2016
Machinery Parts

Investment Opportunities In Korea
South Korea’s machinery industry continues to expand as production value grew threefold to $85 billion, domestic market grew by 2.5-fold ($82.6 billion) and export also by 5.7 times ($48.3 billion) in 2014 compared to 2000. This indicates that export led the growth of the machinery industry, with its ratio increasing from 25.6% in 2000 to 58.6% in 2014.

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<thead>
<tr>
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<tbody>
<tr>
<td>$85B</td>
<td>$82.6B</td>
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<td>$48.3B</td>
<td>58.6%</td>
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</table>

**Industry Overview**
Overview of Global Machinery Industry

**Competitiveness**
Overview of Korea’s Machinery Industry Market
Overview of South Korea Machinery Industry

**Key Market Players**
Overview of Korea’s Leading Machinery Companies

**Where to Invest**
Location descriptions

1. MIEUM Foreign Investment Zone
2. NAMMUN Foreign Investment Zone
3. YEONGCHEON Free Economic Zone
4. DAEGU Technopolis Free Economic Zone
5. OSEONG Foreign Investment Zone
6. JANGAN 2 Foreign Investment Zone
7. SONGSAN Foreign Investment Zone
8. IKSAN Foreign Investment Zone
9. ULSAN Free Trade Zone
10. GWANGJU Foreign Investment Zone
Industry Overview

Overview of Global Machinery Industry

Machinery Production Volume, Growth Rate 2000-2013

World's machinery industry production volume (value) exceeded $260 billion by 2013, and reached a CAGR of 6.4% during 2000-2013.

• China’s economic growth contributed to an increase in the volume of world’s machinery production: machinery manufacturing countries with large CAGR of production volume: China 20.7, Germany 6.1, Japan 0.3, America 4.8.

• Production volume showed continuous growth except in 2008,09 due to '2008 global financial crisis'.

Top 10 countries accounted for 79.7% of the world’s production in 2013. Countries with significant shares were China 25.3%, America 17.0%, Germany 12.5%, Japan 9.8%, Italy 4.1%.

World's machinery industry export volume equaled to USD 153 billion in 2014, and grew substantially with the CAGR of 7% between 2004-2014.

Top 10 countries which dominated 70.4% of world’s total export were Germany, China, America and Japan which accounted for 46.5% of world’s export.

• China rose as the 2nd biggest exporting country in 2013 and 3 top competing countries are Germany, China, America and Japan which accounted for 46.5% of world’s export.

• America ranked 1st during 2000-2014 (present), and China rose from 6th place in 2000 to 2nd place from 2009 until 2014.

Machinery Production by Country

Import, Export of World’s General Machinery

Machinery Export by Country

Machinery Import by Country


Source: UN Comtrade, SITC Rev.3, 2014. (98.15% update)
Competitiveness

Overview of Korea’s Machinery Industry Market

World’s machinery industry production volume exceeded $260 billion by 2013, and reached a CAGR of 6.4% during 2000-2013.

- CAGR of production volume reached 8.5% between 2000-2014.

Domestic Demand

- Domestic machinery market total $8.26 billion in 2014 which is 2.5 times increase from 2000, and grew at a CAGR of 6.8% between 2000-2014.
- Export in contrast to domestic demand total 25.6% in 2000, and significantly increased to 58.6% by 2014, which was an export-led growth.

Trade

- Major export countries by region in 2015 are in the order of China (21.3%), America (14.3%) and ASEAN (16.1%), and recently observes that China, Middle East, Latin America and the Caribbean as well as developing countries are increasing their shares since 2000.
- Major import countries by region in 2015 are the EU (30.5%), Japan (23.2%), and China (18.6%), and China increased their share significantly since 2000, whereas Japanese imports continued to decrease.

Overview of South Korea Machinery Industry

Countries such as America, Japan, Europe and developing countries are leading the production system technologies, and are followed by countries such as South Korea, China and others.

Production Infrastructure

- Japan is at the highest infrastructure level for technology, followed by Europe, America, Korea and China. But the technology gap between developed and developing countries is becoming narrower.

Production System

- America leads the technological development, followed by Japan, Europe, Korea, China, and etc.
# Key Market Players

## Overview of Korea’s Leading Machinery Companies

<table>
<thead>
<tr>
<th>Categories</th>
<th>Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Mining Machinery, Unloading Machinery, Agricultural Machinery</td>
<td>Hyundai Heavy Industry, Samsung Heavy Industry, Doosan Infracore, Hyundai Elevator, EVERDIGN Corp., Kukje Machinery, Soosan Heavy Industries, Daedong Industrial</td>
</tr>
<tr>
<td>Refrigeration, Air-Conditioning</td>
<td>KC Cotrell, Winix Inc, Hanshin</td>
</tr>
<tr>
<td>Metal Molding</td>
<td>Wooyoung, Keonwoo Precision</td>
</tr>
<tr>
<td>Mechanical elements, bearing, etc.</td>
<td>TY Valve Corporation, Youngsin Metal Industrial, Namsun Machinery Corp, SEIL Korea, Woosung Industrial, Jalman Precision</td>
</tr>
</tbody>
</table>
## Where to Invest

### Location Descriptions

1. **MIEUM Foreign Investment Zone**  
   Center of Busan, Gyeongnam machinery industry (36% of nationwide machinery production)

2. **NAMMUN Foreign Investment Zone**  
   Center of Busan, Gyeongnam machinery industry (36% of nationwide machinery production)

3. **YEONGCHEON Free Economic Zone**  
   Located in the intersection of industrial ecosystem of materials and machinery parts

4. **DAEGU Technopolis Free Economic Zone**  
   Favorable R&D environment, Ideal location for composite materials and machinery

5. **OSEONG Foreign Investment Zone**  
   Concentrated with machinery manufacturing companies; Ideal location for composite materials and machinery

6. **JANGAN 2 Foreign Investment Zone**  
   Concentrated with machinery manufacturing companies; Ideal location for composite materials and machinery

7. **SONGSAN Foreign Investment Zone**  
   Concentrated with Steel companies; Ideal location for composite materials and machinery

8. **IKSAN Foreign Investment Zone**  
   Near to Carbon valley; Ideal location for composite materials and machinery companies

9. **ULSAN Free Trade Zone**  
   The biggest industry cluster in Korea; Ideal location for composite materials and machinery parts

10. **GWANGJU Foreign Investment Zone**  
    Center of light industry, Ideal location for composite materials and machinery parts
1. MIEUM FIZ

**Investment Highlights**

**Location Description**
Center of Busan/Gyeongnam machinery industry (36% of nationwide machinery production)

**Key Rationale**
- Major big companies are near such as Hyundai Motors, GM Korea, Renault-Samsung Motors, Hyundai Heavy Industries, Samsung Heavy Industries, Daewoo Shipbuilding & Marine Engineering, Doosan Infracore, Hankook Machine Tools, Volvo Korea, etc.
- High level of workforce from machinery-related universities (21 universities, 1,300 professors and 8,300 students)

**Target Area**
- Total Area: 332,000 ㎡
- Available Area: 226,000 ㎡
Case References

Bosch Rexroth Korea

Company Overview
- Established in January 2000
- Products: Hydraulic parts, Heavy equipment, industrial machine, factory automation
- Customer: Hyundai Heavy Industries, Hyundai Rotem, Doosan Heavy
- Employment: 180
- Expanded in October 2013
- 17,000 m² with USD 22 Million

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<thead>
<tr>
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<tbody>
<tr>
<td>Sales</td>
<td>100,570,144</td>
<td>106,112,192</td>
<td>107,543,151</td>
</tr>
<tr>
<td>Sales cost</td>
<td>84,264,420</td>
<td>90,442,538</td>
<td>90,381,908</td>
</tr>
<tr>
<td>Ratio of Sales cost(%)</td>
<td>83.8%</td>
<td>85.2%</td>
<td>84.0%</td>
</tr>
<tr>
<td>Gross profit on sales</td>
<td>16,305,724</td>
<td>15,660,654</td>
<td>17,161,242</td>
</tr>
<tr>
<td>Selling and administrative expenses</td>
<td>11,117,146</td>
<td>12,322,517</td>
<td>12,410,703</td>
</tr>
<tr>
<td>Operating profits</td>
<td>5,188,579</td>
<td>3,347,137</td>
<td>4,750,539</td>
</tr>
<tr>
<td>Operating profit ratio(%)</td>
<td>5.2%</td>
<td>3.2%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Income before income taxes</td>
<td>5,320,005</td>
<td>3,304,237</td>
<td>4,075,013</td>
</tr>
<tr>
<td>Income tax expenses</td>
<td>51,168</td>
<td>409,470</td>
<td>936,988</td>
</tr>
<tr>
<td>Net profit during the term</td>
<td>5,268,836</td>
<td>2,894,767</td>
<td>3,138,025</td>
</tr>
<tr>
<td>Net income ratio(%)</td>
<td>5.2%</td>
<td>2.7%</td>
<td>2.9%</td>
</tr>
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(UNIT: USD)

Business Cluster

Major Corporations in the region
- Domestic firms:
  - Hanjin Heavy Industry & Construction, Daewoo Shipbuilding and Marin Engineering, Samsung Heavy Industry, Hwachen Machinery, Doosan Infracore, Woorim gear, Naramnd, Samsteel, DTM, Bumhan, Ureatac, Asia Heavy, Ilrim Nanotec, Hyundai Wia, etc.
- Foreign firms:
  - Hankook Machine Tool, Koyo Machinery Korea, TiC, K-Yasui, Hanggu Crantek, Shigya Machinery Korea, Volvo Group

Potential Customers
- Shipbuilding, Automobile, Machinery
  - Hyundai Heavy Industries, Hanjin Heavy Industries & Construction, Daesun Shipbuilding, Samsung Heavy Industries, STX Offshore & Shipbuilding
  - Hyundai Motors, Renault Samsung, GM Korea, Ssangyong, Hyundai Mobis
  - Doosan Heavy Industries, Doosan Infracore, Hyundai-Wia, S&T Daewoo, Hyundai Rotem, Hanhwa Techwin, Volvo Group Korea, STX Heavy Industries, Doosan Engine, STX Engine
- Electronics: LG Electronics, Sony Korea, etc.

Related Organization
- Research Institutions:
  - Busan Science Technology Promotion Centre
  - Korea Institute of Industrial Technology
  - Korea Institute of Science and Technology Information
  - Korea Basic Science Institute
  - Korea Institute Of Machinery & Materials (Busan Machinery Industry Promotion Centre)
  - Busan IT Application Parts Innovation Centre
  - AI Parts, Material Centre
- Company support facilities
  - Busan-Jinhae Free Economic Zone Authority
  - Busan Techno Park
Infrastructure

Utilities
• Water: Industrial water supply 15,300 m³/day, household water supply 4,900 m³/day
• Wastage Maintenance: 19,900 m³/day (wastage 829 m³/day)
• Electricity supply: 631,326 MWh/year
• Energy supply: 708 Gcal/year

Transportation
• Airport: Gimhae International Airport (20 km)
• Port: New Busan Port (6 km)
• Railroad: Gupo station KTX (22 km)
• Road: Garak IC (8 km)

Business Environment

Land cost
• Land rent: Yearly USD 4.8/㎡ (1% of appraised value of land, Appraised value of land: USD 475/㎡)
• Wage level: USD 38,924/year, Average 6.5 years of service

Labor Condition
• Regional population:

<table>
<thead>
<tr>
<th>Items</th>
<th>Population</th>
<th>Available labor force</th>
<th>Bachelor's</th>
<th>Master's</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Nationwide</td>
<td>51,327,916</td>
<td>31,600,268</td>
<td>7.9%</td>
<td>1.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Busan/Gyeongnam</td>
<td>7,728,112</td>
<td>4,767,844</td>
<td>8.3%</td>
<td>1.1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Busan Jinhae Free Economic Zone</td>
<td>4,594,569</td>
<td>2,849,195</td>
<td>8.4%</td>
<td>1.3%</td>
<td>0.5%</td>
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</tbody>
</table>

• 21 universities with degrees in machine parts and materials. 1,371 professors and 83,843 students
• Average wage: USD 38,809/year - Average working period 9.0 years
  (average wage of 50 companies listed on KOSPI and KOSDAQ for businesses in automobile and machinery parts)

Core Resource Supply Environment
• Machinery industry is a main industry of Busan/Kyeongnam (46% of companies located)
• Advanced workforce and numerous research facilities

Living Conditions
• Korea’s 2nd largest city metropolitan with population of 7.7 million
• Busan Film Festival
• Busan Motor Show
• Beautiful Nature such as Haeundae Beach/ Yeongnam Alps
• International Schools

Government Support for Foreign Investment Company
• Industrial site support (Location support, rent reductions, Long-term lease, etc)
• Cash grant (Employment, education, training, Lease expense, production facilities subsidy)
• Tax reduction (If requirements are satisfied)
2. NAMMUN FIZ

Investment Highlights

Location Description
Center of Busan/Gyeongnam machinery industry (36% of nationwide machinery production)

Key Rationale
- Major big companies are near such as Hyundai Motors, GM Korea, Renault-Samsung Motors, Hyundai Heavy Industries, Samsung Heavy Industries, Daewoo Shipbuilding & Marine Engineering, Doosan Infracore, Hankook Machine Tools, Volvo Korea, etc.
- High level of workforce from machinery-related universities (21 universities, 1,300 professors and 8,300 students)

Location Overview

Target Area
- Total Area: 71,000㎡
- Available Area: 38,000㎡

1 USD = 1,200 KRW
Case References

GS-Hydro Korea

Company Overview

- Establishment: November 1999
- Products: Non Welding Hydraulics Pipe System
- Employment: 66
- Customers: National Oilwell Varco, Samsung Heavy Industries, Donga, Eton Korea, etc.

<table>
<thead>
<tr>
<th>Category</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale</td>
<td>9,460,833</td>
<td>12,638,333</td>
<td>15,008,333</td>
</tr>
<tr>
<td>Sales cost</td>
<td>7,886,667</td>
<td>9,245,000</td>
<td>10,685,833</td>
</tr>
<tr>
<td>Ratio of Sales cost(%)</td>
<td>83.4%</td>
<td>73.2%</td>
<td>71.2%</td>
</tr>
<tr>
<td>Gross profit on sales</td>
<td>1,574,167</td>
<td>3,393,333</td>
<td>4,322,500</td>
</tr>
<tr>
<td>Operating profits</td>
<td>-595,833</td>
<td>743,333</td>
<td>1,562,500</td>
</tr>
<tr>
<td>Operating profit ratio(%)</td>
<td>-6.3%</td>
<td>5.9%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Non operating income</td>
<td>220,833</td>
<td>138,333</td>
<td>299,167</td>
</tr>
<tr>
<td>Non operating expense</td>
<td>163,333</td>
<td>166,667</td>
<td>224,167</td>
</tr>
<tr>
<td>Income and loss before income taxes</td>
<td>-537,500</td>
<td>715,000</td>
<td>1,807,500</td>
</tr>
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<td>Income tax expenses</td>
<td>-</td>
<td>-</td>
<td>-23,333</td>
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<td>Net profit during the term</td>
<td>-537,500</td>
<td>715,000</td>
<td>1,630,833</td>
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<td>Net Income ratio (%)</td>
<td>-5.7%</td>
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(Unit: USD)

Business Cluster

Major Corporations in the region

- Domestic firms:
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- Foreign firms:
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- Company support facilities
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Utilities
- Water: Industrial water supply 15,300 m³/day, water for household 4,900 m³/day
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- Electricity supply: 631,326 MWh/year
- Energy supply: 708 Gcal/year

Transportation
- Airport: Gimhae International Airport (34 km)
- Port: Busan New Port (13 km)
- Railroad: Gupo Station KTX (30 km)
- Road: Busan-Changwon Highway road (2.5 km)

Business Environment

Land cost
- Land rent: Yearly USD 5/m² (1%, year of appraised value of land, Appraised value of land USD 451, m²)
- Wage level: USD 38,330, year

Labor Condition
- Regional population: (Unit: persons, %)

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- Busan Motor Show
- Beautiful Nature such as Haeundae Beach/ Yeongnam Alps
- International Schools

Government Support for Foreign Investment Company

- Industrial site support (Location support, rent reductions, Long-term lease, etc)
- Cash grant (Employment, education, training, Lease expense, production facilities subsidy)
- Tax reduction (if requirements are satisfied)
3. YEONGCHEON FEZ

**Investment Highlights**

**Location Description**
Located in the intersection of industrial ecosystem of materials and machinery parts

**Key Rationale**
- Favorable environment for cooperation of universities and industries
- Near major industry cities of Gumi, Daegu, Pohang and etc. with all kind of industries such as electric, electronics, automobile, steel mills, shipbuilding, aviation and etc.
- 20 or more research institutes of relevant industry sectors
  - Gyeongbuk hybrid Technology institute
  - Daegu Intelligent Automotive Parts Promotion Institute

**Location Overview**

**Target Area**
- Total Area: 1,000,000 m²
- Available Area: 12,000 m²

1 USD = 1,200 KRW
Case References

**BOEING Electronic MRO Center**

**Company Overview**
- The 1st Boeing MRO center outside U.S.A. in December 2014
- MRO for the F-15 Asian countries
- Invested USD 17 million in 14,000 m² of land
- Aviation electronic tests and maintenance business for F-15K aircraft

**Business Cluster**

<table>
<thead>
<tr>
<th>Major Corporations in the region</th>
<th>Domestic firms:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Hyundai Motors, Hwashin, etc.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Foreign firms:</th>
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<tbody>
<tr>
<td>- Valeo, Delphi, Faurecia, Fuji Plant Engineering, Daicel Safety Systems Korea etc.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential Customers</th>
<th>Electronics: Samsung, LG Electronics, LG Display, LG Innotech</th>
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<tbody>
<tr>
<td></td>
<td>Chemistry: Hanwha, Kolon, Toray</td>
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<tr>
<td></td>
<td>Machinery, Automobile: POSCO, Hyundai Motors, Hyundai Heavy Industries, Hyundai Mobis, Iljin, Hyundai-WIA, Doosan Infracore, etc.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Related Organization</th>
<th>Research Institutions:</th>
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<tbody>
<tr>
<td></td>
<td>- Daegu</td>
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<tr>
<td></td>
<td>- Daegu Gyeongbuk Institute of Science &amp; Technology</td>
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<tr>
<td></td>
<td>- Electronics and Telecommunications Research Institute</td>
</tr>
<tr>
<td></td>
<td>- Korea Institute of Industrial Technology</td>
</tr>
<tr>
<td></td>
<td>- Daegu Intelligent Automotive Parts Promotion Institute</td>
</tr>
<tr>
<td></td>
<td>- Yeongcheon</td>
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<tr>
<td></td>
<td>- Geoungbuk research center for automobile embedded technology</td>
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<td></td>
<td>- Geoungbuk Hybrid auto-parts research centre</td>
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<td>- Geoungsan</td>
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<td></td>
<td>- UBIQUITOUS NEW TECH centre</td>
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<td></td>
<td>- Digital design centre for car auto-partss</td>
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<td>- POHANG</td>
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<td>- Nano technology centre</td>
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<td>- Steel tech center</td>
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<td>- RIST</td>
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<td></td>
<td>- POHANG ROBOT CENTER)</td>
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<td></td>
<td>- Gumi : GERI, KICIT</td>
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<tr>
<td></td>
<td>- GyeoungJu : HIMEC RIC-CAMID</td>
</tr>
</tbody>
</table>
Infrastructure

Utilities
- Water: industrial water supply 7,000 m$^3$/day, household water supply 2,000 m$^3$/day
- Waste water Treatment: 4,800 m$^3$/day
- Waste management: 62 ton/day
- Electricity: 78,000 KVA
- Communication: estimated 1,000 lines

Transportation
- Airport : Daegu International Airport (37 km)
- Port : Pohang New Port (45 km)
- Railroad : Gyeongbu line Youngcheon Station (5 km), Dongdaegu KTX 38 km
- Roads : Gyeongbu Highway North Youngcheon IC (5 km)

Business Environment

Land cost
- Land price: USD 108 /m$^2$
- Land rent: Yearly USD 1.08 /m$^2$
- Wage level: USD 38,330 / year

Labor Condition
- Regional population: (Unit: persons, %)

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<td>1.1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Daegu Only</td>
<td>2,493,264</td>
<td>1,538,942</td>
<td>9.7%</td>
<td>1.5%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

- Average wage: USD 38,330 , year (Average of 11 companies listed on KOSDAQ and KOSPI)

Core Resource Supply Environment
- Industry University Institute Collaboration research environment
  - Yeongcheon: Gyeongbuk Research Institute of Vehicle Embedded Technology, Gyeongbuk Hybrid Technology Institute
  - Geongsan: UTRC
  - Pohang: Korea Printed Electronics Center, Research Institute of Industrial Science & Technology
  - Ulsan: Hyundai Motor Company
  - Gumi: Gumi Electronics & Information Technology Research Institute, Kumi Information Center for Industrial Technology
  - Gyeongju: Regional component distribution center with Eco friendly electric energy facility.

Living Conditions
- 51 universities are located and ample work force due to its scale of educational institutes.
- 70,000 graduates each year (17,000 graduates with degrees in engineering)
- 3 international schools with premium educational environment
- Near to 3rd biggest city in Korea providing premium living and educational environments for foreigners

Government Support for Foreign Investment Company
- Industrial site support (Location support, rent reductions, Long-term lease, etc)
- Cash grant (Employment, education, training, Lease expense, production facilities subsidy)
- Tax reduction (If requirements are satisfied)
4. DAEGU Technopolis FEZ

Investment Highlights

Location Description
Favorable R&D environment, Ideal location for composite materials and machinery

Key Rationale
- Favorable environment for cooperation of universities and industries
- Near major industry cities of Gumi, Daegu, Pohang and etc. with all kind of industries such as electric, electronics, automobile, steel mills, shipbuilding, aviation and etc.
- 20 or more research institutes of relevant industry sectors
  - Gyeongbuk hybrid Technology institute
  - Daegu Intelligent Automotive Parts Promotion Institute

Location Overview

Target Area
- Total Area: 7,258,000 m²
- Available Area (automotive): 595,000 m²

1 USD = 1,200 KRW
Case References

Taegu Tec

Company Overview
- Berkshire Hathaway (Warren Buffett) invested, owns 100% stake
- Products: Metal cutter, carbide rollers, Tungsten high pressure tools
- Sales: USD 417 million (estimated)
- Employment: 1,700
- World-class technology
- Successful case of competitive cutting-edge technology in Daegu

<table>
<thead>
<tr>
<th>Categories</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>225,540,494</td>
<td>255,326,892</td>
</tr>
<tr>
<td>Sales cost</td>
<td>145,956,000</td>
<td>158,012,360</td>
</tr>
<tr>
<td>Ratio of Sales cost(%)</td>
<td>64.7%</td>
<td>61.9%</td>
</tr>
<tr>
<td>Gross profit on sales</td>
<td>79,584,494</td>
<td>97,314,533</td>
</tr>
<tr>
<td>Selling and administrative expenses</td>
<td>28,368,041</td>
<td>31,119,573</td>
</tr>
<tr>
<td>Operating profits</td>
<td>51,216,453</td>
<td>66,194,960</td>
</tr>
<tr>
<td>Operating profit ratio(%)</td>
<td>22.7%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Income and loss before income tax</td>
<td>53,281,479</td>
<td>74,897,788</td>
</tr>
<tr>
<td>Income tax expenses</td>
<td>5,601,037</td>
<td>11,214,118</td>
</tr>
<tr>
<td>Net Income during the term</td>
<td>47,680,442</td>
<td>63,683,669</td>
</tr>
<tr>
<td>Net income ratio(%)</td>
<td>21.1%</td>
<td>24.9%</td>
</tr>
</tbody>
</table>

(UNIT: USD)

Business Cluster

Major Corporations in the region
- Domestic firms: Hyundai Motors, Hwashin, etc.
- Foreign firms: Valeo, Delphi, Faurecia, Fuji Plant Engineering, Daicel Safety Systems Korea etc.

Potential Customers
- Electronics: Samsung, LG Electronics, LG Display, LG Innotech, etc.
- Chemistry: Hanwha, Kolon, Toray
- Machinery, Automobile: POSCO, Hyundai Motors, Hyundai Heavy Industry, Hyundai Mobis, Ilijin, Hyundai-WIA, Doosan Infracore, etc.

Related Organization
- Research Institutions:
  - Daegu
    - Daegu Gyeongbuk Institute of Science & Technology
    - Electronics and Telecommunications Research Institute
    - Korea Institute of Industrial Technology
    - Daegu Intelligent Automotive Parts Promotion Institute
  - Yeongcheon
    - Geoungbuk research center for automobile embedded technology
    - Geoungbuk Hybrid auto-parts research centre
  - Geoungsan
    - UBIQUITOUS NEW TECH centre
    - Digital design centre for car auto-parts
  - POHANG
    - Nano technology centre
    - Steel tech center
    - RIST
    - POHANG ROBOT CENTER)
- Gumi: GERI, KICIT
- GyeoungJu: HIMEC RIC-CAMID
Infrastructure

Utilities
- Water: industrial water supply 8,500 m³/day, household water supply 24,900 m³/day
- Waste water Treatment: 25,000 m³/day
- Waste management: 10.7 ton/day (nonflammable), 122.3 ton/day (daily household waste)
- Communication: approximately 110,000 lines
- Electricity: 272,677 KVA
- Energy supply: Supplying from city gas and complex energy facility

Transportation
- Airport: Daegu International Airport (37 km)
- Port: Busan Port (125 km), Pohang New Port (128 km), Ulsan Port (151 km)
- Railroad (KTX): Gyeongbu line, Donghae KTX 40Km
- Road: 6 expressways (Gyeongbu, Jungang, Jungbu, etc.)

Business Environment

Land cost
- Land price: USD 196.52/m²
- Land Rent: Yearly USD 1.97/m²
- Wage level: USD 38,330/year

Labor Condition
- Regional population: (Unit: persons, %)

<table>
<thead>
<tr>
<th>Items</th>
<th>Population</th>
<th>Available labor force</th>
<th>Ratio</th>
<th>Bachelor’s</th>
<th>Master’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationwide</td>
<td>51,327,916</td>
<td>31,600,268</td>
<td>7.9%</td>
<td>1.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Daegu/Kyeongbuk</td>
<td>7,626,969</td>
<td>4,692,976</td>
<td>9.0%</td>
<td>1.1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Daegu Only</td>
<td>2,493,264</td>
<td>1,538,942</td>
<td>9.7%</td>
<td>1.5%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

- Average wage: USD 38,330, year (Average of 11 companies listed on KOSDAQ and KOSPI)

Core Resource Supply
- 12 industrial complex in Daegu city, 1,500 machinery metal firms, 300 automobile components firms, 80 electronic device firms
- Share R&D infrastructure from universities (Gyeongbuk University, etc.) and national research and development institutes (Daegu Gyeongbuk Institute of Science & Technology)

Living Conditions
- 51 universities are located and ample work force due to its scale of educational institutes.
- 70,000 graduates per year (17,000 graduates with degrees in engineering)
- 3 international schools with premium educational environment
- 3rd biggest city in Korea providing premium living and educational environments for foreigners

Government Support for Foreign Investment Company
- Industrial site support (Location support, rent reductions, Long-term lease, etc)
- Cash grant (Employment, education, training, Lease expense, production facilities subsidy)
- Tax reduction (If requirements are satisfied)
5. OSEONG FIZ

Investment Highlights

Location Description
Concentrated with machinery manufacturing companies, ideal location for composite materials and machinery

Key Rationale
• Integrated with approximately 340 major companies related to machinery such as Hyundai motors, Kia motors, Samsung Electronics, LG chemical, Soosan Heavy Industries, etc.

Location Overview

Target Area
• Total Area: 600,000 m²
• Available Area (automotive): 318,000 m²
Case References

**Cabot Microelectronics Co., Ltd.**

**Company Overview**
- Established in December 2010
- Investment USD 10 million
- Headquartered in Aurora Illinois, U.S.A
- Major business: semiconductor Polishing Pad
- Manufacturing base: U.S.A(3), Japan(1), Singapore(1), Taiwan(1), Korea(1)
- Major customers: Samsung Electronics, Hynix semiconductor

**Business Cluster**

**Major Corporations in the region**
- **Domestic firms**: Kia Motors, Samsung Electronics, Ssangyong Motors, etc.
- **Foreign firms**: Denso Korea, Faurecia, Paker Korea, Johnson Matti Korea, 3M Korea, FSMK, Takata Korea, Mattson Int’l Korea, Kia-Tencor Korea, Nissin Ion Korea, Nanometrics Korea, Meritz Korea etc.

**Potential Customers**
- **Automobile**: Hyundai motors, Kia motors, Ssangyong motors, Donghee Motors, GM Korea, Delphi Korea, Faurecia, Hyundai Mobis etc.
- **Chemical, Refinery**: Shell, Total, Hyundai Oil Bank, Lotte Chemical, LG Chemical etc.
- **Electronics, Semiconductor**: Samsung Electronics, SK Hynix etc.
- **Machinery**: Soosan Heavy Industries, Hyundai Wia, Everdigm etc.

**Related Organization**
- **Research Institutions**:
  - KATECH (Korea Automotive Technology Institute)
  - KETI (Korea Electronics Tech. Institute)
  - Advanced Institute of Convergence tech. of SNU
- **Company support facilities**: Gyeonggi TechnoPark
Infrastructure

Utilities
- Water supply: 7,200 m³/day
- Water maintenance: Waste processing plant within complex deals with water maintenance
- Communication: 3,600 leased line
- Electricity supply: voltage 154 kV, capacity: 132,834 Mwh/year

Transportation
- Airport: Chungju airport (73 km), Incheon airport (87 km), Gimpo airport (81 km)
- Port: Pyeongtaek Port, Asan Port (23 km)
- Railroad: Songtan Station (13 km) (capital region subway)
- Road: Close to 3 Highway interchange (Geongbu, Pyeongtaek, Eumseong Anseon, OsongIC)

Land cost
- Land rent: Yearly USD 2.24 / m² (estimated)
- Wage level: USD 38,330/year

Labor Condition
- Regional population: (Unit: persons, %)

<table>
<thead>
<tr>
<th>Items</th>
<th>Population</th>
<th>Available labor force</th>
<th>Bachelor's</th>
<th>Master's</th>
<th>Ph.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationwide</td>
<td>51,327,916</td>
<td>31,600,268</td>
<td>7.9%</td>
<td>1.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Gyeonggido</td>
<td>9,400,528</td>
<td>5,969,706</td>
<td>8.1%</td>
<td>2.0%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

- Average wage: USD 38,809/year, AVG WORKING 9 YEARS (Average of 50 companies listed on KOSPI, KOSDAQ in automobile and machinery industries)

Core Resource Supply
- Close to Seoul and west coast zone allowing ease of labor force and distribution of materials and parts
- Close to Pyeongteak port and Inchon port ease to export

Environment

Living Conditions
- Population of 10 million residents in Gyeonggido
- Major companies such as Samsung and LG, Kia Motors, SsangYong Motors
- American troop headquarter in Oseong for New City development plan (USD 15 billion of investment by 2020)
- Premium environment for transportation, culture, education and lifestyle
- High living standard and education for foreigners

Government Support for Foreign Investment Company
- Industrial site support (Location support, rent reductions, Longterm lease, etc)
- Cash grant (Employment, Education, training, Lease expense, production facilities subsidy)
- Tax reduction (If requirements are satisfied)
6. JANGAN 2 FIZ

Investment Highlights

Location Description

Concentrated with machinery manufacturing companies, ideal location for composite materials and machinery.

Key Rationale

- Integrated with approximately 340 major companies related to machinery such as Hyundai motors, Kia motors, Samsung Electronics, LG chemical, Soosan Heavy Industries etc.

Location Overview

<table>
<thead>
<tr>
<th>Target Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Total Area: 615,000 m²</td>
</tr>
<tr>
<td>• Available Area: 216,000 m²</td>
</tr>
</tbody>
</table>

1 USD = 1,200 KRW

Machinery

Location

kotra

Korea Trade-Investment Promotion Agency

INVEST KOREA
Case References

Tsukatani Korea

Company Overview
• Established in February 2006
• Hwaseong factory is completed in 2000
• Major business: Pinnacle Die (Precision mold) manufacturing
• Near major customers : Hyundai Motors, Ssangyong Motors, Kia motors etc.
• Ease in acquiring skilled worker
• Distribution advantage with Pyeongtaek Port etc.

<table>
<thead>
<tr>
<th>Category</th>
<th>2012. 12. 31</th>
<th>2013. 12. 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>4,036</td>
<td>4,516</td>
</tr>
<tr>
<td>Sales cost</td>
<td>2,935</td>
<td>2,939</td>
</tr>
<tr>
<td>Ratio of Sales cost(%)</td>
<td>72.7%</td>
<td>65.1%</td>
</tr>
<tr>
<td>Gross profit on sales</td>
<td>1,101</td>
<td>1,577</td>
</tr>
<tr>
<td>Operating profits</td>
<td>623</td>
<td>891</td>
</tr>
<tr>
<td>Operating profits ratio(%)</td>
<td>15.4%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Income and loss before income taxes</td>
<td>1,490</td>
<td>1,407</td>
</tr>
<tr>
<td>Income tax expenses</td>
<td>-</td>
<td>25</td>
</tr>
<tr>
<td>Net profit during the term</td>
<td>1,490</td>
<td>1,382</td>
</tr>
<tr>
<td>Net income ratio(%)</td>
<td>36.9%</td>
<td>30.6%</td>
</tr>
</tbody>
</table>

(UNIT: USD)

Business Cluster

Major Corporations in the region
• **Domestic firms**: Kia Motors, Samsung Electronics, Ssangyong Motors, etc.
• **Foreign firms**: Denso Korea, FSaurecia, Paker Korea, Johnson Matti Korea, 3M Korea, FSMK, Takata Korea, Mattson Int'l Korea, Kia-Tencor Korea, Nissin Ion Korea, Nanometrics Korea, Meritz Korea etc

Potential Customers
• **Automobile**: Hyundai motors, Kia motors, Ssangyong motors, Donghee Motors, GM Korea, Delphi Korea, Faurecia, Hyundai Mobis etc.
• **Chemical, Refinery**: Shell, Total, Hyundai Oil Bank, Lotte Chemical, LG Chemical etc.
• **Electronics, Semiconductor**: Samsung Electronics, SK Hynix etc.
• **Machinery**: Soosan Heavy Industries, Hyundai Wia, Everdigm etc.

Related Organization
• **Research Institutions**:
  - KATECH (Korea Automotive Technology Institute)
  - KETI (Korea Electronics Tech. Institute)
  - Advanced Institute of Convergence tech. of SNU
• **Company support facilities**: Gyeonggi TechnoPark
Infrastructure

Utilities
- Water supply: 7,200 m³/day
- Water maintenance: Waste processing plant within complex deals with water maintenance
- Communication: 3,600 leased line
- Electricity supply: voltage 154kV, capacity: 132,834MWh/year

Transportation
- Airport: Chungju airport (73km), Incheon airport (87Km), Gimpo airport (81Km)
- Port: Pyeongtaek Port, Asan Port (23km)
- Railroad: Songtan Station (13km) (capital region subway)
- Road: Close to 3 Highway interchange (Geongbu, Pyeongtaek, Eumseong Anseon, OsongIC)

Business Environment

Land cost
- Land rent: Yearly USD 3.03 m²
- Wage level: USD 38,330/year

Labor Condition
- Regional population:

<table>
<thead>
<tr>
<th>Items</th>
<th>Population</th>
<th>Available labor force</th>
<th>Bachelor’s</th>
<th>Master’s</th>
<th>Ph.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationwide</td>
<td>51,327,916</td>
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<td>1.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Gyeonggido</td>
<td>9,400,528</td>
<td>5,969,706</td>
<td>8.1%</td>
<td>2.0%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>
- Average wage: USD 38,809/year, AVG WORKING 9 YEARS (Average of 50 companies listed on KOSPI, KOSDAQ in automobile and machinery industries)

Core Resource Supply
- Close to Seoul and west coast zone allowing ease of labor force and distribution of materials and parts
- Close to Pyeongtaek port and Inchon port ease to export

Living Conditions
- Population of 10 million residents in Gyeonggi
- Major companies such as Samsung and LG, SsangYong Motors
- American troop headquarter in Osong for New City development plan
- (USD 15 billion of investment by 2020)
- Premium environment for transportation, culture, education and lifestyle
- High living standard and education for foreigners

Government Support for Foreign Investment Company
- Industrial site support (Location support, rent reductions, Longterm lease, etc)
- Cash grant (Employment, education, training, Lease expense, production facilities subsidy)
- Tax reduction (If requirements are satisfied)
7. SONGSAN FIZ

Investment Highlights

Location Description

Concentrated with Steel companies, Ideal location for composite materials and machinery

Key Rationale

• Integrated with approximately 340 major companies related to machinery such as Hyundai motors, Hyundai Steel, Kia motors, Samsung Electronics, LG chemical, Sousan Heavy Industries etc.

Location Overview

<table>
<thead>
<tr>
<th>Target Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Total Area : 5,620,000 m²</td>
</tr>
<tr>
<td>• Available Area : 20,000 m²</td>
</tr>
</tbody>
</table>

Domestic firms: Soosan Heavy Industries, Hankang / PD, C.P.O, / Union semiconductors equipment / Wekocon, Kangwon / Clean technology / ITI Technology

Foreign firms: Mathon Int'l Korea Inc / FMK LTD / Korean Heavy Industries Inc / Nisshin Van Korea

Domestic firms: Hyundai motors, Hyundai Steel, Kia motors, Daewoo motors, Donghwa, Globalhols, Daeji America, Hyundai Movers etc.

Chemical related: Ikhil, Total, Hyundai Oil Bank, Lotte Oil Chemical, LG Chemicals etc.

Electronic/semi-conductor related: Samsung Electronics, SK Hyne etc.

Completed machinery: Soosan Heavy Industries, Hyundai WIA, Eumyoung etc.

Domestic firms: Hangang, Naver, C.C., C.C. / Ilwang Motors Industries / Haer/ Seokm, Syenon / Caterpillar Precision Seoul Korea / Haeagwon Chemical & Analysis

Foreign firms: Daehan Korea / DJ Tech / Jeongkuk Korea / Cyber Korea Inc / DJ WAC Korea Precision

Korean firms: Soosan, Heavy Industries, Hankang, C.I. O, Union semiconductor equipment, Wekocon, Kangwon, Clean technology, ITI Technology

Case References

GUHRING Korea

Company Overview

• Established in 1988 & it’s production plant in Dang-jin was established in 1990
• GUHRING, one of the world’s leading suppliers of rotary cutting, drilling and milling tools headquartered in Germany with over 100 corporate history
• Major distributor: Export (worldwide market) 33%, HYUNDAI/KIA Motors, Hwacheon machinery, Hyundai Wia, etc.

<table>
<thead>
<tr>
<th>Category</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>29.3</td>
<td>34.4</td>
<td>34.6</td>
<td>Sales growth CAGR 8.7%</td>
</tr>
<tr>
<td>Net profit</td>
<td>1.4</td>
<td>1.9</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Net profit margin</td>
<td>4.8%</td>
<td>5.5%</td>
<td>5.8%</td>
<td>Average operating profits ratio in the same industry: 4.2%</td>
</tr>
</tbody>
</table>

(UNIT: USD, Million)

Business Cluster

Major Corporations in the region

• Domestic firms: Kia Motors, Samsung Electronics, Ssangyong Motors, Hyundai Steel, Dongbu Steel etc.
• Foreign firms: Denso Korea, Faurecia, Paker Korea, Johnson Matti Korea, 3M Korea, FSMK, Takata Korea, Mattson Intl Korea, Kia-Tencor Korea, Nissin Ion Korea, Nanometrics Korea, Meritz Korea etc.

Potential Customers

• Automobile: Hyundai motors, Kia motors, Ssangyong motors, Donghee Motors, GM Korea, Delphi Korea, Faurecia, Hyundai Mobis etc.
• Chemical, Refinery: Shell, Total, Hyundai Oil Bank, Lotte Chemical, LG Chemical etc.
• Electronics, Semiconductor: Samsung Electronics, SK Hynix etc.
• Machinery: Soosan Heavy Industries, Hyundai Wia, Everdigm etc.

Related Organization

• Research Institutions:
  - KATECH (Korea Automotive Technology Institute)
  - KETI (Korea Electronics Tech. Institute)
  - Advanced Institute of Convergence tech. of SNU
  - Company support facilities: Chungnam Techno Park
Infrastructure

Utilities
- Water: industrial water supply 2,500 m³/day, household water supply 1,082 m³/day
- Wastewater: 3,500 thousand m³/day
- Communication: 54,200 thousand lines
- Electricity: voltage 154kV, 650kW
- Energy supply: LNG

Transportation
- Airport: Incheon airport (130km), Gimpo airport (105km)
- Port: Pyeongtaek Port (35km), Dangjin port (6km), Dae san Port (29km)
- Railroad: Janghang line Shinyewon Station (35km)
- Road: 2 Expressways (Seohaean Dangjin IC (8km), Dangjin-Daejeon Shinyewon IC (11km))

Business Environment

Land cost
- Land price: USD 250/㎡
- Land rent: Yearly 2.5/㎡
- Wage level: USD 38,330/year

Labor Condition
- Regional population:

<table>
<thead>
<tr>
<th>Items</th>
<th>Population</th>
<th>Available labor force</th>
<th>Bachelor’s</th>
<th>Master’s</th>
<th>Ph.D</th>
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</thead>
<tbody>
<tr>
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<td>31,600,268</td>
<td>7.9%</td>
<td>1.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Gyeonggido/Chungnam</td>
<td>11,480,528</td>
<td>5,969,706</td>
<td>8.1%</td>
<td>2.0%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

- Average wage: USD 38,330/year (Average of 11 machinery-related companies listed on KOSDAQ and KOSPI)

Core Resource Supply Environment
- Seohaean coast area adjacent to Seoul, professional workforce of Seoul metropolitan, ease in procuring raw materials and parts
- Pyeongtaek Port, distribution center of east-northern part, Ease in importing raw materials & parts and exporting completed products

Living Conditions
- Emerging place for new developing area near Seoul
- Just south of Gyeonggido residing 9.4 million people
- Premium environment for transportation, culture, education and lifestyle
- High living standard and education for foreigners

Government Support for Foreign Investment Company

- Industrial site support (Location support, rent reductions, Long-term lease, etc)
- Cash grant (Employment, education, training, Lease expense, production facilities subsidy)
- Tax reduction (If requirements are satisfied)
8. IKSAN FIZ

Investment Highlights

Location Description

Near to Carbon valley, Ideal location for composite materials and machinery companies

Key Rationale

- Near to GM Korea, Hyundai Motors Commercial Vehicles, Tata Daewoo motors, Doosan Infracore, Hyosung, OCI, Toray etc.

Location Overview

Target Area

- Total Area: 330,000m²
- Available Area (automotive): 195,000m²
Case References

Yanmar Korea

Company Overview

• Established in July 2005
• Major business: agricultural machinery
• Employment: 54
• A global Japanese company with low fuel consumption, high-efficiency and eco-agricultural machinery, diesel engine, gas heater pump generator over 100 years

<table>
<thead>
<tr>
<th>Category</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>60,187,238</td>
<td>69,078,657</td>
</tr>
<tr>
<td>Sales cost</td>
<td>51,514,746</td>
<td>58,664,738</td>
</tr>
<tr>
<td>Ratio of Sales cost (%)</td>
<td>85.6%</td>
<td>84.9%</td>
</tr>
<tr>
<td>gross profit on sales</td>
<td>8,672,493</td>
<td>10,413,920</td>
</tr>
<tr>
<td>Operating profits</td>
<td>3,531,424</td>
<td>4,245,611</td>
</tr>
<tr>
<td>Operating profits ratio (%)</td>
<td>5.9%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Income and loss before income taxes</td>
<td>3,664,248</td>
<td>4,433,307</td>
</tr>
<tr>
<td>Income tax expenses</td>
<td>-26,189</td>
<td>70,825</td>
</tr>
<tr>
<td>Net profit during the term</td>
<td>3,690,437</td>
<td>4,362,483</td>
</tr>
<tr>
<td>Net income ratio (%)</td>
<td>6.1%</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

(UNIT: USD)

Business Cluster

Major Corporations in the region

• Domestic firms: Doosan Infracore, Mando, AUK CORP, Echun Agricultural Machinery, Hankook Special Gases, Pyung Kang Special Vehicle, etc.
• Foreign firms: Yanmar Agricultural Machinery Korea, Yasunaga Korea, Shizuoka-Hansung,

Potential Customers

• Automobile: Hyundai motors Commercial vehicles, GM Korea, Tata-Daewoo etc.
• Shipbuilding/Offshore: Hyundai Heavy industries, Dae Kyoung etc.
• Chemical: Solvay, Toray, BASF, OCI etc.
• Machinery: Doosan Infracore, Everdigm etc.

Related Organization

• Jeonbuk Institute of Automotive Technology
• Korea Electronics Technology Institute
• Jeonju Institute of Machinery and Carbon Composites
• CAMTIC (Chonbuk National University Automobile-parts & Mold Technology Innovation Center)
• Kunsan Advanced Technology Innovation Center
Infrastructure

Utilities
• Water supply: industrial water supply 15,550 m³/day, household water supply 1,111 m³/day
• Water maintenance: 6,000 m³/day
• Electricity supply: 150,602 kVA
• Communication: 3,135 leased line
• Energy: LNG 94,474,000 ton/year

Transportation
• Airport: Gunsan airport (41Km), Incheon airport (250Km)
• Port: Gunsan Port (28km)
• Railroad: Iksan station KTX (3Km) Honam line, Jeonla line, Janghang line interchange
• Road: Honam Highway Iksan IC (14Km)

Business Environment

Land cost
Land Rent: Yearly USD 1.02/m²
Wage level: USD 38,330/year

Labor Condition
• Regional population:

<table>
<thead>
<tr>
<th>Items</th>
<th>Population</th>
<th>Available labor force</th>
<th>Bachelor's</th>
<th>Master's</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationwide</td>
<td>51,327,916</td>
<td>31,600,268</td>
<td>7.9%</td>
<td>1.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Jeonbuk/Chungnam</td>
<td>3,857,795</td>
<td>2,254,165</td>
<td>6.8%</td>
<td>1.9%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Gunsan,Iksan</td>
<td>820,234</td>
<td>462,792</td>
<td>6.4%</td>
<td>1.0%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

• Average wage: USD 38,809/year - AVG WORKING 9 YEARS (Average of 50 companies listed on KOSPI, KOSDAQ from automobile and machinery industries)

Core Resource Supply
• JIAT and 7 related national research facilities, 8 Universities with automobile related degrees(700 individuals), community college(700 individuals)
• Close to the business cluster of weight reducing material

Living Conditions
• Historic Area
  - Capital of Baekje Dynasty (1,500 years old city)
  - Near to Early 20th Century monuments
• Provides premium living environment – 40 museums, 17 culture/art center
• Next to Jeonju Korea Traditional House Village

Government Support for Foreign Investment Company
• Industrial site support (Location support, rent reductions, Long-term lease, etc)
• Cash grant (Employment, education, training, Lease expense, production facilities subsidy)
• Tax reduction (if requirements are satisfied)
9. ULSAN FTZ

Investment Highlights

Location Description

The biggest industry cluster in Korea, Ideal location for composite materials and machinery parts

Key Rationale

- Favorable environment for procuring materials of metal/nonferrous metal with Hyundai motors, SK, S-Oil(Oil-refinery company), POSCO (metal materials), Hyundai HYSCO (nonferrous metal and processing), Hyundai Heavy industries etc.

Location Overview

Target Area

- Total Area : 403,000 m²
- Available Area : 11,000 m²
Case References

**Ulsan Engineering**

Company Overview
• Established in 2003
• Employment: 47
• Honda Trading has 75% of stake
• Major business: patterns for designing, developing/manufacturing examining device and press die manufacturing
• Customers: Hyundai motors, Nara Mold and die co., Kia motors etc.

**Cimcool Korea**

Company Overview
• Established Ulsan factory in October 1988
• Major business: manufacturing and selling metal processing oil and industrial special lubricant

Business Cluster

**Major Corporations in the region**

- Domestic firms:
  - Hyundai Motors, SK Chemical, Hyundai Heavy Industry, Hwacheon Machine ToolAY, Seoam Machinery Industry, Simpac industrial machinery, Moojin kee yeon, Hanjin D&B, Altoen Daewoo, etc.
- Foreign firms:
  - S-Oil, Nitrogas Die Tech, Lucky Metal, Hana Esses, Aleem IMR

**Potential Customers**

- Automobile:
  - Kia motors, Hyundai motors, GM Korea etc.
- Chemical:
  - Lotte Chemical, Hanhwa Chemical, Kolon, GS-Caltex, LG chemical, BASF, Daelim industry, Cheil industries, Samnam Petrochemical, Yeochun NCC etc.
- Machinery:
  - Hyundai Wia, Hwacheon Machine Tool etc.

**Related Organization**

- Research Institutions:
  - UNIST,
  - Ulsan university, Fine Chemical Industry Center,
  - Ulsan science Technology Promotion Center etc.
- Company support:
  - Ulsan Free Trade Zone Office, Ulsan Technopark
Infrastructure

Utilities
- Water supply: Industrial water supply: 6,900㎥/day, household water supply: 8,100㎥/day
- Water maintenance: 0.15 million ㎥/day
- Waste management: Waste management plant within complex
- Electricity supply: 446,765MWH/year
- Communication: Communication is wired (led in) using trunk line/ground wire from the outside of the complex trunk line/ground wire
- Energy supply: LNG 850,000N㎥/year

Transportation
- Airport: Ulsan airport(17Km), Kimhae airport(77Km)
- Port: Ulsan New port (12Km)
- Railroad: Ulsan KTX station (27Km)
- Road: Gyeongju (40km), Busan (63Km)

Business Environment

Land Cost
- Land rent: Yearly USD 0.111, ㎡
- Wage level: USD 38,330/year

Labor Condition
- Regional population:

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<tr>
<th>Items</th>
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<td>1.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Busan/Ulsan/Kyeongnam</td>
<td>9,285,976</td>
<td>5,727,451</td>
<td>8.7%</td>
<td>1.2%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Ulsan only</td>
<td>1,166,377</td>
<td>751,249</td>
<td>8.7%</td>
<td>0.9%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

- Average wage: USD 38,809/year AVG WORKING 9 YEARS (Average of 50 companies listed on KOSPI, KOSDAQ from automobile and machinery industries)

Core Resource Supply
- Auto-parts manufacturers: 787 companies by 2012
- Automobile materials: POSCO, Hyundai Steel, etc. premium environment for distribution of metal/non-ferrous materials
- Innovative Technology: UNIST New generation automobile battery for electric cars, research in new composite

Living Conditions
- 3rd place in the life’s quality category from the Financial Times’ Asian Cities of the Future 2009

Government Support for Foreign Investment Company
- Industrial site support (Location support, rent reductions, Long-term lease, etc)
- Cash grant (Employment, education, training, Lease expense, production facilities subsidy)
- Tax reduction (If requirements are satisfied)
10. GWANGJU FIZ

Investment Highlights

Location Description
Center of light industry, ideal location for composite materials and machinery parts

Key Rationale

- Eco-friendly and innovative automobile manufacturing cluster supported by the government.
- Fine infrastructure for transport, lifestyle and education.

Location Overview

Target Area
- Total Area: 99,000m²
- Available Area: 99,000m²

1 USD = 1,200 KRW
**Case References**

**Yawata Korea**

**Company Overview**

- Established in Feb. 2005
- Major business: parts for automobile airbag, safety belt and machinery, metal heat treatment processing and plating

<table>
<thead>
<tr>
<th>Category</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>6,037,500</td>
<td>6,102,500</td>
<td>7,136,000</td>
<td>10,420,000</td>
</tr>
<tr>
<td>Sales cost</td>
<td>5,092,500</td>
<td>5,133,333</td>
<td>6,005,833</td>
<td>9,210,833</td>
</tr>
<tr>
<td>Ratio of sales cost (%)</td>
<td>84.3%</td>
<td>84.1%</td>
<td>84.2%</td>
<td>88.4%</td>
</tr>
<tr>
<td>gross profit on sales</td>
<td>944,167</td>
<td>969,167</td>
<td>1,129,167</td>
<td>1,209,167</td>
</tr>
<tr>
<td>Selling and administrative expenses</td>
<td>635,000</td>
<td>561,666</td>
<td>669,167</td>
<td>754,167</td>
</tr>
<tr>
<td>Operating profits</td>
<td>309,167</td>
<td>406,666</td>
<td>460,000</td>
<td>455,000</td>
</tr>
<tr>
<td>Operating profits ratio(%)</td>
<td>5.1%</td>
<td>6.7%</td>
<td>6.4%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Income and loss before income taxes</td>
<td>194,166</td>
<td>184,167</td>
<td>220,833</td>
<td>306,666</td>
</tr>
<tr>
<td>Income tax expenses</td>
<td>20,833</td>
<td>21,667</td>
<td>47,500</td>
<td>40,000</td>
</tr>
<tr>
<td>Net profit during the term</td>
<td>173,333</td>
<td>162,500</td>
<td>173,333</td>
<td>266,667</td>
</tr>
<tr>
<td>Net Income ratio (%)</td>
<td>2.9%</td>
<td>2.7%</td>
<td>2.4%</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

(UNIT: USD)

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**Business Cluster**

**Major Corporations in the region**

- Korean companies:
  - Dayou A-Tech, KWANG DONG PRECISION CO, DONGGANG HOLDINGS, etc.
  - 130 listed and externally audited firms
- Foreign investment company:
  - SEOCHUN INDUSTRIAL(JUNICHI SATO)
  - JEIL SANKI PYEONG DONG
  - BOOKANG STEEL
  - YAWATA
  - BOOM JIN, etc.

**Potential Customers**

- Automobile: KIA Motors

**Related Organization**

- Research Institutions:
  - Korea Photonics Technology Institute
  - Electronics and Telecommunications Research Institute Honam Research Center
  - Korea Institute of Industrial Technology Headquarter in Honam
  - Korea Electronics Technology Institute
  - Advanced Photonics Research Institute
  - GIST TECHNOLOGY INSTITUTE
  - KOREA AUTOMOTIVE TECHNOLOGY INSTITUTE etc
- Company support facilities: Gwangju TECHNOPARK, Gwangju INNIPOLIS, GIGCA etc
Infrastructure

Utilities
- Water supply: Industrial water supply: 39.2 m³/day, household water supply: 5,000 m³/day
- Water maintenance: 60,000 m³/day
- Waste management: operated by the Korea Environment Corporation, processed within the Hanam Sandan wastage plant
- Communication: 5,200 leased line
- Electricity supply: voltage 154 kV, capacity 120,000 kVA
- Energy: LNG supplied by City Gas

Transportation
- Airport: Gwangju airport(3km), Muan International airport(55km)
- Port: Mokpo Port(70km), Gwangyang Port(125km), Yeosu Port(163km)
- Railroad: Honam line Songjeong Station(2km)
- Road: Honam Highway Donglim IC(12km)

Business Environment

Land Cost
- Land rent: yearly USD 0.09/㎡
- Wage level: USD 38,330/year

Labor Condition
- Regional population: (Unit: persons, %)

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- Average wage: USD 38,809/year, AVG WORKING 9 YEARS (Average of 50 companies listed on KOSPI, KOSDAQ from automobile and machinery industries)

Core Resource Supply Environment
- Professional labor force: KOREA AUTOMOTIVE TECHNOLOGY INSTITUTE branch in Gwangju
- 8 government research facilities
- Gwangju Institute of Science and Technology
- 8 specialized education institutions supplying professional labor force

Living Conditions
- Gwangju Biennale of Fine cultural environment
- Korean best food
- 2,200 of islands in the region (Ocean National Park)
- Mudeungsan National Park

Government Support for Foreign Investment Company
- Industrial site support (Location support, rent reductions, Long-term lease, etc.)
- Cash grant (Employment, education, training, Lease expense, production facilities subsidy)
- Tax reduction (If requirements are satisfied)