



# Propose of Past-performance information system (PIS) for improving Indonesian public works performance

**Key words:** best value procurement, electronic information system, past performance evaluation, procurement reform, public work

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# Introduction



- Islands : 17.000
- Land area : 1.922.570 km<sup>2</sup>
- Total area : 5.180.053 km<sup>2</sup> (exc.ZEE)
- Population : 237.854.868 (65% in Java island)
- Province : 33
- District : 561 (developing)





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- 2 **Background & problems**
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# Problem

- **Poor performance of construction project**
  - Not on time
  - Not on budget
  - Poor quality
- **Undermine economic and social benefit**

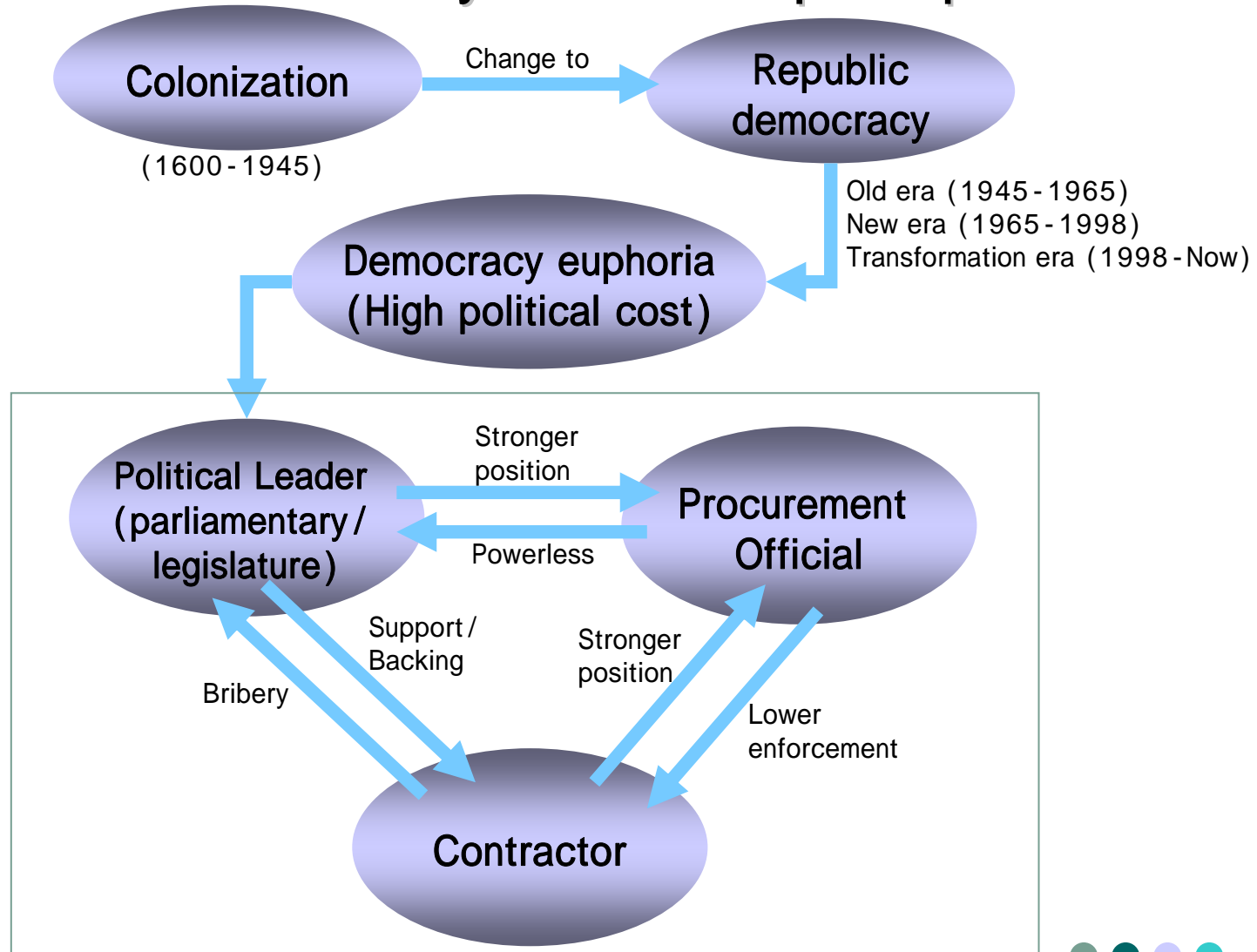


# Can it be improved?



# Cause 1:

Corruption is one of key factors of poor performance



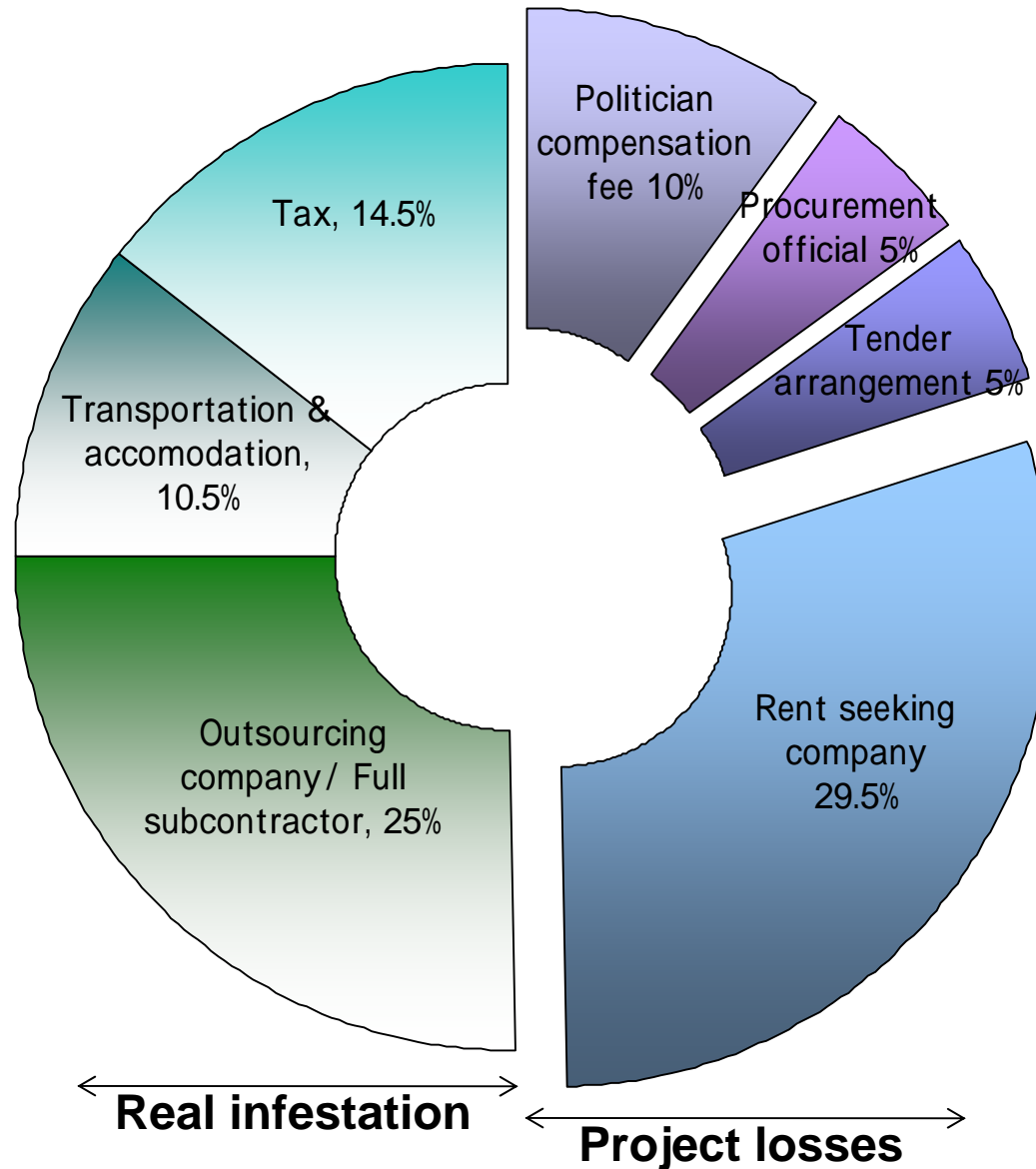
# Corruption in public work expenditure

	Indonesia	World wide
1. Expenditure for infrastructure investment	30% - 40% (\$14.000.000.000 / Rp140.000.000.000.000) (Source: Word Bank 2006)	10% (\$400.000.000.000) (Source: ASCE 2006)
2. Investment losses	10 - 50% (source: TI Indonesia 2006)	15 - 30% (Source: CoST 2010)
3. Rank of Bribery Payers Index (BPI) of Transparency International (TI) based on economic sector	1 <sup>st</sup> (source: TI Indonesia 2006) <ul style="list-style-type: none"> <li>• Public Work and Construction 46%</li> <li>• Arm Force and Defense 36%</li> <li>• Oil and Gas 21%</li> <li>• Banking and Finance 15%</li> <li>• Real Estate and Property 11%</li> </ul>	1 <sup>st</sup> , (source: Transparency International, 2008)



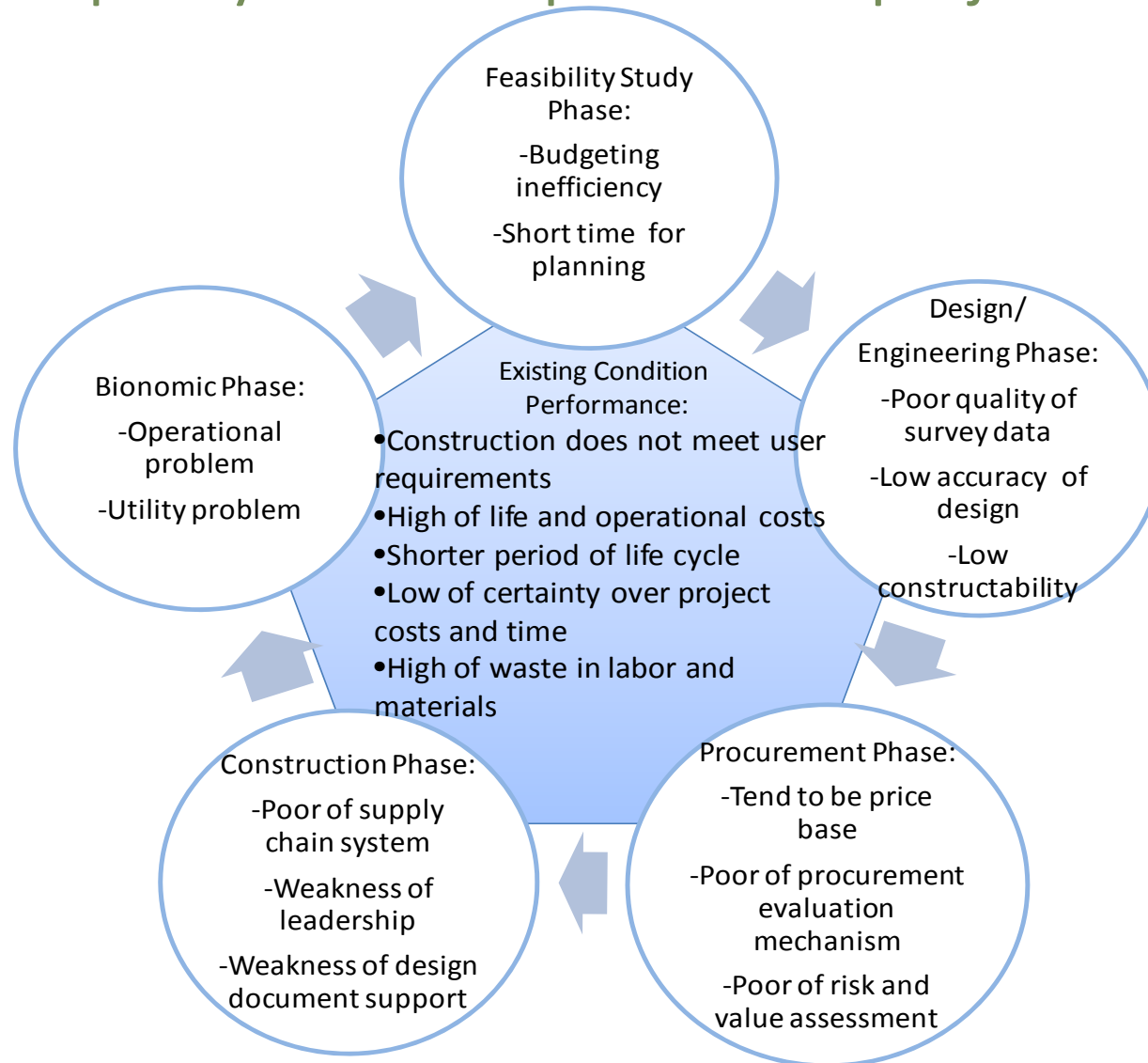
# Losses in Indonesian public work investment

Example of investment losses based on a case study



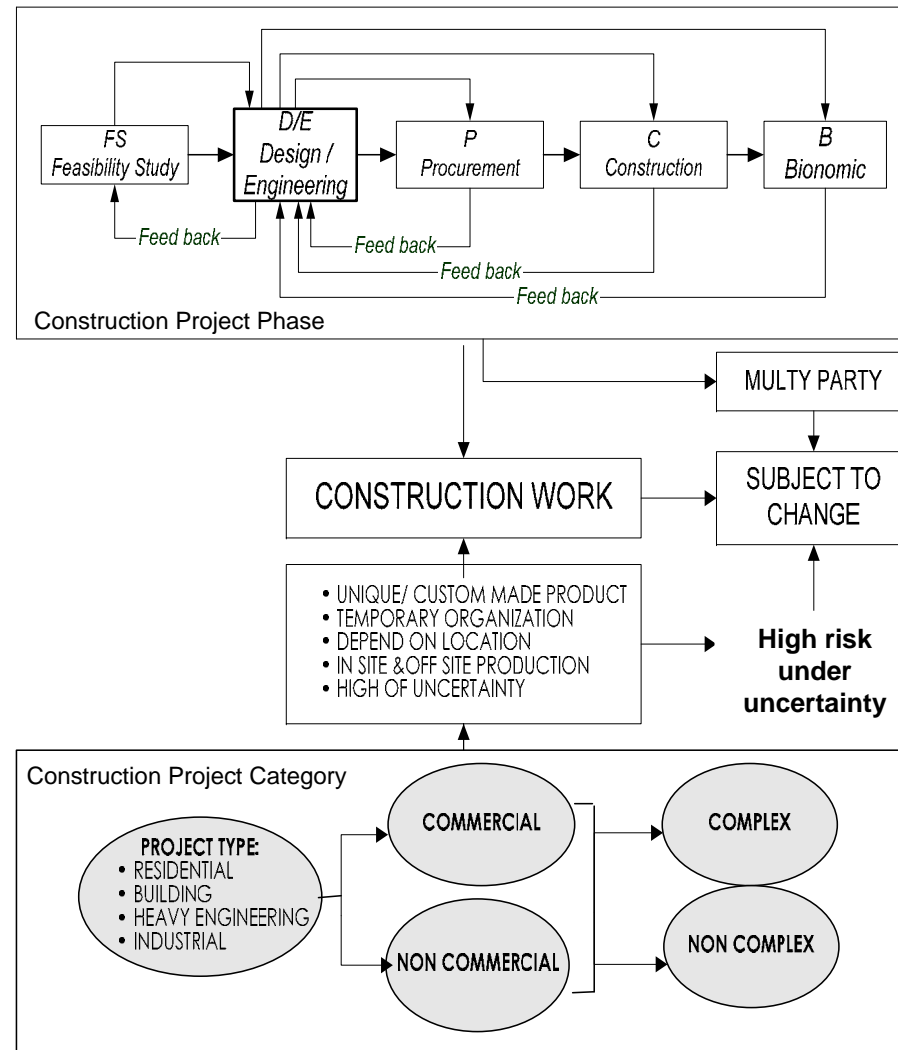
# Cause 2:

Low capacity is a main problem in project lifecycle



# Cause 3: Poor risk control

- **Low capacity to bear with the public works characteristic which is high risk under uncertainty**



# Cause 4:

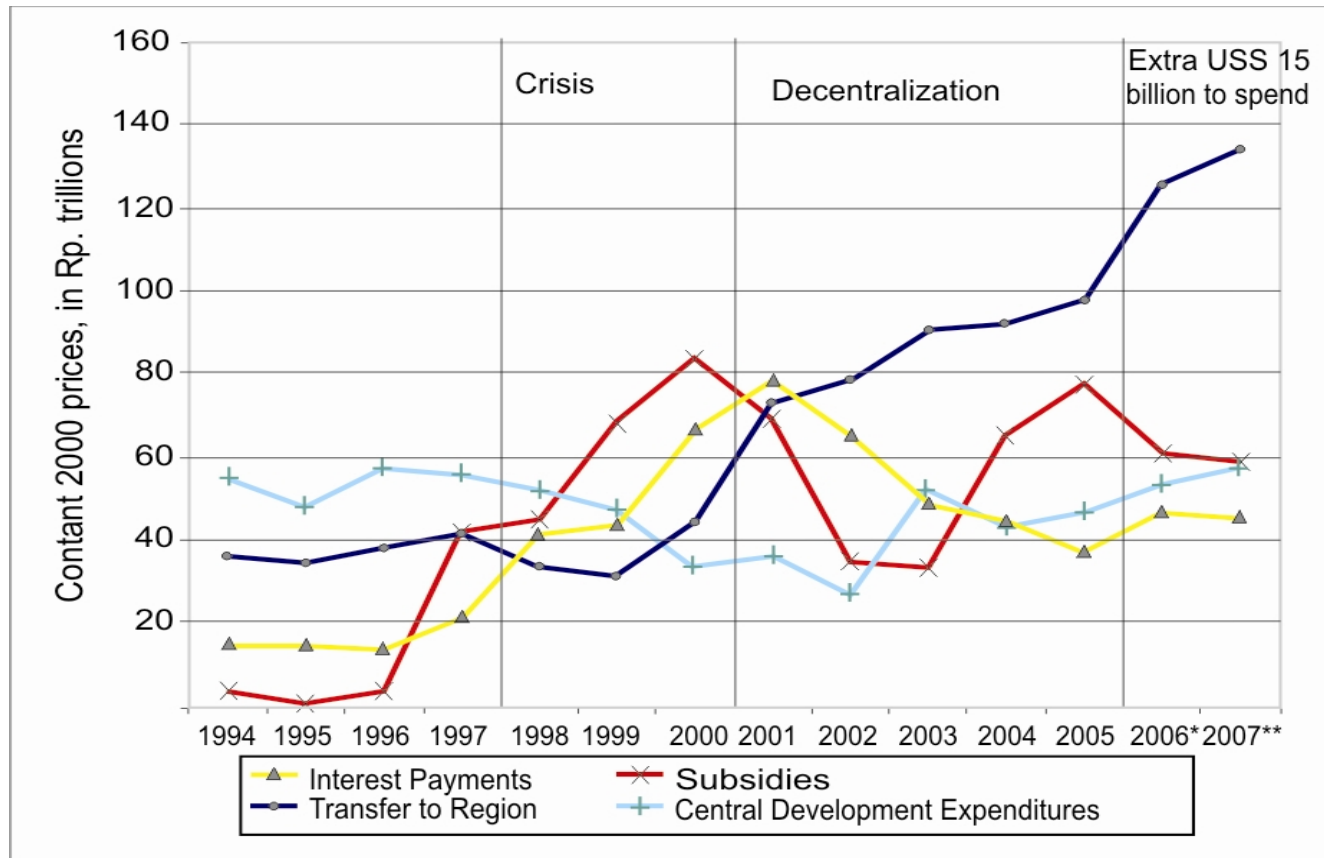
Adversarial relationship exists between client and other parties



- Lack of cooperation
- Limited trust
- Inefficient communication



# Cause 5: Decentralization



- 47% of central government expenditure was transferred to the regions at 2006.
- The existing system have not accommodated the needs of more than 501 local Governments (district/ city)



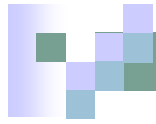


# Cause 6:

## Poor guidelines and tools

- Multi interpretation rule
- Abuse of unclear procedure
- Insufficient evaluation method
- Lack of past performance information
- Lack of standard control achievement
- Insufficient qualification process
- Ethics and moral problem
- Lack of effectiveness of control and audit system
- Lack of any independent mechanism to handle complaints





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# National public procurement agency

The screenshot shows a web browser window displaying the official website of the National Public Procurement Agency (LKPP) of Indonesia. The browser's address bar shows the URL <http://www.lkpp.go.id/v2/>. The website header features the LKPP logo and the text "Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah". A navigation menu includes links for "HALAMAN UTAMA", "REGULASI", "PUBLIKASI", "OPINI", "FORUM PENGADAAN", "IKATAN AHLI PENGADAAN", "F.A.Q", and "POJOK LKPP". A red banner below the menu reads "Pengadaan Yang Kredibel Menyejahterakan Bangsa". The main content area is divided into several sections: "TENTANG KAMI" (About Us) with sub-sections for "Unit Kerja" and "PELAYANAN" (Services); "INAPROC PORTAL PENGADAAN NASIONAL"; "BLACK LIST Perusahaan / Individu"; "Ujian Sertifikasi Berbasis Komputer"; and "PENGUMUMAN & REKRUITMEN". A central image shows a man in a military uniform presenting a certificate to another man, with the caption "SEKRETARIS UTAMA LKPP MEMBERIKAN CENDERAMATA KEPADA WAKIL PIMPINAN REDAKSI HARIAN FAJAR MAKASSAR". Below this is a "LKPP Highlights" section with a bullet point: "Kerjasama Bilateral-Multilateral Perluas Peluang Pengembangan SDM Pengadaan Jakarta, 04 Agustus 2010. Pengembangan sumber daya manusia di bidang pengadaan barang/jasa". The browser's taskbar at the bottom shows the system clock as 13:25 on 2010/08/05.





# Indonesian e-procurement system

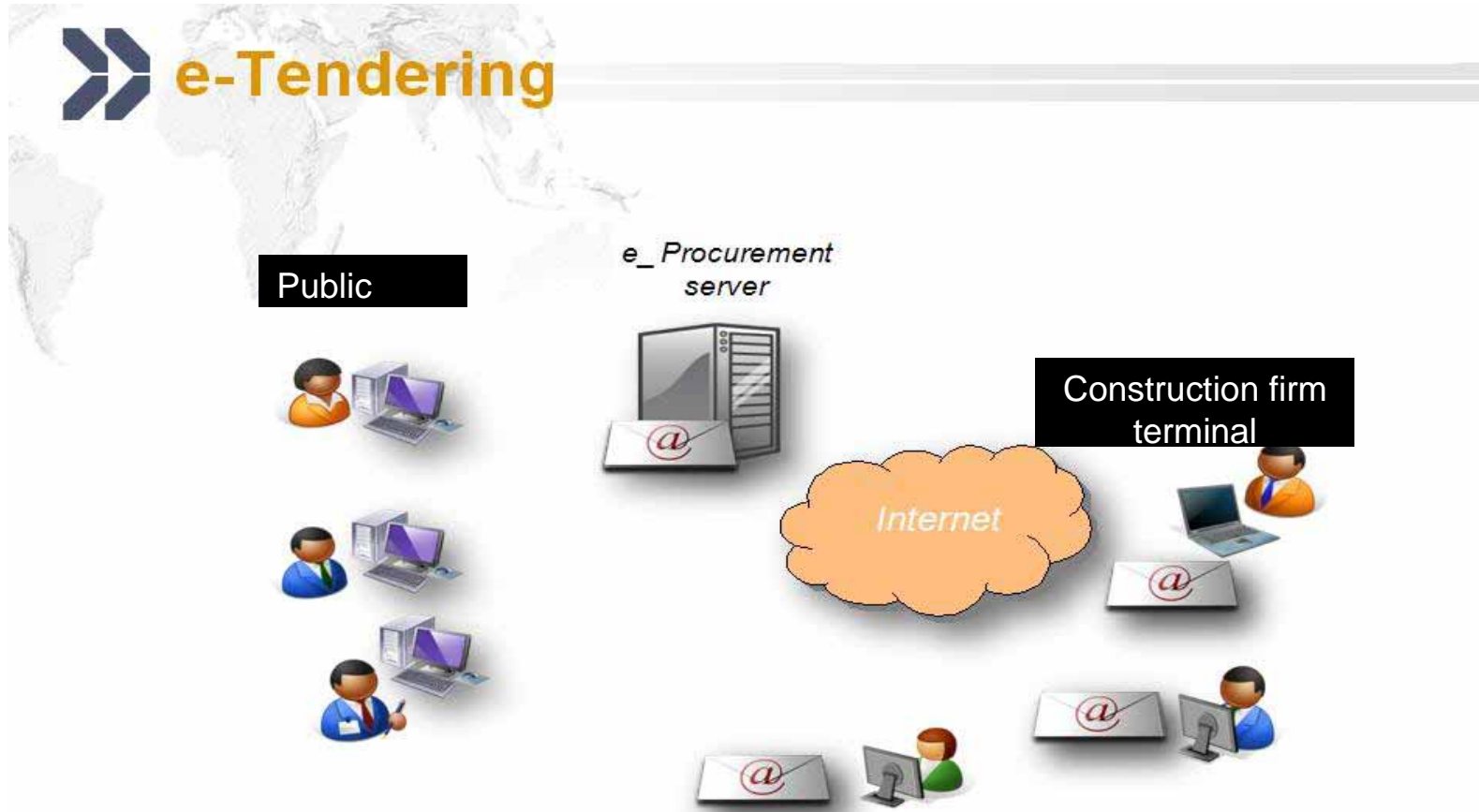
- *E-Tendering*
- *E-Purchasing*



- Improving transparency and accountability;
- Improving market accessibility and fairness competition;
- Improving efficiency of procurement system;
- Supporting monitoring and audit system;
- Providing the need of real time information accessibility.



# The existing of Indonesian electronic bidding system



Web programming	: Java
Data base	: Postgre SQL
Operating system	: Linux
Data security	: Encryption

# E-procurement website

The screenshot shows the LPSE website interface. The browser title is "LPSE - Windows Internet Explorer" and the address bar shows "http://lpse.depkes.go.id/eproc/app". The search bar contains "sistem pengadaan secara elektronik ppt". The website header includes the LPSE logo and the text "LPSE KEMENTERIAN KESEHATAN" and "LAYANAN PENGADAAN SECARA ELEKTRONIK". The navigation menu includes "Home", "Tentang Kami", "Tanya Jawab", "Regulasi", "Site Map", and "Kontak Kami". A sidebar on the left contains a "Login" section with fields for "User ID" and "Password", and a "Cari" section with options for "Cari Paket Lelang" and "Cari Pemenang Lelang". The main content area features a "Tips Menggunakan Email di LPSE" section and a table of procurement packages.

No	Nama Paket	Agency	Pagu	Download Dokumen
1	Alat pengolah data untuk daerah rawan bencana	Sekretariat Jenderal	1 M	23 Jul - 8 Aug 2010
2	Pengadaan bahan penelitian karakteristik genetik virus measles di Indonesia	BADAN PENELITIAN DAN PENGEMBANGAN KESEHATAN	255,5 jt	3 Aug - 11 Aug 2010
3	Pengadaan bahan penelitian hub kedar hemoglobin dengan respons sitokin pro/anti inflamasi pada penderita infeksi plasmodium	BADAN PENELITIAN DAN PENGEMBANGAN KESEHATAN	178 jt	3 Aug - 11 Aug 2010
4	Pengadaan Alat Pengolah Data	DIREKTORAT JENDERAL PENGENDALIAN PENYAKIT DAN PENYEHATAN LINGKUNGAN	186 jt	28 Jul - 5 Aug 2010
5	Pengadaan bahan penelitian anti hiperkolesterolemia, anti agregasi platelet tepung dan hidrolisat umbi	BADAN PENELITIAN DAN PENGEMBANGAN KESEHATAN	1,6 M	3 Aug - 11 Aug 2010





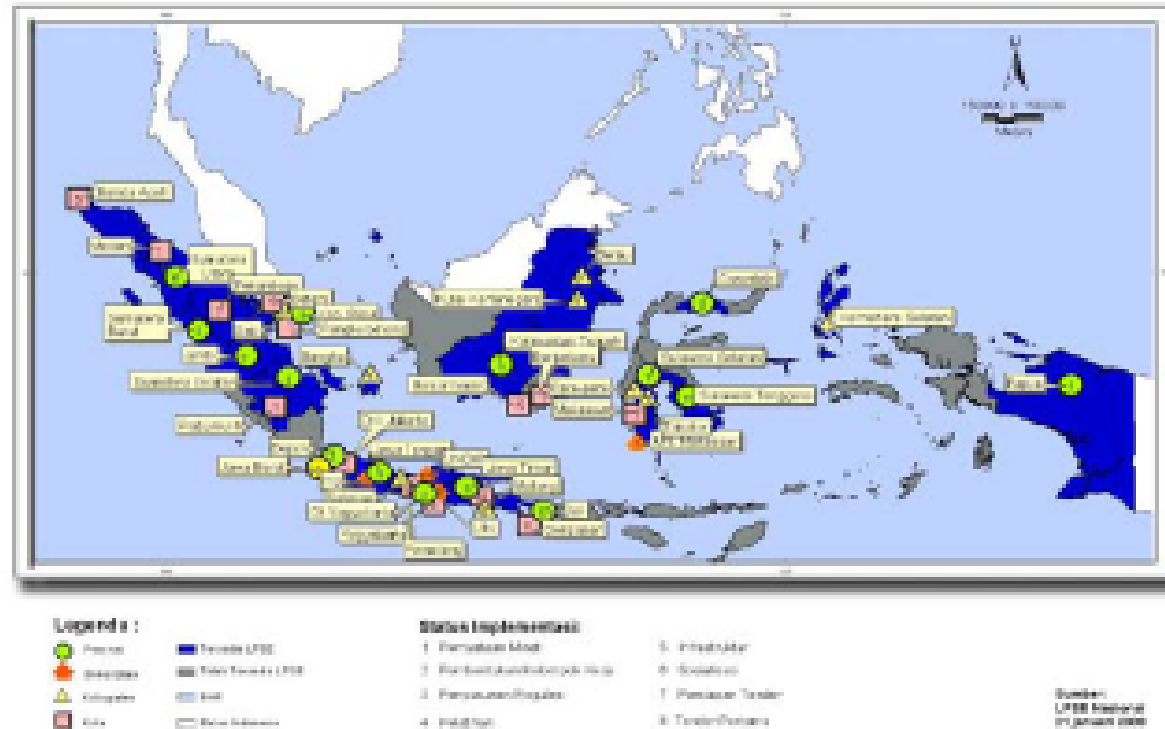
# Progress of implementation

e-Procurement Transaction Status 2008-2010 / Status Transaksi LPSE 2008-2010

No	Description / Uraian	2008	2009	2010	Total
1	Number of Tender / Paket*	33	1.725	3.996	5.754
2	Amount of Tender Ceiling (Million) / Nilai Pagu (Juta Rp)	52.500	3.372.157	6.848.757	10.273.414
3	Number of Tender Awarded/Paket Selesai	19	1.435	3.054	4.518
4	Amount of Tender Ceiling Awarded / Nilai Pagu Selesai (Juta Rp)	42.898	3.140.445	4.741.879	7.925.221
5	Amount of Contract (Million) / Nilai Hasil Lelang (Juta Rp)	36.286	2.621.461	4.140.293	6.798.040
6	Saving (Million) / Selisih Pagu dan Hasil Lelang (Juta Rp)	6.612	518.308	601.585	1.126.506
7	Percentage of Saving (%) / Selisih Pagu dan Hasil Lelang (%)	15	17	13	14
8	Procuring Entities / Jumlah PPK	81	517	1.497	2.095
9	Tender Committees / Jumlah Panitia	50	303	871	1.224
10	Registered Suppliers / Jumlah Penyedia Terdaftar	962	14.270	26.008	41.240
11	Verified Suppliers / Jumlah Penyedia Terverifikasi	617	9.010	14.614	24.441
12	Disqualified Suppliers / Jumlah Penyedia Tertolak	8	29	59	96
13	Blacklisted Suppliers / Jumlah Penyedia Terblack-list	0	7	7	14



## Status Implementasi e-Procurement Nasional



- Reducing time (36 days to 18 days for procurement)
- Reducing cost (budget efficiency 14%)

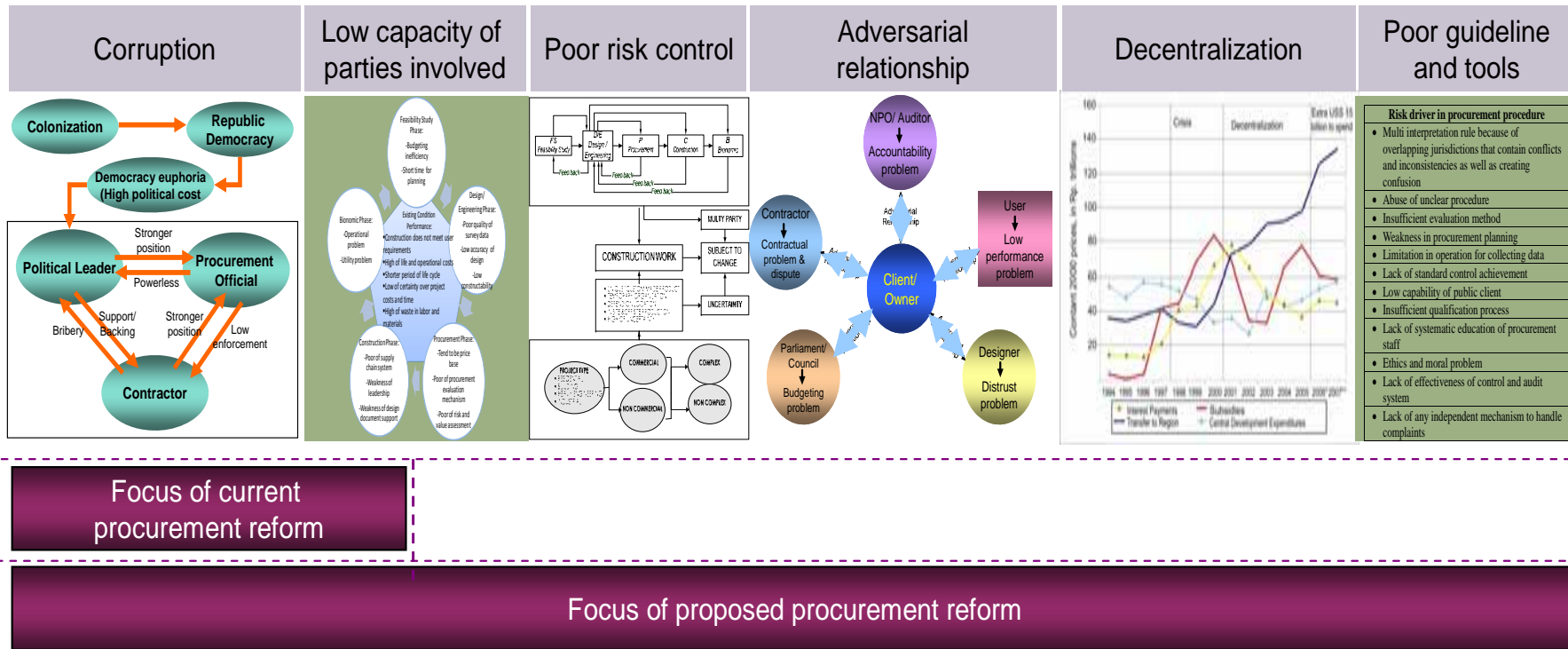


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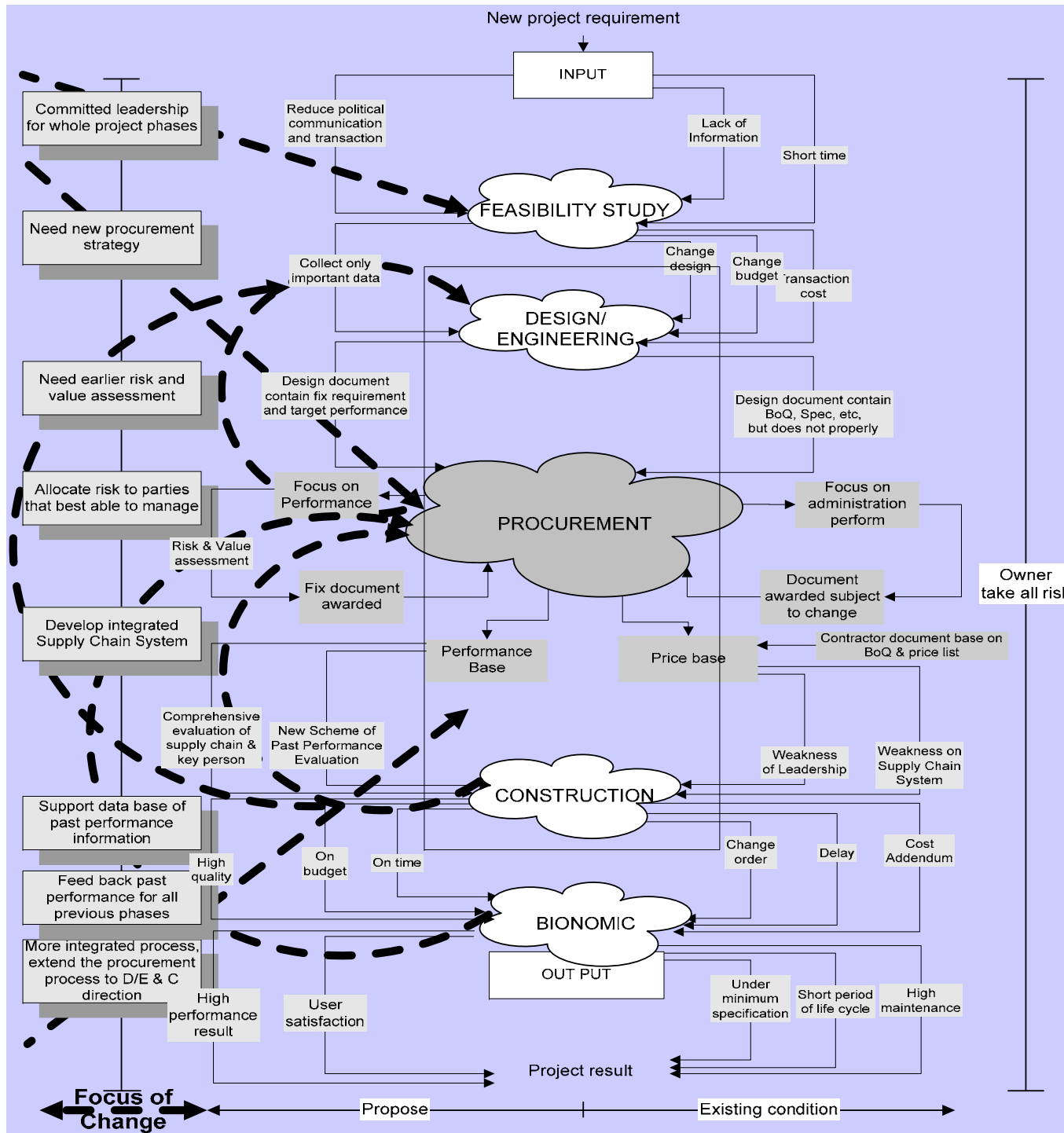
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# Problem formulation

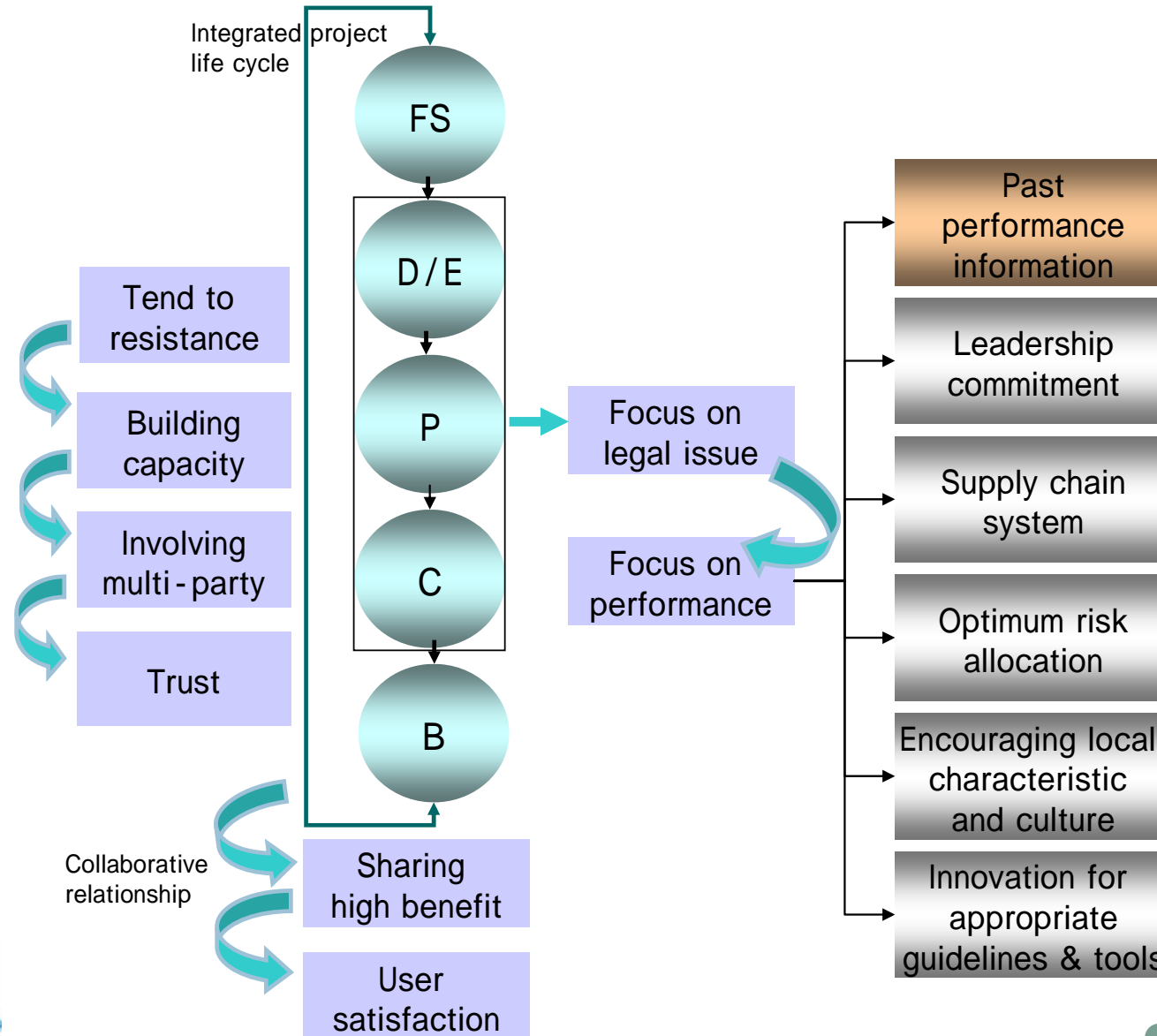


# Needs of project life cycle reconstruction for improving existing condition

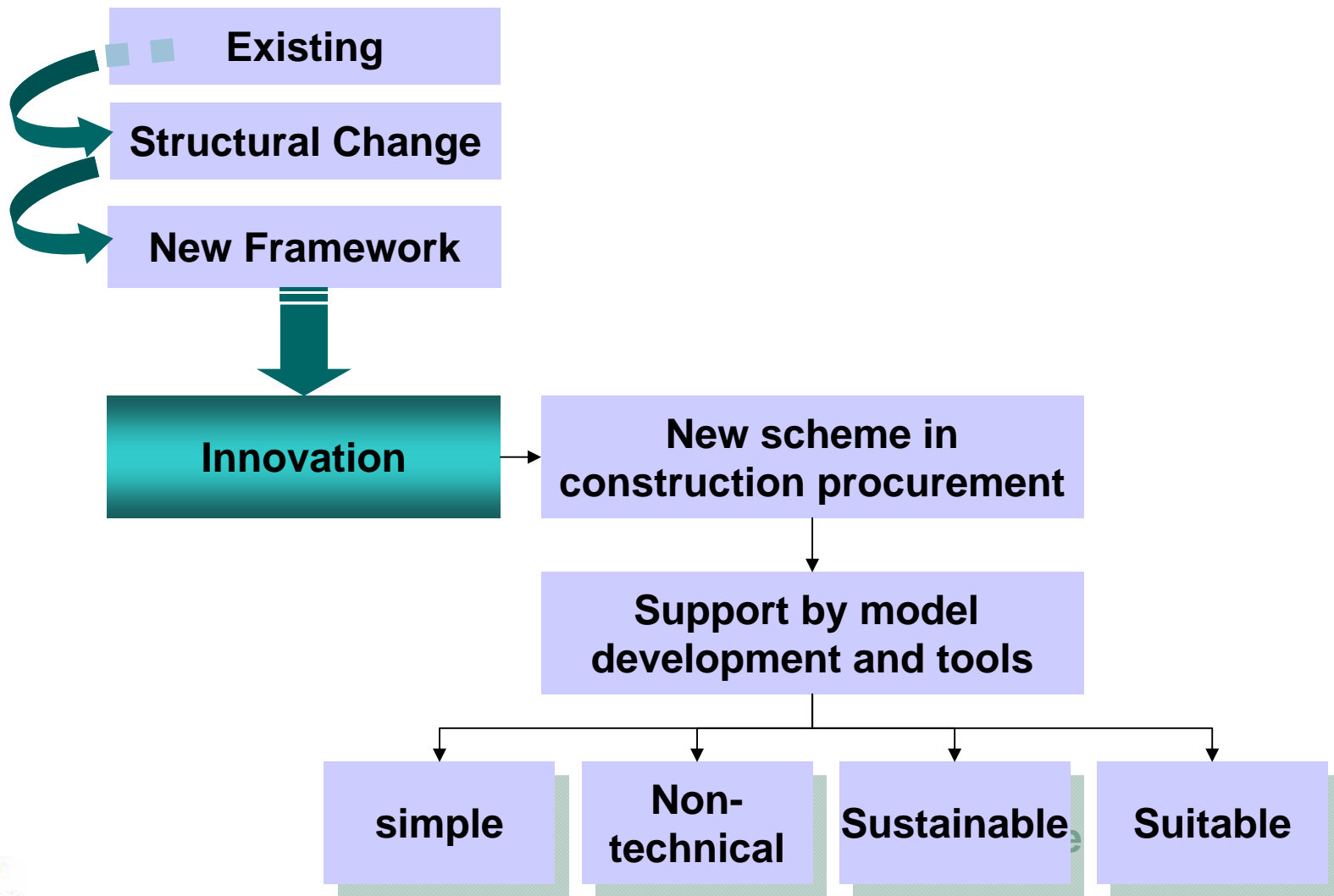




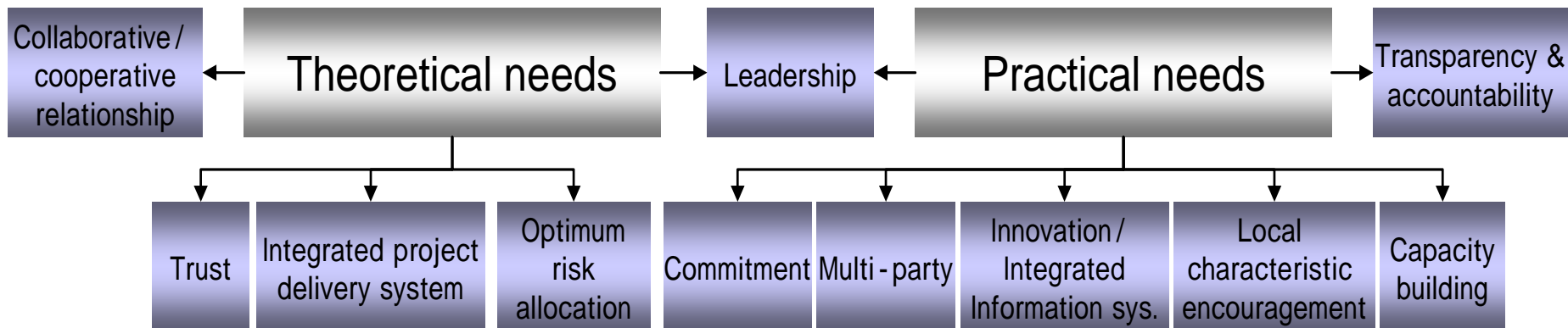
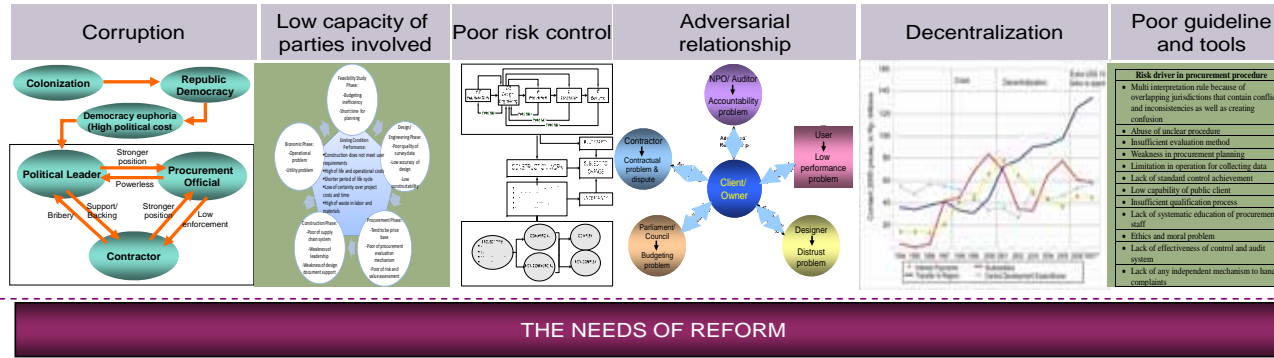
# The needs of project structure reconstruction



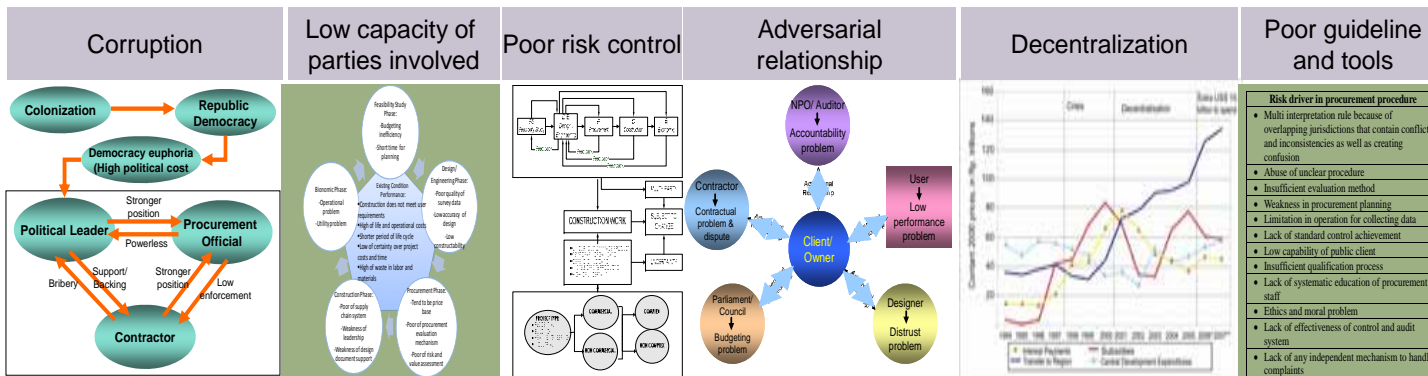
# The criteria of reform



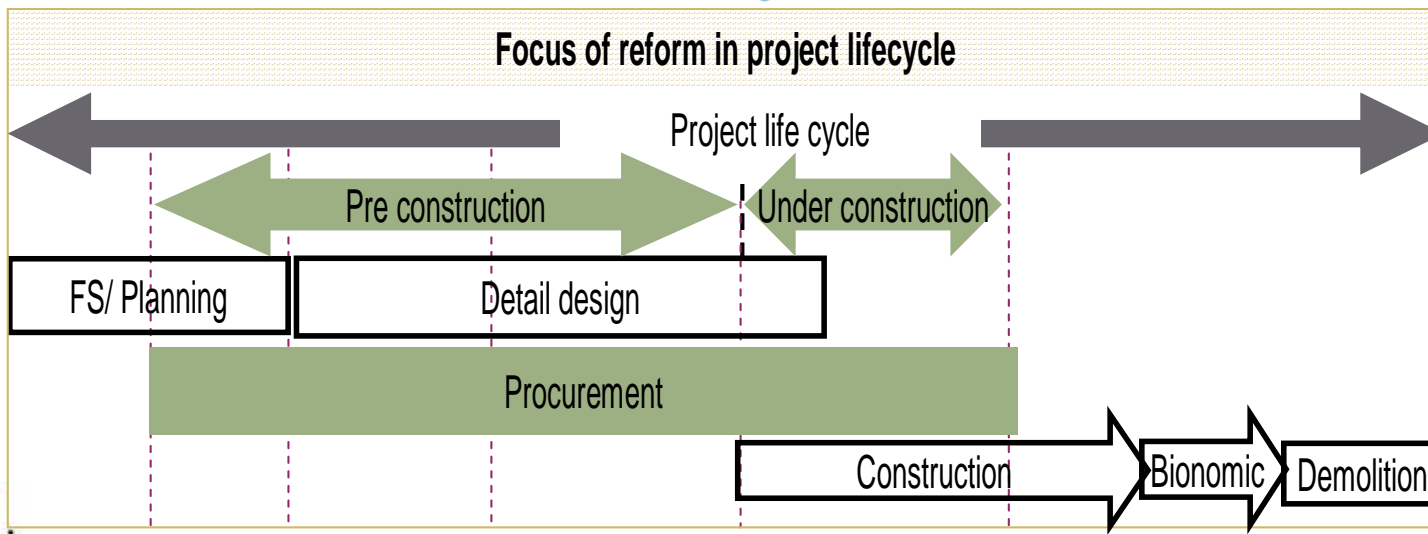
# The needs of reform process



# Focus of reform

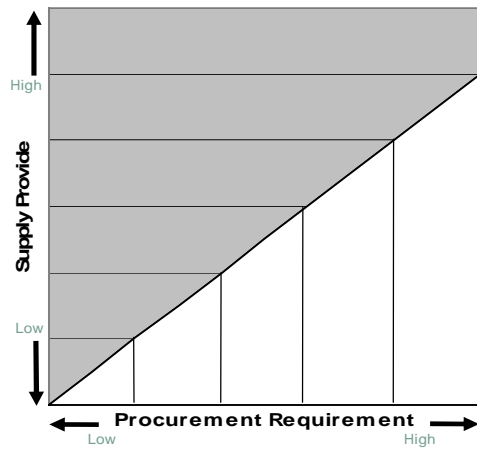


## THE NEEDS OF REFORM

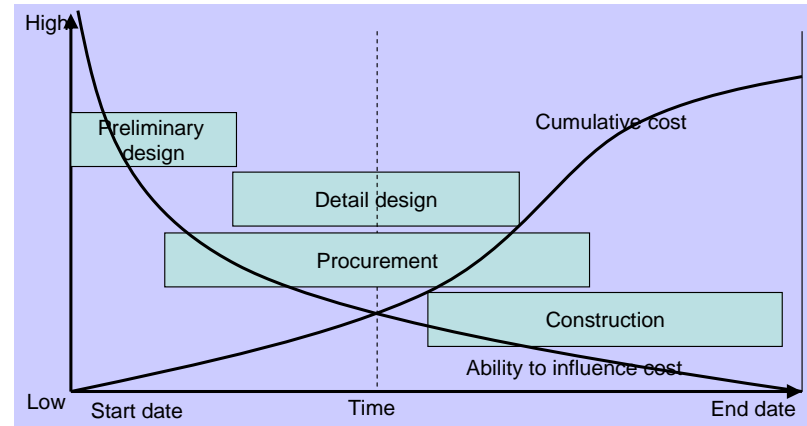




### 1. Inter-related



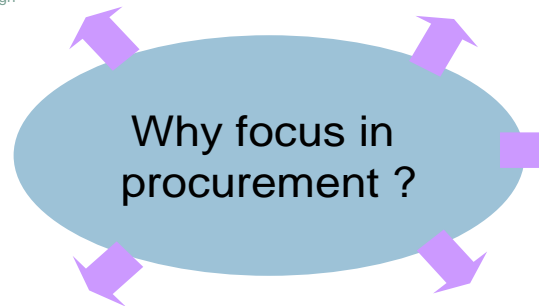
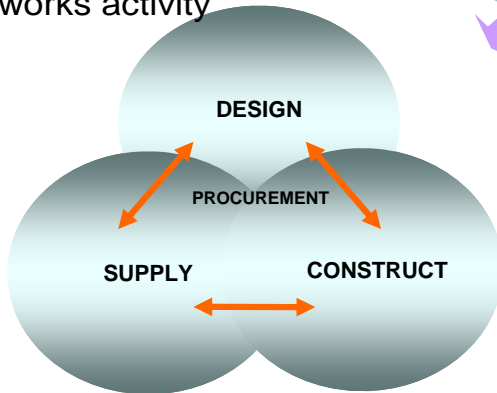
### 2. Inter-section



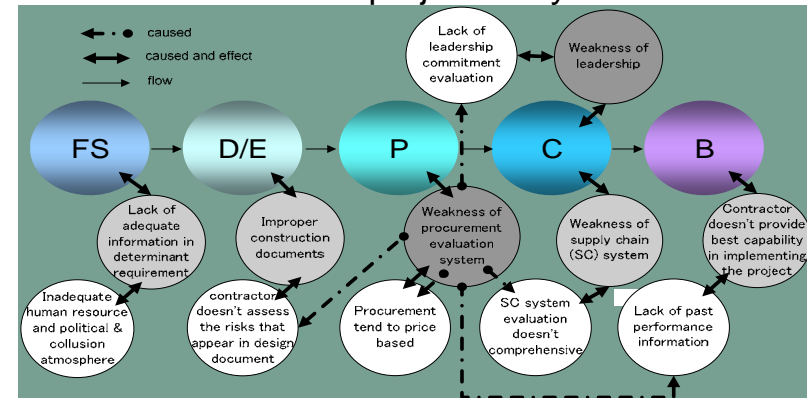
### 3. Multi-party



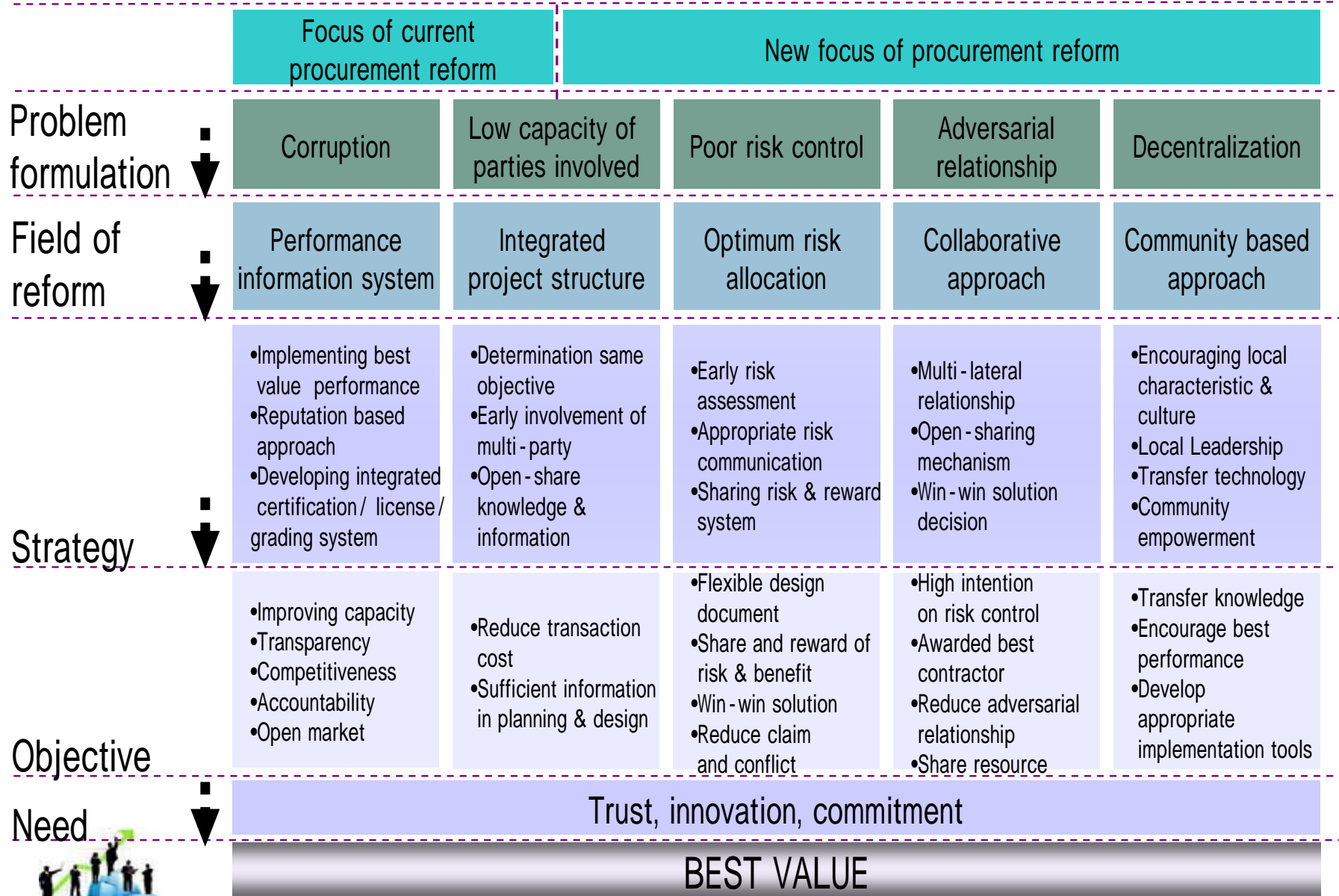
### 5. Core of public works activity



### 4. In the middle of project lifecycle/



# F r a m e w o r k o f r e f o r m





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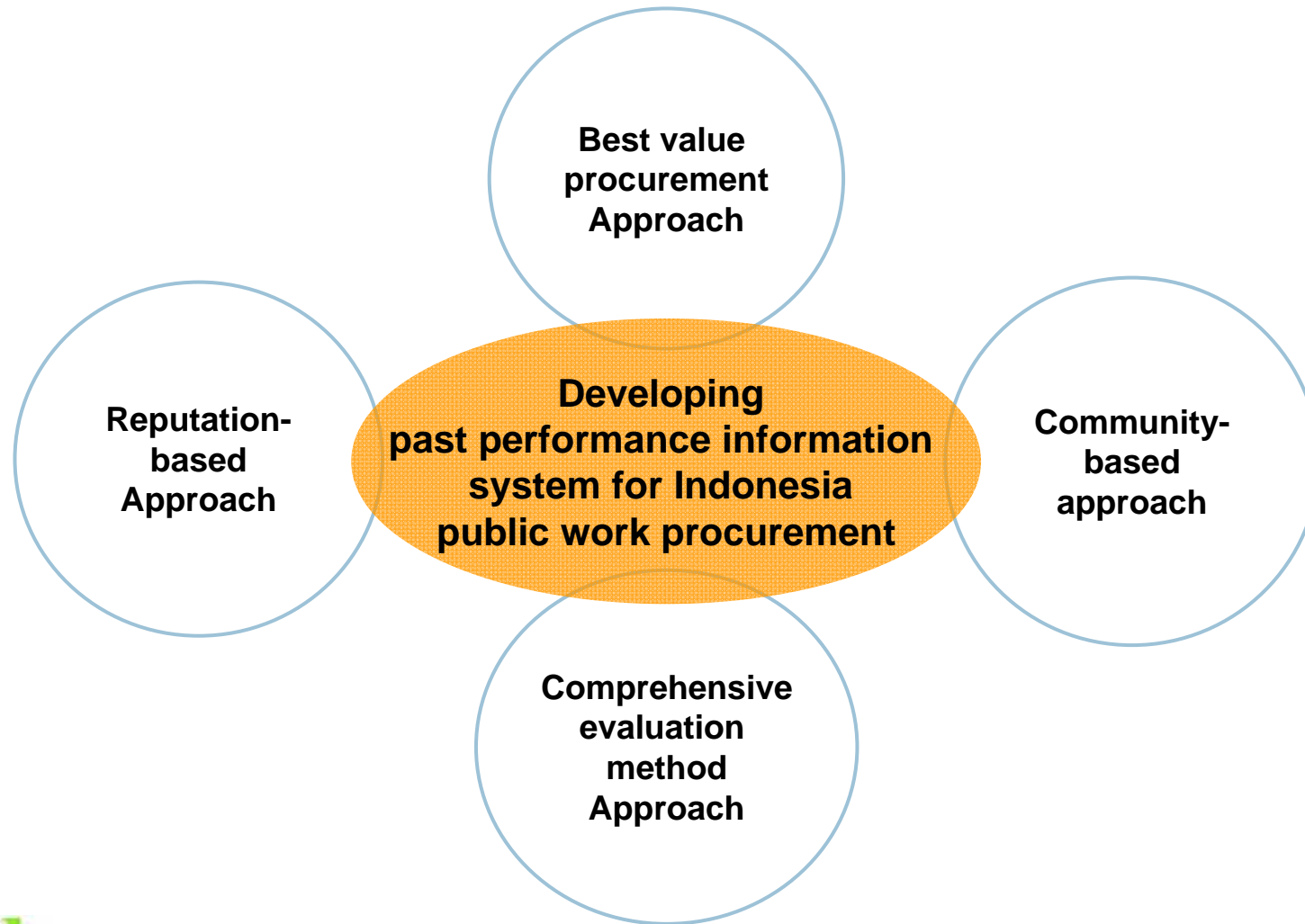
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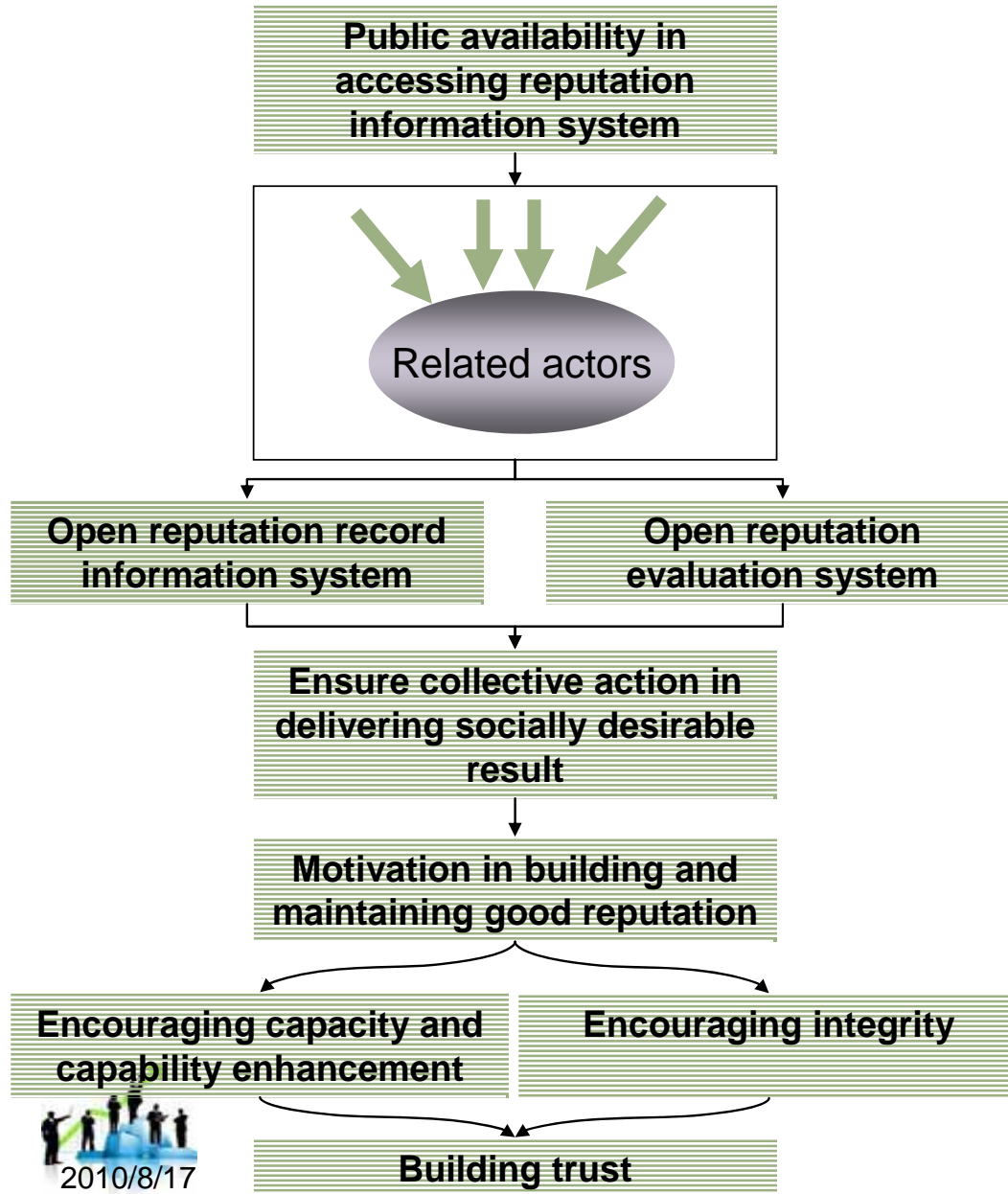


# The theoretical approaches





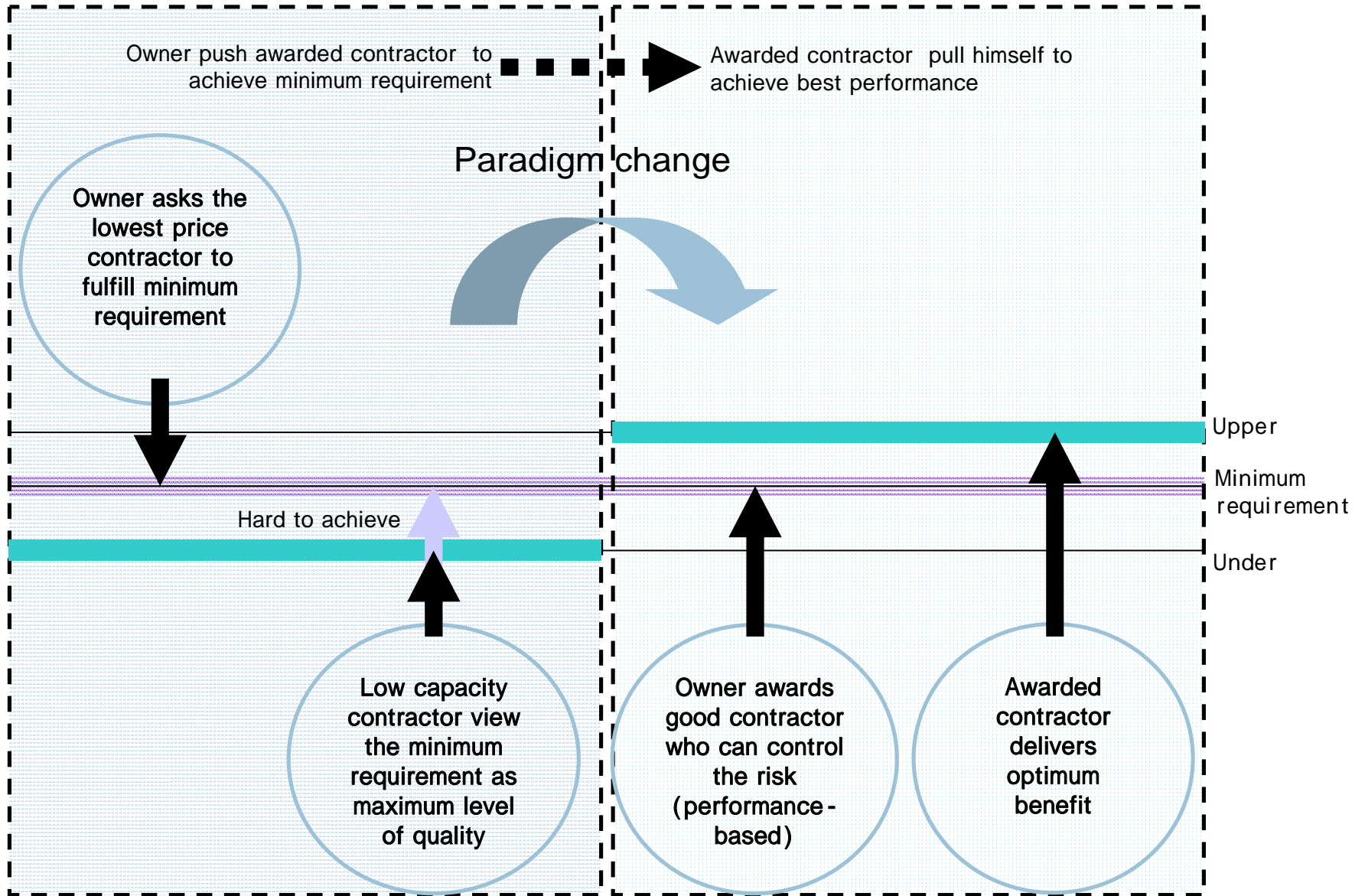
# Approach 1: Reputation approach



- Trust can be raised if the parties involved have good reputation in conducting their task
- Encouraging good reputation due to improve the capacity of involved parties
- A balanced mechanism between the reputation system and society sanction system

Existing condition

Proposed condition

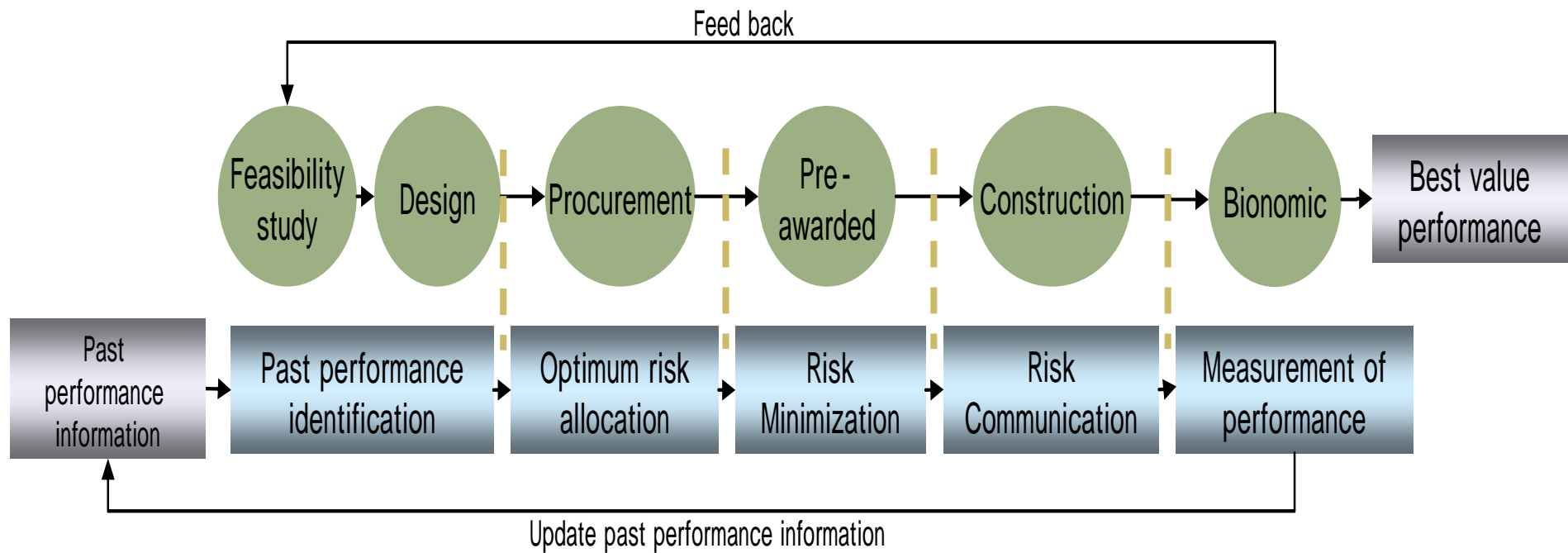


## Approach 2: Best value procurement

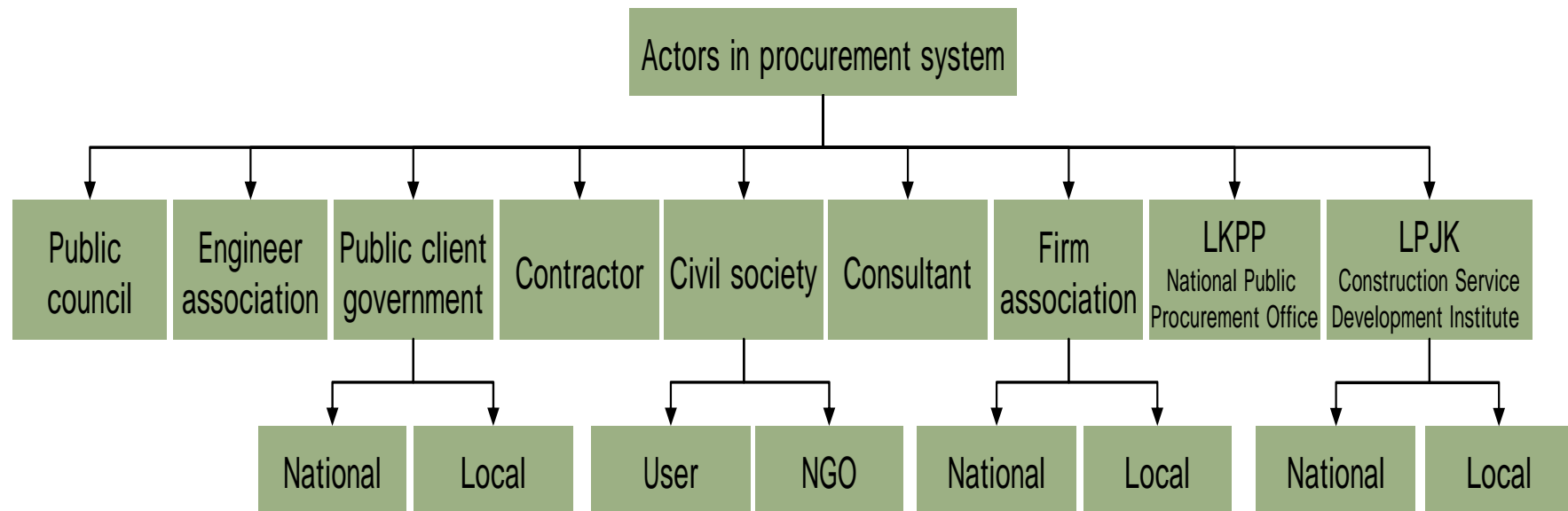


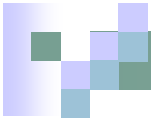
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# Best value procurement approach

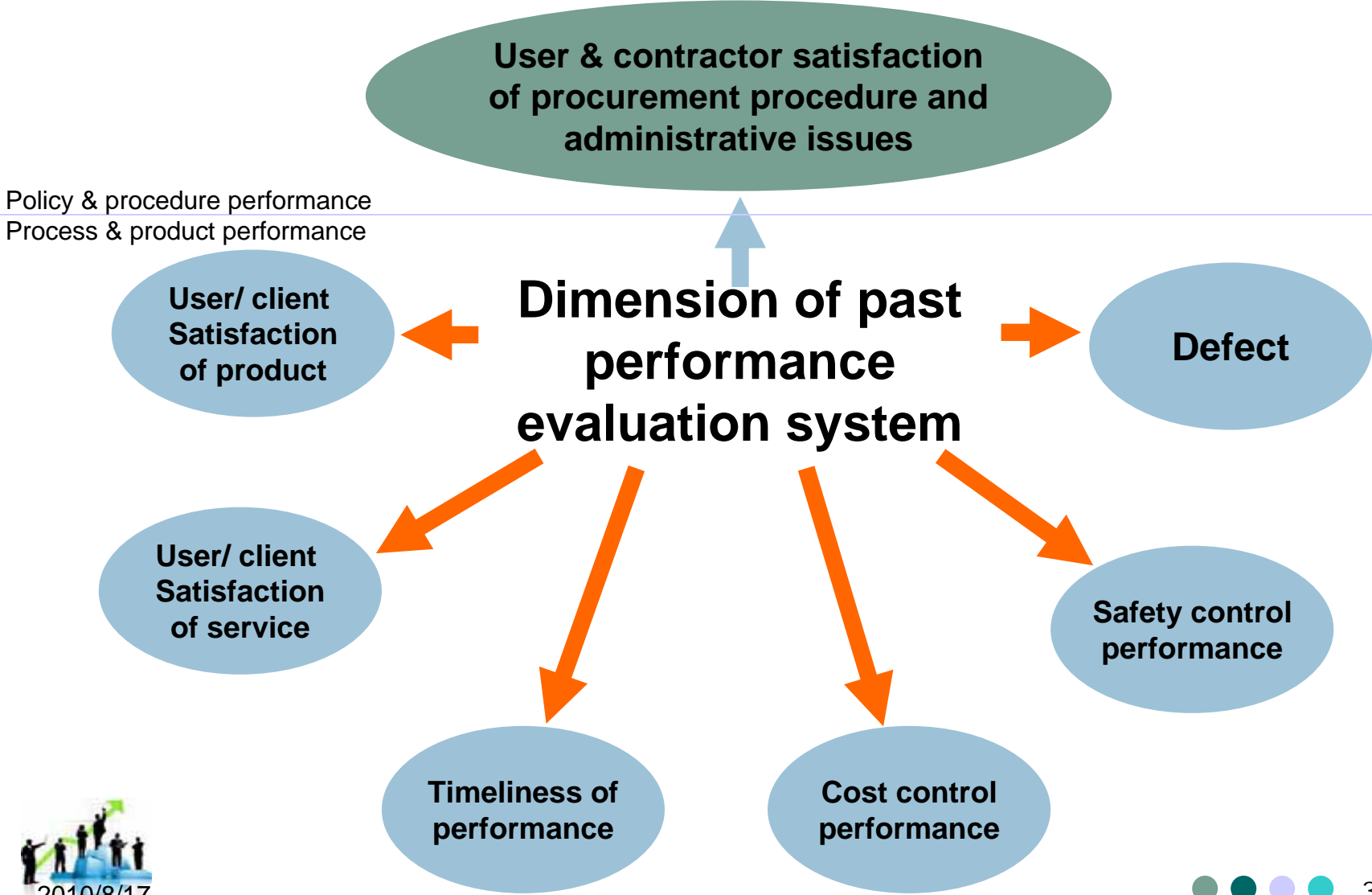


## Approach 3: Community based approach - Multi-party involvement

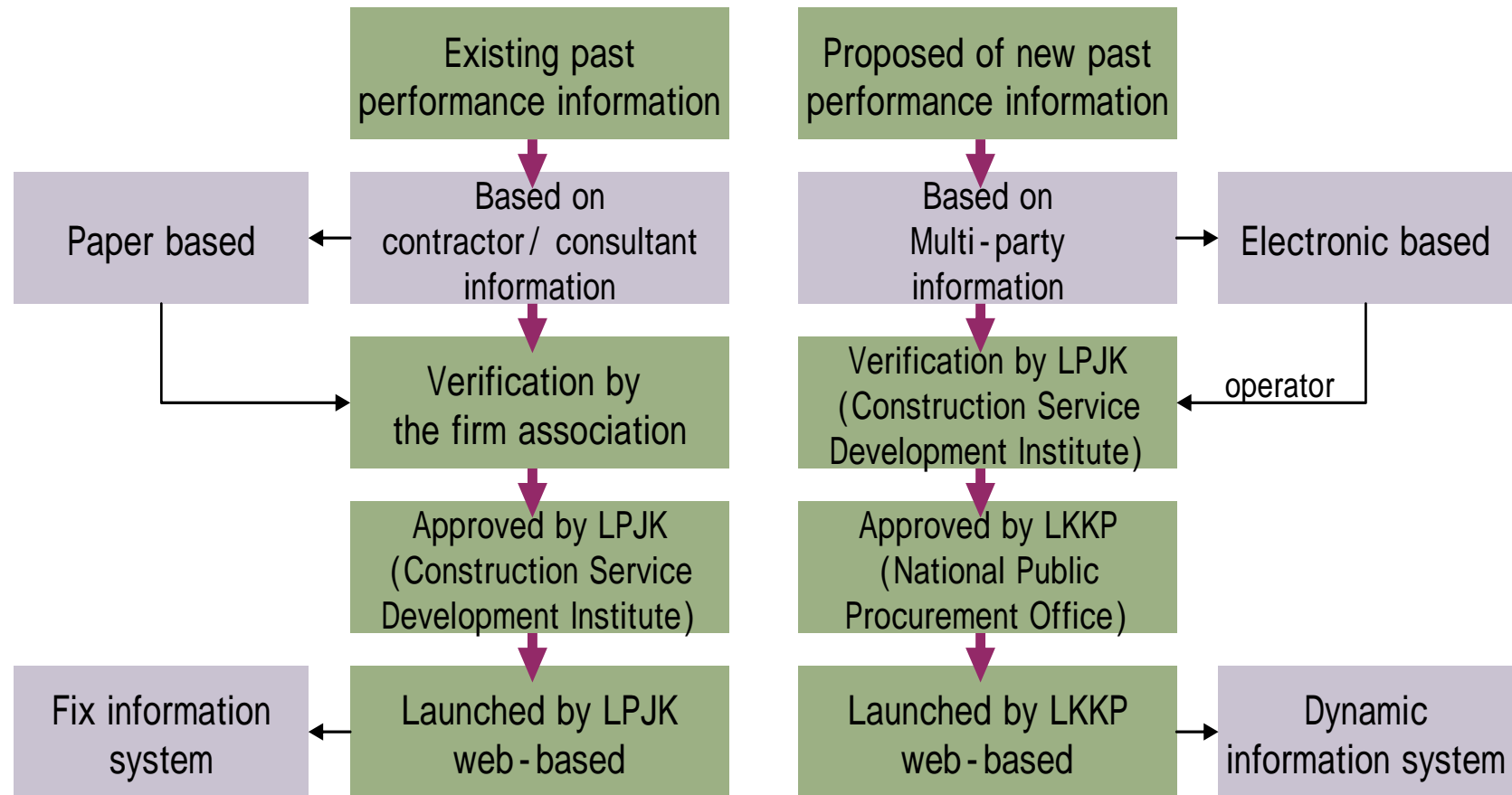




# Approach 4: Comprehensive past performance evaluation

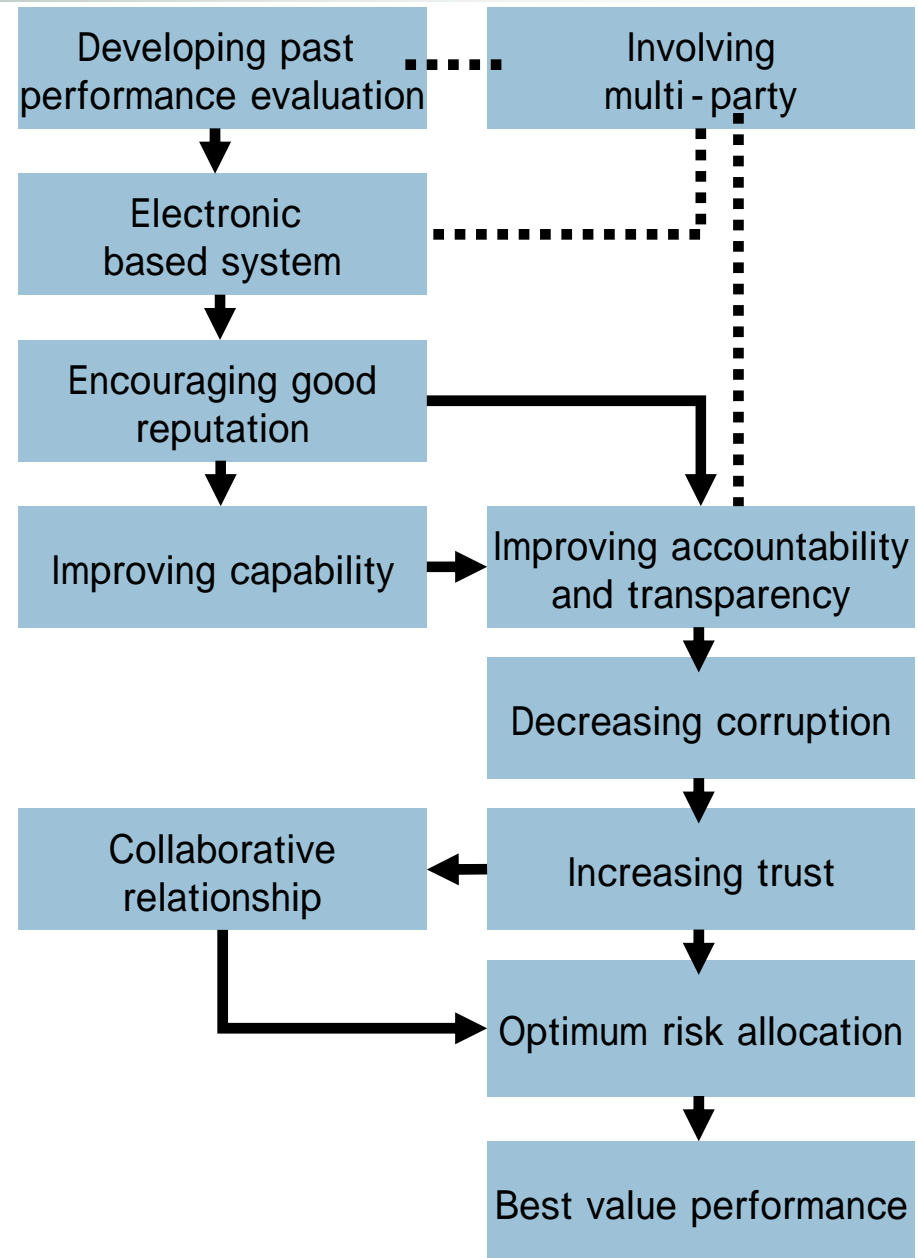


# Proposed past performance information system

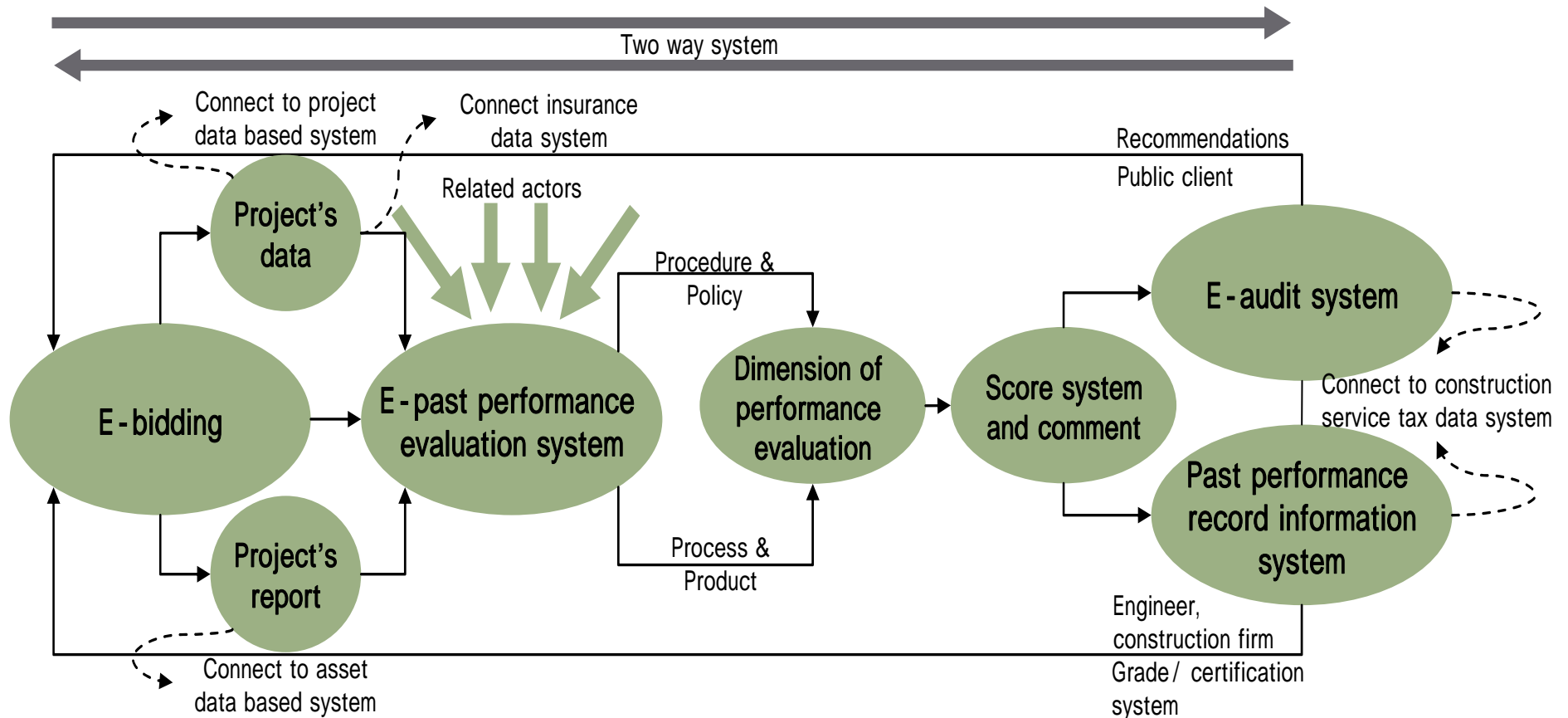


# Proposed framework of past performance information system

- The system eliminates the negative consequence of fierce competition by ensuring that contractor bid according to their real capabilities, thus reducing the amount of low-quality works
- The system confirms technical capabilities of tendering company in improving the performance of public works
- The system enables the stakeholders to search past performance information records of engineer
- This system enables the stakeholders to evaluate the professionalism of public client in conducting public work



# Proposed Integrated project information system





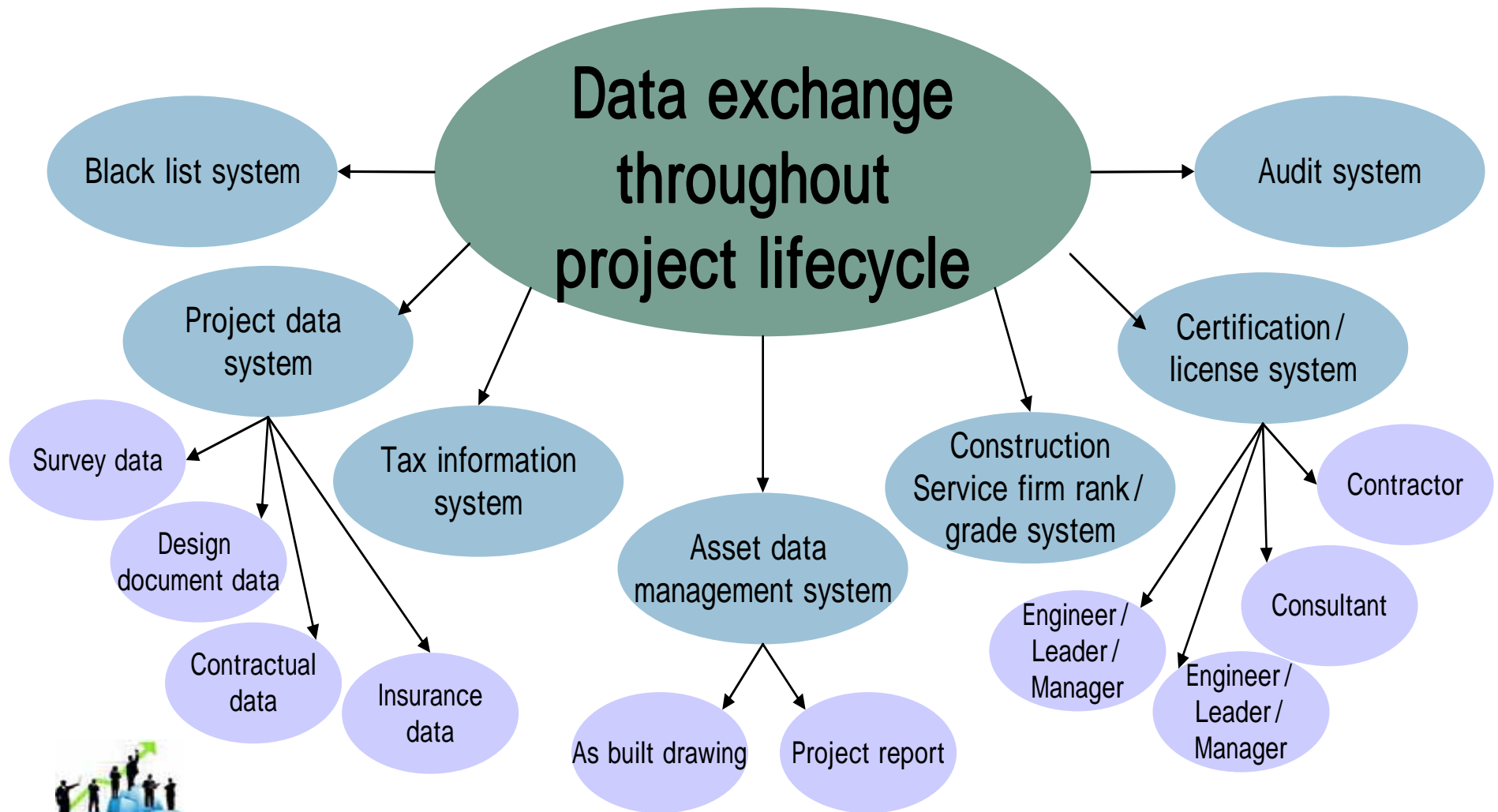


# Proposed Integrated e-procurement system

1. Two way evaluation system which is related to comprehensive dimension of evaluation such as policy and procedure in public client side, and product and service evaluation in construction firm side.
2. Involved all stakeholders who are public client, contractor firm, consultant firm, engineer, NGO, construction firms association, user, local and national government.
3. Sustainable system that can evaluate past performance in a long time, since the quality of a public works product becomes fully known after its delivery has taken place and sometimes after its prolonged use.
4. Dynamic system that automatically can analyze and update data based on the last or recent information.



# Data exchange in proposed integrated e-procurement system





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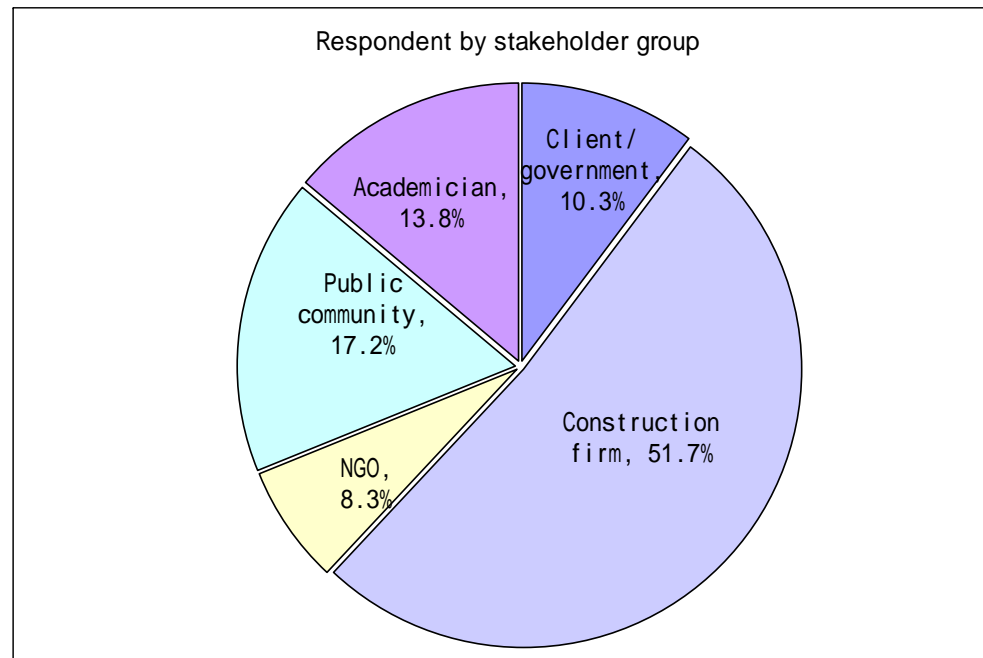
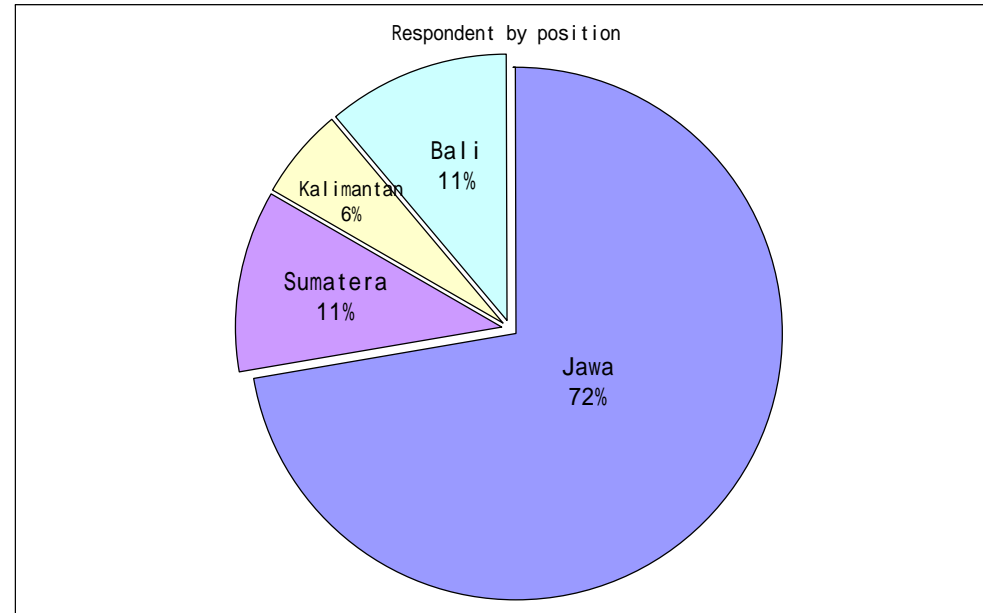
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## Evaluation 1: The differences between existing and proposed past performance evaluation system

No	Existing conventional condition	Proposed condition	Benefit - improvement
1	Past performance information based on contractor data	Involving multi - party in evaluating past performance	Increasing transparency
2	Paper based system	Electronic based system	Increasing accessibility to public involvement
			Decreasing transaction cost 14%
			Directly sharing information
			Increasing time efficiency (the procurement process requires only half of conventional time, needs only half time than conventional process)
3	Fix information	Dynamic information	Early update information
4	One way system	Two way system	Balance mechanism (evaluation of client and contractor side)
5	Independent system	Integrated system	Improving accessibility to data system
6	Evaluation process during procurement phase	Evaluation process in whole project life - cycle	Long - term information gathering system
7	Closed past performance information	Published past performance information	Encouraging good reputation

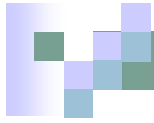
# Evaluation 2: Survey of the importance of proposed project past information system



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# The needs of Past performance information

	The importance of information for public	Current access to information	The sensitivity of information
Details on the project purpose and design	4.44	2.00	3.44
Final document of public work project	3.94	2.00	3.69
Explanation for any variation between design and final product	3.69	1.56	3.50
Target intended beneficiaries	4.38	2.19	3.19
Potential environmental and social impacts	4.88	1.63	4.13
The project budget	4.19	2.56	3.81
The final cost of the project	4.19	1.50	4.00
Explanations for any variation between the budget and final cost of the project	4.06	1.56	4.13
The process for selecting the organisations responsible for project delivery	4.67	2.25	3.94
The reasons for selecting the organisations responsible for project delivery	4.06	2.00	3.88
Intended duration of the project	4.67	2.38	3.88
Final duration of the project	4.38	2.31	3.94
Explanations for any variation between the intended duration and final duration of the project	4.27	1.69	3.75
Other	1.44	0.44	0.63
Average	4.09	1.86	3.56
Note			
1 = very low, 5 = very high			

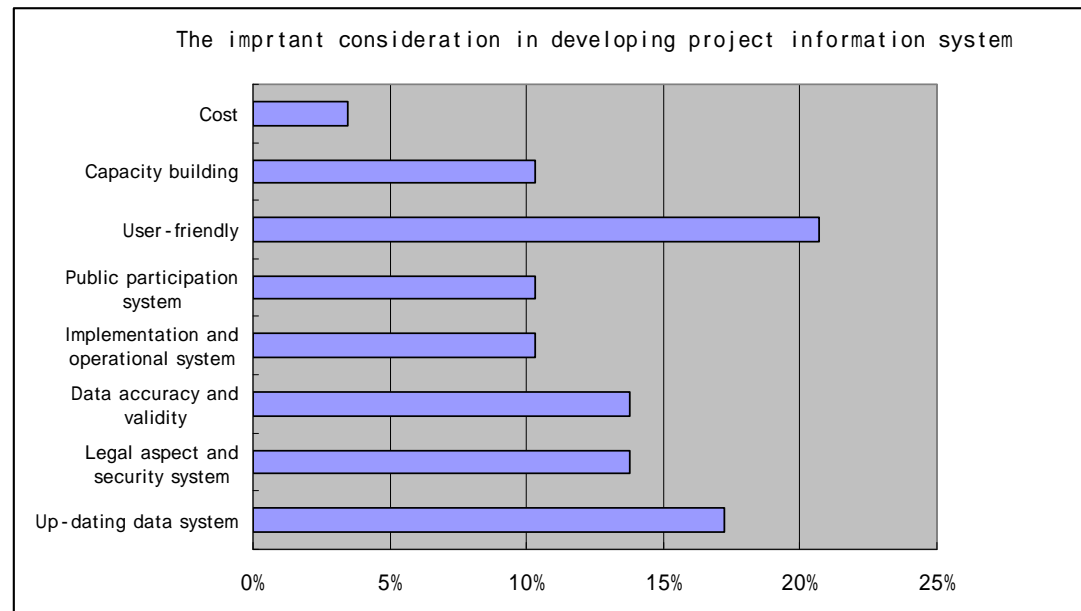
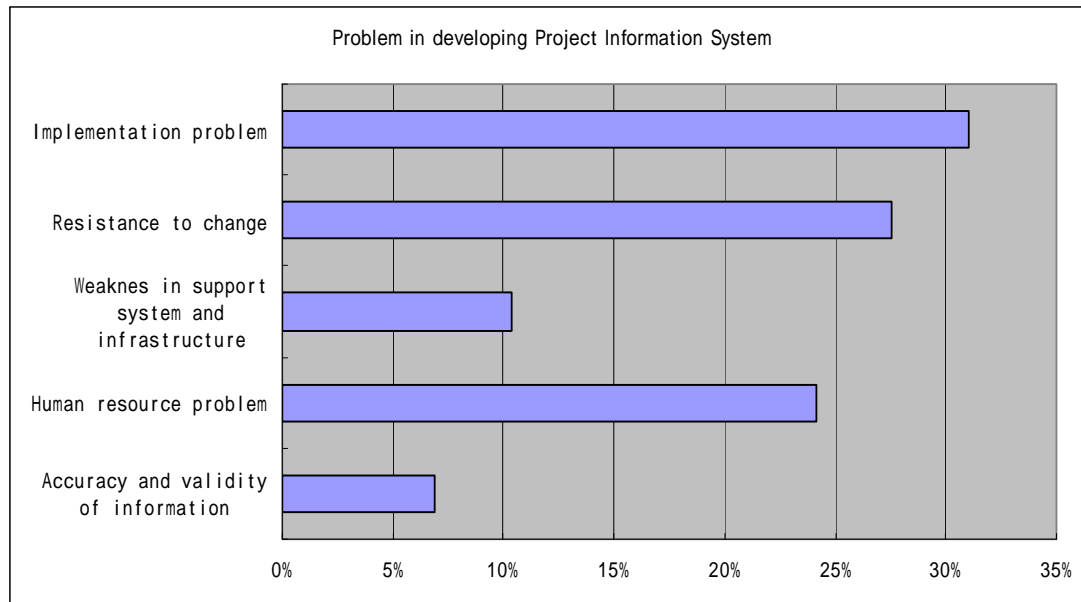


## The needs of disclosure of project information

		Yes	No
1	The needs of transparency initiatives	100.0%	0.0%
2	The confidence that project information system will increase the public trust	95.2%	4.8%
3	The confidence that project information system will decrease the corruption	81.0%	19.0%
4	The confidence that project information system will increase transparency and accountability	90.5%	9.5%
5	The confidence that project information system will enhance performance	90.5%	9.5%
6	Having accessibility to project information currently	23.8%	76.2%
7	There are constraints in developing project information system	9.5%	90.5%



# Problem and consideration in developing project information system



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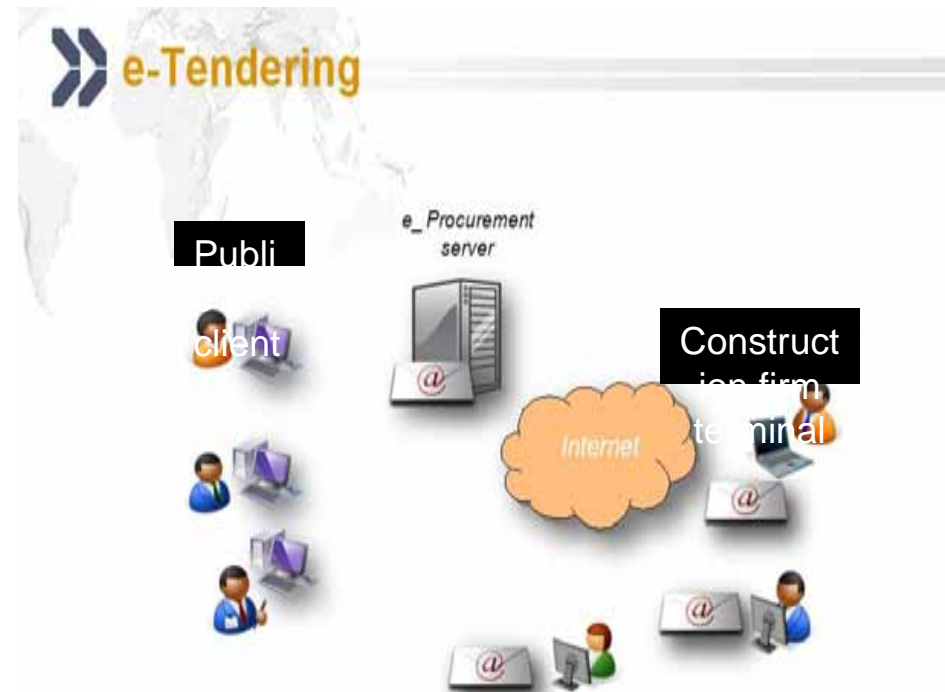


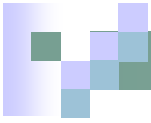
- Strong point of change process in Indonesian public works procurement



- The desire of change
- Procurement specialist license program acceleration
- Intensive Procurement training
- E-procurement system

- Developing the existing of Indonesian electronic bidding system





Thank you very much

