Information Technology Governance

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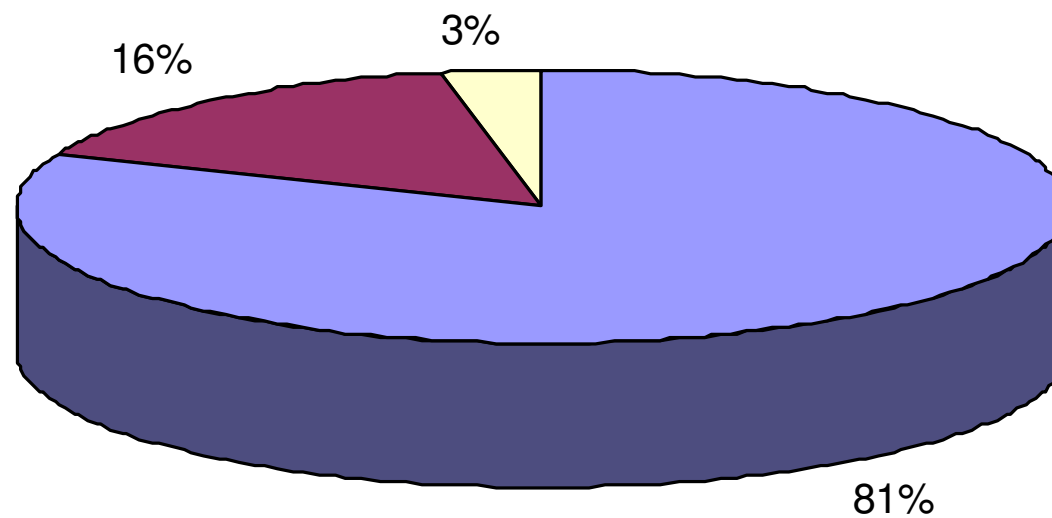
IT Governance

Agenda

- What is IT Governance and why is it important

- Key IT decisions and decision makers

- Survey on Shipping IT Governance

- How do enterprises govern IT and how is shipping different

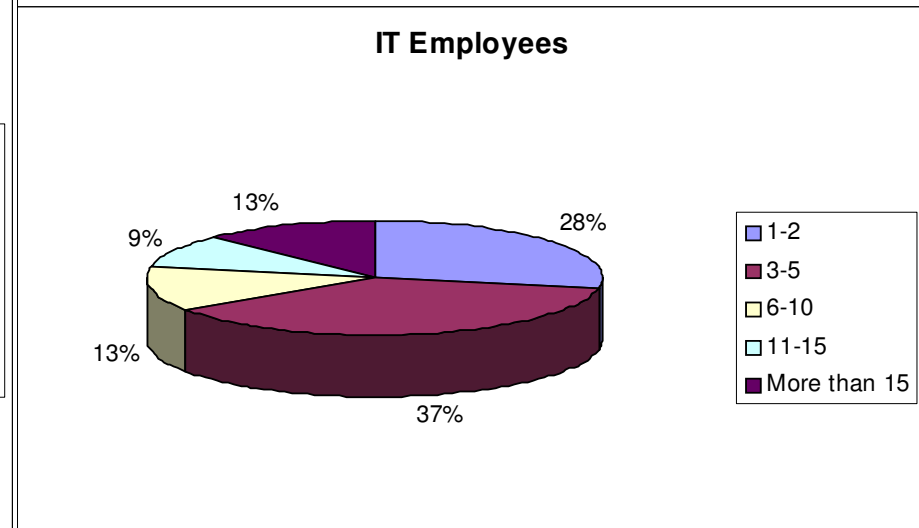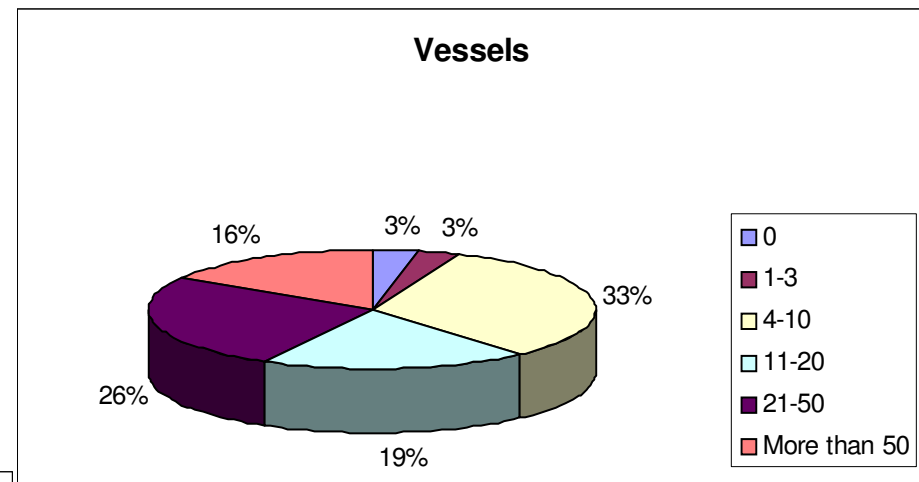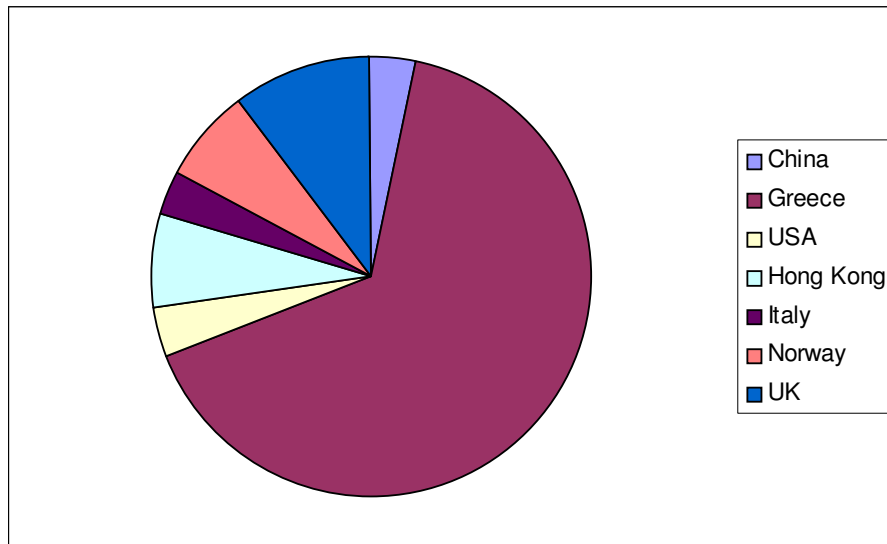- How top performers govern

- Some conclusions and proposals

The IT department in our company reports to:

CEO, General Manager or Equivalent

16%

3%

81%

Profile of the Survey

Participants: 33 companies
More than 600 vessels
More than 170 employees
Focused on Greece (65%)

Vessels

16%   3%   3%

33%

26%

19%

- 0
- 1-3
- 4-10
- 11-20
- 21-50
- More than 50

- China
- Greece
- USA
- Hong Kong
- Italy
- Norway
- UK

IT Employees

13%   28%

9%

13%

37%

- 1-2
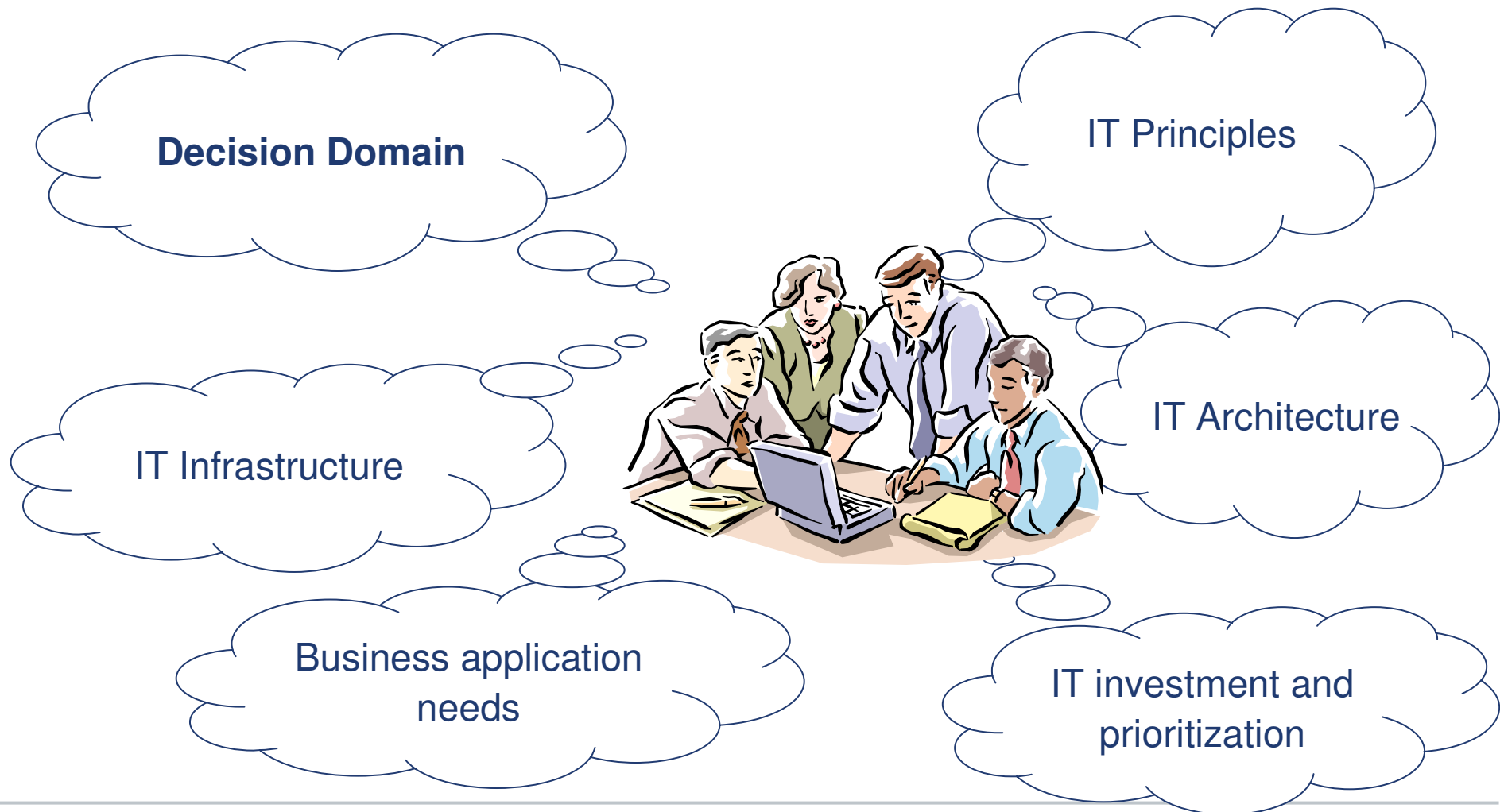- 3-5
- 6-10
- 11-15
- More than 15

Why is IT Governance Important?

- Top- Performing enterprises succeed in obtaining value from IT where others fail.

- One estimate is up to 40% greater return than their competitors for the same IT investment.

- IT Governance specifies accountabilities for IT-related business outcomes and helps companies align their IT investments with their business priorities.

- Research by MIT Sloan Center for Information Systems

What is IT Governance?

- The framework for decision rights and accountabilities to encourage desirable behavior in the use of IT

- Not about what specific decisions are made. This is management.

- About systematically determining who makes each type of decision, who has input to a decision, and how these people (or groups) are held accountable for their role.

Key Information Technology Decisions

Decision Domain

IT Principles

IT Infrastructure

IT Architecture

Business application needs

IT investment and prioritization

Key Information Technology Decisions

- **IT Principles**

  What is the role of IT in our business? How do we translate the business principles to IT principles that guide IT decision making?

- **IT Architecture**

  What is our technology plan? What are the core business processes of our company? How are they related? What activities and data must be standardized company wide? What are the technology choices that will guide the company approach to IT initiatives?
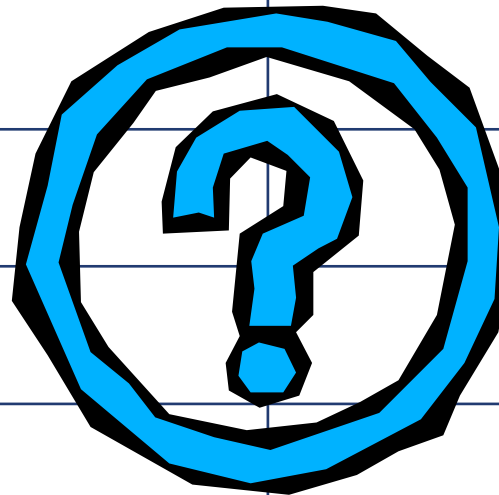
Key Information Technology Decisions

- **IT infrastructure**
  Centrally coordinated, shared IT services providing the foundation for the company's IT capability (i.e. equipment, networks, development platforms, data center)

- **Business application needs**
  Business requirements for purchased or internally developed IT applications.

- **IT Investment and Prioritization**
  Decisions about how much and where to invest in IT, including project approval and justification.

Governance Archetypes

- **Top Executives**
  A group of, or individual business executives (i.e. CEO, General manager)

- **IT**
  Individuals or groups of IT executives

- **Business Unit Leaders**
  Business unit leaders (i.e. Dry cargo or Tanker business), key process owners, or their delegates

- **Federation**
  Top executives, Business unit leaders and IT as a group

- **IT Duopoly**
  IT executives with one other group (i.e. Top executives or Business Unit leaders)

- **Anarchy**
  Individual users or small groups of users

Shipping IT Governance

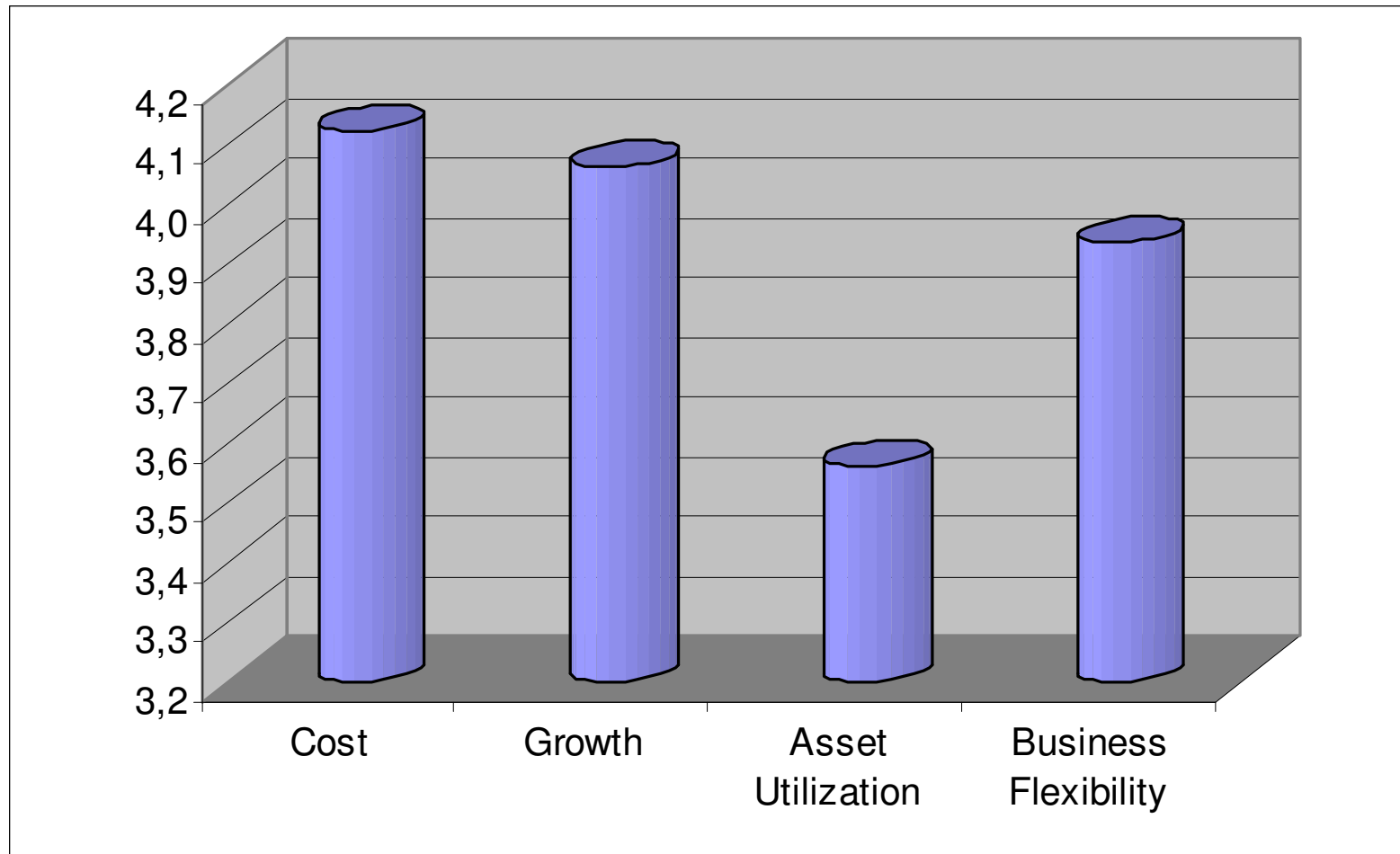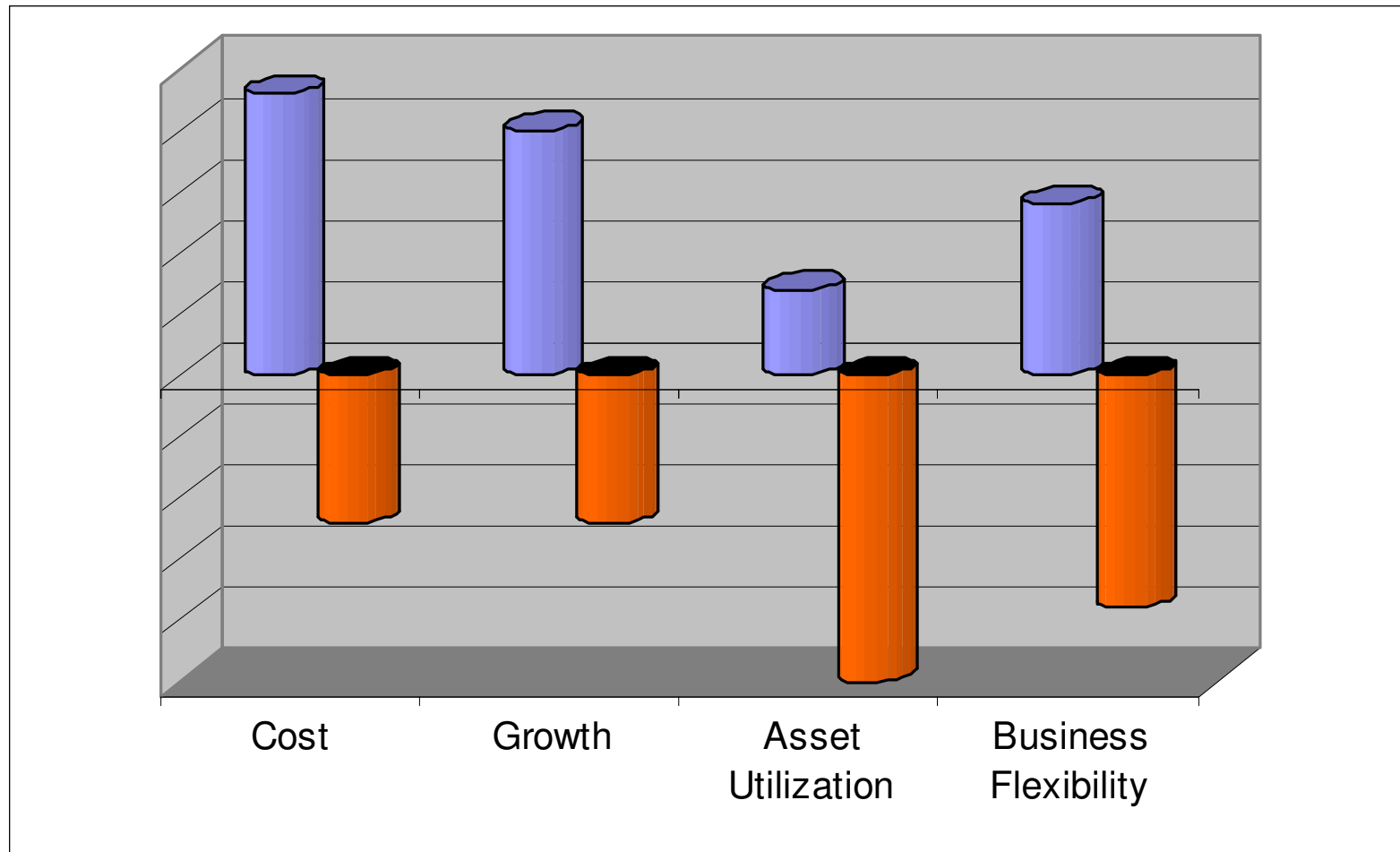|	IT Principles	IT Architecture	IT Infrastructure	Business Application Needs	IT Investment & Prioritization
Top Executives					
IT Monarchy					
Business Unit Leaders					
Federation					
Duopoly					
Anarchy					

Shipping IT Governance

	IT Principles	IT Architecture	IT Infrastructure	Business Application Needs	IT Investment & Prioritization
Top Executives	**35**	12	3	0	**60**
IT Monarchy	25	**66**	**85**	28	9
Business Unit Leaders	6	0	3	28	0
Federation	6	9	0	3	6
Duopoly	28	13	9	**41**	25
Anarchy	0	0	0	0	0

Numbers in each cell are percentages. Columns add to 100

How important are the following outcomes?

Outcomes selected as Most or Less important

How Do Enterprises Govern?

		Decision Domain								
		IT Principles		IT Architecture		IT Infrastructure Strategies		Business Application Needs		IT Investment	
Governance Archetype		Input	Decision	Input	Decision	Input	Decision	Input	Decision	Input	Decision
	Business Monarchy	0	27	0	6	0	7	1	12	1	30
	IT Monarchy	1	18	20	73	10	59	0	8	0	9
	Feudal	0	3	0	0	1	2	1	18	0	3
	Federal	83	14	46	4	59	6	81	30	93	27
	Duopoly	15	36	34	15	30	23	17	27	6	30
	Anarchy	0	0	0	1	0	1	0	3	0	1
	No Data or Don't Know	1	2	0	1	0	2	0	2	0	0

Most common pattern for all firms.

The numbers in each cell are percentages of the 256 enterprises studied in 23 countries. The columns add to 100%.

How is shipping IT Governance different?

	IT Principles	IT Architecture	IT Infrastructure	Business Application Needs	IT Investment & Prioritization
Top Executives	35	12	3	0	60 ⭐
IT Monarchy	25	66 ⭐	85 ⭐	28	9
Business Unit Leaders	6	0	3	28	0
Federation	6	9	0	3 ⭐	6 ⭐
Duopoly	28 ⭐	13	9	41 ⭐	25 ⭐
Anarchy	0	0	0	0	0

Numbers in each cell are percentages. Columns add to 100

How do Top Performers Govern?

Style \ Domain	IT principles	IT architecture	IT infrastructure	Business application needs	IT investment and prioritization
Business Monarchy	3	3	3		2 · 3
IT Monarchy		1 · 2	2 · 1		
Feudal					
Federal				1 · 3	
Duopoly	1 · 2			2	1
Anarchy					

Top Three Performers –

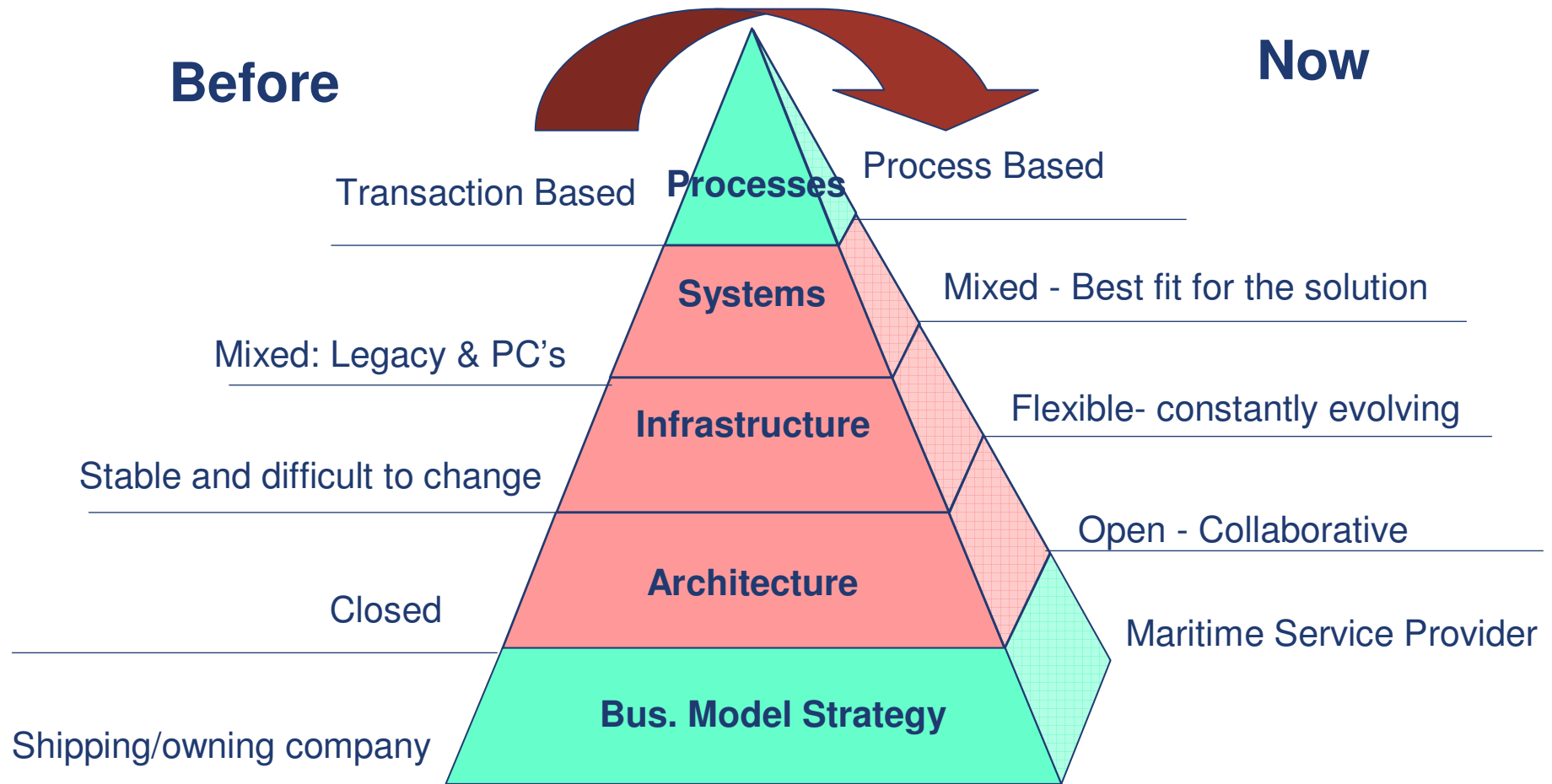Governance performance is the effectiveness of governance assessed by the CIO to deliver four IT objectives weighted by importance: cost effective use of IT & effective use of IT for asset utilization, revenue growth & business flexibility. Governance performance has statistically significant positive relationship with several measures of financial performance (i.e. ROA, ROE, market cap growth).

Some conclusions and proposals

- Shipping companies may need to work on translating the business principles to **IT principles** that guide IT decision making

- Unlike other industries decisions taken in a **group** of top executives, business unit leaders and IT is not very popular in shipping

- When it comes to decisions related to infrastructure and architecture, **IT Monarchy** prevails.

- A shipping company mostly expects from IT outcomes related to **cost** savings and **growth**.

- Probably there is a need to establish **specific** performance measurements for shipping IT.

- There may be **more than one path** to successful IT governance

- **Successful IT governance** encourages desirable behaviors and can offer greater returns on IT investments

Shipping IT Strategy Evolution

Before

Now

Transaction Based — **Processes** — Process Based

Systems — Mixed - Best fit for the solution

Mixed: Legacy & PC's

Infrastructure — Flexible- constantly evolving

Stable and difficult to change

Architecture — Open - Collaborative

Closed

Bus. Model Strategy — Maritime Service Provider

Shipping/owning company

Shipping IT Balanced Scorecard

Financial

- # of IT customers/Vessels
- Cost per Vessel
- Cost-efficiency of IT processes up
- Delivery of IT value per employee

Customer

- Level of service delivery up
- Satisfaction of existing customers
- # of new customers reached
- # of new service delivery channels

Information

Process

- Availability of systems & services
- Developments on schedule & budget
- Throughput & response times
- Amount of errors and rework

Learning

- Staff productivity & morale
- # of staff trained in new techno/services
- Value delivery per employee up
- Increased availability knowledge systems