

Introduction of Lift Industry & Safety System in Korea

2013. 10



한국승강기안전관리원
Korea Elevator Safety Institute



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I.

LIFT INDUSTRY IN KOREA



1. LIFT INDUSTRY IN KOREA

Lift Companies

Total	Manufacturing	Maintenance	Installation
1,308	95	860	353

Number of employees : About 20,000 people

Domestic Market Size : Almost \$ 2.5 billion a Year

New Installation	Maintenance	Parts Replacement	Re-modeling
\$1 billion	\$680Million	\$730 Million	\$70 Million

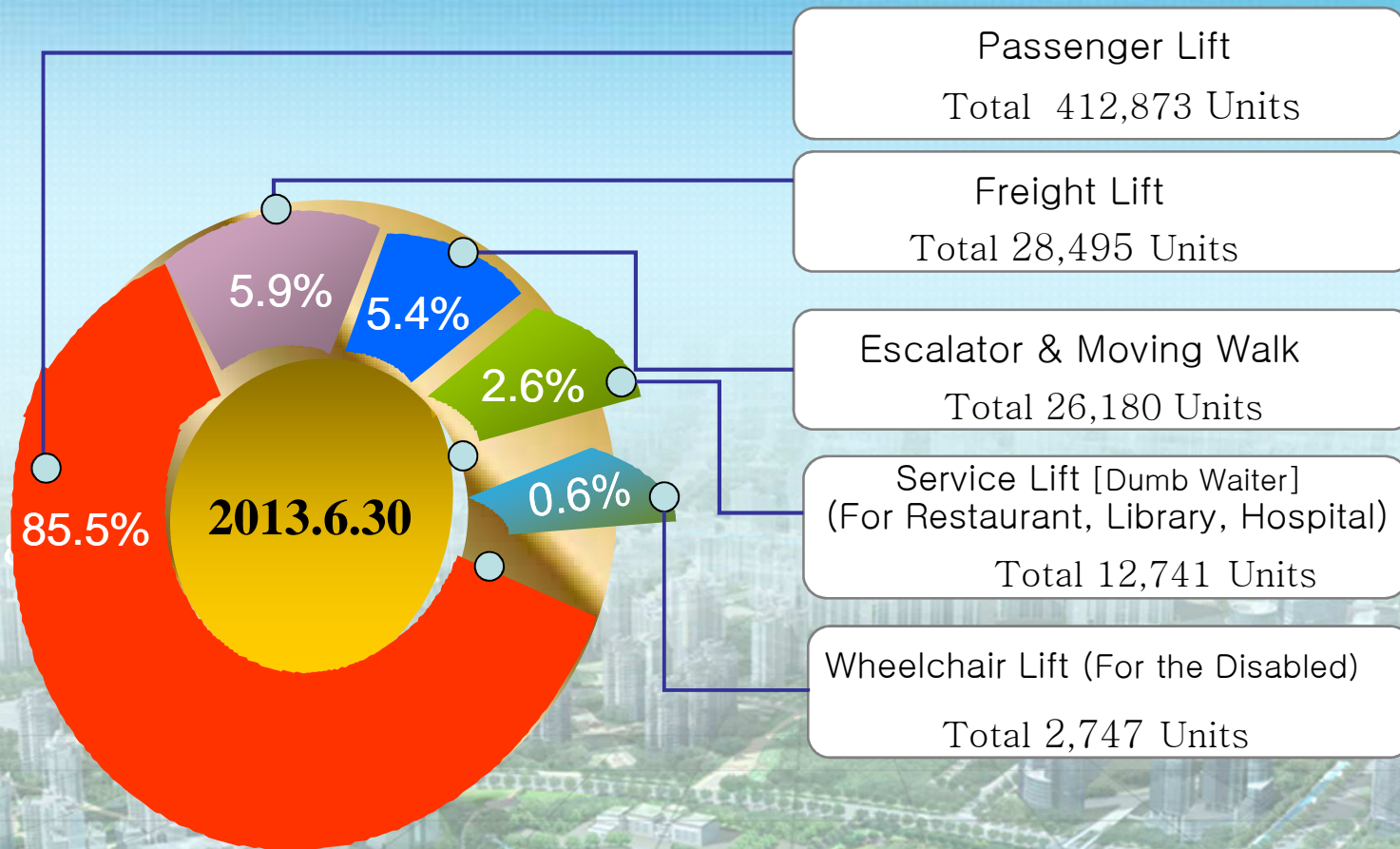
Overseas Sales : \$100 Million a Year

2. LIFT INSTALLATION UNITS



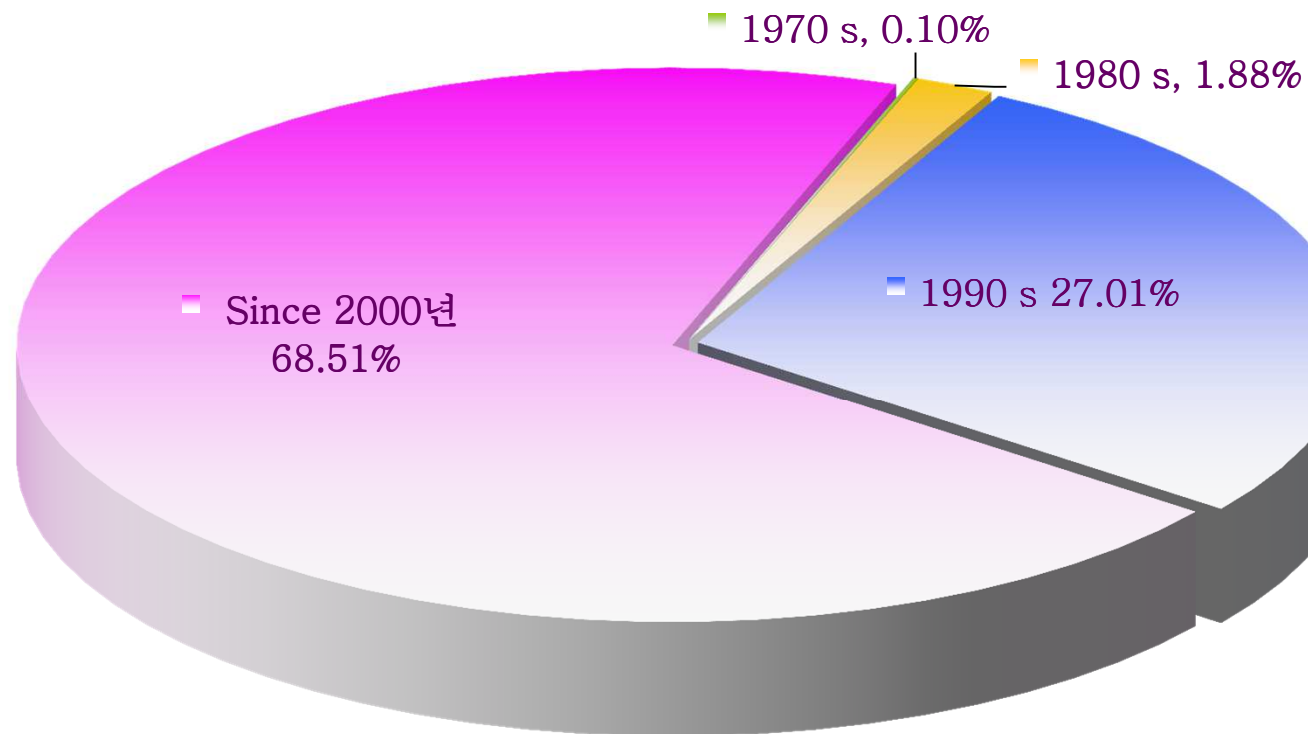
3. LIFT CLASSIFICATION

TOTAL : 483,036 units



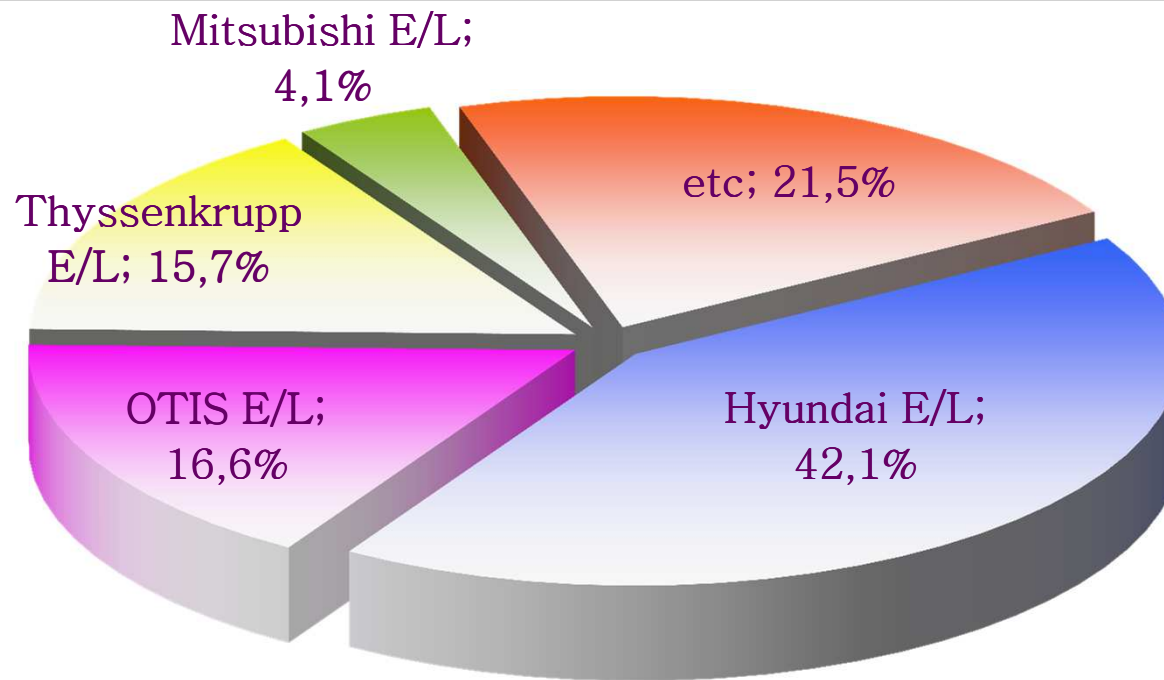
4. AGE OF LIFT INSTALLATION

More than 95% of lifts installed since 1990s (As of June 30, 2003)



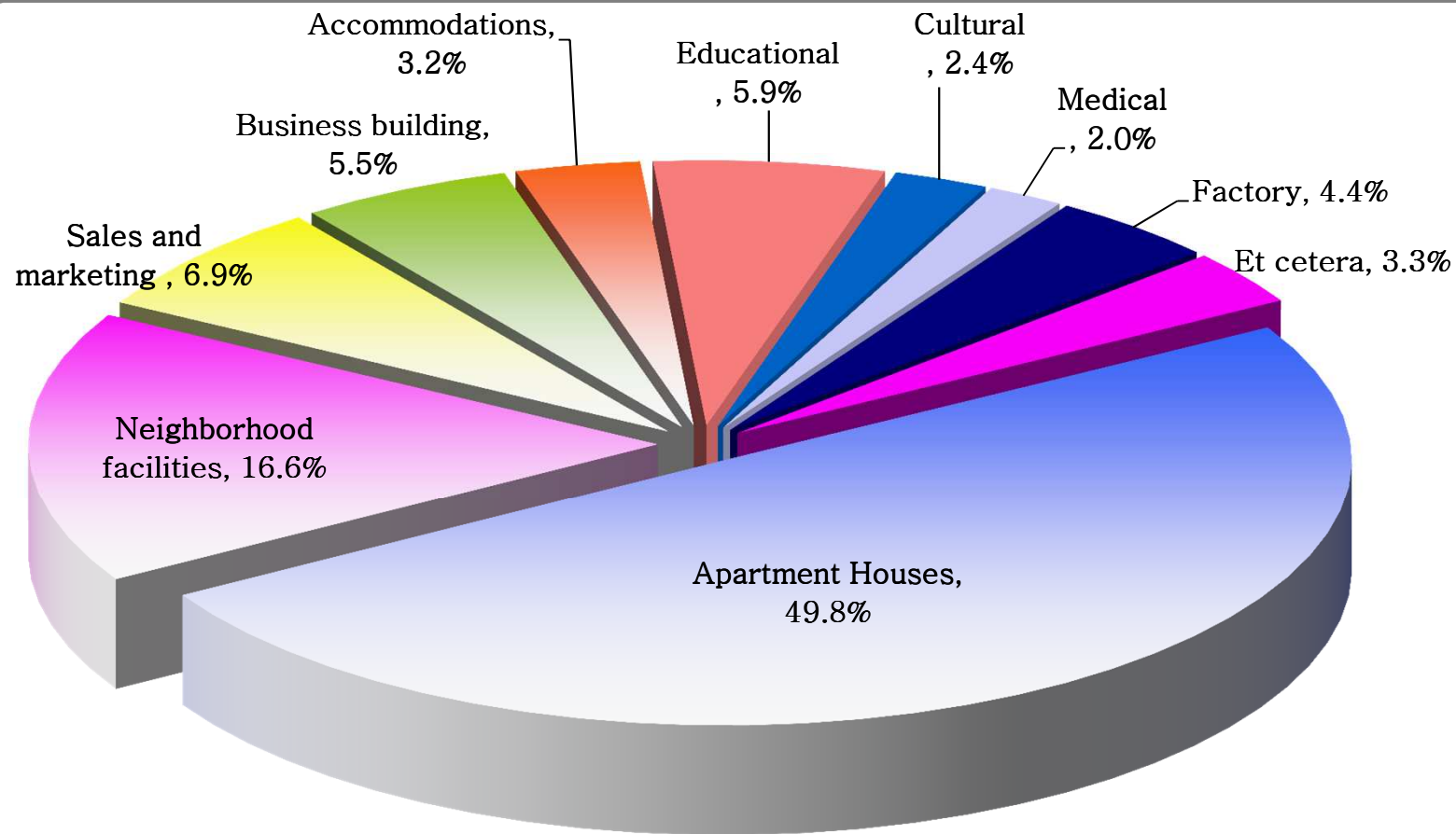
5. MARKET SHARE OF LIFT MANUFACTURING COMPANY

More than 75% of new- lift installed on the 4 manufacturing company



6. CLASSIFICATION FOR THE BUILDING USES

More than 60% of lift installations installed in the Apartment houses & Neighborhood facilities

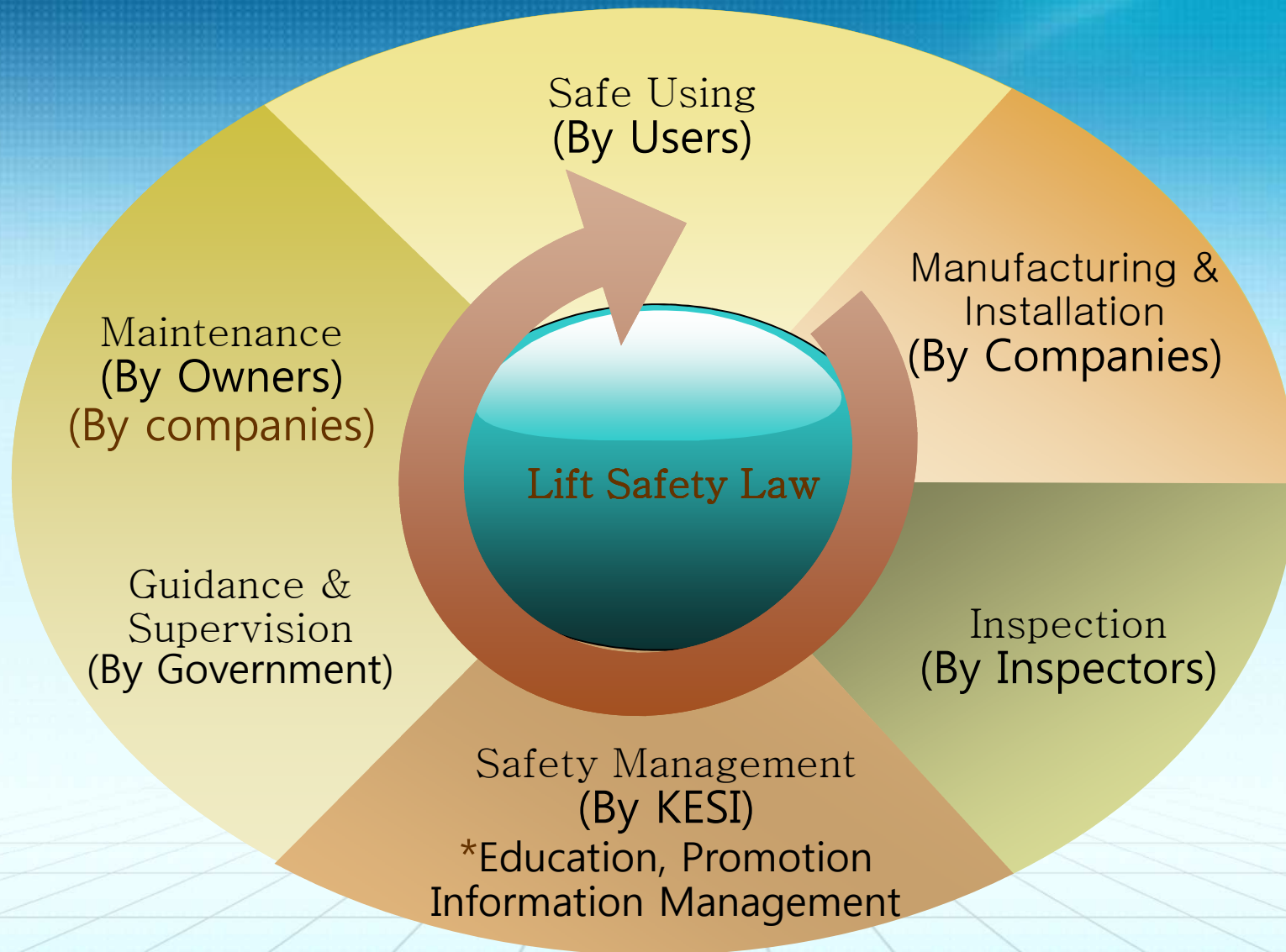




II.

SAFETY MANAGEMENT SYSTEM

1. SAFETY MANAGEMENT SYSTEM



2. SAFETY PARTS CERTIFICATION

RESPONSIBILITY	Certification Class A	Certification Class B
FOLLOW-UP AUDIT	Parts Test + Factory Evaluation	Parts Test
PERIOD	Every two year	Every five year
PARTS TO BE CERTIFIED	<ol style="list-style-type: none"> 1. Governor 2. Buffer 3. Safety Gear 4. Door Interlock 5. Ascending car overspeed and unintended car movement protection means for elevator 6. Protection against unintentional reversal of direction of travel for E/S 	<ol style="list-style-type: none"> 1. Rupture Valve 2. Step for E/S 3. Step Chain for E/S 4. Electronic Magnetic Brake 5. Safety Circuit Board
CERTIFICATION BODY	Korea Testing Laboratory(KTL)	

3. LIFT INSPECTION SYSTEM

Safety Code : European Code [Now, 2013. 9)
Japanese & USA Code-Based [Past]

Before into
service after
installation



ACCEPTANCE
INSPECTION

When totally
or main
parts replaced



OCCASIONAL
INSPECTION

Once a year



PERIODIC
INSPECTION

When 15
years after
installation



PRECISE
SAFETY
INSPECTION

III.

ACCIDENTS STATUS



1. RESPONSIBILITY FOR REPORT OF MAJOR ACCIDENTS



2 MAJOR ACCIDENTS

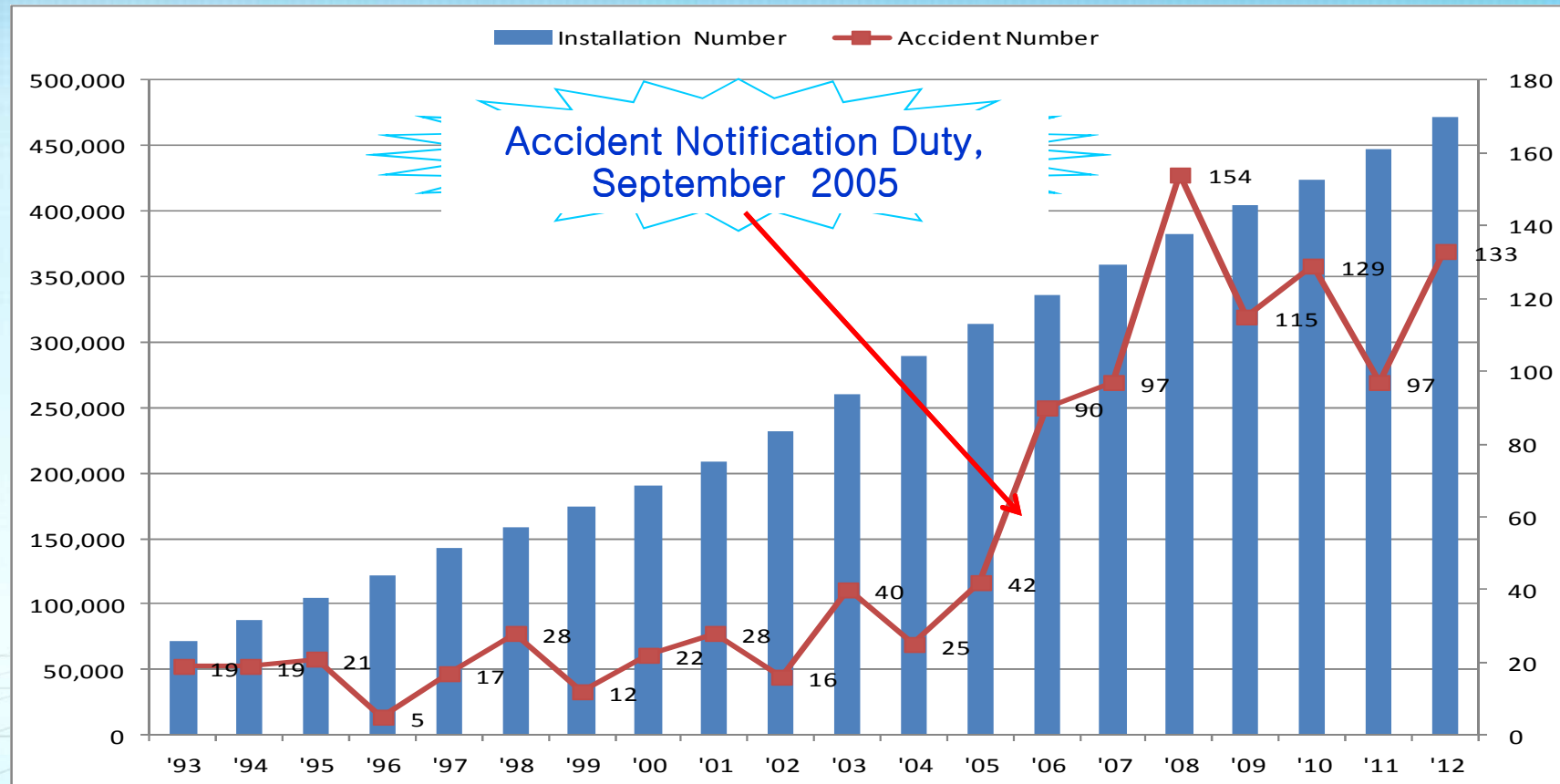
Report immediately in the time of serious accidents

1. Death
2. Hospital treatment of above a week



2. STATISTICS OF ACCIDENT

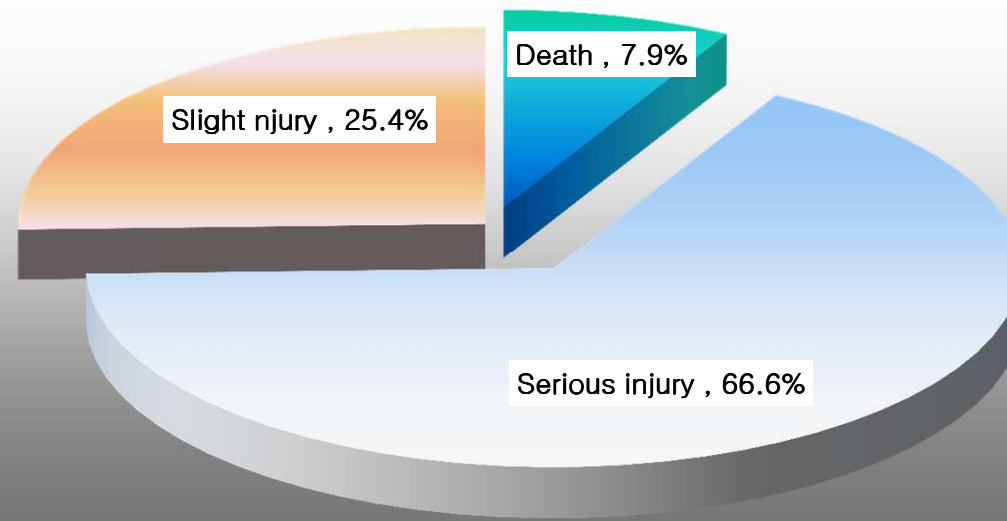
The number of lift accident for the total lift installation units



3. ACCIDENT STATISTICS BY DAMAGE GRADE

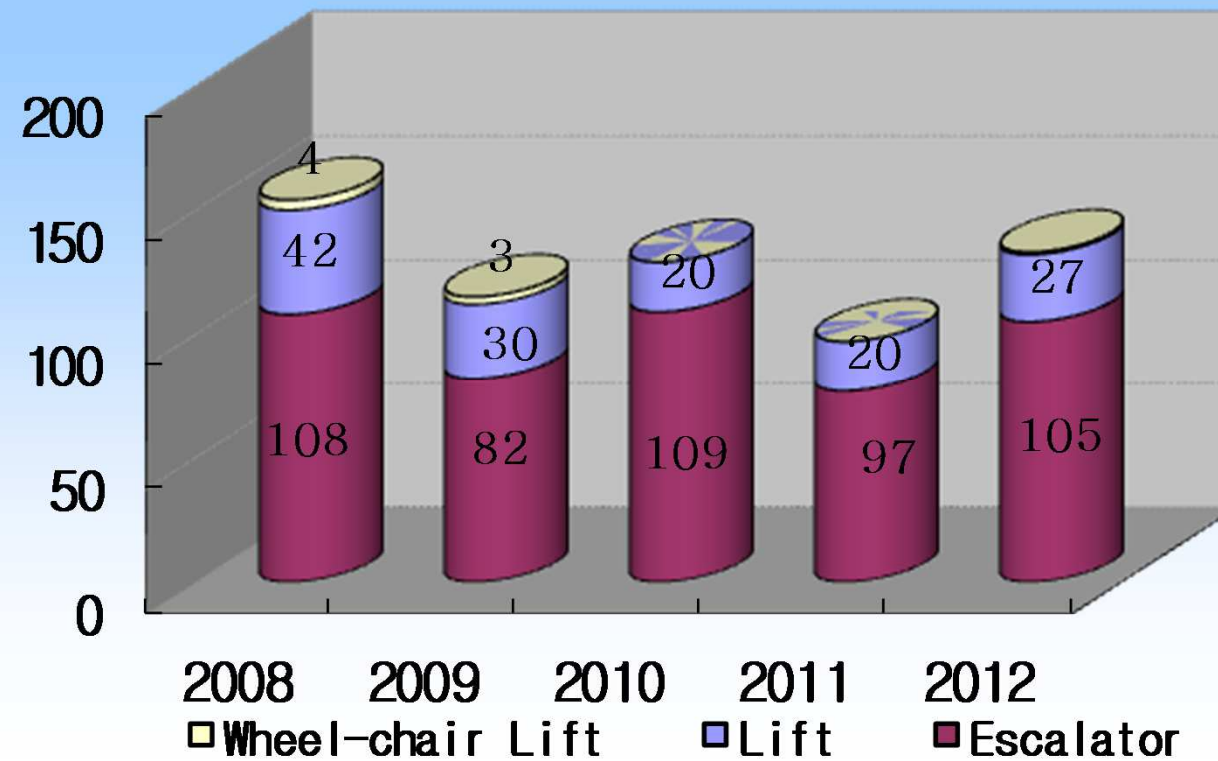
(As of 12.31, 2012)

Year	Total	Death	Serious Injury	Slight Injury
2008	182	19	100	63
2009	132	16	93	23
2010	176	10	130	36
2011	122	5	82	35
2012	170	12	116	42
Ratio(%)		7.9 %	66.6 %	25.5 %



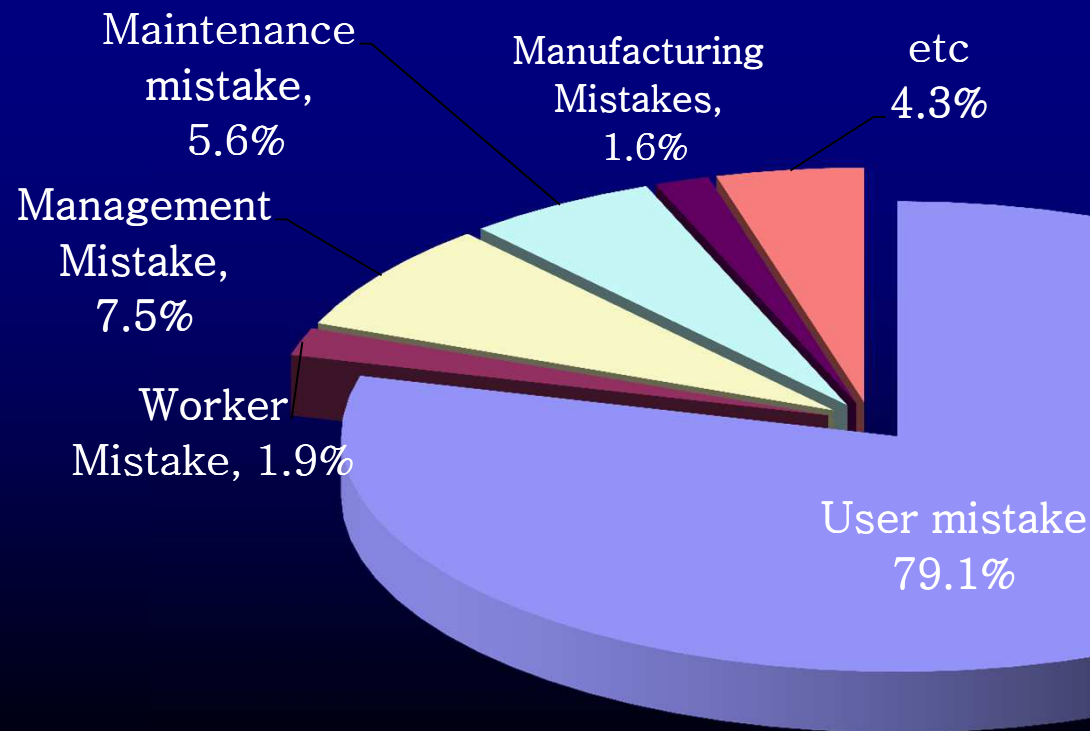
4. ACCIDENT STATISTICS BY LIFT CLASSIFICATION

Most of accidents such as fall down occurred on escalators and moving walks (as of 12.31, 2012)



5. STATISTICS BY LIFT ACCIDENT CAUSES

‘User Mistakes’ accounted for 79.1% of the all accidents.
(Especially, most of the accidents such as fall down occurred on the escalators and moving walks.)



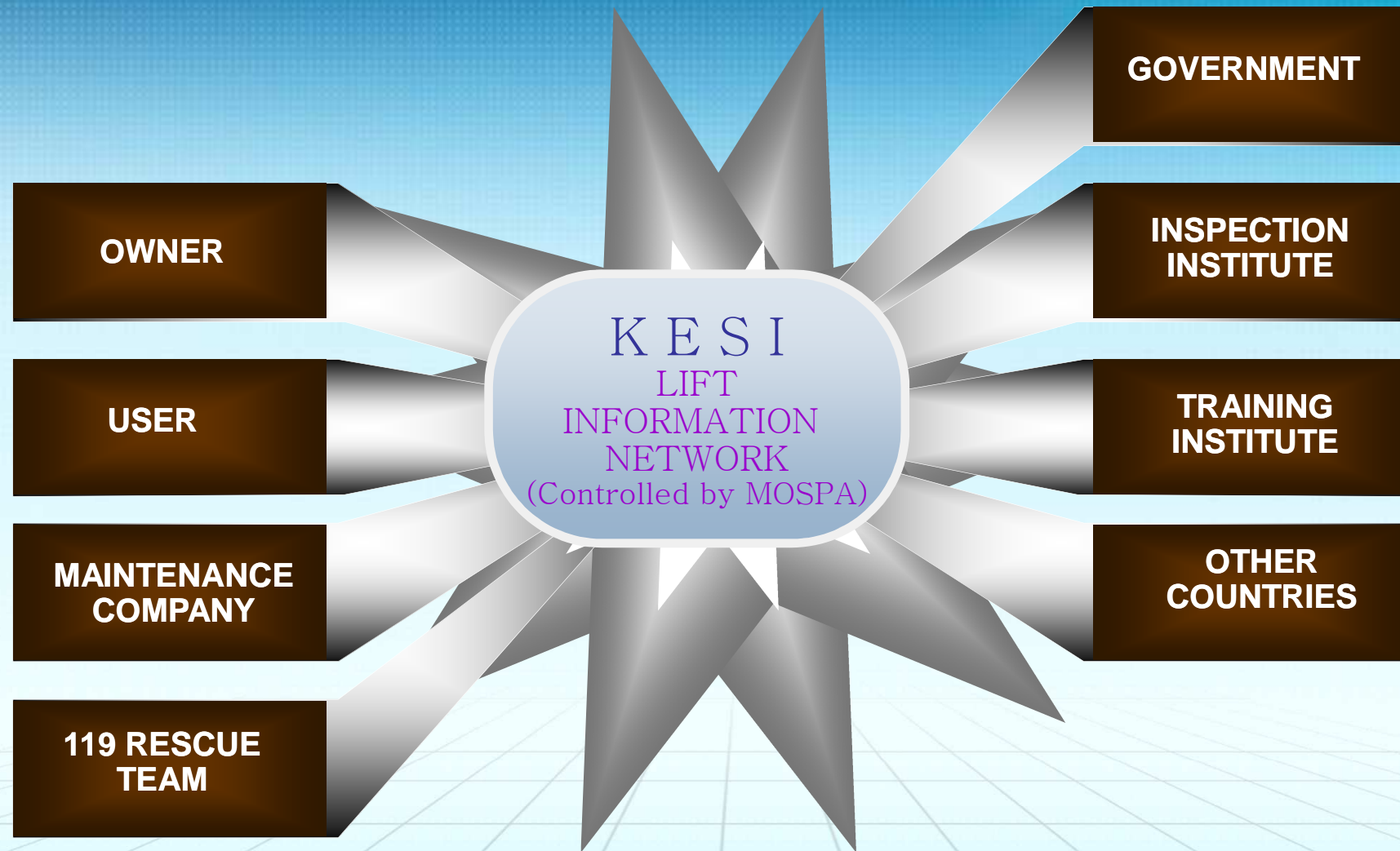


1. TOTAL MANAGEMENT OF INFORMATION

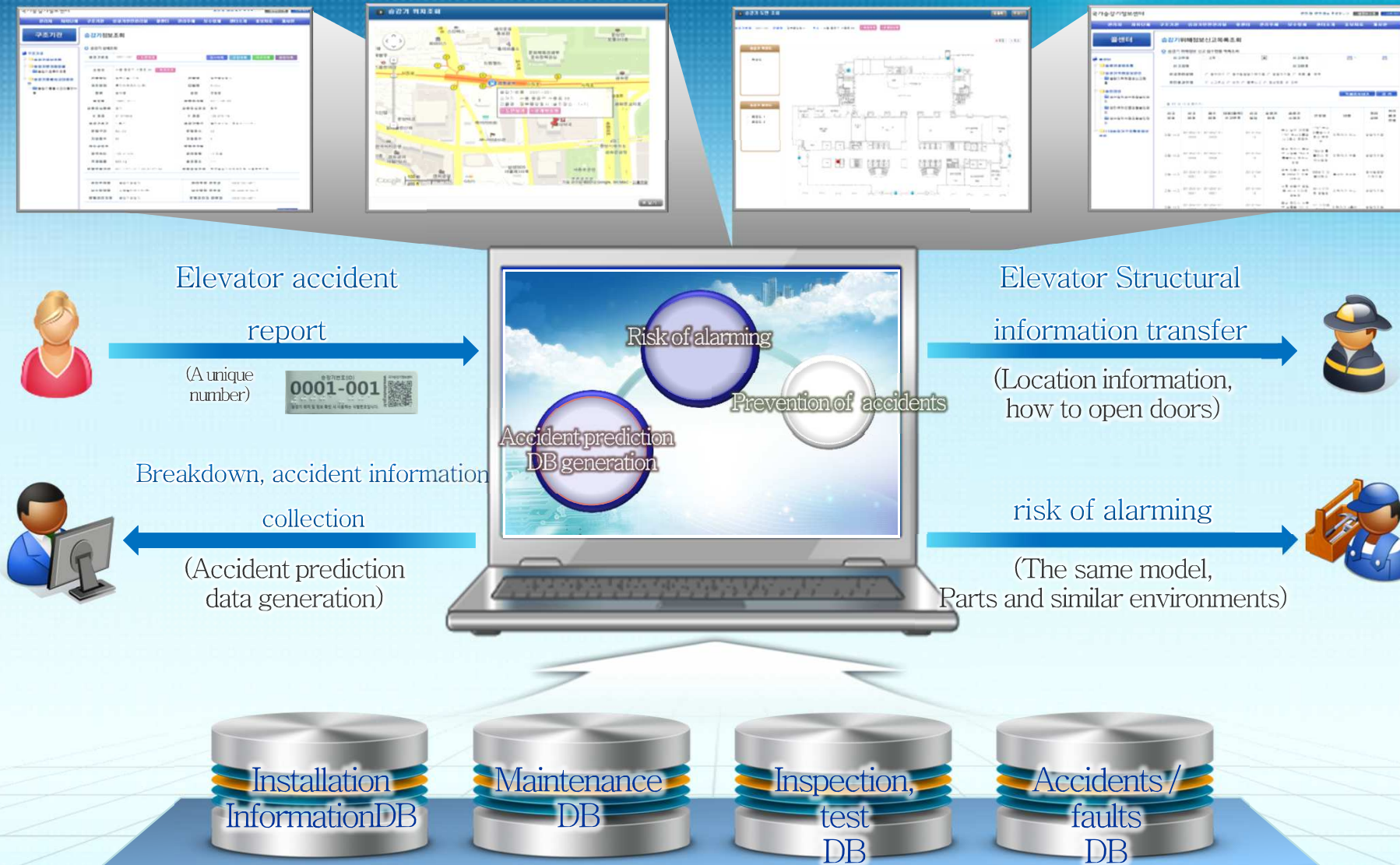
ORGANIZATION	KESI
REGULATION	Lift Facilities Safety Management Law
MAJOR INFORMATION REQUIRING MANAGEMENT	<ul style="list-style-type: none"> Information on lift installation site (address, owner, operating manager, etc.) Basic information for installed lift (type, manufacturer, rated load, speed, etc.) Information related to lift inspection (inspection date, result, nonconformity, etc.) Information related to maintenance company (technical manpower, scope of maintenance, etc.) Information related to education on lifts



2. LIFT INFORMATION NETWORK SYSTEM



3.NATIONAL ELEVATOR INFORMATION SYSTEM

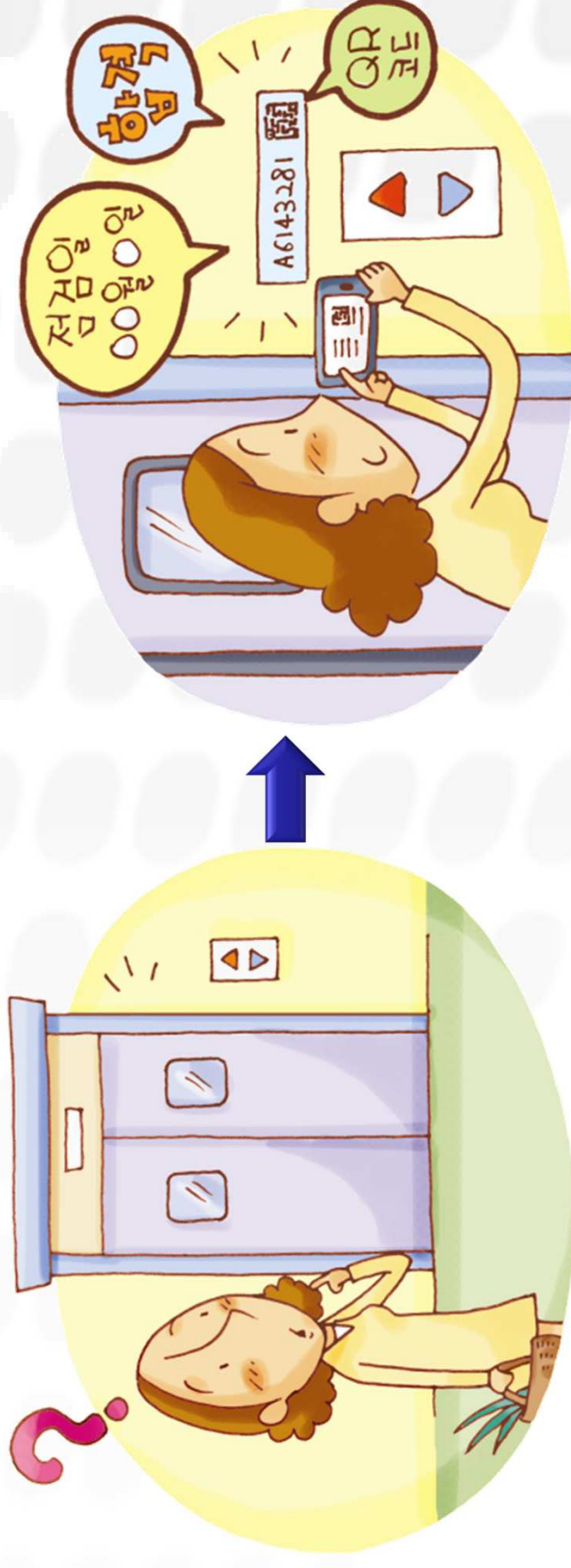




3-1 USER



Report to the public and provide a means to verify



Plates with no elevator “Unlicensed elevator”

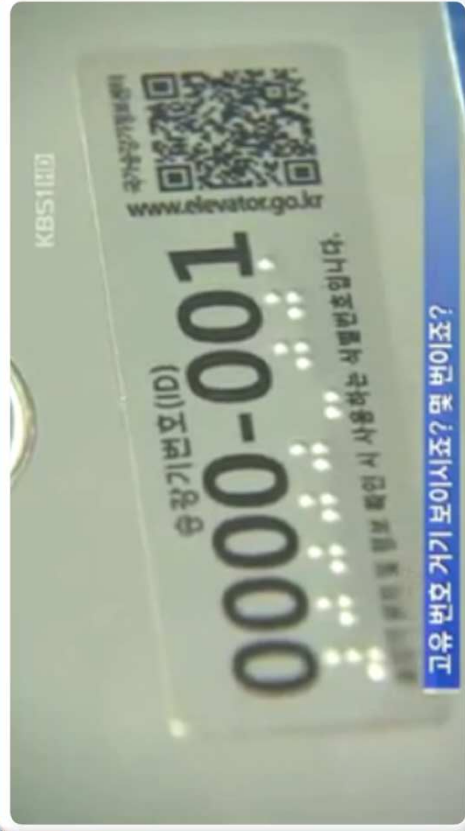
※ Unlicensed elevators is a primary cause of death





3-1 USER

▶ Will be speaking only numbers at the time of the accident





3-2 RELIEF AGENCY



Numbers can be checked quickly and accurately position

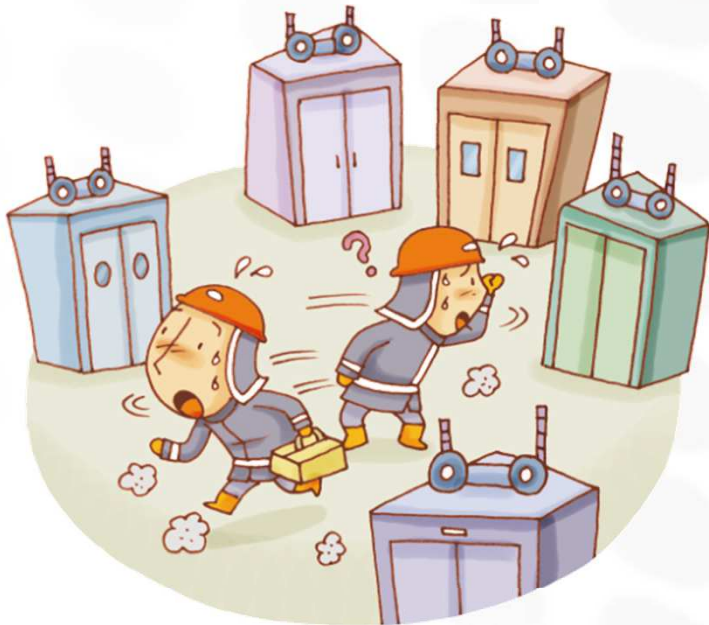




3-2 RELIEF AGENCY



Numbers quickly and accurately determine the location
structure times shorten



- the elevator in Incheon
International Airport 301





3-3 INSPECTORS



Fault accident prevention information



Can cope with rapid fault accident



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3-4 ADMINISTRATOR

“Efficient elevator management”



4. FOR WHOM ?



People



Especially the
elderly,
disabled



And,
Nation enterprise
competitiveness

THANK YOU



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