

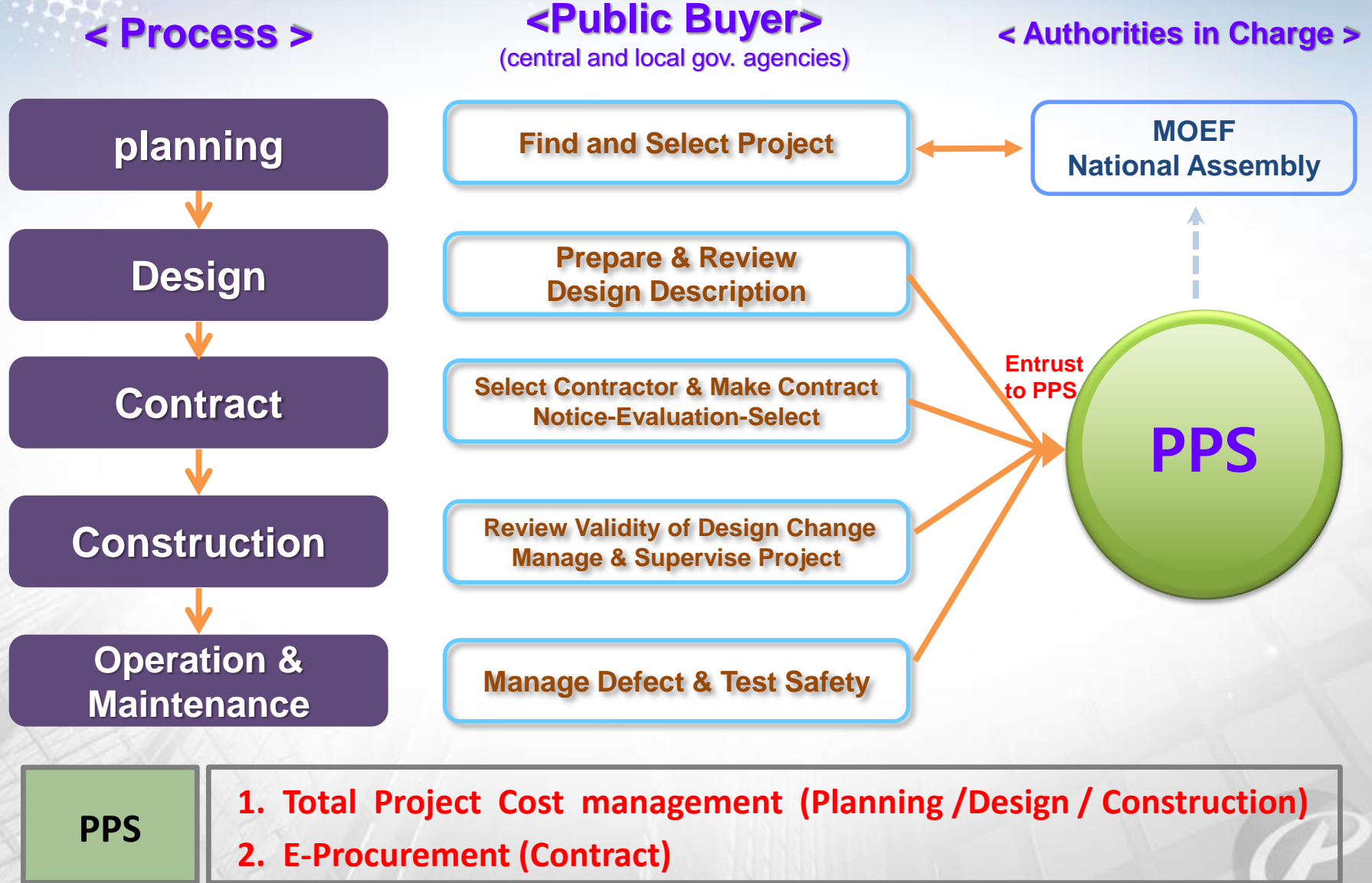
The Role of PPS to Ensure Transparency in Construction Work



조달청

Public Procurement Service

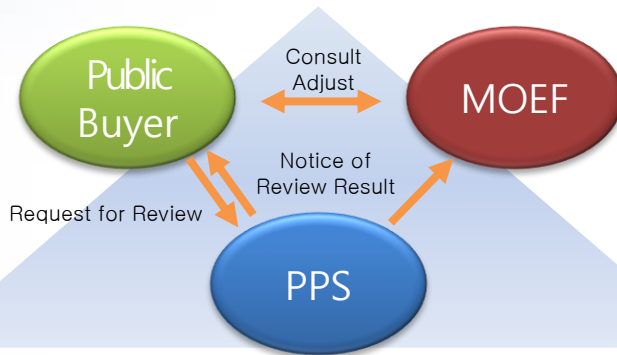
Process of Construction Project and Procurement Service



1. Total Project Cost Management

Purpose

Reduce risks in financial investment
in large-scale construction projects



➤ Save Budget

- Prevent the increase of unnecessary costs

➤ Secure Quality

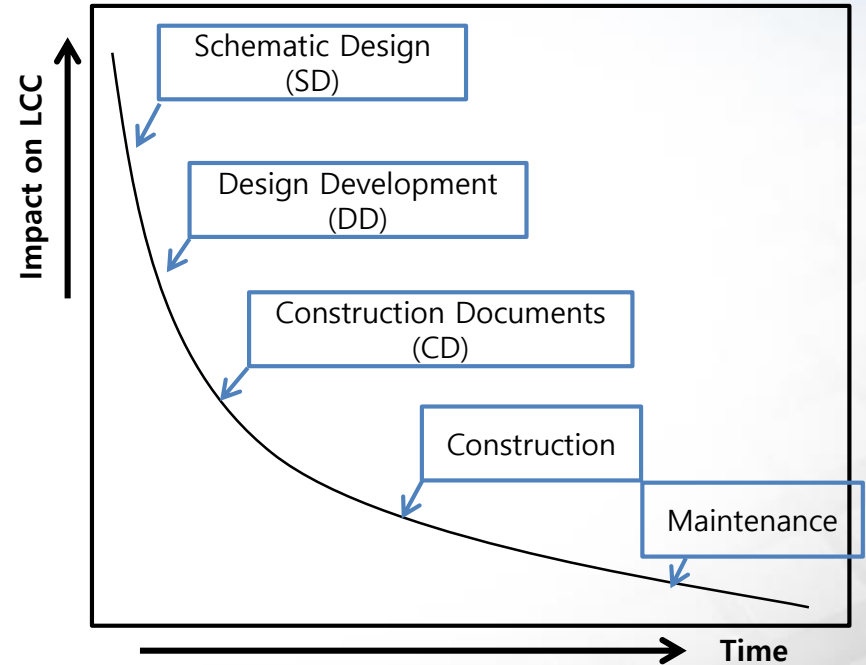
- Preemptively stop poor designing

➤ Ensure Transparency

- Prevent loose control of costs and remove corruptions

Need

<Impact on Cost by Project Phase>



"80% of the total cost is determined at the early stage of design"

→ The earlier the improvement is added, the better the result comes out.

① Planning



Cost Prediction System (<http://pcae.g2b.go.kr:8044/pbs/psa/psa0000/index.do>)

Predicted Construction Cost

Search period: 2016-11-22 ~ 2019-11-22 Gross floor area (m²): [] ~ [] Cost (billion won): [] ~ []

* Type of facility is mandatory and up to 2 can be selected. The number in parentheses is the number of items selected.

Facility type (1) ▾	Removal included (0) ▾	Classification area (0) ▾	Underground work (0) ▾
Structure type (1) ▾	Optimum Stories of (2) ▾	Seismic category (0) ▾	Building Certification (0) ▾
Shape the building (0) ▾	Exterior finish material grade (1) ▾	The heating and cooling system (0) ▾	

Facility type A large government office

Structure type Reinforcement on Steel Reinforced Concret Structures

Stories - Undergrou... first basement level

Store-Wide 5 stories above ground

Exterior finish mater... a high class

inquiry Click

[] Construction cost estimate



Minimum: 2,114,033 won/m², Average Cost per Unit Area: 2,177,574 won/m², Maximum: 2,241,116 won/m²

Two of the similar projects are found

Calculate Average Cost per Unit Area of Selected Project

Compare Selected Project

NO	Type	Name	Region	Ordered Date	Floors		Total Area m ²	Project Cost	
					Ground	Under-ground		Per unit area (₩/m ²)	Project Cost
1	Large-scale Gov. Office	New Building Construction Project for NPS' Relocation	Jeonbuk	2018.12	9	1	20,389.68	2,241,116	45,695,635,157
2	Large-scale Gov. Office	New Office Construction for Ansan Tax Office	Gyungi	2018.03	8	1	10,747.92	2,114,033	22,710,884,883



② Design

Review Design Adequacy

- Target: Projects valued at above ₩20B
- Review: Excessive design · design error, adequacy of construction method, alternatives /project scale adequacy /cost adequacy
- Performance: **₩324.4 Billion saved**(2018), By reviewing 216 of projects (worth ₩6.8 Trillion),

Review Design VE (Value Engineering)

- Review economic efficiency of design description per functions and alternatives
→ Secure functions of facility with a minimum LCC
- Performance: **₩107.7 Billion of LCC saved** (2016 ~ 2018), By reviewing 150 of projects (worth ₩4.7 Trillion)

<Before and after design adequacy is reviewed>



<Example of Design VE Review>

Flooring	Tile(original)	Marble(alter.)
Cost	₩100 Million	₩1.5 Million
Repair Cycle	5 yrs.	10 yrs.
LCC (30 yrs.)	₩6 Million	₩ 4.5 Million

③ Construction

Pre-review Design Feasibility

- Target: Projects valued at ₩20B in need of design change that increases costs by more than ₩1.5B
- Review: Validity of cause for design change, adequacy of changed design description(review quantity calculation and cost adequacy)

Review Cost of Design Change

- Target: Building and construction projects that allow design change including newly built structures valued at above ₩5 Billion
- Review: Quantity calculation and cost adequacy / standard of construction estimate, materials, pays, overhead expenses adequacy, etc.

2. E-Procurement(KONEPS) : Contract

“KONEPS”

Korea
ON-line E-Procurement
System

e-Bidding

- Bid Notice
- Pre-Qualification
- Bidding Doc. Submission
- Bid Opening

※ Submit Integrity Agreement

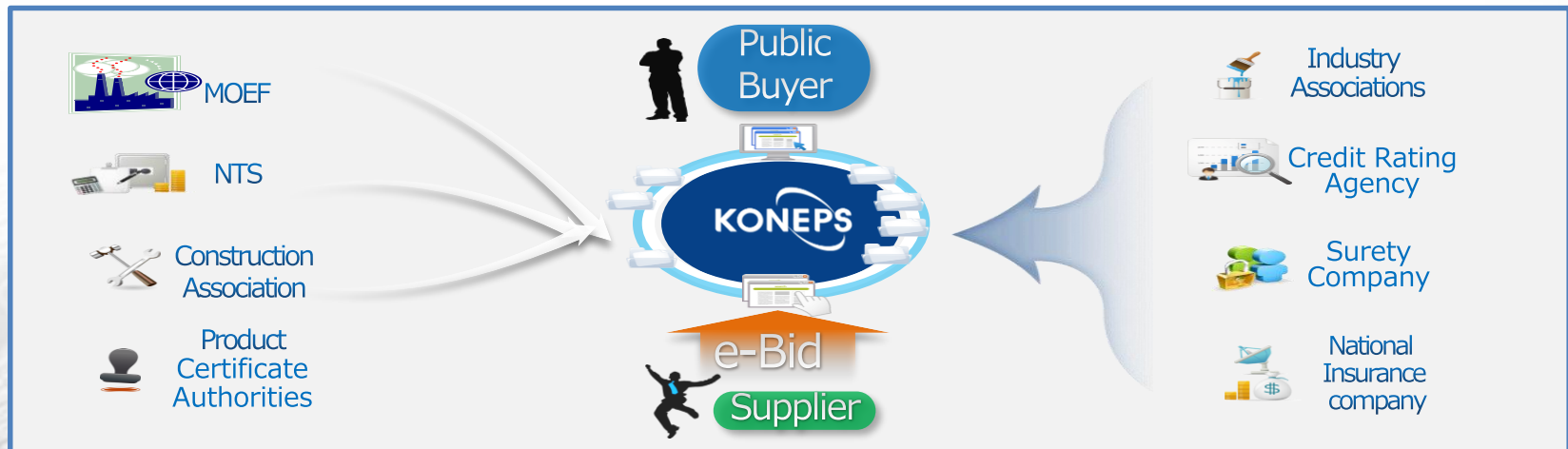
e-Evaluation

- Price Assessment
- Evaluation
- Determination of Successful Bidder

e-Contracting

- Contract Registration
- Composition of Contracts
- Contract Review
- Contract Guarantee

- Single window for public procurement
- End-to-end service that covers the entire procurement processes
- Seamless service through data interconnection with over 200 database systems

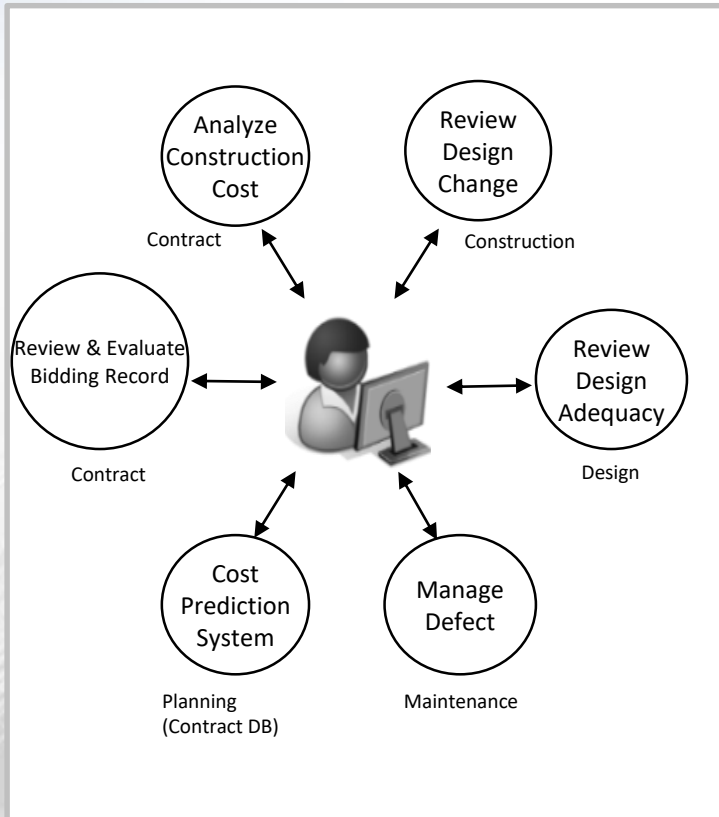


Transparency

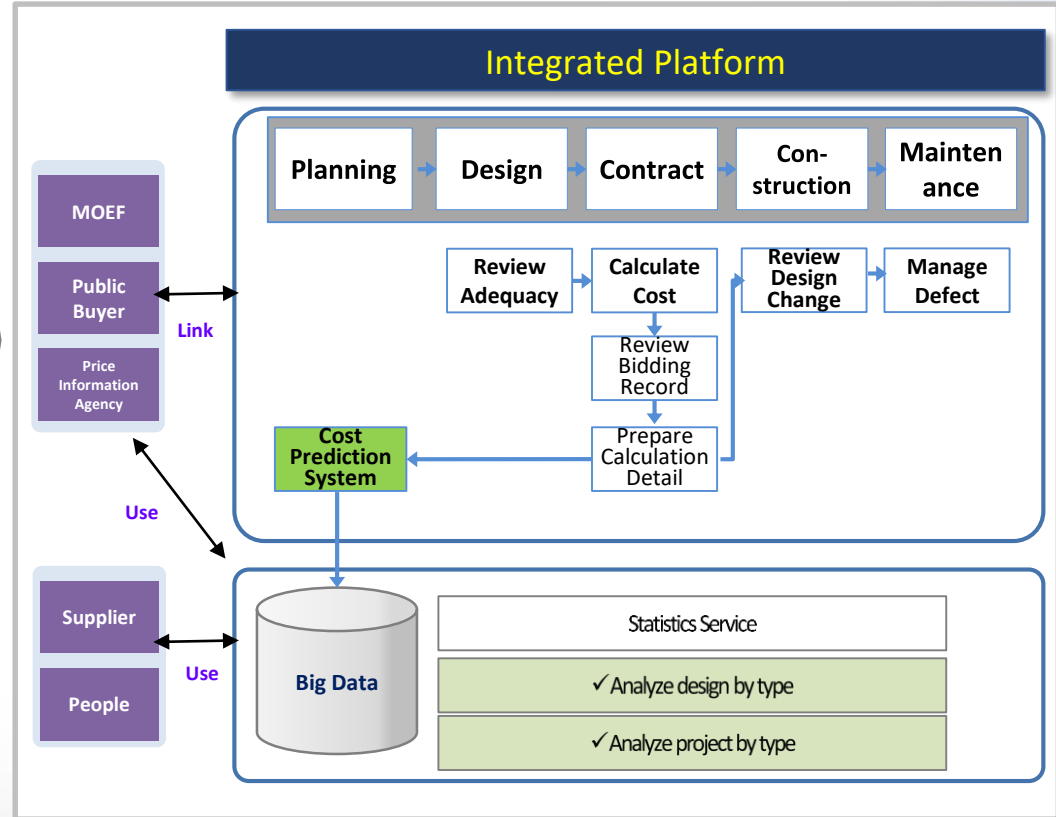
- Decrease face-to-face contact
- Provide real-time information

3. Building Integrated Platform to Manage Project

AS-IS



TO-BE



Thank You

