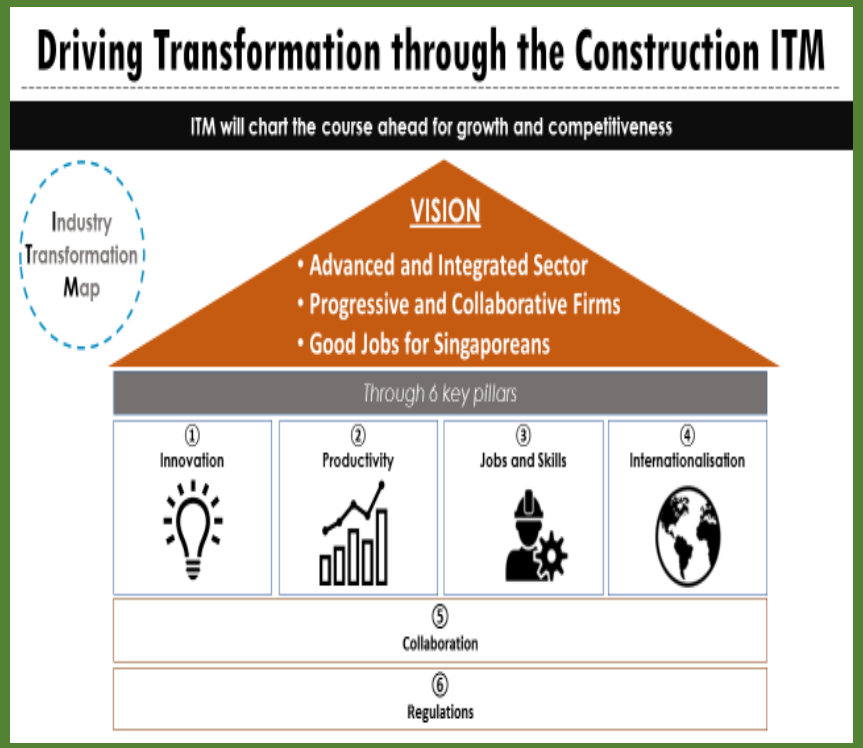
QUALITY FEE METHOD

Enhancements



Need for Review



More emphasis and differentiation in Quality

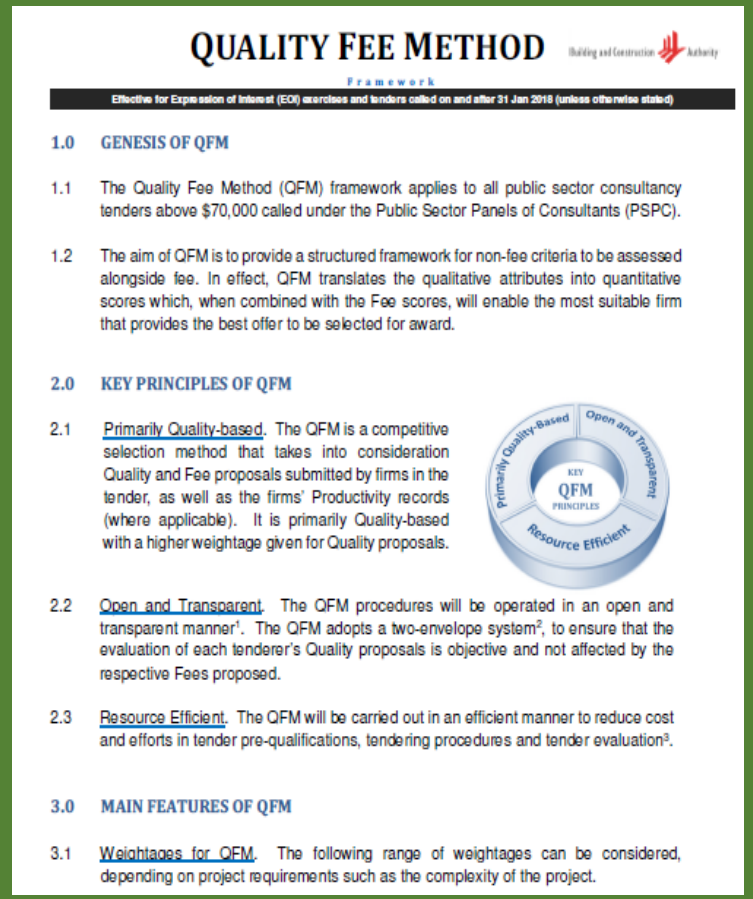
To place **greater emphasis on quality** for consultancy services tenders.

Enhance **long term sustainability** of consultants and curb excessive fee competition.

Recognise firms providing **good performance**.



QFM



QUALITY FEE METHOD

Framework

Effective for Expression of Interest (EOI) exercises and tenders called on and after 31 Jan 2018 (unless otherwise stated)

1.0 GENESIS OF QFM

1.1 The Quality Fee Method (QFM) framework applies to all public sector consultancy tenders above $70,000 called under the Public Sector Panels of Consultants (PSPC).

1.2 The aim of QFM is to provide a structured framework for non-fee criteria to be assessed alongside fee. In effect, QFM translates the qualitative attributes into quantitative scores which, when combined with the Fee scores, will enable the most suitable firm that provides the best offer to be selected for award.

2.0 KEY PRINCIPLES OF QFM

2.1 Primarily Quality-based. The QFM is a competitive selection method that takes into consideration Quality and Fee proposals submitted by firms in the tender, as well as the firms' Productivity records (where applicable). It is primarily Quality-based with a higher weightage given for Quality proposals.

2.2 Open and Transparent. The QFM procedures will be operated in an open and transparent manner[1]. The QFM adopts a two-envelope system[2], to ensure that the evaluation of each tenderer's Quality proposals is objective and not affected by the respective Fees proposed.

2.3 Resource Efficient. The QFM will be carried out in an efficient manner to reduce cost and efforts in tender pre-qualifications, tendering procedures and tender evaluation[3].

3.0 MAIN FEATURES OF QFM

3.1 Weightages for QFM. The following range of weightages can be considered, depending on project requirements such as the complexity of the project.

Tender evaluation framework for all public sector consultancy tenders under the PSPC* with the estimated procurement value of above $70,000.

Total QFM Score =
Fee-Score + Productivity-Score + Quality-Score

** Public Sector Panels of Consultants*

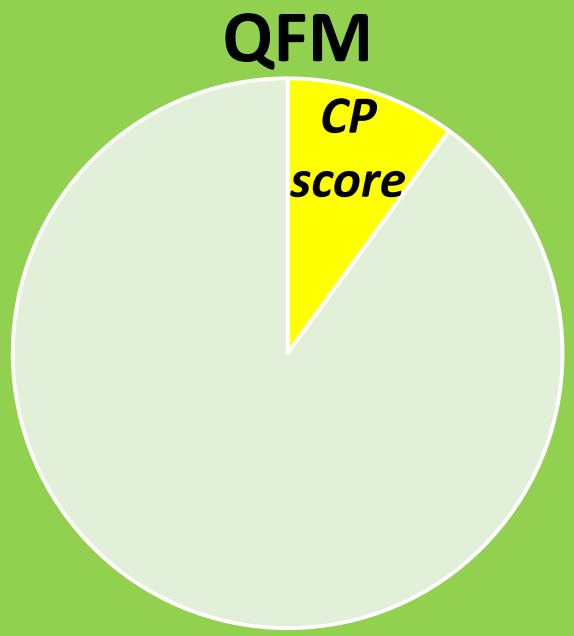


Key Enhancements

- **Mandatory Attribute for Past Performance**
- **Temporary Delisting for Poor Performance**
- **Assessment of Manpower Deployment**
- **Greater Transparency on Performance**
- **Flexibility in Setting the Evaluation Criteria**
- **QFM for Accredited Checkers (ACs)**



Mandatory Attribute for Past Performance



Min. 10% of overall QFM weightage

Recognise consultants with good performance in past public sector projects

- Introduce consultants' performance score (i.e. CP-score) as part of Quality Score

$$\textbf{CP-score} = \frac{\text{Tenderer's CPAS-score}}{\text{Highest CPAS-score among all tenderers}} \times 10\% \text{ (Min.)}$$

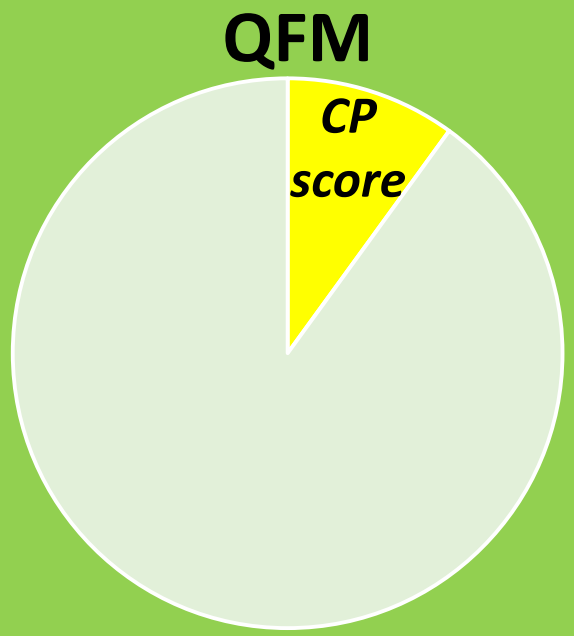
- Effective from 1 Jul 2018



Consultants' Performance Appraisal System (CPAS)

- Common consultants' performance appraisal system for public sector projects
- 6-monthly project performance assessment throughout project duration - Project Interim Report (PIR) Scores
- 3 broad performance assessment criteria
  - Technical Consideration / Design Quality
  - Documentation
  - Service Quality

Mandatory Attribute for Past Performance

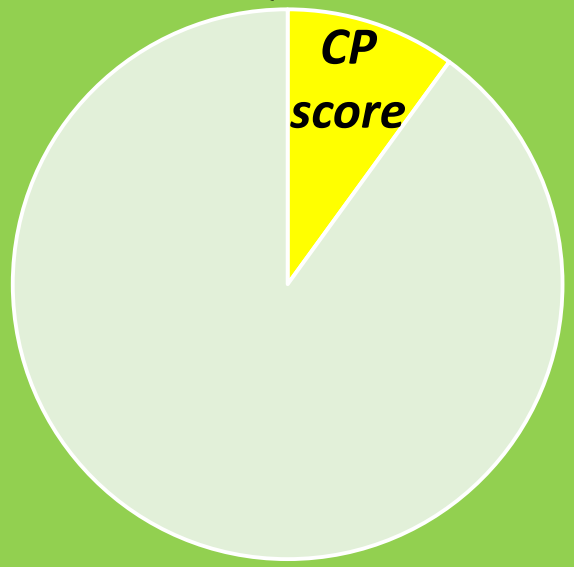


Min. 10% of overall QFM weightage



Mandatory Attribute for Past Performance

QFM



Min. 10% of overall QFM weightage

CPAS-Score

- Firm-level indicator of the consultant's performance in public sector projects
- Weighted average score of a consultant's performance assessment obtained from all of its individual PIR scores for the past 3 years

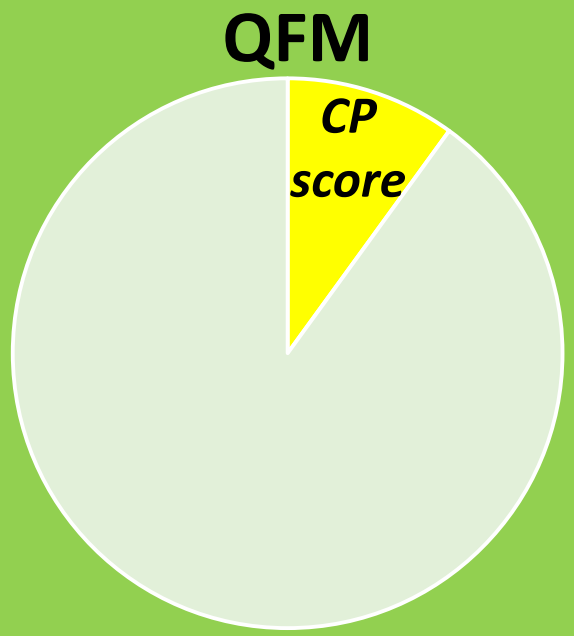
CPAS score
= 50% x (project performance scores in most recent 2 APs) +
30% x (project performance scores in next recent 2 APs) +
20% x (project performance scores in least recent 2 APs)

- Where there is no PIRs received over 2 consecutive APs within the same 1-year window, the prevailing CPAS score will be normalised based on the total weight to be applied.

AP refers to the 6-monthly Assessment Period



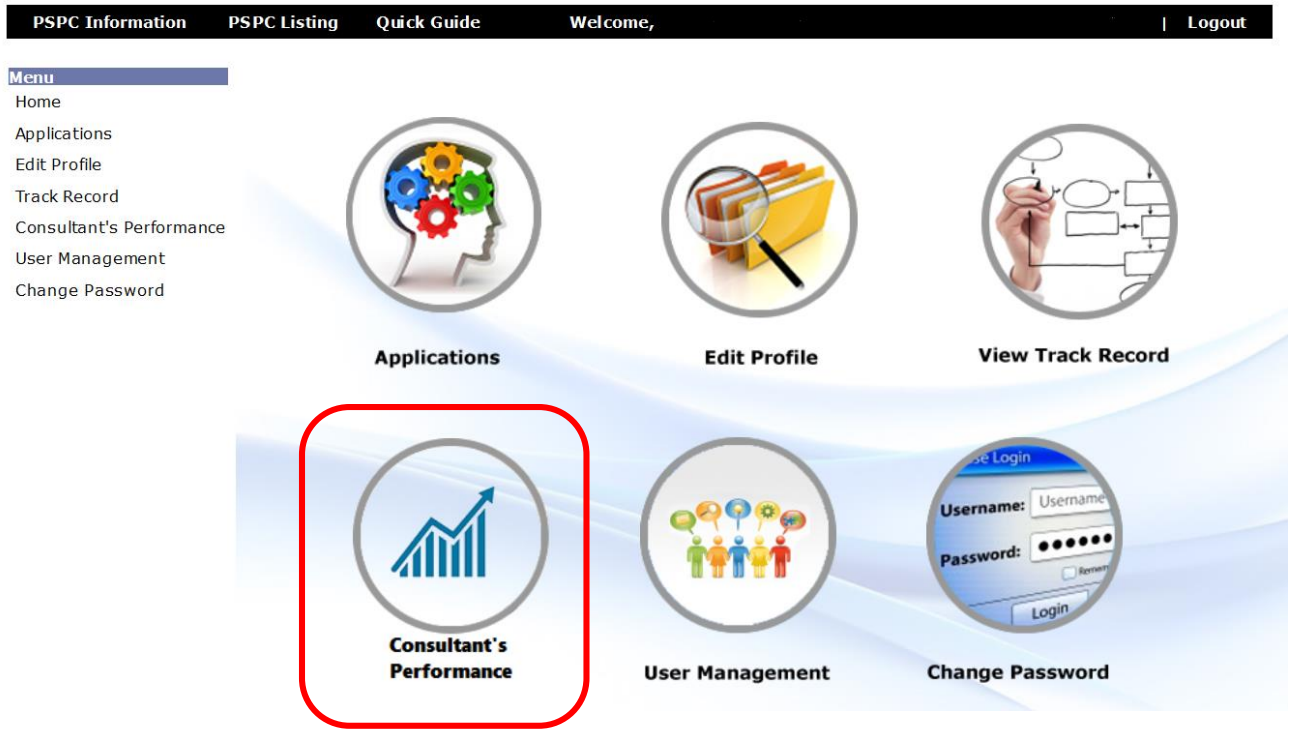
Mandatory Attribute for Past Performance



Min. 10% of overall QFM weightage

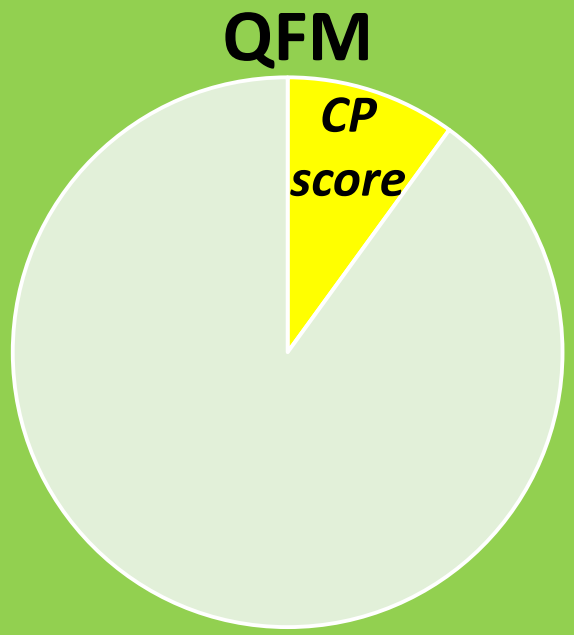
CPAS-Score

- All PSPC consultants are able to view their own CPAS scores via PSPC login with effect from 1 Jan 2018





Mandatory Attribute for Past Performance



Min. 10% of overall QFM weightage

CPAS-Score

- CPAS-score will be published after each AP period (i.e. on 1 Mar and 1 Sep).
- For a multi-disciplinary firm, it will have different CPAS-scores for each of its discipline listed under PSPC.

Type: Firm

Firm: ABC PTE LTD

Consultant's Performance Score (CPAS Score)

Validity Period: Sep 2017 - Feb 2018

Discipline	CPAS Score
Civil & Structural	64.5
Mechanical & Electrical	75.4



Temporary Delisting from PSPC

No. of very poor PIR scores (<30 points) in recent 2 appraisal periods	Delisting period from PSPC
3	3 months
4	6 months

WOG i.e. consultants cannot tender public sector consultancy projects

Message to very poor performing firms to improve on quality

- Restriction from tendering for all agencies' projects
- Affects firms with consistently very poor PIR scores (<30 points) in the past 12 months
- Only those very poor PIR scores from 31 Jan 2018 will be counted
- Firms with very poor performance reports will be notified to improve on their performance
- Suspension to be applied to the individual discipline, not the whole multi-disciplinary firm



Greater Transparency on Performance



Seek feedback on areas of improvement

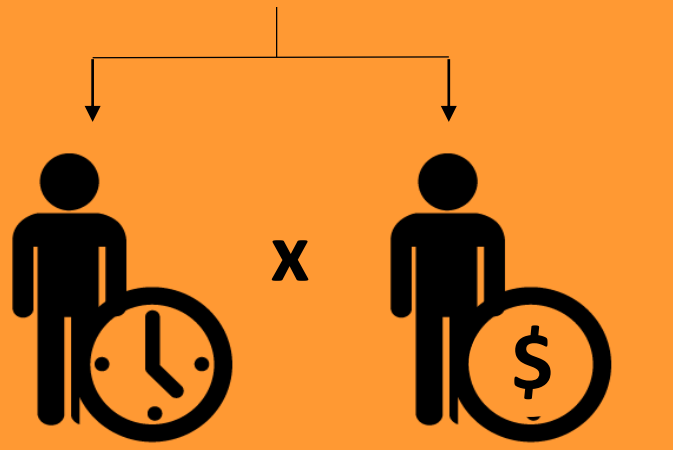
Help firms to improve for future tenders

- Currently, firms' fee bids are published. No information on quality or productivity evaluation is revealed
- Unsuccessful tenderers can seek feedback from agencies on their tender performance after tender award
- Effective from 31 Jan 2018



Assessment of Manpower Deployment

Lump Sum Fee



Ensure quoted fee is consistent with the manpower resources and quality of service

- Data-collection for tenders called from 31 Jan 2018

Man-week

Man-week rates

Annex C

TEMPLATE FOR TENDERER'S SUBMISSION OF BREAKDOWN OF FEE IN MAN-WEEKS AND MAN-WEEK RATES

1. Tenderer is required to complete the table below to provide a breakdown of fee proposed in Man-Weeks and Average Man-Week Rates. The purpose is to ensure that the tendered lump sum fee is commensurate with the respective manpower resources committed. This is not meant to ensure compliance of the committed manpower resources during project execution and **will** not be used in the scorings for tender evaluation.

2. **Man-Week**. Tenderer is required to provide the proposed manpower resources to be committed at various project development stages.

3. **Man-Week Rates**. The weekly manpower cost associated with the personnel includes Salary & Bonus, Insurance, Overheads, Training Costs, Software Costs, Investment Costs in Research & Development (R&D) and Systems, Leave Costs, Benefits Costs (e.g. medical, welfare etc) and Profits.

[NOTE: This breakdown is meant to be for reference only and is not intended to be legally binding on the Tenderer.]

Table – Fee Breakdown

PERSONNEL	PROJECT DEVELOPMENT STAGES (man-weeks)					TOTAL MANWEEK	AVERAGE MAN WEEK RATE ($S)	TOTAL ($S)
	Preliminary Design Stage	Design Stage	Tender Stage	Construction Stage	Post Construction Stage			
Example:								
1) Management Level Professional	*2*	*3*	*2*	*4*	*1*	*12*	*7,000*	*84,000*
1) Management Level Professional *Managing Director, Partner, etc.*								
2) Senior Professional *Qualified Person or Architect, Engineer, Quantity Surveyor, Project Manager with ≥ 8 years' of experience*								
3) Professional *Architect, Engineer, Quantity Surveyor, Project Manager with < 8 years' of experience*								
4) Senior Technical Personnel *Technical officer (e.g. BIM modeller, draftsman) with ≥ 8 years' of experience*								
5) Technical Personnel *Technical officer (e.g. BIM modeller, draftsman) with < 8 years' of experience*								
							*TOTAL $S	

*Should match the lump sum fee quoted in Fee Proposal

Joint Advisory: The Revised Quality Fee Method (QFM) and Price Quality Method (PQM) Frameworks issued on 12 January 2018

5-levels of personnel

1. Management
2. Senior Professional
3. Professional
4. Senior Technical Personnel
5. Technical Personnel

- Data collected not for tender evaluation
- Aim to establish base norms



Flexibility to specify productivity attributes

Buildability Score (BS) Index 16%

Other productivity attributes proposed by agencies
(0% to 8%)* or (0% to 16%)**

BS Index
(min 8%)*

Recognise firms' efforts in raising productivity

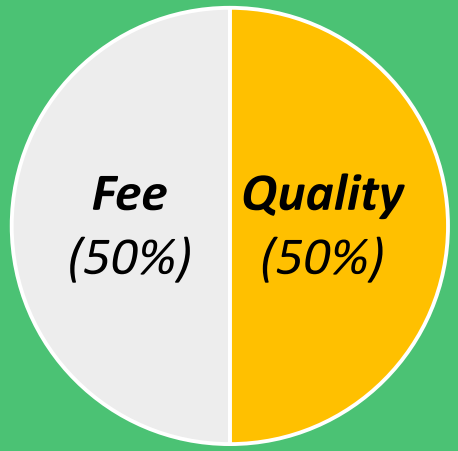
- Agencies have the flexibility to assign up to 8% to additional productivity-related attributes specific to the projects under the PD component*
- For projects where BS Index attribute is not applicable, agencies have the flexibility to assign up to 16% to project-specific productivity attributes or to discard the 16% totally**
- Effective from 31 Jan 2018



QFM (AC)

Phase 1

Introduce quality attributes as part of quality component



More emphasis on quality in procurement of Accredited Checkers (ACs) service

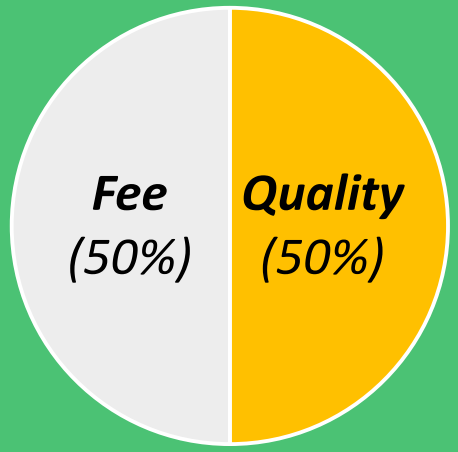
- Currently, AC procurement is largely fee-based, a factor to ACs' declining fees and thus quality of work
- Principles of the QFM framework will be extended to all procurement of AC services, including quotations
- Phase 1 effective from 1 Apr 2018.



QFM (AC)

Phase 1

Introduce quality attributes as part of quality component



Examples of quality attributes

- **Competency of AC** - Track records undertaken as AC
- **Design experience as QP** - Past 5 years' track record as QP of similar projects
- **Resources** - Qualifications and experience of firms' PEs, engineers
- **Senior expertise commitment** - Key personnel to be deployed
- **Average workload** - No. of current projects undertaken by firm/No. of professional staff employed by firm
- **Past performances with relevant GPEs**



QFM (AC)

Phase 1
Introduce quality attributes as part of quality component



Phase 2 (Tentative)
Introduce WD-score as part of quality component

Written Directions (WDs)

- Include new quality attribute WD-score in Phase 2 (after review of Phase 1)
- WD-Score would be calculated based on the WDs issued by BCA for technical lapses found in AC's submissions.
- For the purpose of calculating the WD-score, all WDs issued by BCA starting from 1 Apr 2018 will be considered



Contact Us

For clarifications you may email to

bca_ppd@bca.gov.sg

The revised QFM framework is available at https://www.bca.gov.sg/QFM/qfm.html.



Thank You



Key Features & Benefits

Early Contractor Involvement







Outline of Presentation

- Early Contractor Involvement (ECI) – Why & What
- Key Features of ECI models identified by BCA
- Stakeholders' involvement in the ECI process



Construction ITM

Industry Transformation Map

VISION

- Advanced and Integrated Sector
- Progressive and Collaborative Firms
- Good Jobs for Singaporeans

Through 6 key pillars

① Innovation



② Productivity



③ Jobs and Skills



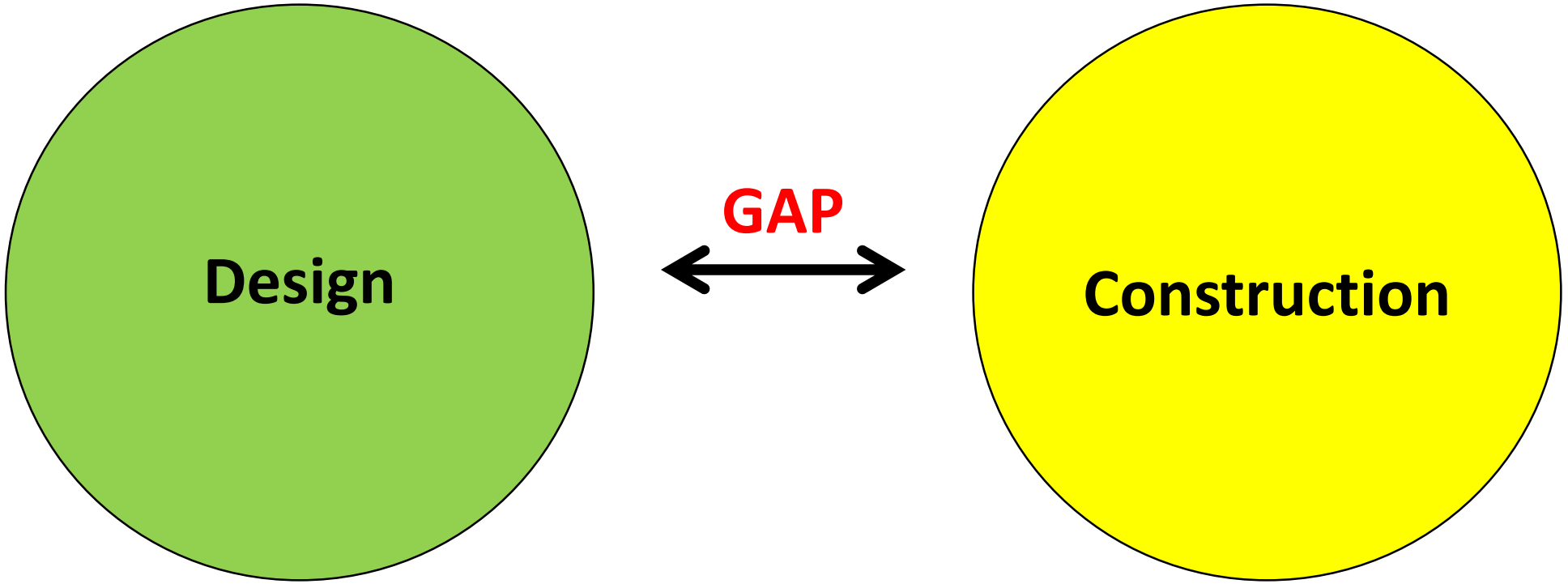
④ Internationalisation



⑤ Collaboration

⑥ Regulations

Gap between Design & Construction





What is Early Contractor Involvement (ECI)?

- A procurement approach whereby ***Contractors are engaged early during the design stage***, so that the knowledge of the Contractor is used to facilitate integration of design and construction process.



Benefits of ECI

- Allow Contractors' inputs into design to make good use of their ***knowledge, experience and creativity***
- Promote ***greater coordination*** between stakeholders
- ***Cost and/or time savings***



Adoption of ECI

- ***All public agencies are required to consider ECI upfront if possible***
- ***Public agencies that adopted ECI*** in their projects include JTC, MOH, HDB, DSTA, LTA, MOE, NEA and PA
- ***ECI models adopted*** include Design & Build (D&B), Design Development & Build (DDB) and Design Bid Build with Early Contractor Involvement (DBB-ECI)
- More to come…



ECI Initiatives

Building Capabilities

- **ECI Guide**
  - Details of ECI models
  - ECI guide to be published

Outreach

- **ECI Seminars**

Building Demand

- **Productivity Gateway Framework (PGF)**



Productivity Gateway Framework (PGF)

Master Productivity Plan (MPP)

Productive Technology Adoption



BIM Collaboration & Integration Approach



Productive Procurement & Management Practices



Standardisation



Reviewed & endorsed by PGAP

MPP as blueprint

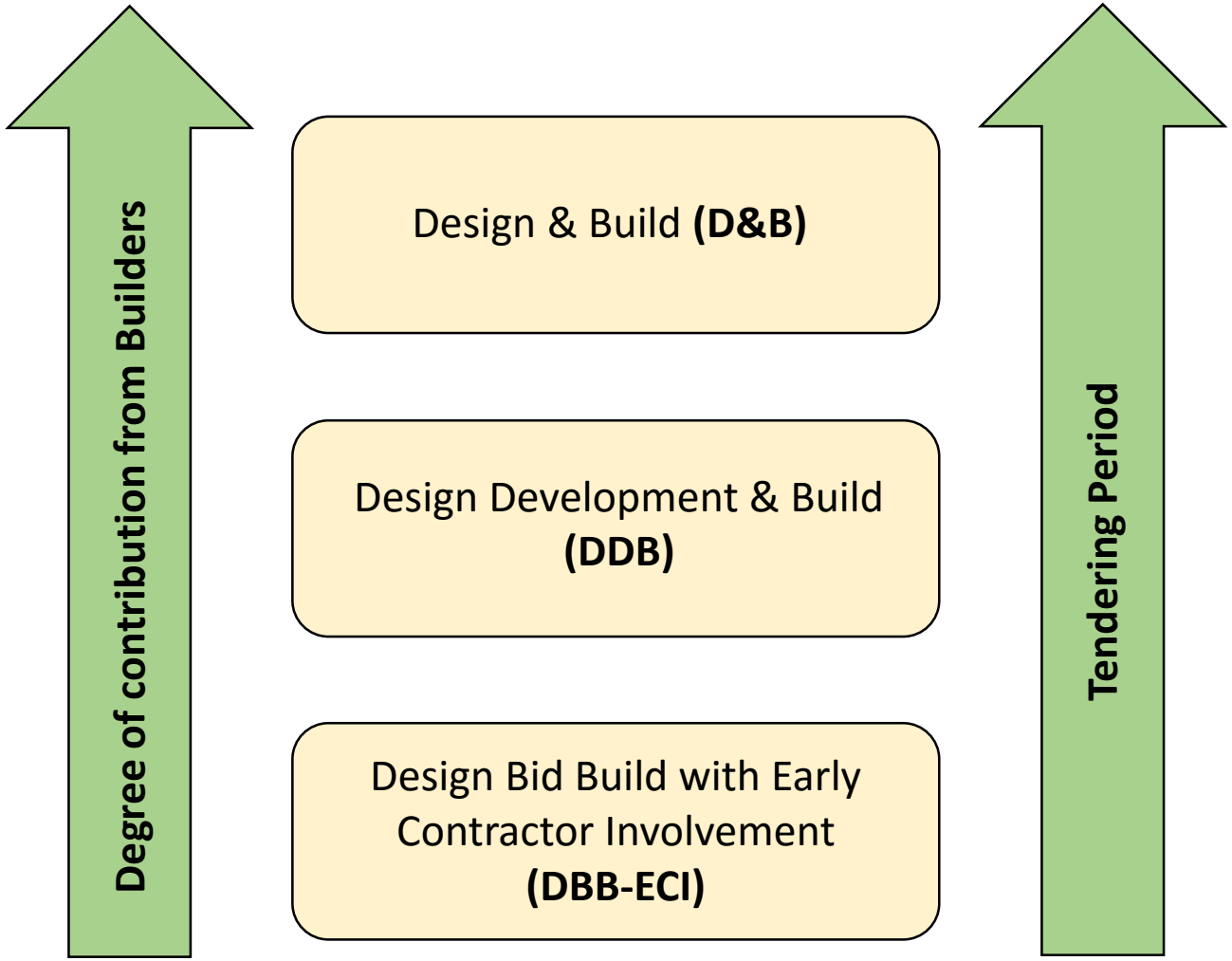
ECI

Project 1	Project 2	Project N
Project Productivity Plan (P3)	Project Productivity Plan (P3)	Project Productivity Plan (P3)

Key Features of ECI Models

- 3 different models of ECI which varies according to:
  - Stage at which the Contractors start to get involved in project
  - Level of involvement in the design
- Depends on type of projects, client needs etc





1. Design and Build (D&B)

Client

Consultants

Design Brief

Maximum 5 tenderers!

Contractors

Pre-Qualification Stage

- **Functions of design and construction are placed entirely with the Contractor**

- Contractor ***engages consultants to develop full design proposal*** and ***submit tender***

Contractors

Shortlist to maximum 5

Consultants

Full Design

Tender Stage
(> 6 months)

Contractor

Evaluate based on Price-Quality Method (PQM)

Award

Construction



2. Design Development and Build (DDB)

Client

Consultants

Architectural Concept Design

Contractors

Maximum 5 tenderers!

Pre-Qualification Stage

Shortlist to maximum 5

Contractors

Consultants

Full Design

Tender Stage
(> 6 months)

- **Contractor *engages consultants to develop full design proposal,*** based on architectural concept design and ***submit tender***

Contractor

Construction

Evaluate based on Price-Quality Method (PQM)

Award



2. DDB – Case Study 1

ECI Experience of Public Agency A

- Concept design provided - Tap on Contractor's knowledge to explore more efficient and productive construction methodology
- Alternative proposals
  - Structural system – semi precast to full precast
  - Architectural layout – introduce external staircases reduce corridor
  - M&E provisions – lower equipment capacity same efficiency
- Savings: Time - 10% / Costs - 3%



3. Design Bid Build – Early Contractor Involvement (DBB – ECI)

Client

Consultants

Full Design

Maximum 5 tenderers!

Contractors

Pre-Qualification Stage

- Contractor ***develop alternative design solution(s)*** that are time/cost savings and ***submit base tender bid and alternative tender bid*** for accepted solution(s)

Contractors

Shortlist to maximum 5

1-1 discussions with consultants and client's rep

Alternative Design

Tender Stage (> 3 months)

Contractor

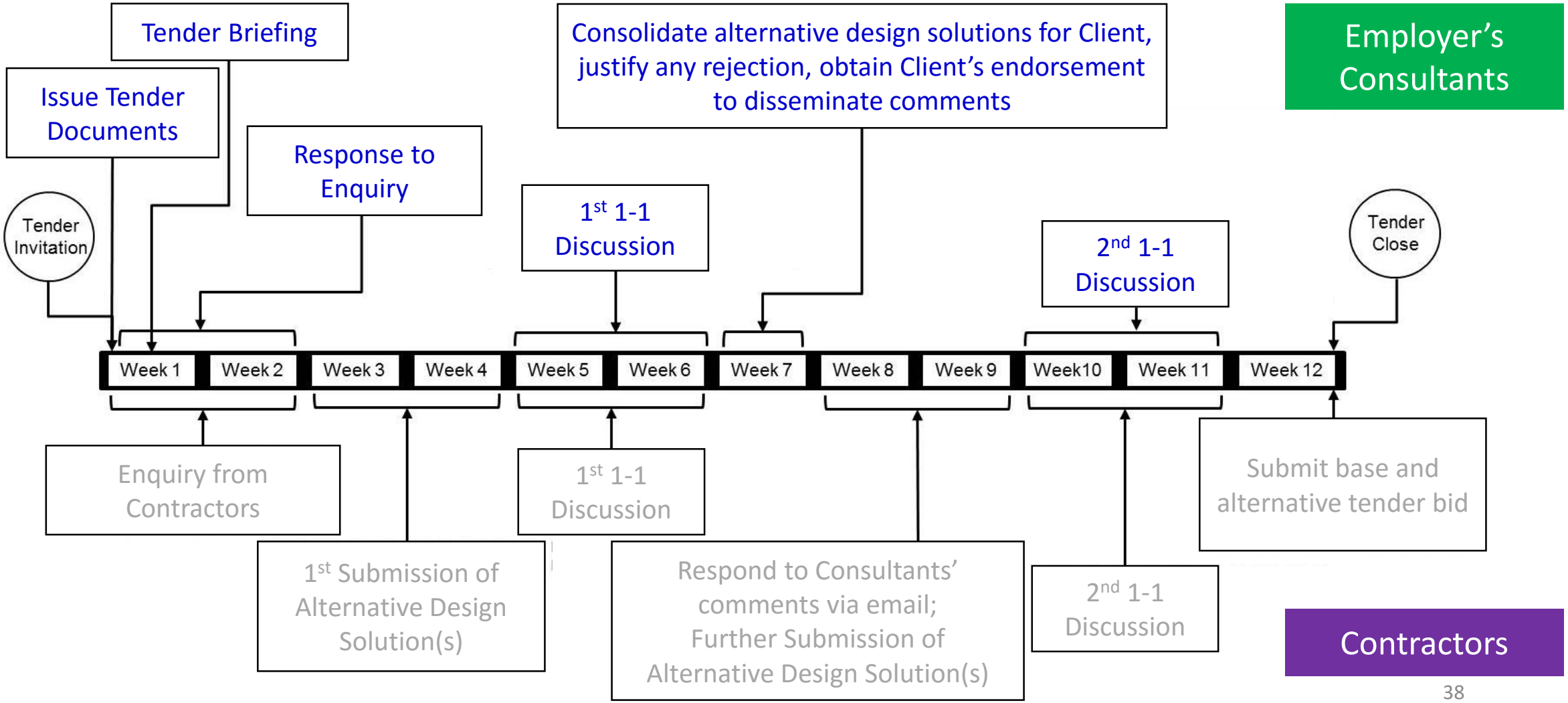
Evaluate based on Price-Quality Method (PQM)

Award

Construction



1-1 Discussions



1-1 Discussions

- Clarifications on Contractor's submitted alternative design solution
- Consultants highlight areas for Contractor's consideration
- Area of discussion is limited to design solution only. No costing to be discussed
- Requires signing of a ***Confidentiality Agreement*** between consultants and individual tenderers to ensure that sensitive information shared is kept confidential and not shared with other tenderers



3. DBB-ECI – Case Study 2

ECI Experience of BCAA Phase 1 Redevelopment Project

- Alternative design solutions by Contractors to structural system and M&E provisions
- Savings: Time – 4.5% / Costs – 2.7%



3. DBB-ECI – Case Study 2

Pre-cast staging beams and planks for Lecture Theatres

<u>Benefits</u>
Improving productivity by removing cast in situ concreting slabs

Reduce site-work and labour

ALTERNATIVE SOLUTIONS (arising from ECI)

High Strength concrete for columns

<u>Benefits</u>
Reduce reinforcement up to 25% at certain sections

<u>Light weight ductwork</u>
Provides excellent insulation, high rigidity, lightness, extremely easy to handle

<u>Benefits</u>
Installation is much faster than conventional system

Save labour cost and time



Extracted from BCAA ECI briefing slides

3. DBB-ECI – Case Study 3

ECI Experience of Public Agency B

- Alternative design solutions by Contractors to structural system, architectural layout and M&E provisions
- Savings: Time - 7% / Costs – 2.5%



3. DBB-ECI – Case Study 3

Change of full top down construction to semi top down construction

→ Reduce in plunge of columns

Change from bored pile foundation to raft foundation with tension piles

→ Reduce in costs

ALTERNATIVE SOLUTIONS (arising from ECI)

Raise ejector tank pumps and grease separator from below B3/B3 to B3 and B1

→ Avoid deep excavation

Replace 25-75mm screed with screed-less floor for some areas

→ Reduce in time and costs



Summary on Types of ECI

	Tender Stage Design Status	Contractors' Design Involvement
D&B	Design Brief	Full Design from Design Brief
DDB	Architectural Concept Design	Full Design from Concept Design
DBB-ECI	Full Design	Alternative Design from Full Design



Areas under Review

- Compensation framework for unsuccessful tenderers
- Number of pre-qualified tenderers for ECI exercise



Moving Forward

Collaborative Contracting…



Collaborative Contracting

- ***Adopted overseas in various public and private sector projects***
  - New Engineering Contract (NEC) in the United Kingdom (UK), Hong Kong, New Zealand and South Africa
  - AIA Standard Document for Integrated Project Delivery (IPD) in the United States (US)
  - Alliance Contract in Australia
- ***Traditional form of contracts are more adversarial in nature***





NEC Adoption in Hong Kong

Benefits of Collaborative Contracting

- Project parties work together in spirit of mutual trust towards common goal
- Encourage better cost/risk management; disputes avoided/resolved early

Happy Valley Underground Storage Stormwater Scheme Project in HK

- ***Cost savings of 5% (~S$10mil) and time savings of 12 months***
- HK has been active in piloting and adopting NEC since 2009


NEC takes off in Hong Kong





Seminar/Workshop on Collaborative Contracting

- The ***Working Committee on Collaborative Contracting (WCCC)*** comprising government agencies and industry associations/practitioners was set up in Sep 2017 to study the collaborative contracting forms used overseas for adoption in Singapore

- ***Seminar/workshop*** to be organized to raise awareness on collaborative contracting

  - Coming soon …



Thank You!

