

# **Workplace Safety Ownership Model in the Singapore Context: Insights and Lessons Learned**

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# WSH Ownership Project

## Aim

Using communication to drive WSH mindset change and actions towards greater industry ownership of WSH, through the research study, it will identify:

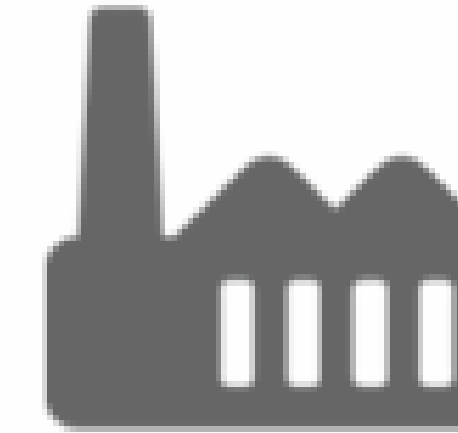
- key success factors and propose communication-related; and
- information-related interventions (i.e. communication and information training materials) to engender industry ownership for WSH.



Construction &  
Landscape



Logistics &  
Transport



Manufacturing &  
Metalworking



Marine Industries



Services (cleaning,  
retail, Hotel-F&B)

# WSH Specific Objectives

1. Defining the meaning and elements of industry ownership by Work Safety and Health (WSH);
2. Determining how 5 selected industries demonstrate ownership;
3. Developing the ownership measurement tool;
4. Identifying key success factors in the inculcation of industry ownership;
5. Proposing suitable interventions i.e. communication and information training materials through feasibility testing;



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# Key Takeaways from this Project

1. Ownership Model
2. Ownership Tool
3. Training Materials (gamified activities)
4. WAT4M

# **Key Takeaway 1: Ownership Model**

# WSH Ownership Model

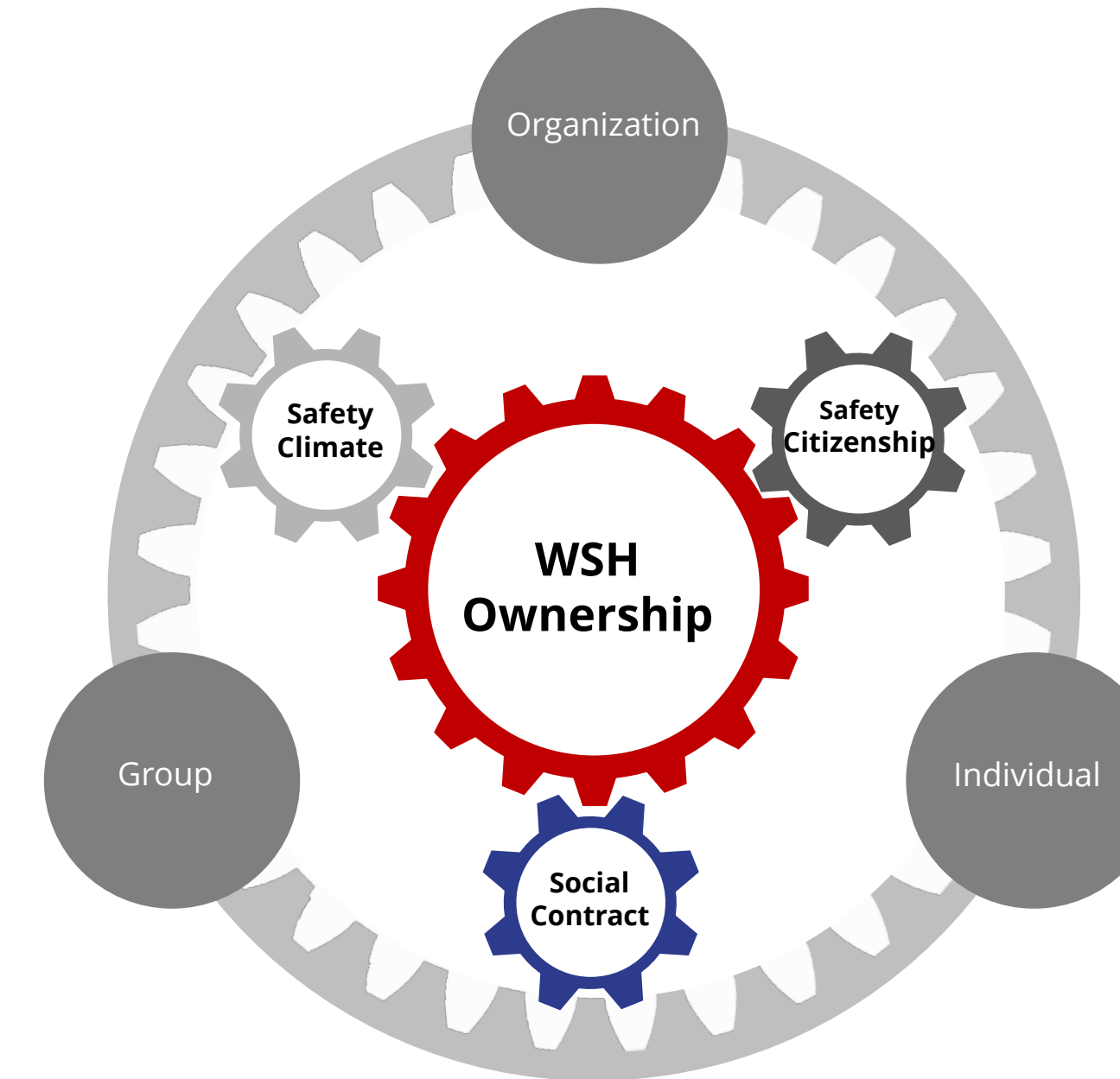
WSH Ownership Definition: The concept is derived from Psychological Ownership and refers to the sense of responsibility and being part of decision-making.

3 inter-related constructs that contribute to the development of WSH ownership.

**Safety Climate:** refers to the shared perceptions of safety policies, principles and practices;

**Safety Citizenship:** A general tendency to be cooperative and helpful in the organizational setting.

**Social Contract:** The voluntary unwritten agreement between the management and the workers as well as between workers.

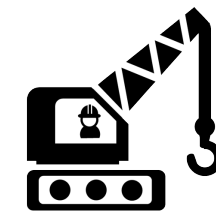


## 2.2. Overview of Findings

**Total no. of IDI participants: 58**

**Total no. of FGD participants: 211**

**By Industry:** No. of participating companies, FGDs, in-depth interviews and site observations



Construction



Logistics and  
Transport



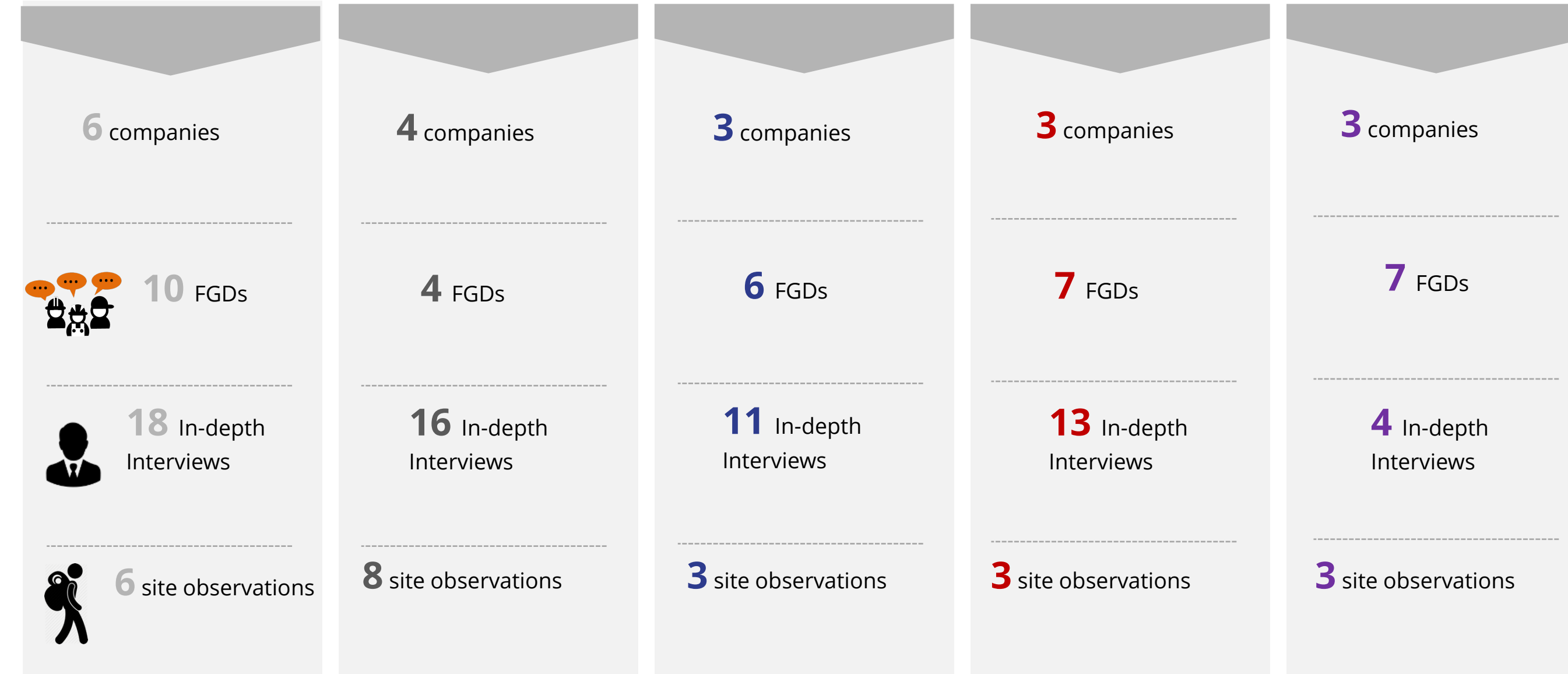
Manufacturing  
and Metalworking



Marines Industries



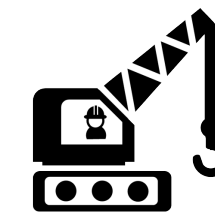
Hospitality and  
Entertainment  
Industries



## 2.2. Overview of Findings

### Safety Climate across 5 Industries

**By Industry:** No. of participating companies, FGDs, in-depth interviews and site observations



Construction



Logistics and  
Transport



Manufacturing  
and Metalworking



Marines Industries



Hospitality and  
Entertainment  
Industries

### Organizational Structure

- **Type of industry and structure**
  - Safety department structure
- **In-house/ outsource workers ratio**
- **Customer relations, product type and safety**
  - Direct/ indirect customer relations
  - Clients safety demands and needs

### Communication

- **Ambience of sharing options**
  - Suggestion box (management-centric)
  - Moving beyond compliance
- **Materials**
  - Visual materials
  - Social media and intranet
- **Communication types**
  - Toolbox meeting
  - Text-based communication
  - Mobile-mediated communication

### Compliance: Reward and Penalty

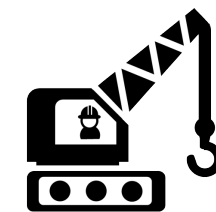
- **Incentives**
- **Prizes**
- **Warning, Fines, Wall of Shame**

Safety  
Climate



# 2.2. Overview of Findings

## Safety Citizenship across 5 Industries



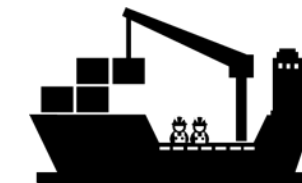
Construction



Logistics and Transport



Manufacturing and Metalworking



Marines Industries



Hospitality and Entertainment Industries

- Transformational Leadership**
- **Encouraging innovation (campaign, competition)**
    - Technology innovation
    - Safety innovation
  - **Voice**
    - Empowering workers to suggest innovations for safety and productivity
    - Spot the hazard campaign
    - Egalitarian stop card

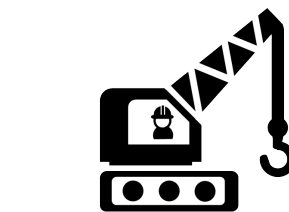


- Responsibility**
- **Coaching**
    - Learning by doing
    - Active learning – learning through role-play



## 2.2. Overview of Findings

### Social Contract across 5 Industries



Construction



Logistics and  
Transport



Manufacturing  
and Metalworking



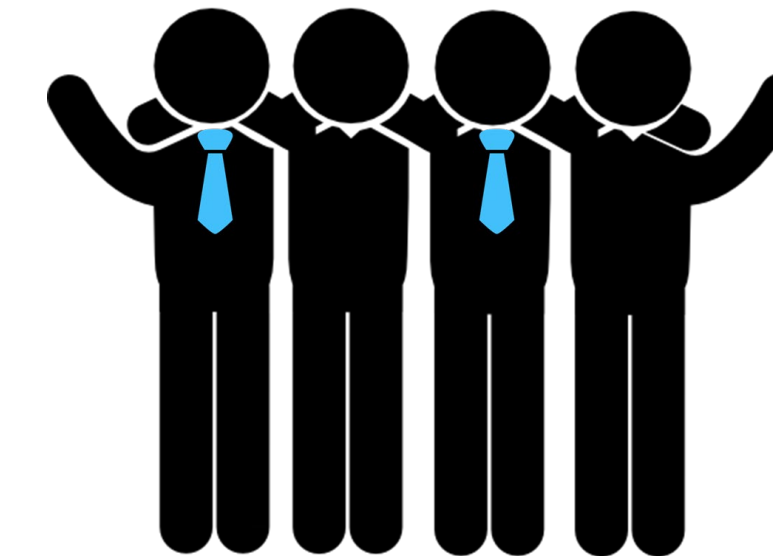
Marines Industries



Hospitality and  
Entertainment  
Industries

#### Employee well-being

- Care for each other
- Enrichment



### Social Contract

#### Commitment

- **Intra/inter connections**
  - Intra-group
    - Worker-supervisor
    - Workers etiquette
  - Inter-group
    - Worker level
    - Management level
- **Mentorship**
  - Buddy system
- **Company as family**
  - Workers welfare
  - Company events

## 2.2. Overview of Findings

### Challenges to WSH ownership !

#### Safety climate

- **Top-down** one way communication
- More **formal policies to policy-in-action**
- Challenges related to **leadership** style
- The need to balance the tension between **productivity and safety**

#### Safety citizenship

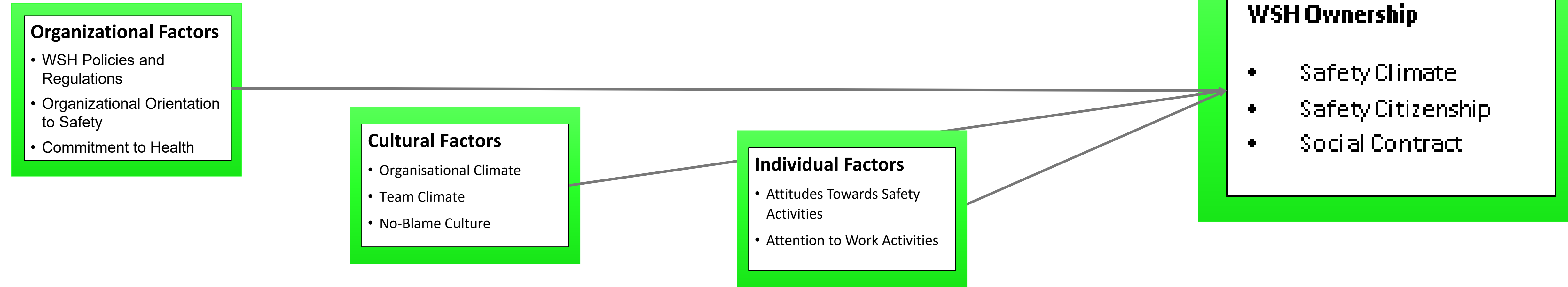
- The nature of **fragmented identity**
- Relying on **external extrinsic motivation** and external safety rules and procedures
- Workers have **less autonomy** in voicing out concerns
- Ensure to develop **holistic safety citizenship behaviours**

#### Social contract

- **Development of trust** in management as well as among co-workers
- Need to explore **innovative ways** to incorporate workers' feedback
- Identifying and appointing **safety leaders**
- Maintaining **multi-way communication and voluntary commitment** between workers

# **Key Achievement 2: Validating Ownership Tool**

# Validated Ownership Tool



## **Key Achievement 3: WAT4M**

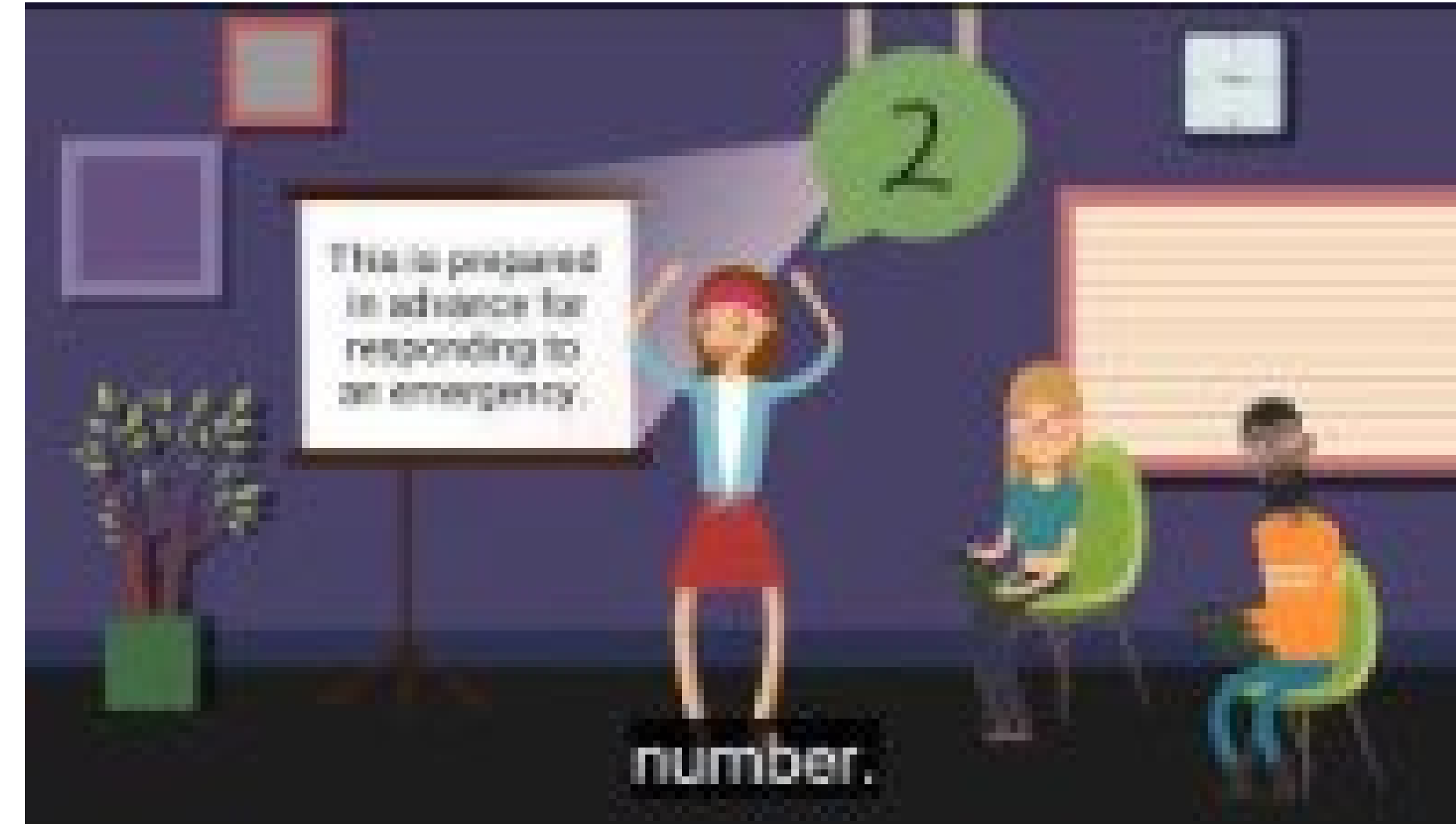
**WAT4M**



## **Key Takeaway 4: Training Materials (gamified activities)**



# Minigames



# WOW Card Game Simulation



# **Pilot Testing Gamified Activities**

# Pilot Testing Gamified Activities

- Showcasing Knowledge
- Cultivating Teamwork
- Enhancing Decision-making Processes
- Empowering Workers
- Cultivating No-blame Culture and Inclusivity

# **Insights and Lessons Learned**

# Insights and Lessons Learned

- **The importance of research-based games**
  - Provides solid and informed basis for game design
  - Rigorous procedures
  - Effectiveness testing
- **Advantages of games designed as open system:**
  - Game can be played in competitive and collaborative modes
  - Game materials can be used by companies to expand knowledge and encourage discussions
- Games can be used during toolbox meetings

# Accessibility to Gamification as Training Materials

## – Accessibility:

To gamification for training

- Digital gamification
- Non-Digital
- Hybrid format:
  - Developing mobile version of WoW game

– Time Constraints

- Game as open system provides opportunities to use gamified activities as part of toolbox meetings or as dedicated activity

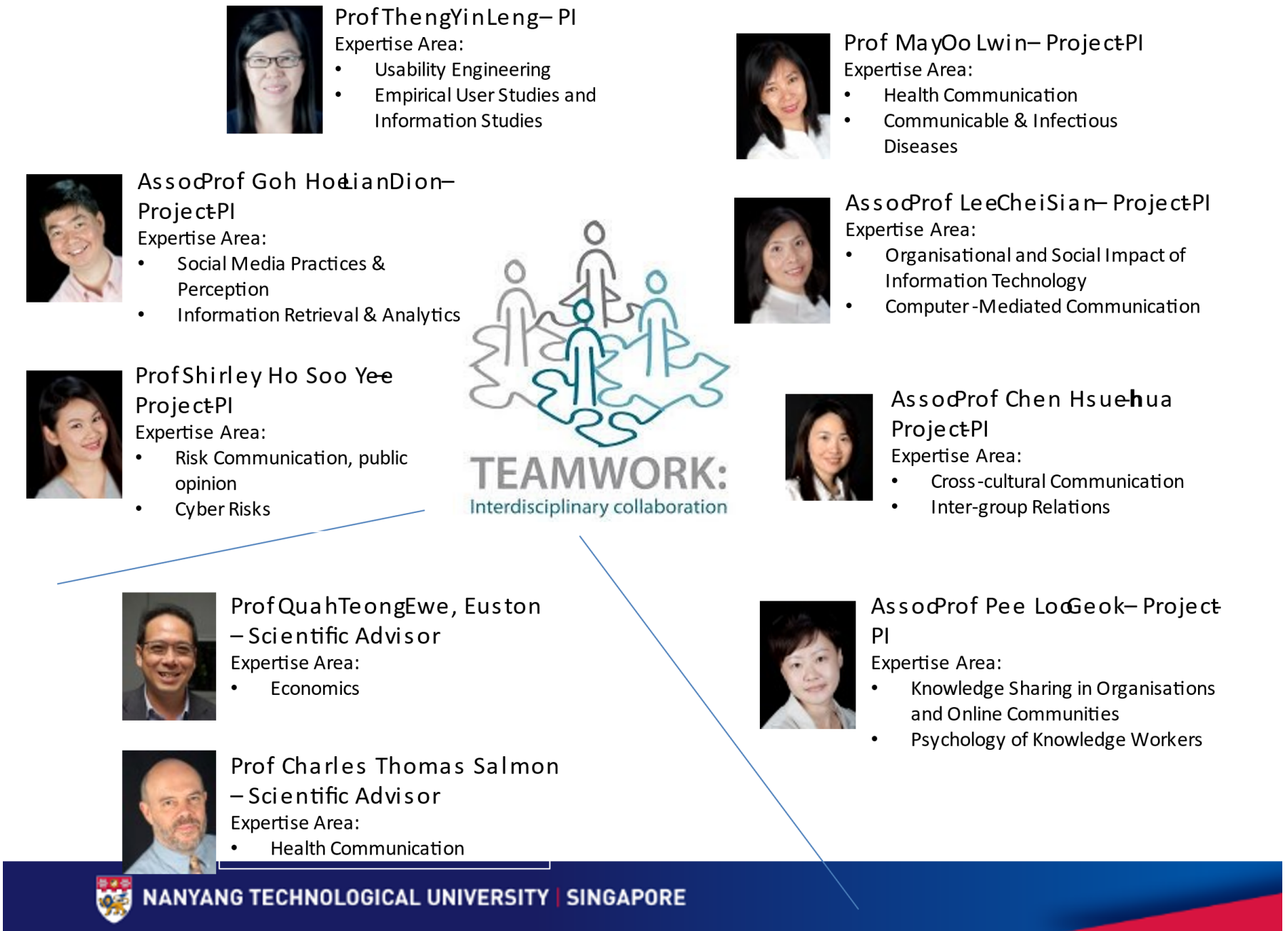
– Access to digital learning through mobile devices

# Invitation to Collaborations Across Countries

- Proposed Hybrid Model of Gamified Activities to Enhance Accessibility and ease of use
- Develop and test mobile WSH games



# Credits



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