At the core of performance
Nexans in Korea

- Three legal entities
  - Nexans Korea
  - Nexans Kukdong
  - Nexans Daeyoung

- Actual Sales in 2010: 490 Billion KRW

- 522 employees as of September 2011

- 3 plants in Jincheon, Cheongwon and Eumseong / 3 sales offices
Nexans Korea

• 262 Billion KRW sales in 2010
• 208 Billion KRW sales in 2009
Kukdong

- 228 Billion KRW sales in 2010
- 223 Billion KRW sales in 2009
History

- Foundation of Daesung Electric Wire
- Foundation of Kukdong Electric Wire
- Foundation of Daeyoung (100% Sub. of DS)
- Foundation of Nexans Vietnam
- Became a member of NEXANS Group (Daesung)
- Became a member of NEXANS Group (Kukdong)
- 2003

Remarks

- Kukdong, Global leading supplier for shipboard cable
- Kukdong, $100 million Export Tower in 2006
- Nexans, Award from President of Korea (Fire Safety Cable) in 2007
- EHP level for 3 plants in 2007
- Nexans Excellence Way
Nexans Values

- Think Customer
- Value People
- Take Action
- Work Globally
- Be Responsible
- Commit to Excellence
R&D

- NRC Jincheon
  - Rubber compound & Rubber extrusion

Other R & D activities
- Cheongwon : Superconductor, Power, Telecom & Automotive cables
- Jincheon : Shipboard, LAN Cable, Nuclear Cable

- 26 researchers, engineers and technicians
Customers operating in 5 key sectors

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<th>Energy Resources</th>
<th>Energy Infrastructures</th>
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<th>Communication</th>
<th>Building</th>
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<td>• Aerospace and military</td>
<td>• Telecommunication networks</td>
<td>• Non residential building (Health, education, commercial)</td>
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<td>• Tidal farms</td>
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</table>
• Bare Copper Wire
  ASTM B232/B8/B3, BS 215/6360/4109, DIN 48201
• Aluminum Wire
  ASTM B230, ASTM B231, BS 215 (Part 1)
• Aluminum conductor Steel Reinforced (ACSR)
  ASTM B232/B498, BS 215(Part 2)/4565, IEC 209
• PVC Insulated and Sheathed Cable
  BS 6346/6746/6004, VDE 0271/0250
• PVC Insulated Cable
  ASTM D734, BS 6004/2004/6485, VDE 0250, UL 62/83
• Cross-linked PE Insulated Power Cable
  0.6kV, 11kV, 15kV, 22kV, 35kV
  IEC 60502, ICEA-66-524, NEMA WC-7, BS 5648/5467
• Instrumentation Cable (300/500V)
  BS 5308, BS EN 50288
• Lead Sheathed Power Cable (for Oil & Gas)
  0.6kV, 11kV, 15kV, 22kV, 35kV
  IEC 60502-1, IEC 60502-2
Copper Communication Cables

- Polyethylene Insulated Unit Twin
- Unfilled/Filled Cable (Solid PE, Foamed PE, Foam/Skin PE)
- Switchboard Cable
- Jumper Wire
- Figure 8 type Self-supporting Cable
- Z-Screened Cable (PCM)
- STALPETH/ALPETH Cable
• Loose Tube Metallic Type (LAP Sheath)
• Loose Tube Metallic Type (FR Sheath)
• Loose Tube Metallic Type (PSP or APSP Sheath)
• Loose Tube Metallic Type / Figure-8 Cable (LAP or APSP Sheath)
• Loose Tube / All Dielectric Type (AP Sheath)
• Loose Tube / All Dielectric Self Support Type (PAP Sheath)
• Ribbon in Tube / Duct type, FR type
• Complex SM 2C + MM 2C
• Breakout Cable
• Simplex & Duplex Tight-buffered Cable
• EBC (Extractable bundle Cable)
• OM3, OM4 (TB/ZC Type FOC for long distance)
• Hybrid cable (FOC + LAN)
• Hybrid cable for FTTA (FOC + Power)
• AV(F)
• HAV
• AV-V, HEB
• AV(SSLX)(F)
• AE(SSLX)(F)
• AVS(SSLX)(F)
• AEXHF
• AVSS(XF)-T
• ATW-FEP
• FL(R)Y(2X,91X)
• T3ZH(Zero Halogen)
• T4ZH(Zero Halogen)
• CAVSAS
• AVSSAS
• T3 PVC
• (Hybrid) Electric Vehicle cable(for HEV, FCV, EV)
Shipboard cables

• JIS
  - SPYC, DPYC, TPYC, MPCY
• DIN, IEEE (TYEP P)
  - MGCG, Exphole® (TPNBS)
• MIL
  - LSDSGU, LSTSGU, LSMSCU
• OFFSHORE
  - PKCK, PHCH, TKCK, ICEFLEX™
• NOR
  - BFOU, RFOU, RCOP
• XLPE
  - BXOH, RXOH, TXOH, SHF1+A
Wind energy cables

PERFORMANCE

- **Flame retardant**
  - IEC 60332-1

- **Halogen free**
  - IEC 60754-1, for H07ZZ-F

- **Acid gas**
  - IEC 60754-2, for H07ZZ-F

- **Toxicity index**
  - NES 713, Option for H07ZZ-F

- **Smoke emission**
  - IEC 61034-1/2, for H07ZZ-F

- **Cold behavior**
  - CSA C 22.2 No.03, -40°C

- **Oil resistance**
  - HD 22.2, EM7, EM8

- **Flexibility**
  - Flexible conductor

- **Torsion resistance**
  - BCO 240, ±150/m

- **In-service life**
  - IEC 60216-1, 20 years

Wind turbine

- **NACELLE section**
  - Torsion resistance
  - Oil resistance
  - Cold resistance
  - Rubber cable

- **TOWER section**
  - Cold resistance

- **POWER OUTPUT section**
  - Cold resistance
Nuclear cables

PERFORMANCE
- Flame retardant
  IEEE 383/1202
- Cold behavior
  Cold bending flexing cable, -40°C
- Oil resistance
  NEMA WC 70
- Environment Qualification
  IEEE 323 & 383
- In-service life
  40 years or 60 years

1E Nuclear
(Reactor)

Non 1E Nuclear
(Turbine hall)
Handling cables

- Rubber flat cables (PNCT-F, PNCT-6F)
- Rubber round cables (DYNAL-R, PNCL-6B)
- Standard reeling cables (PNCL-6)
- Pendant cables (PNML-1R)
- Heavy-duty rubber cables (PNCT-B, PNCT-8F)
- High-stress rubber cables (PNCT-8, PNCT-8N)
- High voltage reeling cable with/without integrated optical fibres (PV PNCT-8, PNCT-8H)
- Flat reeling cables (PNCT-F, PNCT-6F)
- Rubber spreader cables (PNCT-7)
Photovoltaic cables

PERFORMANCE

- **Flame retardant**
  - NFC 32070 C2
- **Haolgen free**
  - IEC 60754-1, for H07ZZ-F
- **Smoke emission**
  - IEC 61034-2
- **Acid gas**
  - IEC 60754-2
- **Toxicity index**
  - NES 713
- **Weather resistance**
  - Excellent
- **In-service life**
  - 25 years
• UTP Cables
  - Cat3, Cat5, Cat5e, Cat6 CM/CMR

• Network cabling system
  - 110 Block & Connecting
  - Modular Jack
  - Patch Panel
  - FDF
  - IIMS (Intelligent Infrastructure Management System)
• NbTi Superconductor Wire
• Nb3Sn Superconductor Wire
• Bi-2223 High Temperature Superconductor Wire

Concept design of KSTAR TOKAMAK

Shield Conductor
Electrical Insulation
Cryogenic Conduit

HTS
Liquid Nitrogen

Nexans in Korea Sep 2011
Thank you for your kind attention