



CONSTRUCTION
INDUSTRY COUNCIL
建造業議會

簡介安全角色及責任參考資料初稿

Introduction of Draft Reference Materials
Focusing on Safety Roles and
Responsibilities

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研究顧問

Reference Materials

on

Safety Roles and Responsibilities of
Key Stakeholders in HK Construction Industry

28 AUGUST 2020

Purpose of Reference Materials

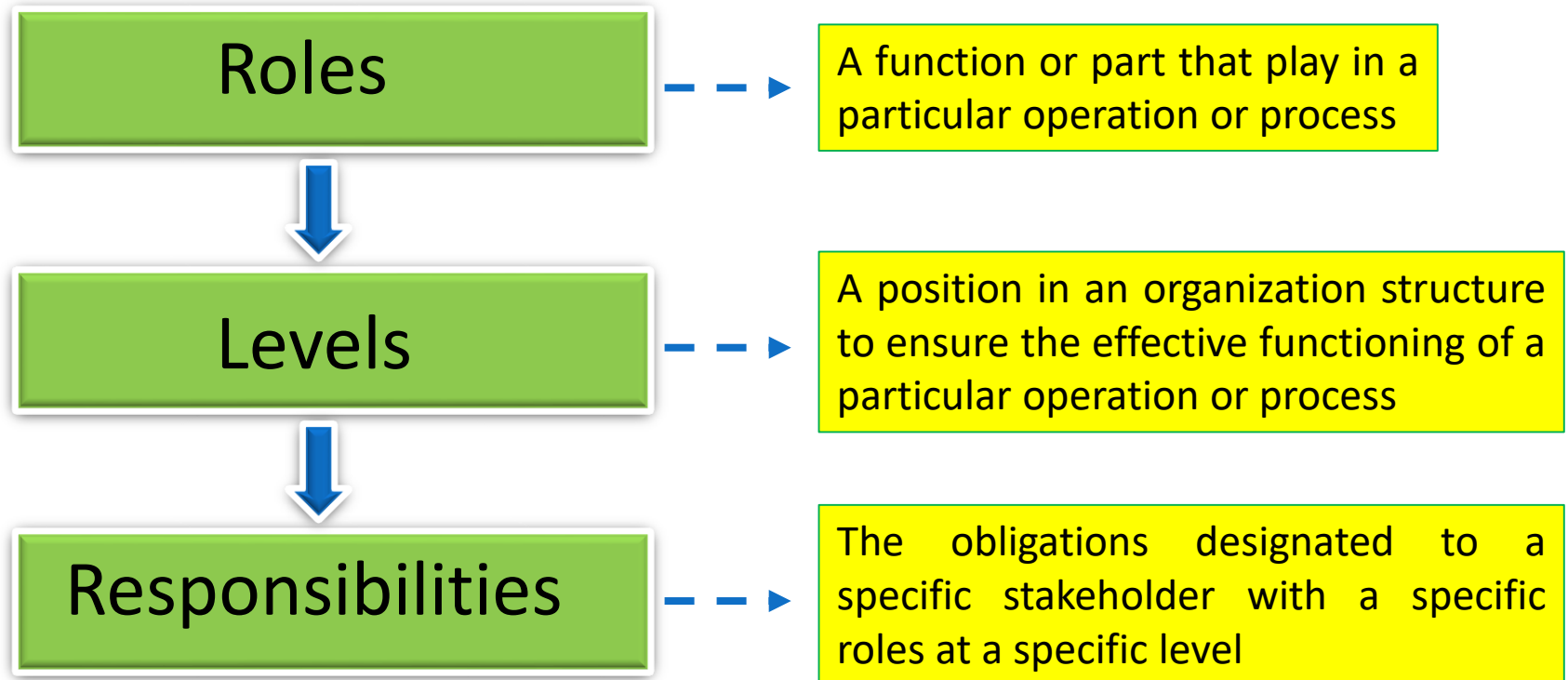
1. Revitalize the maxim “**Safety is Everybody Business**”
2. Defines roles and responsibilities to reduce behavioral-based errors at work
3. Fulfillment of possible legal duties which is implicit in nature
4. For reference by stakeholders at project planning stage

Stakeholders

Adopts definition of **Stanford Research Institute** as:

“Those group of people without whose support the organization would cease to exist”

Relationship of Roles, Levels and Responsibilities



Roles of Client / Developer

A project controller that has an ultimate objective to have the project completed timely and smoothly in the perspective of environmental, safety and quality issues



Roles of Client's Representative

- A person or firm who acts on behalf of the client under a lease or contract to ensure that client's business goal and objectives are achieved
- May or may not exist depending on client / developer



Roles of Designer

- A person or firm who by applying collective expertise in matter of their professional knowledge to give advice to those who engaged him
- Designer varies with scopes of work (Guidance Notes of Design for Safety, DevB 2013), can be:
 1. Architect for project design
 2. Engineer for temporary work design
 3. Register electrical worker for circuit design

Roles of Main Contractor

- a person or firm who entered into contract with client or developer to carry out construction work in pursuant to a contract
- Normally play the roles of project management



Roles of Subcontractor

- A person or firm who entered into a contract with upstream clients to carry out specific tasks in a construction project in pursuant to a contract
- Upstream clients can be a main contractor or a subcontractor

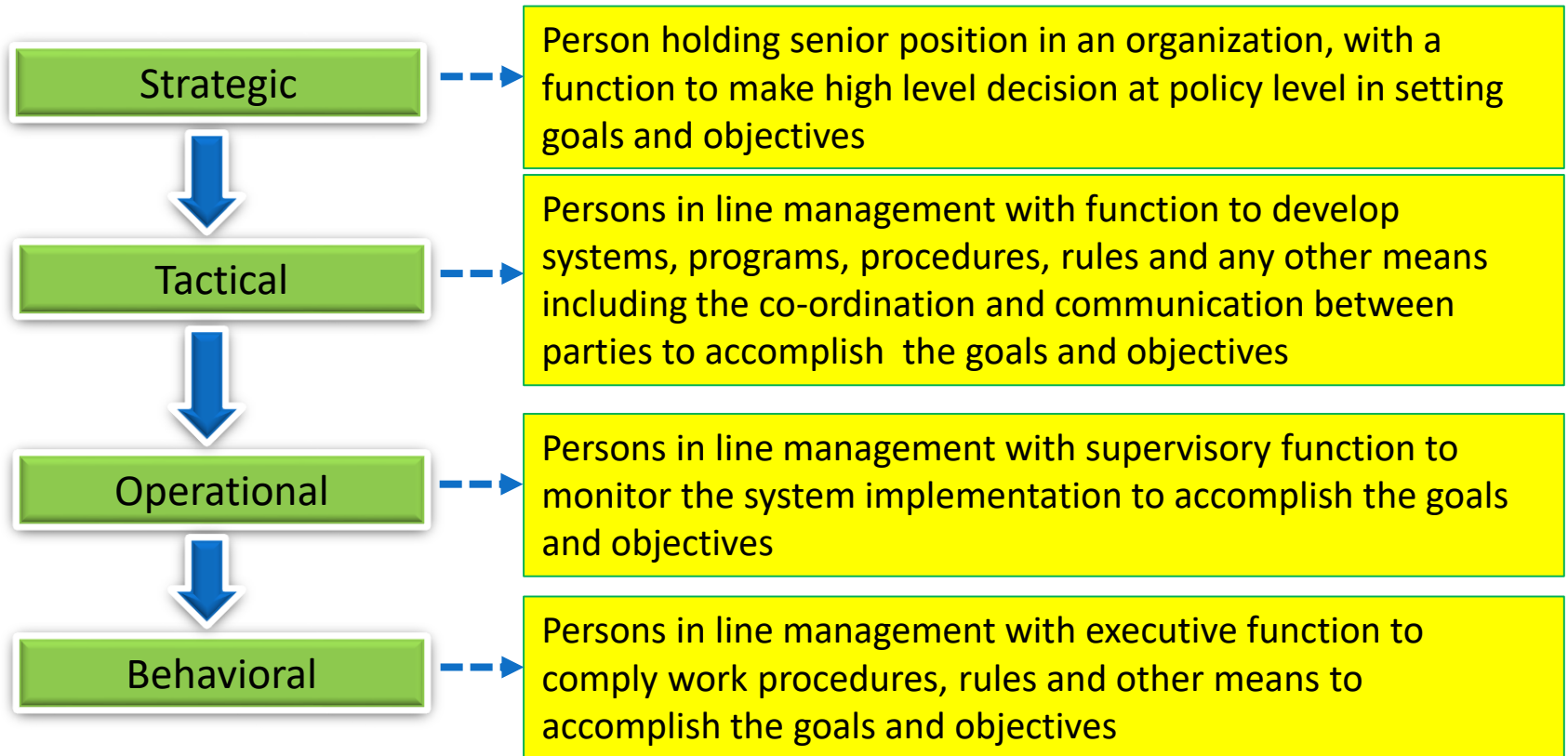


Roles of Workers

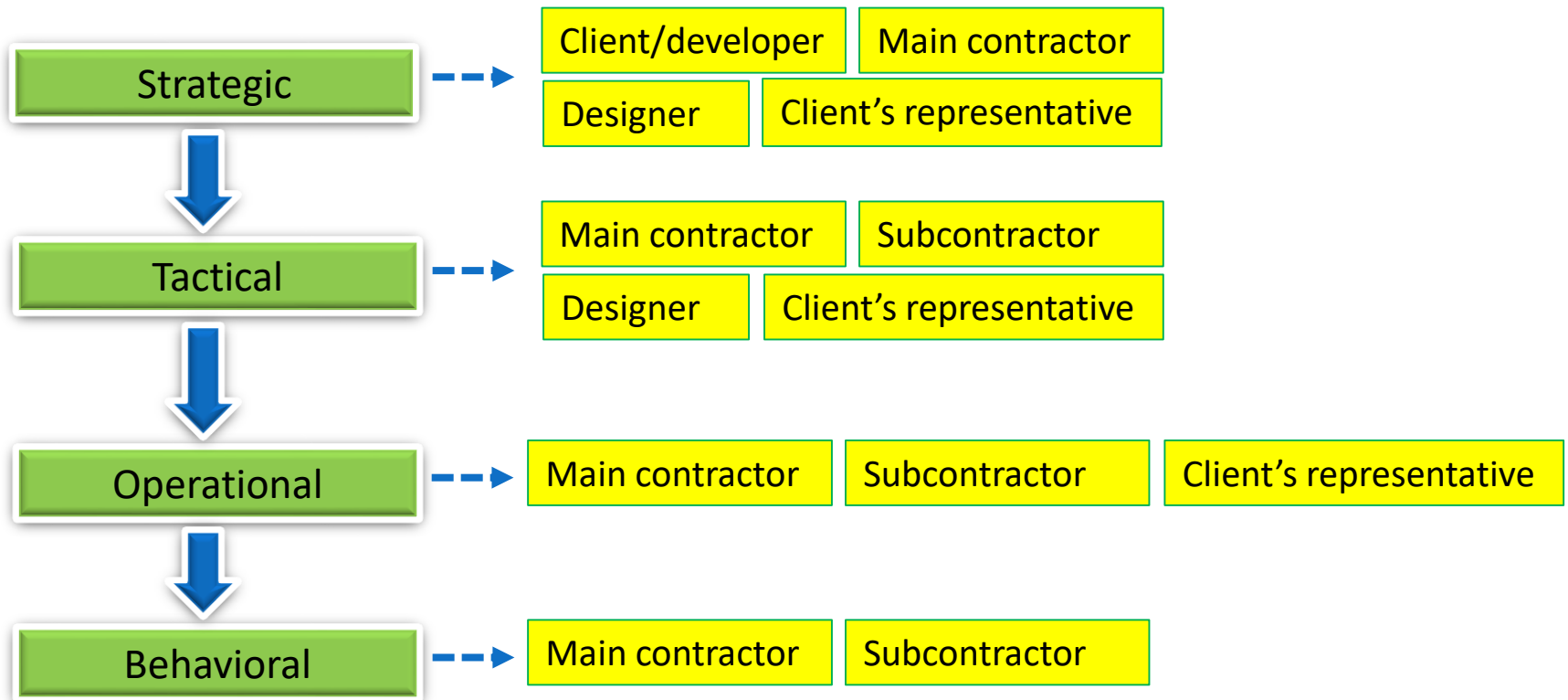
- A person employed either by main contractor or subcontractor in carrying out designated task of construction work



Levels in Organizational Structure



Levels vs Roles in a Project



Multi-functions at different levels

- Emerging complex organization structure and high division of work
- A person with specific role may be assigned with different functions at different levels
- e.g. a Resident site staff (RSS)
 1. At tactical level to participate in development of SWP
 2. At operational level to monitor the adherence of SWP

Shared functions at same level (I)

- Different persons bearing different roles may share same function
- e.g. function to monitor the adherence of SWP by front lines
 1. RSS of client's representative
 2. Safety personnel of main contractor/
subcontractor

Shared functions at same level (II)

- Each stakeholder must comply with assigned duty even others have the same
- Unless arrangement has been made for the work done on his behalf
- Work can be delegated while responsibilities cannot (*HCMA 511/1985*)

Post /titles at different levels (I)

- Difficult to capture all titles in current complex organizational structure
- Differentiating the functions that are playing is best fit by the current title that are holding
- At different levels, different stakeholders may have different titles
- That depends on the functions they need to perform

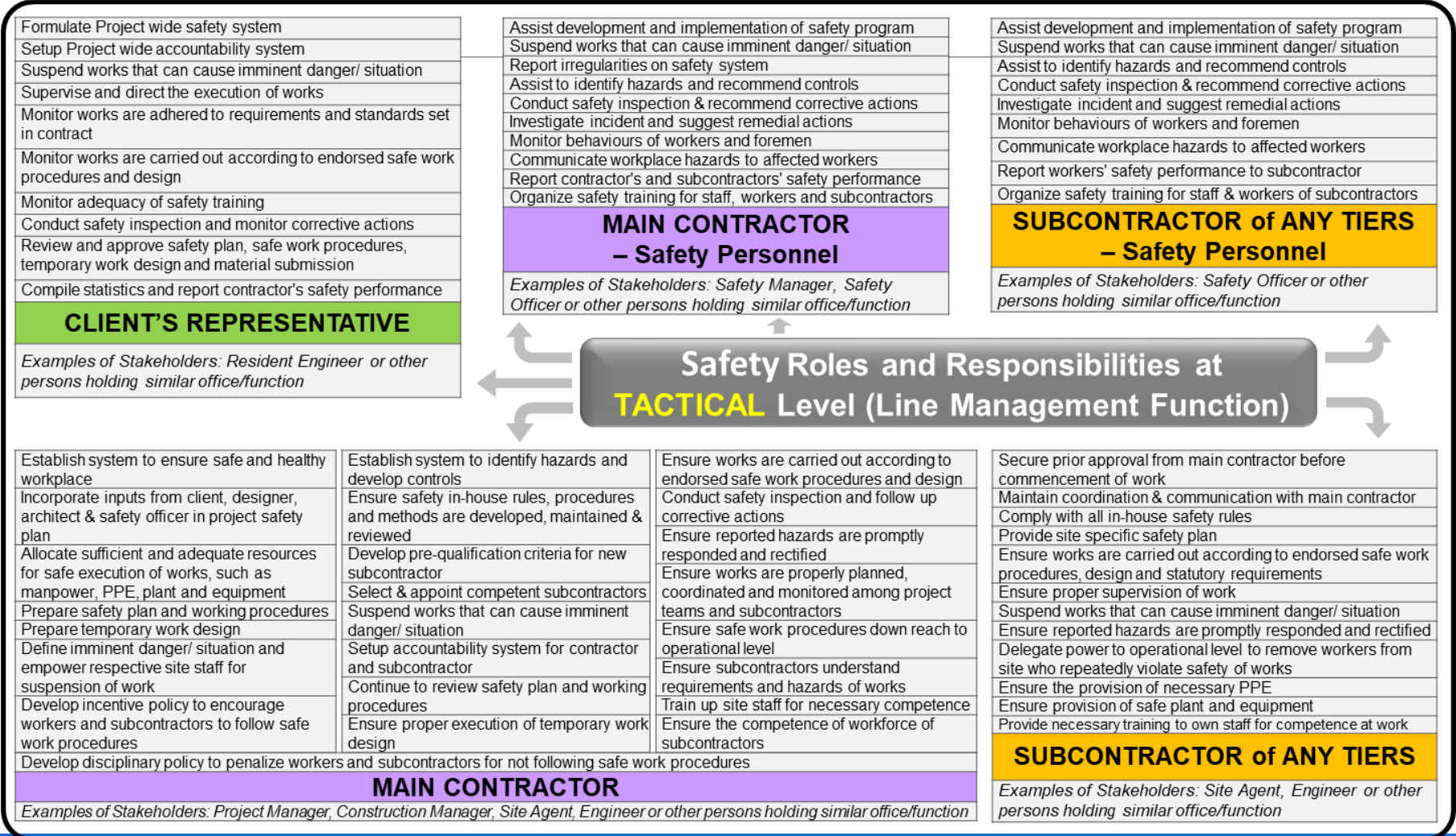
Post /titles at different levels (II)

- **In project design** – a designer can be an architect at strategic level to give professional advice to client/developer
- **In structural design** – a designer can be an engineer at tactical level to prepare temporary works design for structural support
- **In minor work design** – a designer even can be an REW at tactical level to prepare a wiring diagram for a switch room

Responsibilities

- Roles, levels and responsibilities are inter-related
- Research on OSH legislation, codes of practice, guidance notes, contractual specifications currently practicing
- Holistic rather than task specific for wider application
- **Stakeholder Model**

Stakeholder Model



Stakeholder Model

Suspend works that can cause imminent danger/ situation
Require contractor and subcontractor for prompt rectification
Supervise and inspect project work
Ensure works are carried out according to specification, drawings and contract and statutory requirements
Check, coordinate and report safety matters to line management
Monitor safety performance of contractor and subcontractors
CLIENT'S REPRESENTATIVE
<i>Examples of Stakeholders: Inspectorates, Work Supervisors or other persons holding similar office/function</i>

Ensure understanding of and adherence to approved safe work procedures
Prompt rectification of unsafe condition
Suspend works that can cause imminent danger/ situation
Ensure unsafe plant & equipment are not used
Follow safe working procedures
Remove workers from site who repeatedly violate safe work procedures
Ensure proper use of PPE
Ensure subcontractors and workers understand requirements of hazards of works
MAIN CONTRACTOR
<i>Examples of Stakeholders: Foreman, Safety Supervisor, CP, ICE, RPE or other persons holding similar office/function</i>

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Suspend works that can cause imminent danger/ situation
Ensure unsafe plant & equipment are not used
Follow safe working procedures
Remove workers from site who repeatedly violate safe work procedures
Ensure proper use of PPE
Ensure workers understand requirements of hazards of works
SUBCONTRACTOR of ANY TIERS
<i>Examples of Stakeholders: Foreman, Safety Supervisor, CP, RPE or other persons holding similar office/function</i>

Safety Roles and Responsibilities at
OPERATIONAL Level (Supervising Function) &
BEHAVIOURAL Level (Works Executing Function)

Adhere to safe work procedures, instructions, training materials and rules	Make suggestions to improve safety
Cooperate with employer	Give feedback on control measures
Participate in safety training	Wear PPE whenever necessary
Report accident/ incident/ DO to supervisor	Refuse to carry out work at unsafe environment or when others could be jeopardized
Report hazards to supervisor and warn co-workers	
MAIN CONTRACTOR / SUBCONTRACTOR	
<i>Examples of Stakeholders: Workers, Operatives or other persons holding similar office/function</i>	

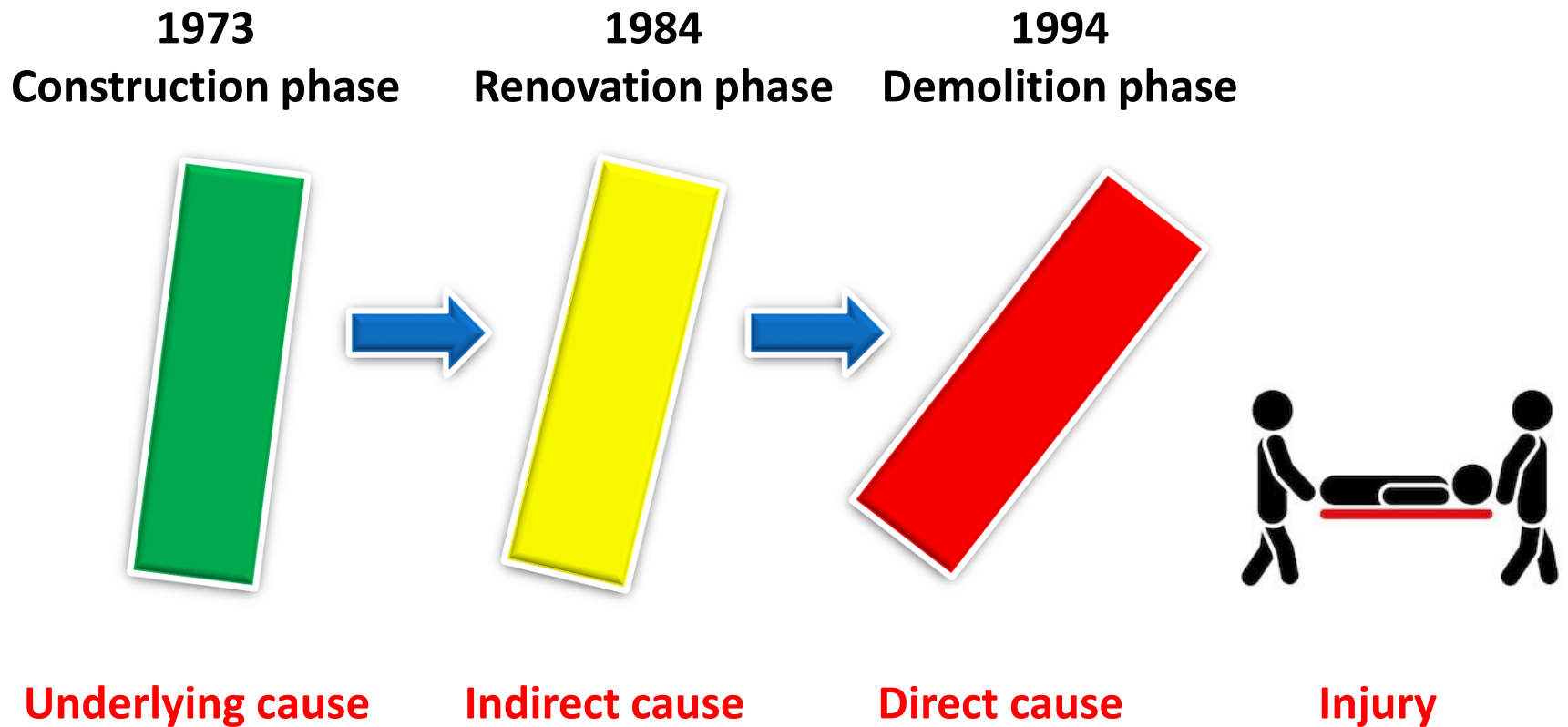
Application of Stakeholder Model

- A human-performance-based model
- Emphasizes the performance up to standard of a specific stakeholder
- If failures occur, model is able to find out the shortfalls such as non-conclusive, unclear and improper defined responsibilities
- Not fault finding but to facilitate review for improvement

Case Study

- ABC House was built in 1973
- Good Taste Restaurant operated in 1984
- A fish tank was installed on a non-load bearing canopy
- The overloading created cracks on canopy
- Rain water corroded the reinforcement bars further weakened the canopy
- Demolition of the canopy in 1994 finally caused the collapse of the canopy

Causes of the accident



Application of Stakeholder Model

- **In construction phase** – the uneven distribution of reinforcement bars supporting the canopy
- **In renovation phase** – the failure to identify the uneven distribution of reinforcement bars and the overloading of the canopy by the fish tank
- **In demolition phase** – the failure to identify the corrosion of the reinforcement bars and the vibration induced to the weakened canopy

Safe System of Work

- S.6A – proprietor to provide and maintain a system of work
- S.6B – every person in an IU take reasonable care of himself and others by his acts or omissions
- System of work needs collaboration and implementation by persons in an IU
- That correlates S. 6A and S. 6B together
- Needs to clarify legal duties of persons in an IU
- PRG provides practical guidance for reference by duty holders

Practical Reference Guidance

- CIC will publish Practical Reference Guidance in 4 series:
 1. Work above ground with inadequate protection
 2. Erecting or dismantling of scaffold or platform
 3. Lifting operation
 4. Electrical work

Practical Reference Guidance

- Refinement of system of work through practical steps
- List out responsibilities of respective duty holders in each step
- They are collective duties making reference with local legal instrument and overseas legislation
- Clarify duties of persons which is implicit under S. 6A & S. 6B

Practical Steps on Lifting as an Example

1. Preparation of lifting plan
2. Conduct of risk assessment to define safe method
3. Establishment of safe lifting procedures
4. Selection of suitable lifting appliances and lifting gear (LALG)
5. Inspection, test and examination of LALG
6. Assurance of competence of lifting team
7. Training of safe lifting procedures
8. Implementation of safe lifting procedures
9. Monitoring on adherence of safe lifting procedures
10. Review of safe lifting procedures

Safety is Everybody Business



謝謝

THANK YOU