



KOREA: Safety & Security Sectors and Vehicles

Status & Opportunities

Industry Sector Analysis & Insights

2015

Korea:
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Summary of Opportunity:

In November 2014 the Korean government created a **new Ministry of Public Safety & Security (MOPSS)** is housed in the office of the Prime Minister; <http://www.mpss.go.kr/english/eng01.html> in response to the April 16, 2014 tragic accident of the sinking of a ferry which caused the death of over 300 Korean high school students. Other safety accidents occurred before and after the ferry incident which also made headlines and caused Koreans deep concern in this fast-growing, fast-moving, highly industrialized country the size of the state of Indiana with a population of over 50M.

The new Ministry of Public Safety and Security and its budget (albeit small) to meet what are growing concerns about Korea's safety record **may/may provide opportunities for U.S. companies** supplying safety products, services or vehicles. Korean companies may also seek partnerships with U.S. companies.

Special characteristics of this report:

The following nine page document provides a wide-array of information for U.S. companies providing products or services in the safety, security and vehicle sectors. Information in this report, in part, comes from our annual safety and security resource guide which has been supplemented with significant information on the kinds of specialty and safety vehicles already operational in this market.

The U.S. Department of Commerce/Foreign Commercial Service/Global Markets in Seoul, Korea stands ready to assist U.S. companies in this mature market. Begin the process by locating the U.S. Commercial Service trade specialist in the U.S. city nearest to you by visiting <http://www.export.gov/>.

South Korea's safety & security market is categorized into three main sectors: **disaster prevention/management, fire safety, and industrial/public safety**. Eighty-six percent (86%) of Korean companies are in the fire safety sector, nine percent (9%) are focused on industrial and public safety, and five percent (5%) are focused on disaster prevention/management.

The safety and security market in Korea is continuously growing, however, most sectors and sub-sectors are saturated and the **market is highly competitive with local manufacturers**. The Korean government's drive to **develop indigenous technology** and the desire to buy from local suppliers satisfies a majority of the market segments. However, **U.S. companies who provide advanced and innovative technologies, consulting services in industry guidelines and standards, and training programs may find some niche market opportunities in the Korean market**.

After the tragic April 16, 2014 Sewol ferry sinking accident which caused the death of over 300 high school students and the temporary dismantling of the Korea Coast Guard, **renewed importance has been given to disaster prevention and issues surrounding safety management and certification**.

Industry and the public insisted that the Korean government implement a **major restructuring of Korean safety organizations**. In response to this Korea formally launched a new safety agency called the **Ministry of Public Safety and Security** in November 2014. This was part of broader government restructuring plan that dismantled the Coast Guard while dividing its responsibilities between the new ministry.

With this restructuring, the **Central Fire Service, the Korea Coast Guard, and the Public Safety and Security departments** are all under the new agency.

MARKET ENTRY

Government agencies are the primary end-users for both safety and specialty vehicles as well foreign technology products. **U.S. companies are encouraged to monitor government procurement plans** (www.pps.go.kr/eng/index.do) and **establish local representation**.

A notable factor that influences government end-users' decisions on security systems is the timely provision of operational parts and after-sales service. Government end-users also take sales records and previous contract performance history into consideration in their procurement process. Generally, at least a two-year warranty service period is a necessity.

CURRENT MARKET TRENDS

Demand for anti-terrorism and illegal product detection systems will sustain growth in this sector while demand for security systems for regular government facilities and commercial buildings have been fully met and have limited future growth potential. With the Korean government's emphasis on IT and smart technology convergence for the safety/disaster management industry, increasing demand is expected, from indigenous products, in the application and use of detection and safety diagnostic sensors, intelligent CCTVs and other monitoring devices, UAVs, robots, and other advanced high-tech smart devices.

Recently, the Korean government has announced **its plan to develop disaster prevention & management with IT convergence as another future growth engine and make it a 12 billion USD market by 2017**.

In the fire safety sector, the **Central Fire School will be constructed in Gongju City** in the near future. This USD 200 million project is being planned to up-date Korea's existing fire training facilities with a vision to have this training center become an **'Asian regional fire training'** facility.

With great emphasis on indigenous technology development, the new Ministry of Public Safety & Security recently announced **its R&D plan for 2015 and allocated \$66 million with \$18 million approved for new programs (with a total of 29 R&D programs)**. Among the **safety & security sector's new R&D programs** the following are anticipated:

- life safety systems utilizing directional sound,
- augmented reality based disaster management simulators,
- Smart Emergency Medical Service (SEMS) systems,
- USN (ubiquitous sensor network)-based search & rescue equipment development,
- high-tech smart helmet and personal protective gear,
- rescue helicopter simulators, and
- techniques and equipment to cope with HNS (Hazardous and Noxious Substances)

to name a few.

MAIN COMPETITORS

The major competitors to U.S. safety & security companies are Korean local manufacturers and service providers. With the Korean government's preference for localized products, competition from local Korean players will increase and significant market pressure for price reduction and discounts will open doors for Chinese manufacturers, which not only adversely affect Korean players but also U.S. companies seeking opportunities in Korea. According to *Fire Safety Industry Statistics* and the recent, new Ministry of Public Safety and Security, 60 percent of fire safety manufacturing companies import foreign products from China, while **U.S. imports account for about 22 percent**, followed by Germany at 15 percent, and Japan at 8 percent.

Since U.S. products/services are in a relatively high price range U.S. companies have their strongest presence in niche sectors and high-end markets where the end-users demand superior quality or advanced technology/high specifications.

CURRENT DEMAND

U.S. companies offering a **proactive approach to security solutions that are interoperable with new, emerging technologies are going to find many opportunities in the Korean market.**

U.S. firms are the major suppliers of **airport and port security equipment**, which includes X-ray scanning systems, computerized tomography scanners, magnetometers, hand-held detectors and explosive trace detectors. U.S. imports account for 30 percent of the port security market. Some of Korea's emergency 119 number (equivalent to U.S. '911') and fire department security inventory have been **sourced through foreign companies**. They include: specialty trucks such as biochemistry rescue trucks, elevated ladder trucks, mixed bending ladder trucks, ambulances etc.; underwater detectors; helicopter navigators; satellite phones; infrared ray cameras; and, rescue crew locators. Although the **size of demand is small, they offer product areas for foreign supplies.**

A \$3 billion budget has been allocated to the new Ministry of Public Safety and Security for 2015, with the following amount having been allocated to these sectors:

- \$904.8 million in **disaster prevention**,
- \$194 million in **fire service and rescue/disaster management**, and
- \$574 million for the **revamping of the Korea Coast Guard**.

In the fire service sector around **\$93 million was allocated to replace old equipment including personal safety gears, fire engines, firefighting helicopters, and the addition of new high-tech rescue equipment.**

The budget for the Coast Guard includes money for:

- construction of large vessel for the Coast Guard,
- purchase of a fishing boat automated position transmitter system (V-pass),
- a coastal traffic control system,
- a special rescue equipment such as diver boat, and
- aviation rescue equipment and shore rescue boats are included.

BARRIERS

Prime contractors generally integrate and install security systems on a project basis which means that contactors provide local systems which are very often manufactured by the contractors and **occasionally include foreign made systems** which are not available on the local market due to a lack of technology.

Therefore, **foreign systems are required to be compatible in order to interface with locally manufactured devices** such as CCTVs, monitors, etc. Suppliers of such compatible systems should enjoy better opportunities to be selected by end-users due to the Korean government's preference to use domestic sources if they are available in the market.

For government tenders, language, understanding of the tender process, and price issues are common barriers faced by foreign companies. In IT/cyber security sector, many of the foreign companies face difficulties supplying their systems and solutions to the Korean government and public entities due to Common Criteria Evaluation and Validation schemes, which could be quite a strenuous process for foreign entities.

TRADE EVENTS

SECONEXPO 2015 - March 18 - 20, 2015 - Location: KINTEX

<http://www.seconexpo.com/2015/>

Description: Asia's leading exhibition that covers everything about security.

Fire & Safety Expo Korea 2015 - May 13 -15, 2015 - Location: Exco, Daegu

<http://www.fireexpo.co.kr/eng/index.asp>

Description: Fire & Safety Expo Korea will exhibit products that are related to fire, emergency rescue, security and disaster prevention.

Security Korea 2015 - May 27 – 30, 2015 - Location: COEX, Seoul

<http://www.securitykorea.org/security2015/eng/main/main.php>

Description: Security Korea 2015, has been held for 15 years. It is a global security trade show that will cover building management, energy management, industrial technology protection, smart grid security, intelligent automobile security, financial security, mobile security, medical security, and many other areas that can be commercialized with various convergent security service packages.

Korea International Safety & Health Show - July 6 – 9, 2015 - Location: COEX, Seoul

<http://www.kiss21c.org/en/index.asp>

Description: This annual '*Occupational Safety and Health Convention*' aims to raise awareness of the importance of safety and health at work as well as the prevention of occupational accidents.

The Coast Guard Safety & Equipment Show 2015 - July 17 - 20, 2015 - Location: Songdo Convensia

<http://www.cgs-show.kr/>

Description: The Coast Guard safety equipment exhibition in Korea with the participation of the Korea Coast Guard and related organizations.

AVAILABLE MARKET RESEARCH & OTHER RESOURCES

Korea Country Commercial Guides: 2014 http://www.buyusainfo.net/docs/x_8160941.pdf

Korea Fire Safety Association: <http://www.kfsa.kr/>

Korea Electrical Safety Corporation: <http://eng.kesco.or.kr/>

Korea Gas Safety Corporation: http://www.kgs.or.kr/kgsmain_eng/index.do

Korea Occupational Safety & Health Agency: <http://english.kosha.or.kr/english/main.do>

Public Procurement Service: <http://www.pps.go.kr/eng/index.do>

Ministry of Public Safety and Security: <http://www.mpss.go.kr/main/main.html>

Korea's Specialty & Safety Vehicles

2014

The data in this report comes from various governmental entities and may not/not be inclusive of all vehicles in Korea in these various categories.

Fire Trucks

Classification		Number of Vehicles
Fire Engines	Large Size	152
	Medium Size	1,356
	Small Size	398
	Mini Size, Farm Village Size	22
	Wildfire engines	84
Water Carrying Cars/Trucks		686
Chemical Fire Trucks	High Efficiency	110
	Decontamination	7
	Bomb Proof	7
	Analysis	4
	Biochemical	13
	Regular	133
Unmanned Fire Trucks		8
With Tower Ladders	Below 33m	8
	Below 46m	79
	Above 52m	114
With Multi-aerial Platforms	Below 18m	5
	Below 27m	149
	Below 35m	44
	Below 46m	7
	Below 50m	0
	Below 53m	0
	Above 68m	1
Rescue Cars/Trucks	Regular	238
	Bus	77
	Mountain	50
Foam Tender Trucks		45
Lighting Trucks		18
Fire Ventilation Trucks		116
Ambulances		1,343

Fire Command Vehicles		285
Satellite Rely Trucks		8
Heavy Rescue Vehicles		82
Trailers	Air Tank Fire Trucks	72
	Boat Carrying Trucks	190
	Other Kinds of Trucks	45
Towing Cars/Trucks		6
General Trucks		219
Excavators		27
Fire Safety Education Buses		29
Public Advertisement Buses		2
Patrol Cars		402
Fire Investigation Vehicles		123
Diagnosis Cars		240
Administration Cars		450
Other Kinds of Trucks		247
Motorcycles		183
Helicopters (for fire purposes)	7 Seat Capacity	3
	10 Seat Capacity	8
	14 Seat Capacity	8
	18 Seat Capacity	4
Fire Boats	5 ton	2
	50 ton	2
	100 ton	4
Rescue Boats	20 ton	12
	30 ton	3

Source: 2014 *Fire Equipment Statistical Report* by National Emergency Management Agency (NEMA) (<http://eng.nema.go.kr/>). As of January 2015 NEMA is an entity in the newly established Ministry of Public Safety and Security (MOPSS is housed in the office of the Prime Minister; <http://www.mpss.go.kr/english/eng01.html>).

Imported Fire Trucks by Korean Province or City

<i>City and/or Province name</i>	<i>Equipment name</i>	<i>Model</i>	<i>Date of Operation</i>	<i>Manufacturer</i>	<i>Country of import</i>	<i>Purchased Price (USD)</i>	<i>Notes</i>
Incheon	High Efficient Chemical Truck	Large Cargo Truck	2013.11.28	Ziegler (Body=Volvo)	Germany	0.8 million	

Ulsan	Bomb and Chemical Proof Trucks	Water Tank (6500L) Foam(1000L)	2013.6.7	Rosenbauer	Germany	0.9 million	
Sejong	Multi-Purpose Special Rescue Truck	405HP, 8849cc Maximum 4731L/m	2013.12.14	Pierce	USA	1.3 million	Includes Biochem Trailer
Kyunggi	Biochemical Rescue Truck	Large	2013.9.27	Rosenbauer	Australia	0.9 million	
Young kwang	Unmanned Multi-Purpose Special Rescue Truck	Large	2015.1.20	Bronto	Finland	1.6 million	Strategically located near nuclear power plants
Kori	Unmanned Multi-Purpose Special Rescue Truck	Large	N/A	Bronto	Finland	1.6 million	Strategically located near nuclear power plants
Wolsong	Unmanned Multi-Purpose Special Rescue Truck	Large	N/A	Bronto	Finland	1.6 million	Strategically located near nuclear power plants
Uljin	Unmanned Multi-Purpose Special Rescue Truck	Large	N/A	Bronto	Finland	1.6 million	Strategically located near nuclear power plants
Gyeong buk	Unmanned Multi-Purpose Special Rescue Truck	Large	N/A	N/A	N/A	N/A	will be delivered in Future

*Source: 2014 Fire Equipment Statistical Report by National Emergency Management Agency (<http://eng.nema.go.kr/>)

Police Vehicles

	(Units/Number of cars)	Vehicle	(for work)			
National Police Agency	13,798	2	7,440	5,144	890	322

Source: 2014 National Police Agency (<http://www.police.go.kr/portal/main/contents.do?menuNo=200310>)

Ambulances

Unit= Number of Ambulances

<i>By Organization</i>	<i>By Sub-Organization</i>	<i>2013</i>		
		<i>Ambulances</i>		
		<i>Subtotal</i>	<i>Special Ambulances</i>	<i>Regular Ambulances</i>
Ambulances for Various Group	Subtotal	7,744	3,437	4,307
Country or Provinces	Subtotal	279	33	246
	Public Medical Centers	21	11	10
	Public Health Centers	248	22	226
	Branch Office of the Community Health Centers	9	0	9
	Health Care Centers	0	0	0
	Local Governments	1	0	1
Emergency Medical Institutions	Subtotal	635	302	333
	Regional Emergency Medical Centers	34	17	17
	Professional Emergency Medical Centers	3	1	2
	Regional Emergency Medical Centers	187	84	103
	Regional Emergency Medical Institutions	411	200	211
For Entities Other than Emergency Medical institutions	Subtotal	2,572	85	2,487
	Emergency Rooms & Other Facilities	123	15	108
	General Hospitals	24	7	17
	Hospitals	2,003	46	1,957
	Clinics	422	17	405
Other Kinds of Facilities	Subtotal	55	23	32
	Senior Care Centers	4	0	4
	Industrial Facilities	22	10	12
	Airports and the Airport Corporation	7	3	4
	Sports and Leisure Facilities	11	2	9
	Horse Race Tracks	11	8	

'119' Rescue Teams	1,280	1,280	0
Military	2,036	1,300	736
Police (Including Prisons)	25	1	24
Companies that Operate Ambulances	627	385	242

Transportation for Non-Profit Organizations	226	28	198
Other Kinds of Unclassifiable Vehicles	9	0	9

Source: 2013 Korea's National Medical Center:

http://kosis.kr/statHtml/statHtml.do?orgId=411&tblId=DT_41101_21R&vw_cd=MT_ZTITLE&list_id=D1_41101_04&conn_path=F0&path=

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This document was created by the U.S. Department of Commerce/Global Markets and the Commercial Service in Seoul, Korea. We want to thank Commercial Service Intern, Mr. KIM Jeong-Suk who provided sustained and valuable assistance in preparing parts of this report.

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Circulated beginning February 2015

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