



A System Scheme for ICS Efficiency of Korea

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INJE University Kim Kwang-II, Choi Yong-Sun

Korea Forest Research Institute Lee Myung-Bo, Koo Kyo-Sang, Kim Dong-Hyun



Content

1. Comparative Analyzation on Forest Fire Response System of Korea
2. The Now ICS of Korea
3. ICS of Korea – Perpendicularity + Horizontality
 - 3–1. Decision Tool
 - 3–2. Risk Ranking
4. Web Publishing

Comparison

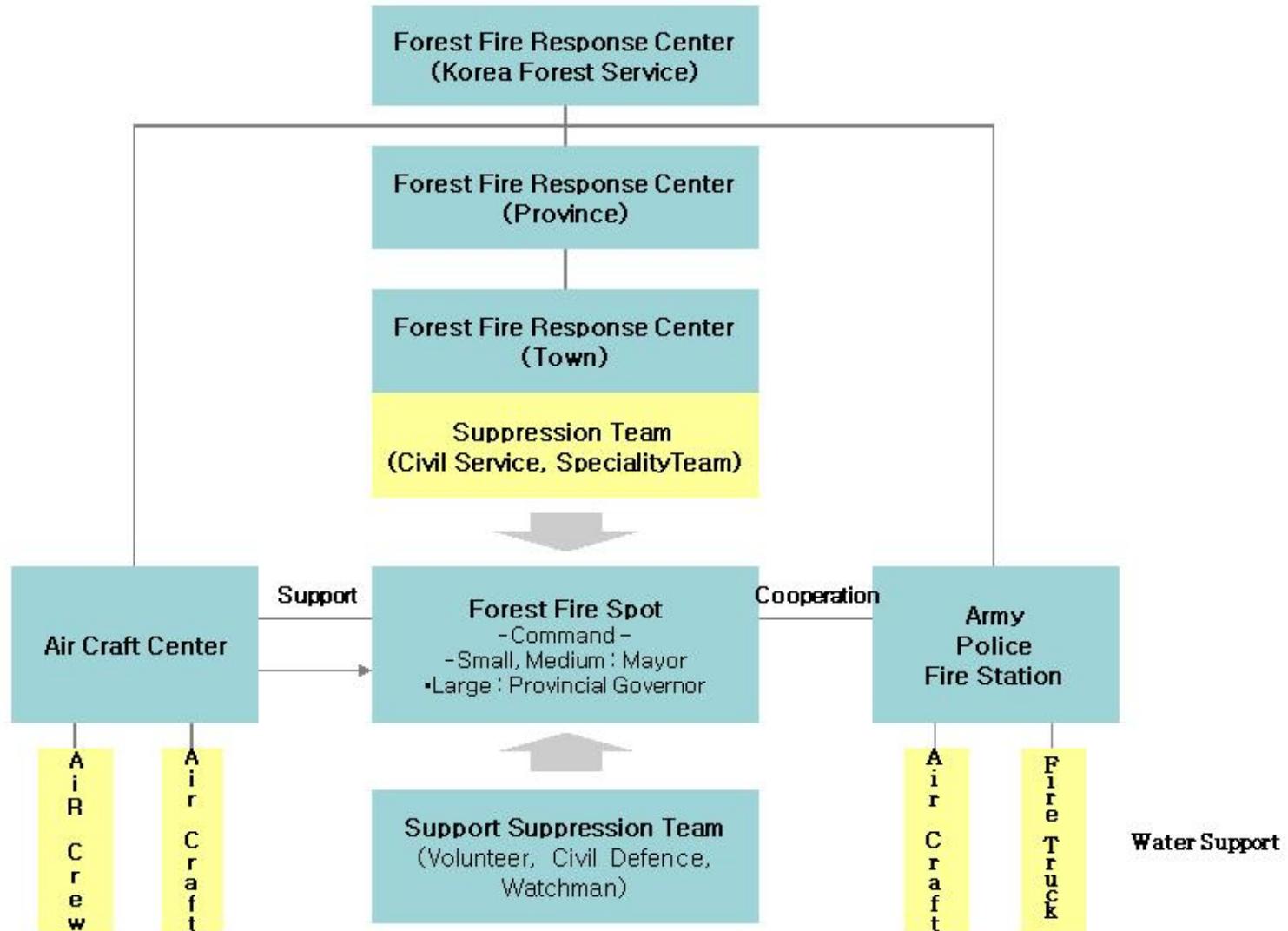
Now

1. Organization	<ul style="list-style-type: none"> IICG
2. Report	<ul style="list-style-type: none"> Situation Grasp & Moving Preparation
3. Identify	<ul style="list-style-type: none"> Suppression Team Moving Order Report & Communication Air Craft Request
4. Moving	<ul style="list-style-type: none"> Spot situation Grasp & withdrawal Route Strategy Plan
5. Arrive on the Spot	<ul style="list-style-type: none"> Staging Area Command Center Spot Situation Report
6. Activity	<ul style="list-style-type: none"> Small & Medium Forest Fire Large Forest Fire
7. Mop up	<ul style="list-style-type: none"> Build Suppression Line Mop up Team Damage Report
8. Night Forest Fire	<ul style="list-style-type: none"> Command Center Suppression Team Re-Arrangement Public Spot & Crews Safety

Study Result

 P r e p a r a t i o n	1. Organization & Management	<ul style="list-style-type: none"> Organization Management Response Center Relation Agency Management Safety & Training
	2. Devise the Graduated Project of Suppression	<ul style="list-style-type: none"> Small Forest Fire • Medium Forest Fire Large Forest Fire Extra-Large Forest Fire Mop Up
	3. Grasping the Situation & Risk Assessment	<ul style="list-style-type: none"> Report Grasping the Situation Risk Assessment
	4. Suppression Activity	<ul style="list-style-type: none"> Small Forest Fire • Medium Forest Fire Large Forest Fire Extra-Large Forest Fire Mop Up
	5. Situation End	<ul style="list-style-type: none"> Standard & Team of Role Briefing
	6. Investigation	<ul style="list-style-type: none"> Standard Final Report

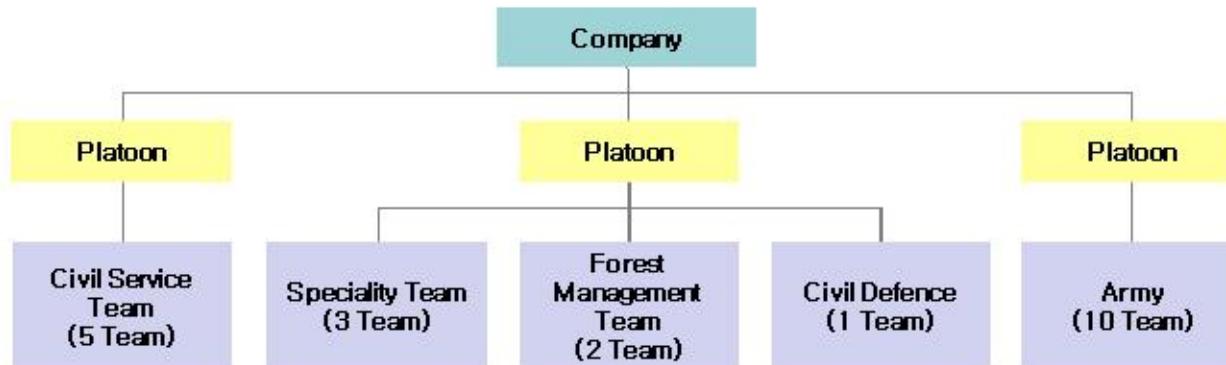
Korea Forest Service – Command System



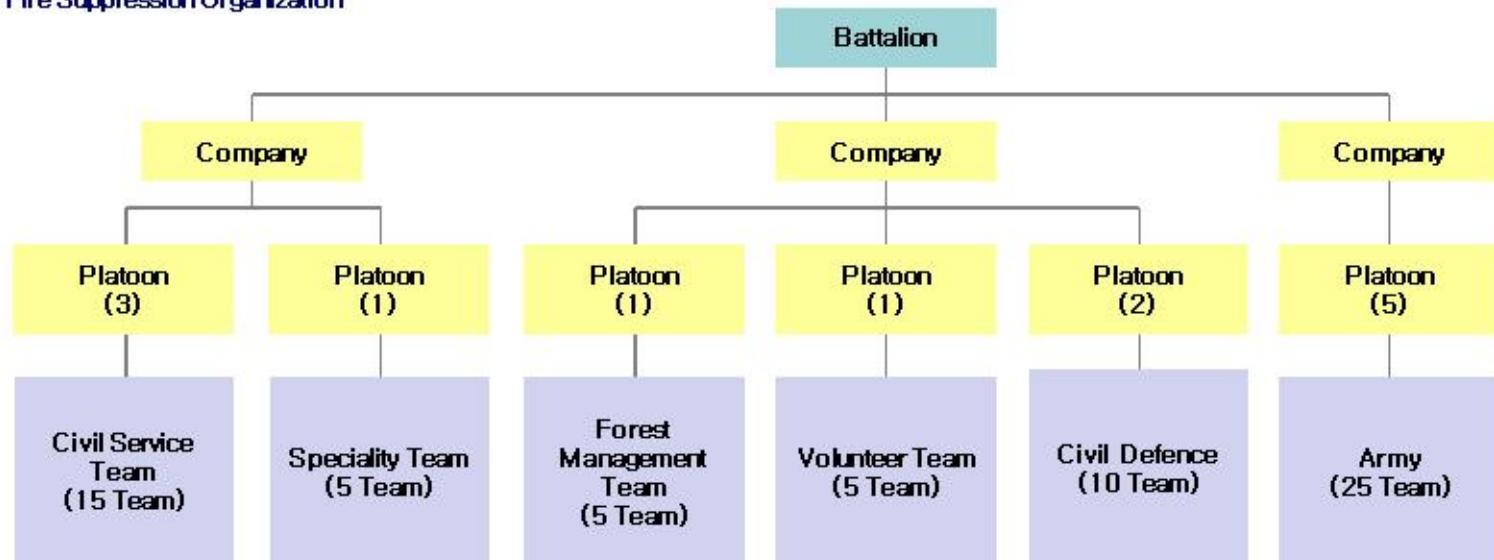


Now ICS of Korea

Korea Forest Service – Suppression Organization



Small · Medium Forest Fire Suppression Organization

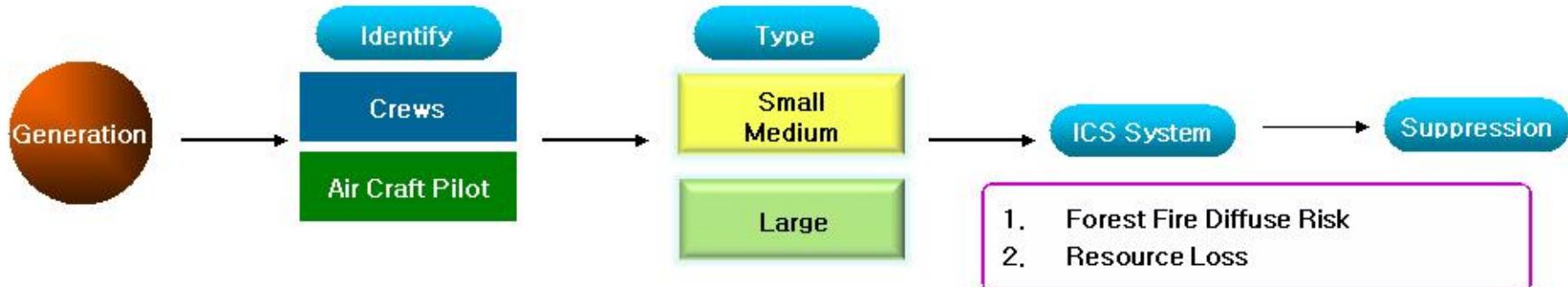


Large Forest Fire Suppression Organization

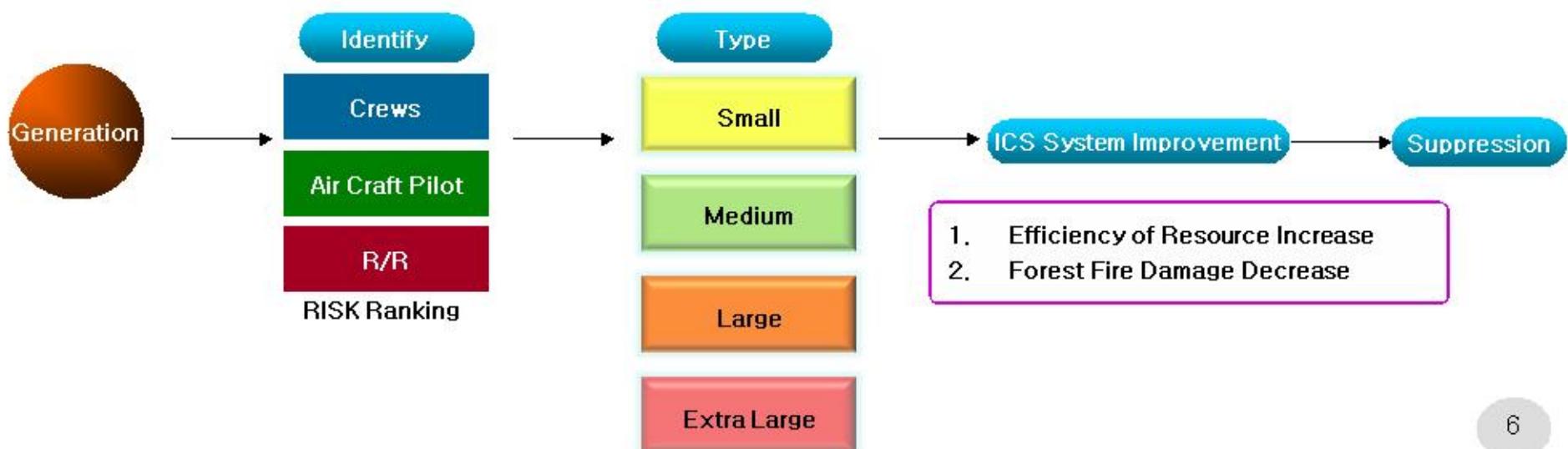


Now ICS of Korea

Now ICS System



ICS System Improvement Direction



Management

- ✓ Small Forest Fire(<1Ha) : 15 Persons

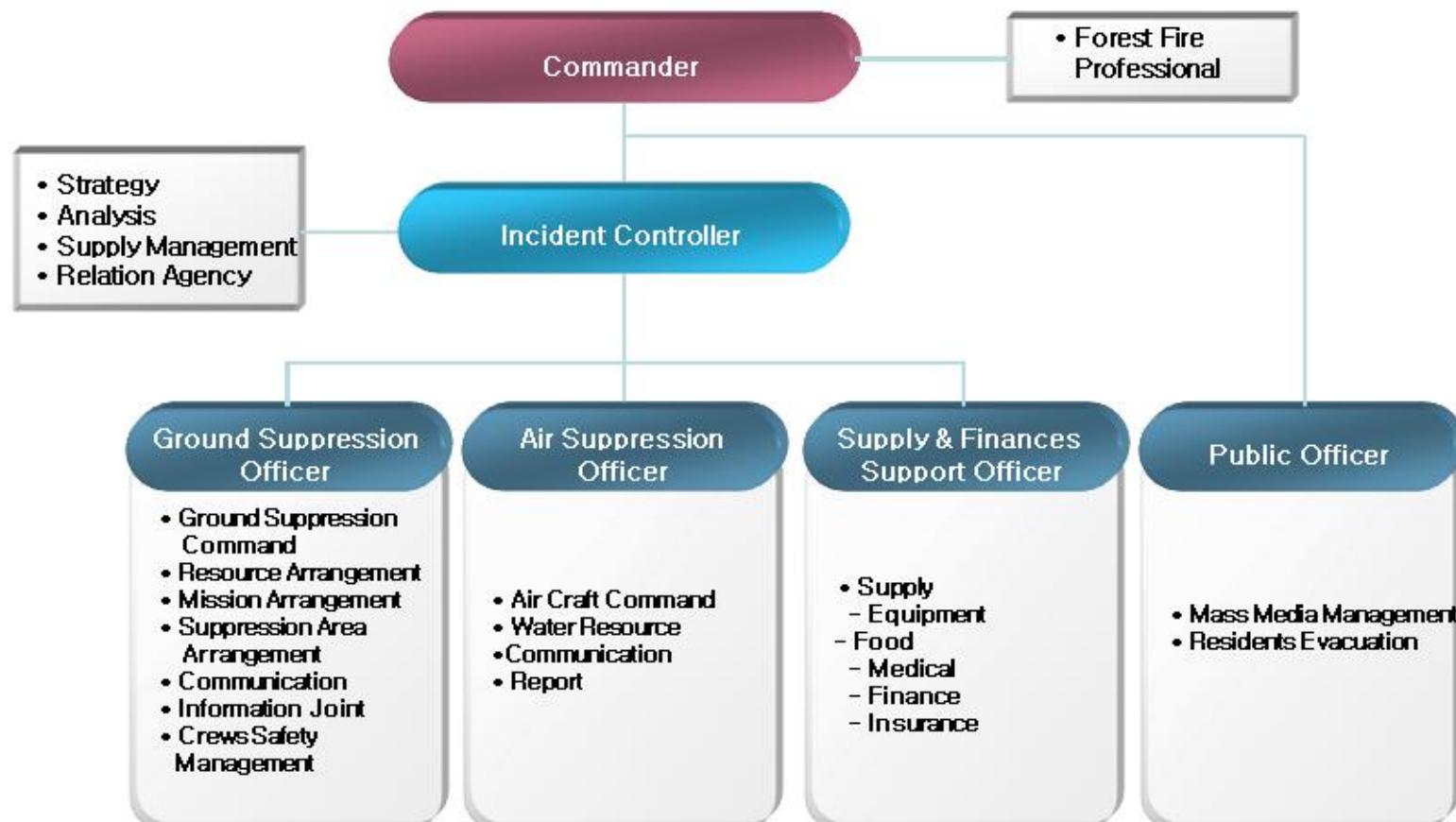


- ✓ Medium Forest Fire(1Ha <) : 25 Persons more than



Management

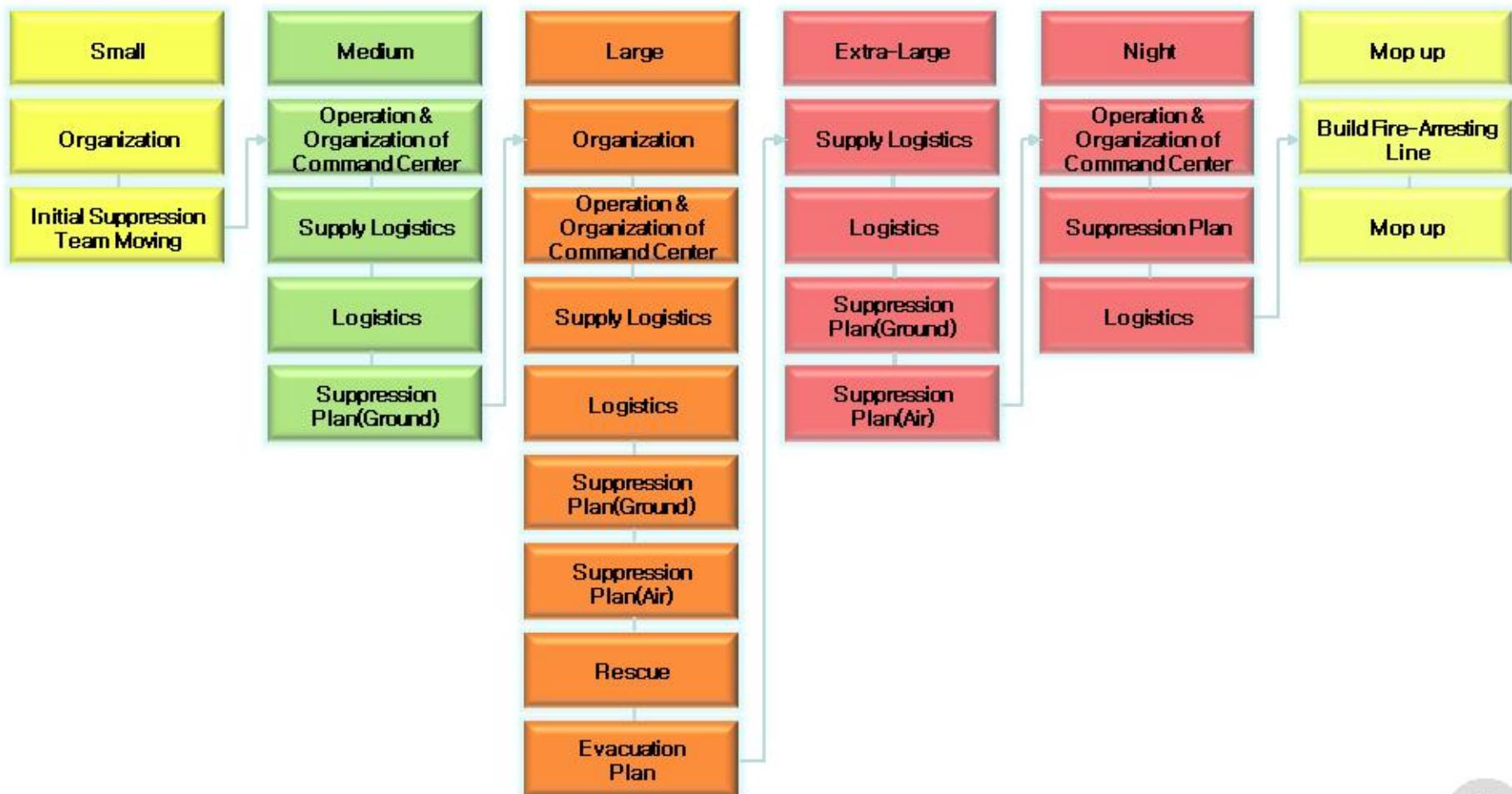
- ✓ Large Forest Fire (30Ha more than)
- ✓ Extra-Large Forest Fire(24 hour more than of Large Forest Fire)





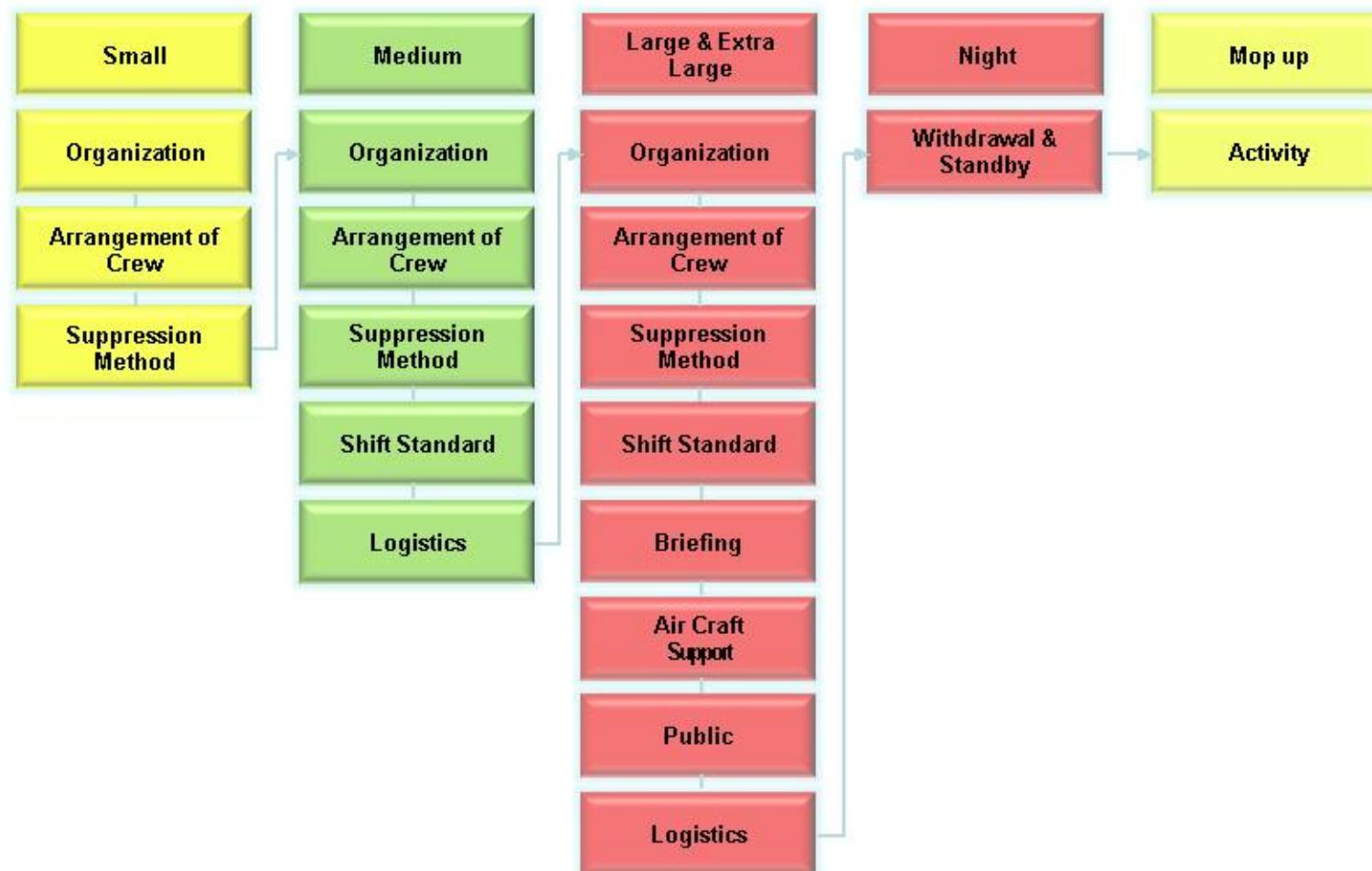
CS of Korea – Perpendicularity + Horizontality

Devise the Graduated Project of Suppression

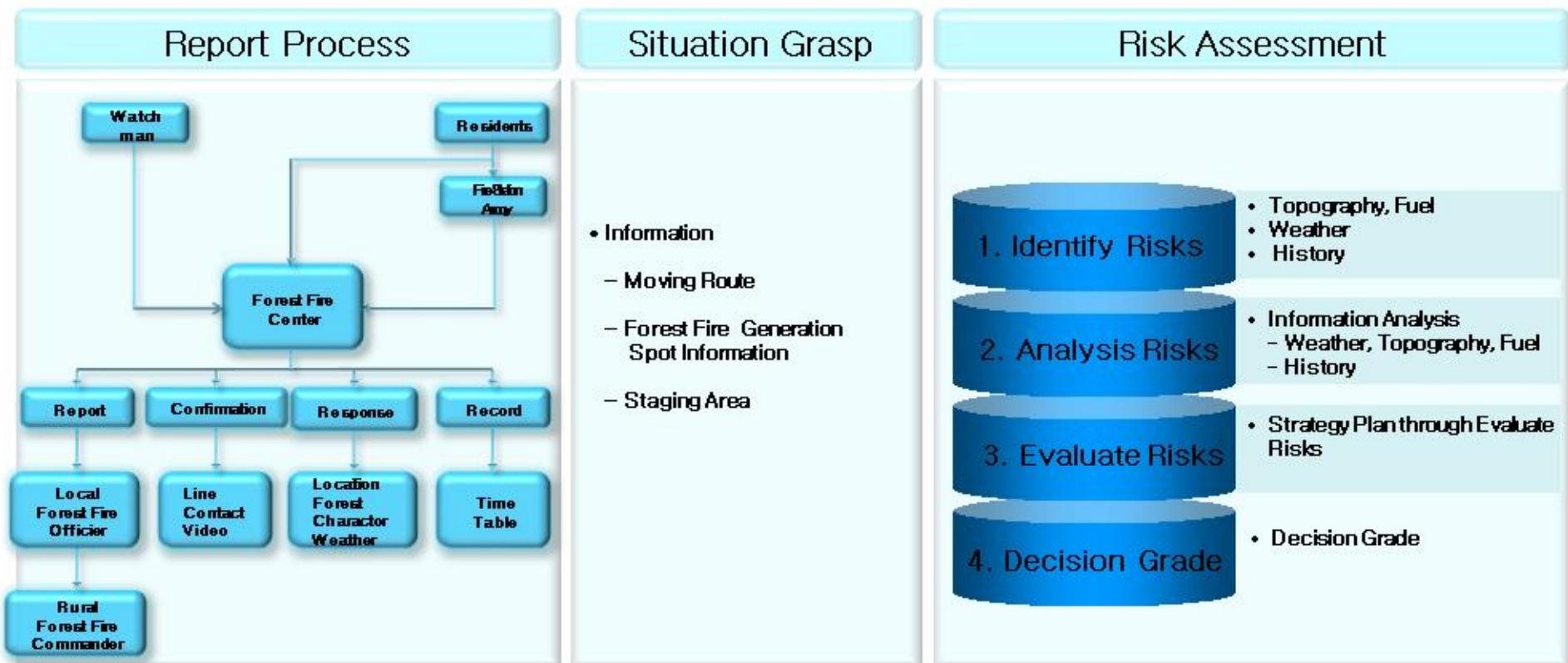




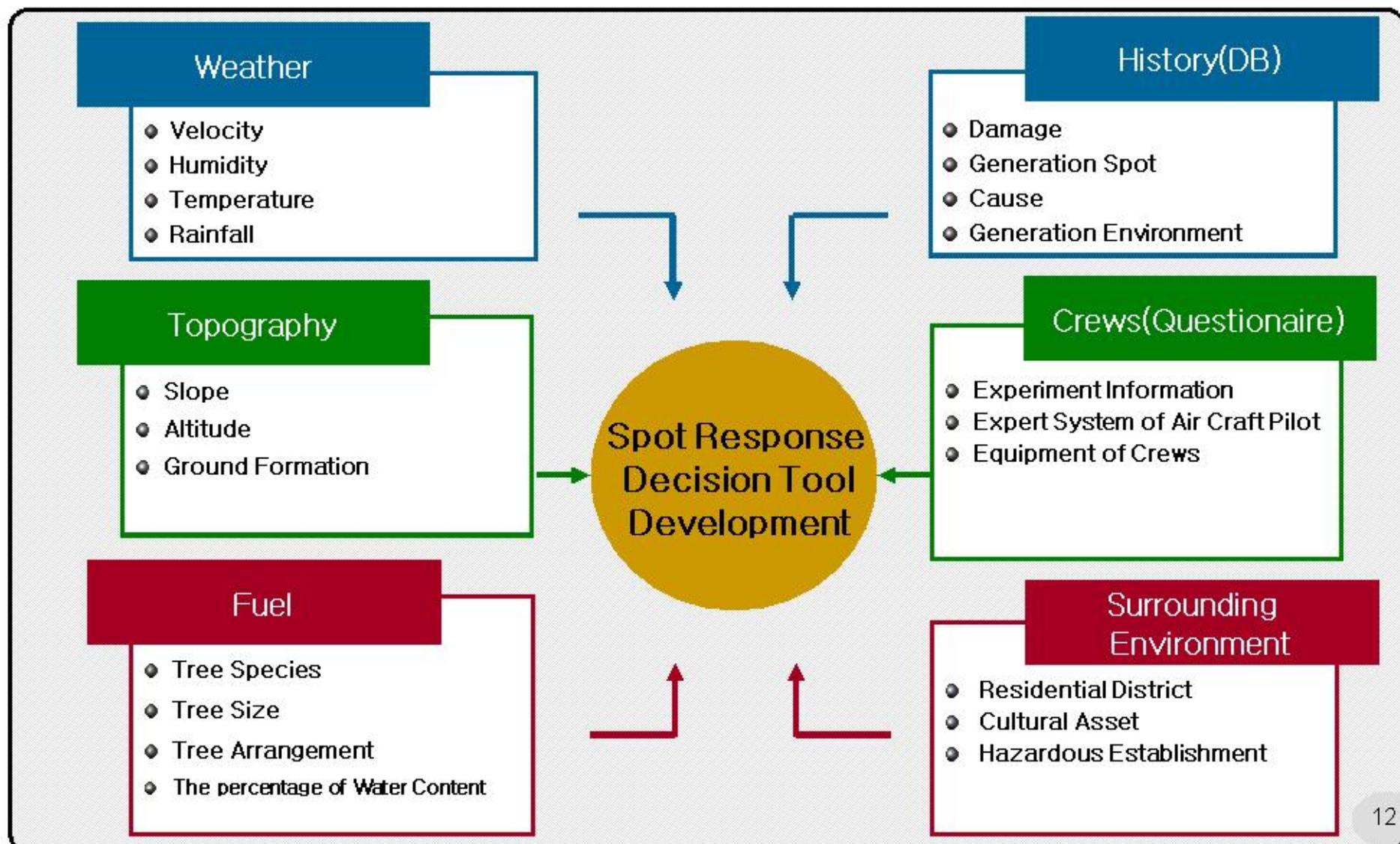
Spot Suppression Activity



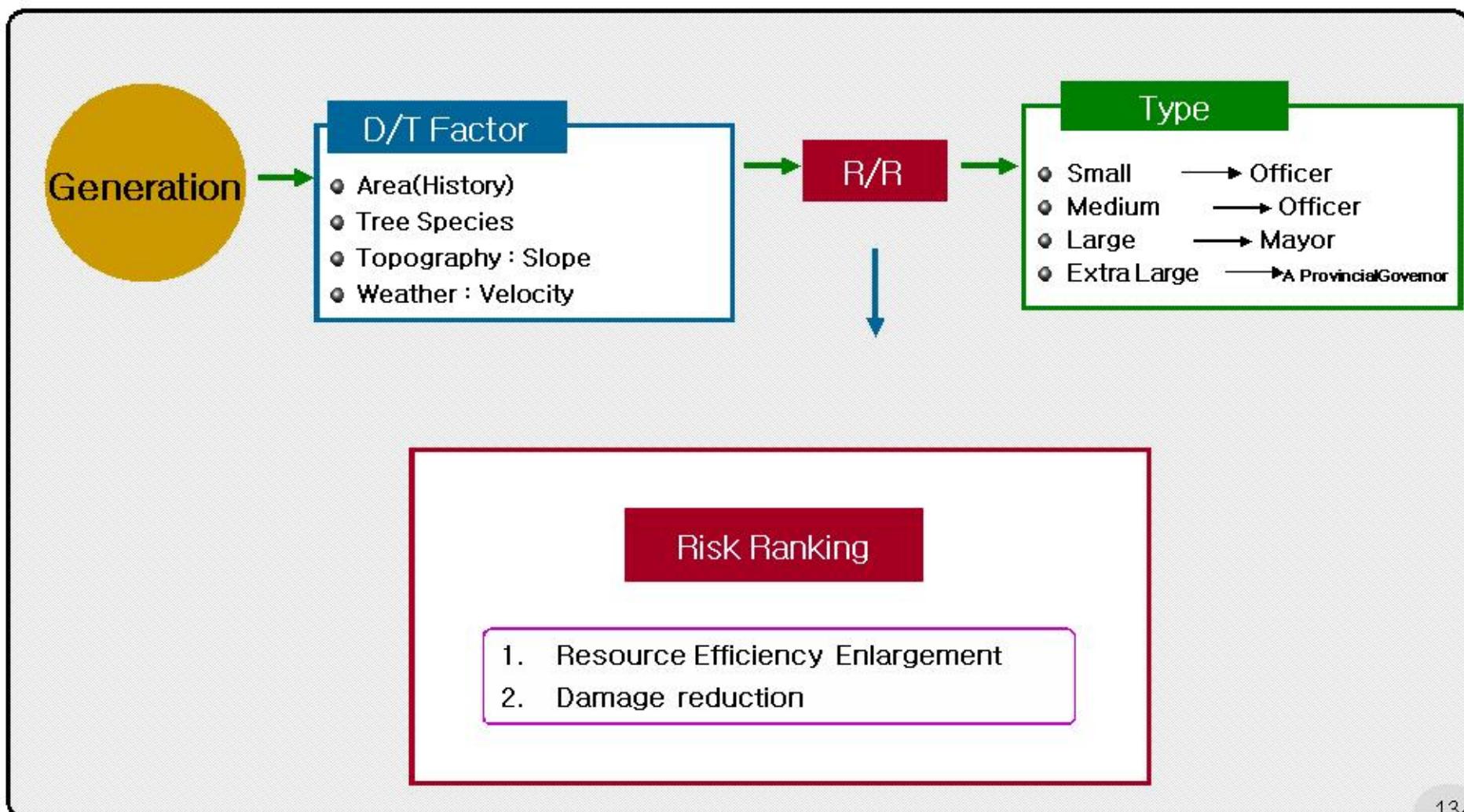
Situation Grasp & Risk Assessment



3-1. Decision Tool



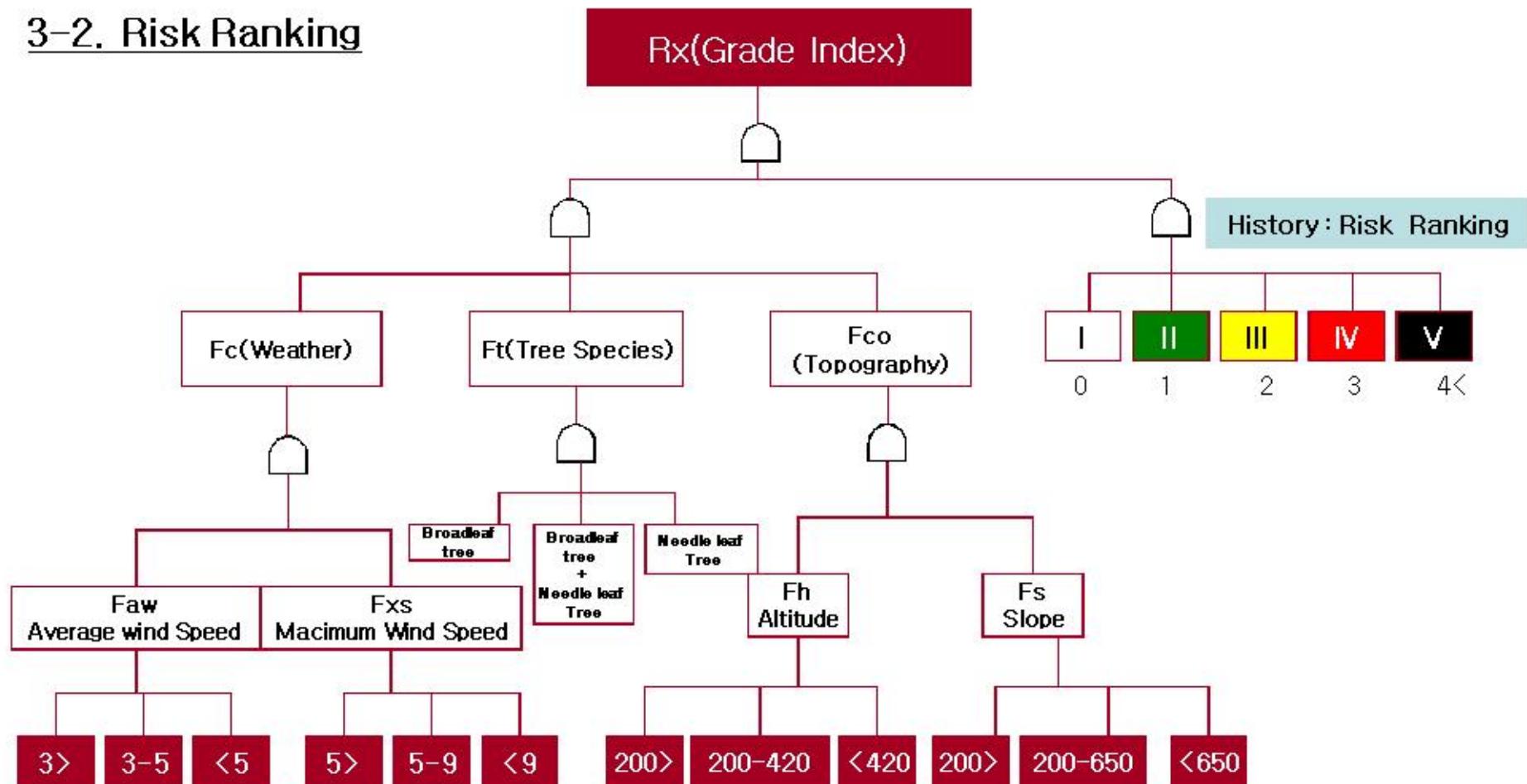
3-2. Risk Ranking





ICS of Korea - Perpendicularity : Horizontality

3-2. Risk Ranking



3-2. Risk Ranking

			Risk Ranking	0	1	2	3	4 morethan
			History	History	History	History	History	History
Factor	History			History	History	History	History	History
				0	1	2	3	4 morethan
Weather	Average Wind Speed	0<= <3	1	1	2	3	4	5
		3<= <5	2	2	4	6	8	10
		5<	3	3	6	9	12	15
	Maximum Wind Speed	0<= <5	1	1	2	3	4	5
		5<= <9	2	2	4	6	8	10
		9<	3	3	6	9	12	15
	Fxs	Broadleaf tree	1	1	2	3	4	5
		Broadleaf tree + Needle leaf Tree	2	2	4	6	8	10
		Needle leaf Tree	3	3	6	9	12	15
	Altitude	0<= <200	1	1	2	3	4	5
		200<= <420	2	2	4	6	8	10
		420<	3	3	6	9	12	15
Slope	0<= <200		1	1	2	3	4	5
	200<= <650		2	2	4	6	8	10
	650<		3	3	6	9	12	15

3-2. Risk Ranking

Rx(Grade Index)

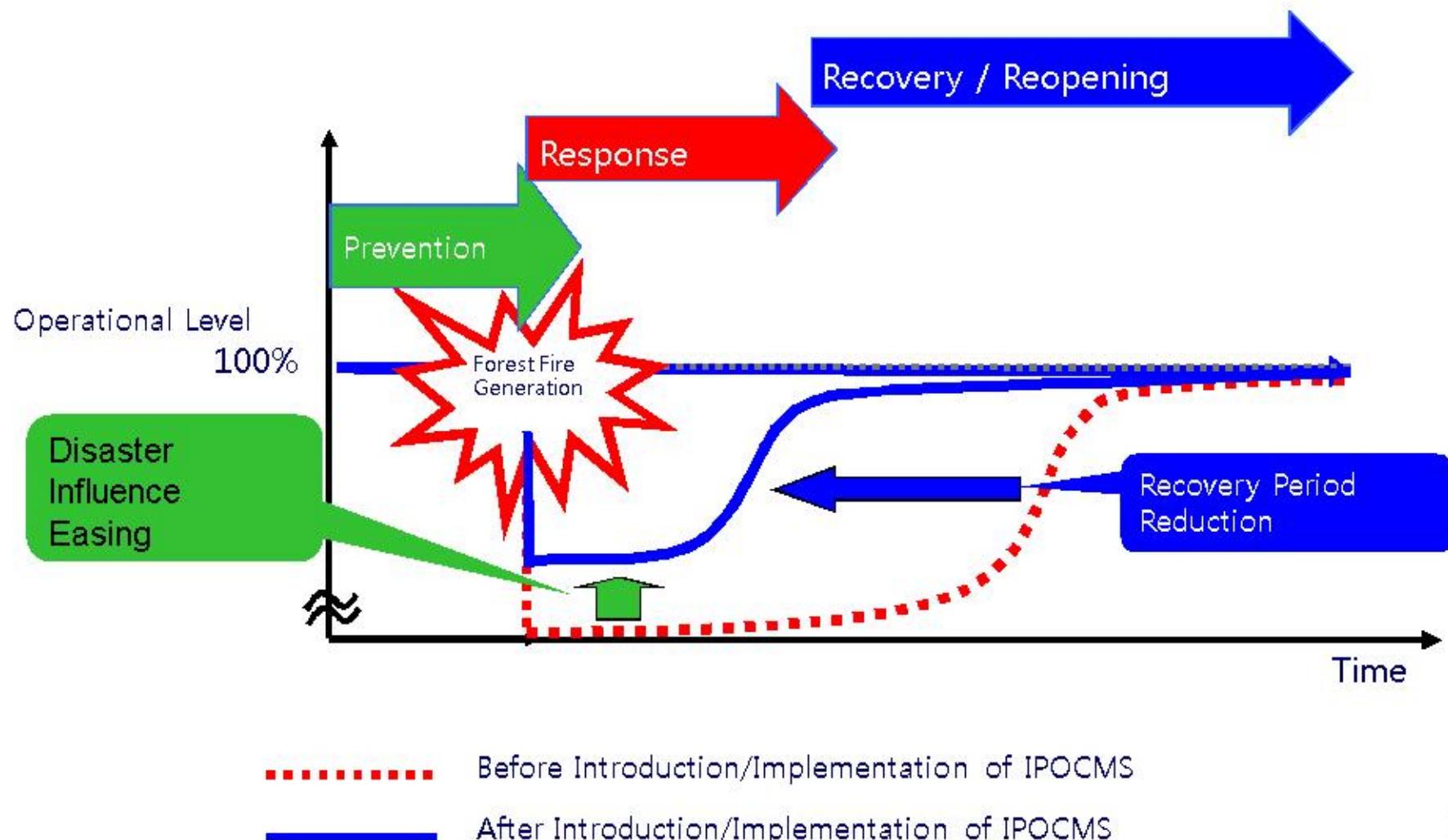
$$= \frac{(Fc + Ft + Fco)}{3} \times H_{i=1 \sim 5}$$

Fc = (Faw + Fxs)/2 : Weather

Fco = (Fh + Fs)/2 : Topography

Ft : Tree Species

		Forest Fire Risk Grade
T	Small	<4
Y	Medium	4 <= <8
P	Large	8 <= <12
E	Extra Large	12 <



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ICS of Korea Perpendicularity + Horizontality

End

- ## Situation End Report



- ✓ Breifing
 - Human, Equipment, Logistics
 - ✓ Postmortem
 - Don't ask "Who is responsibility"
 - Analysis
 - Information Utilization



ICS of Korea – Perpendicularity • Horizontality

Investigation

✓ Standard

- Operating immediately after a forest fire is extinguished
- Chasing direction of a forest fire spread using an index at a scene
- For the purpose of effective prevention to a similar forest fire through assuming tools and methods used at a scene

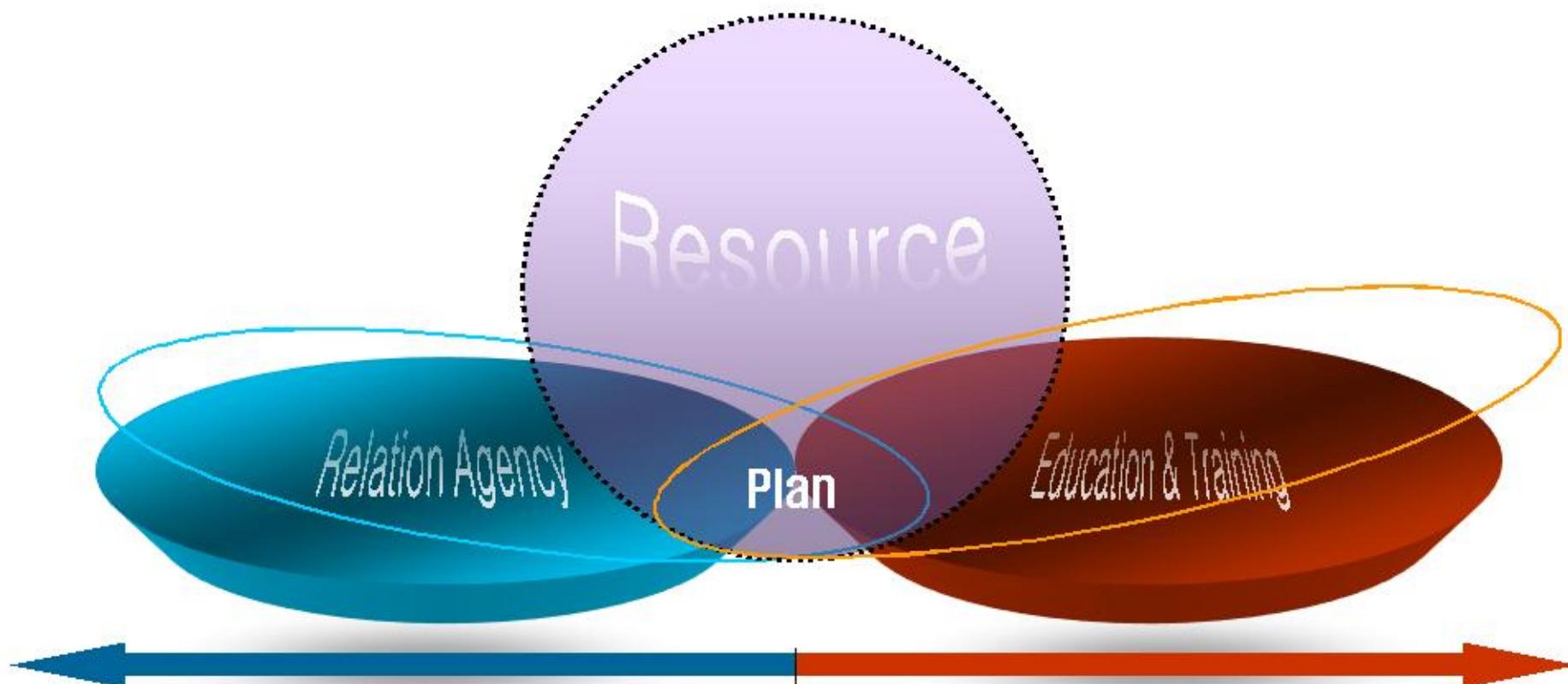
✓ The Limit of Application

	Damage Size	Commander	Vice Commander	Spot Investigation
Small	<1ha	Officer		
Medium	1ha <	Officer		Immediately
Large	30ha <		Officer	Spot Investigation
Extra Large	24 hour more than of Large Forest Fire	Provincial Governor	Mayor	after Initial Investigation

✓ Investigation Step



Development Direction

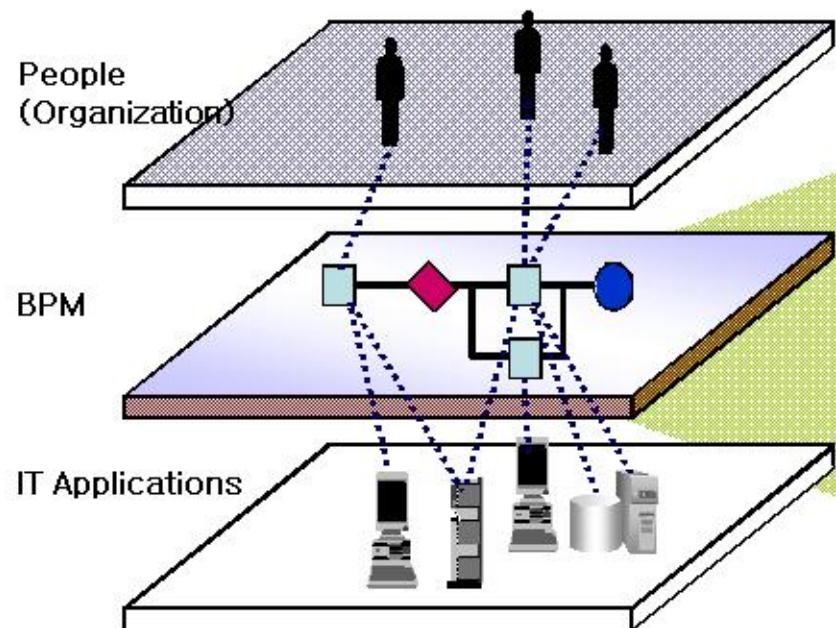


- Definition in role and scope of Agencies
- Constructing systemical support system with Agencies

- Establishing the professional training program for training the professionalism crew
- Developing HRMP(human resources management program (employment, training, education)

What is Business Process Management?

A software system to design, execute, monitor and analyze business processes, and simultaneously integrate legacy systems.



Process Life Cycle Management

- Systematic management of business processes
- Visualization of business processes
- Flexibility in the change of processes

Comprehensive business integration

- Integration and automation of business processes, organization and IT applications
- Effective collaboration through sharing and reconciling disparate processes

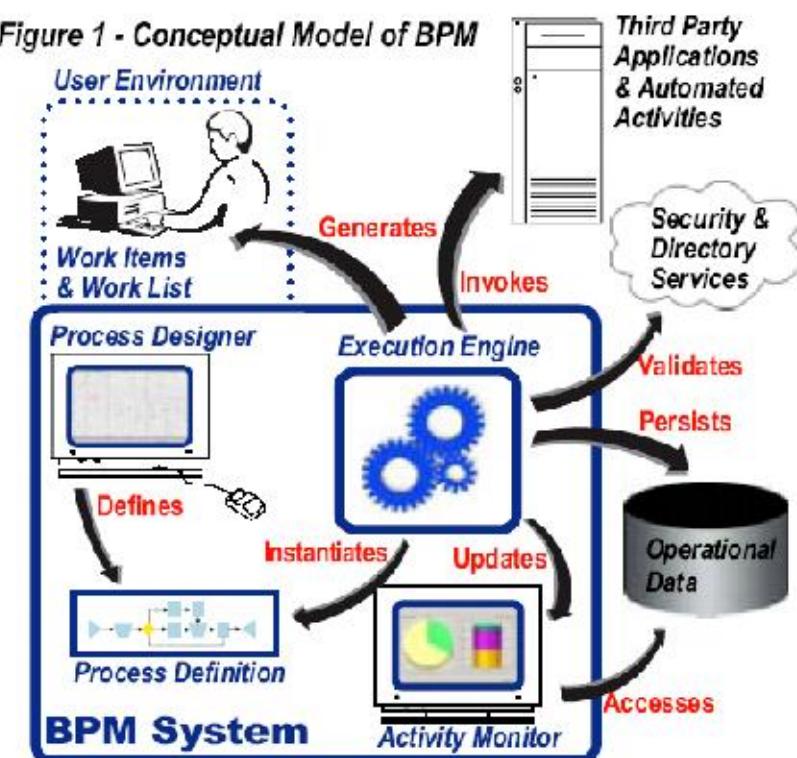
Continuous improvement

- Aligning processes with strategic goals

Core features of BPM

- **Process Digitization**
 - Process visualization and definition
- **Process Automation**
 - Process execution and control
- **Process Monitoring**
 - The ongoing status of processes
 - Real-Time View, Audit Trail View
- **Process Analysis**
 - Performance management (KPI)
- **Application Integration**
 - Process-oriented integration of legacy systems

Figure 1 - Conceptual Model of BPM



Source : Delphi Group, BPM 2003 Market Milestone Report

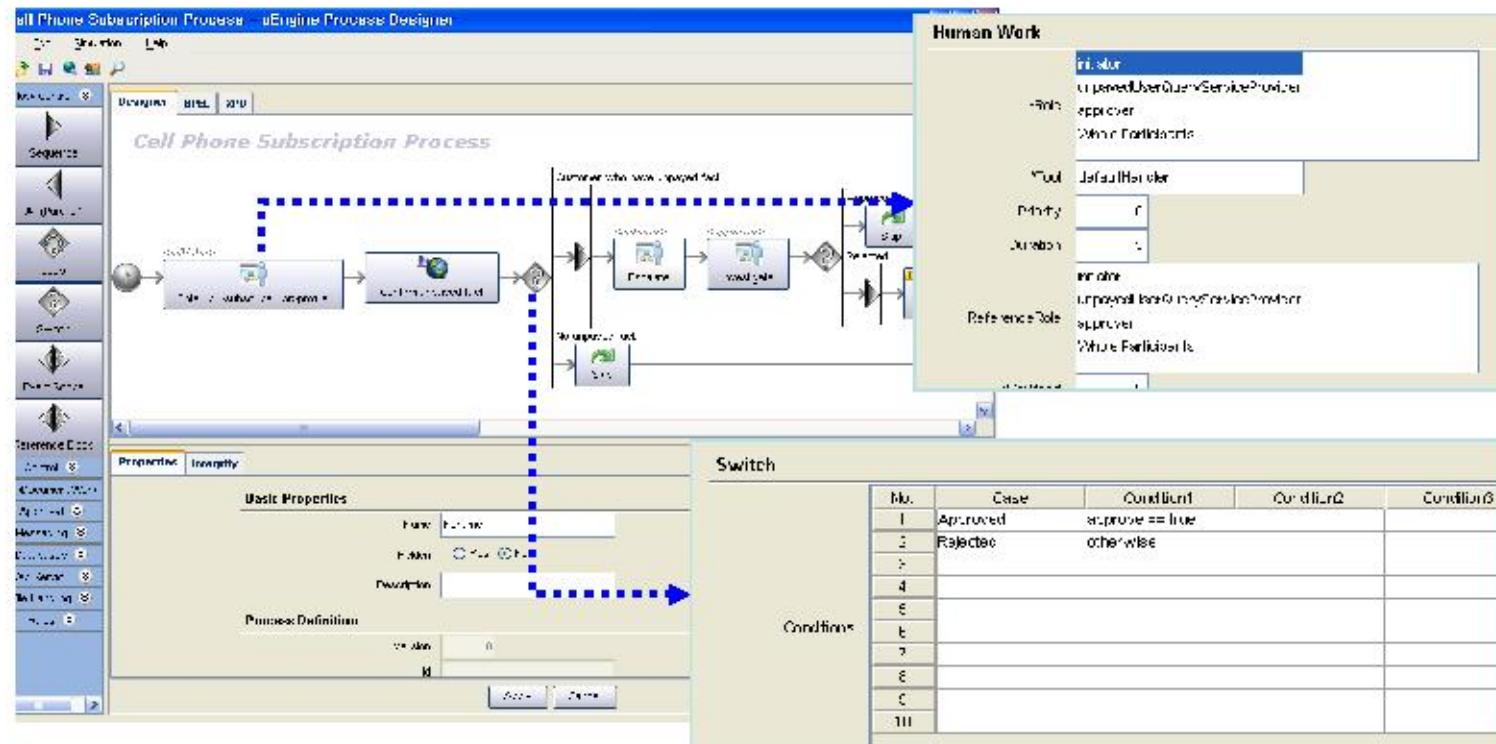


4 Web Publishing

Core features of BPM : Process Digitization

Process digitization includes expressing ambiguous work procedures in a process form and connecting people and IT applications through business processes.

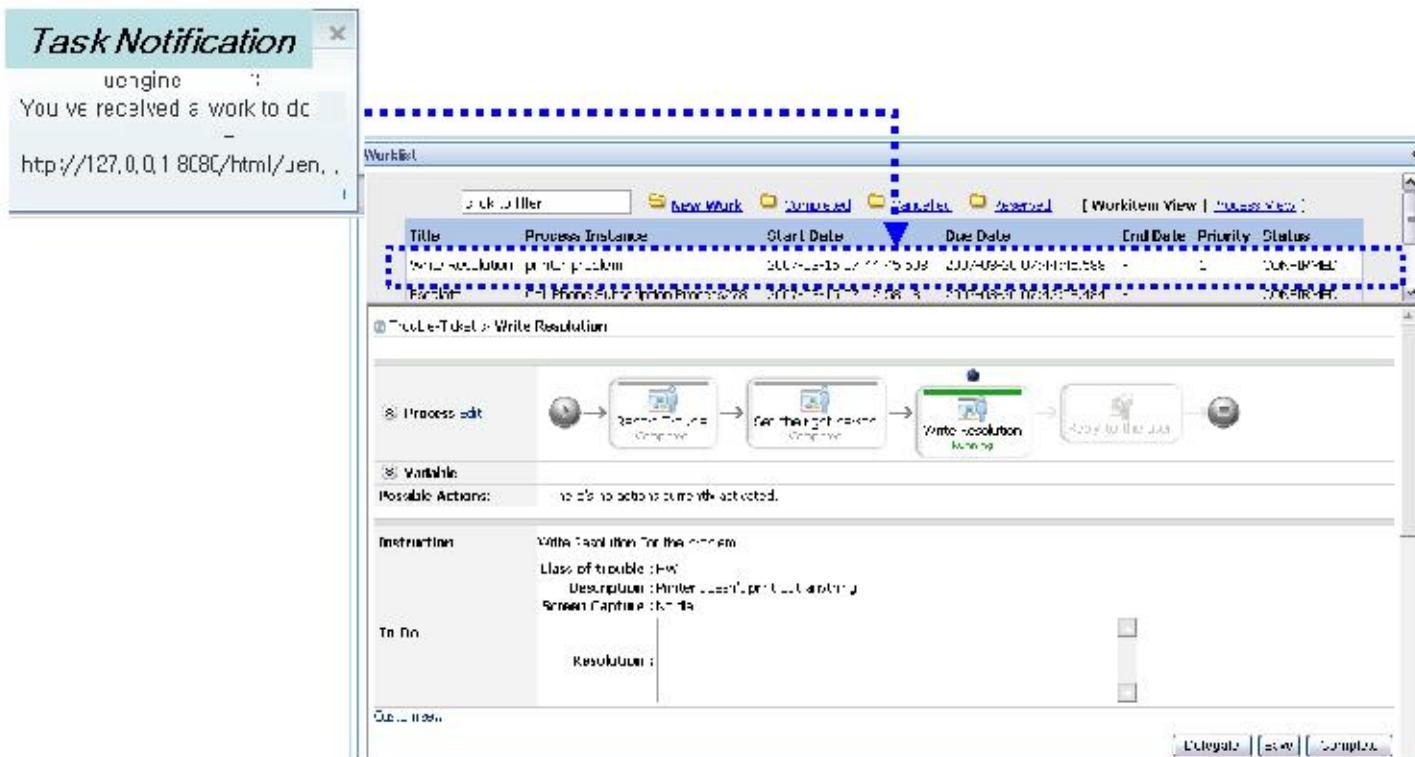
- Enables business processes to be standardized and modularized.
- Once they are digitized, it is possible to automatically execute, monitor and evaluate them.
- Business processes become interfaces for innovating an organization.



Core features of BPM : Process Automation

Process automation ensures the execution of business processes in the order of defined procedures at the stage of process digitization.

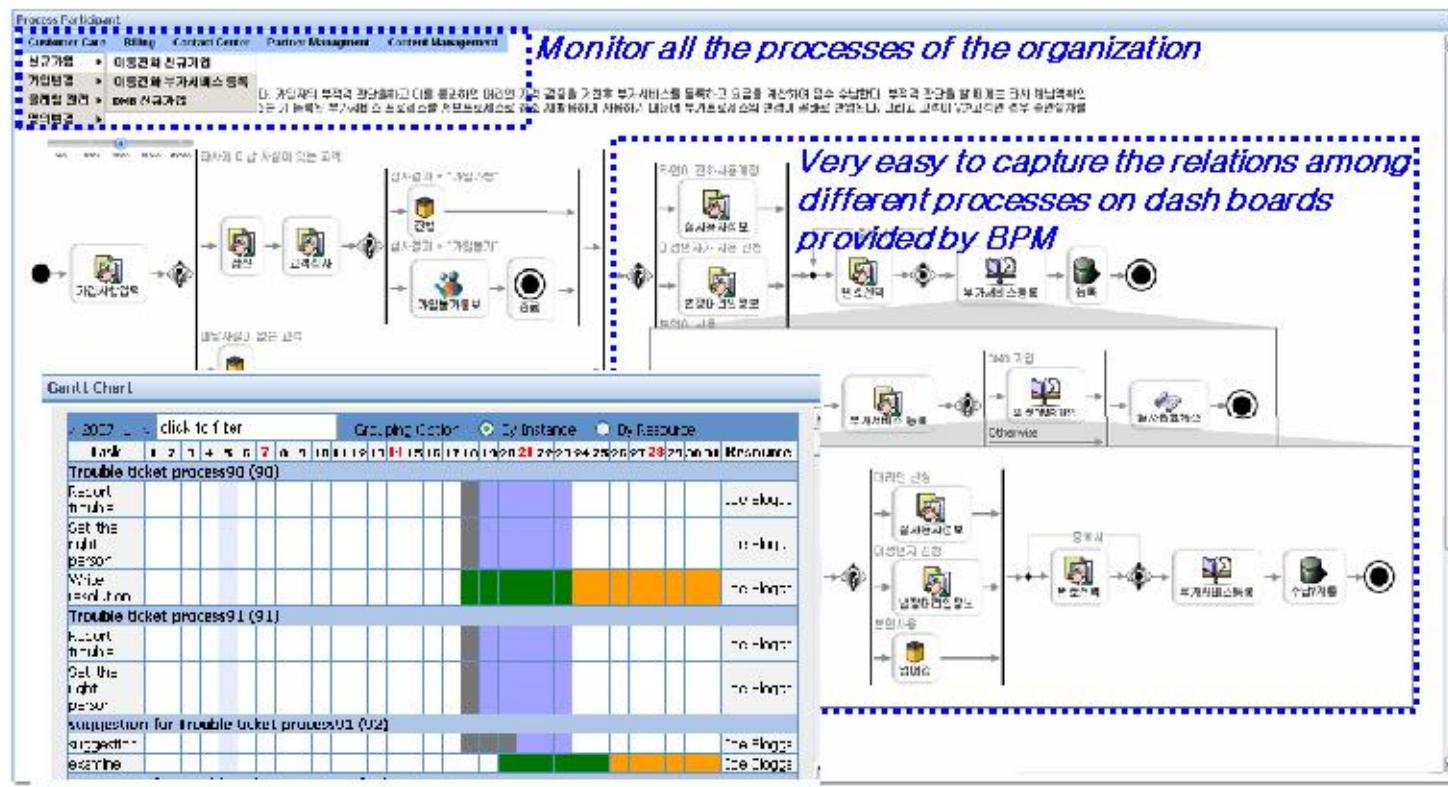
- Automatically delivers work items to task performers.
- Employees never have to manage their schedule for setting the priority of assigned tasks.



Core features of BPM : Process Monitoring

Process monitoring supports checking the ongoing status of process execution and the performance of employees at the first glance.

- It is possible to response unexpected problems very quickly through monitoring process execution.
- Managers can systematically plan resources allocation and process redesign based on the results of process monitoring.





Web Publishing

Core features of BPM : Process Analysis

Process analysis contributes to finding implications about the critical issues of process management such as the reason of process inefficiency, the identification of constraint resources, the performance of process execution and customer satisfaction for the performance.

- By judging from process analysis, BPM can answers such questions:
 - Who is the most eligible worker for a certain task?
 - Which stages of a process are a bottle-neck and how to resolve it ?

