IT Governance Maturity 2010 Survey at State Owned Enterprises

Arrianto Mukti Wibowo, M.Sc., Dr*, CISA, CGEIT*

IT Governance Lab, Faculty of Computer Science
University of Indonesia

amwibowo@cs.ui.ac.id, 0856-8012508

*) cand.

Presented at
IT Governance 2011 Seminar
Hotel Bidakara, Jakarta,
16 March 2011,

About The Speaker

Mukti is a senior researcher at the IT Governance Lab UI. Apart from his job of managing daily activity of the lab, he also works the Principal Consultant at Pusilkom UI and had lectured at Magister of Information Technology University of Indonesia.
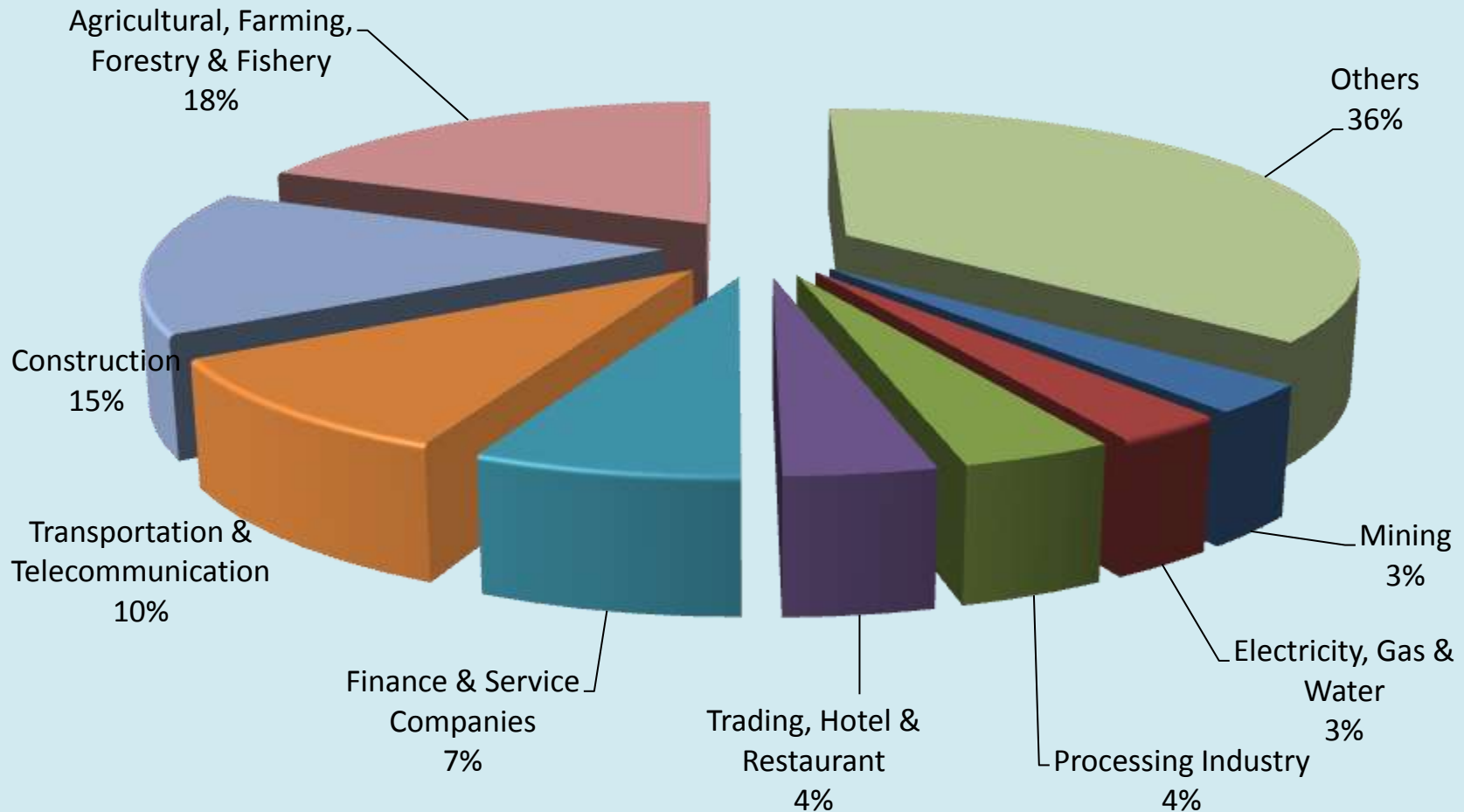
He received his computer science bachelor degree from UI and his M.Sc. Degree from School of Computing, National University of Singapore. Mukti is currently a doctoral candidate in IT Governance at University of Indonesia. He is an active Certified Information Systems Auditor and had also passed the Certified in Governance of Enterprise IT exam in 2009.

His expertise is on IS/IT strategy, strategic IS/IT planning, IT Governance, strategic management, balanced scorecard, and information risk management. He has consulted & led numerous successful client-acknowledged IT Planning projects.
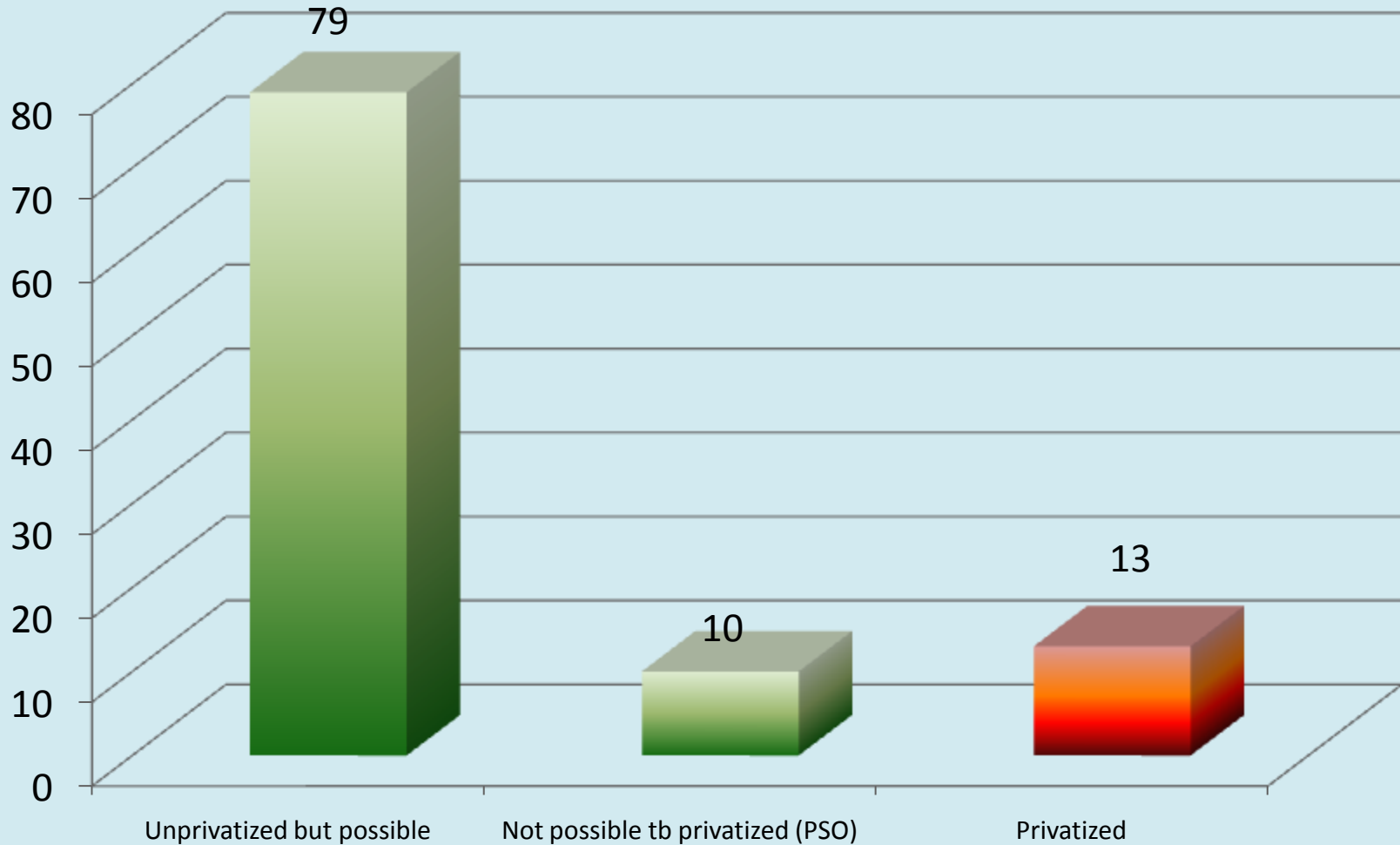
His works can be freely accessed as Information Systems Free Open Courseware at http://itgov.cs.ui.ac.id/wikimuki.htm

Demographics Based on BPS' KLUI

Pie chart showing:
- Agricultural, Farming, Forestry & Fishery: 18%
- Construction: 15%
- Transportation & Telecommunication: 10%
- Finance & Service Companies: 7%
- Trading, Hotel & Restaurant: 4%
- Processing Industry: 4%
- Electricity, Gas & Water: 3%
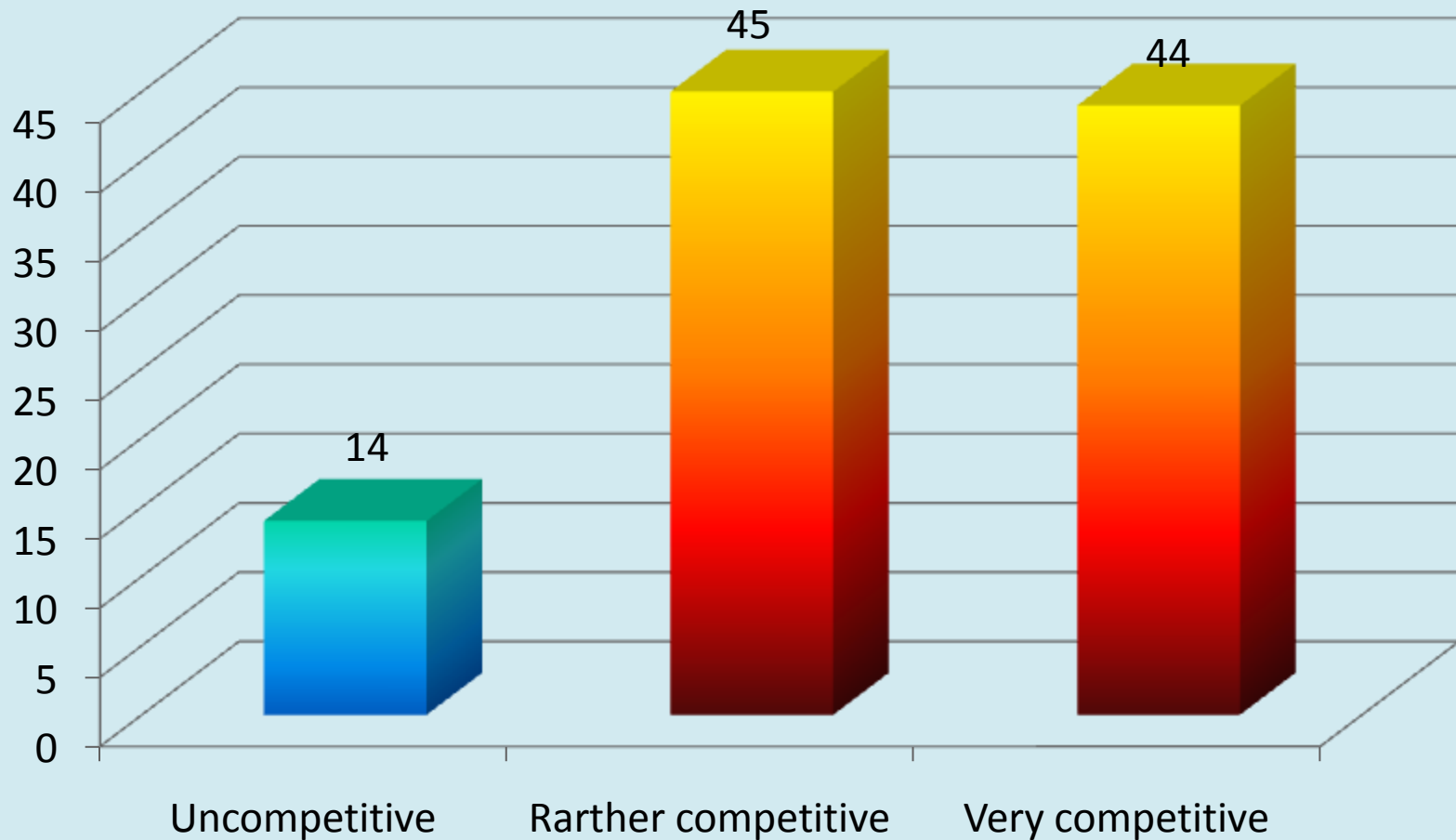- Mining: 3%
- Others: 36%

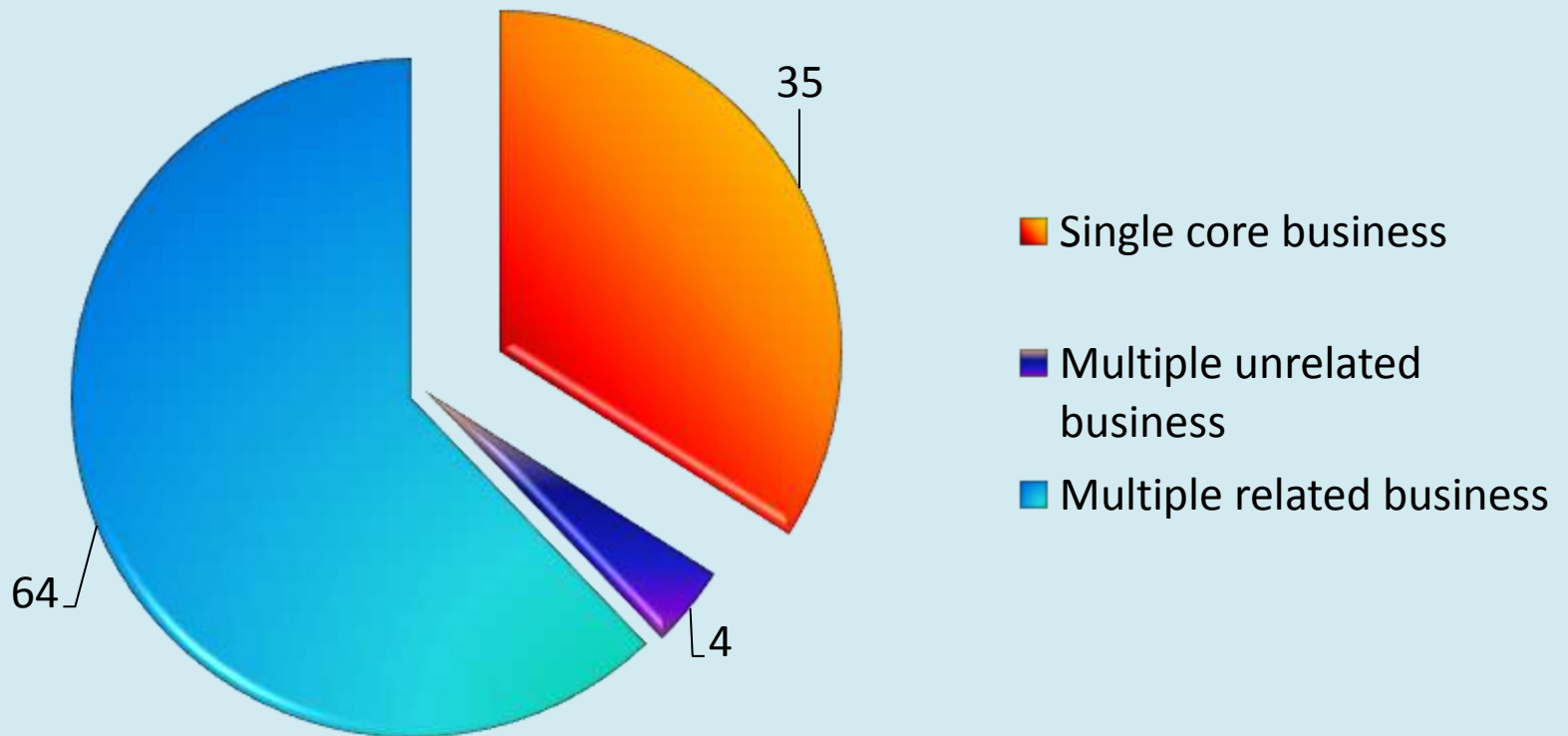# Privatization Status

Very few of the SOEs were already privatized

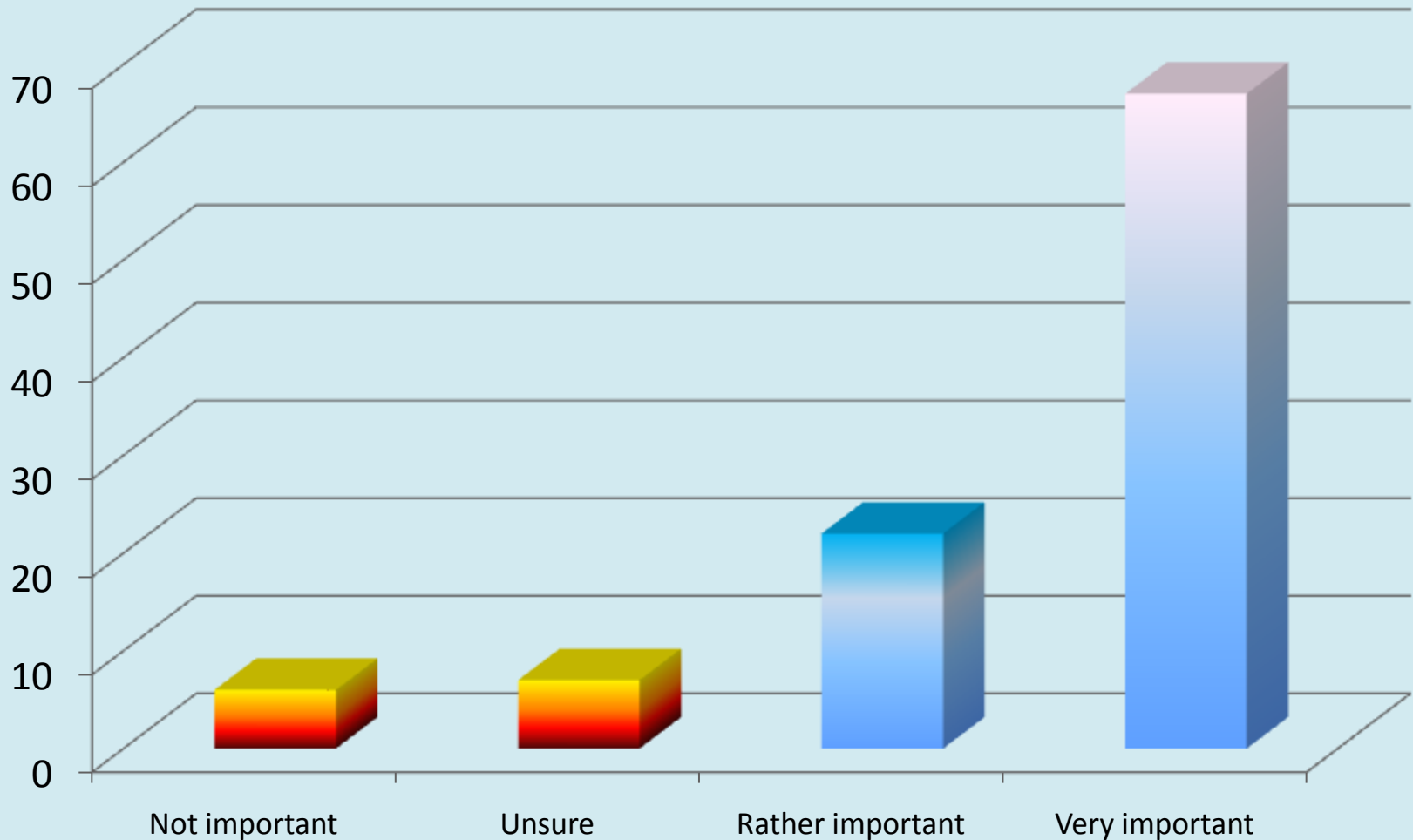# Business environment competitiveness

Most SOEs are now in the 'free market' environment…!

Span of Business

Most SOEs had multiple business unit

Importance of IT to support corporate strategy

Most of the SOEs thought that IT is important to support corporate strategy

Where do IT Head reports to?
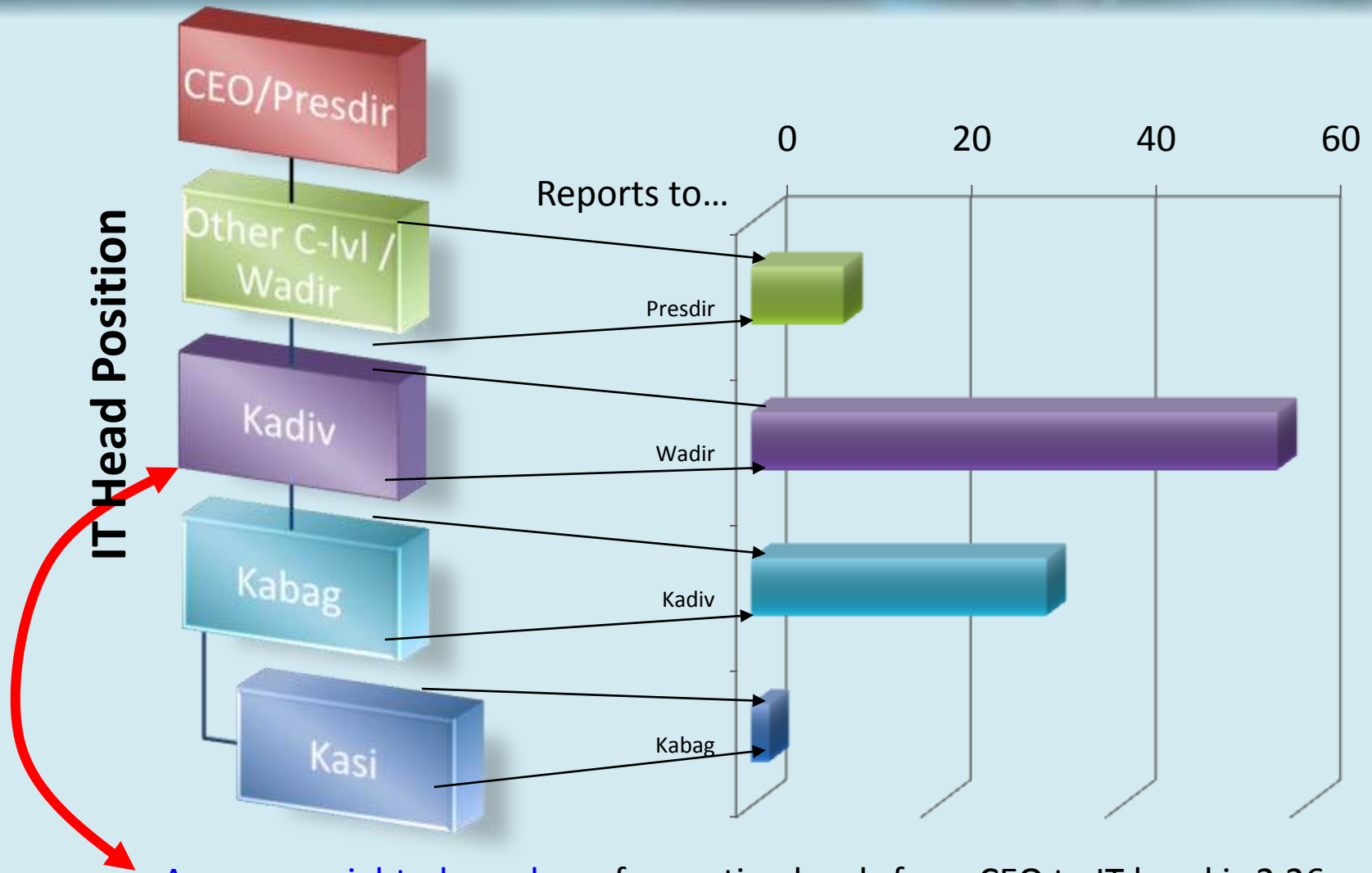
Average weighted number of reporting levels from CEO to IT head is 2,26.

IT Steering Committees

- Less than a third (29,4%) of the respondents <u>do not have</u> a formal IT Steering Committee.

- Only 2,9% or 3 cases where they <u>do not understand</u> what an IT Steering Committee is.

- Member of IT Steering Committee:
    - Board of Directors ('Dewan Direksi') 39,2%
    - IT Head 38,2%
    - Functional business area 19.6%
    - Business units 7,8%

IT Strategy Committee

© Scott Adams, Inc./Dist. by UFS, Inc.

- About half of the organizations surveyed do not have an IT Strategy Committee or its function is embedded in IT Steering Committee.

- IT Strategy Committee at SOEs are dominated also by IT unit head (40 cases) and directors (35 cases).

Who championed IT Governance?
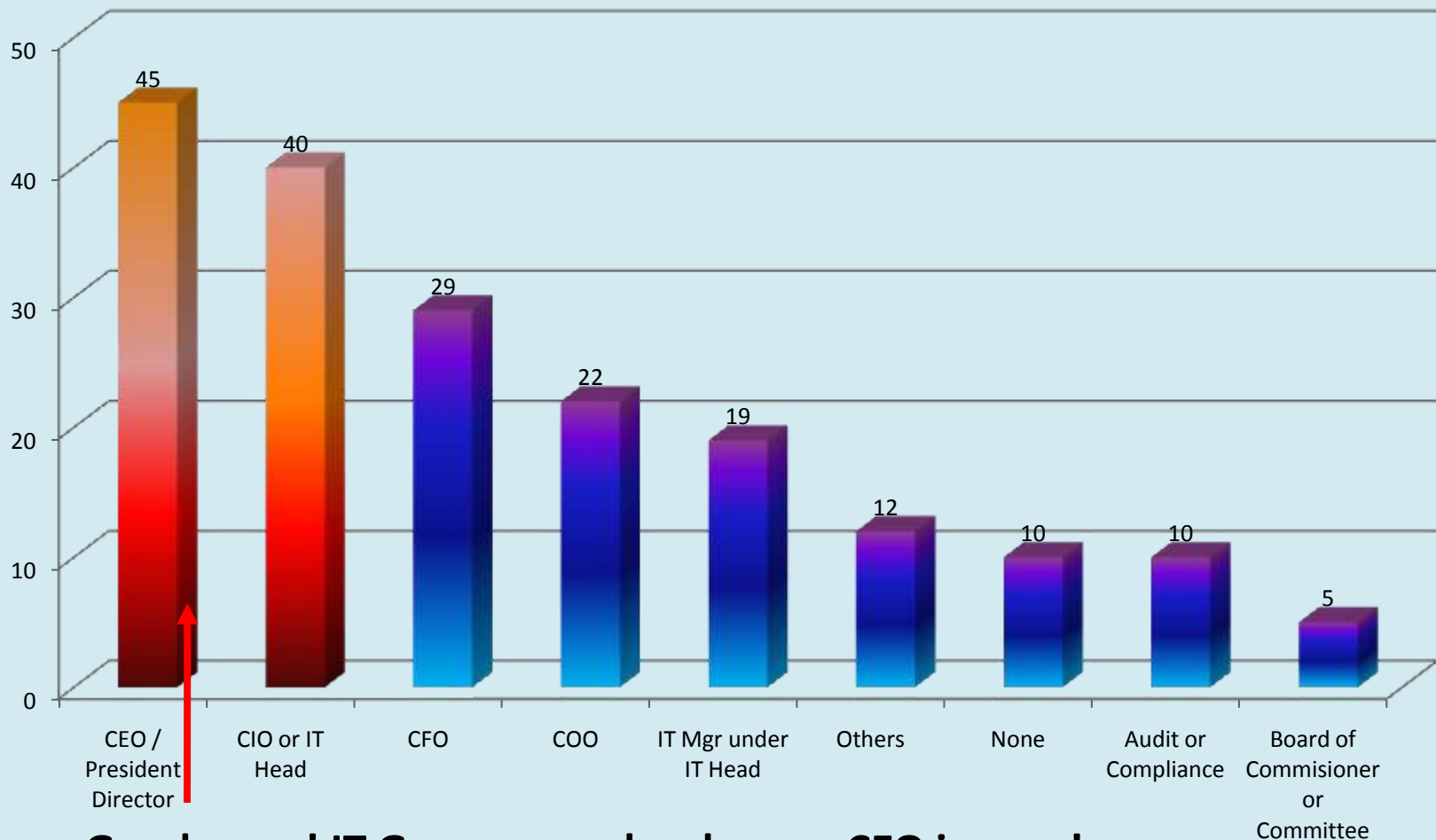
Good news! IT Governance has been a CEO issue...!

Business manager participation in IT-enabled business initiative

Bus Mgr has little or no participation; 9

Bus Mgr is informed of the decision making; 20

Bus Mgr is fully responsible; 37

Bus Mgr as member of decision making; 25

Bua Mgr only leads during decision making; 12
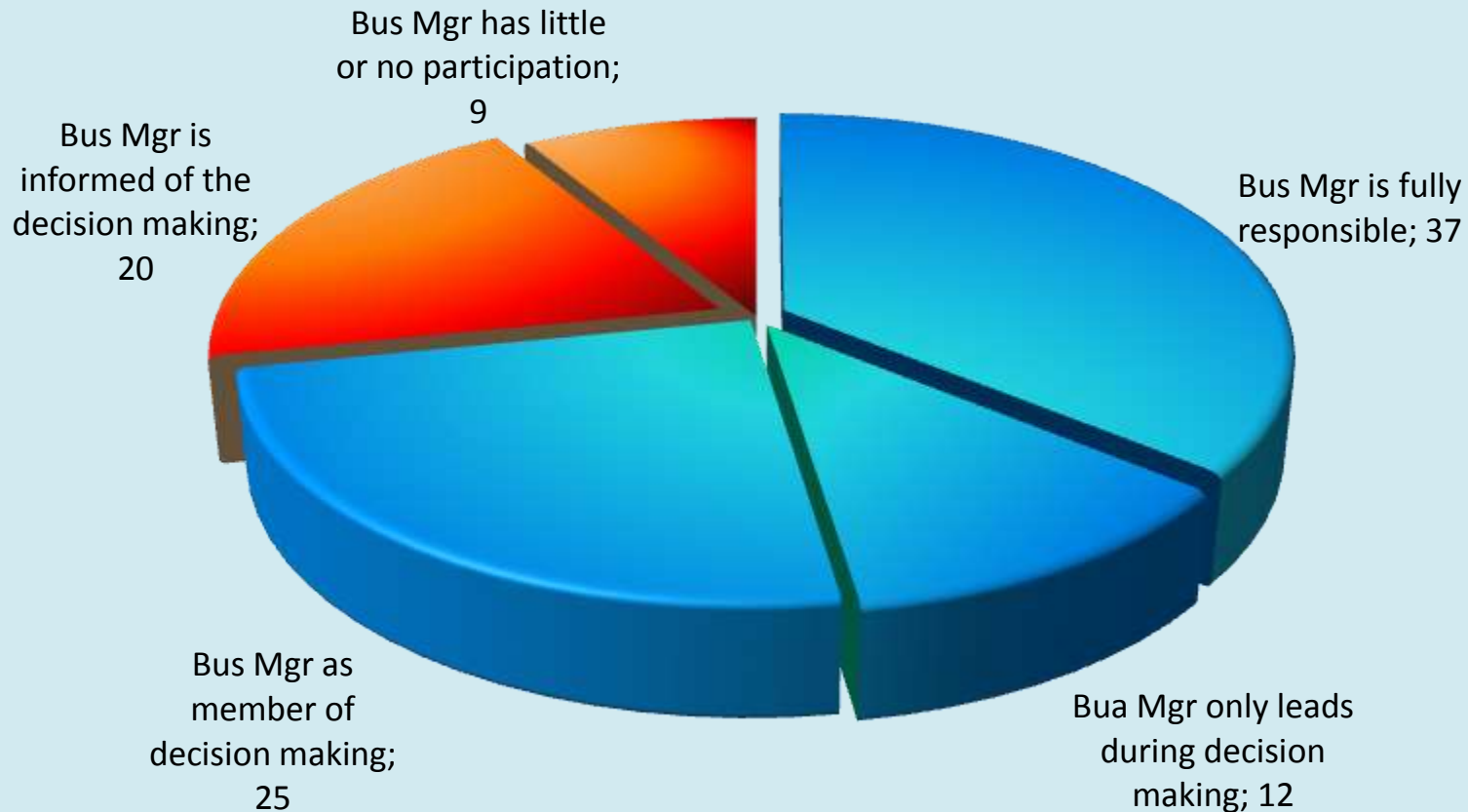
Most business unit managers are involved actively in IT-enabled business initiatives decision making

Has IT brought value?

strongly agree
74%

somehow
agree 16%

neutral 6%

somehow
disagree 0%

strongly
disagree 4%
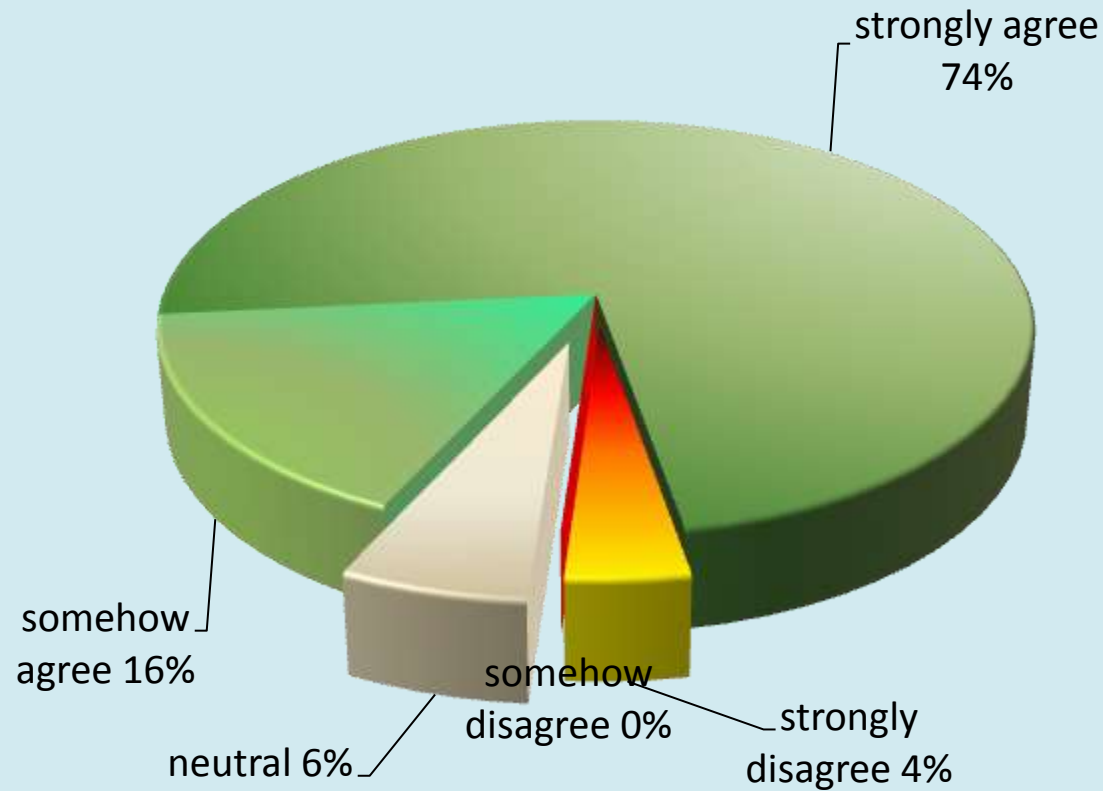
Most of the respondents claimed that IT has brought value

Problems Faced

- Two top problems faced by SOEs:
  1. Insufficient number of staff
  2. IT service delivery problem

Problems Faced

Our Disaster Recovery Plan Goes Something Like This...

HELP! HELP!

DILBERT By Scott Adams

Problem	Percentage
Problems with outsourcers	6%
Security and privacy incidents, perhaps involving people,…	10%
Lack of agility/development problems	10%
Serious IT operational incidents	11%
IT not meeting nor supporting compliance requirements	11%
Electronic archiving or storage problems	12%
Problems with document content or knowledge management	25%
A disconnect between IT strategy and business strategy	27%
Inadequate disaster recovery or business continuity measures…	28%
High cost of IT with low or uproven return on investment (ROI)	28%
IT service delivery problems	42%
Insufficient number of staff	51%

Have implemented IT Governance?

already implement
17%

do not consider
2%

in the process of
implementing
30%

consider to
implement
51%
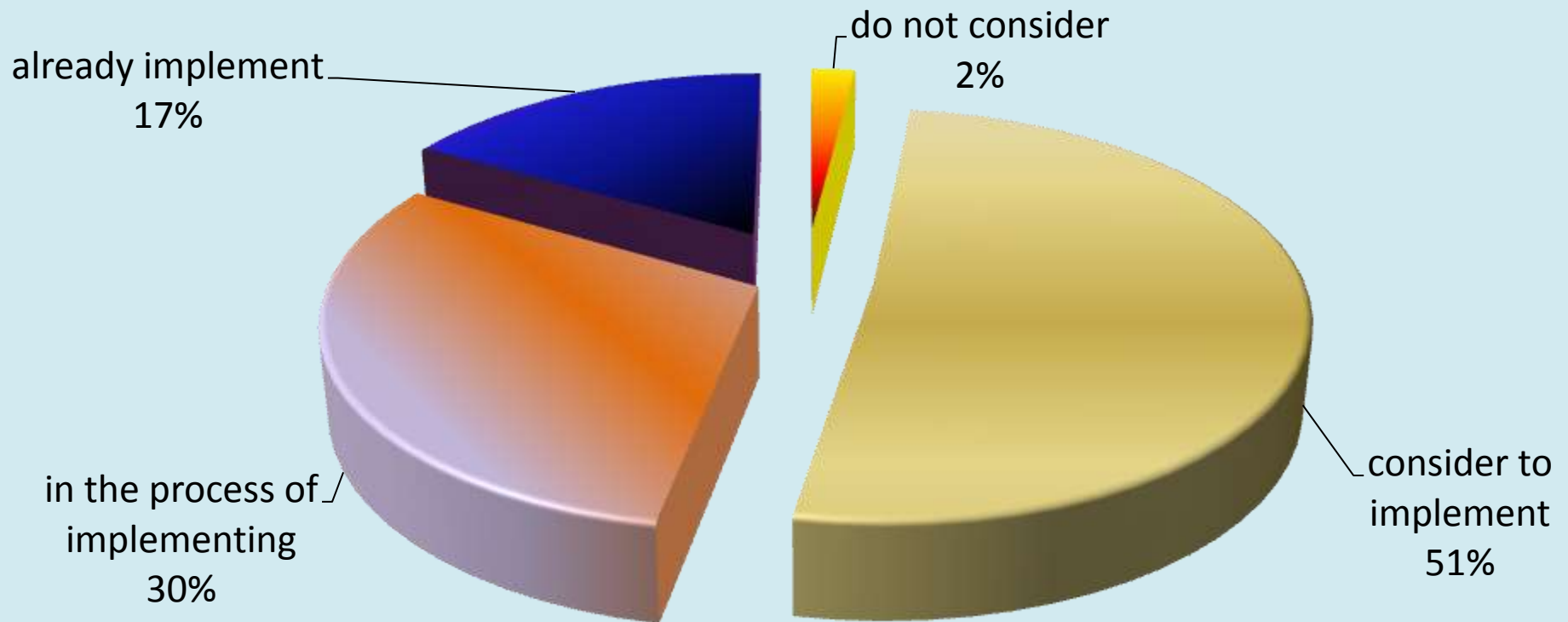
Only less than half were already implementing or in the process of implementing.

Wrong KPI, wrong outcome…

(we actually found one at one SOE)

IT Governance process standars should help…!

IT Governance Frameworks Used

Framework	Percentage
ITIL/ISO 20000	20,4%
ISO 9000	21,4%
Develop own framework	15,5%
COBIT/COBIT Quickstart	39,8%
ISO 17799/ ISO 27000/ ISO TR13335/ISF	17,5%
International professional organisation's solution	5,8%
Software Engoneering Institute Maturity Model (CMM or CMMI)	5,8%
Own framework based on other in the list	21,4%
IT Balanced Score Card (BSC)	21,4%
Local professional organization's solution	8,7%
Have not decided	25,2%
Six Sigma	3,9%
PRINCE2	0,0%
COSO ERM	2,9%
PMI, PMBOK	2,9%
TOGAF	1,0%
SysTrust	0,0%
Val IT	0,0%
AS-8015 or ISO 38500	0,0%

COBIT was the most popular IT Governance framework used among SOEs

# IT investment practices/processs

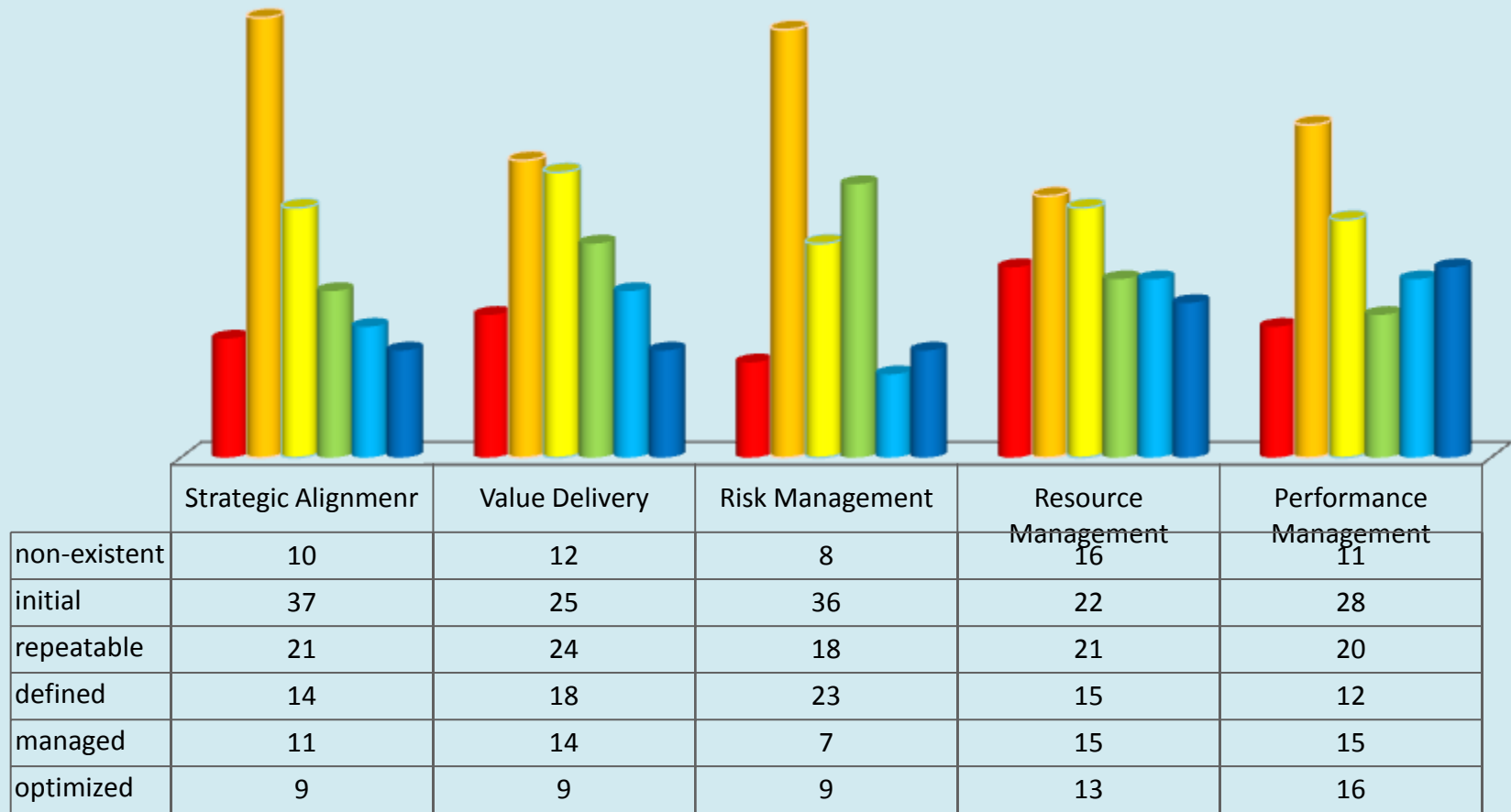| IT Investment Related Process	Cases	Pct of Cases
Continuous improvement exists of value delivery practices	70	68,6%
IT-enabled investments include the full scope of activities that are required to achieve business value.	44	43,1%
IT-enabled investments are managed through their full economic life cycle.	31	30,4%
Key value metrics are monitored and deviations responded to	27	26,5%
Different categories of investments are recognised	25	24,5%
Accountabilities are established for capability delivery and realisation of benefits	23	22,6%
IT-enabled investments are managed as a portfolio	21	20,6%

Most SOEs conducted CPI (continous process improvement) on its value delivery practices

IT Governance
Control Objective Maturity
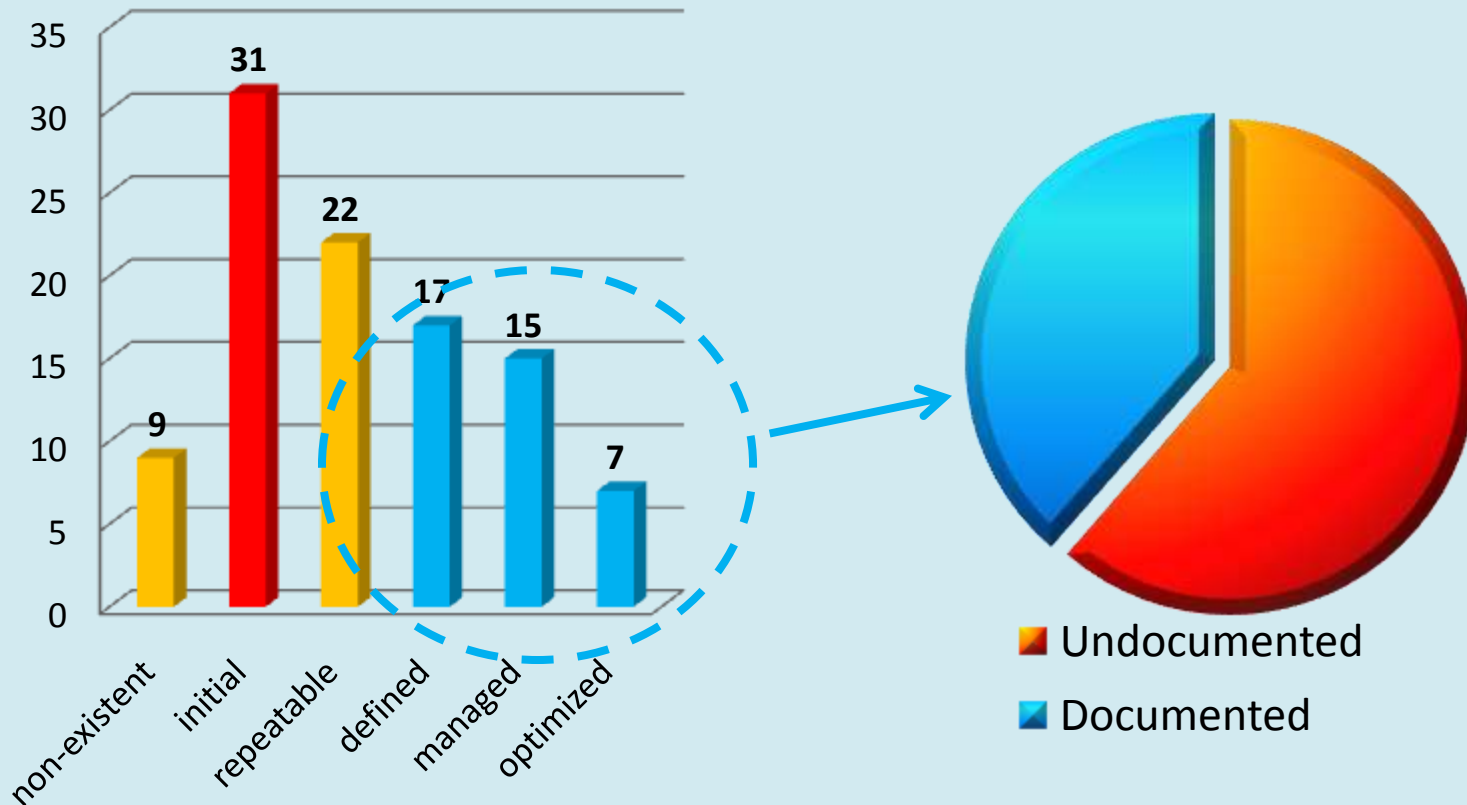
- **Less than half documented their IT Governance, majority don't have any documentation.**
- **Many are still 'experimenting' IT Governance**

and a more detailed perspective...

	Strategic Alignmenr	Value Delivery	Risk Management	Resource Management	Performance Management
non-existent	10	12	8	16	11
initial	37	25	36	22	28
repeatable	21	24	18	21	20
defined	14	18	23	15	12
managed	11	14	7	15	15
optimized	9	9	9	13	16

■ non-existent ■ initial ■ repeatable ■ defined ■ managed ■ optimized
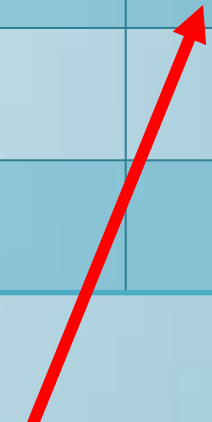
IT Governance vs Health Status ('Kesehatan BUMN')

(Health status taken from official 'Ikhtisar Laporan Keuangan BUMN 2009 Audited')

		Documented IT Governance		
		Undocumented process	Documented process	Total
Recoded Health Level	Not or rather healthy	20	2	22
	Healthy	50	26	76
Total		70	28	98

- It is uncertain whether IT Governance will effect SOE health status.
- But, Good Corporate Governance (GCG) might be a requirement for Good IT Governance

Importance of IT vs Market Competitiveness

|	Unimportant	Not sure	Rather important	Very important
Uncompetitive	0	2	1	11
Rather competitive	3	3	14	25
Very competitive	3	2	7	31
Total	**6**	**7**	**22**	**67**

It is not just market that drives the need for IT, but other forces or drivers are also working.

Top Drivers of IT Governance

1. Corporate governance regulations

2. Free market competition

3. External audits

4. Data accuracy/timeliness requirements

Dilbert comics by Scott Adams

Drivers of IT Governance
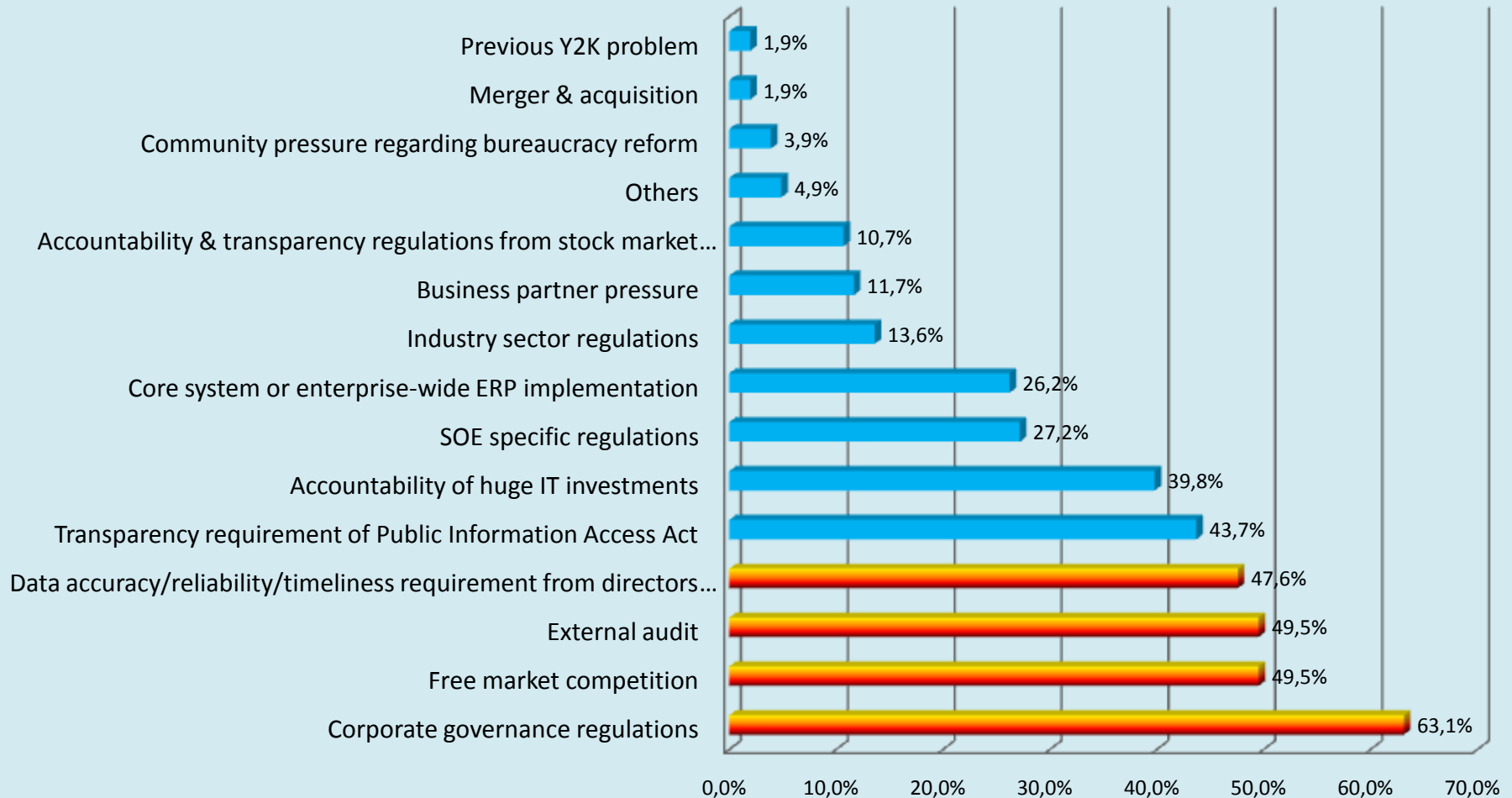
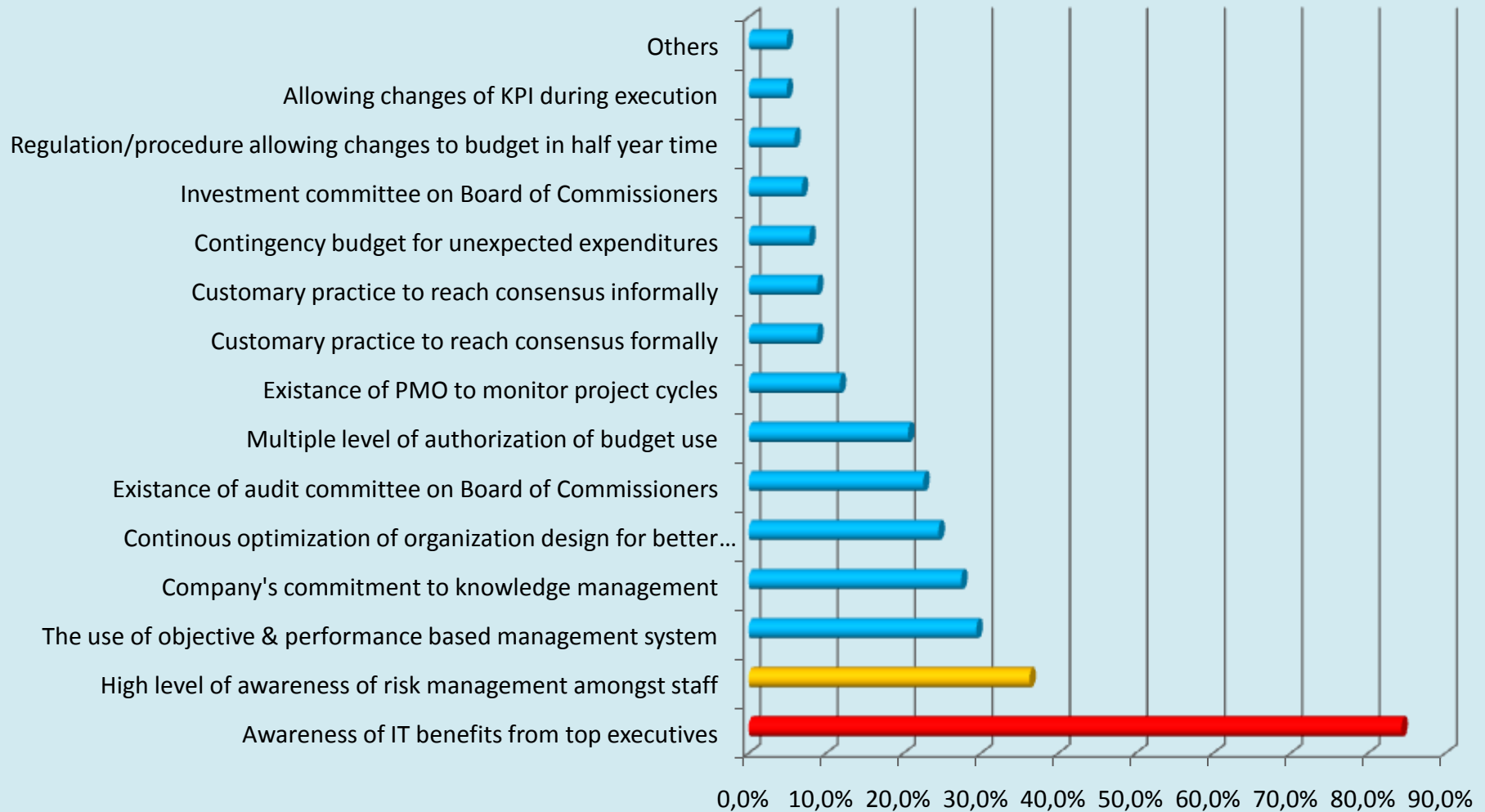# Top IT Governance Enablers & Inhibitors

- Top IT Governance Enablers:
  1. Awareness of IT benefits from top executives
  2. High level of awareness of risk management amongst staff

- Top IT Governance Inhibitors
  1. Many staff have low IT awareness
  2. IT investment only uses financial calculation
  3. Sorts of communication problems

Enablers of IT Governance

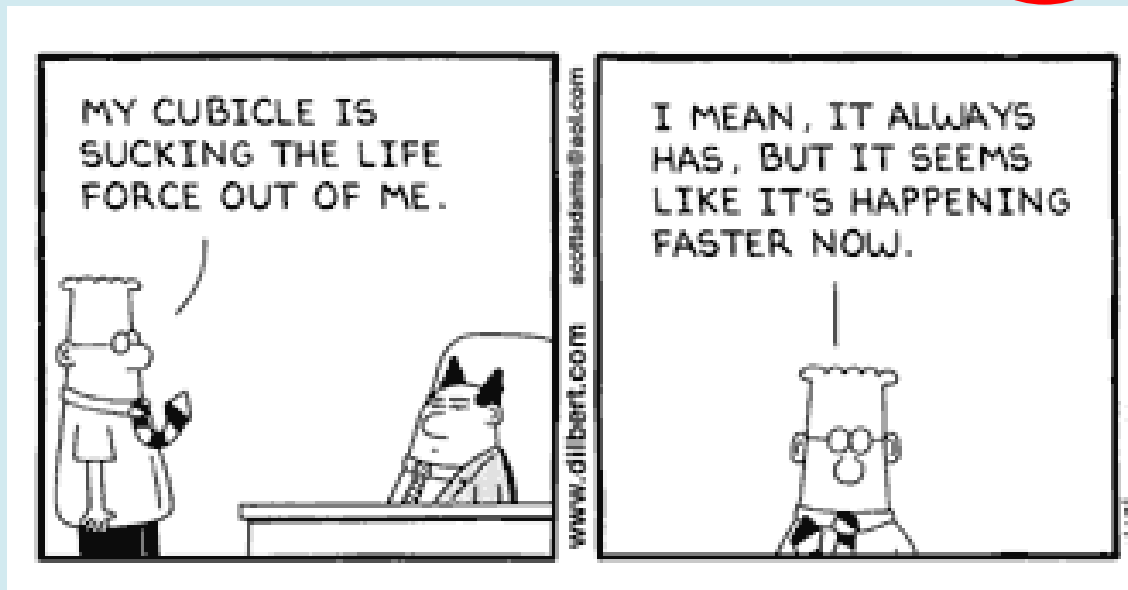| Category	Percentage
Others	~5%
Allowing changes of KPI during execution	~5%
Regulation/procedure allowing changes to budget in half year time	~6%
Investment committee on Board of Commissioners	~8%
Contingency budget for unexpected expenditures	~9%
Customary practice to reach consensus informally	~10%
Customary practice to reach consensus formally	~10%
Existance of PMO to monitor project cycles	~13%
Multiple level of authorization of budget use	~21%
Existance of audit committee on Board of Commissioners	~23%
Continous optimization of organization design for better…	~25%
Company's commitment to knowledge management	~28%
The use of objective & performance based management system	~30%
High level of awareness of risk management amongst staff	~37%
Awareness of IT benefits from top executives	~85%

Inhibitors of IT Governance
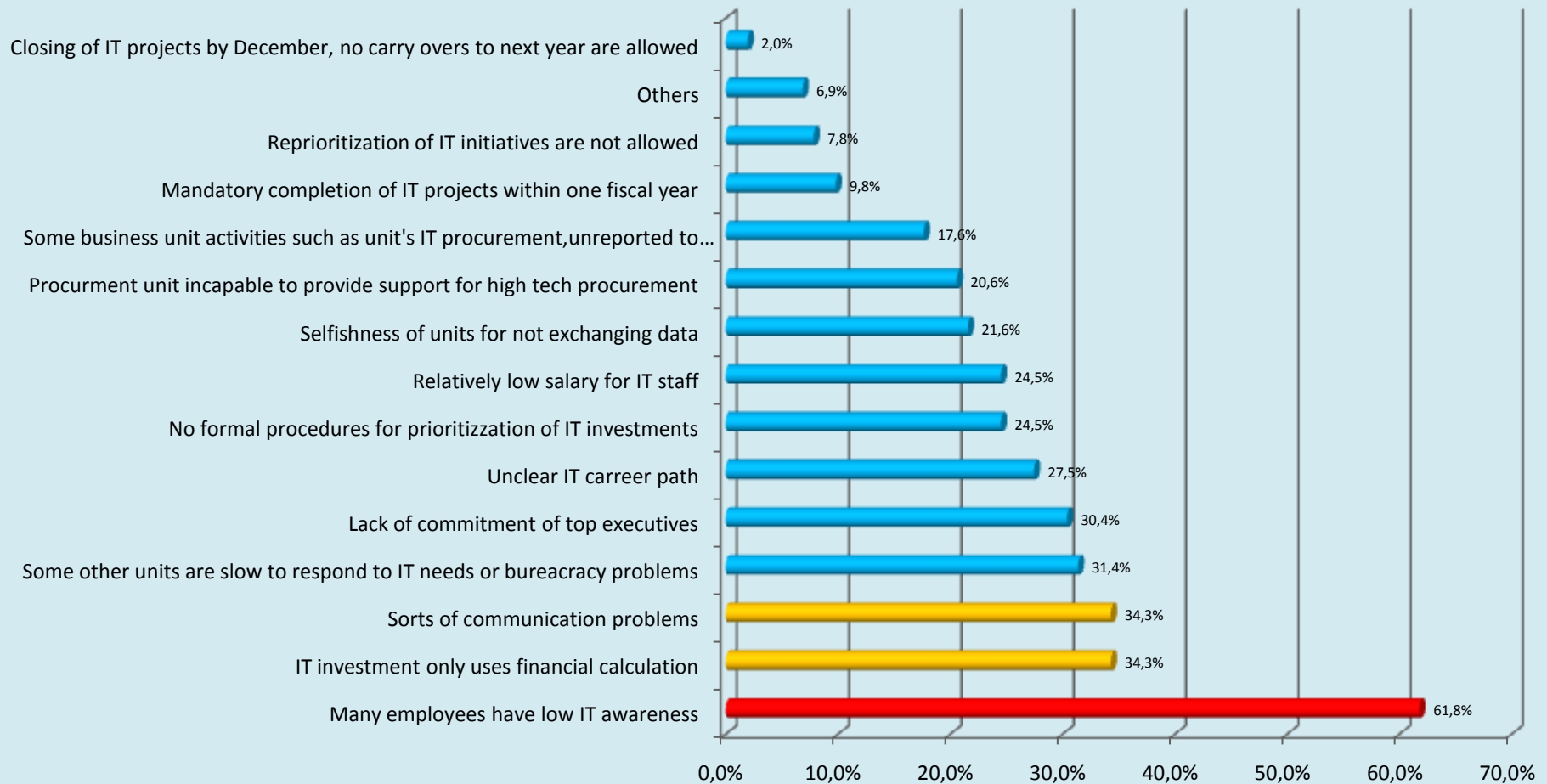
Do privatization leads to different IT Governance level?

Group Satistics

	Privatization status	N	Mean	Std. Deviation	Std. Error Mean
ME4	Unprivatized	89	2,0379	1,27650	,13531
	Privatized	13	3,2979	1,59946	,44361

MY CUBICLE IS SUCKING THE LIFE FORCE OUT OF ME.

I MEAN, IT ALWAYS HAS, BUT IT SEEMS LIKE IT'S HAPPENING FASTER NOW.

It seems that privatized SOEs had higher IT Governance maturity level.

"But is it by chance or is it really different?"

Privatization caused Dilbert to…

Do privatization leads to different IT Governance level?

t-test for Equality of Means /w 95% confidence level

		t	df	Sig. (2-tailed)	Mean Difference
ME4	Equal variances assumed	-3,21645	100	0,002	-1,26008
	Equal variances not assumed	-2,71694	14,31982	0,016	-1,26008

The means are significantly different (<0.05) for assumptions of either equal or unequal variance.

Privatized SOEs have higher IT Governance maturity level than unprivatized SOEs

Do number of drivers associate with IT Governance maturity?

Correlations

			ME4	Count of Drivers
Spearman's rho	ME4	Correlation Coefficient	1,000	,437(**)
		Sig. (2-tailed)	.	,000
		N	102	102
	Count of Drivers	Correlation Coefficient	,437(**)	1,000
		Sig. (2-tailed)	,000	.
		N	102	103

** Correlation is significant at the 0.01 level (2-tailed).

Yes, the more the number of drivers acting on an organization, it is likely that its IT Governance maturity level will be higher.

Maybe, it is much better for the government to focus on pushing the drivers to increase IT Governance maturity at SOEs

Responsibility of Business Mgr vs Span of Business

	One core business	Multiple related business units	Multiple unrelated business units	Total
Bus Mgr is fully responsible	14	23	0	37
Bua Mgr only leads during decision making	4	7	1	12
Bus Mgr as member of decision making	10	13	2	25
Bus Mgr is informed of the decision making	6	13	1	20
Bus Mgr has little or no participation	1	8	0	9
Total	**35**	**64**	**4**	**103**

Responsibility of Business Mgr vs Span of Business

H_0 = there is no relationship H_a = there is a relationship

Chi-square test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6,966	8	0,540
N of Valid Cases	103		

From Critical Values of Chi-square Distribution table, we find that the critical value when α=0,05 and df=8 is 15,51. Since the calculated value (6,966) is smaller than the criticall value, the null hypothesis is accepted.

Responsibility of business manager has <u>nothing to do </u>with span of business, they – in general – participated in the decision making

IT Governance Leads to Lower Risks

		Insiden/kecelakaan serius pada operasi TI		
		,00	1,00	Total
Documented IT Governance	Undocumented process	66	6	72
	Documented process	30	0	30
Total		96	6	102

Clearly better IT Governance leads to lower operational IT incidents

Some other findings

- It seems there is a slight indication that higher IT Governance level leads to lower varieties of IT Risks

- The more enablers working, the better the IT Governance seems.

- However, crosstabs showed that the number of inhibitors do not associate or correlate with IT Governance maturity

LESSONS LEARNED...

#1: Documented ('better') IT Governance as a symtomp of a healthy company

Other lessons learned...

#2: Lower your risk by governing IT properly

#3: Best practice showed business manager participation & responsibility on IT projects

#4: Make IT Governance the president director's issue

#5: For regulating agencies (Ministry of SOE, Bapepam-LK, Bank Indonesia, etc.): to increase IT Governance maturity level of the regulated entities, it might be wise to focus on IT Governance drivers & inhibitors