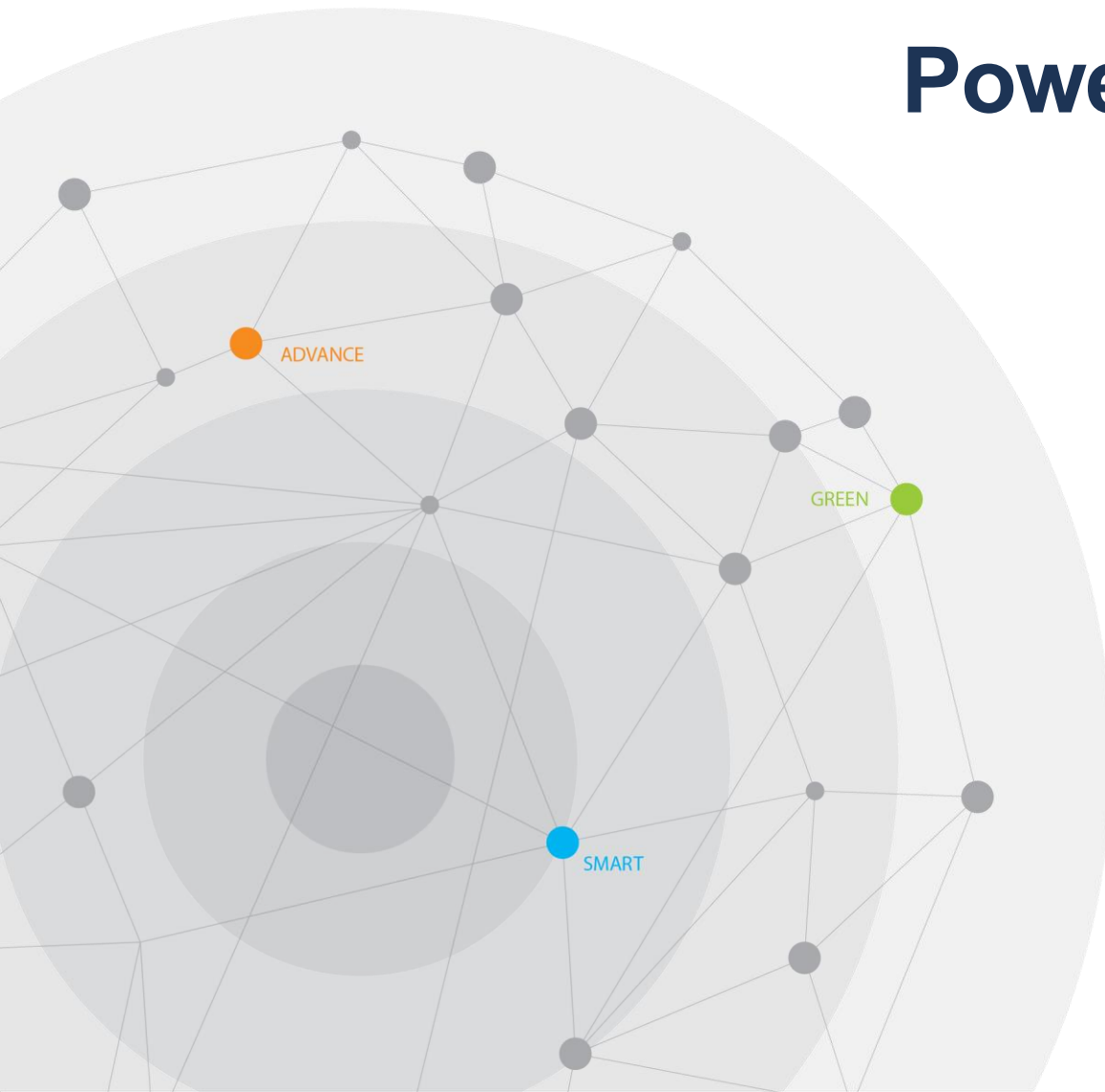
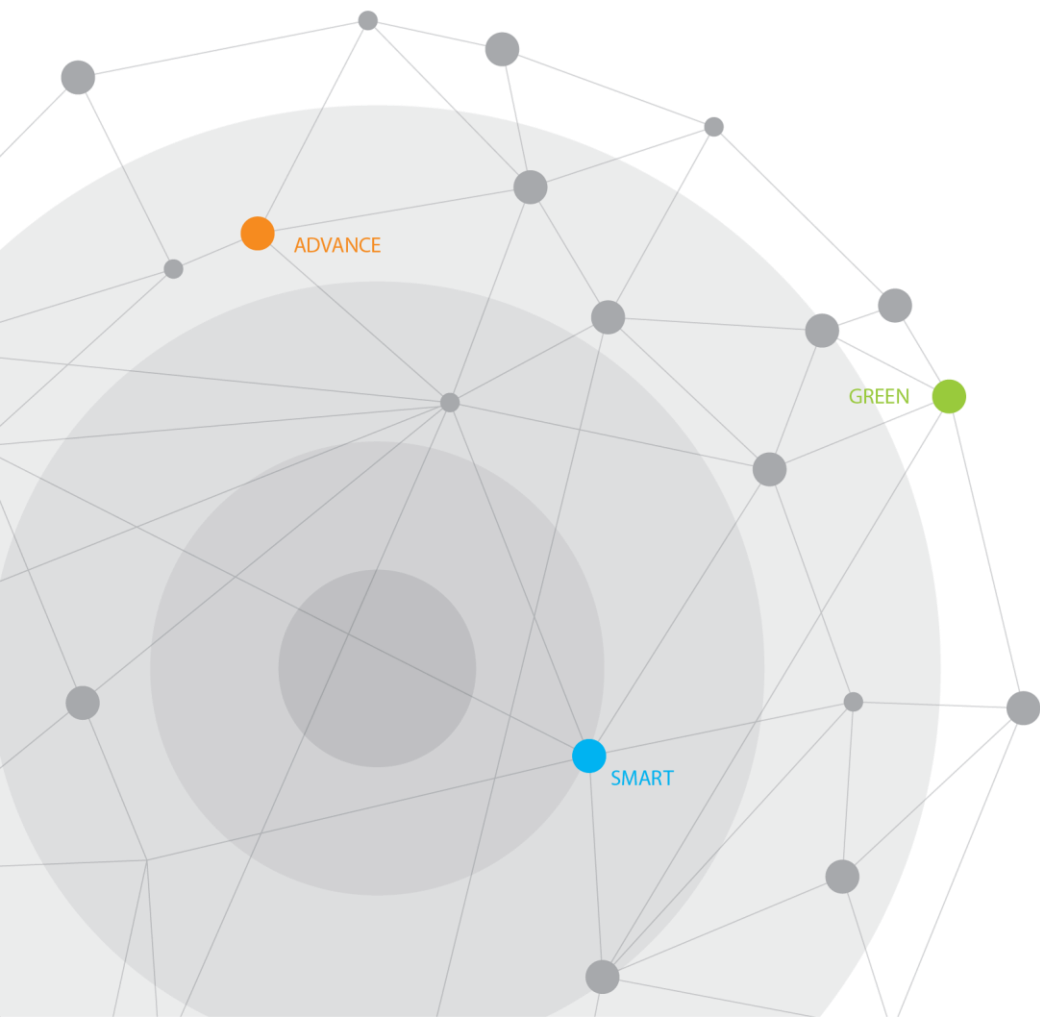


creativity inspired **HYOSUNG**

Power & Industrial Systems Performance Group

2017
—
2018





Contents

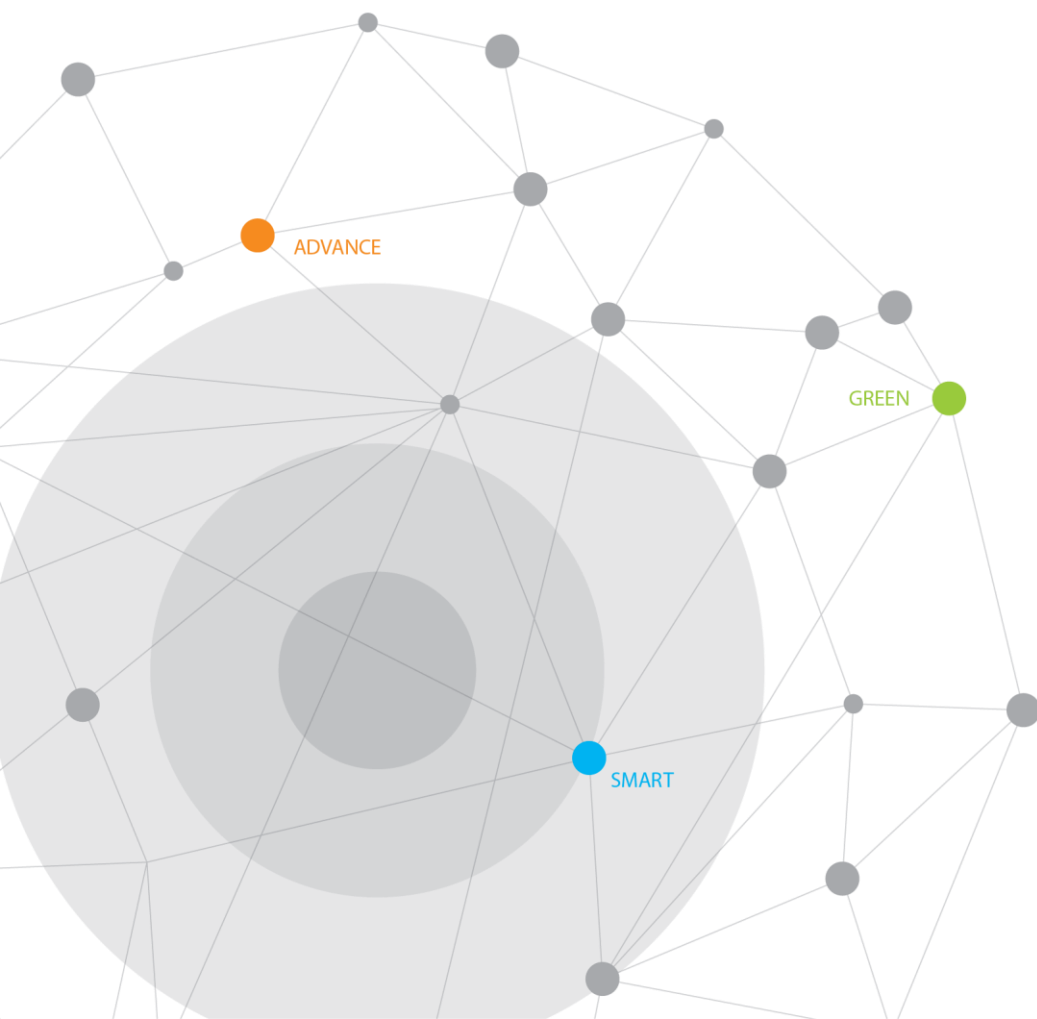
- I Hyosung Corporation
- II Power & Industrial Systems Performance Group
- III Products & Services
- IV Global Achievement
- V Benefits and Competitiveness

I

Hyosung Corporation

01 Business Areas

02 Business Results



Global Company with Advanced Technologies, Established in November 1966



Power & Industrial Systems

- Power Systems PU
- Industrial Machinery PU
- Hyosung Goodsprings PU
- Wind Energy Business Division



Textile

- Spandex PU
- Nylon Polyester Fiber PU
- Fabric Dyeing PU



Industrial Materials

- Tire & Industrial Reinforcements PU
- Technical Yarn PU
- Global Safety Textiles
- Interior PU
- Aramid Business Division
- Carbon Business Division



Chemicals

- PP/ DH PU
- Film PU
- TPA PU
- Neochem PU
- Optical Film PU
- POK Business Division



Construction

- Construction PU
- Hyosung Engineering PU
- Chinhung International, Inc.



Trading

- Steel & Metal Products PU I , II
- Chemical Products PU
- LED Business Division
- Some sevit Business Division
- Hyosung Trans-World PU



Information & Communication

- Nautilus Hyosung PU
- Hyosung Information Systems PU
- Hyosung ITX Co., Ltd.
- Galaxia Electronics Co., Ltd.
- Galaxia Communications Co., Ltd.
- Galaxia Device Co., Ltd.



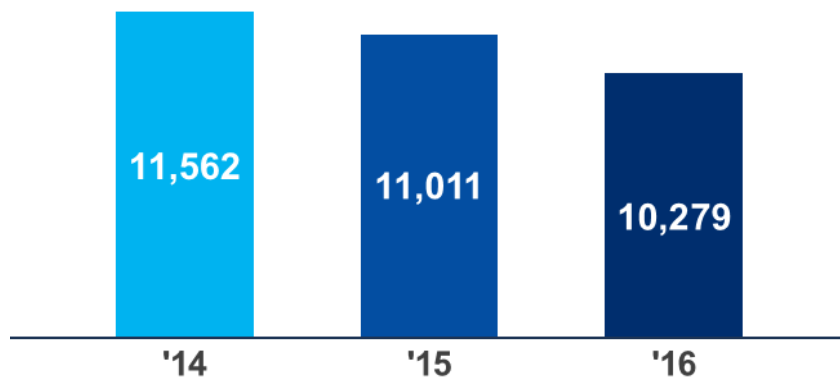
Other Affiliated Companies

- Hyosung Capital PU
- The Class Hyosung Co., Ltd.
- Hyosung Toyota Corporation
- The Premium Hyosung Co., Ltd.
- Forza Motors Korea Corporation
- Galaxia Corporation Co., Ltd.

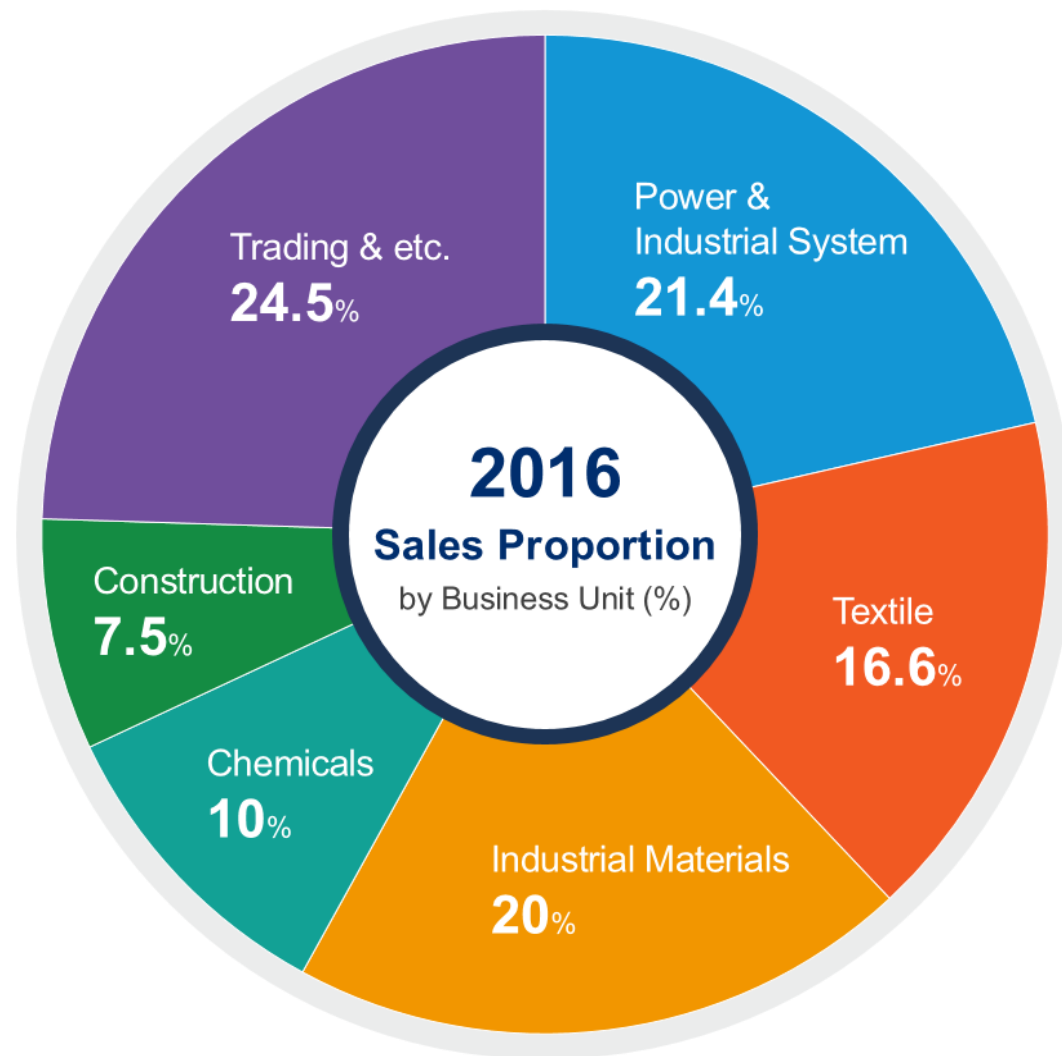
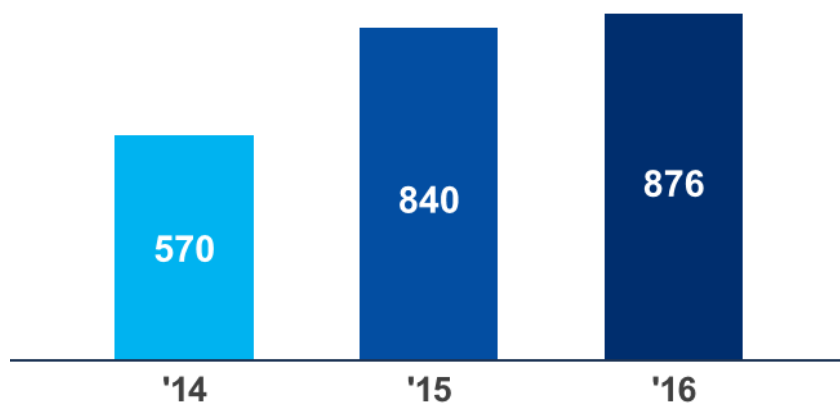
02 Business Results

I. Hyosung Corporation

▶ Total Sales (In millions of USD)



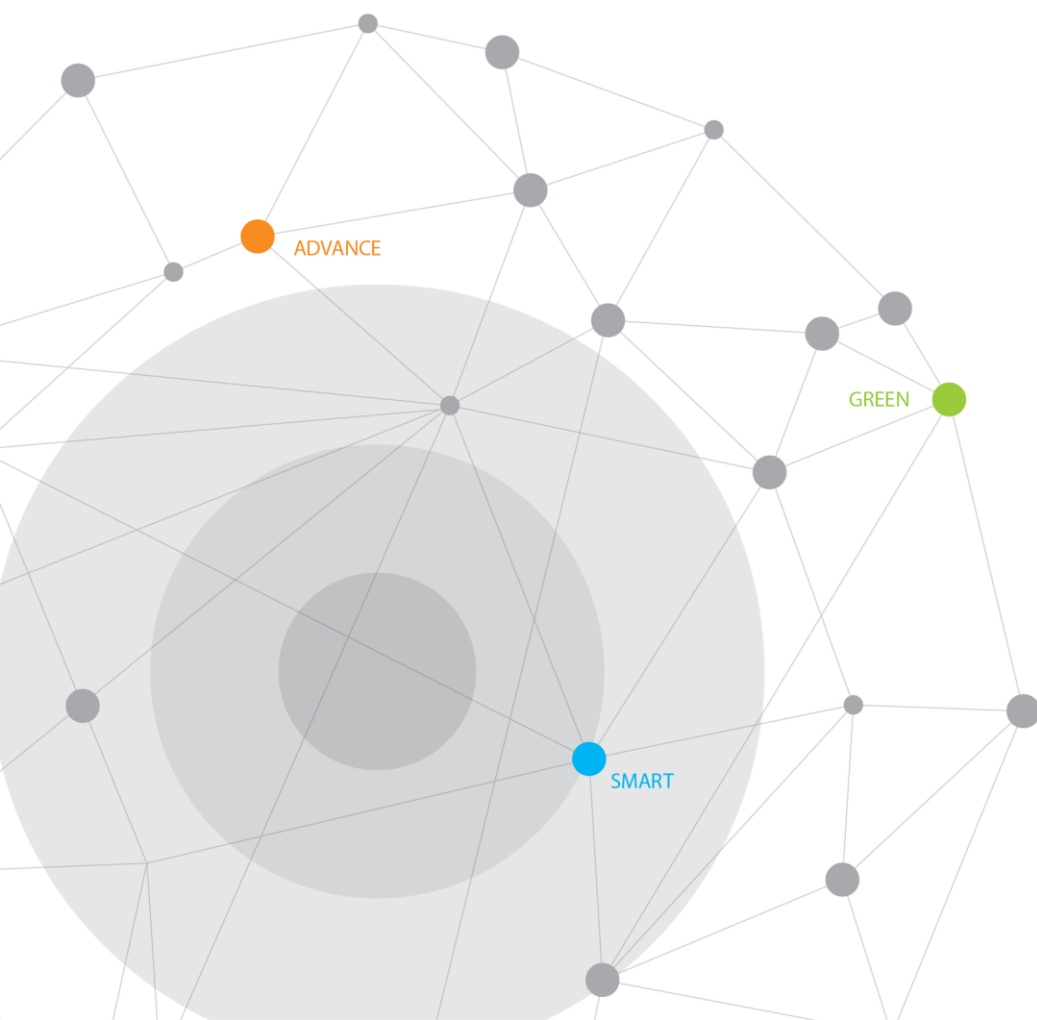
▶ Operating Profit (In millions of USD)



II

Power & Industrial Systems Performance Group

- 01 Business Areas
- 02 History
- 03 Domestic Business Locations
- 04 Overseas Business Premises



With World's Best Technologies and Quality, Attaining \$2.2 billions of 2015 Total Sales



Power Systems PU

Global major supplier of heavy electric equipment

- Transformer
- GIS, MV/ LV Switchgear
- Intelligent Electronic Device
- IT Solutions (DCS/ ECMS)
- ESS/ STATCOM · SVC
- Substation EPC turnkey
- Photovoltaic power plant, PCS
- Welding machine



Industrial Machinery PU

Korea's No.1 electric motor manufacturer

- Motor
- Gear unit
- Generator
- Generator and gearbox for wind turbine system
- Chemical process equipment



Hyosung Goodsprings PU

Korea's No.1 pump manufacturer and RO desalination system solution provider

- Pump (for power plant/ petrochemical & refinery plant/ RO plant/ building/ marine & offshore)
- Construction and provision of RO plant



Wind Energy Biz Division

Korea's first developer of 750kW and 2MW-class wind power generation systems

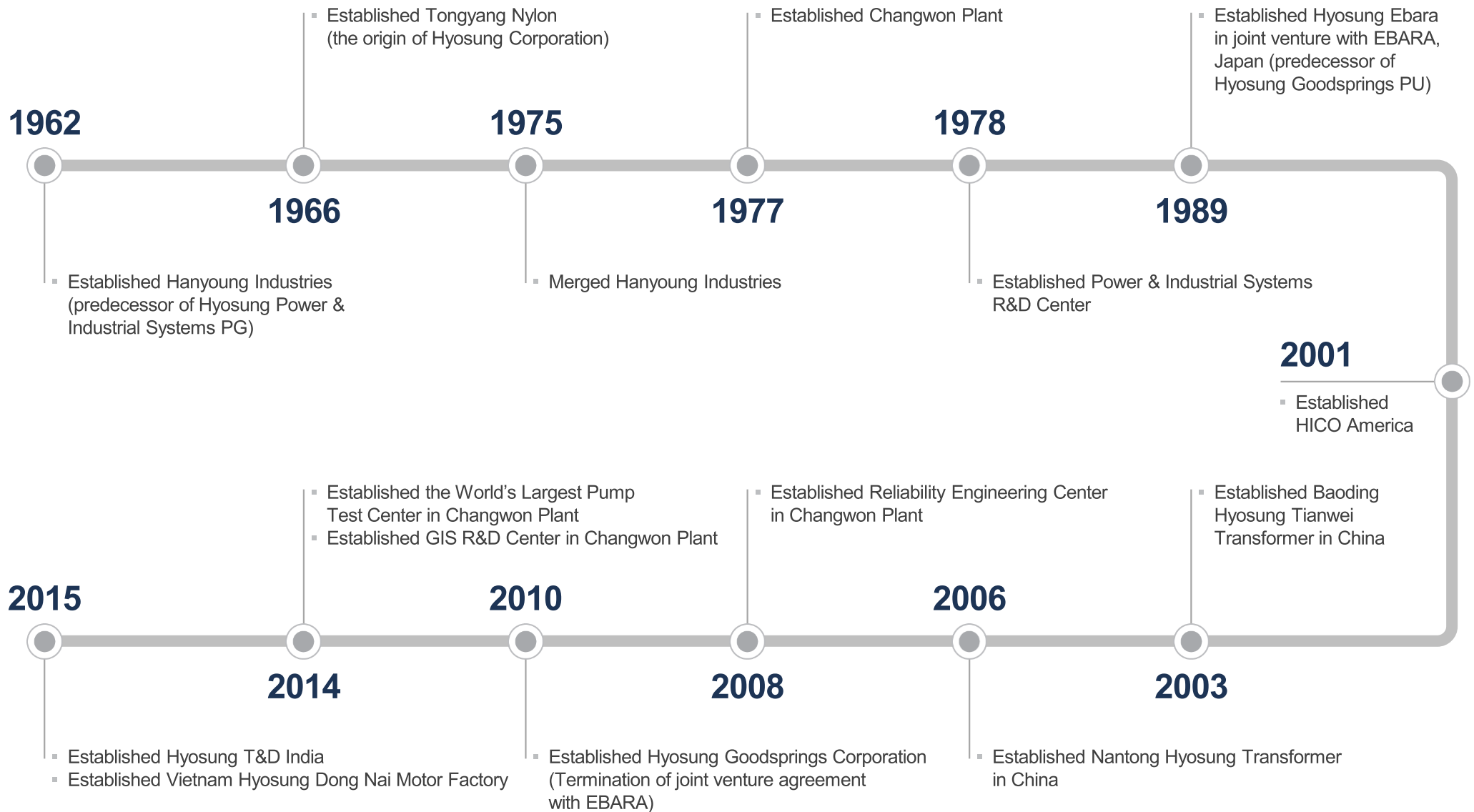
Acquired international certification of 5MW offshore wind power generation system in 2015

- Wind turbine

* PG : Performance Group * PU : Performance Unit

02 History

II . Power & Industrial Systems Performance Group

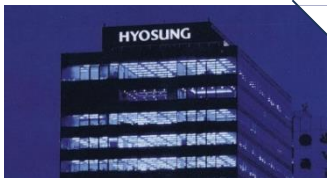


03 Domestic Business Locations

II . Power & Industrial Systems Performance Group

Well-managed Local Organization Where 3,800 Employees are doing the Best to Satisfy Customers

HQ Office



R&D Center



Changwon Plant



- No. of employees : 3,000
- Area : 718,331m²

Factory 1

- Power Transformer, Gas Insulated Switchgear
- Area : 266,918m²

Factory 2

- Distribution/ Mold Transformer
- Area : 48,380m²

Factory 3

- Power Transformer, LV/ MV Motor, Gear Unit,
- Industrial Machines, Pump
- Area : 372,455m²

Factory 4

- MV/ LV Switchgear
- Area : 30,578m²

Sejong Plant



- Items : PV inverter, ES PCS, STATCOM, Welding machine
- Area : 120,548m²

04 Overseas Business Premises

II. Power & Industrial Systems Performance Group

35 Manufacturing Entities

18 Trading Entities

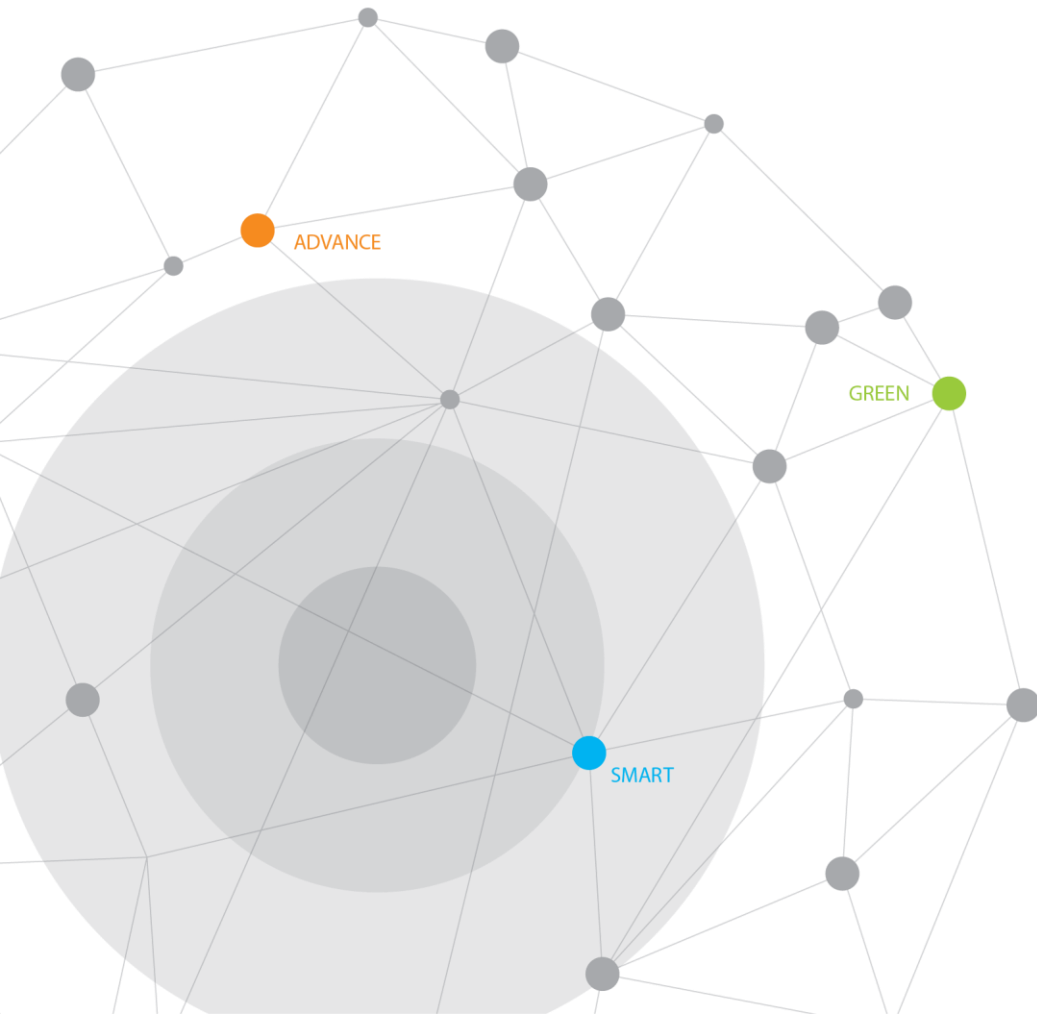
30 Trading Offices



III

Products & Services

- 01 Transformer
- 02 Gas Insulated Switchgear (GIS)
- 03 MV/ LV Switchgear
- 04 Smart Grid
- 05 Induction Motor
- 06 Pump
- 07 Generator/ Gear Unit
- 08 Others



Proven Reliability by Extensive Supply Record to Various Applications

► Type/ Rating



Power Transformers

- Up to 765kV, 1500MVA
- Core form/ Shell form
- Liquid-filled/ Gas-filled



Distribution Transformers

- Up to 66kV, 60MVA
- Core form type
- Liquid filled/ Cast-Resin

► Production Capacity

- Factory in Korea and China
- 100,000 MVA/ year (Korea), 30,000 MVA/ year (China)

► Application



- 765kV Transformer for UHV Transmission



- Generation Step-Up Transformer for Power Plants



- for Renewable Energy



- for FACTS System



- for Industrial Applications

02 Gas Insulated Switchgear (GIS)

Developing All Ratings of GIS for 40 Years. Supplying more than 14,000 Bays in 35 Countries Worldwide

► Type/ Rating

Rated Voltage	Rated Interrupting Current
800/ 1,100kV	50kA
550kV	Up to 63kA
420kV	Up to 63kA
362kV	Up to 63kA
245/ 300kV	Up to 63kA
170kV	Up to 50kA
145kV	Up to 40kA
72.5kV	Up to 40kA

► Production Capacity

- Factory in Korea and India
- 2,250 bays/ year (Korea), 500 bays/ year (India)
on 170kV Standard GIS basis

► Installation Type



- Indoor



- Outdoor



- Underground

Reliable Quality with Fast Delivery, Compact Design, Increased Safety, Easy Installation and Less Maintenance

► Type

- MV Gas Insulated Switchgear (Pro-CGIS)
- MV Air Insulated Switchgear (Pro-SWGR/ MCSG)
- LV Air Insulated Switchgear(Pro-SWGR)
- LV Motor Control Center (MCC)
- Power Distribution Center (PDC)
- Control & Protection Switchboard
- Isolated Phase Bus (IPB)
- Non-Segregated Phase Bus (NSPB)

► Production Capacity

- 1,000 Units/ year (CGIS)
- 5,000 Units/ year (MV)
- 3,500 Units/ year (LV)
- 4,000 Units/ year (MCC)



**MV Switchgear
(Pro-SWGR)**



**Package
Substation**



**Motor Control
Center**



**Power Management
System**



**Intelligent Motor
Control Center**



**Metal Enclosed
Bus Duct**



**Supervisory &
Control Board**



**High Voltage
Switchgear**

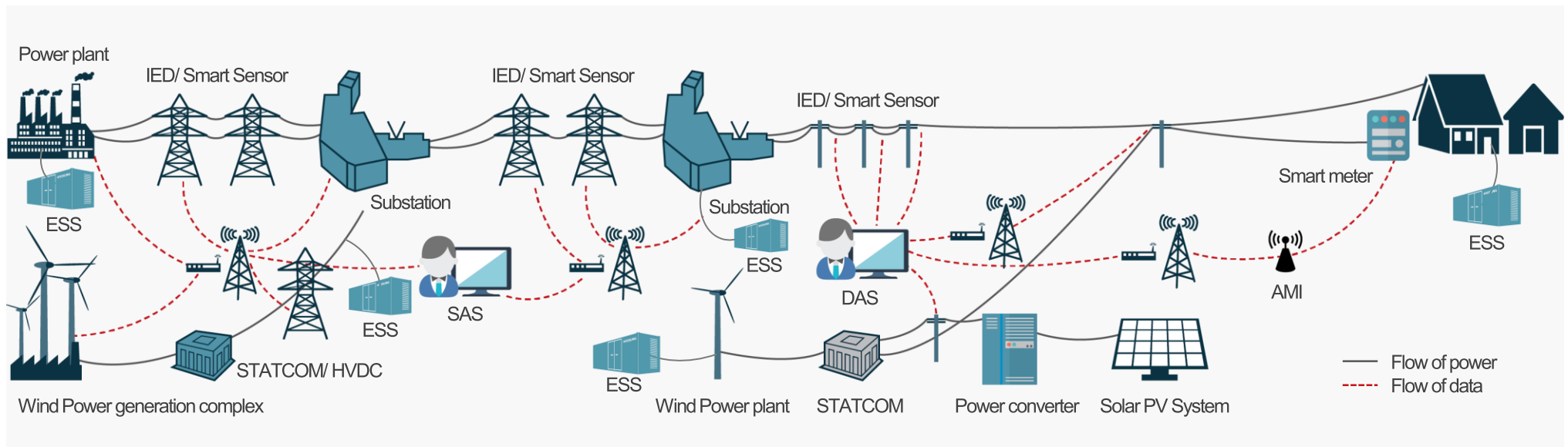


**Spot-Network
System**

Increasing Efficiency and Reliability of T&D and Providing Infrastructure for Link with Renewable Energy

Offering by Hyosung

- Substation Automation System (SAS)
- Intelligent Condition Monitoring System
- Smart Transformer and GIS with IED (Intelligent Electric Device)/ Smart Sensor
- FACTS (STATCOM/ SVC)/ Energy Storage System (ESS)/ Demand Response
- Photovoltaic Power Conditioning System (PV PCS), Solar Energy Generation Turnkey solution



▶ STATCOM



- Improve Steady-state & Transient Stability
- Improve Voltage Stability & Power Factor
- Increase Power Transfer Capacity
- Power Oscillation Damping
- Reactive Power Compensation
- Minimize Transmission-line Loss

▶ HVDC



- Power flow Control, Independent Voltage and Frequency Control
- Increase Transmission Capacity
- Improve System Stability & Sustainability
- Long Distance/ Bulk Transmission System

▶ ESS



- Reliable Solution for Peak Shaving
- Renewable Integration
- Frequency Regulation, and Micro-grid

▶ Solar Energy Generation/ PV PCS



- Photovoltaic Turnkey Solution
- 50kW, 100kW, 250kW, 500kW Electric Inverters

Manufacturing All Types of Motors for All Industries, Including Thermal & Nuclear Power, Oil & Gas, Petrochemical, Steel, Cement, Shipbuilding, and Mining Sectors



➤ Key Features

- AC/ DC Motors
- Squirrel Cage, Wound Rotor
- 0.4 ~ 25,000 kW
- Up to 13,800 V
- Up to 40 P
- Explosion Proof Motors (Exd, Exn, Exp etc.)

➤ Special Motors

- Propulsion Motor for Naval Ship
- Propulsion Motor for Torpedo
- Q class Motor for Nuclear Power Plant



➤ Main Standards

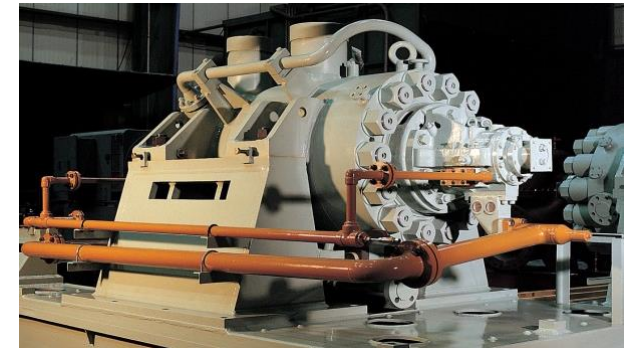
- IEC
- NEMA, ATEX, UL, CSA, API, TR-CU
- JEC, JIS, KS

➤ Applications

- Pump
- Fan
- Compressor
- Mill etc.

▶ Pumps for Power Plant

- Application : Boiler Feedwater Pumps/
Circulating Water Pumps/
Condensate Extraction Pumps/
High Performance Pump Line-ups
- References : Power Plants (Thermal/
Combined Cycle/ Nuclear),
All Pumps for Nuclear Power
Plants including Q-class
(Safety Injection Pump, etc.)
and Non-Q Class Pump
- Certification of ASME 'N',
'NPT' for Nuclear Power Plant Supply



▶ Pumps for Oil & Gas Plant

- Range : OH, BB including Multistage, VS Type
(Full line-ups complied with API610 standards and 11th edition)
- High Reliability that meets Stringent Requirements (High Pressure/ High Temperature
up to 450°C)
- Competitive Delivery Time : Shorter than World-class Maker's by 2 months.
(High Pressure Multistage Pump)
- Vendor Approval from Global Major Oil & Gas Company
(Total, Shell, Lukoil, etc.)



➤ Generator



Key Features

- AC Generators
- 500 ~ 50,000 kW/
Up To 15,000 V/
Up To 40 P

Special Generators

- Marine/ Wind Turbine/
Steam Turbine/
Hydro Turbine

Main Standards

- IEC, NEMA, JIS

Applications

- Diesel-Engine
(Caterpillar, Cummins,
MTU, Wartsilla,
Mitsubishi HHI,
Man-Diesel & Turbo,
Doosan, Perkins, etc)

➤ Gear Unit



Key Features

- Torque rating
Up to 10,000 kNm output
- Technical Collaboration
with RENK

Special Gears

- Mixer, Extruder
- Coal Mill
- Offshore Jack-up Rig
- Bridge Drive

Main Standards

- KS, JIS, AGMA, DIN

Applications

- Industrial Gear Box
- Geared Motor
- Jacking Gear Box

▶ Shunt Reactor



- Improving the Efficiency of the AC Grid by Compensating for the Capacitive Reactive Power
- Type & Rating
 - : Up to 765kV, 250MVar
 - : Gapped core, Oil-immersed type

▶ AIS/ GIS Substation EPC Turnkey Solution



- Accumulated Know-how and Technology
- Main Equipment Manufactured by Hyosung
- A number of Oversea References
 - Qatar, Algeria, Iraq, Chile, Bangladesh, Malaysia, Mozambique etc.

▶ Desalination



- EPC related with the Whole Water Treatment, through Reverse Osmosis Technology

▶ Chemical process equipment



Tower & Column,
Vessel & Drum, Reactor,
Heat Exchanger

Maximum Dimensions/ Weight

- Thickness 250mm
- Diameter 8,300mm
- Length 100m
- Weight 1,500tons

Annual Production
: 18,000tons

Materials

- Carbon Steel
- Stainless Steel
- Duplex Stainless Steel
- Low Alloy Steel
- Copper Alloy
- Nickel Alloy
- Ti Clad

▶ Gas Supply System



Gas Compression
Gas pressure reducing
Supplying

Major Application

- Industrial Compression system
- Gas Supplying for Gas Power Plant
- LNG/LCNG Supplying system
- Gas Refueling System (CNG/LNG)

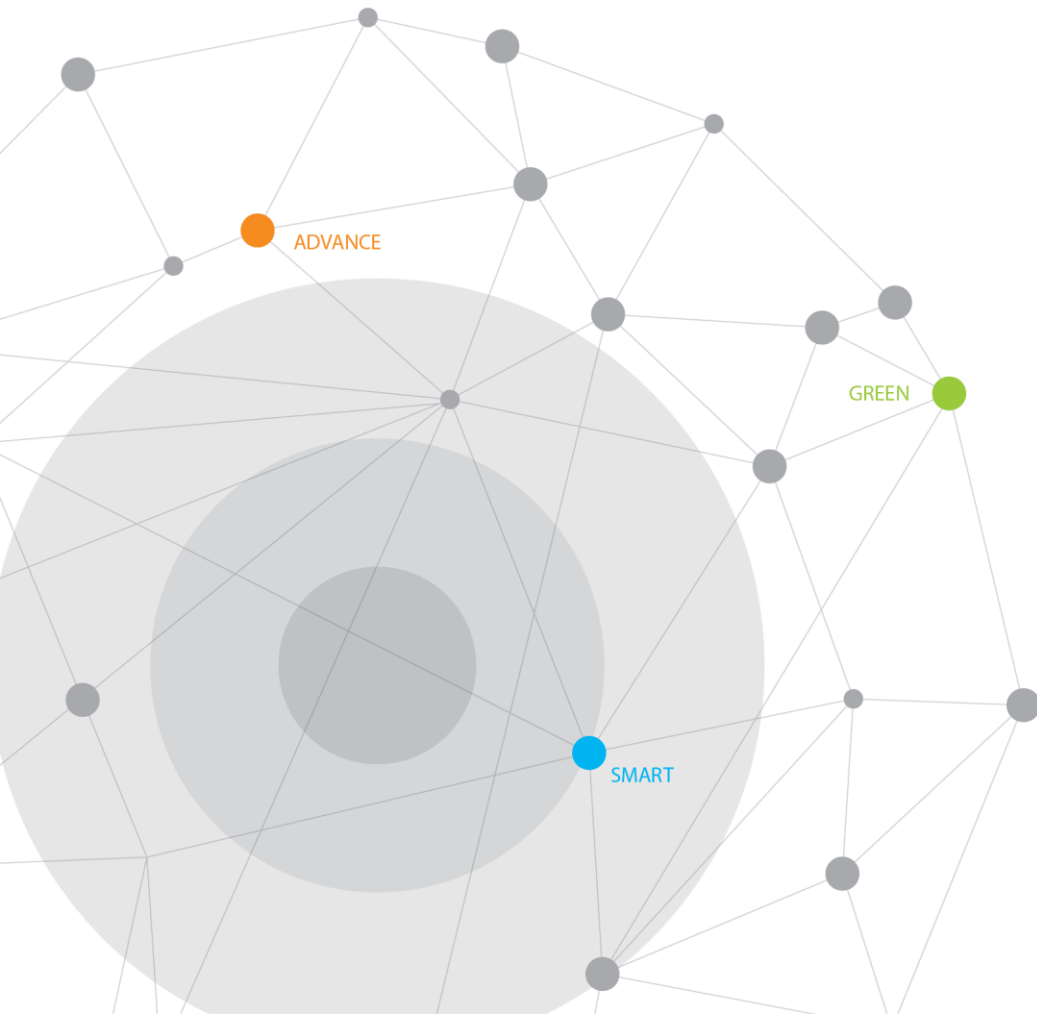
Manufactured Products

- Compressor Package
- Dispenser
- Pressure Reducing Unit
- Monitoring System etc.

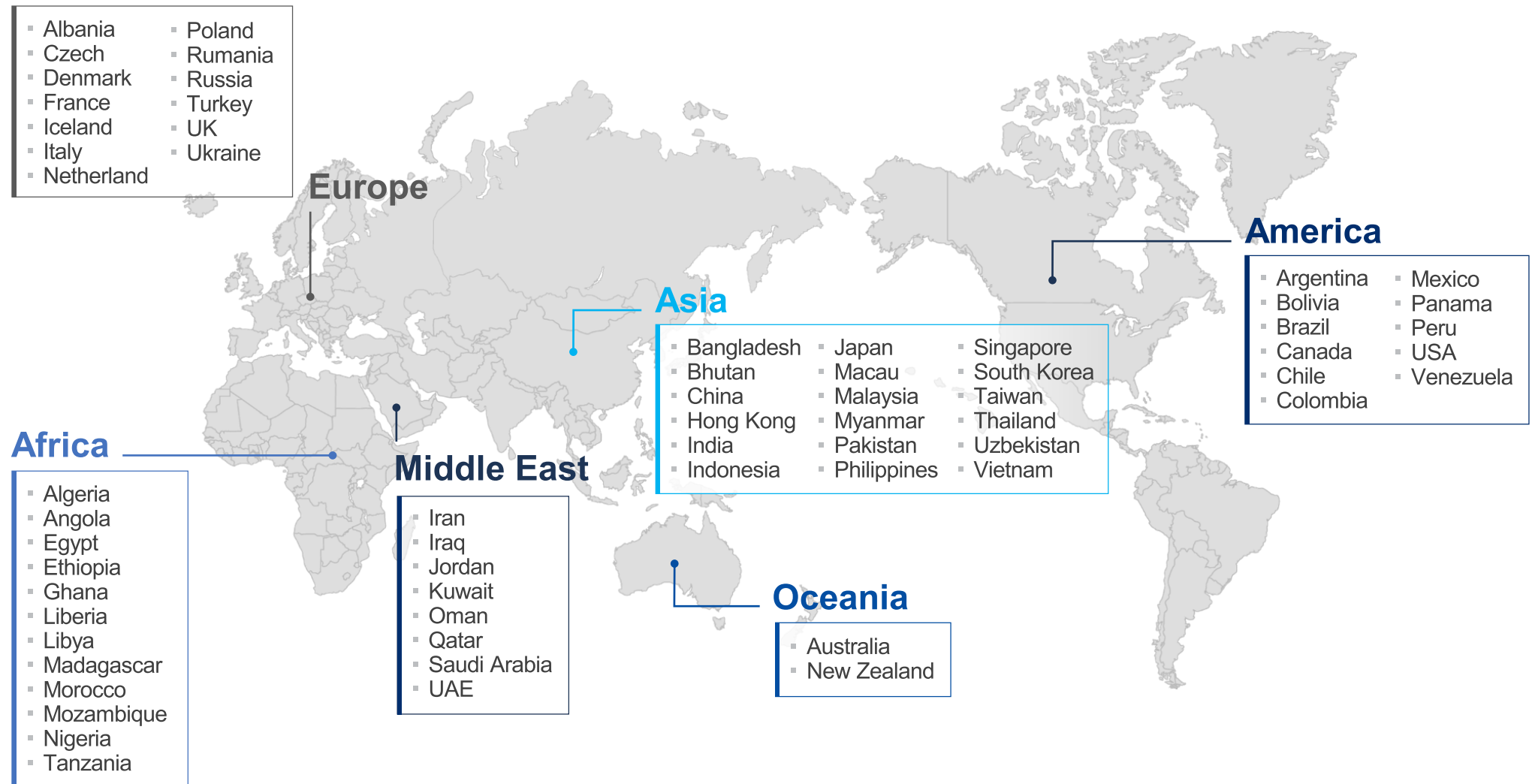
IV

Global Achievement

- 01 Global Reference
- 02 Reference by Region
- 03 Reference by Industry



High-Quality Products and Services Successfully Delivered to Customers Worldwide



Transmission & Distribution Solution



- Dominant Market Share in Korea (over 50% of HV TR and GIS)
- A Market Leader in Indian UHV TR & GIS Market
- Large Orders from PGCIL and Bhutan Hydro Power
- The 1st Supplier to Introduce 800kV GIS to China
- 400kV GIS & TR Projects to Singapore Power
- 500kV, 230kV Transformers to Thailand, Vietnam, Malaysia, Philippines etc.
- Successful Installation of Compact 145kV 40kA GIS in Vietnam
- A Market Leader in Asian GIS Substation Turnkey Project
- 1st STATCOM Developer in Korea.
- Secure The World's Largest STATCOM Capacity / 400Mvar x 3 S/S and 200Mvar x 1 S/S MMC STATCOM
- Secure Large Scale MMC STATCOM Project in India / 200Mvar MMC STATCOM for 3 Substation
- 1st VSC HVDC Developer in Korea

Middle East & North Africa

- Market Leader of TR & GIS up to 380kV in Saudi Arabia since 1996
- A Major Manufacturer of 1st & 2nd Framework Contract to Supply 145kV 40kA GIS in Saudi Arabia
- A Leading GIS & Power Transformer Manufacturer and Substation EPC Contractor in Qatar up to 400kV
- A Leading Supplier in Iran for Power TR & GIS
- A Major Supplier of TR & GIS in Kuwait and Iran
- Fast Track Supplies to Generation Projects in Egypt (500kV GSU Transformers, 245kV 50kA/ 550kV 63kA)
- 400kV Substation Turnkey Projects in Iraq (39NT, 67NT)
- Major EPC Contractor in Algeria since 2010 (Hassi Messaoud/ Bir Ghbalou/ Ouled Saber/ Boufarik/ Marsat)
- Large Transformer Supplier to Esko (South Africa)



- A Long-term Strategic Supplier of 1100MVA, 250MVA HV Transformers to National Grid (UK)
- A Long-term Strategic Supplier of 250MVA, 400MVA Auto Transformers & 170kV GIS to Terna (Italy)
- Multiple Projects to EDF, including the Largest GSU unit (660MVA) to French Thermal Power Plants
- Multiple Deliveries of Shunt Reactors to Offshore Wind Project by Tennet (Germany)
- Supplied 145kV 40kA/ 245kV 50kA GIS to FGC (Russia)
- 400kV 400MVA TRs to Fingrid (Finland)
- 110kV 50MVA TRs to Alliander (Netherlands)
- TRs and Reactors to Alliander (Netherlands), Energinet.dk (Denmark)
- A Contract for 245kV 50kA GIS to Transelectrica (Romania)

Transmission & Distribution Solution

North America



- 10% Market Share in USA's Power Transformer Market
 - Main Supplier of 765kV Transformers and Shunt Reactors
 - Supplied 170kV 40kA/ 245kV 50kA GIS to Utilities in USA
 - A Market Leader in Providing Large Capacity Transformers for Wind Farm Projects
-

Central & South America



- GIS Supplier in 3,750MW (550kV 20 Bays) Hydro Power Plant in Brazil (AHE JIRAU Project) to GDF Suez and in Estadio Substation located in Brasilia to CEB Utility
 - Transformers & Shunt Reactors Supplier (35 Units) in Peru 500kV Transmission Line Project
 - Around 50% of GIS Market Share in Venezuela (145 & 245kV GIS in 7 Substations)
 - 765kV 500MVA and 350MVA Transformers to CGV Edelca (Venezuela)
 - One of the Five Qualified Transformer Vendors over 500kV Transformer in Transelec (Biggest Utility in Chile)
 - Power Transformer Main Supplier of ISA (Colombia)
 - 1st MMC STATCOM Supplier in Panama (120MVar Panama II and Llano Sanchez Substation PJT)
-

Oceania



- Panel Supplier in Australian Utility
- ElectraNet (Australia. Transmission Utility)
 - 275kV 40MVar & 275kV 40/ 50MVar Shunt Reactor
 - 275kV 160MVA & 132kV 10MVA Transformer
- Endeavour Energy (Australia. Distribution Utility)
 - 145kV 40kA GIS 43 Bays
 - 145kV 40kA GCB (period contract)
- TransGrid (Australia. Transmission Utility)
 - 330kV Transformer (period contract) Panel Supplier
- Leighton Contractor (Australia EPC)
 - 500kV 600MVA & 132kV 280MVA Transformer
 - 145kV 40kA GIS
- Meridian Energy (New Zealand. Generation Utility)
 - 220kV 65MVA Transformer
- Rio Tinto/ New Zealand Aluminum Smelter (Mining)
 - 220kV 230MVA Transformer

03 Reference by Industry

IV. Global Achievement

Industry	Item	Site	PJT	Type	Quantity	Delivery
Power & Energy	Induction Motor	UAE	Barakah Nuclear Power Plant	1,000 - 3,100kW 8P - 24P 13.2kV etc.	1,108 units	2013 - 2016
		Qatar	Facility D IWPP	640kW 4P 11kV 50Hz 3,050kW 8P 11kV 50Hz, etc.	30 units	2016
	Pump	Iraq	Khabat Thermal PP Unit 1 & 2	BFP, CEP	12 sets	2015
		Algeria	Ain Arnad Power Plant	BFP, CEP	12 sets	2014
	Generator	Peru	Puerto Bravo PJT	2500kWp 4160V 60Hz, 1400kWp 400V 60Hz	4 sets	2015
	Gearbox	USA	Columbia Energy Center Power Plant	569kW 900RPM 37:1	12 units	2015 - 2017
Oil & Gas	Induction Motor	Kuwait	KNPC Clean Fuel PJT	0.18 - 110kW 2/ 4/ 6P 400/ 440V Exn etc.	900 units	2015
		UAE	Rumailha & Shanayel (NEB 3) PJT	210kW - 500kW 3.3kV Exd etc.	15 units	2015
	Pump	UAE	SARB Field Development PJT	API	47 sets	2015
		USA	Baytown Ethylene Cracker Plant	API	15 sets	2015
	Generator	Vietnam	NSRP Complex PJT	2400kWp 6600V 50Hz	6 sets	2015
	Gas Compression System (CNG)	Indonesia	Jakabaring Peaking Power Plant	CNG 30bar (inlet/ outlet), 250bar (Storage), Flow rate 15,000 Sm ³ / hr	1 system	2013
	LNG/ LCNG Supplying system	Indonesia	Kalimantan Sambera LNG PJT	LNG to CNG, Flow rate 15,000 Sm ³ / hr	1 system	2017

03 Reference by Industry

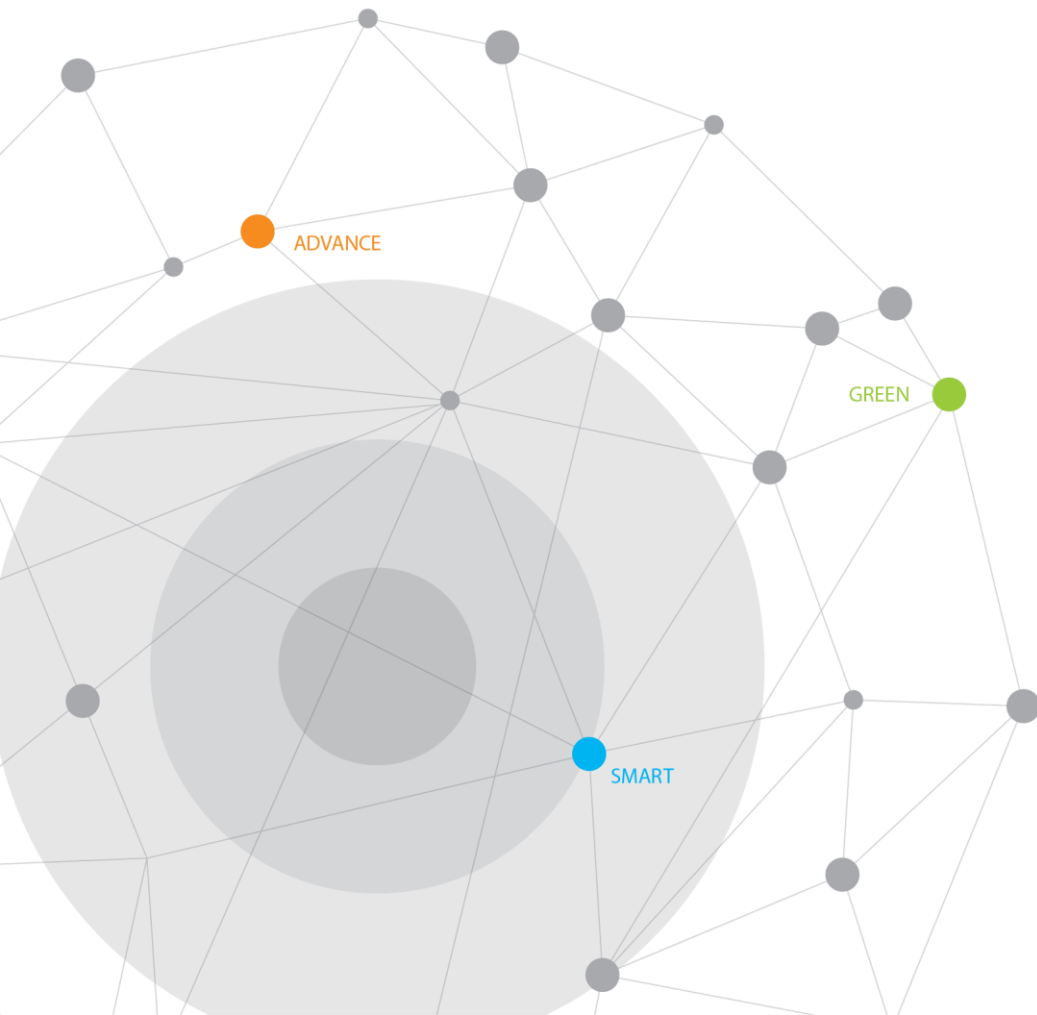
IV. Global Achievement

Industry	Item	Site	PJT	Type	Quantity	Delivery
Water & Desalination	Induction Motor	Saudi Arabia	Yanbu III Desalination Plant	400 - 4,900kW 24P 13.8kV etc.	249 units	2014 - 2015
		Qatar	Ras Abu Fontas A2 Seawater Desalination Plant	160 - 5,200kW 10P TEAAC 11kV etc.	17 units	2014
	Desalination	Iran	Shiraz 3rd Ammonia & Urea Complex		20,000m³/day	2015
		Ghana	Takoradi II CCPP		2,600m³/day	2015
Chemical, Petrochemical & Fertilizer	Induction Motor	Saudi Arabia	Ma'aden Ammonia Plant	1,500 - 4,420kW 2P 13.2kV etc.	58 units	2015
		Singapore	Jurong Aromatics Complex	160kW - 2300kW 6.6kV ExnA etc.	500 units	2012 - 2013
	Chemical Process Equipment	Malaysia	RAPID Package 4	Vessel/ Heat Exchanger	85 units	2016
		Nigeria	Dangote Fertilizer Plant	Column/ Drum	38 units	2014
Steel & Mining	Gearbox	USA	TSS & SWC	600HP 1150/ 1750RPM 152.7:1 and others	31 units	2012
		India	JSW CAL No.1, 2 & CGL	185kW_500RPM_258:1 and others	95 sets	2012 - 2013
	Induction Motor	Vietnam	FORMOSA HA-TINH STEEL Plant	800kW 4P 6kV 50Hz, etc.	24 sets	2014
Shipment & Port	Generator	Korea (SHI)	LEG Carrier (Ethan Carrier)	1.7MW 10P 450V 60Hz	18 sets	2015
	Thruster Motor	Korea (HHI)	18,000 TEU Container Carrier	3MW 8P 6.6kV 60Hz	10 Sets	2015

V

Benefits and Competitiveness

- 01 Research & Development
- 02 Quality Control
- 03 Customer Satisfaction
- 04 Creating Social Eco-System



Notable Achievement by R&D Center Since its Establishment in 1978

- 2016** • 2MW ES PCS for KEPCO Frequency Regulation (KEPCO 3rd Project, Gimje Substation 48MW)
Independent Island MG System (Gapado Island 3.25MW/ 3MWh
Geochado Island 250kW/ 500kWh)
Outdoor Type 1MW PV PCS (UL Certification Achieved, CEC Efficiency 98%)
154kV Transformer / GIS Asset Management Solution(1st in Korea)
315~400Fr. Induction motor (315Fr. 4P IE3 certificate)
IE4 LS-SynRM 3.7kW
- 2015** • Energy Storage System for Wind Farm Integration (First in Korea, Yeongheung, 4MW PCS & 16MWh Battery),
Energy Storage System for Energy Savings (Gyeongju, 1MW PCS & 2MWh Battery),
150MW Class MMC STATCOM (KEMA Type Test Certificate),
IE4 Super Premium Synchronous Reluctance Motor Line up (less than 45kW)
- 2014** • Renewable Energy Integrated MW-Class Li-Battery Energy Storage System,
20MW Class Voltage Source Converter HVDC System,
150MW Class Multi-Modular Type STATCOM
- 2013** • Battery Energy Storage System and Micro Grid for Off-Grid Island,
IE4 Super Premium Synchronous Reluctance Motor
- 2012** • 1MW Li-Battery Energy Storage System,
250kW/ 500kW PV PCS,
80kW Permanent Magnetic Synchronous Motor and Drive for Electric Vehicles (EV),
EV Charging System,
Power Transformer Partial Discharge Detection Diagnostic System
- 2011** • 20kW · 800kW PCS for Li-Battery Energy Storage System,
Navy's Next-Generation Mid-Sized Torpedo Propulsion Motor,
50kW Class EV Motors (Commercially Applied in HMC's EV Model 'RAY'),
Dissolved Gas Analysis and Diagnostic System for Power Transformer,
IEC 61850 based 154kV Mold Transformer IED/ 170kV GIS IED
- 2010** • 60kW Class EV Motors (Applied HMC's EV Test Model 'Blue-On'),
Submarine Large-Sized Propulsion Motor,
750kW-Class DFIG Type Wind Turbine PCS
- 2009** • 100MVA STATCOM
- 2008** • System-Connected Solar Inverters (3kW, 50kW, 250kW),
1kW Class PEMFC Home Generation Systems,
Ecological 25.8kV 25kA Dry Air-Insulated Switchgear (DAIS) (1st in Korea),
245kV 40kA Motor Direct Drive Mechanism (MDDM) GIS

- 2007** • 154kV Gas Transformers,
2MW-Class Wind Power System
- 2006** • 10MVA STATCOM,
GIS Partial Discharge Diagnosis System,
Power Transmitter Class FACTS Device Core Parts Domesticized
(1st in Korea)
- 2005** • 750kW Class Wind Power Generation Systems,
100kW Class Fuel Cell PCS,
36kV 31.5kA GIS
- 2004** • 245kV 50kA Class GIS (1st in Korea),
25.8kV 25kA GIS (Applicable Size Changed, 1st in Korea),
24kV 40kA 3000A GIS (1st in Korea)
- 2003** • 362kV 50kA GIS (1st in Korea),
154kV 80MVA UPFC (FACTS) Pilot Plant (1st in Korea)
- 2002** • Substation Automation System,
300kV 40kA GIS
- 2001** • 154kV 40MVA FACTS Transformers,
Interpolar Condenser without Capacitor,
170kV Gas Circuit Breaker

- 2000** • Distribution Digital Protection Meters
- 1999** • 800kV Ultra-High Voltage Circuit Breakers,
765kV Transformer Device Preventive and Diagnosis System,
200kW Gas Engine Heat-Combination Systems,
Package-Type CNG Filling Systems,
Nuclear Power Plant Q-Class Large-Capacity Motors,
362kV 63kA 8000A GIS (1st in the world)
- 1995** • Gas Turbine Co-Generator,
Railcar Towing Motors
- 1992** • 765kV Transformers (1st in Korea)
- 1987** • 170kV 31.5kA 1200A GIS
- 1986** • Amorphous Transformer (1st in Korea)
- 1984** • 154kV Phase-Separation Transformers (3ph 154kV 386MVA)
- 1982** • Nuclear Power Plant 345kV Transformers
(1ph 345kV 1187MVA/ Bank)

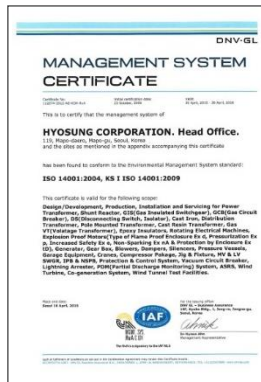
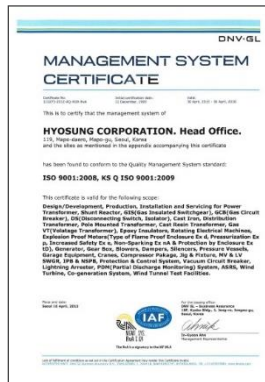
02 Quality Control

V. Benefits and Competitiveness

Product Reliability Guaranteed by Compliance with Global Standard

➤ Certificate

- **ISO 9001** (Quality) ▪ **ISO 14001** (Environment)
- **OHSAS 18001** (Health & Safety)



Standard

- **CESI, KEMA, KERI, FGC, NK, ABS, GOST, ASME, UL, CSA, WYLE, API and etc.**



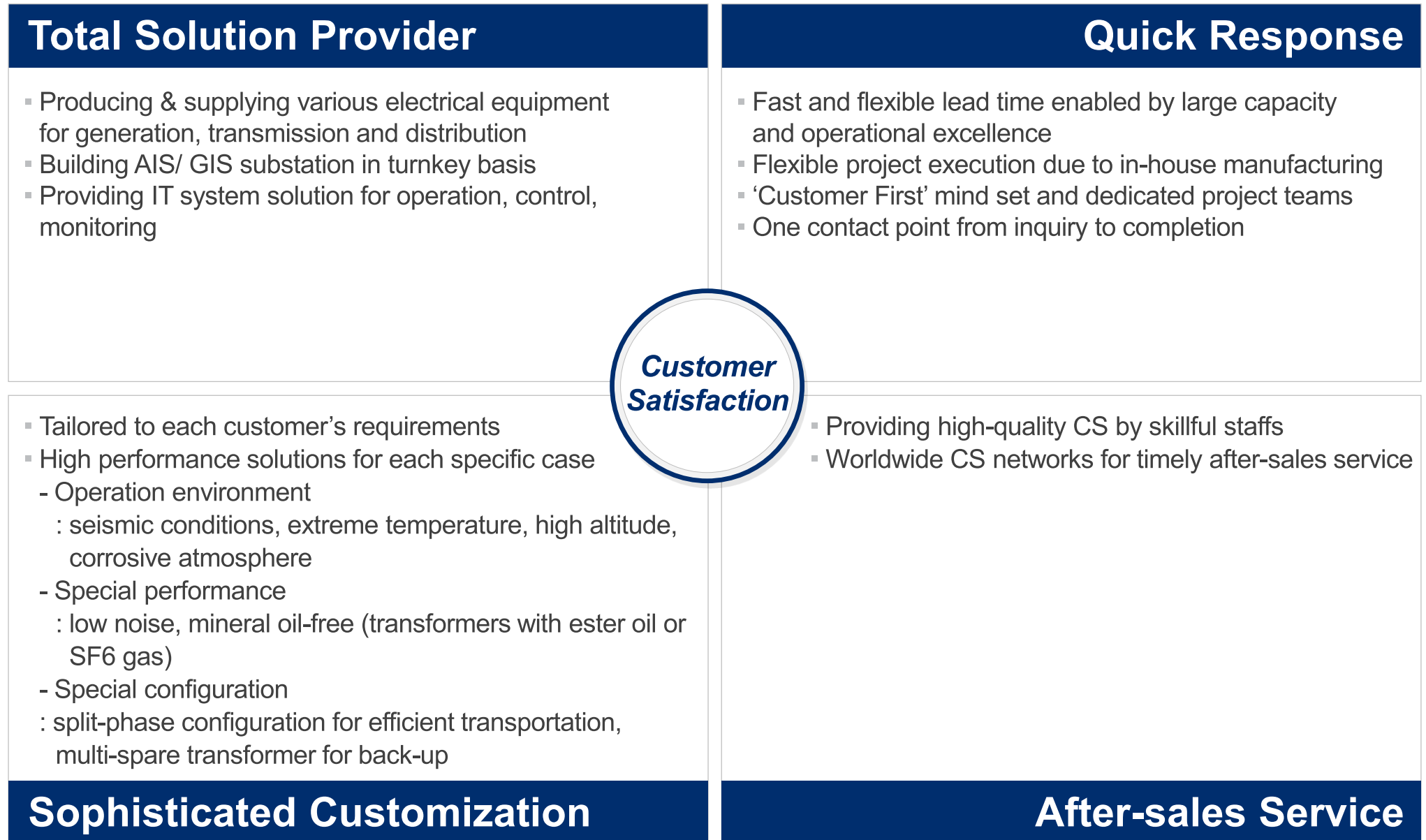
Test Center



- **Power Transformer Test Center**

- **GIS Test Center**

- **Pump Test Center**



▶ Clean Environment and Healthy Future

- CO₂ Reduction
- High-efficiency Energy
- Recycling



▶ Contribution to the Neighborhood and Society

- Social Contribution Activities
- Win-win Collaboration and Shared growth



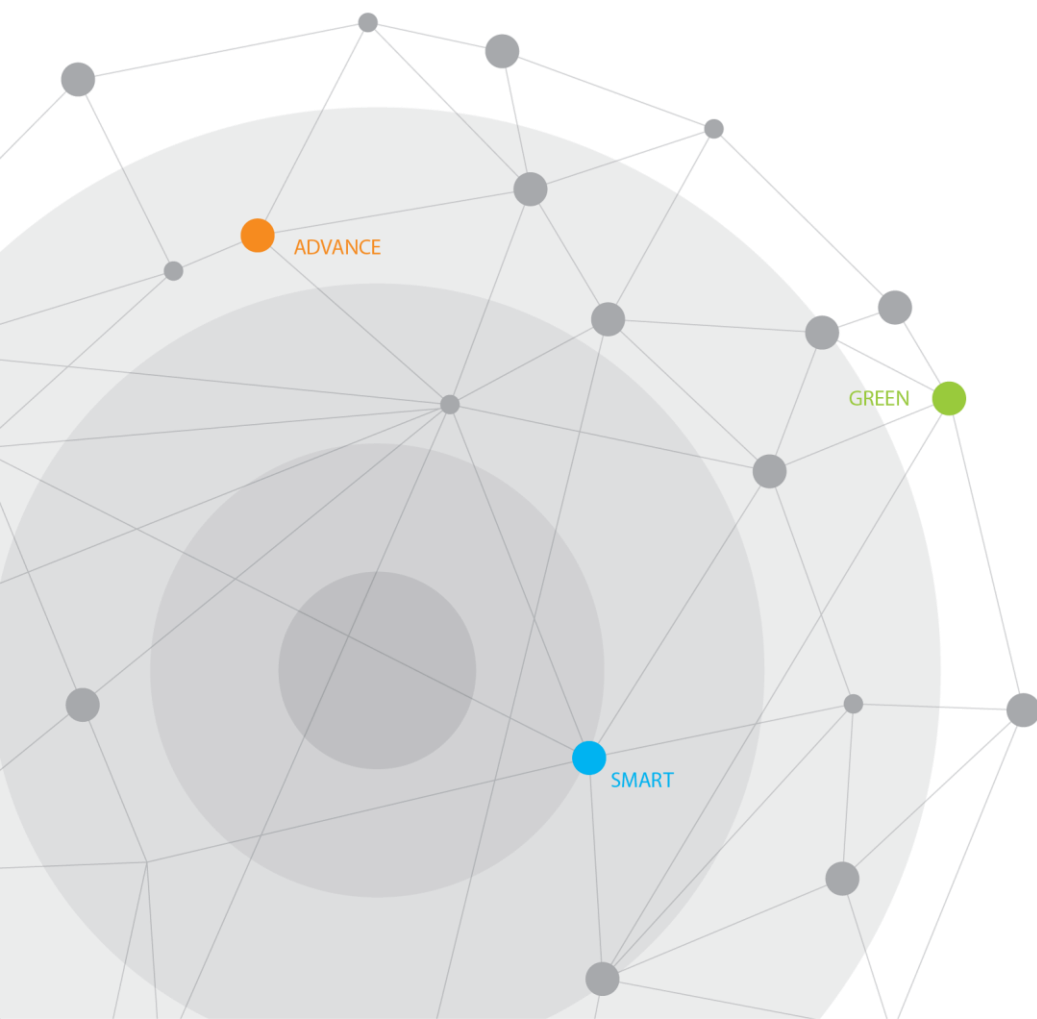
▶ Integrity and Trust

- Compliance with Laws and Regulations
- Socially Accountable Management
- Respect for Customers, Shareholders and Employees



Thank you

**Global Top
Energy, Machinery & Plant
Solution Provider**



HYOSUNG

www.hyosungpni.com

(04144) 119, Mapo-daero, Mapo-gu, Seoul, Korea

TEL +82-2-707-7000 FAX +82-2-707-6116