



Why KHNP?

8 November, 2017

CONTENTS

01 Korea & Korean



03 Benefits
in Various fields



02 Korea Nuclear
Industry
& KHNP's Benefits



A large green square with a white border containing the number "1" in a bold, black, serif font. This square is positioned on the left side of the slide, between two horizontal decorative bars. Each bar is composed of three segments: blue, green, and blue.

Korea & Korean

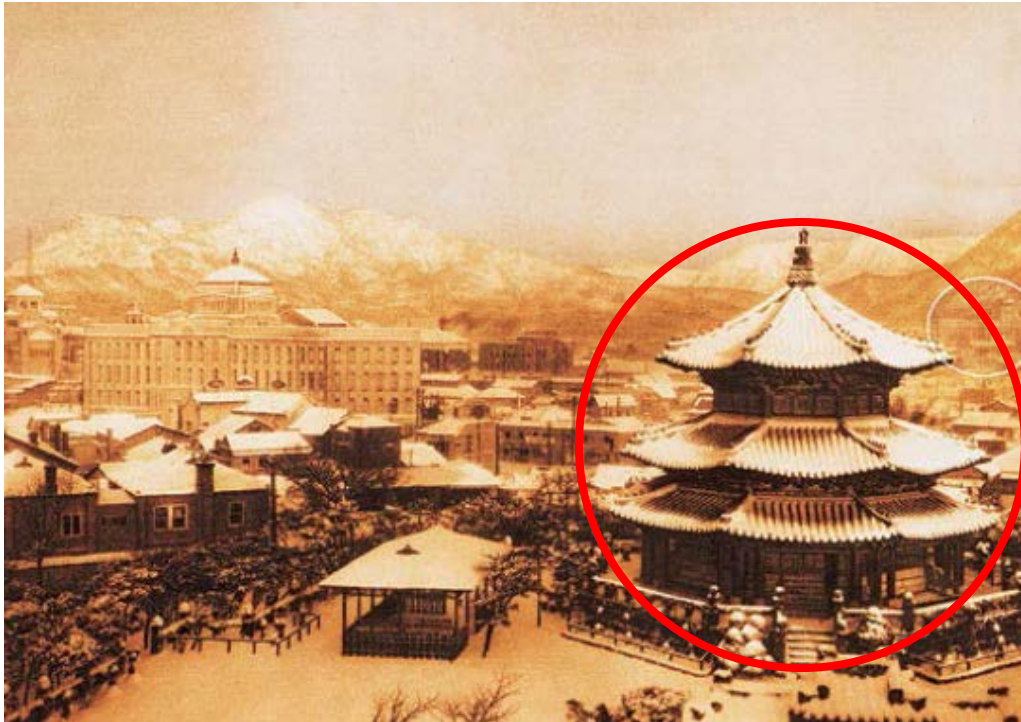
1. Korea and Korean

- Miracle of Han-river



1. Korea and Korean

■ Different Start in Development: Korea



<<Wongudan Altar>> photo taken in 1926

- Wongudan means "Round Hill Platform"
- Kings of Joseon used the altar as ceremonial sites during drought to call on rain



<<Rain Calling Ceremony>>

- The king participated in rituals of praying to the gods for rain during severe drought periods.

1. Korea and Korean

■ Different Start in Development: The U.S.



Los Angeles Aqueduct

- The Los Angeles Water Department, carried out massive water projects which began in 1908.
- This is the 233 mile-long aqueduct from Owens Valley in Eastern California, eventually expanding to include the Colorado River in 1925.
- Los Angeles would not be what it is today without this aqueduct project.



Source:
http://waterandpower.org/museum/The_Story_of_the_Los_Angeles_Aqueduct.html

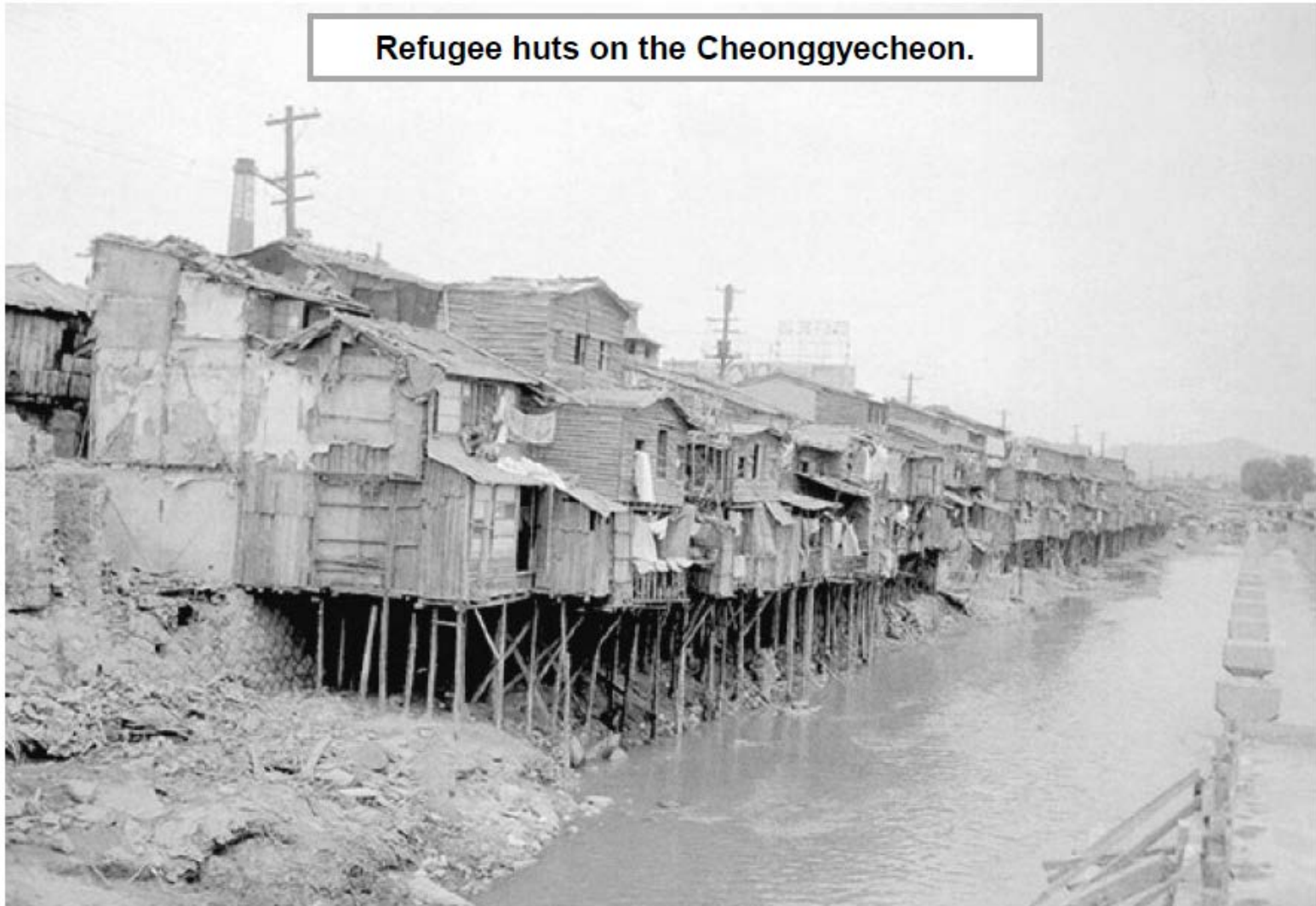
1. Korea and Korean

- The Korean War(1950~1953)



1. Korea and Korean

- After the War(Cheonggye-stream)



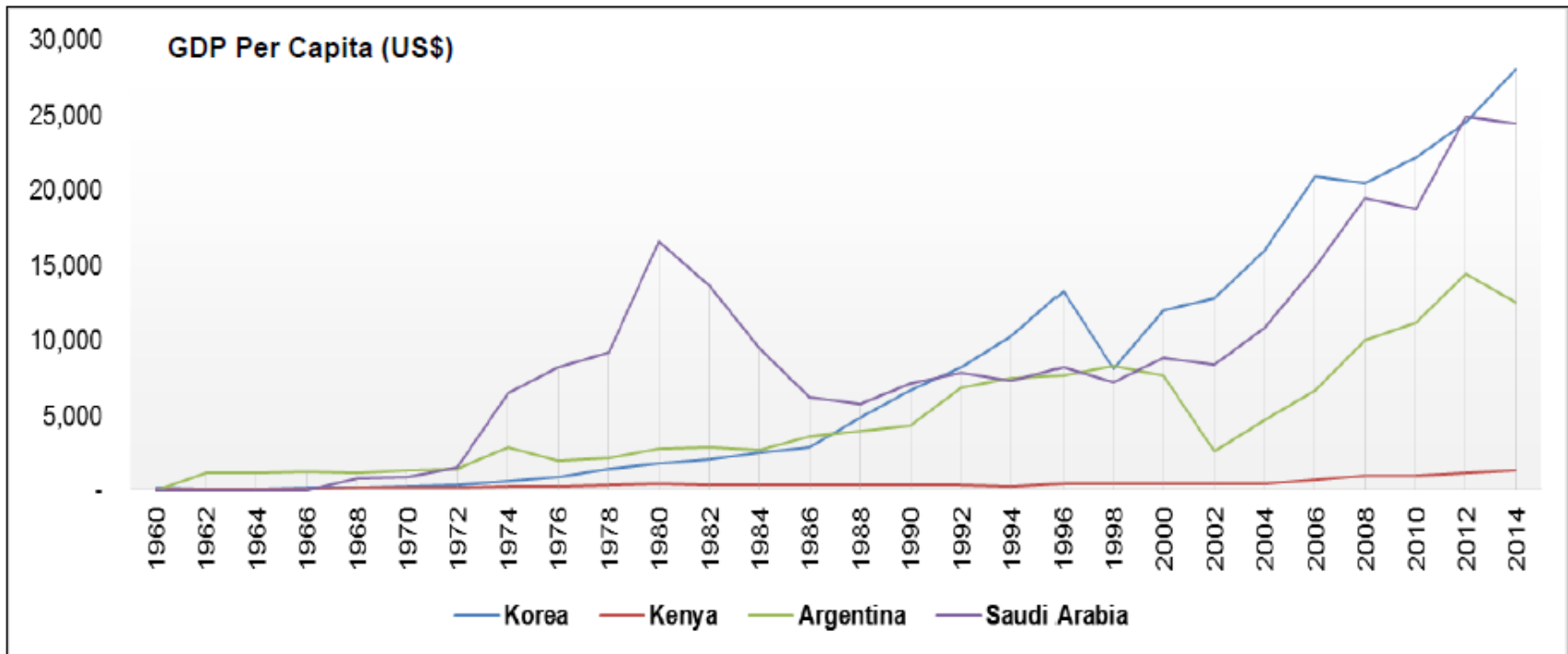
1. Korea and Korean

- Recent Cheonggye-stream



1. Korea and Korean

- Between 1961 and 2014, Korea's per capita income by 300 times



1. Korea and Korean

■ Sources of National Competitiveness?

Top 15 Countries by Land Size, Population, Oil Reserves, and GDP

Rank	Land Size	Population	Oil Reserves	GDP
1	Russia	China	Saudi Arabia	US
2	Canada	India	Venezuela	China
3	China	US	Canada	Japan
4	US	Indonesia	Iran	Germany*
5	Brazil	Brazil	Iraq	France*
6	Australia	Pakistan	Kuwait	UK*
7	India	Nigeria	UAE	Brazil
8	Argentina	Bangladesh	Russia	Russia
9	Kazakhstan	Russia	Libya	Italy*
10	Algeria	Japan	Nigeria	India
11	Congo	Mexico	Kazakhstan	Canada
12	Greenland	Philippines	China	Australia
13	Saudi Arabia	Vietnam	Qatar	Spain*
14	Mexico	Ethiopia	US	South Korea*
15	Indonesia	Egypt	Brazil	Mexico

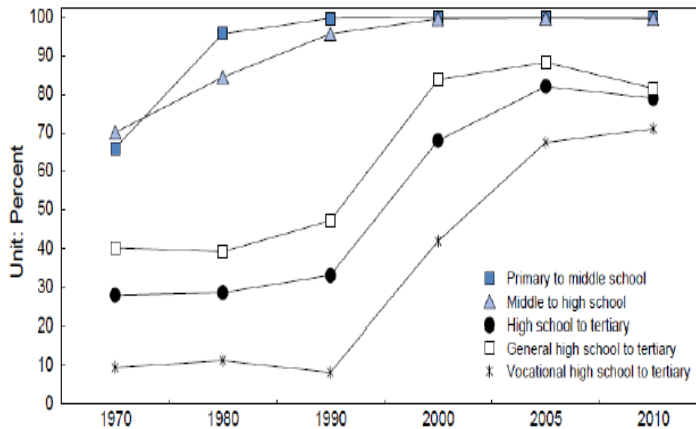
* Advanced economies without large inherited advantages in land size, population, and oil reserves.

Source: Land size from UN Statistics Division (2013), population from CIA World Factbook (2013), oil reserves from OPEC Statistics Bulletin (2013), GDP from World Bank (2013).

1. Korea and Korean

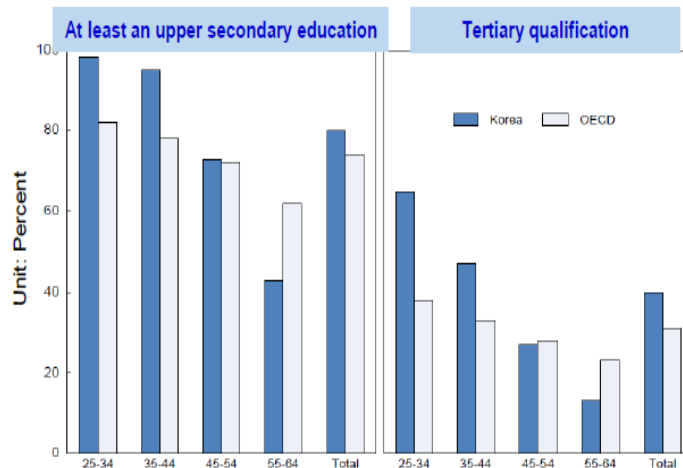
■ Sources of National Competitiveness?

School Advancement Rates in Korea



Source: Korean Educational Development Institute (2010).

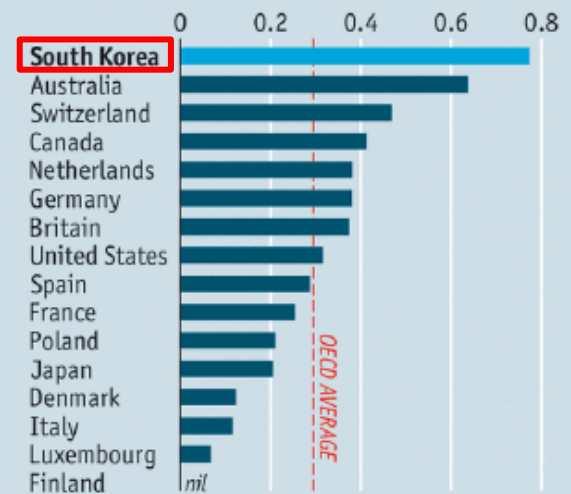
Comparison with OECD countries



Source: OECD (2012). OECD Education at a Glance 2012

Because they're special

Private spending on education*
% of GDP, selected OECD countries, 2011



*Primary to post-high school, excluding tertiary

Source: OECD

Source: Economist, 2015/9/19, The crème de la cram

1. Korea and Korean











■ Sources of National Competitiveness?

Working Hours by OECD Countries

Country	Hours	Country	Hours	Country	Hours
Mexico	2250	United States	1787	Sweden	1636
Korea	2090	Italy	1772	Switzerland	1636
Chile	2047	New Zealand	1762	United Kingdom	1625
Greece	2039	Iceland	1731	Luxembourg	1600
Russia	1979	Japan	1728	Belgium	1576
Hungary	1976	Portugal	1711	Denmark	1548
Poland	1938	Canada	1698	Ireland	1541
Estonia	1924	Austria	1696	France	1482
Israel	1920	Australia	1693	Norway	1421
Turkey	1864	Spain	1685	Germany	1406
Czech Republic	1830	Finland	1680	Netherlands	1382
Slovak Republic	1793	Slovenia	1649	OECD Average	1765

1. Korea and Korean

London 2012 Olympic Games Medal Table

Rank by Gold	Country	Gold	Silver	Bronze	Total
1	 United States	46	29	29	104
2	 China	38	27	23	88
3	 Great Britain	29	17	19	65
4	 Russia	24	26	32	82
5	 South Korea	13	8	7	28
6	 Germany	11	19	14	44
7	 France	11	11	12	34
8	 Italy	8	9	11	28
9	 Hungary	8	4	5	17
10	 Australia	7	16	12	35

Year	City	Rank
1984	LA	10
1988	Seoul	4
1992	Barcelona	7
1996	Atlanta	10
2000	Sydney	12
2004	Athens	9
2008	Beijing	7
2012	London	5
2016	Rio de Janeiro	10

1. Korea and Korean



1. Korea and Korean



1. Korea and Korean



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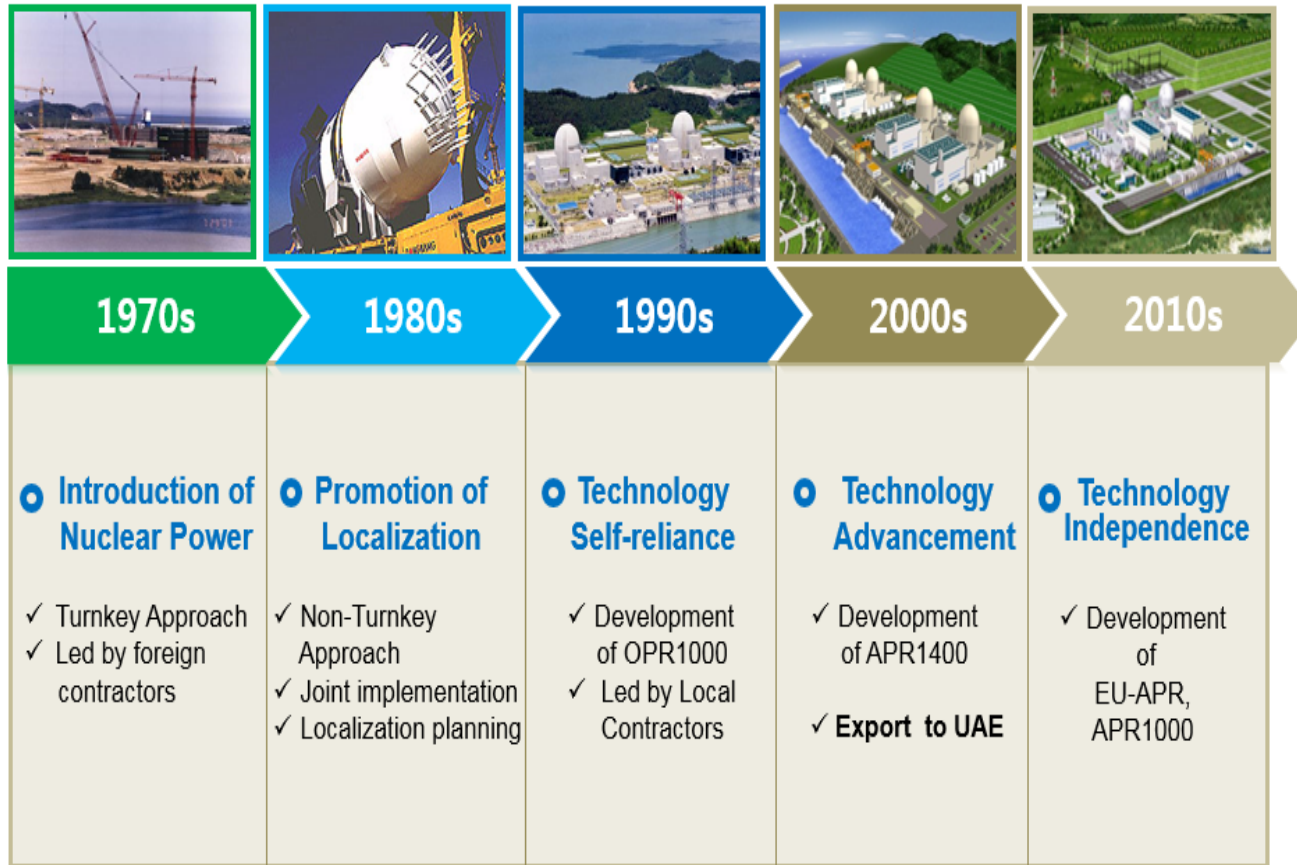
2

Korea Nuclear Industry & KHNP's Benefits

2. Korea Nuclear Industry & KHNP's Benefits



■ KHNP's Experience of Localization in Korea

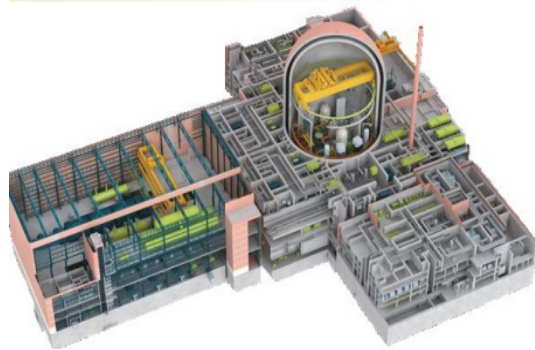


Since introducing 1st nuclear power plant in 1971, Korea has achieved technology self-reliance and high level of localization.

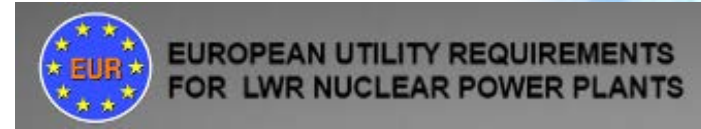
2. Korea Nuclear Industry & KHNP's Benefits



- Internationally Recognized Reactor Design



EU-APR



EUR Certification



US-APR



US NRC Design Certification

2. Korea Nuclear Industry & KHNP's Benefits



■ The Source of Competitiveness

NPP	COD	NPP	COD	NPP	COD
HBN3	'95.03	HBN5	'02.05	SKN1	'11.02
HBN4	'96.01	HBN6	'02.12	SKN2	'12.07
HUN3	'98.08	HUN5	'04.07	SWN1	'12.07
HUN4	'99.12	HUN6	'05.04	SWN2	'15.07
NPP	COD				
SKN3	'16.12				

Construction period



Construction cost



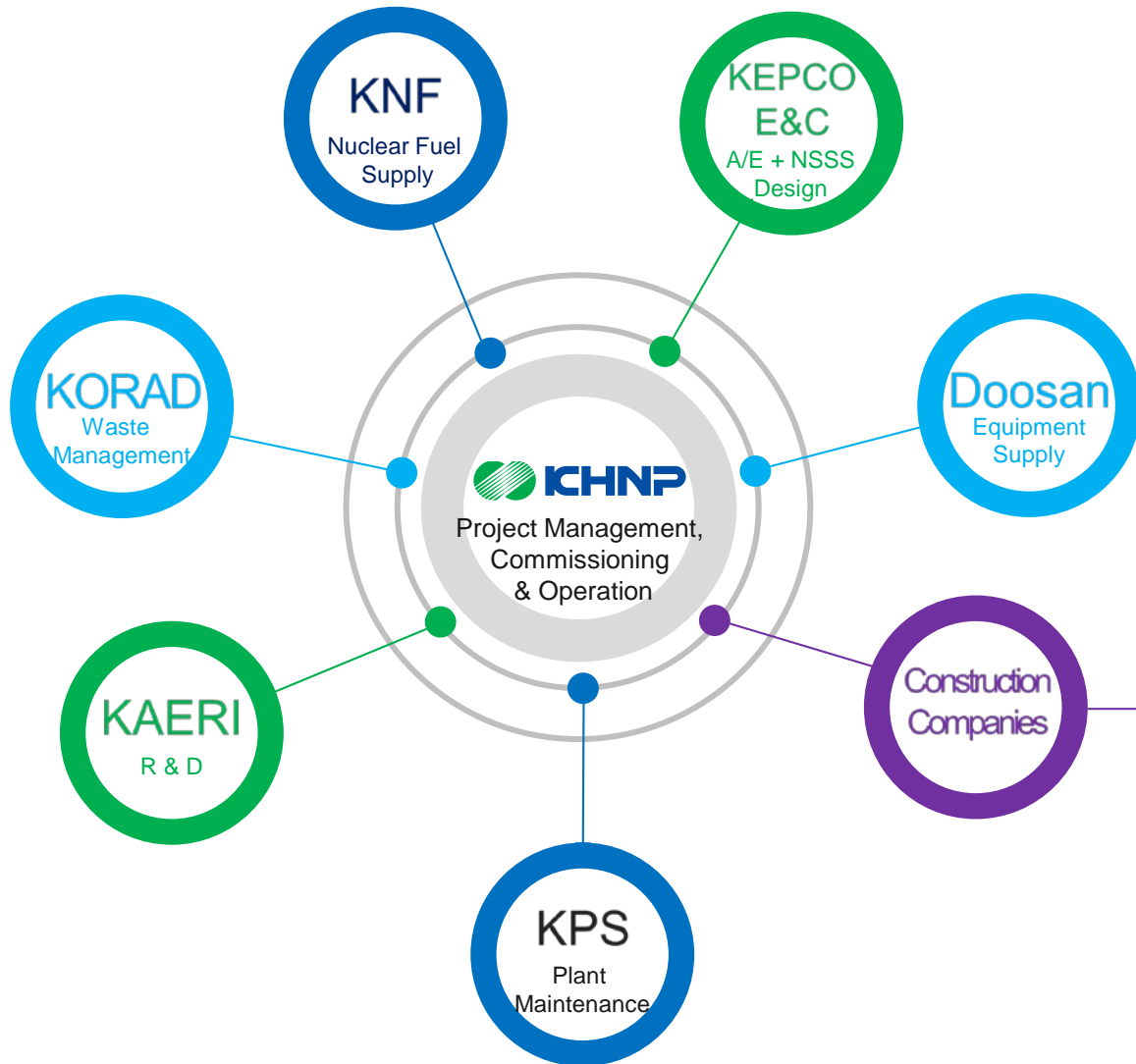
2. Korea Nuclear Industry & KHNP's Benefits



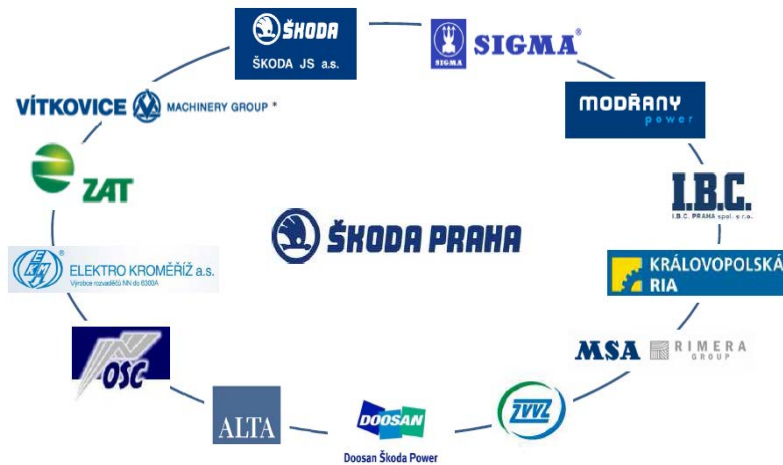
- The 2016 Top 100 International Contractors (Engineering News-Record)

Rank 2016	KOREAN FIRM
13	HYUNDAI ENGINEERING & CONSTRUCTION CO. LTD.
17	SAMSUNG C&T CORP.
22	GS ENGEINEERING & CONSTUCTION
29	SAMSUNG ENGINEERING CO. LTD.
39	SK ENGINEERING & CONSTRUCTION CO. LTD.
42	DAELIM INDUSTRIAL CO. LTD.
50	POSCO ENGINEERING & CONSTRUCTION CO. LTD.
51	DAEWOO ENGINEERING & CONSTRUCTION CO. LTD.
85	HANWHA ENGINEERING & CONSTRUCTION

2. Korea Nuclear Industry & KHNP's Benefits



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2. Korea Nuclear Industry & KHNP's Benefits



The Global Leading Institution in Nuclear Power Plant Engineering, KINGS



2. Korea Nuclear Industry & KHNP's Benefits



2. Korea Nuclear Industry & KHNP's Benefits

- IAEA Interregional Training Course Hosted by KINGS

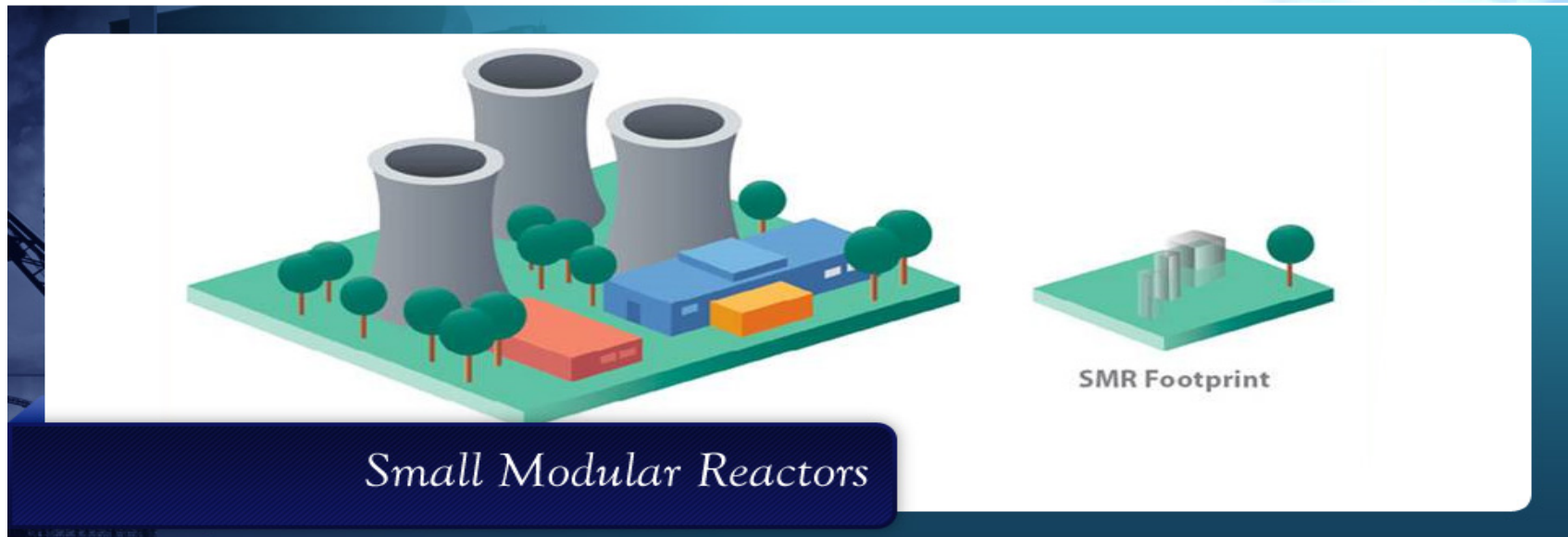
Interregional Training Course on Supporting Nuclear Power Infrastructure Capacity Building in Member States Introducing and Expanding Nuclear Power, KINGS, Republic of Korea



Year	Period	Participants
2013	6 weeks	19 (16 countries)
2014	4 weeks	19 (16 countries)
2015	4 weeks	20 (13 countries)
2016	4 weeks	19 (13 countries)
2017	4 weeks	18 (13 countries)



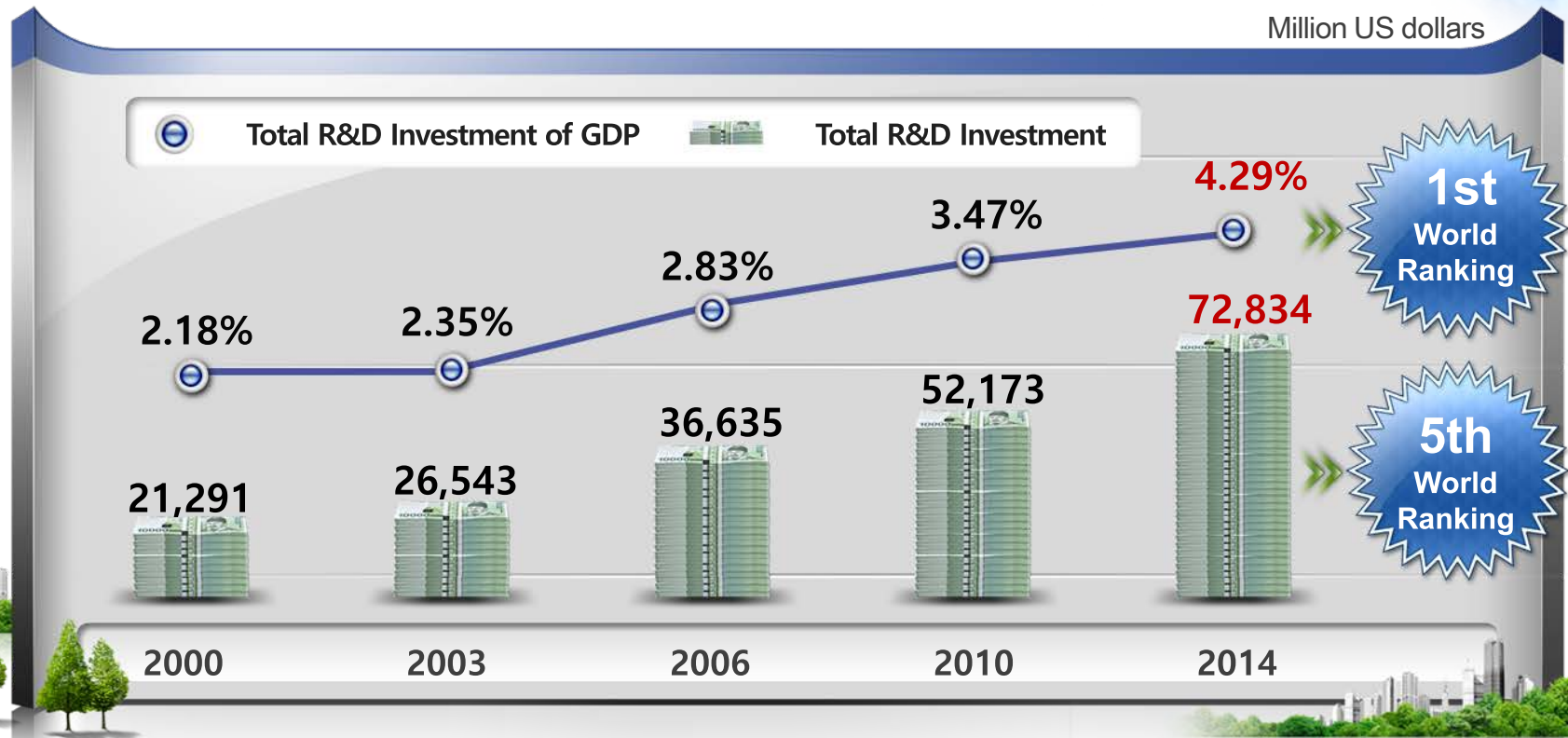
2. Korea Nuclear Industry & KHNP's Benefits



2. Korea Nuclear Industry & KHNP's Benefits



- Korea has emerged as a world leader in R&D investment
 - Ranked the 1st in R&D investment to the percentage of GDP: 4.3% ('14)
- Korea (4.3%), Israel (3.93%), Finland (3.55%), Sweden (3.41%)
 - Ranked the 5th in R&D investment, the total amount: 72.8 billion USD ('14)



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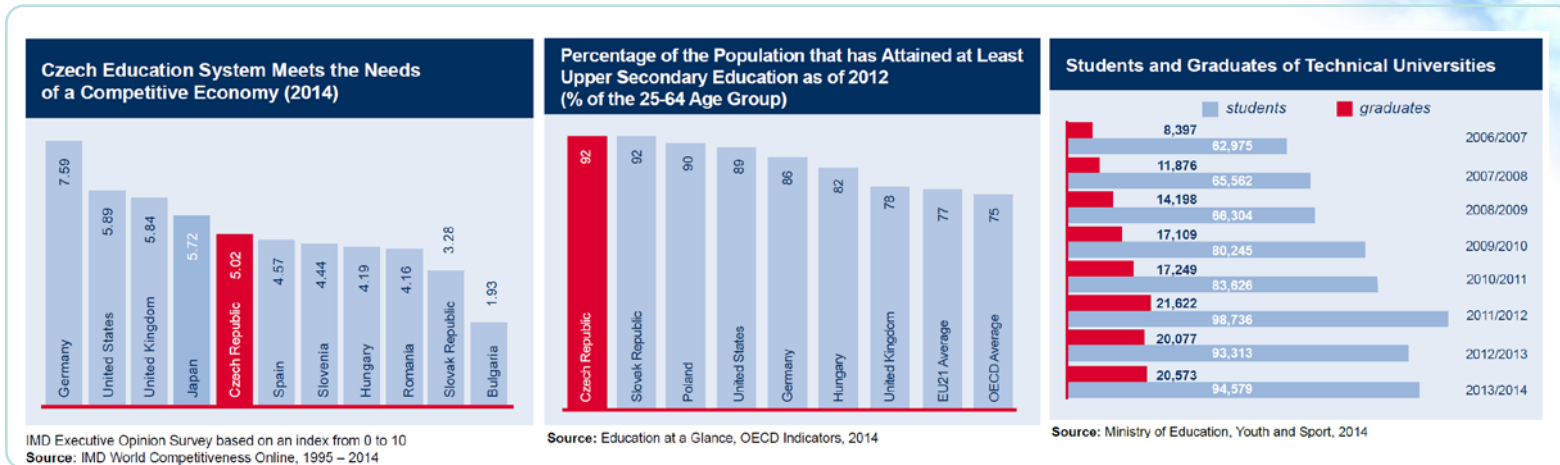
3

Benefits in Various fields

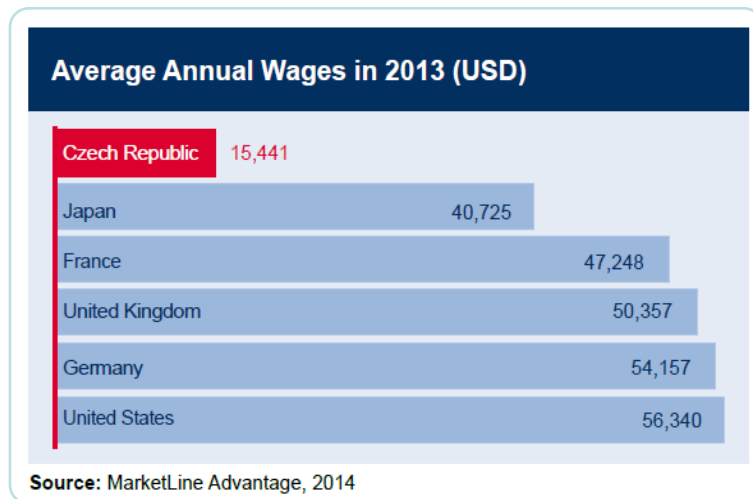
A horizontal bar with three segments: light blue, green, and dark blue.

3. Benefits in Various Fields

■ Skilled and well-educated Human Resource



■ Favorable labor costs and stability



■ Geological advantage in Europe



3. Benefits in Various Fields



The investment of Hyundai is the largest single company investment in the CZ (USD 1.4 bil.)



Nexen Tire invests 1 bil. USD into the new factory in the CZ, with completion in 2018.

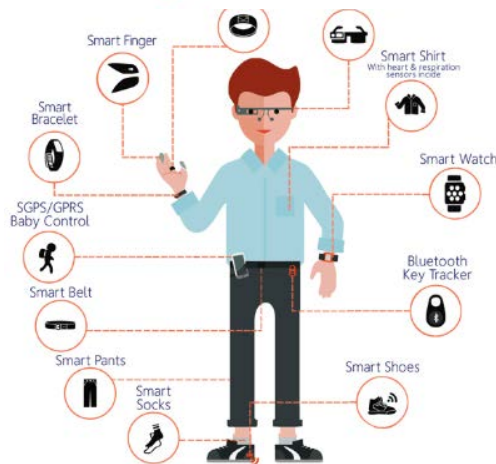


Doosan invested 631 mil. USD to Škoda Power

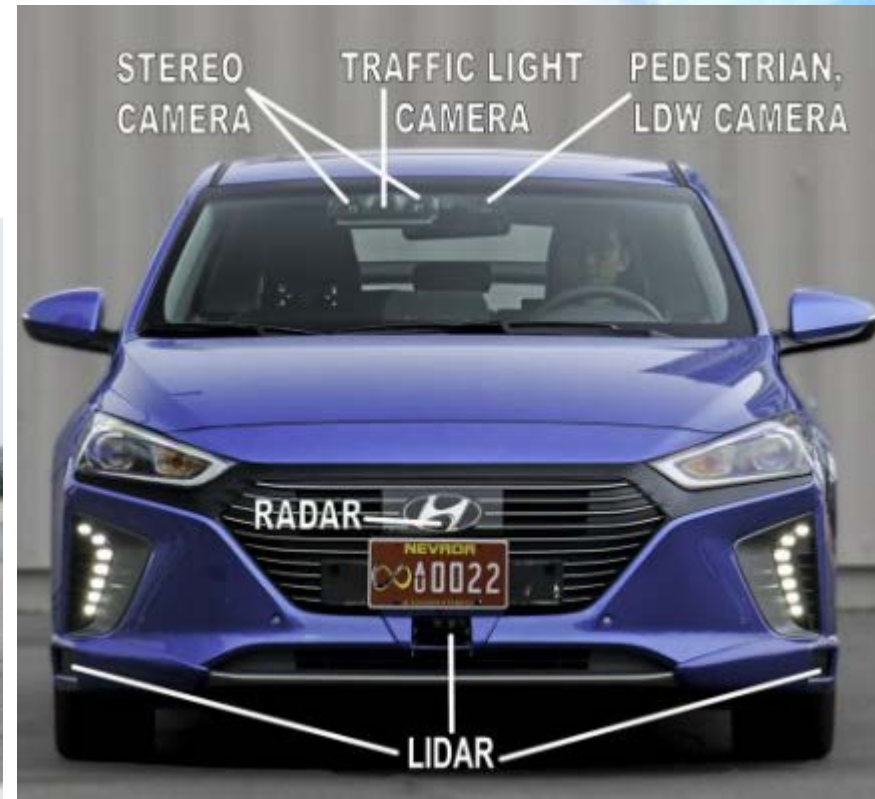
3. Benefits in Various Fields



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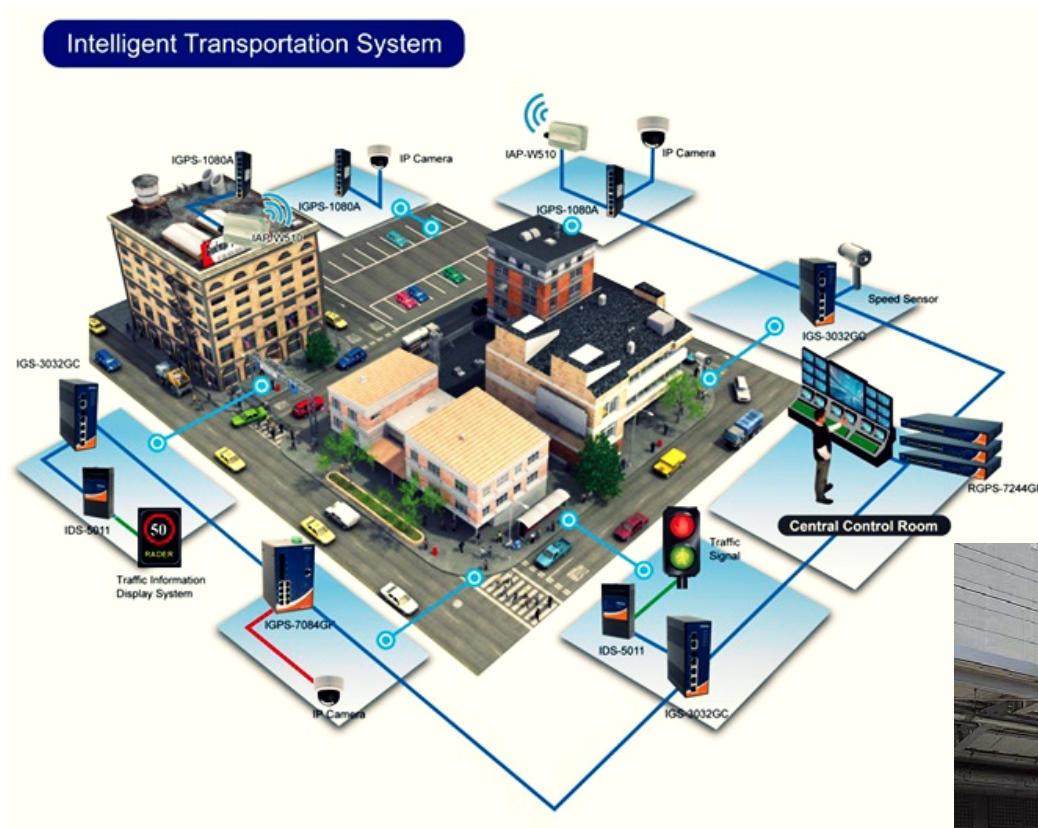
3. Benefits in Various Fields



3. Benefits in Various Fields



3. Benefits in Various Fields

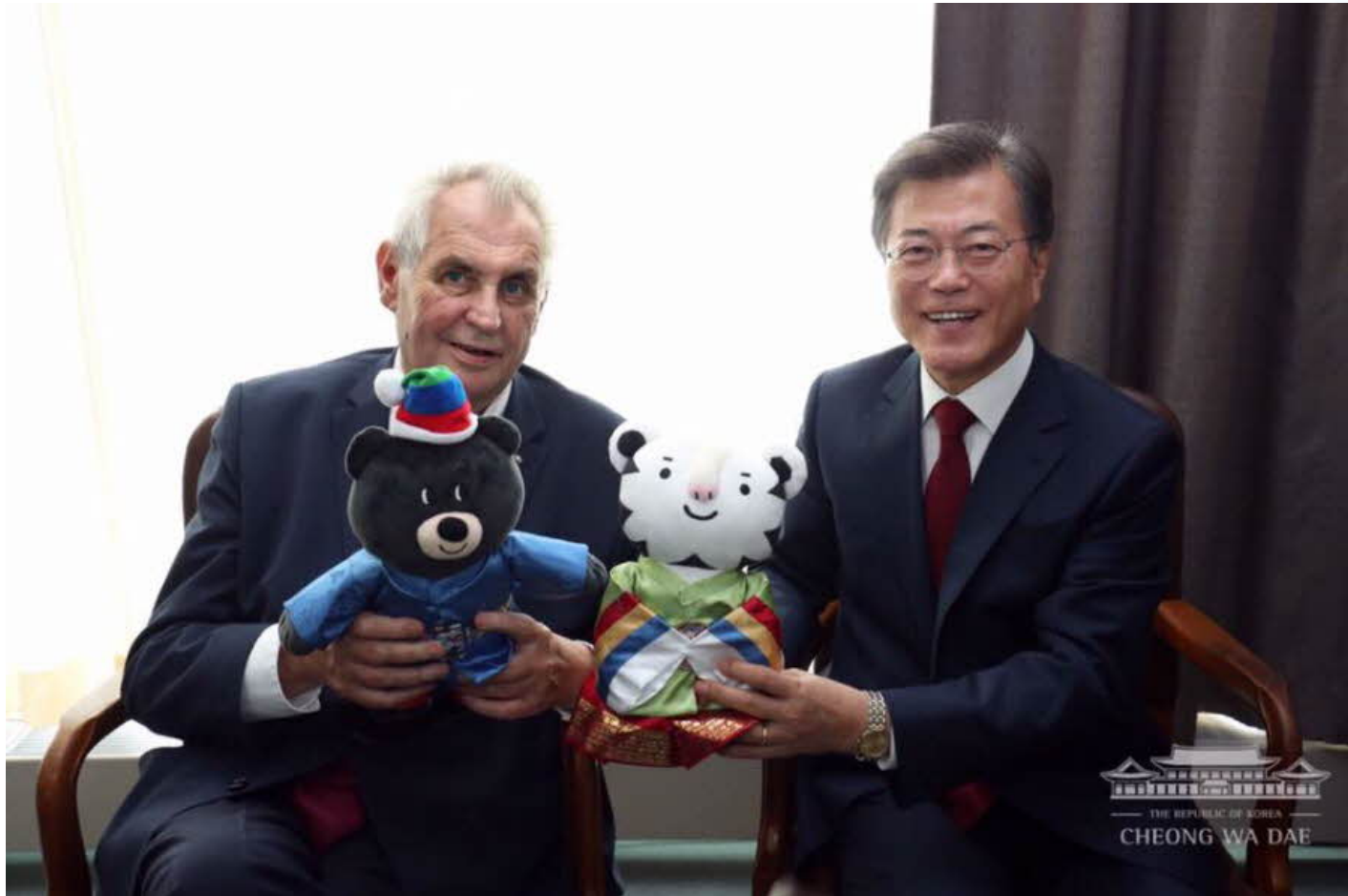


3. Benefits in Various Fields



3. Benefits in Various Fields

- Bilateral Summit on the Sidelines of the U.N. General Assembly (September, 2017)



Dekuji !

