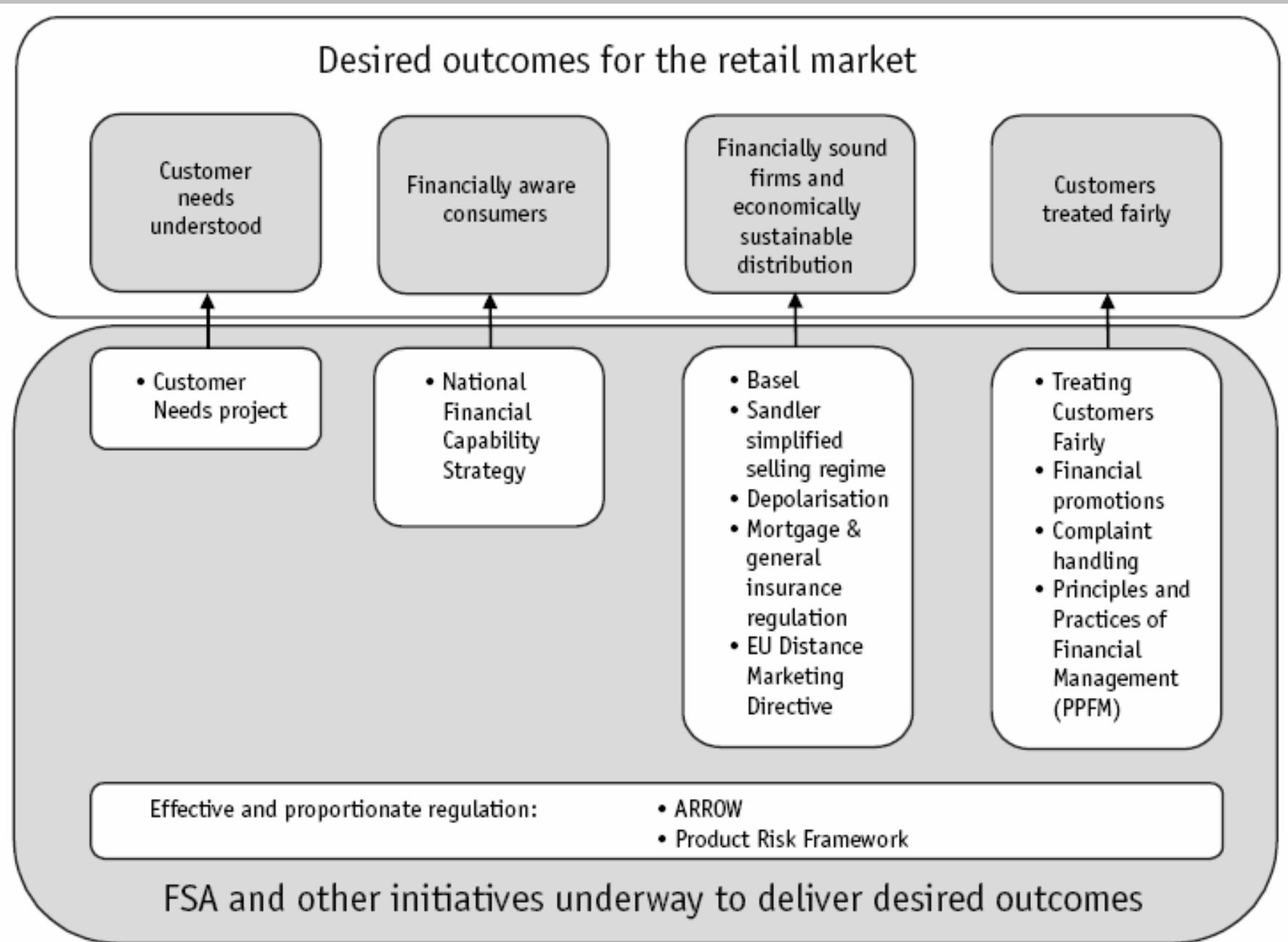
# UK Public Sector - Hierarchy of Risk



# UK Public Sector - The Risk Management Process



# Treating Customers Fairly – UK FSA perspective



## Conclusions

1. **Role** of health insurance and **customer access**
2. **Equitable** and **sustainable** health insurance offer
3. Involve providers to develop **integrated healthcare**
4. **Customer attitudes** and shift in public health policy
5. **Value innovation** and creation to identify proposition
6. **Virtual Value Chains** create new services and value
7. **ERM** needs to encompass risk-sharing enterprise
8. **TCF** important for new health insurance models