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Industrial Technology
Research Institute

Machinery, Auto Parts and Auto Electronics Industries in Taiwan

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Machine Tool Statistics in 2008

Unit：Million NT$

Year / Item	2008	2007	2008/2007 Change (%)
Production	151,693	147,262	+3.0%
Exports	116,777	113,783	+2.6%
Imports	48,320	83,713	-42.3%
Consumption	83,236	117,192	-29.0%

US$ = 31.38NT$(2008)，US$ = 32.781NT$(2007)

Sources：TMTF, Ministry of Finance

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Machine Tool Statistics in 2009

Unit：Million NT$

Year / Item	2009	2008	2009/2008 Change(%)
Production	71,830	151,693	-52.6%
Exports	57,460	116,777	-50.8%
Imports	11,230	48,320	-76.8%
Consumption	25,600	83,236	-69.2%

The CNC machine tool production value in 2009 accounted for 72% of the total, or NT$51.7billion, a decrease of 50% compared with NT$108.0 billion in 2008.

US$ = 32.96NT$(2009)，US$ = 31.38NT$(2008)

Sources：TMTF, Ministry of Finance

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Machine Tool Export in 2010

For the period Jan~Oct; Unit: US$K

Category	2010	2009	Change(%)
EDM, Laser Cutting M/C, etc.	112,421	60,027	87.3%
Machining Centers	731,652	371,620	96.9%
Lathes	439,376	326,028	34.8%
Drilling, Boring, Milling M/C	296,121	164,281	80.3%
Grinding Machines	138,465	69,522	99.2%
Shaping, Sawing, Gearing M/C	131,411	79,345	65.6%
Metal Cutting Subtotal	**1,849,446**	**1,070,823**	**72.7%**
Presses & Shearing Machines	396,902	258,426	53.6%
Other Metal Forming MT	121,427	76,570	58.6%
Metal Forming MT Subtotal	**518,329**	**334,996**	**54.7%**
Machine Tools Total	**2,367,775**	**1,405,819**	**68.4%**

Sources: Custom Statistics, TMTF

Machine Tool Import in 2010

For the period Jan~Oct; Unit: US$K

Category	2010	2009	Change(%)
EDM, Laser Cutting M/C, etc.	218,068	80,374	171.3%
Machining Centers	41,440	21,469	93.0%
Lathes	77,758	31,555	146.4%
Drilling, Boring, Milling M/C	25,850	15,184	70.2%
Grinding Machines	56,386	48,031	17.4%
Shaping, Sawing, Gearing M/C	54,962	25,807	113.0%
Metal Cutting Machine Tools	**474,464**	**222,420**	**113.3%**
Presses & Shearing Machines	97,690	46,658	109.4%
Other Metal Forming MT	10,391	8,036	29.3%
Metal Forming MT Subtotal	**108,081**	**54,694**	**97.6%**
Total	**582,545**	**277,114**	**110.2%**

Sources: Custom Statistics, TMTF

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Vehicular Industry Statistics

Year/Category	2006	2007	2008	2009	2010/1-6
Vehicle	1,601	1,451	1,016	1,185	760
Growth	-30.66%	-9.37%	-29.98%	16.63%	66.58%
Scooter	411	451	530	377	208
Growth	-5.73%	9.73%	17.52%	-28.87%	20.74%
Bicycle	315	390	512	463	236
Growth	-10.00%	23.81%	31.28%	-9.57%	4.32%
Auto Parts	1,974	2,036	1,839	1,697	1,002
Growth	-8.70%	3.14%	-9.68%	-7.72%	35.07%
Scooter Parts	412	436	467	328	195
Growth	-6.15%	5.83%	7.11%	-29.76%	27.78%
Bike Parts	318	364	429	361	214
Growth	0.63%	14.47%	17.86%	-15.85%	39.39%
Total	5,031	5,128	4,793	4,411	2,614
Growth	-16.33%	-1.93%	-6.53%	-7.97%	37.44%
%/Mfg	4.22%	3.88%	3.66%	4.17%	3.88%

Sources: TTVMA. Auto parts do not include auto electronics, which in 2009 was 64 Billion NT$.

Auto Parts Export in 2010 (1)

data collected from Jan. to Oct., unit: NT$K

ranking	country	value	share	2010/2009(%)
1	US	51,570,892	36.30%	20.69%
2	Japan	10,077,491	7.09%	28.97%
3	China	6,712,114	4.72%	52.49%
4	Germany	4,496,891	3.17%	31.08%
5	Australia	4,296,611	3.02%	30.30%
6	England	3,579,191	2.52%	17.49%
7	Italy	3,421,520	2.41%	17.70%
8	Canada	3,290,944	2.32%	18.93%
9	Mexico	2,762,176	1.94%	26.10%
10	Holland	2,707,899	1.91%	16.67%
11	Thailand	2,692,854	1.90%	34.86%
12	South Africa	2,335,094	1.64%	26.34%
13	Philippines	2,174,229	1.53%	25.27%

Sources: Custom statistics, TTVMA

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Auto Parts Export in 2010 (2)

data collected from Jan. to Oct., unit: NT$K

ranking	country	value	share	2010/2009(%)
14	Saudi Arabia	2,067,363	1.46%	11.18%
15	UAE	2,025,112	1.43%	17.27%
16	Malaysia	1,963,475	1.38%	16.77%
17	Brazil	1,825,207	1.28%	122.75%
18	Indonesia	1,715,868	1.21%	48.45%
19	Russia	1,621,016	1.14%	83.42%
20	Spain	1,540,676	1.08%	19.89%
21	Turkey	1,351,232	0.95%	30.53%
22	Belgium	1,252,608	0.88%	32.02%
23	Egypt	1,252,068	0.88%	23.29%
24	HK	1,146,535	0.81%	18.44%
25	Iran	1,122,244	0.79%	50.01%
others		23,073,079	16.24%	20.70%
total		142,074,389	100.00%	24.92%

Sources: Custom statistics, TTVMA

Auto Parts Summary(1)

- In Europe, ratification of B E R (Block Exemption Regulation) heralded the deregulation of the auto parts industry. OEM parts no longer monopolize the market
- In the US, with the conclusion of the State Farm case, the market share of AM parts has increased against the OEM share
- With a solid position on the AM market, more than 80% share, Taiwan auto parts manufacturers also have seen their OEM revenue steadily increasing
- Taiwan auto parts manufacturers have shown business sophistication in collaborating with their OEM or 1st tier partners, most notably via joint ventures in China

Auto Parts Summary(2)

- After long history of serving the AM market, Taiwan auto parts industry has finally earned its place in the OEM supply chain
- Taiwan auto parts manufacturers traditionally have better opportunity with foreign OEMs; with them the domestic OEMs do not have the freedom to collaborate
- Luxgen is the first domestic OEM to tap the competitive edge of the Taiwan auto part manufacturers
- No more competing on price alone, the manufacturers are exceedingly strong in flexible manufacturing and aggressively pursue quality systems such as CAPA (Certified Automotive Parts Association)

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After Shock Effect?

Light Vehicle

Units(K)	2008	2009	2010	2011	2012	2013	2014
Sales	65,927.3	61,500.0	62,180.0	67,045.0	70,947.9	75,005.4	77,790.0
Production	67,127.2	57,500.0	62,387.5	67,200.0	71,635.4	75,308.4	78,355.1
Growth(%)							
Sales	-5.0%	-6.7%	1.1%	7.8%	5.8%	5.7%	3.7%
Production	-4.4%	-14.3%	8.5%	7.7%	6.6%	5.1%	4.0%

	2008	2009	Growth
Ultra-low-end Cars	**410**	**672**	**64.0%**
City Cars	**20,608**	**20,216**	**-1.9%**
Medium Cars	**11,773**	**9,290**	**-21.1%**
Executive Cars	**7,765**	**5,489**	**-29.3%**
Luxury Cars	**2,150**	**1,556**	**-27.6%**
MPVs	**5,756**	**4,684**	**-18.6%**
Pickups	**5,127**	**4,618**	**-9.9%**
SUVs	**7,733**	**5,579**	**-27.9%**
HEVs/EVs	**858**	**1,600**	**86.4%**
Others	**4,946**	**3,796**	**-23.3%**
Total (Unit: K)	67,127	57,500	-14.3%

ITRI/IEK (2010/10)

Three Driving forces

- Safety/Security
- Energy/Environment Friendliness
- Comfort/Convenience

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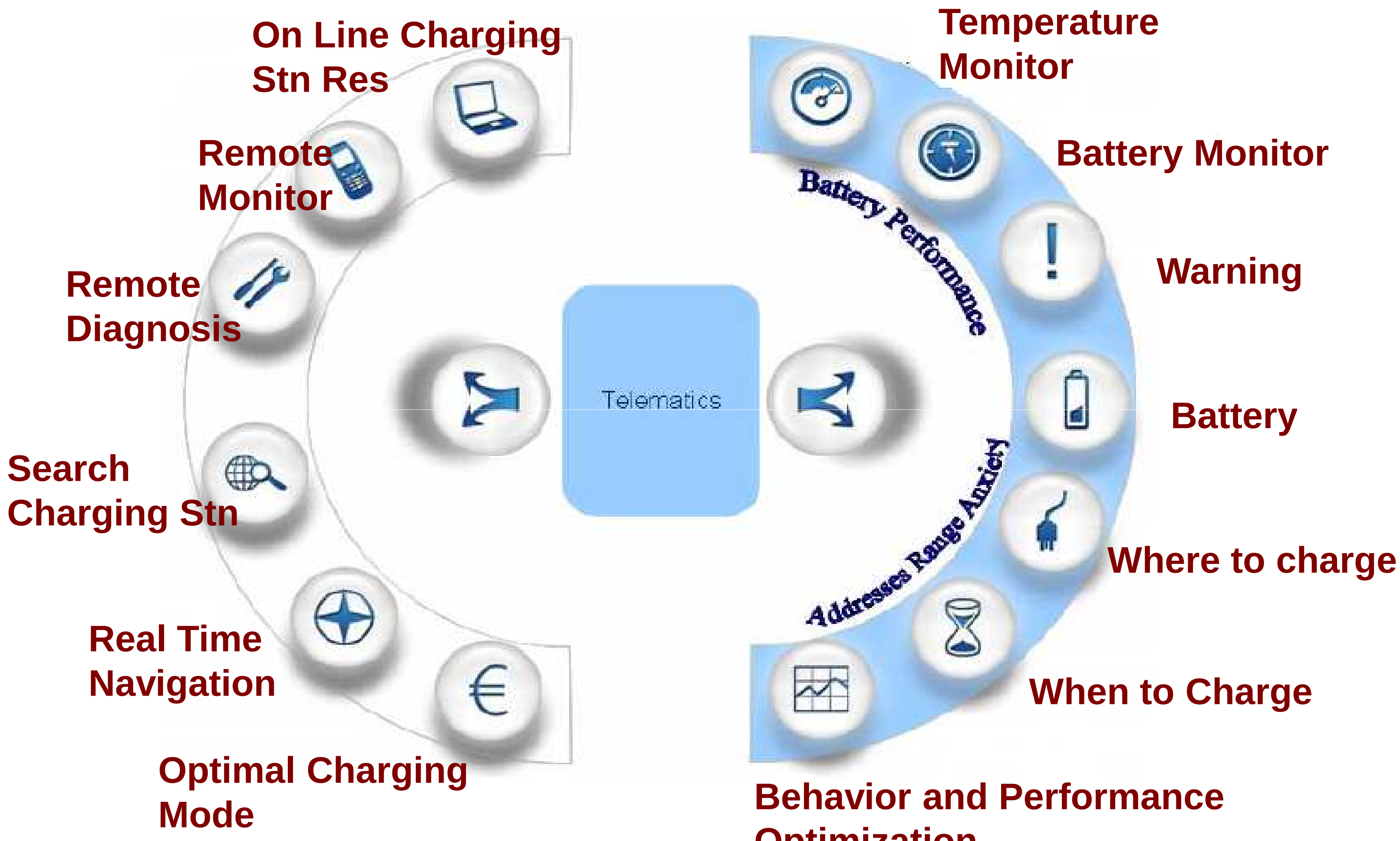
Telematics for EV



Sources: F&S；IEK/ITRI (2010/07)

Summary

- The industries, machinery, machine tool, automobile and auto parts have built critical mass with global market presence
- Market distribution needs to be diversified
- The trend of eco-friendliness, ease of use, and safety/security demands increasing electronics content
- The industries find synergy with the electronics industries

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Links for Further Information

Taiwan Association of Machinery Industry

http://www.tami.org/

Taiwan Machine Tool Foundation

http://www.tmtf.org.tw

Taiwan Electrical and Electronics Manufacturers association

http://www.teema.org.tw

Bureau of Foreign Trade, Ministry of Economic Affairs, Taiwan

http://www.trade.gov.tw/

Taiwan External Trade Development Council,TAITRA

http://www.taitra.com.tw/