Overview of Finnish Technology Industry

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Jukka Palokangas, Chief Economist
The Finnish Technology Industry Is Comprised of Five Sub-Sectors

1. **ELEKTRONICS AND ELECTROTECHNICAL INDUSTRY**
   - Data communications equipment, electrical machinery, medical technology
   - Turnover (2016): 13.3 billion euros
   - Personnel (2016): 38,000

2. **METALS INDUSTRY**
   - Steel products, non-ferrous metals, castings, metallic minerals
   - Turnover (2016): 9.0 billion euros
   - Personnel (2016): 15,400

3. **MECHANICAL ENGINEERING**
   - Machinery, metal products, vehicles
   - Turnover (2016): 27.7 billion euros
   - Personnel (2016): 122,400

4. **INFORMATION TECHNOLOGY**
   - IT services, applications and programming
   - Turnover (2016): 11.5 billion euros
   - Personnel (2016): 60,400

5. **CONSULTING ENGINEERING**
   - Expertise for construction industry and infrastructure
   - Turnover (2016): 5.8 billion euros
   - Personnel (2016): 49,800
The Technology Industry – the Largest Export Sector in Finland

• **50 %** of total Finnish exports.
• Companies invest about **EUR 5.0 billion** annually in Finland.
• **70 %** of private-sector R&D investment.
• Almost **295,000** employed directly in the sector, **700,000** employed in total, equalling about **30%** of the entire Finnish labour force.
• Technology Industries of Finland has over **1,600** member companies.
In addition to goods exports the sector exported services worth some 12.3 billion euros (2015).

Source: National Board of Customs, Statistics Finland

Export of Technology Industry Goods from Finland by Area in 2016

Total goods exports 25.2 billion euros*

Europe in total 69%

- Western Europe: 13.7 billion € (53.9 %)
- Central and Eastern Europe: 3.8 billion € (15.0 %)
- South and Middle America: 0.8 billion € (3.2 %)
- Middle and Central East: 0.5 billion € (1.8 %)
- Africa: 0.4 billion € (1.7 %)
- Asia: 3.7 billion € (14.6 %)

North America: 2.5 billion € (9.8 %)

*) In addition to goods exports the sector exported services worth some 12.3 billion euros (2015).
Recent Trends in the Finnish Technology Industry
Turnover of the Industry and Technology Industry in Finland

Source: Macrobond, Statistics Finland
Turnover of the Technology Industry in Finland

Index 2008=100

Change: 1-6, 2017 / 1-6, 2016, %

Information Technology 10 %

Consulting Engineering 10 %

Metals Industry 27 %

Mechanical Engineering 8 %

Electronics and Electrotechnical Industry 11 %

Latest information: June, 2017
Value of New Orders in the Technology Industry* in Finland

- Export: +60% / +31%
- Domestic: +15% / +8%
- Combined: +47% / +25%

*) Excl. metals industry and game industry companies

Source: The Federation of Finnish Technology Industries’ order book survey’s respondent companies, latest observation April-June 2017
Value of Order Books in the Technology Industry* in Finland

<table>
<thead>
<tr>
<th>Year</th>
<th>Export</th>
<th>Domestic</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>25000</td>
<td>10000</td>
<td>15000</td>
</tr>
<tr>
<td>2009</td>
<td>15000</td>
<td>7500</td>
<td>10000</td>
</tr>
<tr>
<td>2010</td>
<td>10000</td>
<td>7000</td>
<td>9000</td>
</tr>
<tr>
<td>2011</td>
<td>12000</td>
<td>8000</td>
<td>10000</td>
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<tr>
<td>2012</td>
<td>14000</td>
<td>9000</td>
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<td>2013</td>
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<td>10000</td>
<td>16000</td>
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<tr>
<td>2014</td>
<td>19000</td>
<td>11000</td>
<td>18000</td>
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<tr>
<td>2015</td>
<td>21000</td>
<td>12000</td>
<td>23000</td>
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<tr>
<td>2016</td>
<td>22000</td>
<td>13000</td>
<td>25000</td>
</tr>
<tr>
<td>2017</td>
<td>22000</td>
<td>15000</td>
<td>27000</td>
</tr>
</tbody>
</table>

Export: +25 % | +14 %
Domestic: -1 % | +2 %
Combined: +18 % | +10 %

*) Excl. metals industry and game industry companies

Source: The Federation of Finnish Technology Industries’ order book survey’s respondent companies, latest observation 30.6.2017
The Finnish Economy Is on the Back, but is Growing Again
GDP Has Grown for a Long Time in Many Countries, Now Also in Finland
Finland’s Exports Have Lagged Behind Many Countries

Export of goods and services by quarter, billion euros, at current prices, index 2008=100

Latest information: 2017 Q2

Source: Macrobond, Eurostat
Economic Growth is Constrained by the 20% Drop in Production Capacity and a High Rate of Utilization

Investments are vital for the production and export recovery

Source: Statistics Finland / National Accounts, Industrial volume index

9/29/2017
World Trade Has Picked up Again

Import volume development

Latest information: June 2017

Index 2008=100

Emerging Asia
Emerging countries
World
Developed countries

Technology Industries of Finland
Source: Macrobond, The CPB Netherlands Bureau for Economic Policy Analysis
The Nordic Countries Are a Large Market
- 1 400 billion euros (GDP)
The Nordic Countries Account for 9.4% of the EU Economy

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</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>282</td>
<td>356</td>
<td>465 billion euros</td>
</tr>
<tr>
<td>Norway</td>
<td>186</td>
<td>293</td>
<td>336 billion euros</td>
</tr>
<tr>
<td>Denmark</td>
<td>178</td>
<td>233</td>
<td>277 billion euros</td>
</tr>
<tr>
<td>Finland</td>
<td>136</td>
<td>187</td>
<td>216 billion euros</td>
</tr>
<tr>
<td>Iceland</td>
<td>10</td>
<td>16</td>
<td>18 billion euros</td>
</tr>
<tr>
<td>Baltic countries</td>
<td>27</td>
<td>68</td>
<td>85 billion euros</td>
</tr>
<tr>
<td>Nordic countries</td>
<td>819</td>
<td>1153</td>
<td>1 397 billion euros</td>
</tr>
<tr>
<td>EU28</td>
<td></td>
<td></td>
<td>14 855 billion euros</td>
</tr>
</tbody>
</table>

- The Nordic countries together account for 44% of Germany's economy, 59% of the UK economy, 63% of the French economy and 83% of the Italian economy.