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Association of Representatives
for Electronics Industry

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Association of Suppliers of
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China Electronics Distributor Alliance

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en Electronique Industrielle

Digital, post-digital and the block chain

by Wolfram Ziehfuss
Executive Director FBDi



Scarcely have we become accustomed to the **digital wave** that is currently washing over us than trend researchers console us with the news that the post-digital age will soon be upon us. Does that sound good? Think you can escape from the stranglehold of algorithms and their beneficiaries? Think again. The post-digital age promises to make technology ever more intuitive, but less noticeable and progressively more prevalent. There is no escape - anything that can be digitised will be digitised. Everything.

The list of examples across all areas of life grows longer every day:

- Chips embedded in joggers' shoes inform them via smartphone how they can improve their running style.
- Yoga pants vibrate to signal to the practitioner where and how to correct a yoga position.
- A monitor behind the counter uses a Facial Action Coding System to inform a salesperson of the mood of the customer standing in front of him or her and adapts the offering accordingly.
- Intelligent underwear measures blood pressure or body temperature and can communicate this to fire-fighters and their supervisors, for example, if the health of the fire-fighting team is at risk.
- Health data will be stored in smart watches.
- The road manners of a driver will be stored by his car.



THE DIGITAL AGE

What is already technically feasible today and the existing range of digital instruments, be it in technical, medical, commercial or military terms, fills an entire catalogue that is both fascinating and controversial.

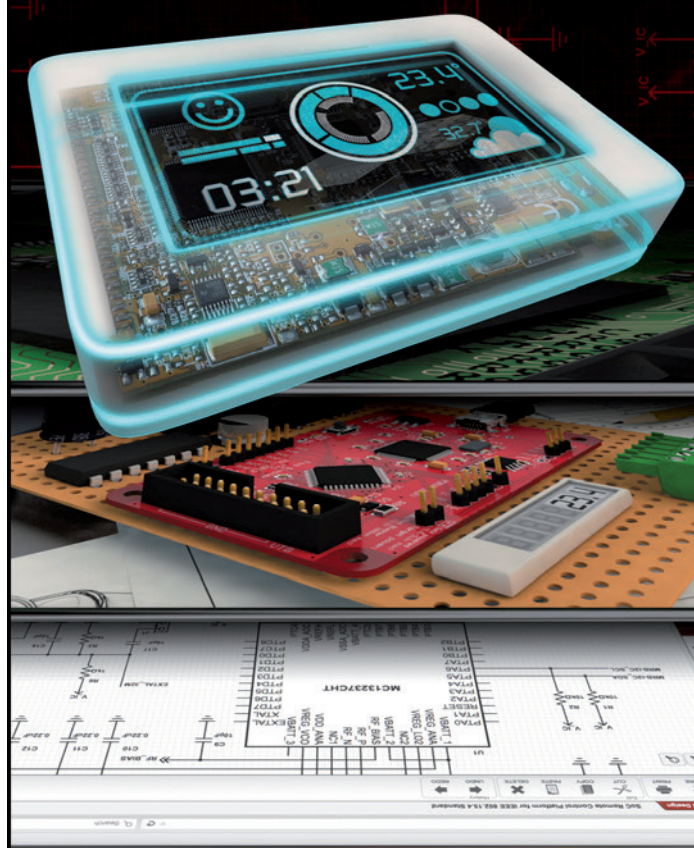
One fact or tenet that for newcomers to the digital world would do well to remember: **The more digital information "disappears" into objects, the less we know about the data and its use** – or do you actually know what data your smart TV is sending and to whom? The unseen nature of the digital in an analogue appearance allows us to forget that we are data providers, and nothing more.

The second rule that newcomers should note: **If the product is free, then you (your data) are the price.**

Platforms must be paid for and collectors of data cover their costs through

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advertising, which is based on user data. If we add to this mix a dash of artificial intelligence and block-chain technology, then we can truly look forward to a brave new world if the latest trend research is to be believed.

THE BLOCK CHAIN

Block chain is a decentralised transaction protocol between parties that transparently records every change. The data is stored decentrally among the participants in these transactions. This makes block-chain technology independent of major platforms.

GDI theories for post-digital age

- Technology is becoming invisible; it is increasingly taken for granted and is progressively fading into the background
- As a result, humans with their unique capabilities and needs are once again coming to the fore
- Technology will become more human («affective computing», AEI)
- New connections / relationships between people and technologies open up new opportunities
- The possibilities of digital tools are beyond our powers of imagination
- **If we manage it well: Digital will help us better understand and meet analogue needs**

Source: GDI, ETD March 2016,
David Bosshardt

“There is no escape - anything that can be digitised will be digitised. Everything”

As a result, “smart contracts” can also enable the automatic settlement of “micro-services”.

This calls for a currency such as Bitcoin. Bitcoin is currently the only widespread application of block-chain technology. The networking of objects as the Internet of Things is enhanced to include internal or external settlement. This opens up phenomenal opportunities for industrial and commercial applications. For instance, each transaction can be settled and documented directly in the group or supply chain.

The networked parts of Industry 4.0 automatically supply one another with material and information based on smart contracts. The major banks are already working on block chains to document and settle their internal money flows.

“Block chain is a decentralised transaction protocol between parties that transparently records every change”

On the consumer side, the disappearance of digital data will have other - pleasant and less welcome consequences. Implanted medical technology will maintain a patient's medication at the optimum level at all times. If necessary, it will order additional supplies and automatically debit the relevant bank account.

How does the block chain work?

You can imagine it as a system of double checks and balances. A transaction (A gives B a book) is determined by the participants to be correct and is checked off.

It is combined along with a series of other new transactions in a cryptographic code. In other words, it is combined into a block. This block is appended to the preceding block.

Once this block has been clearly attached to the previous up-to-date block, the entire block (and all of the transactions contained) is checked off. The uninterrupted chain of transaction blocks created in this way gives the block chain its name.

In order to function with absolute certainty, seamlessly and in a tamper-proof manner, cryptographic techniques are applied at the individual sections of the block chain.

Furthermore, the encrypted blocks are saved with all participants, not at a central location. A small closed group of participants is also possible in other areas of application, such as within a company or a supply chain.

One potentially highly relevant block-chain function is the design and specification of executable code: If the system determines that A gave a book to B, the sum of ten euros is then transferred from B's account to A. With "smart contracts", execution is irreversibly associated with the previous determination - which in principle makes them ideally suited for all transactions that adhered to the "step by step" pattern.

Essentially, block-chain scenarios always involve the processing of transactions without the need for trust between the partners involved.

As a result, the block chain renders intermediate entities such as banks or notaries superfluous.

Even though the transaction costs in a block chain are significantly lower than with conventional systems, they are not equal to zero, and are settled accordingly between the transaction participants.

The intelligent home including the intelligent refrigerator and education computer for children, the smart city, self-driving cars, domestic robots and numerous other conveniences will make our lives easier.

This will free up more time. Time for what?

Even greater availability and less differentiation between our work and our private lives? Employment lawyers, sociologists, HR professionals and psychologists will have much to discuss and will present many, hopefully interdisciplinary, studies.

One thing is certain: **the world of work will change.**

The less positive side will be the threats to data protection, basic rights and personal privacy. Suddenly, our data will be of interest not only to the advertising industry and its clients, but also to some of less welcome data collectors: insurance companies along with security and legal authorities.

Naturally, all of them sing from the same data-protection hymn sheet, which goes as follows: if you give us your data, then we promise to protect it.

Your health insurance premium could rise if you regularly fail to walk the recommended daily number of steps while exceeding the recommended daily calorific intake.

"Organisations and individuals can either manage their own fate or have it managed for them"

Your car informs you that you have broken the speed limit in your area too often, and that you pull away too fast from traffic lights.

Your insurance company will instruct you to drive more carefully and will issue a stern warning should you fail to have your tyres or wiper blades replaced by the prescribed authorized workshop.

DIGITAL REVOLUTION

As with all mega-trends and trends, tend to form. Globalisation versus regionalism, centralisation versus decentralisation, etc.

Digitisation now comes across more as a revolution. These shifts also give rise to counter-revolutions that generally aim to maintain the status quo. This will be difficult in the case of digitisation, as the necessary ability of market participants to compete will prevent it. According to trend research, analogue niches will form or endure but mainly for the "exotic".

Those who believe in a digital revolution can sit back and relax. Both the first and second industrial revolutions took twenty years to fully take hold and bring about tangible changes in society.

We are still waiting for the productivity increases predicted for the "computer age". Digitisation will also take time. However, we cannot sit back for too long. We need to understand how digitisation operates in order to respond to its consequences.

Otherwise, we will be faced with the same dilemma that **Douglas Rushkoff** described as: "Program or be programmed" - which argues that organisations and individuals can either manage their own fate or have it managed for them.



Q3 2016: sales growth continues!

However, the third Quarter of 2016 shows, as is usual for the quarter, a decline over Q2. But only a very small decline



by Gary Kibblewhite

www.ideaelectronics.com



IDEA News circulation Audit

CREATES NEW MEDIA OPPORTUNITIES!

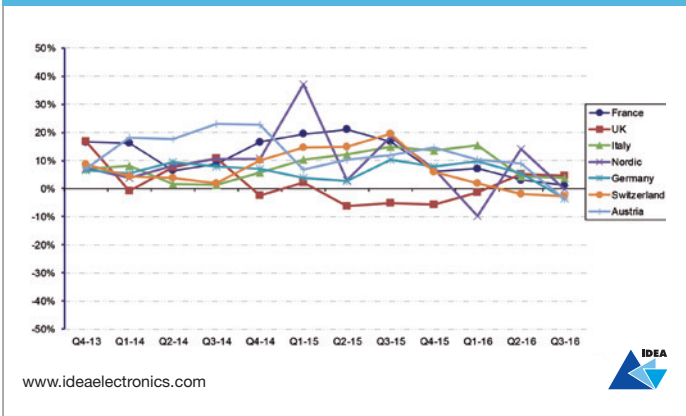
- The IDEA News was launched in 2002 serving the Electronics Industry.
- By 2011 inputs from IDEA member Trade Associations confirmed that it was being circulated to 4345 people in 7 Countries
- A new audit carried out in October 2016 now confirms that the quarterly circulation has increased from 4345 in 2011 to 11,822 people in 2016 and now in 10 Countries.
- The 10 Countries, which include almost all the World's major electronic user countries, are:
USA, China, Germany, France, UK, Italy, Russia, India, Sweden & South Africa
- The 11,822 people are in 1,973 Companies made up by 544 Electronics Distributors, 421 Electronic component Manufacturers, 733 Electronic Component users & 322 Other electronics Companies.
The individual recipients are in General Management, Sales Management, Marketing Management & Engineering
- Circulation lists are audited by each Country Trade Association.

For full audit details and media opportunities contact:

segreteria@ideaelectronics.com

3RD QTR. 2016 TOTAL COMPONENTS TENDENTIAL INDEX BY COUNTRY (Q. QY-1) Graphic T6

Trend showing growth/decline % in quarterly sales of all components through distribution split by country compared with same quarter prior year.



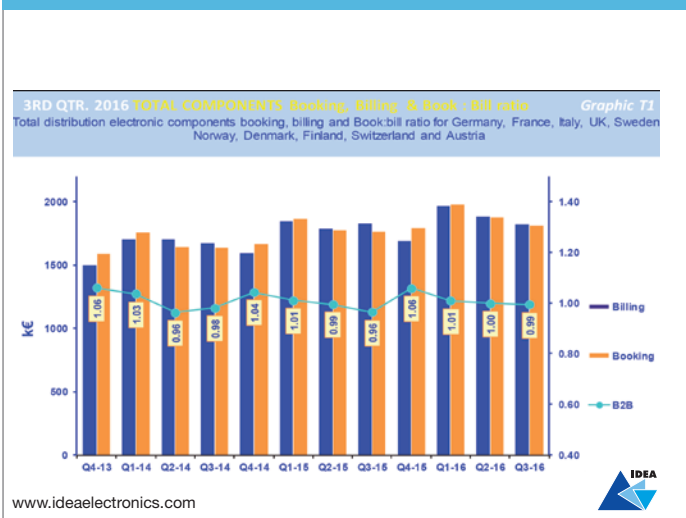
The positive European sales growth trend has continued in the 3rd Quarter. During 2015 the quarterly sales growth in most countries, apart from the U.K., was around 10% each quarter but over the first 3 quarters of 2016 it has declined to either just a few % or negative growth. That is apart from the UK where, following four quarters of decline, the last two quarters have shown a small growth.

Clearly, the UK pound, now at 2009 and 2013 levels against the €, will impact U.K. sterling revenues in coming quarters.

All is not lost however as the European book:bill ratio has remained at parity for most of this year.

3RD QTR. 2016 TOTAL COMPONENTS Booking, Billing & Book: Bill ratio - Graphic T1

Total distribution electronic components booking, billing and Book: bill ratio for Germany, France, Italy, UK, Sweden, Norway, Denmark, Finland, Switzerland and Austria.

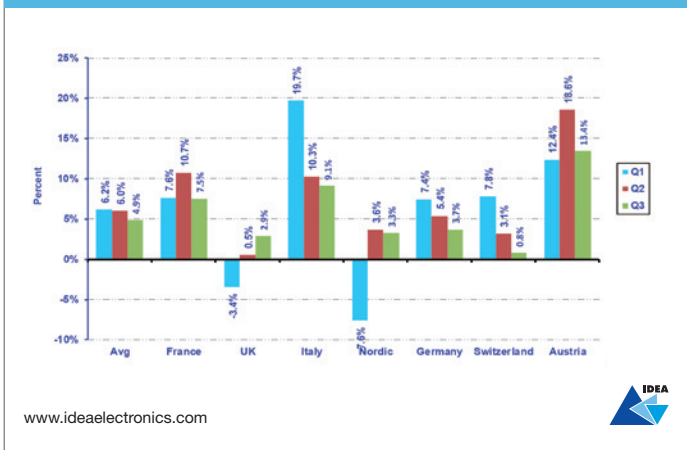


In pure currency terms, both bookings and billings were still greater in 2016 compared with 2015. Book:bill ratios have also remained constant at around 1:1 for the last two years.

3RD QTR. 2016 TOTAL COMPONENTS YTD Booking Trend

Graphic T5

Cumulative orders for Electronic components via distribution by country for current year to date compared with same period prior year.

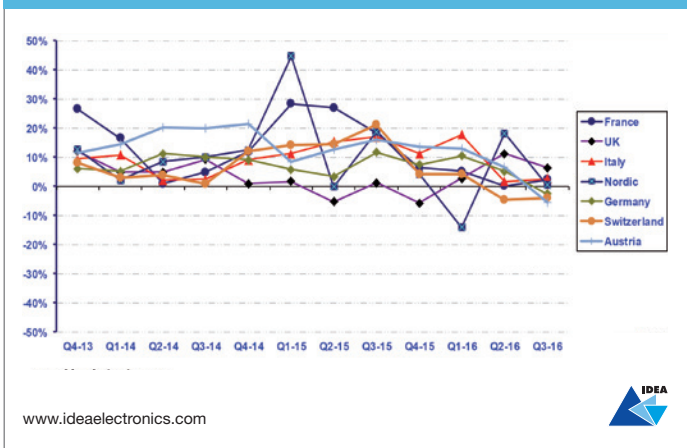


Cumulative total orders growth for 2016 in Italy and Austria have been better than in all other European countries but with both the U.K., Nordic and Switzerland down at the bottom of the bookings growth table.

3RD QTR. 2016 SEMICONDUCTOR TENDENTIAL INDEX (Q/QY-1)

Graphic S6

Trend showing growth/decline % in quarterly sales of semiconductors through distribution by country compared with the same quarter prior year.



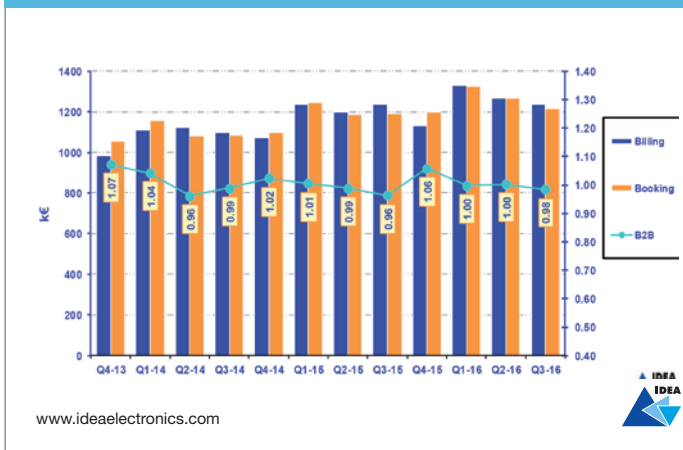
Although the semiconductor quarterly growth trend is downwards, the market is still predominantly in growth mode with the majority of quarters "above the line"! This has resulted in semi billings in euros growing from 985 billion in Q4 2013 to 1.235 billion in Q3 2016

"Although semiconductor quarterly growth trend is downwards, the market is still predominantly in growth mode."

3RD QTR. 2016 SEMICONDUCTOR bookings, billings & book: bill ratio

Graphic S1

Semiconductor components bookings, billings & book: bill ratio for Germany, France, Italy, UK, Sweden, Norway, Denmark, Finland, Switzerland and Austria.

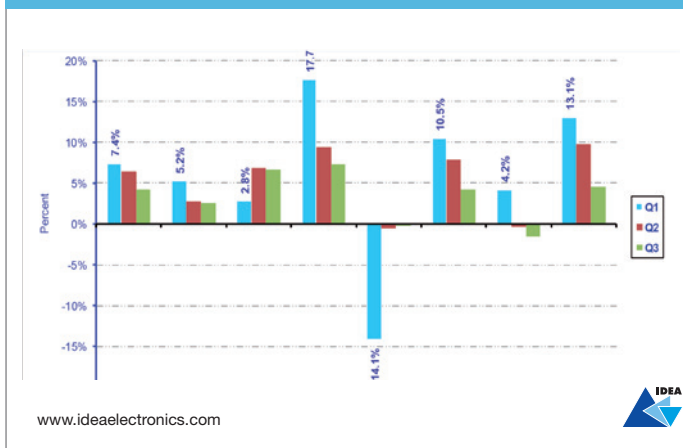


Both semiconductor bookings and billings remain strong when compared with last year but have dropped each quarter since their peak in Q1 2016. The short term future growth is also in doubt as the book:bill ratio in Q3 was negative for the first time in a year.

3RD QTR. 2016 SEMICONDUCTOR YTD BILLING TREND

Graphic S4

Cumulative sales of Semiconductor Components through distribution slit by country and showing the growth/decline % compared with the same period prior year.



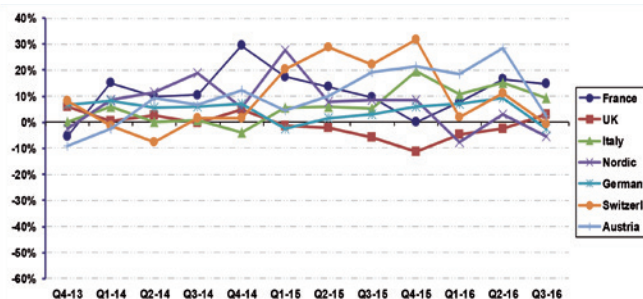
On a year-to-date billings basis compared with last year, only Switzerland and Nordic are showing a decline with Italy topping the growth league.



3RD QTR. 2016 PASSIVES TENDENTIAL INDEX BY COUNTRY(Q/QY-1)

Graphic P6

Trend showing growth/decline % in quarterly sales of passives through distribution by country compared with the same quarter prior year.



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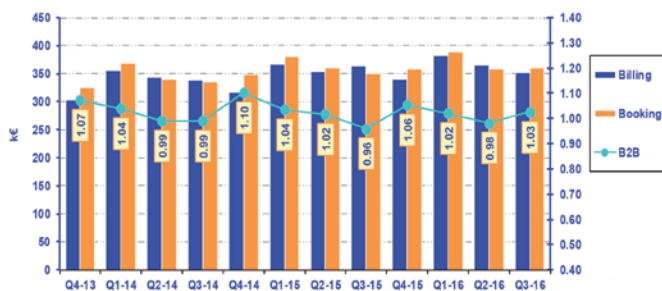
Total passive component billings have declined from 254 million euro in Q2 to 235 Million euro in Q3 but are up by 2% when compared with the same quarter last year .

On a country by country basis only the UK has shown a growth improvement in the quarter with all other regions posting either a net decline or a declining growth.

3RD QTR. 2016 EMECH COMPONENTS BOOKING, BILLING & BOOK: BILL RATIO

Graphic E1

EMECH components Bookings, billings & book: bill ratio for Germany, France, Italy, UK, Sweden, Norway, Denmark, Finland, Switzerland and Austria



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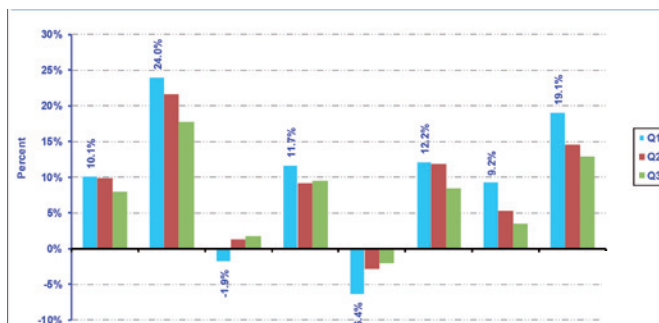
Total European Emech has remained strong in the quarter with also a growth in book:bill which should mean a good Q4. The 361 Million Euro bookings in the quarter is the second highest since Q1 2015. Book:bill has also changed from negative to positive in the quarter, a good omen for Q4 2016.

“Clearly, the UK pound, now at 2009 and 2013 levels against the €, will impact U.K. sterling revenues in coming quarters.”

3RD QTR. 2016 PASSIVE YTD Bookings Trend

Graphic P5

Cumulative orders for Passive components through distribution by country for the current year showing the growth/decline % compared with the same period prior year.



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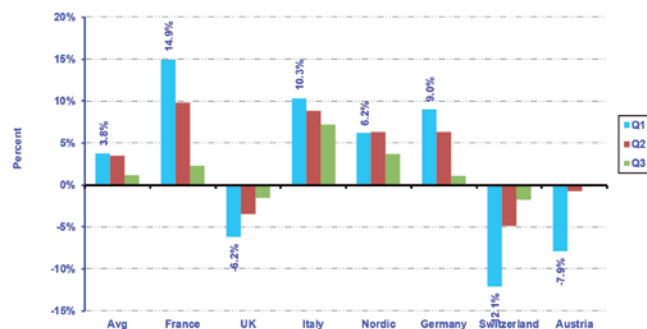


Passive bookings are down by 7.4% on the prior quarter but up 2% on the same quarter last year. The graphic above shows that France have the strongest ytd growth compared with last year and Nordic have a small decline. Book to bill ratio for Europe remains constant at 0.99: 1 with Germany having the strongest Book:bill at 1.04:1 and France the weakest at 0.91:1

3RD QTR. 2016 EMECH COMPONENTS YTD BILLING TREND

Graphic E4

Cumulative sales of Passive components through distribution by country for the current year showing the growth/decline % compared with the same period prior year.



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On a country by country Emech billings basis Italy and Nordic are showing the strongest growth over last year and the UK and Switzerland the biggest decline. The UK's Emech billings have dropped from £239 million in the first 3 quarters of 2015 to £236 Million in the same period of 2016.

Top 10 Connector Manufacturers - 2015 results

released nov 2016!

by Ron Bishop
Bishop & Associates



The top 10 connector manufacturers, as a group, achieved **\$30 billion** in annual sales, or **57.7%** of world connector demand.

Table 1 identifies the top 10 as defined by total world connector sales revealing some interesting trends:

- There are now only four US based companies ranked in the top 10 (TE Connectivity #1, Amphenol #2, Molex #3, and Delphi #4).
- There are four Japanese companies in the top 10 (Yazaki #5, JAE #7, JST #8, and Hirose #10).
- There is one top 10 company from the Asia Pacific region (Foxconn, Taiwan #6).
- For the first time, a Chinese company achieved top 10 ranking. Luxshare, ranked #9, is a publicly traded company headquartered in Guangdong, China. The company achieved 2015 sales of \$1.1 billion serving the computer, telecom, consumer, automotive, industrial, and medical markets.
- The top 10, as a group, reported a 1.0% decline in sales in 2015. This compares favorably to an industry wide sales decline of -6.1%. The better performance of the top 10 was aided greatly by acquisitions.

Note, the three largest companies, TE Connectivity, Molex and Amphenol, are very active acquirers.

THE TOP 10 MARKET SHARE (1980-2015)

Table 2 compares the top 10 combined annual sales to world connector demand.

The top 10 accounted for 38% of the world connector demand in 1980 and 57.7% in 2015. The dramatic market share growth is primarily a function of acquisitions. We have recorded over 300 acquisitions in the connector industry between 1980 and 2015.

"For the first time, a Chinese company, Luxshare, achieved top 10 ranking."

Many of the acquisitions were made by top 10 companies. Some of the large acquisitions include:

- TE Connectivity purchased Thomas + Betts, Siemens EC, M/A Com, Elcon, Deutsch, and many others.
- Amphenol acquired Teledyne's connector business, FCI, and many other smaller companies.
- Molex purchased Woodhead, Cardell, FCT, and numerous other smaller companies.
- Delphi acquired Specialty Electronics and FCI's automotive connector business.

TOP 10 RANKED BY WORLD SALES

Table 1

Rank 2015	Manufacturer	2014 Sales	2015 Sales	Percent Change
1	TE Connectivity	\$ 8,943.0	\$ 8,211.0	-8.2%
2	Amphenol	\$ 4,992.6	\$ 5,238.4	4.9%
3	Molex Incorporated	\$ 3,910.6	\$ 4,169.3	6.6%
4	Delphi Connection Systems	\$ 2,701.4	\$ 2,736.0	1.3%
5	Yazaki	\$ 2,409.0	\$ 2,495.0	2.1%
6	Foxconn (FIT)	\$ 2,482.2	\$ 2,327.9	-6.2%
7	JAE	\$ 1,503.0	\$ 1,428.0	-5.0%
8	JST	\$ 1,394.0	\$ 1,321.0	-5.2%
9	Luxshare	\$ 942.0	\$ 1,138.9	20.9%
10	Hirose	\$ 1,065.4	\$ 1,017.0	-4.5%
Total Top 10		\$ 30,343.2	\$ 30,046.5	-1.0%
Total All Other		\$ 25,058.8	\$ 22,003.4	-12.2%
Total World		\$ 55,402.0	\$ 52,049.8	-6.1%
\$ Millions				

Source: Bishop & Ass.

Table 3 shows how top 10 market share gains over the past 35-years.

TOP 10 LANDSCAPE CHANGES

Since 1980 there has been a dramatic change in the companies that comprise the top 10. Some companies have moved up in rank, others have moved out of the top 10, and still others have gone out of business, or have been absorbed into larger companies. Table 4 provides a history of the top 10 over a 35-year time frame.

Some highlights include:

- **TE Connectivity** has remained the largest connector company since 1980. The name has changed from AMP, to Tyco International, to Tyco Electronics, and currently to TE Connectivity.
- **Molex** and **Amphenol** remained in the top 10 throughout this timeframe. Molex moved from 10th largest in 1980 to the third largest in 2015. Amphenol, the second largest in 1980 fell to fifth in 2000 and regained the #2 rank in 2005, where the company is still ranked in 2015.



TOP 10 BY MARKET SHARE (1980-2015)

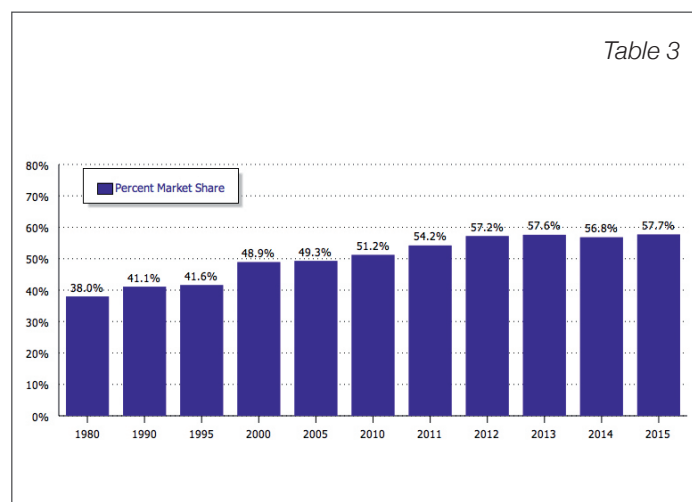
Table 2

Year	Top Ten	World	Top Market Share
1980	\$ 3,417.0	\$ 8,989.0	38.02%
1990	\$ 7,063.0	\$ 17,166.5	41.1%
1995	\$ 9,850.0	\$ 23,700.5	41.6%
2000	\$ 17,462.6	\$ 35,692.7	48.9%
2005	\$ 18,841.0	\$ 38,185.4	52.0%
2010	\$ 24,542.7	\$ 47,938.7	51.2%
2011	\$ 27,760.6	\$ 51,193.0	54.2%
2012	\$ 28,477.2	\$ 49,814.9	57.2%
2013	\$ 29,506.5	\$ 51,183.4	57.6%
2014	\$ 31,461.1	\$ 55,402.0	56.8%
2015	\$ 30,046.5	\$ 52,049.8	57.7%
\$ Millions			

Source: Bishop & Ass.

TOP 10 MARKET SHARE PERCENTAGE OF WORLD MARKET

Table 3



Source: Bishop & Ass.

TOP 10 BY NAME (1980-2015)

Table 4

Rank	1980	1990	2000	2005	2010	2015
1	AMP	AMP	Tyco Electronics	Tyco Electronics	Tyco Electronics	TE Connectivity
2	Amphenol	Molex	Molex Inc	Molex Inc	Molex Inc	Amphenol
3	ITT Cannon	LPL/ Amphenol	FCI	Amphenol	Amphenol	Molex Inc
4	DuPont (Berg)	ITT Cannon	Delphi	FCI	Yazaki	Delphi
5	3M	3M	Amphenol	Delphi	FCI	Yazaki
6	Augat	Burndy	Yazaki	JST	JST	Foxconn (FIT)
7	Winchester	DuPont (Berg)	ITT Cannon	Yazaki	Foxconn (FIT)	JAE
8	Cinch	JST	3M	Foxconn (FIT)	Delphi	JST
9	Burndy	Hirose	JAE	Hirose	Hirose	Luxshare
10	Molex	JAE	JST	JAE	JAE	Hirose

Source: Bishop & Ass.

"The top 10 accounted for 38% of the world connector demand in 1980 and 57.7% in 2015"

- Companies that were in the top 10 in 1980, but have not retained a top 10 ranking, are ITT Cannon, 3M, Winchester, Augat, Cinch, and Burndy. Dupont/Berg was acquired by Framatone (FCI) and later by Amphenol.
- There were no Asian companies in the top 10 in 1980. In 2015,

there were six Asian companies represented in the top 10.

Table 5 shows the number of top 10 companies by region of the world over the 35-year period (1980-2015).

Luxshare achieved a top 10 rank in 2015, making it the first and only Chinese company achieving top 10 status. Europe currently has no companies in the top 10 since Amphenol, a US based company, purchased FCI in 2015.

TOP 10 BY REGION (1980-2015)

Table 5

Region	1980	1990	2000	2010	2015
North America	10	6	6	4	4
Europe	0	1	1	1	0
Japan	0	3	3	4	4
Asia Pacific	0	0	0	1	1
Cina	0	0	0	0	1

Source: Bishop & Ass.

For more information on the Bishop & Associates' report,
The Top 100 Connector Manufacturers.

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Trade Secrets... Yet More Legislation

by Adam Fletcher
ECSN



WHAT'S A TRADE SECRET?

I guess a good place to start is by attempting to define a trade secret?

The **World Trade Organisation's Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS)**, which was agreed in 1994 suggests that the key factors that define a trade secret are:

1. It is not generally known to the public;
2. The holder gains an economic benefit from it not being publicly known;
3. The holder has taken reasonable steps to maintain its secrecy.

A classic example of a trade secret is the blend of ingredients required to produce Coca Cola, which has survived without breach for many years, despite the attempts by many competitors to produce the same or a broadly similar product.



In an attempt to protect the confidential information critical to the pursuit of innovation and economic growth, legislators in the US have introduced the "US Defend Trade Secrets Act 2016".

The EU's equivalent legislation, the snappily named "Directive of the European Parliament and of the Council on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure", has been handily abbreviated by our representatives to the "Trade Secrets Directive".

Both pieces of legislation were signed and adopted in May '16 although the EU Directive will not come into force until 2018.

"It's yet more new legislation for all parties in the global electronic components supply network to consider" says Adam Fletcher – Chairman – ecsn IDEA, who reviews some of the key points and considers it's likely impact...

PATENT OR TRADE SECRET?

Part of the premise of all **Intellectual Property (IP)**, be it a new product, process, software, or data, is that it starts out as a secret and needs its value to be acknowledged and controlled with the granting of a patent, trademark or copyright. Trade Secrets don't have to be technical, they can simply be anything of commercial value that is not in the public domain. And trade secrets, unlike patents, have no expiry date.

For many organisations in a technology driven industry such as electronic components it may be important to hold a patent on the fundamental physics or properties of a product, process, software or data. This is no less so for derivatives or extensions that can be worked around by competitors using a slightly different solution.

"The European Trade Secrets Directive will come into force in 2018"

There remains a strong reliance on patents to protect IP but the cost of gaining meaningful global patent protection along with the protracted timescales needed to achieve it and the fact that significant information has to be placed in the public domain has made patent protection less attractive.

HARMONISATION AND UK LAW

One of the primary changes to US legislation concerns moving it from a State to a Federal law, which makes protection of trade secrets significantly easier to enforce. The EU legislation aims to achieve a similar harmonisation position

across EU members, codifying existing English law.

The principles of English law were established in the 19th Century based on the laws of equity. Basically a derivative of common law, IP protection legislation has two primary themes:

1. the **"tort of misuse"** of personal information
2. an **"equitable breach"** of confidence in commercial or technical secrets.

Like much of English law it is entirely judge made and based on the evidence presented in court. Because trade secrets are not classed as 'property' they held that cannot be stolen and consequently there is no criminal sanction against their disclosure or use.



However an action in the civil courts for deliberately taking or using a trade secret carries severe punishment, provided the claimant can demonstrate the significance, secrecy and value of what has been taken. For this to be successful it is necessary to prove that a breach of confidence has taken place and that the loss or damage in financial or reputation terms can be established.

CONFIDENTIAL INFORMATION

There are many relationships where information has to be shared and confidentiality maintained i.e. between doctor and patient, lawyer and client, within business organisations and also between employer and employee.

That said, it is very difficult to prove the existence of a duty of confidentiality if there is no written contract between the parties. This is why in most business-to-business transactions confidentiality issues are highlighted by Non-Disclosure or Confidentiality Agreements to be separately agreed by the parties or included as clauses in their general terms and conditions of trade. There has been a trend to the increasing use of duty of confidentiality clauses in employment contracts as employers seek to ensure their trade secrets are not disclosed by existing or former employees. Many employers now routinely seek to formally bind their former employees for a specific



period of time, but once employment has terminated it can be very difficult to determine the extent of an employee's obligations to their former employer.

“The fact that significant information has to be placed in the public domain has made patent protection less attractive”

SOFT IP

One of the major risks to employers and employee's is the potential loss or misuse of less tangible information or trade secrets gained in the course of employment. Best described as “soft IP”, its loss can be equally as damaging to an organisation. An example: in semiconductor manufacturing, where many organisations use the same or very similar process equipment, achieving a maximum yield (percentage of good product)

can have a dramatic impact on profitability. In a very complex manufacturing process is can come down to the fine tuning of the many process variables in novel combinations. If an employee leaves Company A for a competitor company B and uses the “fine-tuning” expertise he gained in his previous employment to enhance the performance of company B? The same analogy may be equally applied to many employer/employee relationships, where there will always some “leakage” of IP and trade secrets in both directions.

With the increasing use of trade secrets rather than patents and the strengthening of trade secret legislation there is now greater incentive for all parties to act appropriately.

I suspect many organisations will increasingly seek to

identify their trade secrets and how they can define, use and/or communicate them whilst still benefiting from legal protection. Employers may also need to consider how as the recipient of a trade secret that was unlawfully obtained from another, they can protect themselves from the wrongful activities of their employees.

Conversely, employees will also have to consider how to reasonably recognise a potential or actual trade secret within the information they have access to and what information they may reasonably pass on to others without breaching the latest trade secrets legislation.

“With the strengthening of trade secret legislation there is now greater incentive for all parties to act appropriately”

There are some pretty obvious steps that organisations in the electronic components supply network need to take to protect their trade secrets and confidential information starting with their Employment Contracts, Non-Disclosure Agreements, Terms and Conditions of Trade etc., but importantly, they must also ensure all employees, particularly new employees from competitor organisations, recognise, understand and respect the policy and procedures for honest commercial practice that they are signing up to.

The up and down of the Russian market

by **Ivan Pokrovsky**
Executive Director
ASPEC



The Russian electronic components market is jumping down and up. In the middle of the year many distributors were expecting **minus 15-20%** for the whole 2016 compared 2015. Today the most of them are planning to be very close to the last year results. But nobody can forecast exactly which factor will prevail: reduction of the state expenses which influence on the production of military and aerospace equipment or expansion of Russian manufacturers on civil markets.

In September, vice-Minister of Defense said that the volume of state orders for special-purpose electronics will decrease by 2 times in next five years.

For realistic people, it means that decline can be significantly more than 2 times and significantly early than 5 years. Expansion of civil electronics production is based now on low labor cost. Many Russian OEMs move their orders from China

and Taiwan back to Russia. Local contract manufacturers are the main beneficiaries of this process. But not local distributors. EMS companies prefer to use direct purchasing for PEMCO and global distributors for semiconductors.

We have begun separate monitoring for global distributors. This new graph is based on data of following companies: **Arrow**, **Avnet-Silica** and **EBV**. Weighted average for these three companies looks better than the graph for 20 Russian local distributors which take part in the monitoring.

Global distributors have increased their sales by **8%** for three quarters 2016. Russian local distributors have lost 3% in the same period of sales.

THE ANNUAL DISTRIBUTORS FORUM

All market trends were discussed at the Annual Distributors Forum. In October it had gathered more than 70 top-managers of electronics companies, not only distributors, but also



components manufacturers, OEMs, EMS-providers.

Russian leading semiconductor manufacturers **Mikron** and **Angstrom** had presented their sales strategies. Both are going to develop their businesses in the civil markets in Russia and abroad. But Mikron focuses on the direct sales and Angstrom looking for opportunities of partnerships with distributors.

It is no wonder because **Andrey Abramov**, Marketing Director of Angstrom, has worked before for Arrow. If you are interested in Power management ICs with competitive prices you can find Andrey in LinkedIn

Forum attendees were very interested in three presentations by different kinds of customers: very ambitious OEM start-up Evotor, one of the leading Russian

EMS-provider Zavod Etalon and purchasing company EHO, which provide complex supplies for aerospace industry.

These three companies have different approaches to purchasing and different requirements to suppliers. No one supplier can fulfill all of them. It is necessary more than 5 different distributors.

Next speaker **Boris Roudyakov**, founder of **Compel**, presented how he are going to transform his business to meet a wide range of customers requirements. He is going to divide the sales force of the company to four independent units: for small customers, for medium customers, for the largest OEMs and for EMS-providers. He had explained what role in his plan the team of Rainbow Electronics will play. Compel



acquired Rainbow, a strong engineering distributor, in the middle of the year.

TECHNICAL REGULATIONS

In the last section of the Forum we discussed issues of technical regulations in Russia. There is strange situation when different distributors pay for certification of the same components. We have agreed about exchange of letters of attorney to avoid duplicate expenses. To realize this agreement, we must make a common data base of certificates and internet-portal to manage the certification process. After the Forum, ASPEC has founded the subsidiary company - operator of certification process. We hope it will start to work soon and will make import of components easier.



IDEA NEWSLETTER

INTERNATIONAL DISTRIBUTION OF ELECTRONICS ASSOCIATION

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PUBLISHER: Silvio Baronchelli

INTERNATIONAL PROMOTION BY:

CONSORZIO ELINT



PUBLISHED BY:

Tecnopresse Scrl - Via C. Flaminio, 19 - 20134 Milan - Italy
PRINTED BY: Servizi Tipografici Carlo Colombo - Rome

DFARS anti-counterfeiting regulation in the USA

by Robin Gray

President ECIA (USA)



The U.S. Department of Defense published in the August 2, 2016, Federal Register, its final **Defense Federal Acquisition Regulation Supplement** (DFARS) that addresses required sources of electronic parts for defense contractors and subcontractors. The final rule provides further clarification of earlier DFARS implementing the anti-counterfeiting provisions contained in the National Defense Authorization Acts (NDAA) of FY 2012 and FY 2015. Copy of final rule found at: <https://www.gpo.gov/fdsys/pkg/FR-2016-08-02/pdf/2016-17956.pdf>

ECIA is pleased to announce that the final rule incorporates many of the suggested changes recommended by the association. ECIA submitted comments in response to the proposed rule (DFARS Case 2014-D005) focused on five main areas: 1. use and definition of the terms "authorized dealer"; 2. "trusted supplier;" 3. procurement policy; 4. traceability; 5. flow down requirements. The association was successful in each of these areas as follows:

1. The term "authorized dealer" was deleted and replaced with the term "authorized supplier." Authorized supplier means a supplier, distributor, or an aftermarket manufacturer

with a contractual arrangement with, or express written authority of, the original manufacturer or current design activity to buy, stock, repackage, sell or distribute the part.

2. The term "trusted supplier" was deleted and replaced with the term "contractor-approved supplier." Contractor-approved supplier means a supplier that does not have a contractual agreement with the original component manufacturer for a transaction, but has been identified as trustworthy by a contractor or subcontractor.

3. The rule establishes a strict, three-tiered approach to the procurement of electronics parts:

- **Category 1** - for parts in production or currently available in stock: Contractors must obtain such parts from the original manufacturer, their authorized suppliers, or from suppliers that obtain such parts exclusively from the original manufacturer of the parts or their authorized suppliers. (**Note** - The comments section of the rule states: "...even if there is a demonstrated need for a part in production with a lead time, contractors do not have the option to seek the part from other than a Category 1 source.) "In production" also includes production by an authorized aftermarket manufacturer.

- **Category 2** - or parts not in production and not currently available in stock: Contractors may obtain these parts from suppliers identified by contractor as contractor-approved suppliers. For parts obtained from a Category 2 supplier, the contractor must: Assess the supplier using established counterfeiting prevention industry standards and

processes (including inspection, testing and authentication) and Assume responsibility for the authenticity of the parts and Be subject to review and audit by the DoD contracting officer.

- **Category 3** - for parts not available from Category 1 and 2 suppliers or a subcontractor refuses to accept the flow-down requirements for the part or cannot confirm that the part is new or commingled with parts that are not new:

Immediately notify the contracting officer and

Be responsible for inspection, testing, and authentication in accordance with industry standards and Make documentation of inspection, testing, and authentication available upon request.

4. The rule provides that the contractor is responsible for inspection, testing and authentication if the contractor cannot establish traceability from the original manufacturer for a specific part.

5. The rule clarifies that the flow-down requirements do not apply to the original component manufacturer.

The rule is clear that all DoD contractors and subcontractors at all tiers are responsible for detecting and avoiding counterfeit electronic parts. The DoD also determined that commercial items (COTS) are not exempt from the applicability of this rule.

The final rule is a clear affirmation by the DoD of the importance of procuring parts from authorized sources. It reflects the years of effort by NEDA, and subsequently by ECIA, to promote the advantages of the authorized supply chain.

The changing marketplace is affecting all of us!

by Warren Muir
AREI
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The **Association of Representatives of the Electronics Industry (arei)** of South Africa recently had its Annual General Meeting at Kyalami Country Club near Johannesburg and was well represented by the members.

The event was significant for two reasons:

1. Firstly, one of the Directors and Founding members, **Albert Kopp** announced his intent to retire. Albert together with a few colleagues formed ADEC (now arei) in 1991 to represent the interests of the Electronics Industry in South Africa. Albert's vision, guidance and positive contribution to the association and the industry as a whole has ensured the longevity of both. The Association would like to thank Albert for his contribution and wish him well for any future endeavours.

“Albert Kopp has announced his intent to retire from AREI”

2. The second significant aspect of the AGM was the demographic of candidates elected to the committee.



Traditionally, the arei committee and most of its membership has comprised representatives from Distribution.

“This financial year there will be three members who represent the manufacturing sector of the industry”

This financial year there will be three members, including the Chairman, who represent the manufacturing sector of the industry. Other Industry Stakeholders have also joined arei during the course of the year. This paradigm shift may contribute positively to the association, as it will add a different perspective.

The new dimension to the association comes at a trying time with the industry experiencing consistent shrinkage over the past 3-4 years.

The committee will convene in November shortly after Electronica Germany to define a game plan on how together with our members, we are going to deliver on our pay-off line *“Working together to grow the South African Electronics Industry”*.

AREI'S STRATEGY

The strategy will be defined in our upcoming meeting with the consensus of the committee, but key initiatives may include:

- More focus on interfacing with Government, Educational Institutions and related associations;
- Growth of the membership;
- More accurate measurement of the industry KPI's;
- More frequent association networking sessions;
- Benchmarking with related Associations such as IDEA.

“We are going to deliver on our pay-off: Working together to grow the South African Electronics Industry”

News from Sweden

by Lena Norder



Director of SE
The Swedish Electronics Trade Association

The Swedish Electronics Trade Association (Svensk Elektronik) is proud to present **Embedded Conference Scandinavia - Nov 22-23** in Stockholm, the internationally renowned meeting place in the field of embedded technology. With more than 10 years of success Embedded Conference Scandinavia has developed to be one of the most important events for the European embedded industry, gathering embedded specialists from all over the world.

The conference offers **six parallel seminar tracks** with more than 70 speakers and also an exhibition. The presentation language is English. One of the topics in focus will be the strong trend of IoT and advanced sensors applied to the automotive industry. We will as always have international top ranked key-note speakers.

With the successful concept, a compact exhibition, a world-class conference and appreciated social activities, Embedded Conference Scandinavia has grown and is now a must-attend event for professionals in the European embedded industry. The event includes the ceremony where **Swedish Embedded Award** presents the winners of the best embedded solutions 2016.

www.embeddedconference.se

