

# European Electronic Markets Forecast

## Industry outlook – West European electronics production

After declining by over 17% in 2009 electronics output rebounded in 2010 on the back of the recovery in the global economy and according to Reed Electronics Research's (RER) annual survey of the region, increase by an estimated 6.6% in 2010. Exports, especially to emerging markets, have been a key driver to the higher than anticipated recovery. RER is currently forecasting further growth in 2011, albeit at a more modest 1.7% the research group highlighting that downside risks still remain, in particular, fragile consumer confidence and the impact of reduced government spending.

With the loss of further volume manufacturing to lower cost locations in 2009/2010 the industry will in the future rely on the automotive, industrial, high-end communications and defence segments for growth. In 2010, industrial accounted for 33% of electronics output and showed double digit growth for the year as a whole. Communications, which declined by over

18% in 2009, increased by an estimated 3.3% in 2010 and will show further but only modest growth of 0.9% in 2011. Computing declined by over 8% in 2010 with the segment accounting for only 17% of total electronic equipment production and compared to 31% in 2000. Component shortages had a negative impact on growth in 2010 although the situation eased towards the end of the year.

With the closure of Philips' TV plant in France and the scaling back of production in Spain by Sharp and Sony Video production accounted for under 1% of total electronics equipment production in 2010. As a result, consumer electronics output in Western Europe is now centred on the Swiss watch industry.

The move to asset light manufacturing in the semiconductor industry and competition from far eastern manufacturers in commodity components has resulted in production being scaled back although the segment has benefited from strong growth in the market in 2010. Despite increasing competition from Asian manufacturers solar remains an important segment with production centred in Germany.

On a country basis the recovery in 2010 has been led by Germany with double-digit growth and which has

**West European Electronics Production 2007-2014**

Euro Millions	2007	2008	2009	2010*	2011*	2012*	2013*	2014*
Computing	32950	27407	20468	18764	18040	17485	16740	16056
Industrial	49767	49767	44408	49294	51110	53594	55894	58114
Communications	51165	44172	36078	37265	37607	38115	38569	38990
Consumer	8681	7188	5096	5072	5003	4965	4897	4858
Components	42799	40922	33857	38742	39879	40846	41564	41951
Total	185362	169456	139907	149137	151639	155005	157664	159968

Source: Reed Electronics Research

Notes: Computing includes office equipment; Communications includes radio communications (inc defence) and telecommunications; industrial includes control and instrumentation and medical and industrial. \* Forecast in constant 2010 values

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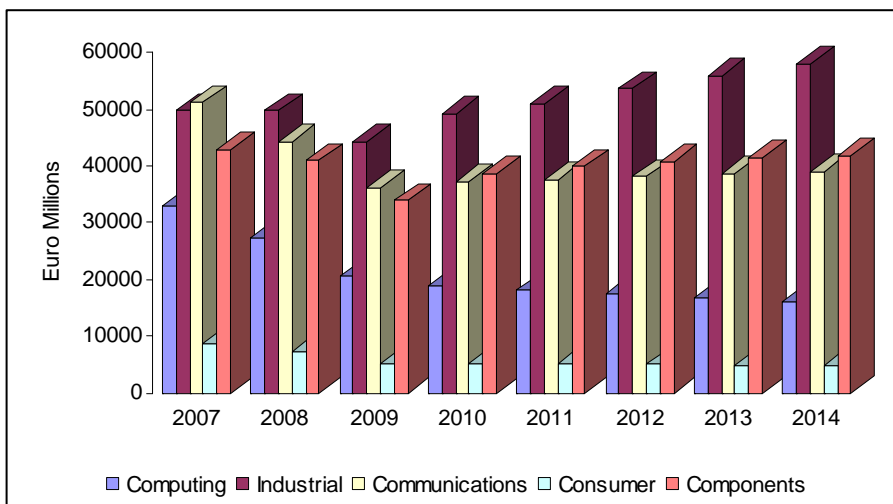


Figure 1 West European Electronics Production by Product 2007-2014  
Source Reed Electronics Research

resulted in the country increasing its share of electronics output in the region to 32.5%. The strongest growth was the industrial segment, which on the back of strong exports, increased by an estimated 14.0% in 2010 although growth is forecast to ease in 2011. France and the UK are ranked second and third with a respective share of overall electronics output of 13.8% and 11.0%. In the period to 2014 output is expected to stabilize across Western Europe with growth in the key sectors such as medical, industrial, aerospace & defence, renewable energy, high-end communications and computing and automotive offsetting further declines in computing and consumer video. The communications segment in Scandinavia will face increasing pressure from lower cost locations increasing the move to higher margin products. Following a sharp decline in mobile phone production in Finland in 2009 production will continue to fall throughout the period to 2014 although this is currently forecast to be in single-digits.

Looking at the broader European level the share of electronics production accounted for by Central and Eastern Europe (CEE) will increase throughout the period to 2014. In 2005, CEE accounted for just under 15% of overall electronics output. By 2014, RER forecasts that the total will be approaching 27%. By segment industrial will increase its share of the total although this will remain below 10% by 2014. In contrast, CEE will account for nearly 50% of computing production and over 80% for consumer (over 90% for consumer video).

Although a low cost production base the CEE will face significant competition from China/Asia, in particular in the computing segment and for high volume communications products. Consumer Video remains the largest product group the CEE benefiting from the relocation of TV production from Western Europe and the establishment of manufacturing facilities by the leading TV manufacturers to serve the European market.

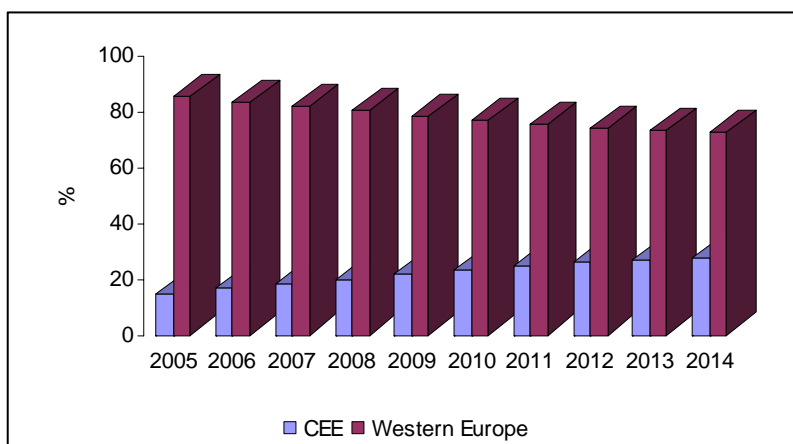


Figure 2 % of Electronics Output by Region 2005-2014  
Source: Reed Electronics Research

The above data has been extracted from Reed Electronics Research's database of global electronics production and market statistics. In addition to regular publications, including the 2011 edition of Volume 1 of the Yearbook World Electronics Data covering Western Europe (available February), data can be supplied on individual countries or product groups. Historical data is also available. For further information please refer to the brochure at the end of this publication or contact [anita.caird@rer.co.uk](mailto:anita.caird@rer.co.uk) /Tel: +44 1235 227310/or visit [www.rer.co.uk](http://www.rer.co.uk)

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### 2011 West European Electronics Industry Outlook



Published since 1973 the Volume 1 of the Yearbook of World Electronics Data provides:

- A single source solution allowing you to track the electronics industry in 16 countries in Western Europe
- 12 major product groups
- Market and production forecasts
- Summaries provided in Euros & US dollars
- CD-option allows you to manipulate the data quickly and easily: produce your own subsets or summaries of the data, create your own forecasts or cut and paste the data into your own in-house reports and presentations

Further information, including sample data and the full contents, can be found at the end of this publication or at [www.rer.co.uk](http://www.rer.co.uk)

**EMEA PC market records soft growth in Q4 2010**

The PC market in Europe, the Middle East, and Africa (EMEA) recorded as expected a soft final quarter in 2010, according to figures released by *IDC*. Affected by the traction for new media tablets, which continued to have an adverse effect on consumer PC purchases, and cautious business investment, EMEA PC shipments grew by a modest 2.4% year on year in Q4 2010, slightly below forecast at 4.3%, and reached a total of 31.5 million PCs during the quarter. Thanks to a strong first half of the year, growth for the year closed at a healthy 12.8% with over 110 million PC units shipped across EMEA in 2010.

In line with expectations, shipment levels in Western Europe remained constrained by weak consumer demand and declined by 7% year on year. Increasing traction for media tablets during the Christmas quarter contributed to divert consumers' attention and budgets away from PCs and led to a 10.5% overall decline for consumer PC purchases. The product category the most impacted remained Netbooks, which declined by 29%, but sales of mainstream notebooks were also affected and recorded a flat 0.5%. Traditional desktop sales suffered a severe drop of 19%, while growth in all-in-ones also slowed to only 1.8%.

Commercial sales held better, but following three quarters of rebound, growth returned to negative trends at -1.1%. Corporate demand continued to recover, helping to sustain commercial desktop volumes, but the SMB segment remained affected by economic pressure and uncertainty, forcing companies to prolong life cycles and delay renewals, impacting portables in particular. Commercial market performance varied substantially across countries, with a major drop in Spain and a decline of 3% in the UK, while Germany and France remained positive, albeit at moderate levels.

Central Eastern Europe continued to post healthy growth as markets continue to recover and recorded a solid 20.4% compared against the same quarter last year, but growth was also constrained there by inventory levels built in Q3 2010. Growth in the Middle East outpaced expectations, however, with a healthy 22.9% year on year.

The PC market in Central and Eastern Europe, the Middle East, and Africa (CEMA) recorded a year-on-year volume growth of 21.5% in Q4 2010 to total 12.3 million units. Portable PC shipments, however, suffered from high inventory in the channel in Central and Eastern Europe (CEE) in the previous quarter, which inhibited growth in the notebook space to 27.0% in Q4 2010, falling short of the 33.2% forecast. The desktop market reported healthier growth than forecast, however, at 10.4% year on year, thanks in part to HP's push. The Middle East and Africa reported stronger results than anticipated, with year-on-year growth of 14.1% and 28.8% for desktops and notebooks, respectively, in Q4 2010. The African region grew the most, boosted by several large PC deals.

While the arrival of new media tablets in 2010 caused some disruption in the traditional PC industry in the second half of the year, likely to continue in the first half of 2011, it represents a major opportunity for the industry as it will drive device expansion and multi-equipment further. In the short-term, those devices will disrupt somewhat the traditional PC market space, but with no cannibalization expected with notebooks or ultra portables, which will remain the needed platforms for full computing for both consumer and business users, new media tablet devices constitute in the long-term a major opportunity for expansion for all vendors in the industry, and for those in particular that manage to establish themselves successfully in this new product segment and balance an extended device portfolio effectively.

**Top 5 Vendors: Europe, Middle East, and Africa (EMEA) PC Shipments\*  
4Q10 (Preliminary) (000 Units)**

Vendor	4Q09	4Q10	Share 4Q09	Share 4Q10	4Q10/4Q09 Growth
Hewlett-Packard	6,127	6,622	19.9%	21.0%	8.1%
Acer Group	5,932	4,782	19.3%	15.2%	-19.4%
Dell	2,800	3,132	9.1%	9.9%	11.8%
ASUS	2,527	2,833	8.2%	9.0%	12.1%
Samsung	1,371	1,863	4.5%	5.9%	35.8%
Others	12,025	12,284	39.1%	39.0%	2.2%
Total	30,782	31,515	100%	100%	2.4%

**Top 5 Vendors: Europe, Middle East, and Africa (EMEA) PC Shipments\* Full Year 2010 (Preliminary) (000 Units)**

Vendor	4Q09	4Q10	Share 4Q09	Share 4Q10	4Q10/4Q09 Growth
Hewlett-Packard	19,997	22,452	20.5%	20.4%	12.3%
Acer Group	19,479	20,528	20.0%	18.7%	5.4%
Dell	9,256	10,565	9.5%	9.6%	14.1%
ASUS	6,347	9,293	6.5%	8.4%	46.4%
Toshiba	5,662	6,111	5.8%	5.6%	7.9%
Others	36,779	41,087	37.7%	37.3%	11.7%
Total	97,521	110,036	100%	100%	12.8%

Source: IDC EMEA Quarterly PC Tracker, Preliminary Results, FY10, 2011

\*PC shipments = desktop and notebooks.

Shipments are branded shipments for all form factors (including desktops and notebooks) and exclude x86 servers as well as OEM sales for all vendors. Data for all vendors is reported for calendar periods.

In unit terms IDC expects the PC market in EMEA to increase by 11% in 2011.

**Global LCD TV Market to grow 31% in 2010, slowing to 13% in 2011**

According to the latest research from *DisplaySearch* total TV shipments in 2010 will reach more than 247 million units, a staggering 17% increase from 2009 and the best growth seen since the start of the flat panel TV transition. This comes despite a very slow recovery from the recession of 2008-2009, and weakness in regions like North America reflecting continued caution on the part of some developed market consumers.

LCD continues to dominate TV shipments worldwide, accounting for at least half of all TV shipments in all regions except Asia Pacific. Even with the strong demand growth for LCD TVs worldwide, shipments have been lower than manufacturers expected, and the resulting rise in global LCD TV inventory during Q3 2010 has led to more vigorous price erosion during Q4 2010. LCD TV shipments will rise from 190 million in 2010 to 215 million in 2011, although an increase in the rate of ASP erosion will lead to the first ever revenue decline in the LCD TV category. Japan has been a spotlight market for LCD TV growth in 2010, with LCD TV shipments forecast at 22.6 million units, an increase of 80% from 2009 due to the Eco-Points stimulus

programme That programme will end in 2011, so shipments are expected to fall sharply. European shipments have been fairly robust in 2010, but growth will fall from double- to single-digit rates over the next few years. Also a first in 2011, emerging regions will overtake the developed regions (Japan, North America, and Western Europe) in total LCD TV unit volume as the growth focus shifts to countries with lower flat panel TV penetration.

LED backlights have been a key trend for LCD TVs in 2010, and their penetration into LCD TV shipments will rise to 20% globally due to more attractive pricing, especially in the second half of the year. In

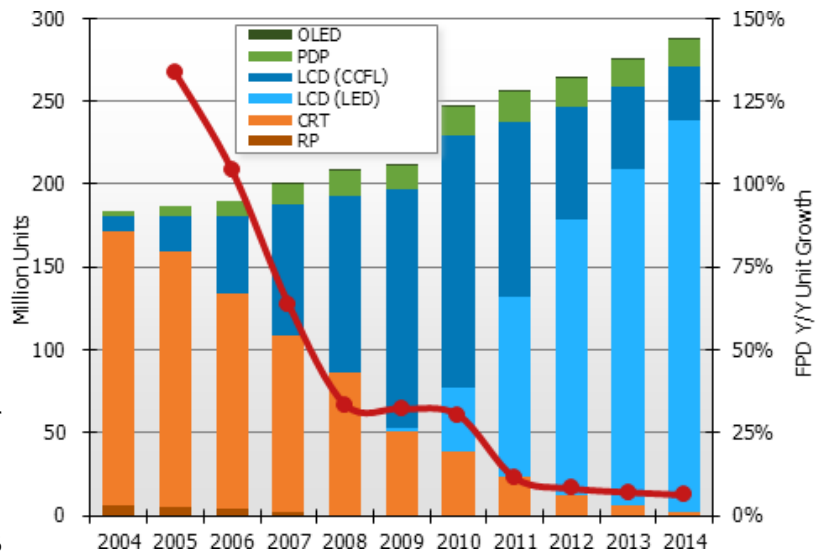


Figure 1: Worldwide TV Market by Technology  
Source: DisplaySearch

2011, LED-backlit models are expected to account for the majority of LCD TV shipments worldwide as manufacturers continue to transition away from fluorescent backlights. This is possible due to the rapidly decreases in the premium for LED models from highs of 100% during the first half of 2010, to less than 50% in 2011; for some sizes and frame rates it will fall to nearly 20%.

Plasma TV demand continues to be very robust in 2010, helped by the fact that consumers are still looking for strong value and plasma TV has maintained its rate of price decline. Plasma TV shipments are now expected to exceed 18 million units in 2010, a 28% increase from 2009, when shipments actually declined Y/Y.

In 2010, 3.2 million 3D TVs were shipped with DisplaySearch forecasting that nearly 18 million 3D sets will be shipped in 2011, rising to over 91 million in 2014.

21% of all TVs shipped in 2010 are forecast to have internet connectivity. This category is forecast to grow to over 122 million in 2014, with emerging markets providing a significant portion of the growth as broadband adoption surges.

### Market notes

- Worldwide PC shipments totalled 93.5 million units in the fourth quarter of 2010, a 3.1% percent increase from the fourth quarter of 2009, according to preliminary results by *Gartner*, Inc. These figures were below Gartner's earlier forecast of 4.8% growth for the fourth quarter of 2010.

- The worldwide mobile phone market grew 17.9% in the fourth quarter of 2010, according to figures released by *IDC*. Vendors shipped 401.4 million units in Q4 2010 compared to 340.5 million units in the fourth quarter of 2009. Vendors shipped a total of 1.39 billion units on a cumulative worldwide basis in 2010, up 18.5% from the 1.17 billion units shipped in 2009. The strong quarterly and annual growth comes after a weak 2009, which saw the market decline by 1.6%. A stronger economy and a wider array of increasingly affordable smartphones helped lift the market to its highest annual growth rate since 2006 when it grew 22.6%. In Western Europe, carrier smartphone promotions motivated more users to scrap their feature phones, resulting in strong smartphone sales. The iPhone 4, HTC Desire, Nokia N8, Samsung Galaxy S, and Blackberry 8520, which were among the region's top sellers, contributed to the overall market's growth. Consequently, the feature phones experienced their sharpest decline ever. In CEMA, quarterly volumes breached the 70

million unit threshold for the first time, marked by an influx of Chinese and unbranded handsets. Meanwhile, smartphones experienced brisk growth due to falling prices and more Android-powered devices.

- According to *Solarbuzz* quarterly PV manufacturing equipment spending by c-Si ingot-to-module and thin-film panel producers grew for the sixth consecutive quarter during Q4 2010 to US\$2.9 billion, as double-digit Q/Q manufacturing capacity growth continued to grip the PV industry. Rising equipment demand from Asian cell manufacturers will be the primary driver of global industry revenues during 2011, forecast to grow from US\$10.7 billion in 2010 to US\$11.7 billion.

- According to *DisplaySearch* the top 16 LCD TV brands, including global brands, such as Samsung and regional players like Konka in China, have reduced their combined monthly production plan from 18.3 million in November 2010 to 15.4 million units in March 2011. Overall, Q1 2011 production is forecast to be 46.3 million units, a 12% Q/Q decline from Q4 2010. Despite the cautious stance of the TV brands, LCD TV sub-contract manufacturing (OEM/ODM) companies are increasing their monthly shipments from December 2010 to March 2011. This indicates that TV brands are increasing outsourcing manufacturing to OEM/ODM companies, which is driven by cost management, logistics, manufacturing scale, and in some cases, access to panel supply.

- Global retail sales of consumer electronics devices are projected to grow 10% and reach US\$964 billion in 2011, according to a forecast by analysts from the *Consumer Electronics Association (CEA)*. This follows growth of 13% in 2010 and contraction of 9% in 2009. Smartphones will continue to pace consumer electronics growth in 2011, increasing sales by a projected US\$59 billion in 2011 compared to 2010, according to the forecast. Global revenue from mobile PCs, digital cameras and LCD TVs is also projected to increase significantly, outpacing expected declines in sales of plasma TVs, CRT displays and basic cellular handsets and feature phones, according to the forecast.

- According the *European Information Technology Observatory (EITO)* Russia has experienced a surprisingly quick rebound after being heavily affected by the economic crisis in 2009. After having grown by 9% in 2010, ICT spending is set to increase by 8% in 2011 to Euro 49 billion according to the EITO. The Russian ICT market is being driven by information technology spending, which is expected to increase by 12% to Euro 15 billion in 2011. The telecom market is expected to grow by 7% to Euro 34 billion.

- Factory unit shipments of compact digital still cameras (DSC) are projected to rise by 10.4% globally and reach 121.4 million units in 2010 and enjoy modest growth for the next three years according to US research group *iSuppli*. However, production will decline in 2014 as the market matures. During that year, shipments are expected to decline by 0.6% to 135.4 million units, with low-end DSC models expected to encounter stiff opposition from the cameras in cell phones, which increasingly will become the primary image-capture device for consumers.

- According to a new report from *Pike Research*, worldwide sales of ultracapacitors will grow tenfold from just US\$28.2 million in 2011 to US\$284.1 million by 2016, with cumulative revenue of US\$901.3 million during that period. Ultracapacitors' greatest advantages over their primary competition, batteries, are superior cycle life and power density. However, ultracapacitors are viewed as too expensive for most energy storage applications and the technology is commonly viewed as not sufficiently mature for transportation applications. That said, ultracapacitors are showing great promise in several niche applications, most notably the market for stop-start vehicles. Pike Research forecasts that ultracapacitor revenues in the stop-start vehicle segment will reach US\$355.5 million worldwide by 2020.

- Sony Ericsson estimates that the global handset market for the full year 2010 increased slightly in volume to almost 1.2 billion units. The company estimates that the global handset market for the fourth quarter was essentially flat year-on-year and its market share for the fourth quarter was approximately 3% in units and approximately 5% in value. Sony Ericsson estimates that its market share for the full year 2010 was approximately 4% in units and approximately 6% in value. Sony Ericsson forecasts modest growth in units in the global handset market for 2011.

## Finance

- The German **Bosch Group** has returned to its growth course, and has already regained the level of sales seen in 2007, before the crisis. In fiscal 2010, according to preliminary figures, this global supplier of technology and services generated sales of Euro 47.3 billion, 24% more than in the previous year (2009: Euro 38.2 billion). The main drivers of this upswing at Bosch are the global economic recovery, the steep rise in global automotive production, and increased demand in mechanical engineering. In Asia Pacific, Bosch achieved a nominal year-on-year sales increase of 42%, generating sales of more than Euro 10 billion in this region for the first time. In South America, the

company was able to grow 36%. In addition, North American sales increased by 27% and European sales by 16%, albeit from an extremely disappointing prior-year level. Bosch does not expect Europe to regain the pre-crisis level of 2007 before 2012 or 2013. All three business sectors grew significantly. Automotive Technology recorded the highest sales growth – growth of 29% to some Euro 28 billion (previous year: Euro 21.7 billion). Industrial Technology rose by more than 27% to over Euro 6.5 billion. More than Euro 500 million of this increase is due to the first-time consolidation of the majority shareholding in aleo solar AG, which Bosch acquired at the end of 2009. Consumer Goods and Building Technology, which was less affected by the recession of 2008 and 2009, reported growth of 10% to some Euro 12.5 billion. For 2011, Bosch expects the global upswing to continue. However, it will lose some of its pace, resulting in a global growth figure of some 3.5%. The greatest impetus will continue to come from the emerging markets, with more than 6% growth on average. The European economy, by contrast, will grow by just 1% to 2%, although Bosch expects growth of at least 2% for Germany.

- In 2010, HUBER+SUHNER generated net sales of around CHF 800 million, representing an increase of 27% compared with the previous year. The growth was broadly based: all three divisions of the Swiss interconnection group (Radio Frequency, Fibre Optics, Low Frequency) achieved higher net sales. All main markets (Communication, Transportation, Industrial) grew, and the three geographical regions (Europe, Middle East, and Africa; North and South America; Asia-Pacific) all achieved double-digit growth rates. Despite the rapid growth, order intake exceeded net sales, rising by 31% to around CHF 847 million.

## Mergers & Acquisitions

- **Philips Electronics** has announced it has acquired substantially all of the assets of medSage Technologies LLC, a leading provider of patient interaction and management applications. The acquisition will allow Philips to offer a web-based solution that enables home care providers to manage ongoing compliance and replenishment services for individuals under treatment for obstructive sleep apnea (OSA), diabetes, respiratory and other conditions. The acquired business will become part of the Sleep business within Philips Home Healthcare Solutions. MedSage Technologies is a privately-held company headquartered in Pittsburgh, PA, USA, with approximately 40 employees. Financial details of the acquisition were not disclosed. The transaction does not include the assets of a venture of medSage

**Sony Ericsson Mobile Communications Q4 2010**

Euro Millions	Q2 09	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Sales	1684	1619	1750	1405	1757	1603	1528
Net Income/(Loss)	(213)	(164)	(167)	21	12	49	8
Units Shipped (million)	13.8	14.1	14.6	10.5	11.0	10.4	11.2

**Trends/Outlook**

Units shipped during the fourth quarter were 11.2 million, a year-on-year decrease of 23%, consistent with the streamlining of the portfolio to focus on higher-end smartphones. The sequential increase of 8%, related to seasonal factors, was somewhat constrained by a lack of new product launches during the quarter. Average selling price (ASP) for the quarter was Euro 136, a 13% increase year-on-year. ASP decreased 12% sequentially, mainly due to price erosion, foreign exchange and product mix. Sales for the quarter were Euro 1,528 million, a decrease of 13% year-on-year and a decrease of 5% sequentially. Sales for the full year 2010 were Euro 6,294 million, a decrease of 7% from 2009, while gross margin improved from 15% in 2009 to 29%, in 2010.

**Nokia Q4 2010****Trends/Outlook**

Nokia's fourth quarter 2010 net sales increased 6% to Euro 12.7 billion, compared with Euro 12.0 billion in the fourth quarter 2009, and increased 23% compared with Euro 10.3 billion in the third quarter 2010. At constant currency, group net sales would have been flat year-on-year and increased 24% sequentially. Year-on-year, the 4% net sales increase in the fourth quarter in the Devices and Services segment resulted from higher ASPs partially offset by lower device volumes in most regions. Of Nokia total Devices & Services net sales, services contributed

Euro Millions	Q4 09	Q4 10
Devices & Services	8179	8499
NAVTEQ	225	309
Nokia Siemens Networks	3625	3961
Eliminations	(41)	(118)
Sales	11988	12651
Profit/(Loss) (as reported)	886	917

Euro 201 million in the fourth quarter 2010, compared with Euro 166 million in the fourth quarter 2009 and Euro 159 million in the third quarter 2010. In the fourth quarter 2010, the overall industry mobile device volumes were 402 million units, based on Nokia's preliminary estimate, representing an increase of 12% year-on-year and 11% sequentially. Nokia's preliminary estimated mobile device market share was 31% in the fourth quarter

2010, down from an estimated 35% in the fourth quarter 2009 and up from an estimated 30% in the third quarter 2010 (based on Nokia's revised definition of the industry mobile device market share applicable beginning in 2010 and applied retrospectively to 2009 for comparative purposes only). Of the total industry mobile device volumes, converged mobile device industry volumes in the fourth quarter 2010 increased to 90.5 million units, based on Nokia's preliminary estimate, representing an increase of 73%

Million units	Q4 2010	Q4 2009	Y/Y Change	Q3 2010
Europe	33.5	34.3	-2%	29.2
Middle East & Africa	22.2	24.3	-9%	18.4
Greater China	21.9	17.6	24%	20.2
Asia-Pacific	31.3	34.5	-9%	27.8
North America	2.6	3.8	-32%	3.2
Latin America	12.2	12.4	-2%	11.6
Total	123.7	126.9	-3%	110.4

year-on-year and 29% sequentially. Nokia's preliminary estimated share of the converged mobile device market was 31% in the fourth quarter 2010, compared with an estimated 40% in the fourth quarter 2009 and an estimated 38% in the third quarter 2010. Nokia's 3% year-on-year decrease in global mobile device volumes during the fourth quarter 2010 was driven primarily by the intense competitive environment, as well as certain component shortages and a number of supply and logistics challenges resulting from the tight component availability during the quarter. This volume decline was somewhat offset by a year-on-year improvement in the overall market environment. On a sequential basis, Nokia's 12% increase in global mobile device volumes was primarily due to increased seasonal demand for its devices offset to some extent by a number of supply and logistics challenges driven by the tight component availability during the fourth quarter 2010. The year-on-year 7% increase in ASP to Euro 69 was primarily due to converged mobile devices representing a greater proportion of the company's overall mobile device sales and the appreciation of certain currencies against the Euro, offset to some extent by general price erosion and a higher proportion of lower-priced converged mobile device sales. The 17% year-on-year decline in Nokia's converged mobile devices ASP to Euro 156 was mainly driven by general price erosion and an increase in the proportion of lower-priced converged mobile devices sales. The 14% sequential increase in converged mobile devices ASPs was mainly driven by an increased proportion of sales of higher priced converged mobile devices during the fourth quarter 2010. Full year sales increased by 4% to Euro 42,446 million.

## Nokia Siemens Networks Q4 2010

The year-on-year 9% increase in net sales was primarily driven by growth in both the product and services businesses in most regions. The sequential 35% increase in net sales was primarily driven by a seasonally stronger infrastructure market in the fourth quarter 2010. Net sales in the fourth quarter 2010 also benefited from an improvement in overall component availability. Of total Nokia Siemens Networks net sales, services contributed Euro 1.8 billion in the fourth quarter 2010, compared to Euro 1.7 billion in the fourth quarter 2009 and Euro 1.4 billion in the third quarter 2010. At constant currency, Nokia Siemens Networks net sales would have increased 7% year-on-year and 37% sequentially.

### Nokia Siemens Networks Sales by Geographic Area

Euro Million	Q4 2010	Q4 2009	Y/Y Change	Q3 2010
Europe	1 357	1 327	2%	1 070
Middle-East & Africa	423	371	14%	331
Greater China	508	425	20%	311
Asia-Pacific	978	818	20%	711
North America	226	244	-7%	175
Latin America	469	440	7%	345
<b>Total</b>	<b>3 961</b>	<b>3 625</b>	<b>9%</b>	<b>2 943</b>

## STMicroelectronics Q4 2010

### Trends/Outlook

ST's net revenues for the fourth quarter of 2010 totalled US\$2,833 million and included sales recorded by ST-Ericsson as consolidated by ST. Fourth quarter net revenues increased on a year-over-year basis by 30% in Industrial and Multisegment Sector (IMS), and 15% in automotive/ Consumer/ Computer/ Communication Infrastructure Sector (ACCI), while Wireless, reflecting the ongoing portfolio transition at ST-Ericsson, decreased by 21%. Overall fourth quarter net revenues increased by 9.7% on a year-over-year basis, geographically led by Greater China-South Asia with sales growth of 15% and the Americas with a 14% increase. On a year-over-year basis, all market segments, except Telecom, posted growth, with Automotive up by 27%, Industrial & Other by 18%, Consumer by 14%, and Computer by 7%. Telecom declined by 7%. Distribution increased 25%. Sequentially, revenues grew in all regions, led by Japan-Korea, Greater China-South Asia and Americas with 10%, 8% and 7% growth, respectively. All market segments increased on a sequential

US\$ Millions	Q4 09	Q3 10	Q4 10
Sales	2583	2657	2833
ACCI	980	1086	1128
Industrial & Multisegment	871	1012	1131
Wireless Products	712	546	562
Other	20	13	12
Net Income/(Loss)*	(70)	198	219

\* attributable to the parent company

basis, except Consumer, with Automotive higher by 16%, Industrial & Other by 13%, Computer by 10%, and Telecom by 7%. Consumer decreased by 6% on weakening demand. Distribution increased sequentially by 4%. ACCI (Automotive/ Consumer/ Computer/ Communication Infrastructure Product Groups) fourth quarter net revenues increased 15% year-over-year to a record US\$1,128 million driven by strong growth in Automotive and Telecom applications. Sequentially, ACCI grew net revenues 4%, also led by robust demand in Automotive and Telecom while, as expected, Digital Consumer decreased due to weaker market conditions. IMS (Industrial and Multisegment Product Sector) fourth quarter net revenues increased 30% year-over-year to a record US\$1,131 million. Revenue growth was strong in all segments and in distribution. Sequentially, IMS grew net revenues 12%, led by MEMS, microcontrollers, power and industrial products. Wireless net revenues in the fourth quarter increased 3% sequentially to US\$562 million, reflecting continued strong performance from ST-Ericsson's new 2G/EDGE platforms and initial HSPA+ modem sales offset by weakness in the TD-SCDMA market and the anticipated decrease in legacy products. Net revenues for the full year 2010 increased 21.6% to a record \$10,346 million from \$8,510 million in the prior year, thanks to a broad and deep product portfolio and significantly better industry conditions, with IMS and ACCI increasing 45% and 32%, respectively. Capital expenditures were US\$423 million during the fourth quarter of 2010 compared to US\$298 million in the prior quarter. Expenditures were principally for front-end equipment to support various technologies and to support the ramp of new products for the current and upcoming quarters for MEMS, the U8500 smartphone platform as well as a capacity increase for automotive products. For the 2010 full year period, capital expenditures totalled US\$1,034 million.

unrelated to the acquired replenishment and compliance services.

- **Rogers Corporation** has signed a definitive agreement to acquire 100% of the stock of **Curamik Electronics GmbH**, a manufacturer of power

electronic substrate products headquartered in Eschenbach, Germany, for Euro 116 million (subject to closing adjustments). Curamik, founded in 1983, is the worldwide leader for development and production of direct copper bonded (DCB) ceramic

**Ericsson Q4 2010**

**Trends/Outlook**

Sales for Ericsson in the fourth quarter amounted to SEK 62.8 billion up 8% year-over-year and 32% sequentially. Sales for comparable units, adjusted for currency exchange rate effects and hedging, increased 7% year-over-year. Sales for the full year amounted to SEK 203.3 billion, down 2% year over year. Sales for the full year for comparable units, adjusted for currency exchange

SEK Billions	Q4 09	Q4 10	2009	2010
Sales	58.3	62.8	206.5	203.3
of which: Networks	31.8	36.3	114.0	112.7
Multimedia	3.4	3.5	3.3	10.5
Global Services	23.1	22.9	79.2	80.1
Net Income	0.7	4.4	4.1	11.2

rate effects and hedging, decreased -7%. For the full year hardware sales were 37% (2009: 36%) and software sales were 24% (2009: 26%) of total sales while services sales accounted for the remaining part 39% (2009: 38%). Networks' sales in the quarter were SEK 36.4 billion, an increase of 14% year-over-year, positively impacted by the acquired Nortel businesses but negatively impacted by a strong SEK. Sequentially sales increased 40%. Mobile broadband sales, including radio, backhaul and evolved packet core, increased in the quarter, especially driven by markets such as the US and Japan. Voice related sales remained slow. China showed high volumes of 2G sales in the quarter. While the supply of components has normalized during the quarter, we are still not fully meeting increased demand on certain mobile broadband products. Networks sales for the full year were SEK 112.7 billion, a decrease of 1%, positively impacted by the acquired Nortel businesses but negatively impacted by effects from the industry wide component shortage during the year. The cautious operator investments that started to impact in the second half of 2009 continued during the first half 2010. In the second half of 2010 demand for mobile broadband started to increase. Global Services sales in the quarter were SEK 22.9 billion, a decrease of 1% year over year, and an increase of 20% sequentially. The year-over-year decline is primarily a result of currency exchange rate effects. Sales are also impacted by lower network rollout volumes following the industry wide component shortage earlier in the year. Global Services sales for the full year amounted to SEK 80.1 billion, up 1% year-over-year. Sales in the segment were positively affected by mobile broadband and managed services demand, while services related to voice developed unfavourably. The proportion of recurring business in Professional Services was slightly above two thirds for the full year. Multimedia sales in the quarter increased 3% year-over-year and 50% sequentially to SEK 3.5 billion. Full year sales decreased 21% to SEK 10.5 billion. The strong recovery in the last quarter of the year was mainly a result of increased operator investments in revenue management following cautious spending in previous quarters, as well as continued good development for TV solutions. Northern Europe and Central Asia sales increased 38% year-over-year and 104% sequentially. The increase is mainly due to capacity expansions in both 2G and mobile broadband in the Eastern part of the region. Russia was especially strong in the quarter. In Scandinavia, focus is on 4G/LTE deployments. In the quarter, new 4G/LTE contracts with TDC in Denmark and with DNA in Finland were signed. So far three contracts for 4G/LTE rollouts in the region have been signed. 4G/LTE trials are ongoing also in the Eastern part of the region. Operators focus on network modernization as well as continued investments in expansions. Operational efficiency continues to be high on operators' agendas creating good demand for managed services. Western and Central Europe sales decreased 4% year over year and increased 38% sequentially due to demand for mobile broadband. Global Services sales decreased in the quarter as an effect of lower activities in network rollout. In October, Ericsson begun upgrading Vodafone UK's entire network infrastructure in London allowing for better data speeds and broader coverage. November saw the delivery of the 12,000th consolidated 3G site for Mobile Broadband Network Ltd (MBNL), bringing more coverage and capacity for Three and T-Mobile UK customers. Germany, Switzerland and Benelux have seen continued strong demand for mobile and fixed broadband. In Switzerland, Ericsson is now positioned as supplier for fibre to the home in seven cities and regions. In Germany, almost 600 employees from Vodafone were integrated and are deploying sites for Vodafone's 4G/LTE network. In Poland, Ericsson saw the first country-wide mobile advertising agreement signed. Mediterranean net sales decreased 2% year over year and increased 38% sequentially, negatively impacted by the strong SEK. Mobile broadband related services and products developed favourably in the quarter, while voice declined although there were pockets of growth. Greece and Spain were still weak in the quarter due to overall economic environment and price competition among operators. Italy was strong in the quarter due to continued build-out of 3G for operators to cope with increased data traffic. Network modernization continues across the region.

substrate products used in the design of intelligent power management devices, such as Insulated Gate Bipolar Transistor (IGBT) modules. Most of Curamik's products are manufactured using state-of-the-art automated processes in its facility located in Eschenbach, Germany. Headquartered in Connecticut (USA), Rogers operates manufacturing facilities in the United States, Belgium, China, Germany, and South Korea, with joint ventures and sales offices worldwide.

- **Telit Wireless Solutions**, a business unit of the Italian company **Telit Communications** and **Motorola Solutions** have signed a definitive agreement in which Telit will purchase Motorola Solutions' m2m modules line of products and Motorola Solutions' associated employees will join Telit. The sale is subject to customary closing conditions and regulatory approvals. The acquisition would bring Telit's consolidated pro forma revenues to approximately US\$180 million for the year ended 31 December 2010. This is equivalent to a pro forma

## Philips Q4 2010

### Trends/Outlook

Revenue for the fourth quarter amounted to Euro 7.4 billion, a nominal increase of 2%. Comparable sales however declined by 4%, impacted by a weak Television market, negative consumer sentiment in developed markets and inventory management in the trade which resulted in a particularly slow December. Revenue in all three sectors was also negatively affected by fewer working days in the Philips reporting calendar. On the positive side, Philips continued to see good mid-single-digit comparable sales growth at Home Healthcare Solutions and Patient Care & Clinical Informatics in Healthcare. Additionally, Healthcare orders grew 3% in the quarter, allowing order intake to grow 9% for the year, providing an excellent basis for sales growth in 2011. In Consumer Lifestyle, Personal Care and Health & Wellness posted strong high-single-digit growth. And in Lighting, Lumileds and LED-based lighting products and solutions continued their high double-digit growth rate. For the full-year, sales, having rebounded strongly in the first half of the year, came in at Euro 25.4 billion, a 10% nominal increase from 2009. On a comparable basis, that represents growth of almost 4.5% for the year.

Euro Millions	Q4 09	Q4 10
Sales	7263	7392
Healthcare	2405	2642
Lighting	1846	1975
Consumer Lifestyle*	2903	2687
Other Activities	109	88
Net Income/(Loss)	260	465
* of which Television	1085	906

## ASML Q4 2010

### Trends/Outlook

Full year 2010 net sales of Euro 4,508 million consisted of system sales of Euro 3,895 million, as the company shipped a total of 197 systems, including 154 new and 43 used, and net service and field option sales which amounted to Euro 613 million. 2009 net sales of Euro 1,596 million consisted of net system sales of Euro 1,175 million, as the company shipped a total of 70 systems, including 47 new and 23 used, and net service and field option sales which amounted to Euro 421 million. In Q4 2010, ASML's net sales of Euro 1,521 million included 56 new and 13 used systems, totalling net system sales of Euro 1,313 million, and net service and field options sales of Euro 208 million. Net system sales for Q3 2010 included the shipment of 40 new and 11 used machines, totaling Euro 1,027 million, and net service and field options sales of Euro 149 million. The Q4 2010 average selling price for a new system was Euro 22.4 million, compared with the Q3 2010 average selling price for a new system of Euro 24.1 million. The Q4 2010 average selling price for all ASML systems sold was Euro 19.0 million, compared with the Q3 2010 average selling price of Euro 20.1 million. Q4 2010 net bookings totaled 117 systems valued at Euro 2,315 million, with a total average selling price of Euro 19.8 million. This record bookings level was driven by NAND Flash memory investments for the high volume ramp of new technologies and Foundry/Logic commitments for new strategic fab projects, while DRAM lithography demand weakened less than originally planned. ASML's systems backlog as of December 31, 2010, was Euro 3,856 million, totaling 157 systems with an average selling price of Euro 24.6 million, reflecting a mix of technology and capacity systems.

Euro Millions	Q4 09	Q4 10
Sales	431.8	1312.1
Net Income/(Loss)	50.5	406.8

market share of approximately 20% based on the current market analysis by Beecham Research.

- **DRS Sonar Systems LLC**, a **DRS/Thales** joint venture, has acquired **Advanced Acoustic Concepts**, a privately held company headquartered in Hauppauge, New York. AAC is a technical leader in the fields of sonar systems, sonar signal processing, acoustic training systems, and open architecture system and software integration.

- **BAE Systems** has announced a recommended offer to acquire **Norkom Group plc**, a provider of innovative counter fraud and anti-money laundering solutions to the global financial services industry. Based in Dublin, Norkom has around 350 employees and its financial crime and compliance solutions are deployed in more than 100 countries, monitoring millions of financial transactions a day for its clients. The proposed acquisition of Norkom is consistent with BAE Systems' strategy to grow its services business in cyber and intelligence. Norkom, coupled with Detica's leading counter-fraud software product NetReveal, will

create a strong global player for financial crime and compliance products. The proposed acquisition of Norkom follows BAE Systems' acquisition of **Detica** in 2008 and the recent agreement to acquire **ETI A/S**, a leading cyber and intelligence company based in Denmark, providing advanced technology products and services to government and commercial clients worldwide. It also follows agreements in 2010 to acquire **L1 Identity Solutions Inc's** Intelligence Services Group in the US and **stratsec.net** in Australia.

- **BAE Systems** has entered into a definitive agreement to acquire **Fairchild Imaging Inc**, a privately held company specializing in solid-state electronic imaging components, cameras, and systems for aerospace, industrial, medical, and scientific imaging applications. BAE Systems currently owns 8.7% of the equity of Fairchild Imaging and, upon completion of the acquisition for a cash consideration of approximately US\$86 million, will have acquired all of the remaining outstanding equity. The proposed acquisition of Fairchild Imaging is

**Siemens Fiscal Q1 2011 (Fiscal year end September)**

Euro Millions	Fiscal Q1 2010	Fiscal Q1 2010	Fiscal Q1 2011	Fiscal Q1 2011
	New Orders	External Sales	New Orders	External Sales
Total	18976	17352	22588	19489
Of which Industry	8249	7816	10083	8836
Energy	6918	5533	8759	6320
Healthcare	2869	2821	3168	3117
Net Income/(Loss)		1531		1753

**Trends/Outlook**

Siemens delivered year-over-year growth in both orders and revenue for the third straight quarter. With all Sectors and all three of Siemens' reporting regions contributing increases, orders climbed 19% and revenue was up 12%. Both revenue and orders benefited clearly from positive currency translation effects. On an organic basis, excluding currency translation and portfolio effects, orders increased 13% and revenue rose 6%. Industry delivered higher profit, revenue and orders compared to the first quarter a year ago, on continued strong execution in an improved market environment. Industry's growth momentum was most evident in new orders. With increases at all Divisions and double-digit growth in all three reporting regions, new orders rose 22%, to Euro 10,083 million. Revenue rose 13%, to Euro 8,836 million, on increases in all three regions and at all Divisions except Industry Solutions. In strengthening global energy markets, the Energy Sector delivered double-digit increases in orders and revenue compared to the first quarter a year earlier. Revenue rose 14% year-over-year, to Euro 6,320 billion, on strong conversion of orders from the backlog. All Divisions contributed to the increase, and revenue also rose in all three regions. Orders for the quarter climbed 27%, to Euro 8,759 billion, with the strongest growth coming from Fossil Power Generation and Oil & Gas. For comparison, the prior-year quarter included significantly lower volume from large orders. Renewable Energy posted a strong rise in revenue, to Euro 868 million, on conversion of large orders from prior periods. Revenue and orders for Healthcare rose 11% and 10%, respectively, compared to the first quarter a year earlier, led by double-digit growth in Asia, Australia and the Americas. In addition to organic growth, volume for Healthcare overall benefited from currency translation effects amounting to 8% percentage points for revenue and 8% percentage points for orders. The Healthcare Sector's book-to bill ratio was slightly above 1 for the quarter, and its order backlog was Euro 7 billion. Diagnostics posted revenue of Euro 916 million and orders of Euro 926 million, compared to Euro 830 million and Euro 832 million in the prior-year quarter, respectively.

consistent with BAE Systems' strategy to grow its electronic systems business and will complement existing electro-imaging capabilities, technologies, and product offerings. Fairchild Imaging employs approximately 150 people at its facility in Milpitas, California, and upon successful closing of the acquisition, will become part of BAE Systems' Electronic Solutions sector, headquartered in Nashua, New Hampshire.

- **ABB**, the leading power and automation technology group, has invested US\$10 million in San Francisco-based **ECotality**, a clean electric transportation and storage technologies company, to enter North America's electric vehicle (EV) charging market and provide ECotality with a strong global ally in power delivery systems.

- The UK company **Ultra Electronics** has agreed to acquire 3e Technologies International Inc (3eTI) from EF Johnson Technologies Inc for a cash consideration of US\$30.0 million with an additional amount of up to US\$1.0 million payable by early 2014. 3eTI designs, develops, markets and supports military grade wireless local area network access points, mesh networks, security software, and encryption technologies for military, government and commercial

markets. 3eTI is based in Rockville, Maryland, USA and has 65 employees including a small number of employees working at other locations. For the year ended 31 December 2009, 3eTI generated revenue of US\$29.1 million.

- **Ultra Electronics** has also announced that it has acquired Adaptive Materials Inc. from its founders, Dr Aaron and Michelle Crumm for an initial cash consideration of US\$23.0 million. A further sum of up to US\$5.0 million will be payable if certain performance-based measures are achieved by 31 December 2013. Adaptive Materials designs and manufactures portable power solutions in the 50W - 300W range. The company employs around 50 staff, including 15 engineers, operating from a facility in Ann Arbor, Michigan, USA.

- **Cobham plc**, the UK aerospace, defence and security technology group, has acquired the share capital of Telerob GmbH a privately-owned German-based manufacturer of advanced bomb disposal robots and threat response vehicles for Euro 78 million. Cobham will be able to integrate its technology into Telerob systems, including communications equipment and sensors that it already provides for the EOD market along with

specialist cameras manufactured by another recently acquired company, **RVision**. This will enable the Group to develop more distinctive and competitive systems, as well as increasing the value to Cobham of each system sold. Telerob employs 80 staff, half of whom are engaged in R&D, and is located in Ostfildern. The company will become part of Cobham's Mission Equipment business unit.

- US-based **Ceragon Networks Ltd**, a provider of high-capacity, 4G/LTE-ready wireless backhaul networks, has entered into a definitive agreement to acquire all of the outstanding shares of **Nera Networks AS** (NAS), headquartered in Bergen, Norway from **Eitek ASA** in a deal valued at US\$48.5 million. NAS is a leading manufacturer of microwave radio systems and a leading expert in long distance microwave links.

## Research & Design

### Hitachi establishes new R&D framework

Hitachi Ltd has announced a new framework for its R&D activities. Hitachi will reorganize its research laboratories in Japan into three enhanced centres, while expanding the role of locally-led research overseas. Overseas, Hitachi plans to accelerate building a global R&D framework dedicated to supporting growth strategies for each region, centred on the four business bases, China, Europe, the Americas and Asia. To accelerate this process and strengthen R&D targeting local needs, Hitachi will double the number of overseas R&D personnel, currently about 150, in fiscal 2012. This will also include creation of a new R&D base in India.

In Europe, Hitachi is strengthening its initiatives for frontier research and open innovation, notably in the area of spintronics, centred on the Hitachi Cambridge Laboratory. Hitachi will also focus on supporting the Social Innovation Business in Europe, including railway and power systems.

## Distribution

### RS Components enters Eastern Europe in next stage of its regional growth strategy

RS Components, the UK distributor of electronics and maintenance products, has announced its entry into Eastern Europe. Initially RS has launched a full e-commerce solution in local languages and currencies for Poland, Czech Republic and Hungary; this will be followed by other Eastern European markets over the coming months.

RS research shows that the high service distribution market in Central and Eastern Europe is worth more than Euro 1.5 billion.

### Acal strengthens Electronics Division

Acal plc, the pan European specialist provider of technology services, has acquired CompoTRON GmbH, for a maximum consideration of £7.1 million before expenses. CompoTRON has been acquired from BW-Holding GmbH, a company wholly owned by the CompoTRON management, Mr W Brack and Ms B Lohmaier.

CompoTRON is a specialist provider of electronic communication and fibre optic components to the European industrial electronic markets. Based in Munich with operations in Germany, the UK and Denmark, CompoTRON employs 22 staff. The company will form a separate business unit within Acal's Electronics division and will retain its strong independent brand identity.

CompoTRON's revenues for the year ended 31 December 2009 were Euro 7.3 million (£6.1 million) and it generated a pre tax profit of Euro 1.0 million (£0.8 million).

The acquisition of CompoTRON is a further step in the implementation of Acal's European specialisation strategy, enhancing its position in the German specialist electronics market. It follows the acquisition of BFi Optilas in December 2009 which has now been successfully integrated into Acal.

## Automotive

### Valeo expands in Ireland

Valeo, one of the world's leading automotive suppliers has announced that it is embarking on a major expansion and RD&I programme at its Valeo Vision Systems (VVS) operation in Tuam, with an investment of Euro 17 million and the creation up to 100 new high-skilled positions over the next three years. The investment which focuses on RD&I and high value manufacturing, is supported by the Irish Government through IDA Ireland.

Valeo is undertaking this major R&D initiative at the operation to target a growing share of the camera market with the development of the next generation of new camera/vision systems and supporting technologies for vehicle parking and manoeuvring.

This investment programme follows on from the successful launch by VVS Tuam of its first generation

multi-camera systems on the market in 2008. It is now proposing to significantly expand its manufacturing operations to meet growing automotive customer demand and to develop the next generation vision systems for the global market.

The additional jobs will be recruited across its manufacturing and RD&I operations. The investment will involve expansion of the plant (including the lease of existing units on the Tuam Business park), investment in advanced technology, training and RD&I.

### **Hybrid, EV could account for quarter of Ford sales by 2020**

By 2015, Ford plans for hybrid-electric, electric and plug-in hybrid vehicles to account for 2 to 5% of its global sales volume. By 2020, that will rise to 10 to 25%. Hybrids are projected to make up most of those sales.

In 2010, hybrid-electric vehicles made up about 1% of Ford's global unit sales. According to the *Automotive News* report the wide range provided by Ford reflects the uncertainty regards the future level of government subsidies and the impact of China's new energy vehicle policy.

### **CTS awarded production programmes for accelerator pedal modules**

US-based CTS Corporation has announced that CTS Automotive Products has been awarded two new production programmes for its electronic throttle control (ETC) accelerator pedal modules from major Japanese and European vehicle manufacturers. Both awards represent new programmes and will result in an increase in CTS' global market share.

The pedal modules for the European programme will be manufactured in Ostrava, Czech Republic.

Pedals for the Japanese programme will be made in Matamoros, Mexico since the vehicles are mainly intended for the North American market. This will be the beginning of pedal production in Mexico and represents a further expansion of CTS' global low-cost pedal manufacturing footprint. The first deliveries will begin in late 2012.

Revenues from these two awards are expected to reach approximately US\$10 million over the anticipated five-year lives of the programmes.

## **Production**

### **Toshiba and Egypt's El Araby to establish manufacturing JV for LCD TVs**

The Japanese company Toshiba has announced it is reinforcing its TV business in the Middle East and Africa by establishing a joint venture to manufacture LCD TVs with El Araby Group, a leading Egyptian manufacturer and reseller of audio visual and home appliances. The new JV, provisionally called Toshiba El Araby Visual Products, will be located in Cairo, Egypt, and plans to start production of LCD TVs in March 2011. Its activities will range from LCD panel module assembly to the production of finished products.

The new manufacturing JV supports Toshiba's strategy of establishing localized manufacture and supply of finished LCD TVs in the Middle East and Africa, and strengthens its ability to supply products that meet local market requirements and that offer improved cost competitiveness. The plant is also expected to become one of the largest LCD TV manufacturing facilities in the region, and the first to handle LCD panel module assembly through the production of finished products.

The new plant will have an initial production capacity of 600,000 units a year and an initial workforce of about 300. As sales grow, the plant's capacity will be increased, up to two million units a year in FY2013.

### **Huawei expands French operations**

According to local media reports Chinese telecommunications equipment manufacturer Huawei is expanding its engineering and sales teams in France. The equipment maker, which has hired 100 people in France in 2010, plans to add another 120 employees in 2011. The company has been operating in France since 2003, where it employs 400 workers at four sites, Lannion, Cergy-Pontoise, Issy-les-Moulineaux and Boulogne-Billancourt.

### **Kitron reports new orders**

Norwegian EMS provider Kitron ASA's subsidiary Kitron AS in Arendal, has received new orders from an offshore customer at a value of NOK 32 million for deliveries in 2011. The estimated total deliveries for 2011 and 2012 are about NOK 180 million.

### **Axis Electronics announces major upgrade**

UK EMS provider Axis Electronics has announced that as part of a major upgrade and improvement plan,

the company has bought two new Mydata SMT pick and place machines. The new equipment, a MY100DX14 and a MY100SX14, is being used in combination to provide a higher throughput line with fast changeover times and the flexibility to work with very small batch sizes.

The investment represents a major upgrade of one of the companies existing lines and provides additional capacity and technology capabilities to meet increases in customer demands for low volume, high reliability, complex electronic manufacturing. The SMT area now consist of five leading edge surface mount placement machines, configured in three lines, with the process including automated optical inspection (aoi) for real time defect detection and immediate feedback.

In response to strong customer demand and an increased long-term order book Axis Electronics increased its headcount by 30 people in 2010 and increase of just under 30%.

### **Thales Austria upgraded to competence centre**

The French multinational industrial group Thales is upgrading its Austrian subsidiary. Thales Austria will become the company's competence centre for railroad signalling systems. The Vienna-based subsidiary is now also responsible for coordinating business operations in Slovakia, Hungary, Czech Republic, Greece, Romania and Bulgaria.

### **Cobham outlines efficiency measures**

Cobham, the UK aerospace, defence and security technology group, has outlined plans to consolidate some of its manufacturing operations onto a smaller number of principal sites in line with the company's previously announced efficiency programme Excellence in Delivery, which is designed to position the business to meet growth opportunities.

The Excellence in Delivery programme, originally announced in August 2010, is on track to improve Group profitability by £65 million a year from the end of 2013 by concentrating production at 14 Principal Locations, supported by a small number of specialist sites.

Of the 14 Principal Locations, ten will be in the US, three will be in the UK and one in France. The closure of nine sites during 2011 has been announced, with work to be integrated into the Principal Locations. Although a number of employees are expected to relocate as part of this site consolidation, up to 150 job losses are estimated in the year, with 30 new

positions created. Since planning and execution for the programme began in 2010, the total headcount has reduced by approximately 700 heads to some 11,000 employees, with two sites closed last year. In the US, where Cobham employs 6,100 staff, three sites in Albion, Michigan, Bolton, Massachusetts, and Largo, Florida will close in 2011 with their operations consolidated into sites in Orlando, Florida and Lowell, Massachusetts. Significant investment has been made in the Lowell site, acquired as part of the M/A-COM acquisition, to enable the Bolton and Largo businesses to be integrated into this Principal Location. All ten Principal Locations in the US are existing production facilities.

In the UK, where the Group employs 2,400 people, Cobham will create a new site at the Solent Business Park at Whiteley, Hampshire specialising in surveillance equipment and technology, through a £2 million investment. The Solent facility will house a number of the Group's existing surveillance businesses currently situated on three smaller sites, which will close. These sites are Hartley Wintney, Segensworth and Waterlooville, all in Hampshire. In addition to the new Solent facility, the Group's two other Principal Locations in the UK will be: - Wimborne in Dorset, the Group's corporate office and centre of air-to-air refuelling production, where 500 employees have recently moved into new purpose-built engineering facilities adjacent to the existing site following a £15 million investment. - Marlow in Buckinghamshire, Cobham's main site for antenna technology, which moved to its current purpose built facilities in 2007 with the integration of operations from five local and one remote site. In France, where Cobham employs 900 people, three sites at Goussainville, Plaisir and Grigny will close and their operations will be transferred to a new location in Les Ulis which is being set up with an investment of £2 million and which will specialise in microwave products.

### **Qisda to close Czech plant**

The Taiwanese company Qisda has according to local media reports decided to close its LCD monitor production plant in Brno, the Czech Republic with the loss of around 200 jobs. Production will be moved to China.

### **NI inaugurates new production**

According to a *ITDH* report US-based National Instruments (NI) has inaugurated a HUF 500 million production line at its plant in Debrecen, Hungary. The production line is the plant's seventh with the company planning to add an additional line in the spring.

Both lines cost a combined HUF 1 billion with government providing financial support of HUF 200 million.

**Foxconn to expand workforce**

According to a report in the *Hospodarske Noviny* Foxconn is looking to increase the number of employees by one third from the current 3,000 to 3,900 at its LCD TV plant located in Nitra, Slovakia.

Foxconn purchased the Slovakian plant from Sony in 2010. According to the report annual LCD TV output at the plant reached 3 million units in 2010, and with the workforce increase, Foxconn aims to boost production by 50% to more than 4.5 million units in 2011.

**Enics and Axis Communications enters into strategic agreement**

Enics has signed an agreement with Axis Communications, a Swedish based global market leader in network video. Axis is offering network video solutions for professional installations with products and solutions focus on security surveillance and remote monitoring.

Axis chose Enics because of its competitive price/performance, size and strategic fit with Axis manufacturing and logistics requirements. Enics will work with Axis starting from rapid prototyping up to full box-build production.

This collaboration involves multiple Enics locations in order to offer the best fitting service mix to Axis.

**Eolane parent looks to acquire stake in Groupe Cofidur**

Eolane through its parent company has made an offer to acquire the 43.13% stake in fellow French EMS provider Groupe Cofidur held by Calyon and ESCA.

**RUSNANO finalizes investment in Plastic Logic**

The Russian Corporation of Nanotechnologies (RUSNANO) and Plastic Logic have announced they have finalized details of RUSNANO's investment in the company which was originally announced in November 2010.

The investment project, which will total US\$700 million, includes building the world's largest volume production factory for Plastic Logic's next-generation

plastic displays in Zelenograd, and aims to establish a commercial plastic electronics industry in Russia.

Plastic Logic has received an initial investment package of US\$300 million: Under the final agreement, RUSNANO is providing an initial investment of US\$150 million into the equity of Plastic Logic. Plastic Logic's lead investor, Oak Investment Partners, a multi-stage venture capital firm, is investing an additional US\$50 million as part of the project investment plan. In addition to the equity investments, RUSNANO will provide partial guarantees for debt financing in the amount of US\$100 million.

Over the next few years, additional equity and debt will be raised totalling approximately US\$400 million.

The Zelenograd factory, scheduled for production starting in 2013/2014, will have the capacity to produce hundreds of thousands of units of next-generation plastic electronics displays per month. Plastic Logic said it plans to employ 300-plus at the new Zelenograd facility.

At the same time, Plastic Logic plans the continued investment in its first high-volume, state-of-the-art manufacturing facility in Dresden, Germany, which opened in 2008, as well as its technology R&D centre in Cambridge, England.

**AWS Electronics Group opens new facility in Slovakia**

AWS Electronics Group, a leading UK Electronic Manufacturing Solutions (EMS) provider, has announced it has opened a new purpose built facility in Slovakia as a result of new projects and growing order book. AWS Slovakia in Namestovo now provides a complete range of PCBA assembly, SMT and conventional PTH, cables and electro-mechanical assemblies and test services.

The 2,600 sq m facility is specifically designed for Electronic Manufacturing with full ESD flooring throughout and temperature and humidity controls, and follows other investments the company has made in equipment to provide state of the art manufacturing processes such as cable moulding machines, SMT pick and place plant and automated conformal coating processing.

**Enics Elva receives IRIS certificate**

Swiss EMS provider Enics has announced that it's Elva, Estonian Business Unit has received International Railways Industry Standard (IRIS) Certificate. The certification was awarded by Bureau

Veritas. IRIS is a globally recognized standard unique to the railway industries for the evaluation of management systems. It is based on the ISO 9001 structure and adds railway specific requirements on top of TS automotive standard for the business management system.

### Jabil to expand Hungarian workforce

According to a *ITDH* report the US-based EMS provider Jabil Circuit is looking to create between 700-800 jobs this year at its base in the Hungarian city of Tiszaujvaros because of a increased demand. About 8,000 people work at Jabil Circuits' base in Tiszaujvaros.

### Nevion opens Polish facility

The Norwegian company Nevion has opened a facility in Gdańsk, Poland to assemble, test and distribute worldwide advanced telecommunications equipment (audio and video transmission device for TV broadcasters). The project is worth PLN 1 million. The expected sales volume in the branch for 2011 is Euro 6 million.

The Nevion project in Poland was supported by the Polish Information and Foreign Investment Agency (PAIIZ).

### Cicor announces Euro 3 million order

Swiss EMS, PCB and microelectronics group Cicor has announced orders worth Euro 3 million to manufacture electronic modules for position sensor systems

The orders are for the manufacture of highly specialized microelectronic modules for position sensor systems to be used in the defence industry. The production process includes making the circuit boards, complex micro-assembly of position and magnetic field sensors, and final calibration and testing. Delivery will be over the course of an 18 month period from the company's Radeberg facility.

### EMS financial round up

- **Flextronics** has reported net sales for its fiscal third quarter ended 31 December 2010 increased 19% to US\$7.8 billion compared to net sales for the quarter ended 31 December 2009 of US\$6.6 billion. Infrastructure sales amounted to US\$2,118million up 21% year on year and 5% sequentially; Mobile US\$1,694 million up 20% year on year and 11% sequentially; Industrial, Automotive, Medical & Other US\$1,419 million up 20% year on year but down 3%

sequentially; Computing US\$1,403 million up 6% year on year and 5% sequentially; and Consumer Digital US\$1,199 million up 35% year on year and 12% sequentially. For the fourth quarter ending March 31, 2011, revenue is expected to be in the range of US\$7.1 billion to US\$7.4 billion.

- **Celestica** has reported revenue for the fourth quarter of 2010 of US\$1.88 billion and compared to US\$1.66 billion in the fourth quarter of 2009. For the full year revenue was US\$6.5 billion, compared to US\$6.1 billion for fiscal year 2009. For the full year Consumer accounted for 25% of sales (2009: 28%); Enterprise Communications 24% (2009: 22%); Telecommunications 13% (2009: 15%); Storage 12% (2009: 12%); Servers 14% (2009: 13%); and Industrial, Aerospace, Defence and Healthcare 12% (2009: 10%). For the first quarter ending March 31, 2011, the company anticipates revenue to be in the range of US\$1.725 billion to US\$1.875 billion.

- **Sanmina-SCI** has reported revenue for the first quarter of fiscal 2011, ending 1 January 2011, of US\$1.66 billion an increase of 12.5% and compared to US\$1.48 billion for the same period of fiscal 2010. Communications Networks at US\$798 million was up 3.5% sequentially and accounted for 48% of the total; Industrial/Defence/Medical declined 1.7% sequentially and accounted for 24.6% of the total at US\$409 million; Multimedia declined 14.4% sequentially and accounted for 13.9% of the total at US\$232 million and Enterprise Computing & Storage declined 2.7% and accounted for 13.5% of the total at US\$224 million. The Top 10 customers accounted for 49% of revenue. Revenue for the company's fiscal second quarter is forecast to be between US\$1.62 billion to US\$1.67 billion.

- **Plexus** has reported 2011 fiscal first quarter revenues of US\$566 million an increase of 2% sequentially, and a new quarterly revenue record for the company. During the fiscal first quarter Plexus won 24 new manufacturing programmes in its Manufacturing Solutions group that the company anticipates will generate approximately US\$130 million in annualized revenue when fully ramped into production, an improvement over the prior quarter. Plexus' Engineering Solutions group also enjoyed a solid quarter of new programme wins, totalling approximately US\$17 million. By market sector Wireline/Networking reported sales of US\$234 million (Q4 2010: US\$222 million); Wireless Infrastructure US\$57 million (Q4 2010: US\$63 million); Medical US\$116 million (Q4 2010: US\$116 million); Industrial/Commercial US\$118million (Q4 2010: US\$116 million); and Defence/Security/Aerospace US\$41 million (Q4 2010: US\$39 million). In the second quarter of fiscal 2011 the company expects sales to be between US\$540 to US\$570 million

- The UK **Stadium Group plc** has reported that the strong trading performance reported in the interim

financial statements has continued through the second half of the year, consistent with the directors' expectations. Provisional (unaudited) information for the full year indicates that turnover at constant rates of foreign currency exchange increased by approximately 25%. During the financial year the Group disposed of its non-core plastics business for net cash proceeds of £2.42 million, and earmarked for disposal surplus freehold property with a net book amount of £2.04 million. Following this transaction, the Group is now focused entirely on activities in the high growth electronics sector, providing design, product engineering and manufacturing solutions. The Board remain confident of the prospects for continued organic growth from these operations, both in the UK and Asia, and additionally will seek to make further acquisitions of complementary businesses in the sector if suitable opportunities present themselves.

## Semiconductors

### Bang & Olufsen enters strategic cooperation with Intel

Bang & Olufsen is working in cooperation with Intel to gain access to the latest technologies, and to provide Intel with first hand information in the consumer electronics industry from a leader in the high-end segment.

### Intel's to invest US\$500 million in Ireland

Intel has announced substantial new US\$500 million construction project at its Leixlip technology campus. This infrastructure project will create a further 850 construction jobs on the Leixlip campus. The company will also be creating 200 new high level jobs on the Leixlip campus as a result of this technology upgrade.

### WiSpry to open R&D operation in Denmark

The US company WiSpry Inc, a leader in tunable radio frequency (RF) semiconductor products for the wireless industry, has announced it is opening its first international research and development operation in Aalborg, Denmark.

### Hittite Microwave acquires Arctic Silicon Devices

The US company Hittite Microwave Corporation has announced it has acquired Arctic Silicon Devices, a fabless developer of advanced mixed-signal IC technology, located in Trondheim, Norway. The

acquisition price was approximately US\$12.0 million in cash and equity.

The acquisition provides Hittite with new IC design and integration capability and a state-of-the-art product line of analog-to-digital converters (ADCs) which target high performance applications, including test and measurement systems and communication infrastructure. The employees of Arctic Silicon Devices will continue to work at their existing facility.

### Infineon completes sale of mobile phone business to Intel

Infineon Technologies AG has completed the sale of the mobile phone business (part of the Wireless Solutions business unit) to Intel Corporation. Following the sale, approximately 3,500 employees in total will move globally from Infineon to the new company Intel Mobile Communications GmbH (IMC). IMC will be headquartered in Neubiberg near Munich, Germany.

Infineon and Intel announced the sale of the mobile phone business on 30 August 2010. The final purchase price amounts to US\$1.4 billion in cash.

### STMicroelectronics and Bluechiip to cooperate

STMicroelectronics, the leading supplier of MEMS (Micro-Electro-Mechanical Systems) devices for consumer and portable applications, and Bluechiip Limited have announced that the two companies are to cooperate in the manufacturing of MEMS-based tracking tags, aimed at a range of different markets, but initially in healthcare.

These unique tags will first be molded into test tubes and vials for the expanding biobank market to identify, track, retrieve, monitor and store valuable and irreplaceable human biospecimens, including tissue, embryos and cord blood in liquid nitrogen. Although the Bluechiip tracking technology has initial applications in the healthcare industry, it also has applications in pathology, clinical trials, biorepositories and forensics. Other key markets for the technology could include security, defence, industrial, manufacturing, waste, aerospace and aviation.

## Renewable Energy/Clean Tech

### TSMC and CENTROSOLAR sign solar module manufacturing agreement

Taiwan Semiconductor Manufacturing Company (TSMC) and CENTROSOLAR Group have signed an agreement which makes CENTROSOLAR the exclusive

European manufacturer of crystalline solar modules for TSMC.

Under the agreement, CENTROSOLAR will supply TSMC with an initial module capacity of 100 MWp per year using solar cells provided by TSMC. The companies are also discussing the possibility of further collaboration in the areas of product development and process engineering. CENTROSOLAR will build up the capacity required for this agreement in a new production building adjacent to its plant in Wismar, Germany, and the first deliveries under the agreement are due in the third quarter of 2011. Financial details of the agreement were not disclosed.

The construction of a new production hall and warehouse in Wismar will give CENTROSOLAR the space to increase its existing capacity from currently 200 MWp to up to 500 MWp per year in line with

demand. This will equip the company for further growth from both its own business and from contract manufacturing. The first phase, which is to be completed by the third quarter, will add an additional 150 MWp of manufacturing capacity and provide an additional 300 job opportunities in Wismar, bringing the workforce there to 700. Once the new facilities are fully equipped, CENTROSOLAR will potentially have a workforce of over 1,000 people at Wismar.

### Sanyo boosts output in Hungary

According to *MTI* report Sanyo has started mass production at its HUF 4.5 billion solar cell plant in the Hungarian city of Dorog. With the start of production at the plant, Sanyo has boosted annual output at its base in Hungary by 30% to 315MW. The investment has created more than 300 jobs.

## Asia Pacific Electronics

### Research/Design

- The Taiwanese company **HTC** is reportedly looking to establish an R&D subsidiary in China with an initial investment of US\$500,000, according to the company. The subsidiary will specifically cooperate with mobile telecom carriers and handset vendors to develop and produce customized handsets, especially for China-developed standards such as TD-SCDMA and CMMB, according to the *DigiTimes* report.

### Equipment/Manufacturing

- Taiwan-based LCD manufacturer **Chunghwa Picture Tubes** (CPT) plans to build front- to back-end production lines for touch sensor production at its plants located in Fuzhou, China, according a report in Taiwanese newspaper the *China Times*.

- **Parity Solar** and **China National Building Materials** will cooperate on expanding Parity's existing solar photovoltaic (PV) module manufacturing facility in Zhenjiang, Jiangsu, China to an annual production of 500 MW.

- **Schneider Electric**, the French specialist in energy management, has signed an agreement to acquire a majority of the shares in **APW President Systems Ltd.** which designs and manufactures standard and customized racks and enclosure systems in India, serving in particular information technology and telecom end-users. APW President Systems Ltd has approximately 380 employees and generated sales of INR 1.08 billion (approx. Euro 18 million) for the twelve months ending 30 September 2010. The Company has manufacturing facilities at Pune and Bangalore.

- Taiwan EMS provider **Pegatron** will spend US\$49 million on establishing a new production plant in Chongqing, China, according to the *Commercial Times of Taiwan*. Volume production of the new plant is slated to begin in the third quarter or fourth quarter of 2011. It is reported that the new plant will initially focus on notebook PC production.

### Components

- **Taiwan Semiconductor Manufacturing Co Ltd** (TSMC) has agreed to purchase a fab and additional land from memory chip maker **Powerchip Technology Corp** for NT\$2.9 billion (around US\$100 million). The deal includes a fab under construction at the Hsinchu Science Park in Northern Taiwan, where TSMC is headquartered and maintains several existing fabs.

- **Sensata Technologies Holding NV**, a leading manufacturer of sensors and controls, has signed an agreement with the Baoying government in China's Jiangsu Province to increase its investment in Baoying. Under the agreement, the government will make land adjacent to Sensata's existing facility available for constructing a five-story building totalling 350,000 sq ft. The government is responsible for erecting the building. Sensata will lease the facility for up to 15 years and then assume full ownership. Construction is expected to begin in February 2011 and be completed at year-end. In turn, Sensata plans to invest US\$50 million in capital from 2011 - 2015 contingent on continued growth in demand for its products in China's domestic market and worldwide. Sensata's investment will be in the form of cash, equipment, or intellectual property.

- Japanese semiconductor company **Renesas Electronics Corporation** has announced its plan to establish a new overseas procurement office within its sales subsidiary in China, **Renesas Electronics (Shanghai) Co Ltd**, to promote globalization of the material procurement structure to address the company's aim of expanding its global business. The new structure will be Renesas Electronics' second overseas procurement office adding to the one in Taiwan, and is scheduled to start operations on 1 April 2011. Renesas Electronics is targeting to increase its overseas sales in procurement in FY2012 by more than 1.5 times from FY2010, and by strengthening its procurement structure, the company plans to further expand its overseas procurement ratio from the current 18% in FY2010 to 30% in FY2012.

- **Infineon Technologies** has opened a new facility in China called **Infineon Integrated Circuits (Beijing) Co Ltd**, located in the Beijing Economic and Technological Development Area. In addition to sales and marketing, application R&D and central functions, the new entity houses an IGBT stack manufacturing facility and a technical centre for automotive solutions. The new Infineon entity in Beijing will support all three Infineon business segments Automotive, Industrial & Multimarket as well as Chip Card & Security.

- **Samsung Electronics** has announced it plans capital expenditures of KRW 23 trillion in 2011. Semiconductors will account for KRW 10.3 trillion (KRW 5.8 trillion for memory business, KRW 4.2 trillion for System LSI business); LCD: KRW 4.1 trillion and Other: KRW 5.4 trillion.

- Taiwan's **Powerchip Technology Corp** is exiting the DRAM market, and is transferring the business over to Japan's **Elpida Memory Inc**. Under the terms, Elpida will purchase all DRAM products that Powerchip will manufacture, including the current portion which Powerchip has been selling as Powerchip branded products. Elpida will sell those products as Elpida's house brand products.

- US semiconductor company **Micron Technology** has acquired the Japanese company **Canon Inc's** stake in **Tech Semiconductor Singapore Pte Ltd** for US\$121 million. Prior to the deal, Micron held 90% of Tech Semiconductor.

## European Electronic Markets Forecast

### Editorial Office:

European Electronic Markets Forecast  
Harvard House  
Grove Technology Park  
Wantage  
Oxfordshire, OX12 9FF  
United Kingdom  
Tel: +44 (0) 1235 227310  
Fax: +44 (0) 1235 227322  
E-Mail: [andrew.fletcher@rer.co.uk](mailto:andrew.fletcher@rer.co.uk)

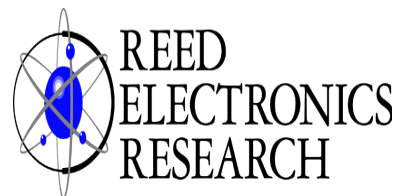
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Customer Services Manager  
European Electronic Markets Forecast  
Harvard House  
Grove Technology Park  
Wantage  
Oxfordshire, OX12 9FF  
United Kingdom  
Tel: +44 (0) 1235 227310  
Fax: +44 (0) 1235 227322  
E-Mail: [Andrew.fletcher@rer.co.uk](mailto:Andrew.fletcher@rer.co.uk)

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The Yearbook of World

# ELECTRONICS

# DATA

Vol. I

2011

West Europe

Components  
Computers  
Consumer  
Control and Instrumentation  
Medication and Industrial  
Office Equipment  
Radio Communications  
Telecommunications

## **Yearbook of World Electronics Data Volume 1 2011 – An Overview of Electronics Production & Markets in Western Europe**

### **Introduction**

Following the sharp downturn in the European and global electronics industry at the end of 2008 and in the first half of 2009 the market has recovered. Led initially by the emerging markets the recovery has gained momentum with the industry showing strong growth in all regions. However, in the final months of 2010 there were signs that growth was slowing and the outlook for 2011/2012 will now depend on a sustained growth in both the European and global economy.

In Western Europe, the electronics industry has virtually completed the transformation from high-volume to shorter run production. In the future emphasis will be on areas where Europe has strong global position such as industrial, medical, high-end communications and automotive.

To take advantage of these opportunities will require a clear understanding of the current structure of the West European electronics industry, how it has developed on a country and regional level and how it fits globally.

### **Yearbook of World Electronics Data - Volume 1 West Europe**

Published since 1973 the Volume 1 of the Yearbook of World Electronics Data provides:

- A single source solution allowing you to track the electronics industry in 16 countries in Western Europe
- 12 major product groups.
- Market and production forecasts.
- Summaries provided in Euros & US dollars.
- CD-option allows you to manipulate the data quickly and easily: produce your own subsets or summaries of the data, create your own forecasts or cut and paste the data into your own in-house reports and presentations.

### **Who will benefit**

The Yearbook is essential research providing key data for all areas of the electronics industry including:

- Distributors and manufacturers of electronic components and materials.
- Suppliers of electronic production equipment.
- OEMs.
- EMS Providers.
- Government, including investment organizations.
- Financial and industry analysts.
- Academic institutes & universities tracking developments in the electronics industry.

## **The Yearbook of World Electronics Data**

The Yearbook of World Electronics Data series presents market and production statistics for the GLOBAL electronics industry. Available in four published volumes covering 53 countries and 12 major product groups, the yearbook is used in the formulation of business and market planning, in tracking trends based on an clear understanding on how the industry has developed historically and to provide a basis for medium and long-term forecasting.

### **53 country coverage, 12 major product groups**

... comparable **country by country** and **product by product**.

### **Methodology**

The Yearbooks highlight market trends and opportunities and offer corroborative evidence for individual research. Each new edition is fully revised and updated. Trade statistics are analysed in detail, with over 500 separate categories being employed. Production statistics are collected from Government and Manufacturer's Association sources where these are available. Extensive use is also made of research reports, company reports, news items and work by other consultants to supplement and cross check the official and semi-official sources.

Markets are forecast in real terms for the next five years, with production forecast for the next two years, using constant exchange rates and excluding inflation. These are based on our extensive knowledge of the historical performance of each product, the general economic outlook and the major growth influencing factors.

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### **Volume 1 2011 West Europe**

Synopsis: Economic Overview; Electronics Market Overview; Imports 2008-2009; Exports 2008-2009; Production Data 2008-2011; Market Data 2008-2014

16 Country Coverage

Austria; Belgium; Denmark; Finland; France; Germany; Greece; Ireland; Italy; Netherlands; Norway; Portugal; Spain; Sweden; Switzerland; UK

Publication Data: February 2011

### **Volume 2 2011 America, Japan, Asia Pacific**

Synopsis: Economic Overview; Electronics Market Overview; Imports 2008-2009; Exports 2008-2009; Production Data 2008-2011; Market Data 2008-2014

16 Country Coverage

Australia; Brazil; Canada; Hong Kong; India; Indonesia; Israel; Japan; Malaysia; Philippines; Singapore; South Africa; South Korea; Taiwan Thailand; USA

Publication Data: May 2011

### **Volume 3 2010/2011 Emerging Markets**

Synopsis: Economic Overview; Electronics Market Overview; Imports 2007-2008; Exports 2007-2008; Production Data 2007-2010; Market Data 2007-2013

9 Country Coverage

China; Egypt; Mexico; New Zealand; Puerto Rico; Saudi Arabia; Turkey; Venezuela; Vietnam

Publication Data: August 2010

#### **Volume 4 2011/2012 East Europe**

Synopsis: Economic Overview; Electronics Market Overview; Imports 2008-2009; Exports 2008-2009; Production Data 2008-2011; Market Data 2008-2014

53 Country World Summary covering production data 2008-2011 and market data for 2008-2014

12 Country Coverage

Bulgaria; Croatia; Czech Republic; Estonia; Hungary; Lithuania; Poland; Romania; Russia; Slovakia; Slovenia; Ukraine

Publication Data: August 2011

For each country production and market data is supplied for the following product groups:

- Computers
- Consumer – Video; Audio; Personal
- Control & Instrumentation
- Medical & Industrial
- Office Equipment
- Radio Communications
- Telecommunications
- Components – Passive Components; Semiconductors; Other Components

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Data for the majority of countries covered in Volume 1 & 2 dates back to 1985 while for the Volumes 3 and 4 we provide data back to 1995.

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Anita Caird, Sales Manager  
anita.caird@rer.co.uk

Andrew Fletcher, Research Manager  
andrew.fletcher@rer.co.uk

Reed Electronics Research  
Harvard House  
Grove Technology Park  
Wantage, Oxon OX12 9FF  
United Kingdom  
Tel: +44 (0) 1235 227310  
Fax: +44 (0) 1235 868620  
website: www.rer.co.uk

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## SAMPLE DATA

Over the following pages we provide sample data from the 2010 edition of the report. This includes summary data for both production and markets, and a complete sample country.

For the new edition of the report we have also provided a medium-term forecast for electronics production at the summary level for each country through to 2014. This data has been extracted from the Yearbook database and is published in detail as part of a separate study. For further details please contact [andrew.fletcher@rer.co.uk](mailto:andrew.fletcher@rer.co.uk).

## CONSOLIDATED SUMMARY OF PRODUCTION 2008

Table 2.6

Country	\$M EDP	\$M Office Equip	\$M Control & Instr	\$M Medical & Industrial	\$M Radio Comms & Radar*	\$M Telecomm- unications	\$M Consumer	\$M Compo- nents	\$M TOTAL
Austria	574	1	857	385	250	428	18	1610	4124
Belgium	1544	-	662	463	424	478	118	868	4557
Denmark	203	-	1116	988	274	180	128	758	3646
Finland	301	-	978	591	7868	1400	4	849	11991
France	2441	405	4368	1762	13647	2997	860	6809	33288
Germany	11812	463	22228	8065	5232	3774	2268	24997	78838
Greece	206	32	74	37	228	206	3	65	851
Ireland	9147	21	632	1950	243	279	21	4941	17234
Italy	4191	15	4206	1399	2044	2125	294	4410	18684
Netherlands	2765	484	2682	2994	603	390	107	1709	11734
Norway	163	-	721	167	473	428	-	499	2452
Portugal	441	2	59	82	191	162	1084	1784	3805
Spain	1412	15	382	429	607	1250	1030	2182	7308
Sweden	146	-	1543	283	3346	3615	54	1195	10182
Switzerland	444	39	3343	1631	454	347	3925	1733	11917
UK	2880	180	5881	2244	9574	1439	665	5970	28834
<b>TOTAL</b>	<b>38669</b>	<b>1656</b>	<b>49732</b>	<b>23471</b>	<b>45457</b>	<b>19498</b>	<b>10579</b>	<b>60380</b>	<b>249443</b>

## CONSOLIDATED SUMMARY OF MARKETS 2008

Table 2.20

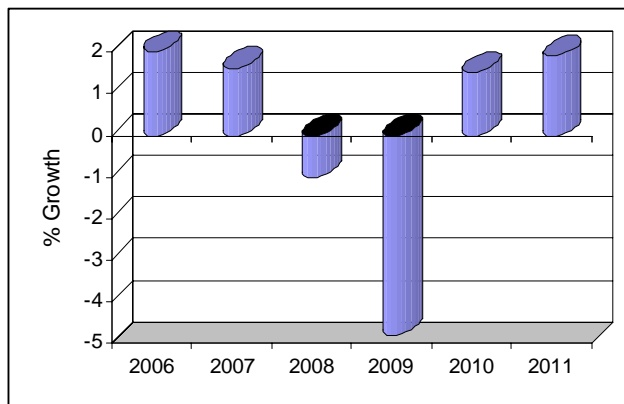
Country	\$M EDP	\$M Office Equip	\$M Control & Instr	\$M Medical & Industrial	\$M Radio Comms & Radar*	\$M Telecomm- unications	\$M Consumer	\$M Compo- nents	\$M TOTAL
Austria	2540	99	1084	388	807	576	1269	1288	8051
Belgium	4006	179	954	804	1468	740	1016	1847	11015
Denmark	2121	98	436	269	608	512	554	1042	5639
Finland	1812	83	651	493	409	176	531	2656	6811
France	14618	685	3956	2254	8810	3309	6385	8193	48210
Germany	27051	1078	11984	5062	5984	4019	9824	29084	94085
Greece	1393	131	301	209	1069	569	1021	474	5166
Ireland	3450	84	328	653	672	312	541	5190	11230
Italy	12307	424	4885	1728	5099	2659	4859	7346	39306
Netherlands	9231	474	2484	1354	2049	1406	2115	2909	22021
Norway	1752	106	627	303	700	317	857	544	5205
Portugal	1653	88	296	243	1040	451	835	1056	5662
Spain	6868	278	1353	1337	3791	3121	4310	8946	30003
Sweden	2938	106	1454	332	1615	814	1285	2753	11296
Switzerland	4528	321	1633	554	1651	537	1476	1610	12310
UK	17831	906	4606	2709	11807	3056	8322	7333	56570
<b>TOTAL</b>	<b>114098</b>	<b>5139</b>	<b>37031</b>	<b>18691</b>	<b>47578</b>	<b>22574</b>	<b>45199</b>	<b>82270</b>	<b>372581</b>

Notes: 2007 and 2008 are current figures at current exchange rates  
\* inc mobiles. Base year 2008

### 3.9 ITALY

#### 3.9.1 Economic Outlook

- In the second quarter of 2008, real GDP started declining at an increasing pace, initially driven by the impact of surging commodity prices and subsequently by the collapse in global trade and rising risk aversion. Overall, between the first quarter of 2008 and the second quarter of 2009, the cumulative loss of real GDP was 6.5%, similar to Germany but higher than in most other euro area countries.
- Real GDP regained some strength in the second half of 2009 in part due to stronger industrial output but this will be insufficient to stop the economy reporting one of the steepest declines in decades in 2009 at -4.8%.
- In 2010 and 2011, economic activity is projected to recover gradually. Improving private consumption will be a key contributing factor along with an increase in investment expenditure although this will be partially offset by the projected reduction in public spending.
- Job losses accelerated in 2009 and result in a significant increase in the unemployment rate.
- Headline inflation is projected to decelerate to 0.8% on average in 2009, squeezed by the fall in energy prices and the compression of business profit margins. It is then projected to increase, to 2% in 2011, further widening the differential with the euro area. Core inflation is anticipated to remain below 2% over the forecast period.



Italian GDP Growth

#### Italy's Leading Economic Indicators

% Increase	Actual		Forecast			
	2006	2007	2008	2009	2010	2011
Growth of GDP*	2.0	1.6	-1.0	-4.8	1.5	1.9
Consumer Price Index**	2.2	2.0	3.5	0.8	1.8	2.0
Industrial Production	3.6	2.1	-3.3	-17.3	2.1	..

\* at constant prices; \*\* Harmonised index of consumer prices, + % change on previous year

Source: EU Autumn Economic Forecast, Industrial production Consensus Forecasts estimates (December 2009), IMF

### 3.9.2 Italy in a West European Context

#### Market & Production Rankings

The table below ranks Italy's position within Western Europe in terms of electronics production and market in 2008.

Sector	Production	Market
EDP	3 (10.8%)	4 (10.8%)
Office Equipment	8 (0.9%)	5 (8.2%)
Control & Instrumentation	4 (8.5%)	2 (13.2%)
Medical & Industrial	7 (6.0%)	4 (9.2%)
Radio Communications*	6 (4.5%)	4 (10.7%)
Telecommunications	4 (10.9%)	5 (11.8%)
Consumer	7 (2.8%)	4 (10.7%)
Components	5 (7.3%)	4 (8.9%)
<b>TOTAL</b>	<b>4 (7.5%)</b>	<b>4 (10.5%)</b>

\* Includes mobile phones

### 3.9.3 Electronics Industry Structure

In spite of its poor performance in recent years Italy continues to be Europe's fourth largest electronics market behind Germany, France and the UK. In 2008, the country replaced Ireland as the fourth largest producer. However, since the peak in 2000 production has declined year on year apart from 2005 when the country posted modest growth of 0.6%. In 2008, output fell by 5.1% and is forecast to have declined by 11.4% in 2009. In 2010, electronics production is forecast to show a further not more modest decline of 0.8%.

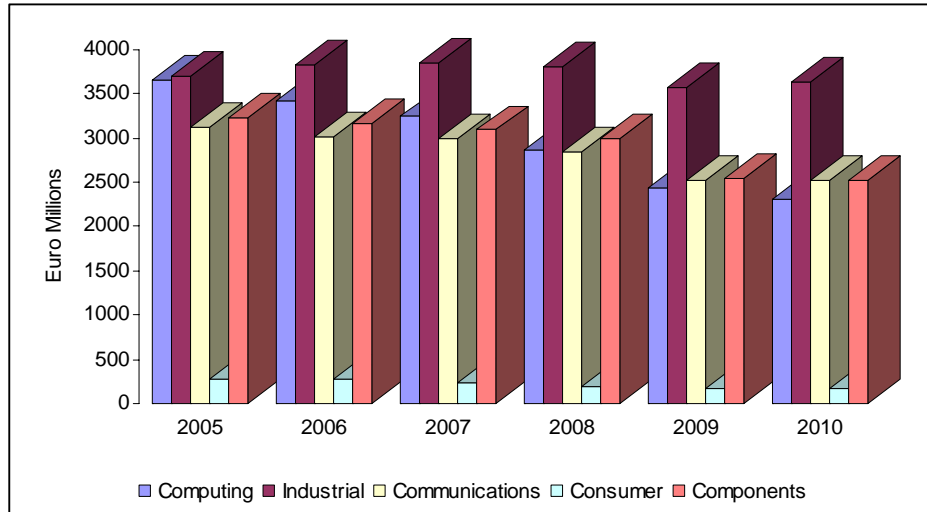
At 22.5% the control and instrumentation sector accounted for the largest proportion of output in 2008. Other important sectors are telecommunications (11.4%), computing (22.4%), radio communications and radar & navigational aids (10.9%) and components (23.6%).

#### Summary of Italian Electronics Production

Euro Millions	2005	2006	2007	2008	2009	2010
Computing	3661	3419	3240	2860	2432	2310
Industrial	3700	3825	3843	3811	3575	3643
Communications	3113	3018	2985	2835	2524	2523
Consumer	287	280	230	200	173	162
Components	3226	3166	3091	2999	2554	2527
Total	13987	13708	13389	12705	11257	11165

Notes: Computing includes office equipment; Industrial combines control and instrumentation and medical and industrial; and communications combines fixed and wireless communications (inc. defence). Due to computer rounding the summary figures above may differ slightly from the figures presented in the main tables.

Production of office equipment, once a key driver to the Italian electronics industry, now accounts for under 1% of total electronics output.



Italian Electronics Output by Major Product Group 2005-2010

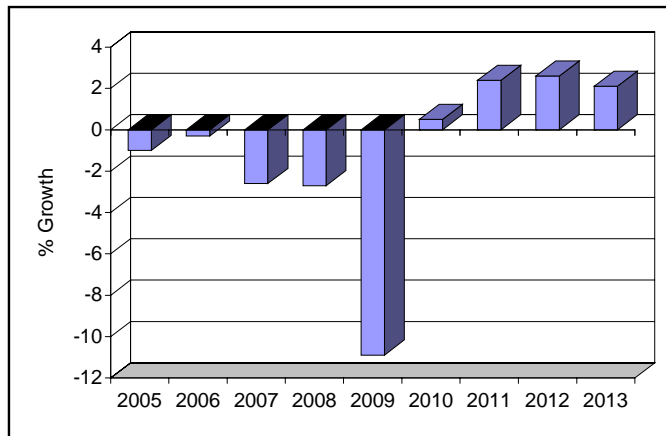
After growth of 6.7% in 2005 telecommunications output was flat in 2006, declined by 3.3% in 2007 and by a further 5.6% in 2008. Production declined by an estimated 10% in 2009 and although output is expected to rebound in the second half of the year for 2010 as whole production is expected to decline by 1%. The industry is concentrated around a relatively small number of national and multinational companies, with Italtel the leading domestic manufacturer the company reporting sales of Euro 467 million in 2008, down from Euro 543 million a year earlier.

Production of radio communications increased by 1.4% in 2007 but declined of 4.5% in 2008 and by a forecasted 12% in 2009 as mobile infrastructure investment was scaled back. Modest growth of 1% is expected in 2010.

Telit Mobile Terminals, is a leading manufacturer of wireless modules the company focusing on M2M applications, and one of the leading companies in the wireless sector. In August 2007, Nokia Siemens Networks' Italian subsidiary signed an agreement for the transfer of its manufacturing operations in Cassina de Pecchi (Mi) and Marcianise (Ce) to US EMS provider Jabil Circuit. In 2009, it was reported that Jabil was looking its merge its plants in San Marco Evangelista and Marcianise.

Italy, through Finmeccanica, holds a leading position in the European aerospace and defence industry the company playing an important role in the ongoing consolidation occurring within the sector.

The Italian components industry is, by comparison, relatively weak and relies



Italian Real Market Growth 2005-2013

increasingly on imports. Production has declined year on year since 2004 a trend which is forecast to continue throughout the period to 2010. Apart from a few large groups, such as STMicroelectronics, the Franco-Italian semiconductor group and Micron Technology, which acquired Texas Instruments semiconductor operations in Italy in 1998, Italy has numerous smaller companies, which exploit niche markets. STMicroelectronics decision to focus on an asset light manufacturing strategy could lead to production in Italy being scaled back in the future.

Italy has benefited from the demand for solar cells. In February 2008 SOLON SpA (formerly S. E. Project srl), the recently renamed Italian subsidiary of SOLON AG, Berlin, Germany, strengthened its position in the fast growing Italian photovoltaic market by building a new production site for solar modules in Carmignano di Brenta, Province of Padova.

In November 2009, LDK Solar, a leading manufacturer of multicrystalline solar wafers, announced that it had signed an agreement with the Italian company Uni Land SpA to develop and construct PV plants totaling 20 MW in 2010 and 2011. LDK Solar will manage engineering, procurement and construction of the plants and will also supply the solar modules. Uni Land will finance the PV project operations.

In January 2010, Enel Green Power, Sharp and STMicroelectronics signed an agreement for the manufacture of triple-junction thin-film photovoltaic panels in Italy. At the same time, Enel Green Power and Sharp signed a further agreement to jointly develop solar farms. The factory, which will be contributed by STMicroelectronics, is located in Catania and is expected to have an initial production capacity of 160 MW per year with this increasing to 480 MW. Photovoltaic panel manufacturing at the Catania plant is expected to start at the beginning of 2011.

Somacis PCB Industries, a leading Italian PCM manufacturer, announced at the beginning of 2008 plans for a new plant focused on the next generation of printed circuit boards.

In August 2007, US-based KEMET Corporation announced it would acquire Arcotronics Italia SpA, a leading manufacturer of plastic film and metallized plastic film capacitors and wet tantalum capacitors. Arcotronics has manufacturing facilities in Italy, Germany, the United Kingdom, Bulgaria and China. At the beginning of 2008 KEMET announced plans to restructure the former Arcotronics operations including the closure of a plant in Vergato, Italy with the loss of 340 jobs.

Production of TV sets declined to an estimated 700,000 units in 2008 domestic manufacturers facing increasing pressure to compete with lower cost manufacturing locations in Turkey and Central and Eastern Europe.

Videocon Industries, who had converted the old Thomson plant in Anagni to assembly of TVs from parts imported from India, had plans to start production of PDP panels in Anagni in 2007 and to build a new LCD panel making facility nearby. Following a change in strategy, these plans were never implemented and following protracted negotiations with unions, local and national government, it was announced in June 2009 that the Anagni plant was being sold to a consortium of companies active in the textile sector.

Keymat Industrie SpA has now terminated CRT TV production at its Marcianise factory. Production of own-brand and OEM LCD and PDP TVs is carried out at a new plant at Boscofangone, with final assembly at the nearby Nola factory.

The small privately owned Mivar di Carlo Vichi SpA, based at Abbiategrasso, near Milan, has scaled down its operations and now only produces LCD TVs for the Italian market. Employing around 60 people, the company produces some 150 sets per day.

Italy is an important production centre for white goods with all the major manufacturers maintaining a manufacturing presence in the country. However, 2009 has witnessed a scaling back of operations with a number of job cuts across the industry.

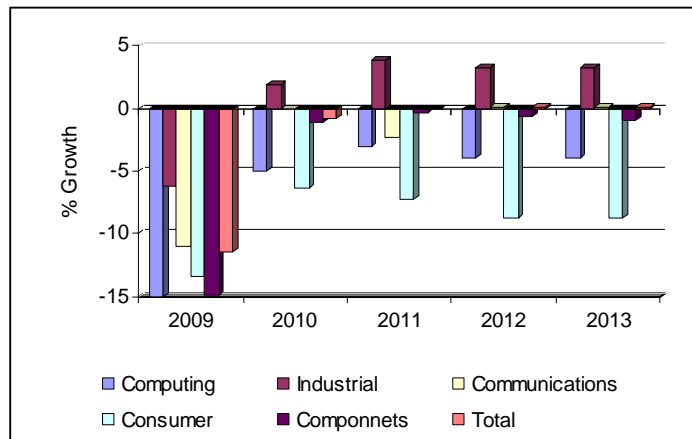
There are a number of EMS providers in Italy including Selcom and Elemaster which were ranked 15<sup>th</sup> and 27<sup>d</sup> largest in Europe in 2008, respectively. Tier 1 Global suppliers have also established a presence but as in other West European countries have scaled back or sold facilities. In addition to the two facilities mentioned above, Jabil Circuit has two plants located in Italy at Bergamo and Marcianise. Following the closure of a plant in Avellino, Flextronics has a remaining regional manufacturing operation in the country located in Treviso. Celestica sold its plant in Vimercate, Italy to Bartolini Progetti SpA in October 2006, and entered into a strategic alliance with the firm to provide certain EMS, after-market, new product introduction and support services on a subcontract basis.

**Italian Electronics Production – Medium Term Forecast 2009-2013**

Euro Millions	2009	2010	2011	2012	2013
Computing	2432	2310	2241	2151	2065
Industrial	3575	3643	3782	3908	4038
Communications	2524	2523	2464	2466	2469
Consumer	173	162	150	137	125
Components	2554	2527	2520	2504	2479
Total	11257	11165	11157	11165	11176

*Notes: Computing includes office equipment; Industrial combines control and instrumentation and medical and industrial; and communications combines fixed and wireless communications (inc. defence). Due to computer rounding the summary figures above may differ slightly from the figures presented in the main tables. Forecast*

After the sharp decline in 2009 electronics output is forecast to gradually recover but will not show positive growth until the end of the forecast period. This will be led by the industrial segment with the computer and consumer segments declining year on year throughout the forecast period. By 2013, industrial will account for 36% of the total up from 30% in 2008.



*Italian Electronics Production - % Growth by Sector 2009-2013*

### 3.9.4 List of Sources

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Associazione Nazionale Industrie Elettrotecniche ed Elettroniche - Annual Report  
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Electronics Weekly/EDN - Reed Business Information  
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European Union Economic Forecasts  
International Financial Statistics - International Monetary Fund  
OECD Economic Outlook  
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Rapporto Assinform sulla Situazione dell'Informatica in Italia - Statistical Survey  
Statistica Mensile del Commercio con l'Estero - Istituto Centrale di Statistica  
World Semiconductor Forecast - Semiconductor Industry Association

### 3.9.5 ITALY PRODUCTION

<b>ELECTRONIC DATA PROCESSING</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Computer Systems	Euro	400	350	289	267
	<b>\$M</b>	<b>548</b>	<b>515</b>	<b>402</b>	<b>371</b>
Peripherals	Euro	1680	1500	1312	1282
	<b>\$M</b>	<b>2301</b>	<b>2206</b>	<b>1823</b>	<b>1781</b>
Accessories & Parts	Euro	1150	1000	821	752
	<b>\$M</b>	<b>1575</b>	<b>1471</b>	<b>1140</b>	<b>1045</b>
<b>Total EDP Production</b>	Euro	3230	2850	2423	2301
	<b>\$M</b>	<b>4425</b>	<b>4191</b>	<b>3365</b>	<b>3196</b>

<b>OFFICE EQUIPMENT</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Photocopiers	Euro	-	-	-	-
	<b>\$M</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Other Office Equipment	Euro	10	10	10	9
	<b>\$M</b>	<b>14</b>	<b>15</b>	<b>13</b>	<b>13</b>
<b>Total Office Equipment Production</b>	Euro	10	10	10	9
	<b>\$M</b>	<b>14</b>	<b>15</b>	<b>13</b>	<b>13</b>

<b>CONTROL &amp; INSTRUMENTATION</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Total Industrial &amp; Process Control</b>	Euro	1480	1470	1341	1353
	<b>\$M</b>	<b>2027</b>	<b>2162</b>	<b>1863</b>	<b>1880</b>
<b>Instrumentation</b>					
Oscilloscopes	Euro	2	2	2	1
	<b>\$M</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>
Analytical Instruments	Euro	132	130	127	137
	<b>\$M</b>	<b>181</b>	<b>191</b>	<b>176</b>	<b>190</b>
Nucleonic Instruments	Euro	12	10	8	8
	<b>\$M</b>	<b>16</b>	<b>15</b>	<b>12</b>	<b>11</b>
Signal Generators	Euro	5	3	3	3
	<b>\$M</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>3</b>
Telecommunications Instruments	Euro	40	40	38	39
	<b>\$M</b>	<b>55</b>	<b>59</b>	<b>52</b>	<b>54</b>
Machine & Materials Test Instruments	Euro	125	120	113	118
	<b>\$M</b>	<b>171</b>	<b>176</b>	<b>157</b>	<b>165</b>

### ITALY PRODUCTION (cont)

<b>CONTROL &amp; INSTRUMENTATION (cont)</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Instrumentation (cont)</b>					
Electrical Quantity	Euro	70	75	68	68
Measuring Instruments	<b>\$M</b>	<b>96</b>	<b>110</b>	<b>94</b>	<b>94</b>
Other Test & Measuring Instruments	Euro	860	870	810	834
	<b>\$M</b>	<b>1178</b>	<b>1279</b>	<b>1125</b>	<b>1158</b>
<b>Total Instrumentation</b>	Euro	1246	1250	1168	1208
	<b>\$M</b>	<b>1707</b>	<b>1838</b>	<b>1623</b>	<b>1678</b>
<b>Accessories &amp; Parts</b>	Euro	150	140	122	117
	<b>\$M</b>	<b>205</b>	<b>206</b>	<b>169</b>	<b>163</b>
<b>Total Control &amp; Instrumentation</b>	Euro	2876	2860	2631	2679
	<b>\$M</b>	<b>3940</b>	<b>4206</b>	<b>3654</b>	<b>3720</b>

<b>MEDICAL &amp; INDUSTRIAL</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>X-Ray &amp; Medical Equipment</b>					
X-Ray Equipment	Euro	240	210	206	207
	<b>\$M</b>	<b>329</b>	<b>309</b>	<b>286</b>	<b>287</b>
Electromedical Equipment	Euro	365	365	369	383
	<b>\$M</b>	<b>500</b>	<b>537</b>	<b>513</b>	<b>532</b>
Hearing Aids	Euro	1	1	1	1
	<b>\$M</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Total X-Ray &amp; Medical Equipment</b>	Euro	606	576	576	590
	<b>\$M</b>	<b>830</b>	<b>847</b>	<b>800</b>	<b>820</b>
<b>Industrial Equipment</b>					
Railway & Traffic Signalling Equipment	Euro	58	70	65	62
	<b>\$M</b>	<b>79</b>	<b>103</b>	<b>90</b>	<b>87</b>
Other Signalling Equipment	Euro	250	250	249	258
	<b>\$M</b>	<b>342</b>	<b>368</b>	<b>346</b>	<b>358</b>
Other Industrial Equipment	Euro	53	55	53	54
	<b>\$M</b>	<b>73</b>	<b>81</b>	<b>74</b>	<b>75</b>
<b>Total Industrial Equipment</b>	Euro	361	375	368	374
	<b>\$M</b>	<b>495</b>	<b>551</b>	<b>510</b>	<b>520</b>
<b>Total Medical &amp; Industrial Production</b>	Euro	967	951	944	965
	<b>\$M</b>	<b>1325</b>	<b>1399</b>	<b>1310</b>	<b>1340</b>

<b>COMMUNICATIONS &amp; RADAR</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Radar & Navigational Aids	Euro	340	310	289	310
	<b>\$M</b>	<b>466</b>	<b>456</b>	<b>402</b>	<b>430</b>
Radio Communications (incl mobiles) & Public Broadcasting	Euro	700	675	596	602
	<b>\$M</b>	<b>959</b>	<b>993</b>	<b>827</b>	<b>836</b>
Accessories & Parts	Euro	415	405	338	324
	<b>\$M</b>	<b>568</b>	<b>596</b>	<b>470</b>	<b>450</b>

<b>Total Communications &amp; Radar</b>	Euro	1455	1390	1223	1235
	<b>\$M</b>	<b>1993</b>	<b>2044</b>	<b>1699</b>	<b>1716</b>

**ITALY PRODUCTION (cont)**

<b>TELECOMMUNICATIONS</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
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Telephone Sets	Euro	80	70	62	60
	<b>\$M</b>	<b>110</b>	<b>103</b>	<b>86</b>	<b>83</b>

Facsimile Machines	Euro	-	-	-	-
	<b>\$M</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Other Telecommunications Equipment	Euro	1450	1375	1239	1227
	<b>\$M</b>	<b>1986</b>	<b>2022</b>	<b>1720</b>	<b>1705</b>

<b>Total Telecommunications Production</b>	Euro	1530	1445	1301	1287
	<b>\$M</b>	<b>2096</b>	<b>2125</b>	<b>1806</b>	<b>1788</b>

<b>CONSUMER</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
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**Video Equipment**

Colour Television	Euro	150	140	123	118
	<b>\$M</b>	<b>205</b>	<b>206</b>	<b>171</b>	<b>164</b>
	<i>No.th</i>	<i>750</i>	<i>700</i>	<i>584</i>	<i>533</i>

DVD Players & Recorders	Euro	30	15	9	6
	<b>\$M</b>	<b>41</b>	<b>22</b>	<b>12</b>	<b>8</b>
	<i>No.th</i>	<i>400</i>	<i>200</i>	<i>117</i>	<i>75</i>

<b>Total Video Equipment</b>	Euro	180	155	132	124
	<b>\$M</b>	<b>247</b>	<b>228</b>	<b>183</b>	<b>172</b>

**Audio Equipment**

Mains Audio Equipment	Euro	2	2	2	2
	<b>\$M</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>

<b>Total Audio Equipment</b>	Euro	2	2	2	2
	<b>\$M</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>

**Personal Consumer Equipment**

Electronic Musical Instruments	Euro	40	36	33	31
	<b>\$M</b>	<b>55</b>	<b>53</b>	<b>46</b>	<b>43</b>

Electric/Electronic Watches	Euro	2	2	2	1
	<b>\$M</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>

### ITALY PRODUCTION (cont)

<b>CONSUMER</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Personal Consumer Equipment (cont)</b>					
Electric/Electronic	Euro	6	5	5	4
Clocks	<b>\$M</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>6</b>
<b>Total Personal Consumer Equipment</b>	Euro	48	43	40	36
	<b>\$M</b>	<b>66</b>	<b>63</b>	<b>55</b>	<b>51</b>
<b>Total Consumer Production</b>	Euro	230	200	173	162
	<b>\$M</b>	<b>315</b>	<b>294</b>	<b>241</b>	<b>225</b>

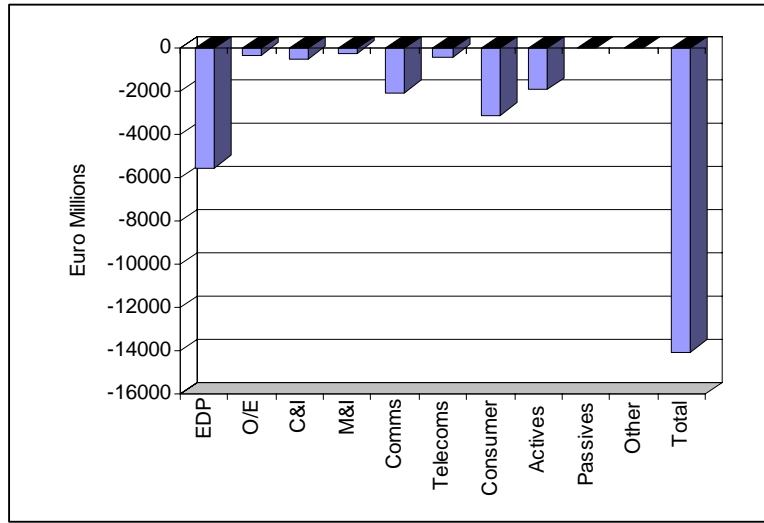
<b>COMPONENTS</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Active Components</b>					
Colour Television Tubes	Euro	20	4	2	1
	<b>\$M</b>	<b>27</b>	<b>6</b>	<b>3</b>	<b>1</b>
Other Valves & Tubes	Euro	14	14	13	13
	<b>\$M</b>	<b>19</b>	<b>21</b>	<b>18</b>	<b>18</b>
Diodes	Euro	75	75	71	70
	<b>\$M</b>	<b>103</b>	<b>110</b>	<b>99</b>	<b>97</b>
Transistors	Euro	24	30	26	27
	<b>\$M</b>	<b>33</b>	<b>44</b>	<b>36</b>	<b>38</b>
Thyristors	Euro	10	10	9	9
	<b>\$M</b>	<b>14</b>	<b>15</b>	<b>13</b>	<b>13</b>
Photocells	Euro	90	100	105	118
	<b>\$M</b>	<b>123</b>	<b>147</b>	<b>146</b>	<b>164</b>
Other Discrete Semiconductors	Euro	20	20	18	19
	<b>\$M</b>	<b>27</b>	<b>29</b>	<b>25</b>	<b>26</b>
ICs & Other Microcircuits	Euro	900	875	709	687
	<b>\$M</b>	<b>1233</b>	<b>1287</b>	<b>985</b>	<b>954</b>
<b>Total Active Components</b>	Euro	1153	1128	953	944
	<b>\$M</b>	<b>1579</b>	<b>1659</b>	<b>1324</b>	<b>1311</b>
<b>Passive Components</b>					
Fixed Capacitors	Euro	107	105	88	79
	<b>\$M</b>	<b>147</b>	<b>154</b>	<b>122</b>	<b>110</b>
Variable Capacitors	Euro	1	1	1	1
	<b>\$M</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Resistors	Euro	17	16	13	12
	<b>\$M</b>	<b>23</b>	<b>24</b>	<b>18</b>	<b>17</b>
Total Connectors	Euro	410	390	343	350
	<b>\$M</b>	<b>562</b>	<b>574</b>	<b>476</b>	<b>486</b>
Transformers & Inductors	Euro	153	156	132	132
	<b>\$M</b>	<b>210</b>	<b>229</b>	<b>183</b>	<b>183</b>

**ITALY PRODUCTION (cont)**

<b>COMPONENTS (cont)</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Passive Components (cont)</b>					
Relays	Euro	30	28	23	23
	<b>\$M</b>	<b>41</b>	<b>41</b>	<b>32</b>	<b>32</b>
Switches	Euro	140	125	108	110
	<b>\$M</b>	<b>192</b>	<b>184</b>	<b>150</b>	<b>153</b>
Printed Circuit Boards	Euro	284	275	226	230
	<b>\$M</b>	<b>389</b>	<b>404</b>	<b>314</b>	<b>319</b>
<b>Total Passive Components</b>	Euro	1142	1096	934	937
	<b>\$M</b>	<b>1564</b>	<b>1612</b>	<b>1297</b>	<b>1301</b>
<b>Other Components</b>					
Microphones	Euro	1	1	1	1
	<b>\$M</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Loudspeakers	Euro	84	90	76	73
	<b>\$M</b>	<b>115</b>	<b>132</b>	<b>106</b>	<b>101</b>
Amplifiers	Euro	14	14	12	12
	<b>\$M</b>	<b>19</b>	<b>21</b>	<b>17</b>	<b>17</b>
Aerials	Euro	112	125	109	107
	<b>\$M</b>	<b>153</b>	<b>184</b>	<b>151</b>	<b>149</b>
Unrecorded Media	Euro	100	95	79	74
	<b>\$M</b>	<b>137</b>	<b>140</b>	<b>110</b>	<b>103</b>
Cabinets for Radio, TV & Communications	Euro	10	10	8	6
	<b>\$M</b>	<b>14</b>	<b>15</b>	<b>11</b>	<b>9</b>
Accessories & Parts for Consumer Equipment	Euro	475	440	382	373
	<b>\$M</b>	<b>651</b>	<b>647</b>	<b>530</b>	<b>519</b>
<b>Total Other Components</b>	Euro	796	775	667	647
	<b>\$M</b>	<b>1090</b>	<b>1140</b>	<b>926</b>	<b>898</b>
<b>Total Components Production</b>	Euro	3091	2999	2554	2528
	<b>\$M</b>	<b>4234</b>	<b>4410</b>	<b>3547</b>	<b>3510</b>

<b>TOTAL PRODUCTION - ITALY</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>TOTAL PRODUCTION</b>	Euro	13389	12705	11257	11166
	<b>\$M</b>	<b>18341</b>	<b>18684</b>	<b>15635</b>	<b>15508</b>

*Notes: 2007 and 2008 are current figures at current exchange rates. 2009 and 2010 are forecasts at 2009 constant values and exchange rates (i.e. inflation is not included). Base year 2008.*



**Italian Trade Balance 2008**

### 3.9.6 ITALY MARKETS

<b>ELECTRONIC DATA PROCESSING</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
Complete Systems	Euro	3027	2957	2706	2750	2874	3027	3181	4
	<b>\$M</b>	<b>4147</b>	<b>4349</b>	<b>3759</b>	<b>3819</b>	<b>3992</b>	<b>4204</b>	<b>4418</b>	%
Peripherals & Other Equipment	Euro	3318	3222	2875	2848	2903	2981	3054	2
	<b>\$M</b>	<b>4545</b>	<b>4738</b>	<b>3993</b>	<b>3956</b>	<b>4031</b>	<b>4140</b>	<b>4241</b>	
Accessories & Parts	Euro	2264	2190	1917	1863	1863	1877	1887	0
	<b>\$M</b>	<b>3101</b>	<b>3221</b>	<b>2663</b>	<b>2588</b>	<b>2588</b>	<b>2607</b>	<b>2621</b>	
<b>Total EDP Market</b>	Euro	8609	8369	7499	7461	7640	7885	8121	2
	<b>\$M</b>	<b>11793</b>	<b>12307</b>	<b>10415</b>	<b>10363</b>	<b>10611</b>	<b>10951</b>	<b>11279</b>	

<b>OFFICE EQUIPMENT</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
Photocopiers	Euro	266	263	256	255	259	261	259	0
	<b>\$M</b>	<b>364</b>	<b>387</b>	<b>356</b>	<b>354</b>	<b>359</b>	<b>362</b>	<b>360</b>	%
Other Office Equipment	Euro	41	25	23	22	21	20	19	-5
	<b>\$M</b>	<b>56</b>	<b>37</b>	<b>32</b>	<b>30</b>	<b>29</b>	<b>28</b>	<b>26</b>	
<b>Total Office Equipment Market</b>	Euro	307	288	279	277	279	281	278	-1
	<b>\$M</b>	<b>421</b>	<b>424</b>	<b>388</b>	<b>384</b>	<b>388</b>	<b>390</b>	<b>386</b>	

<b>CONTROL &amp; INSTRUMENTATION</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
%									
<b>Industrial &amp; Process Control</b>									
<b>Industrial &amp; Process Total</b>	Euro	1502	1525	1360	1389	1440	1498	1551	3
	<b>\$M</b>	<b>2058</b>	<b>2243</b>	<b>1889</b>	<b>1929</b>	<b>2000</b>	<b>2081</b>	<b>2154</b>	
<b>Instrumentation</b>									
Oscilloscopes	Euro	4	3	2	2	2	2	1	-12
	<b>\$M</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	
Analytical Instruments	Euro	228	220	205	218	235	255	275	8
	<b>\$M</b>	<b>312</b>	<b>324</b>	<b>284</b>	<b>302</b>	<b>327</b>	<b>354</b>	<b>382</b>	
Nucleonic Instruments	Euro	17	17	14	14	13	13	13	-3
	<b>\$M</b>	<b>23</b>	<b>25</b>	<b>20</b>	<b>19</b>	<b>19</b>	<b>18</b>	<b>18</b>	
Signal Generators	Euro	19	19	16	15	14	13	13	-5
	<b>\$M</b>	<b>26</b>	<b>28</b>	<b>22</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	
Telecommunications Instruments	Euro	61	56	48	46	46	45	45	-1
	<b>\$M</b>	<b>84</b>	<b>82</b>	<b>66</b>	<b>64</b>	<b>64</b>	<b>63</b>	<b>62</b>	
Machine & Materials Test Instruments	Euro	99	98	83	80	79	78	77	-2
	<b>\$M</b>	<b>136</b>	<b>144</b>	<b>115</b>	<b>112</b>	<b>110</b>	<b>108</b>	<b>107</b>	
Electrical Quantity Measuring Instruments	Euro	74	74	61	58	55	53	51	-4
	<b>\$M</b>	<b>101</b>	<b>109</b>	<b>85</b>	<b>80</b>	<b>77</b>	<b>74</b>	<b>71</b>	
Other Test & Measuring Instruments	Euro	996	980	853	850	860	874	883	1
	<b>\$M</b>	<b>1364</b>	<b>1441</b>	<b>1185</b>	<b>1181</b>	<b>1195</b>	<b>1213</b>	<b>1226</b>	
<b>Total Instrumentation</b>	Euro	1498	1467	1281	1283	1305	1333	1357	1
	<b>\$M</b>	<b>2052</b>	<b>2157</b>	<b>1780</b>	<b>1781</b>	<b>1812</b>	<b>1851</b>	<b>1884</b>	

**ITALY MARKETS (cont)**

<b>CONTROL &amp; INSTRUMENTAION (cont)</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
									%
<b>Control &amp; Instrumentation (cont)</b>									
<b>Accessories &amp; Parts</b>	Euro	334	330	282	275	273	271	268	-1
	<b>\$M</b>	<b>458</b>	<b>485</b>	<b>391</b>	<b>382</b>	<b>379</b>	<b>377</b>	<b>373</b>	
<b>Total Control &amp; Instrumentation</b>	Euro	3334	3322	2923	2947	3017	3102	3176	2
	<b>\$M</b>	<b>4567</b>	<b>4885</b>	<b>4060</b>	<b>4093</b>	<b>4191</b>	<b>4308</b>	<b>4412</b>	
<b>MEDICAL &amp; INDUSTRIAL</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
									%
<b>X-Ray &amp; Medical Equipment</b>									
X-Ray Equipment	Euro	204	219	207	205	206	206	207	0
	<b>\$M</b>	<b>279</b>	<b>322</b>	<b>287</b>	<b>285</b>	<b>286</b>	<b>286</b>	<b>287</b>	
Other Electromedical Equipment	Euro	623	681	667	686	714	742	771	4
	<b>\$M</b>	<b>853</b>	<b>1001</b>	<b>927</b>	<b>953</b>	<b>991</b>	<b>1030</b>	<b>1071</b>	
Hearing Aids	Euro	28	30	28	27	27	26	26	-2
	<b>\$M</b>	<b>38</b>	<b>44</b>	<b>39</b>	<b>38</b>	<b>37</b>	<b>36</b>	<b>36</b>	
<b>Total X-Ray &amp; Medical Equipment</b>	Euro	855	930	902	918	946	974	1003	3
	<b>\$M</b>	<b>1171</b>	<b>1368</b>	<b>1253</b>	<b>1275</b>	<b>1314</b>	<b>1353</b>	<b>1394</b>	
<b>Industrial Equipment</b>									
Railway & Traffic Signalling Equipment	Euro	40	38	33	32	32	33	33	0
	<b>\$M</b>	<b>55</b>	<b>56</b>	<b>46</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	
Other Signalling Equipment	Euro	197	179	161	164	170	178	185	4
	<b>\$M</b>	<b>270</b>	<b>263</b>	<b>223</b>	<b>227</b>	<b>236</b>	<b>248</b>	<b>257</b>	
Other Industrial Equipment	Euro	27	28	24	24	24	25	25	1
	<b>\$M</b>	<b>37</b>	<b>41</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>35</b>	<b>35</b>	
<b>Total Industrial Equipment</b>	Euro	264	245	218	220	227	236	243	3
	<b>\$M</b>	<b>362</b>	<b>360</b>	<b>303</b>	<b>306</b>	<b>315</b>	<b>328</b>	<b>337</b>	
<b>Total Medical &amp; Industrial Market</b>	Euro	1119	1175	1120	1139	1173	1210	1246	3
	<b>\$M</b>	<b>1533</b>	<b>1728</b>	<b>1556</b>	<b>1581</b>	<b>1629</b>	<b>1681</b>	<b>1731</b>	
<b>COMMUNICATIONS &amp; RADAR</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
									%
Radar & Navigational Aids	Euro	541	555	492	504	523	539	554	3
	<b>\$M</b>	<b>741</b>	<b>816</b>	<b>683</b>	<b>700</b>	<b>726</b>	<b>749</b>	<b>770</b>	
Radio Communications (incl mobiles) & Public Broadcasting	Euro	2541	2509	2246	2326	2437	2537	2635	4
	<b>\$M</b>	<b>3481</b>	<b>3690</b>	<b>3120</b>	<b>3230</b>	<b>3384</b>	<b>3523</b>	<b>3660</b>	
Accessories & Parts	Euro	421	403	333	319	309	297	285	-4
	<b>\$M</b>	<b>577</b>	<b>593</b>	<b>463</b>	<b>443</b>	<b>429</b>	<b>412</b>	<b>396</b>	
<b>Total Communications &amp; Radar Market</b>	Euro	3503	3467	3072	3149	3268	3373	3474	3
	<b>\$M</b>	<b>4799</b>	<b>5099</b>	<b>4266</b>	<b>4373</b>	<b>4539</b>	<b>4684</b>	<b>4825</b>	
<b>TELECOMMUNICATIONS</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
									%
Telephone Sets	Euro	189	178	147	143	141	138	135	-2
	<b>\$M</b>	<b>259</b>	<b>262</b>	<b>204</b>	<b>198</b>	<b>195</b>	<b>191</b>	<b>187</b>	
Facsimile Machines	Euro	32	25	20	19	19	18	17	-4
	<b>\$M</b>	<b>44</b>	<b>37</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>25</b>	<b>24</b>	

**ITALY MARKETS (cont)**

<b>TELECOMMUNICATIONS (Cont)</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
Other Telecommunications Equipment	Euro \$M	1617 2215	1605 2360	1388 1928	1421 1973	1471 2043	1514 2103	1554 2159	% 3
<b>Total Telecommunications Market</b>	Euro \$M	1838 2518	1808 2659	1555 2160	1583 2198	1630 2264	1669 2319	1706 2370	2
<b>CONSUMER</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
%									
<b>Video Equipment</b>									
Colour Television	Euro \$M <i>No.th</i>	1532 2099 4797	1543 2269 4856	1420 1972 4905	1334 1853 4806	1294 1797 4879	1249 1735 4927	1205 1674 4962	-4
DVD Players & Recorders	Euro \$M <i>No.th</i>	320 438 4553	301 443 4343	293 407 4360	303 421 4591	334 464 5142	358 497 5610	344 478 5622	4
Video & Digital Still Cameras	Euro \$M <i>No.th</i>	567 777 3381	563 828 3423	535 743 3355	508 706 3274	488 678 3209	468 650 3138	445 618 3034	-5
Video Tuners & Satellite Receivers	Euro \$M	178 244	181 266	172 239	167 232	173 240	179 249	175 243	0
<b>Total Video Equipment</b>	Euro \$M	2597 3558	2588 3806	2420 3361	2312 3211	2289 3179	2254 3131	2169 3013	-3
<b>Audio Equipment</b>									
Portable Audio Equipment	Euro \$M	76 104	60 88	53 74	51 71	50 70	48 67	46 64	-4
Mains audio Equipment	Euro \$M	81 111	71 104	60 84	55 76	51 71	47 65	42 59	-8
Car Audio	Euro \$M	171 234	146 215	134 186	132 184	133 185	131 182	129 179	-1
Compact Disc Players	Euro \$M	11 15	10 15	8 12	8 11	7 10	6 9	6 8	-9
Other Audio Equipment	Euro \$M	206 282	203 299	190 264	191 265	196 272	196 273	197 273	1
<b>Total Audio Equipment</b>	Euro \$M	545 747	490 721	446 619	437 607	437 607	428 595	420 583	-2

### ITALY MARKETS (cont)

<b>CONSUMER (cont)</b>		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
<b>Personal Consumer Equipment</b>									%
Electronic Musical Instruments	Euro	23	22	22	23	23	24	25	3
	<b>\$M</b>	<b>32</b>	<b>32</b>	<b>31</b>	<b>32</b>	<b>32</b>	<b>33</b>	<b>34</b>	
Electric/Electronic Watches	Euro	179	178	175	176	177	178	179	1
	<b>\$M</b>	<b>245</b>	<b>262</b>	<b>243</b>	<b>244</b>	<b>246</b>	<b>247</b>	<b>249</b>	
Electric/Electronic Clocks	Euro	25	25	25	25	26	26	27	2
	<b>\$M</b>	<b>34</b>	<b>37</b>	<b>35</b>	<b>35</b>	<b>36</b>	<b>36</b>	<b>37</b>	
Electronic Flashlights	Euro	1	1	1	1	1	1	-	-14
	<b>\$M</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
<b>Total Personal Consumer Equipment</b>	Euro	228	226	223	224	227	229	231	1
	<b>\$M</b>	<b>312</b>	<b>332</b>	<b>309</b>	<b>312</b>	<b>315</b>	<b>318</b>	<b>321</b>	
<b>Total Consumer Market</b>	Euro	3370	3304	3089	2973	2953	2911	2820	-2
	<b>\$M</b>	<b>4616</b>	<b>4859</b>	<b>4290</b>	<b>4130</b>	<b>4101</b>	<b>4043</b>	<b>3916</b>	
		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>CAAGR</b>
									%
<b>Active Components</b>									
Colour Television Tubes	Euro	4	4	2	1	1	1	1	-16
	<b>\$M</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
Other Valves & Tubes	Euro	45	37	35	35	34	33	32	-2
	<b>\$M</b>	<b>62</b>	<b>54</b>	<b>49</b>	<b>49</b>	<b>47</b>	<b>46</b>	<b>44</b>	
Diodes	Euro	106	103	95	98	101	104	106	3
	<b>\$M</b>	<b>145</b>	<b>151</b>	<b>132</b>	<b>136</b>	<b>140</b>	<b>144</b>	<b>147</b>	
Transistors	Euro	103	99	90	93	96	99	102	1
	<b>\$M</b>	<b>141</b>	<b>146</b>	<b>125</b>	<b>129</b>	<b>133</b>	<b>138</b>	<b>142</b>	
Thyristors	Euro	20	18	16	17	17	18	18	3
	<b>\$M</b>	<b>27</b>	<b>26</b>	<b>22</b>	<b>24</b>	<b>24</b>	<b>25</b>	<b>25</b>	
Other Discrete Semiconductors	Euro	98	98	93	97	101	105	109	4
	<b>\$M</b>	<b>134</b>	<b>144</b>	<b>129</b>	<b>135</b>	<b>140</b>	<b>146</b>	<b>151</b>	
Photoelectric Cells	Euro	558	1093	1049	1123	1201	1285	1350	7
	<b>\$M</b>	<b>764</b>	<b>1607</b>	<b>1457</b>	<b>1560</b>	<b>1668</b>	<b>1785</b>	<b>1875</b>	
Piezoelectric Crystals	Euro	22	20	19	19	20	20	21	3
	<b>\$M</b>	<b>30</b>	<b>29</b>	<b>26</b>	<b>26</b>	<b>28</b>	<b>28</b>	<b>29</b>	
ICs& Other Microcircuits	Euro	1749	1569	1224	1284	1347	1410	1466	5
	<b>\$M</b>	<b>2396</b>	<b>2307</b>	<b>1700</b>	<b>1783</b>	<b>1871</b>	<b>1958</b>	<b>2036</b>	
<b>Total Active Components</b>	Euro	2705	3041	2623	2767	2918	3075	3205	5
	<b>\$M</b>	<b>3705</b>	<b>4472</b>	<b>3643</b>	<b>3843</b>	<b>4053</b>	<b>4271</b>	<b>4451</b>	
<b>Passive Components</b>									
Fixed Capacitors	Euro	107	102	83	86	88	91	94	3
	<b>\$M</b>	<b>147</b>	<b>150</b>	<b>115</b>	<b>119</b>	<b>123</b>	<b>127</b>	<b>130</b>	
Variable Capacitors	Euro	5	3	2	2	2	2	2	-7
	<b>\$M</b>	<b>7</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	

### ITALY MARKETS (cont)

COMPONENTS (cont)		2007	2008	2009	2010	2011	2012	2013	CAAGR
									%
<b>Passive Components (cont)</b>									
Resistors	Euro	85	81	65	67	68	70	71	2
	\$M	116	119	91	93	95	97	99	
Total Connectors	Euro	372	368	302	315	328	341	354	4
	\$M	510	541	420	438	455	474	492	
Transformers & Inductors	Euro	84	81	65	66	67	68	70	2
	\$M	115	119	90	92	94	95	97	
Relays	Euro	72	71	56	56	57	57	57	0
	\$M	99	104	78	78	79	79	79	
Switches	Euro	71	69	53	51	49	47	45	-4
	\$M	97	101	73	71	68	66	63	
Printed Circuit Boards	Euro	389	372	302	311	320	328	337	3
	\$M	533	547	420	432	444	456	468	
<b>Total Passive Components</b>	Euro	1185	1147	929	954	979	1004	1030	3
	\$M	1623	1687	1290	1325	1360	1395	1430	
<b>Other Components</b>									
Microphones	Euro	19	17	16	17	17	18	18	2
	\$M	26	25	23	23	24	24	25	
Loudspeakers	Euro	79	77	72	71	71	70	69	-1
	\$M	108	113	100	99	98	97	96	
Amplifiers	Euro	34	36	32	30	28	26	24	-6
	\$M	47	53	44	41	39	36	34	
Aerials	Euro	65	63	61	63	65	67	69	3
	\$M	89	93	85	87	90	93	96	
Unrecorded Media	Euro	309	297	263	245	230	216	202	-6
	\$M	423	437	365	340	319	300	280	
Cabinets for Radio, TV & Communications	Euro	5	5	4	3	3	2	2	-17
	\$M	7	7	5	4	4	3	3	
Accessories & Parts for Consumer Equipment	Euro	331	312	286	277	271	264	256	-3
	\$M	453	459	398	385	376	367	356	
<b>Total Other Components</b>	Euro	842	807	734	705	684	663	641	-3
	\$M	1153	1187	1020	979	950	921	890	
<b>Total Components Market</b>	Euro	4732	4995	4286	4426	4581	4743	4875	3
	\$M	6482	7346	5953	6147	6362	6587	6771	
<b>TOTAL MARKET - ITALY</b>									
<b>TOTAL MARKET</b>	Euro	26812	26728	23823	23954	24542	25174	25697	2
	\$M	36729	39306	33088	33269	34086	34963	35691	

Notes: 2007 to 2008 are current figures at current exchange rates  
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