

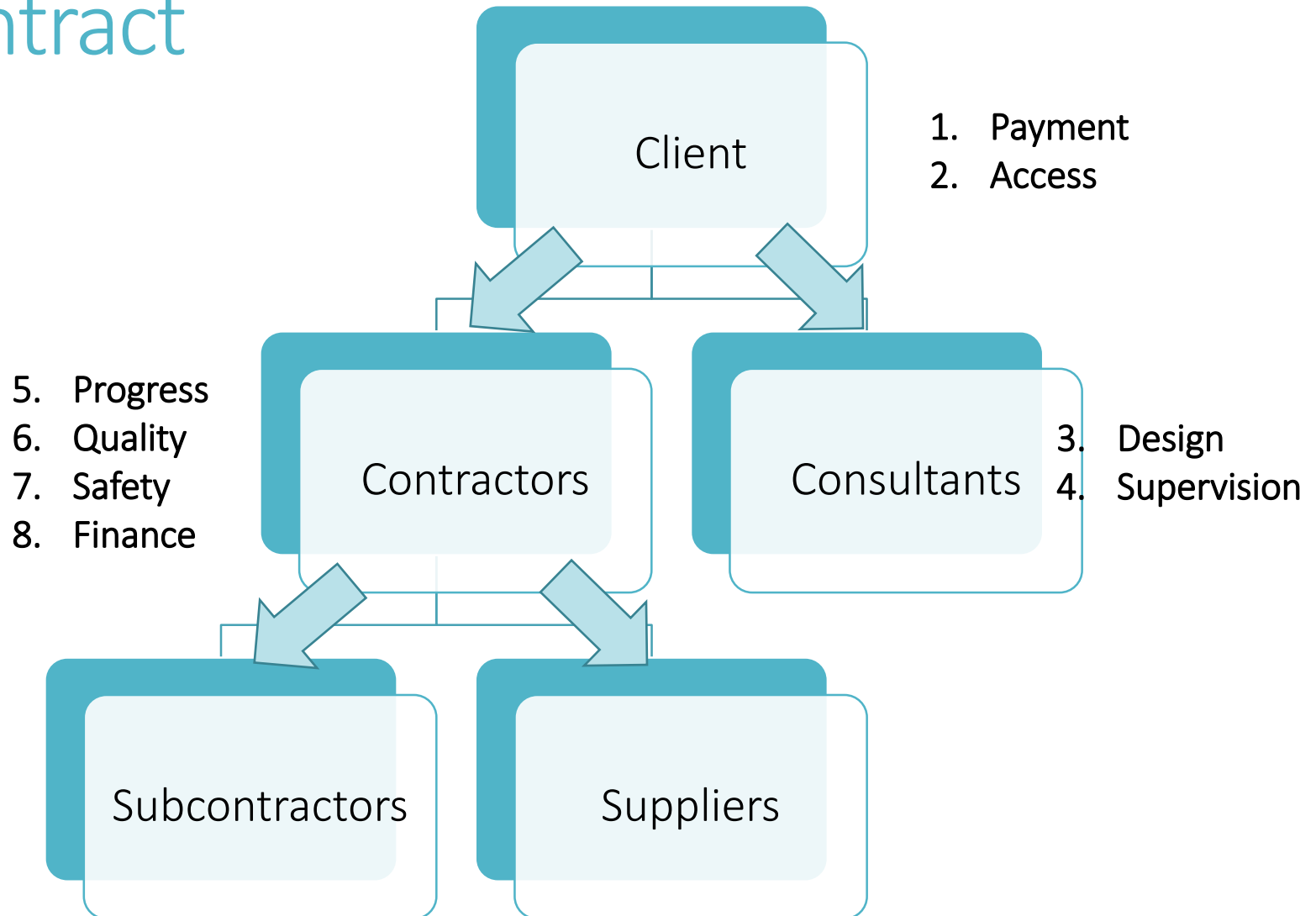
# Updating from NEC3 to NEC4

Dennis Li

- Visiting Lecturer

# Recap of Principles of NEC Contract

# Typical Risk Allocation in Traditional Contract



# Hierarchical Structure – Rank based

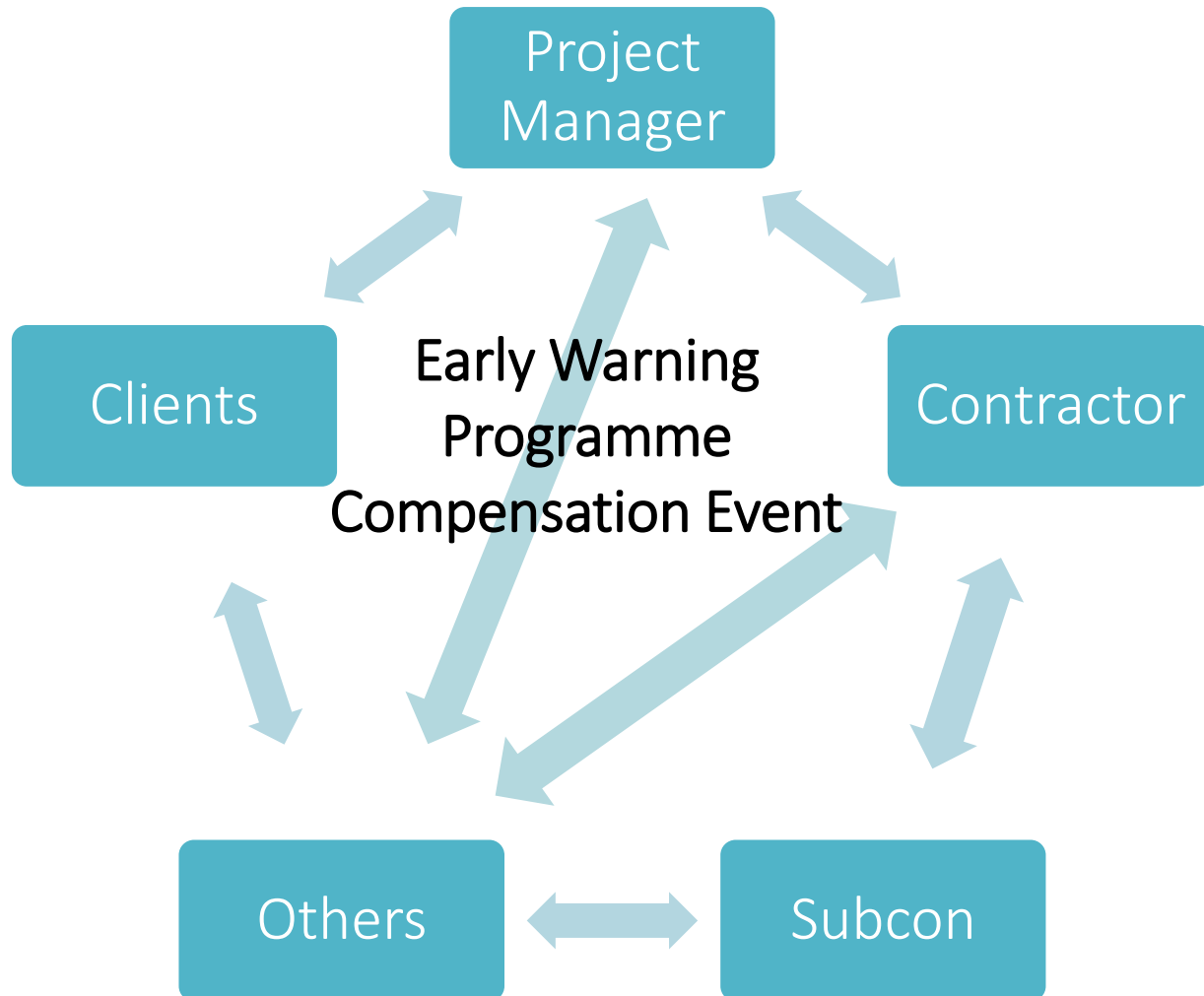
## Main Advantages:

- Clear division of labour and responsibilities; Consistent execution of orders

## Main Disadvantages

- Rigid pricing arrangement and allocation of liabilities are unfavourable to solving evolving new problems

# The Principles of NEC



# Network Structure – Trust based

## Main Advantages:

- Such organization is designed to handle problems, minimize disputes and to achieve effective project delivery

## Main Disadvantages

- This trust-based structure requires a strong team to run, but could easily be weakened when unfamiliar persons conducting self-centred behaviours.

# Observations of NEC in Hong Kong

Market downsizing leading to irrational tender pricing. With a deficit in the contract price, it is basically impossible to have effective problem solving or inspirational behaviours.

Inadequate understanding of the contract leading to violation of contract principles and risks of undoing the achievements made in the use of NEC in the past 10 years.

Most notably, NEC stresses on forecast assessment of compensation events and a retrospective counting of expenditures by the *Contractor* violates the Contract. ([Read 63.1 thoroughly!](#))

# “Construct for Excellence” Report in 2001

The construction industry today

The industry is **very fragmented** and is beset with **an adversarial culture**.

Many industry participants adopt a **short-term view on business development**, with little interest in enhancing their long-term competitiveness.

There is a tendency to **award contracts to the lowest bidders and delivery programmes are often unrealistically compressed**.

Accountability is undermined by the prevalence of non-value adding multi-layered subcontracting and lax supervision.

An inadequately trained workforce also impairs the industry's ability to adopt new technologies and to cope with new challenges.



# “Construct for Excellence” Report in 2001

## Foster a quality culture

Efforts should be made to secure more integrated input from different disciplines at the outset and **to allow sufficient time for all stages of project development and implementation**

To improve construction quality, non-value adding multi-layered subcontracting must be eradicated. Clients can give impetus to this development by requiring their contractors to engage registered subcontractors only

Emphasis should be placed on site inspections instead of paperwork. Independent technical audits should be carried out on a regular basis during project implementation to guard against substandard work.

# “Construct for Excellence” Report in 2001

Achieving value in construction procurement

**Best value does not necessarily equate with the lowest initial tender price; it also encompasses various quality considerations as well as longer-term benefits**

To encourage consultants and contractors to continuously improve their performance and to offer better value, clients should **give balanced consideration to both price and quality in tender evaluation.**

As past performance will become one of the key quality criteria to be taken into account, an objective and transparent system for assessing the performance of consultants and contractors during project implementation is necessary

# “Construct for Excellence” Report in 2001

Achieving value in construction procurement

**In view of the industry’s widespread concern about the current allocation of risks under the GCC,** the Government should urgently reconsider the recommendations on risk allocations based on best international practice.

The resolution of **disputes can be expensive and time-consuming.**  
**We urge employers, consultants and contractors to adopt a proactive approach to resolving claims and disputes as they arise.**

We advocate the wider adoption of a partnering in local construction so that all project participants will work as a team to achieve shared project objectives rather than in competition with one other.

# Updating from NEC3 to NEC4

# NEC4 Updating

A result of lengthy consultation and review of users' comments

Contain a number of much welcomed changes that improves the use of NEC significantly

Launched in June 2017 and a revision is made in Jan 2019



# Change in terminologies

- Gender neutral
- *Client* replaces *Employer*
- Scope replaces Works Information
- Early Warning Register replaces Risk Register
- Early warning meeting replaces risk reduction meeting
- *Client's* and *Contractor's* liabilities replaces *Employer's* and *Contractor's* Risks (80.1 and 81.1)
- Multiparty collaboration replaces partnering (Option X12)
- Short Schedule of Cost Components replaces Shorter Schedule of Cost Components

# Enhancements in Contract Provisions

- Only one *fee percentage* (11.2(10))
- Early warning procedures enhanced (15.2)
- *Contractor* proposals added (16.1 and 63.12)
- Termination for Corrupt Acts added (18 and 91.8)
- Deemed acceptance of programmes added (31.3)
- Quality management system added (40)
- Applications for payment now required (50.2 and 50.4)

# Change in Contract Provisions

- “Sign-off” of Defined Cost procedure added (50.9)
- Final assessment procedure added (53)
- Procedure for proposed instruction separated out and enhanced (60.1(20) and 65)
- Additional compensation events can be stated in Contract Data (60.1(21))
- Schedules of Cost Components significantly changed



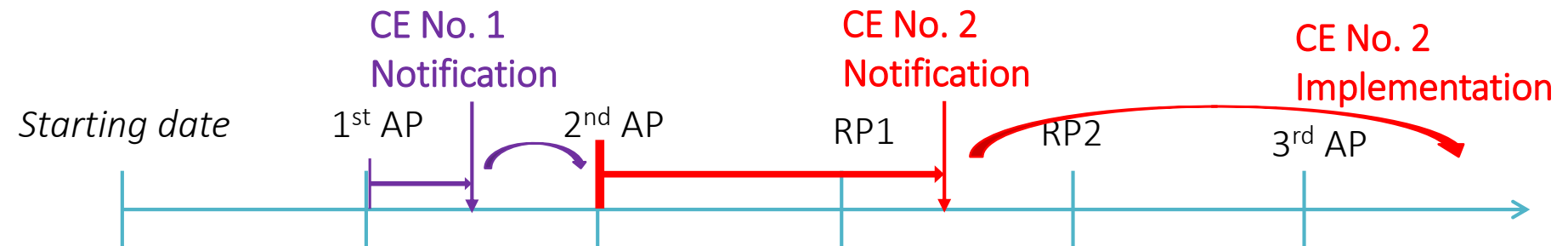
# Change in Contract Provisions

- Main Option A
  - *Contractor* can now revise Activity Schedule to reflect the Scope correctly and retain total of the Prices (55.3)
- Dispute resolution options
  - new escalation procedure (*Senior Representatives*) in W1 and W2
  - new Option W3 – Dispute Avoidance Board
- Additional X options
  - X10 Information Modelling
  - X21 Whole life cycle cost
  - X22 Early Contractor's Involvement

# EoT Assessment in NEC4

AP = Accepted Programme

RP = Revised Programme



Cl. 63.5 Assessment of EoT is based on delay to the planned Completion caused by the compensation event in the Accepted Programme at the dividing date taking into account events which have happened between the date of Accepted Programme and the dividing date

# Payment in NEC Options

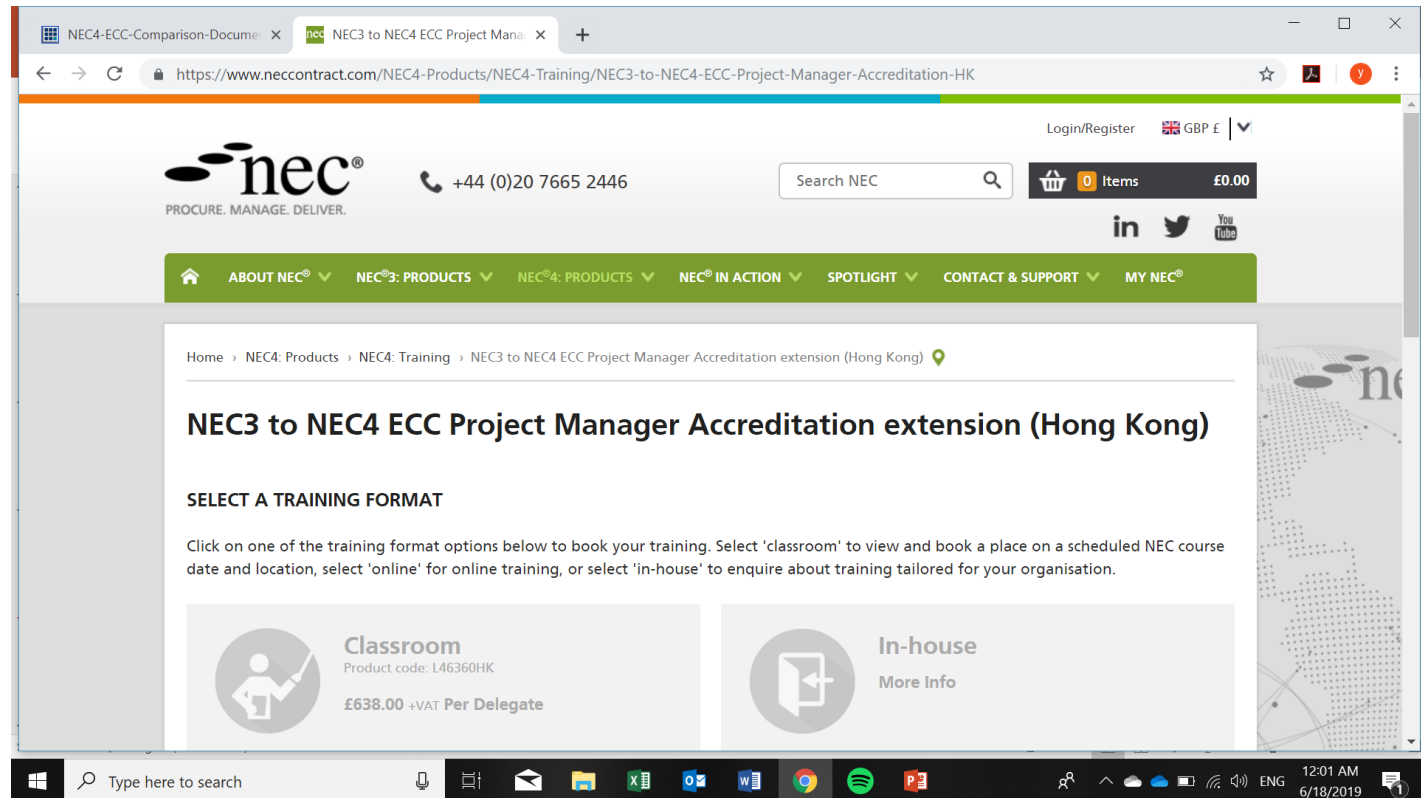
Options	PWDD	CE
A, B	Price based (AS/ BQ)	Cost based Defined Cost + Fee (SSCC)
C, D, E	Cost based Defined Cost + Fee (SCC – Disallowed Cost)	

Key update: Amount paid to the Subcontractor is now a cost component; All overhead % removed.

“When you repeat a mistake, it is not a mistake anymore, it is a decision”

-- Paulo Coelho

We have to decide which way we should be going for our next generation and for the many future projects



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