

# Taiwan Semiconductor Manufacturing Company, Ltd.

## Risk Management Overview

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# Agenda

- **Welcome to TSMC**
- **TSMC Company Profile**
  - Video show
  - Presentation
- **TSMC RM Philosophy**
- **TSMC Enterprise Risk Management Program**
- **Case Sharing**
  - Earthquake protection and response

# Awards Honoring TSMC



- **Most Admired Company in Taiwan** (*CommonWealth Magazine*, October 2006 – for the tenth consecutive year)
- **Best Managed Companies in Taiwan – Large Cap** (*Asiamoney*, January 2006)
- **Best Managed Company, Best Corporate Governance, Best Investor Relations and Best Committed to Strong Dividends in Taiwan**  
(*FinanceAsia*, 2006)
- **Best Investor Relations by Asia-Pacific Companies in the US Market**  
(*IR Magazine*, March 2006)
- **Grand Prix for Best Overall Investor Relations at a Taiwanese Company – Large Cap** (*IR Magazine*, December 2006)
- **Corporate Governance Asia Recognition in Taiwan** (*Corporate Governance Asia*, September 2006)
- **Excellence in Corporate Social Responsibility** (*CommonWealth*, 2007)

# TSMC Risk Management Commitment

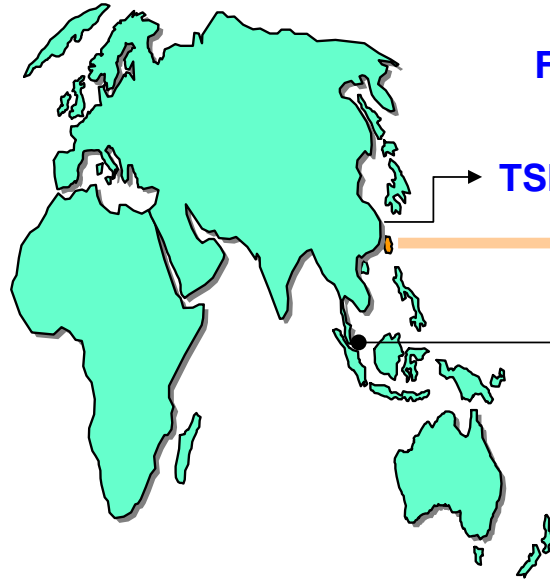


“Risk management is a business strategy and not insurance-driven.

It is TSMC’s first line of defense in protecting the interest of our stakeholders’, shareholders’ and customers.”

# TSMC Global Production Facilities

WaferTech



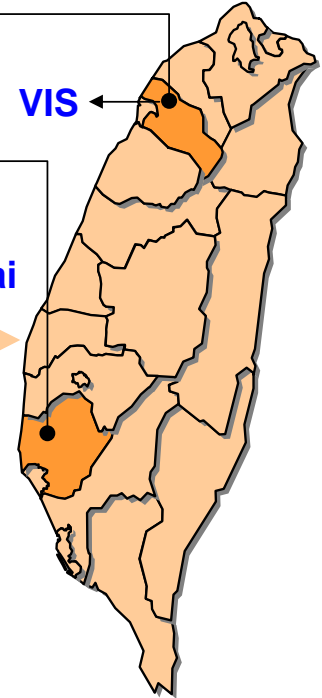
Fabs 2, 3, 5,  
8 & 12

VIS

Fabs 6, 14

TSMC Shanghai

SSMC



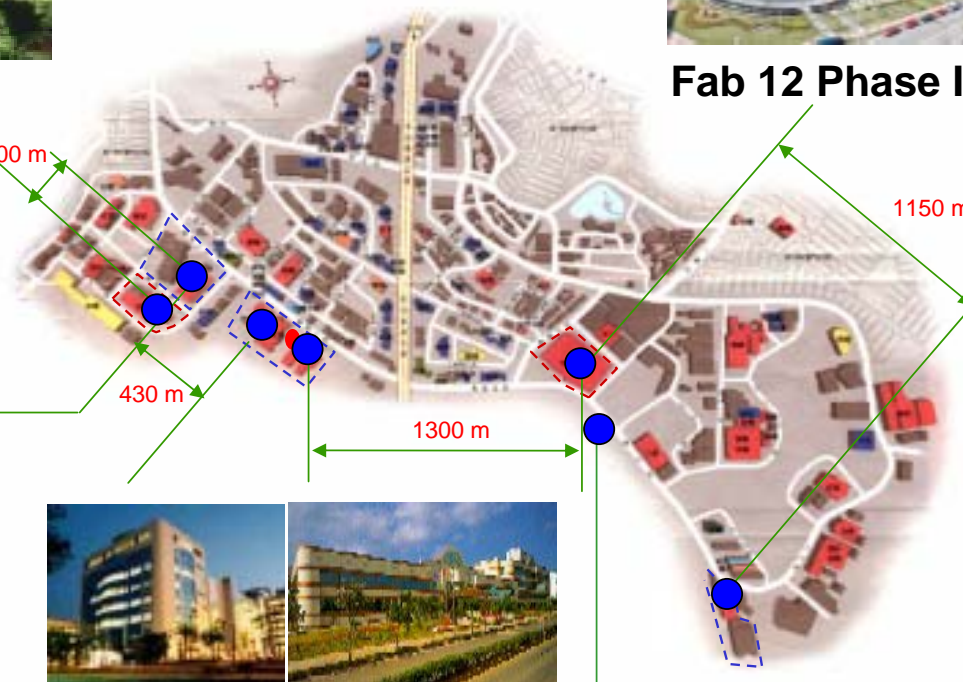
# TSMC Fabs in Hsin Chu



**Fab 3**



**Fab 12 Phase I & II**



**Fab 3E**



**Fab 8**



**Fab 5**

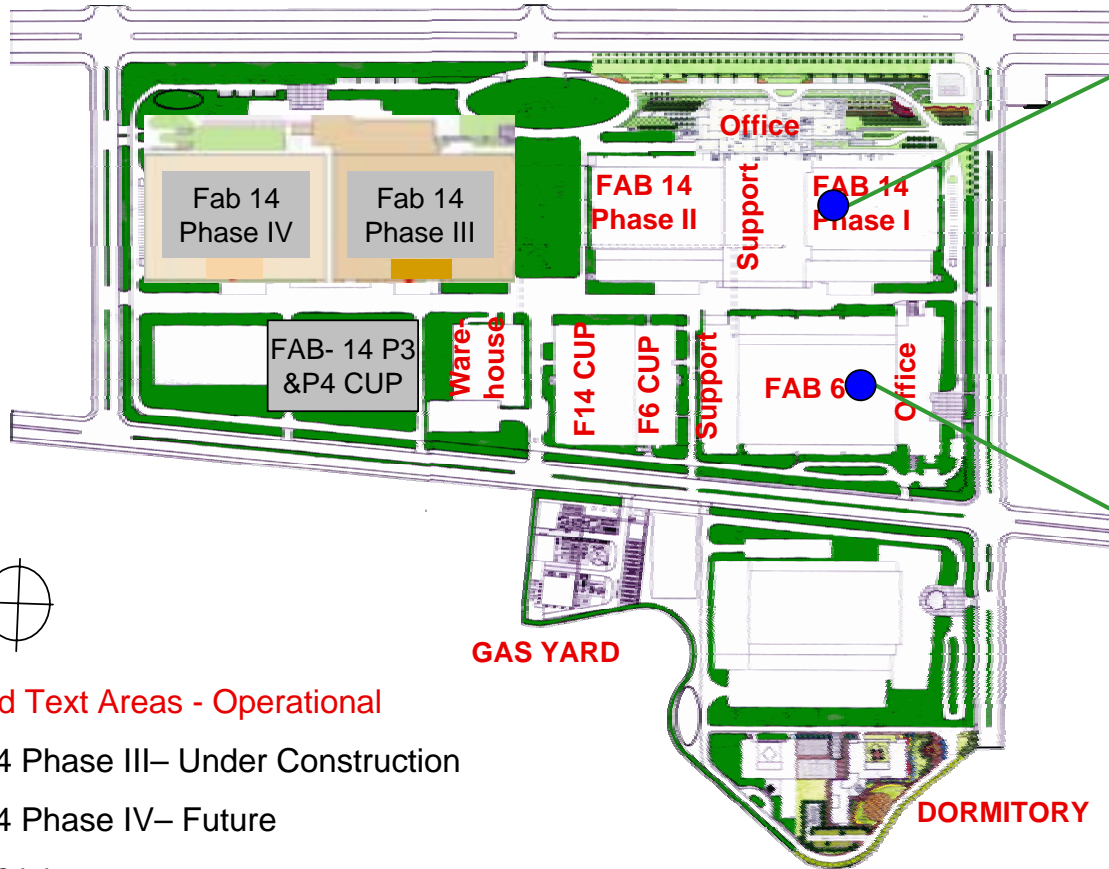


**Fab 2**

**Fab 12 Phase III**



# tsmc's Tainan Campus



**Fab 14 Phase I & II**



**Fab 6**



Red Text Areas - Operational

F14 Phase III- Under Construction

F14 Phase IV- Future

# TSMC Enterprise Risk Management(ERM)

- TSMC RM department stated in 1995 focus on production safety
- TSMC RM transformed the work scope to enterprise wide risk management in 2005

- ❖ **Objective:**

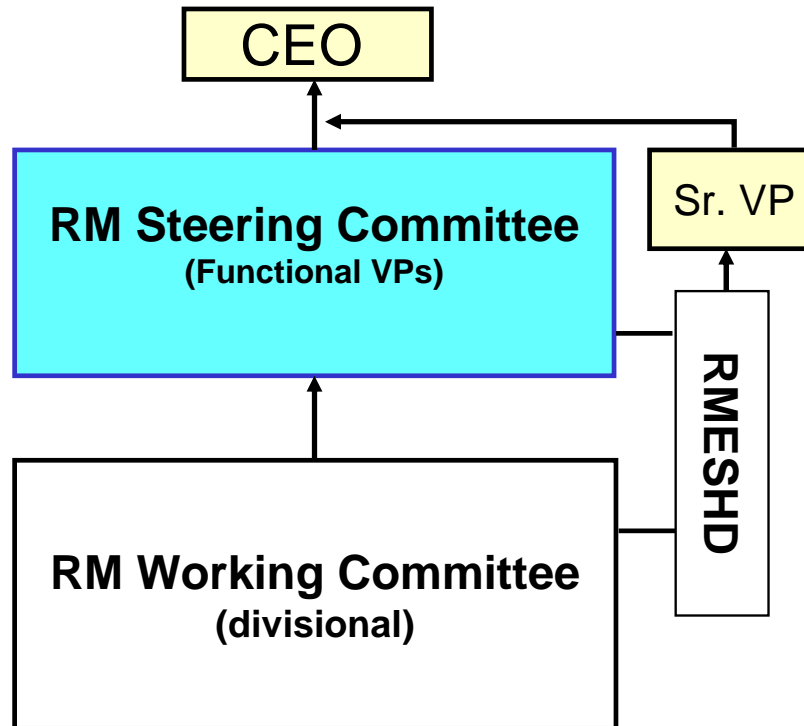
The objective of TSMC's corporate risk management is to establish a system to avoid or reduce major business risks cost effectively.

- ❖ **Approach:**

The process of corporate risk management is to define major risks' impact, controllability and cost of control, then rank them for effective execution.

- ❖ **Risk Metric**

# TSMC ERM Organization



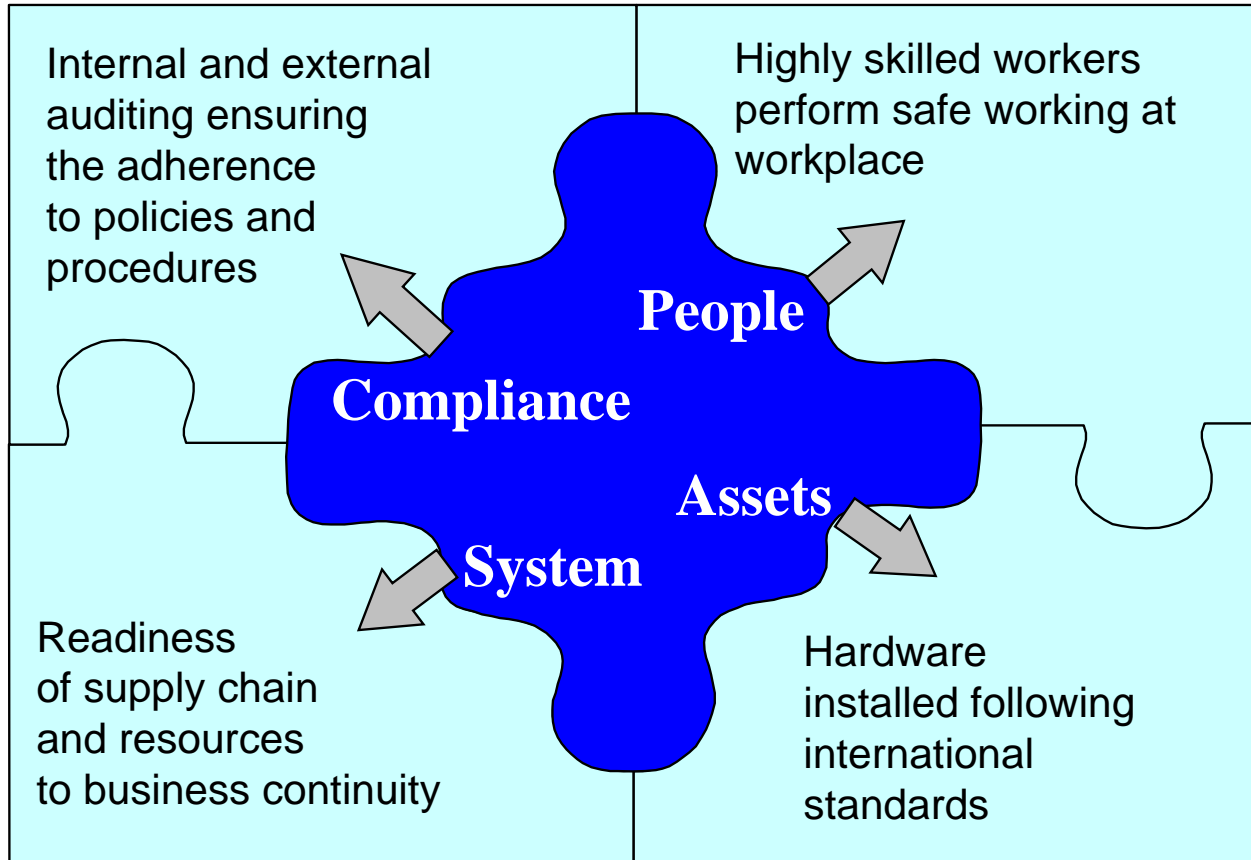
**Note: Periodically report to Audit Committee of Board**

# Risk Rating

Risk rating		Severity				
		Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood	5 Almost certain	Yellow	Orange	Red	Red	Red
	4 Likely	Yellow	Orange	Red	Red	Red
	3 Possible	Yellow	Orange	Orange	Red	Red
	2 Unlikely	Light Green	Yellow	Orange	Orange	Orange
	1 Rare	Light Green	Light Green	Yellow	Yellow	Yellow

# TSMC Risk Management Program

## A Seamless Integration of Key Elements



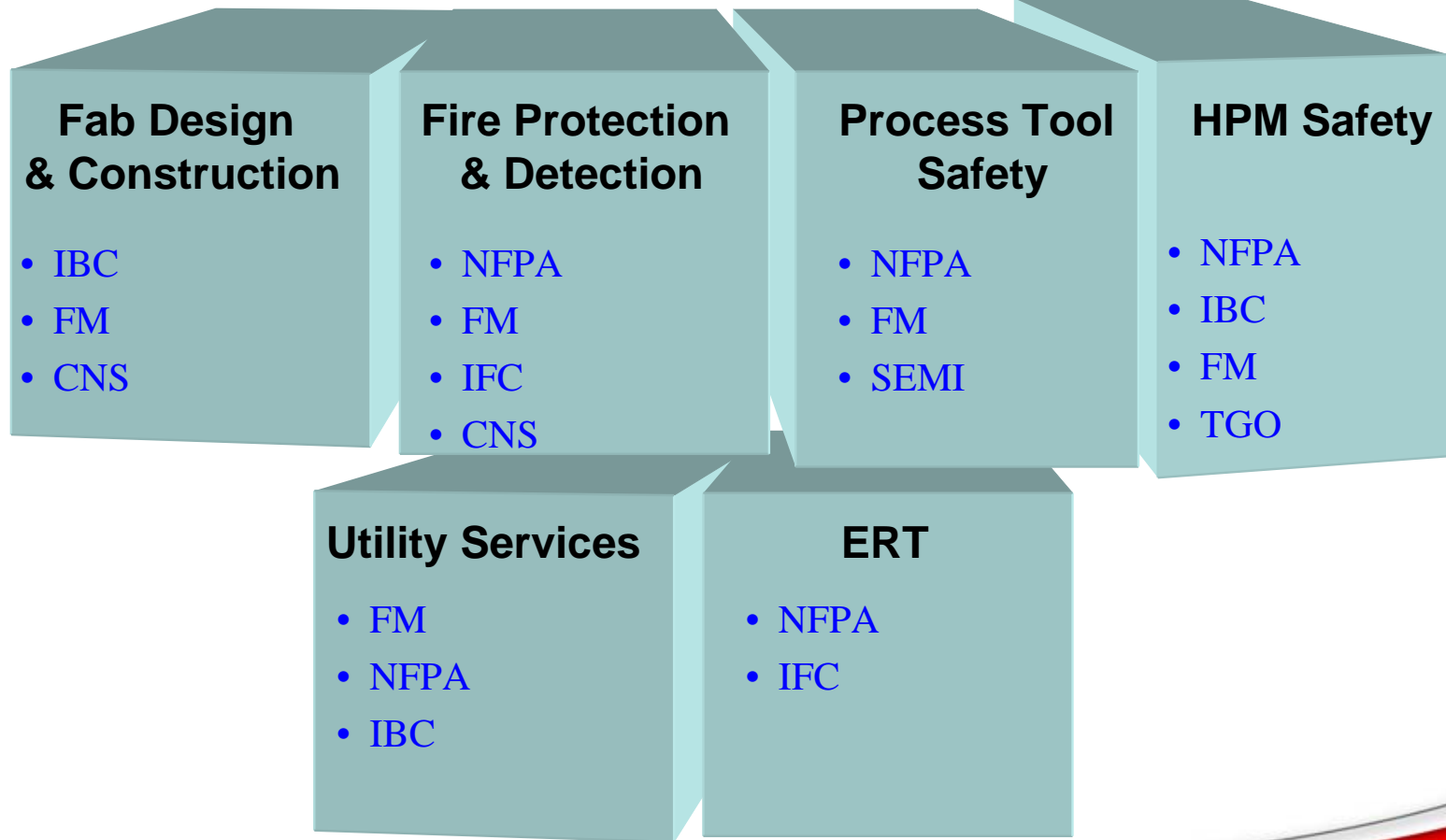
# People Element:

**To enhance employees' and contractors' safety-oriented mentality and behavior, TSMC has :**

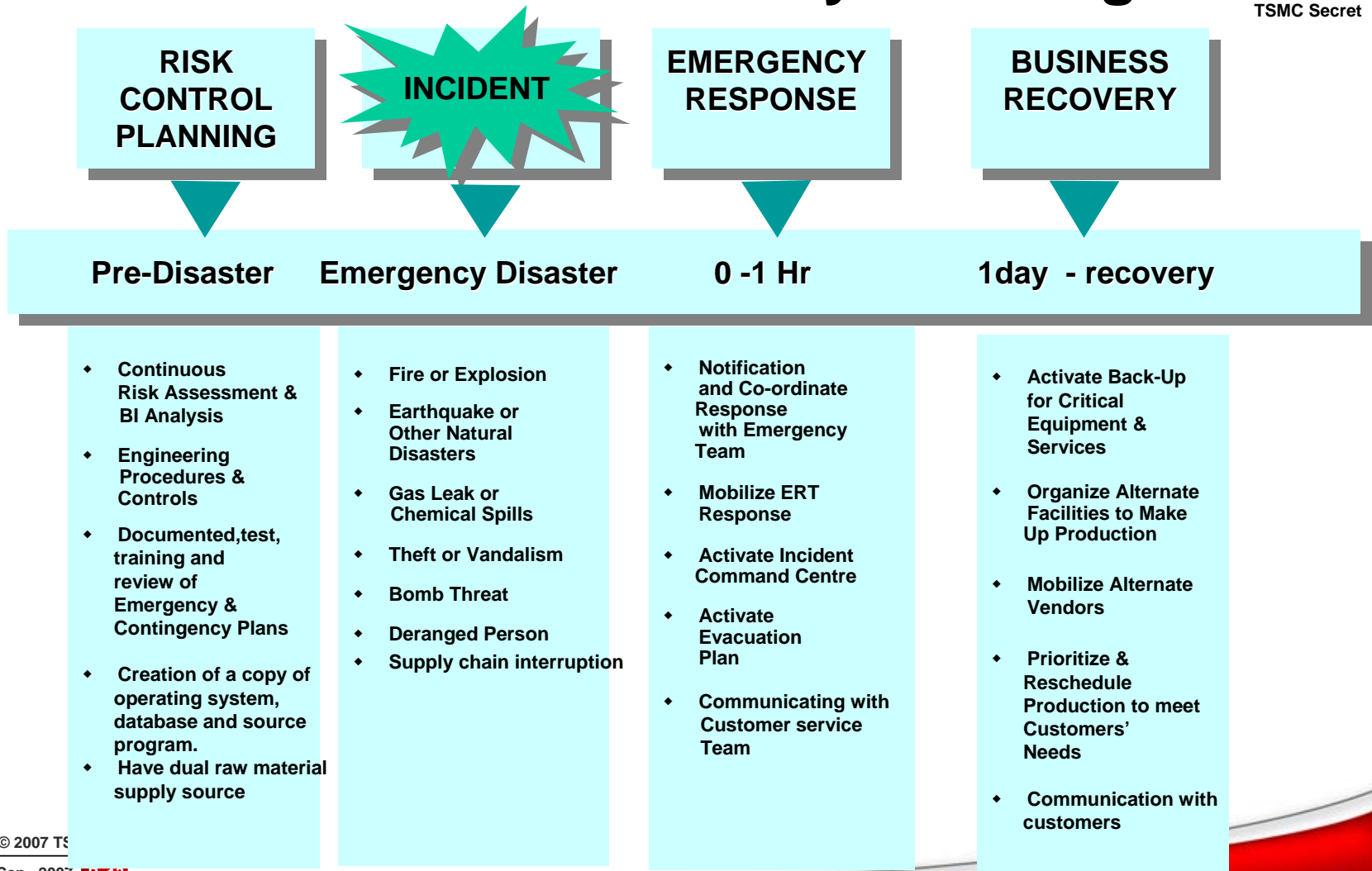
- had contractors perform high risk works be certified as OSHAS 18001 standard;
- certified high risk workers to be competent to high risk construction;
- established Safety Committee involving senior line managers to review safety issues;
- incorporated ISEP (Industrial Safety, Hygiene, and Environmental Protection) results as part of employees' performance appraisal;
- created a safe and accident free workplace through 5S promotion

# Asset Element :

## Property Protection Standards

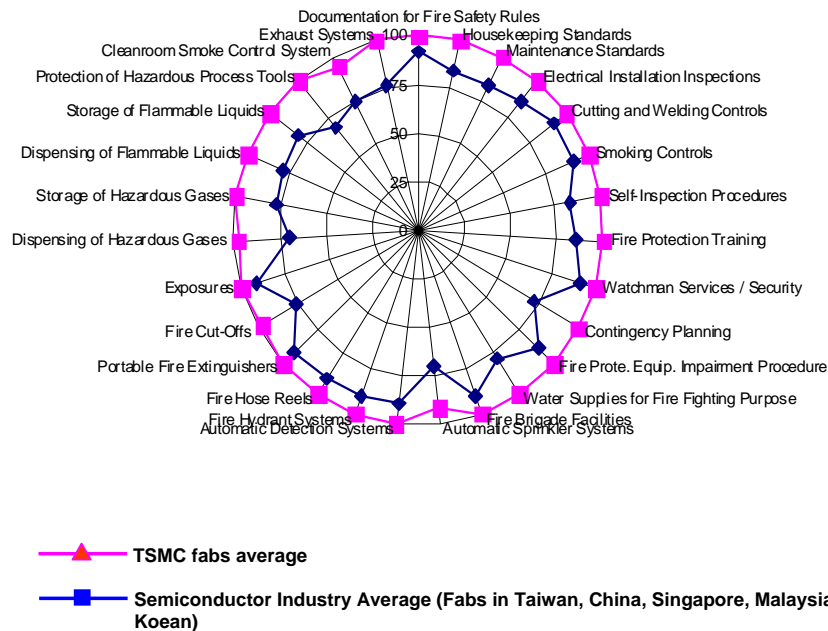


# Business Continuity Planning



# Continuous Improvement through Audit

- **Yearly Insurance Audit with Highly Property Risk Standards**



Note: Most of TSMC fabs are full 27 AAA ratings, except for fab2 & fab3

- **AAA Awards to tsmc**  
(Sites that achieve & maintain 27 AAA ratings for consecutive years):

- **Golden Award (5 years)**  
3 TSMC sites
- **Silver Award (3 years)**  
2 TSMC sites