



**Pandemic Influenza Preparedness:
Partnerships and Continuity Planning for Critical
Systems**

**Information Sharing/Cooperation on
Preparedness between Private and Public
Sectors**

Chinese Taipei

May 30, 2008



Major milestones mark the progress of influenza pandemic preparedness in Chinese Taipei

2003.12	Initiated Preparedness for influenza pandemic
2003.12	began stockpiling antivirals
2004.9	Commenced regular Preparedness Meeting at the DOH level
2004.12	Subsumed the “infection of novel influenza virus” as a notifiable disease
2005.7	Conducted the first exercise for pandemic responses (Afterwards 11 exercises have been conducted)
2005.8	Commenced High-level Meeting at the level of President’s office
2005.11	Commenced regular Coordination Meeting at the Executive Yuan level
2006.1	Launched flu vaccine local production capacity program
2006.7	Advocated initiating continuity plan across governments & industries



Information Sharing

- Risk communication
 - Global situation update and development
 - National strategy
- Guidelines
 - Business Continuity Management for flu pandemic (Industrial Technology Research Institute)
 - Infection Control Practices in Workplace (Taiwan CDC)



Flexible & efficient human resources regulation

- Regulate the presence & absence of governmental employees during pandemic (Central Personnel Administration)
- Request all units to scheme manpower deployment plan (Central Personnel Administration)
- Regulate the labor rights during pandemic (Council of Labor Affairs)



Critical infrastructure protection

- 11 critical functions under jurisdiction of 9 ministries
- Basic requirements
 - Plan for response or business continuity
 - Emergency contact network
 - Manpower support system (within or between facilities)
 - Measures for personnel protection
 - Alternative ways of continuous operation
- Conduct exercises
 - 2007.8: Drill for Working at Home (CDC)
 - 2008.8 : Table-top for Central Government continuity (Executive Yuan)



Critical functions & Responsible ministries

Electric power	Ministry of Economic Affairs
Energy	
Water	
Transportation	Ministry of Transportation
Food & Agriculture	Council of Agriculture
Emergency services	Ministry of Interior
Health care	Department of Health
Banking and Finance	Financial Supervisory Commission
Telecommunication	National Communication Commission
Waste Disposal	Environmental Protection Administration
Education	Ministry of Education



Drill for Working at Home



Video-conference



Communicating via MSN, Skype



Business continuity

- Current situation
 - Larger and international enterprises are better prepared
 - SMEs need to be strengthened
- Encourage the enterprises to promote their preparedness for continuity
 - Held Conferences in Science Park (National Science Council)
 - Assist some enterprises to apply the international standard system (Ministry of Economical Affairs)
- Future perspectives
 - Large enterprises could be the benchmark
 - Broaden the coverage through supply chain



TSMC Pandemic

Preparedness

- ❑ About TSMC
- ❑ Pandemic Risk Management Flow and Organization
- ❑ Cooperation between Public and Private Sectors
- ❑ Pandemic Business Continuity Plan
- ❑ Supply Chain Consolidation
- ❑ Actions in Different Phases
- ❑ Rules Documented

TSMC / Fang-ming Hsu

May 30, 2008

fmhsua@tsmc.com



About TSMC

(Taiwan Semiconductor Manufacturing Company, Ltd.)

- ❑ Founded in 1987, TSMC was the first and is the largest IC foundry in the world.
- ❑ Revenue for 2007 reached US\$ 9.82 billion; net income was US\$3.35 billion.
- ❑ One of DJSI World company since 2001



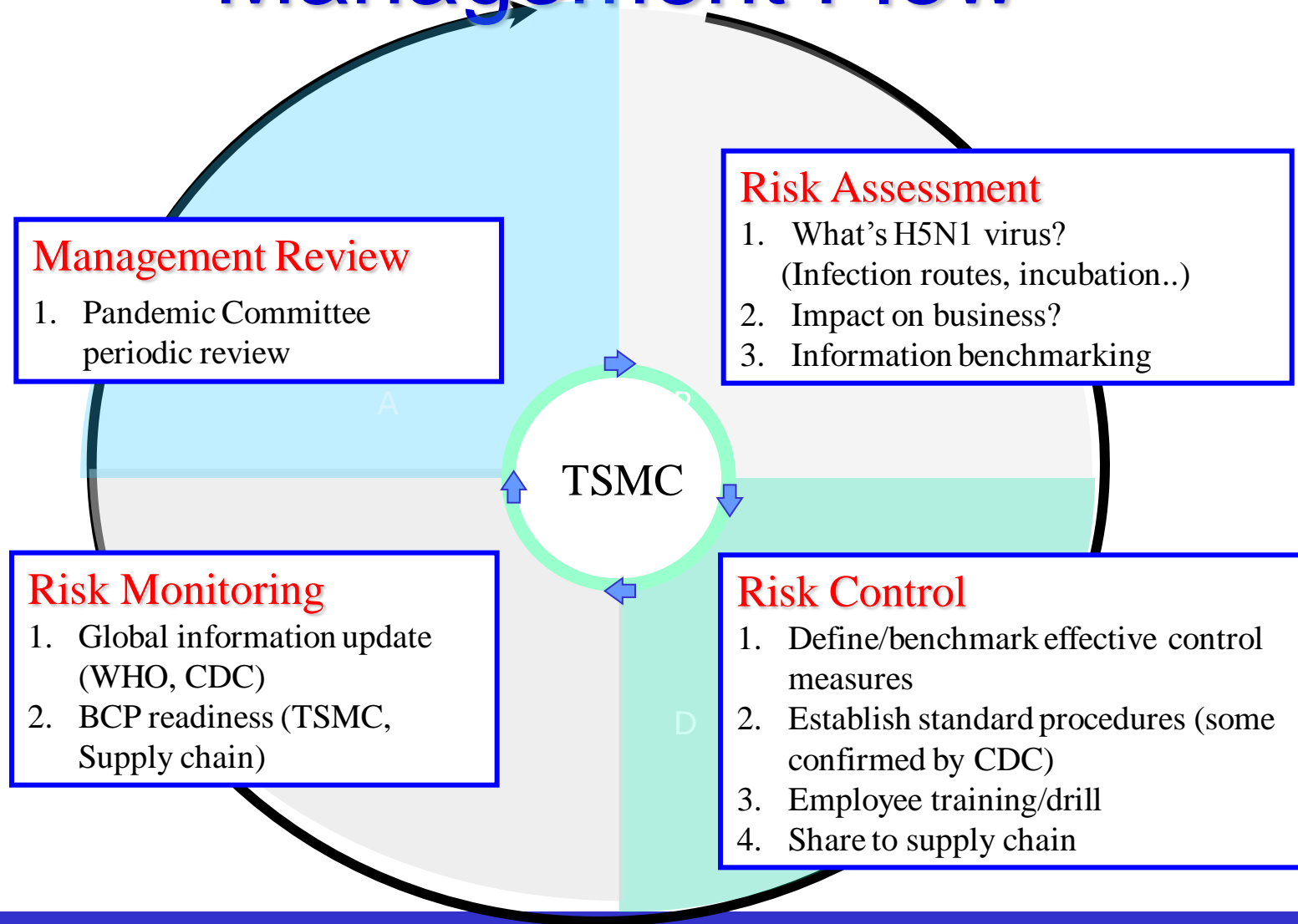
TSMC Headquarters
Hsinchu Taiwan





Pandemic Risk

Management Flow





Asia-Pacific Economic Cooperation Pandemic Committee

Chairman: Senior VP

Corporate ESH

◆ Define general guidelines

Customer Service

Operations

Human Resource

Public Relation

COSD

Fab. Fac/ESH

- ◆ Communicate with customers for all related status including product delivery

- ◆ Execute emergency responses
- ◆ Production continuity plan

- ◆ Site Health Centers
- ◆ Training support
- ◆ Kitchen service actions
- ◆ Workforce allocation support
- ◆ Traveling restriction

- ◆ Communicate with media and other external parties

- ◆ Visitor control for hands washing, body-temp. screening, mask wearing

- ◆ Develop site response procedures
- ◆ Employee training
- ◆ Conduct site responses

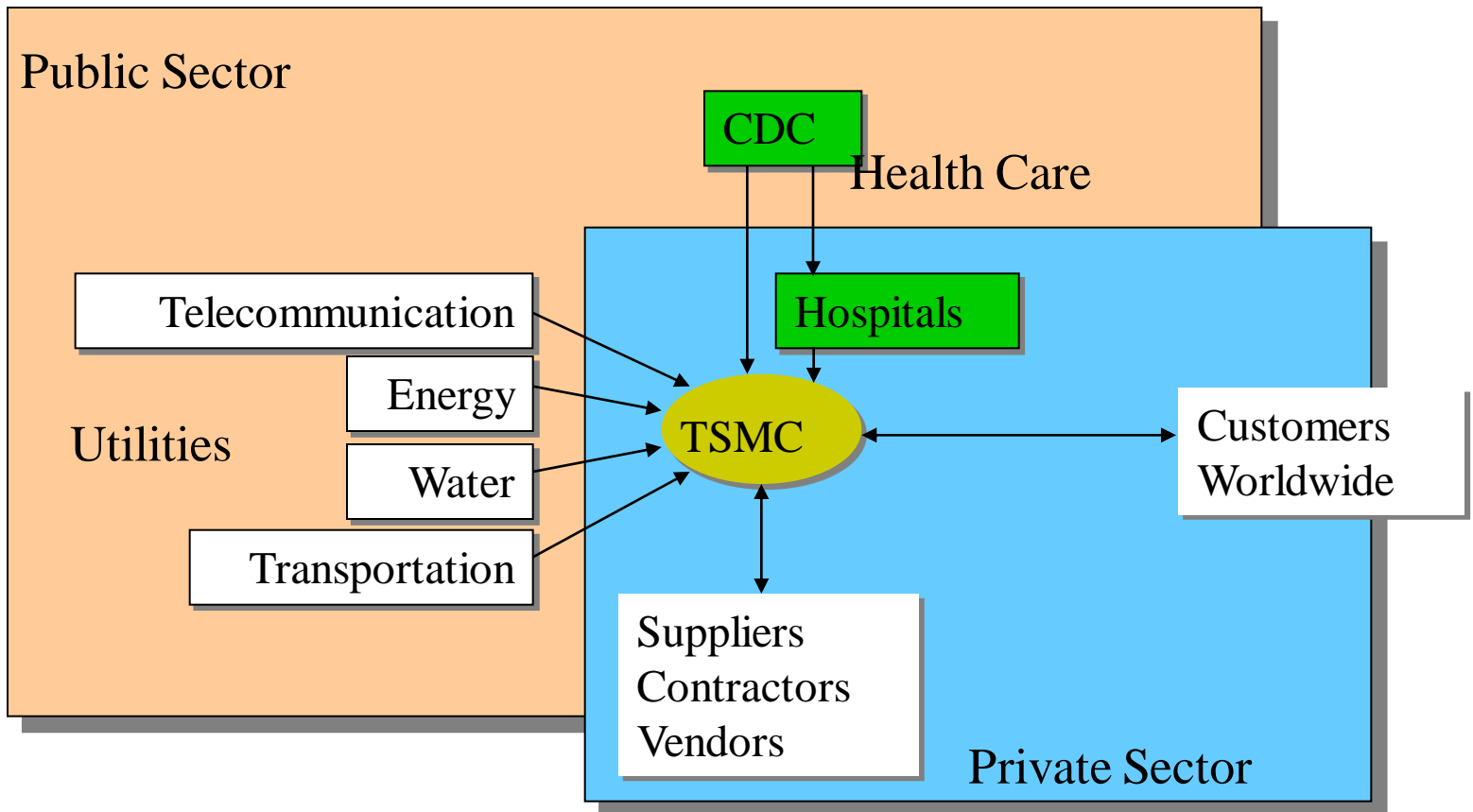
COSD: Corporate Security Division
 FAC: Facility Departments
 ESH: Environmental, Safety, Health



Asia-Pacific Economic Cooperation Partnership and Collaboration

Public with Private Sectors

- ❑ Preparation Stage: Public and private sectors collaborate.
- ❑ Emergency Response Stage: Private sector fully relies on public sector.



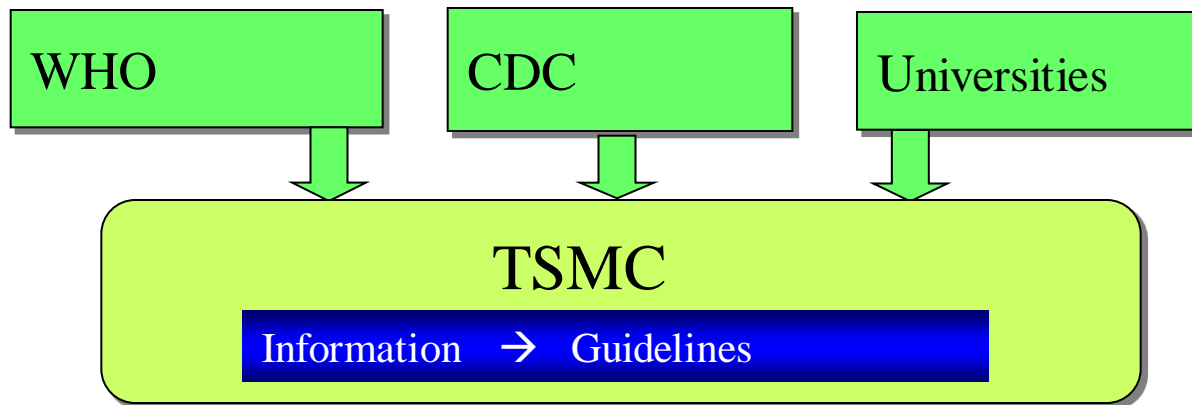


Asia-Pacific Economic Cooperation Cooperation at Preparation Stage

Public and Private

General Information

- Pandemic Influenza knowledge
- Global Pandemic update
- Infection Control at Workplace
- Public Pandemic Strategy



Effective/Feasible Guidelines

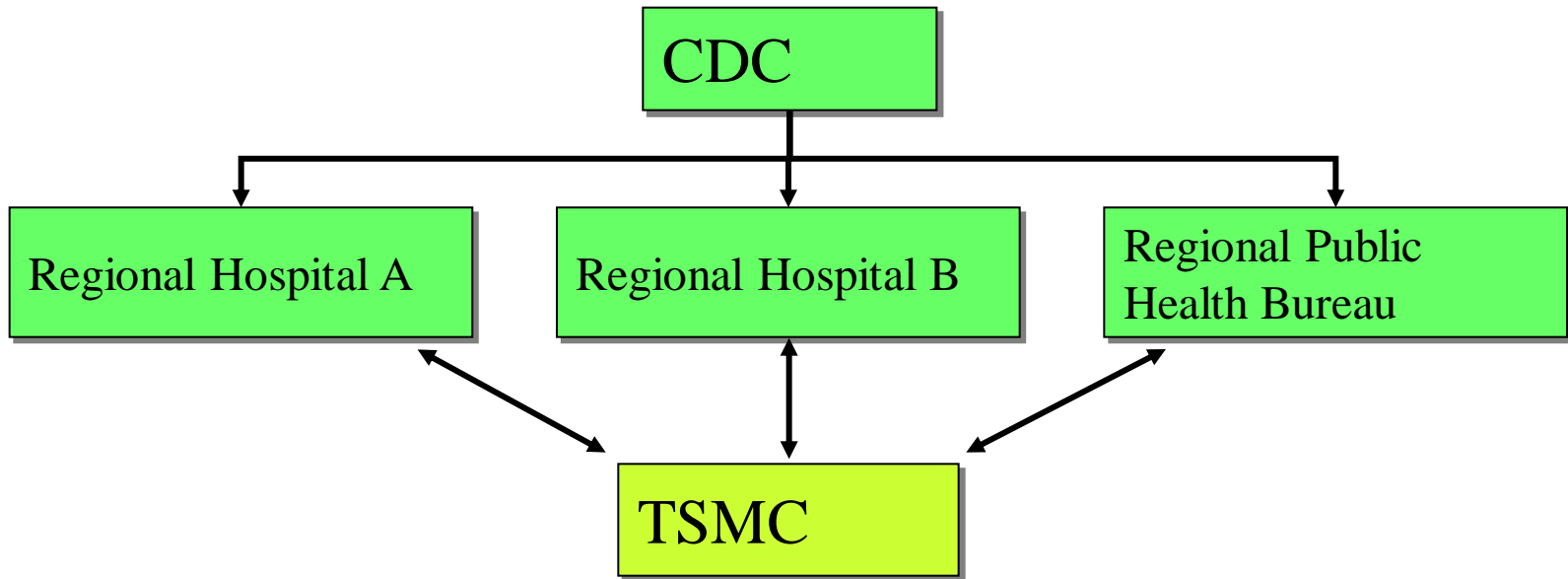
- Personnel Protection Rule
- Workplace Specific Rules: Cleanrooms, Office,...
- Quarantine and Release Rules
- Business Continuity Plan





Cooperation in Drill / Real Case

Public and Private



Focus on :

- Emergency Reporting Mechanism
- Case Inspection
- Medical Treatment
- Home Quarantine Support
- Labor Allocation at Workplace



Pandemic Business Continuity Plan (BCP)

TSMC's Pandemic BCP divides into two stages:



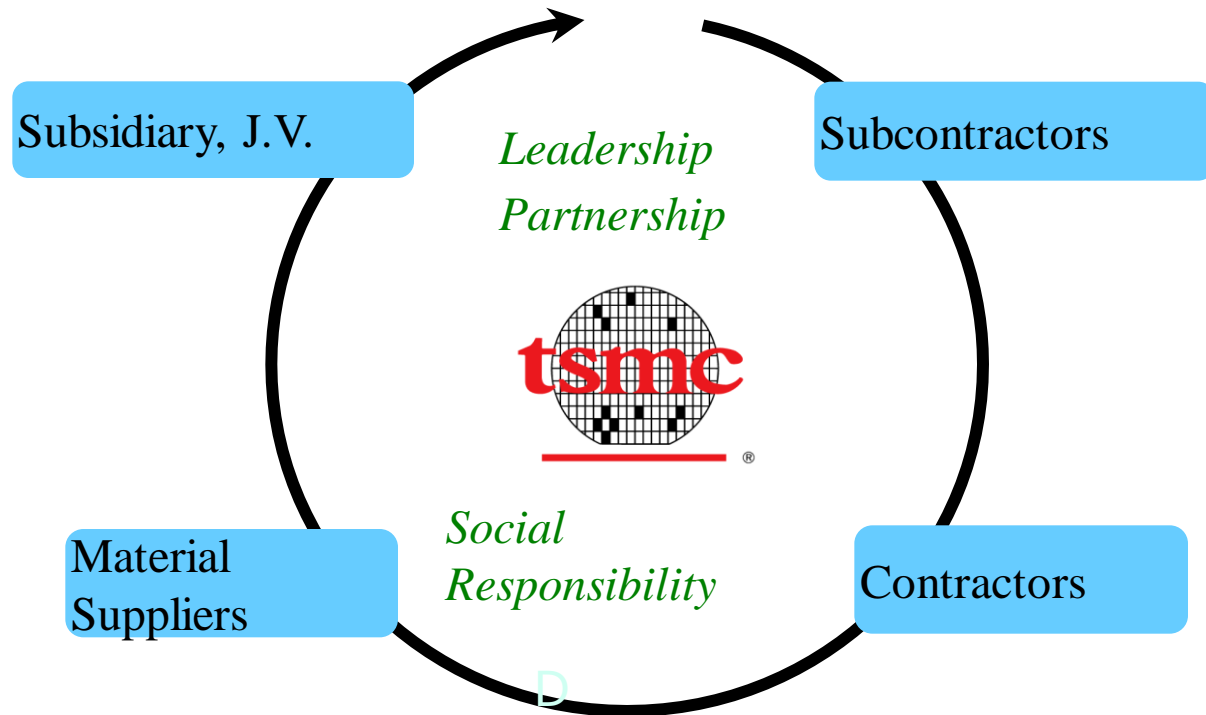
(*) Based on the readiness of medical treatment

(**) Assume that humankind will build up immunity against the disease in 3-4 months.



Asia-Pacific Economic Cooperation Supply Chain Consolidation

- ❑ Share pandemic guidelines/procedures to supply chain
- ❑ Audit suppliers' business continuity plans
- ❑ Drill with key suppliers





Asia-Pacific Economic Cooperation Actions at Different Pandemic Stages

Level O	Level A2	Level A1	Level B	Level C
1.No human-to-human transmission globally 2.No domestic avian-to-human transmission	Avian-to-human transmitted case or imported case occurred in Taiwan	Human-to-human transmission confirmed by WHO	First confirmed case of human-to-human transmission domestically	Secondary human-to-human transmission reported domestically

- | | | | |
|---|--|---|---|
| <ul style="list-style-type: none"> ◆ Organize pandemic response team ◆ Monitor CDC and WHO Information ◆ Educate employees ◆ Prepare masks, thermometers, hands washers,... ◆ Develop “Avian Flu Response Procedures” ◆ Execute food safety control | <ul style="list-style-type: none"> ◆ Visitors wash hands ◆ Workers wear masks if catch cold. ◆ Employee Anti-pandemic guideline ◆ Monitor sick employees closely. ◆ Employee Traveling Management | <ul style="list-style-type: none"> ◆ Organize the committee ◆ Execute temperature screening for all at points of entry ◆ Start employees traveling restriction | <ul style="list-style-type: none"> ◆ Everybody washes hands while entering company sites. ◆ All employees wear masks while staying in company. ◆ Enhance sterilization program at sites. ◆ Cancel unnecessary meetings, appointments, and other gatherings. ◆ Trigger emergency response plan while any real case found at TSMC. ◆ Keep customers closely informed. |
|---|--|---|---|

Note: Defined by CDC (Center of Disease Control), Chinese Taipei



Asia-Pacific Economic Cooperation Rules Documented

1. Contagious Disease Risk Management Guideline
2. Cafeteria and Kitchen Management
3. Employee Anti-Pandemic Guideline
4. Employee Traveling Restriction Rule
5. Employee Segregation and Leave Management
6. Emergency Response Procedure
7. Pandemic Personnel Protection Guideline
8. Pandemic Visitor and Contractor Management
9. Pandemic Gathering Guideline
10. Pandemic Waste Treatment
11. Pandemic Environment Control Guideline