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NEWS

FEDERATION IDEA

February 2017

Associations

AREI - South Africa
Association of Representatives for Electronics Industry

ASPEC - Russia
Association of Suppliers of Electronic Components

ASSODEL - Italy
Associazione Nazionale Fornitori Elettronica

CEDA - China
China Electronics Distributor Alliance

ECAANZ - Australia
Electronic Components Association Australia and New Zealand

ECIA - United States
Electronic Components Industry Association

ECSN - United Kingdom
Electronic Components Supply Network

ELCINA - India
Electronic Industries Association of India

FBDI - Germany
Fachverband der Bauelemente Distribution

FEDELEC - Tunisia
Tunisian Federation of Electric and Electronic Industries

SE - Sweden
Svensk Elektronik Trade Associations

SPDEI - France
Syndicat Professionnel de la Distribution en Electronique Industrielle

FEBRUARY 2017

We must not let the value of our service be undermined!

by Georg Steinberger
Chairman of the Board of Directors FBDi

A sluggish component market, giga-mergers, Brexit, Trump, China, Russia, Turkey – the outlook for what is supposed to be a globally operating and organised high-tech industry has been better. Distributors as "advocates" of small and medium-sized enterprise are also under pressure – but this shouldn't be so, says Georg Steinberger, Chairman of the Board of Directors of the German Professional Association of Component Distribution (FBDi), who has been intimately familiar with the scene for almost 30 years, in an interview.

Looking back at the last months, have structure-changing developments, specifically as a result of IOT and new business relationship models and new business transactions (business cases instead of hardware sales) - come to pass?
G. Steinberger: This movement is in progress, but we're not talking about a digital development here – as in *"today I'm only selling components, tomorrow I'll only be selling business cases"*. This is a process of ongoing entrenchment.

The pace of change varies – in some industries it's faster, in others it's slower. We need to let all the noise surrounding the IOT hype die down to see what's left over. As with any mega-trend, there's always a period of sobering up after the hype, and then, once the trend has actually become one, we can see robust market development.

Georg Steinberger, Avnet

> *"Distribution is a service industry, and as such is always under pressure to do more for less"*

In which way have the events of 2016 affected the distributors' business?
G. Steinberger: After seeing double-digit growth in 2015 that was very strongly influenced by currency effects – with the euro depreciating against the dollar by around 20% and the corresponding effects on component prices – a rather promising start in the first half of 2016 gave way to a certain level of cautiousness.

For the global semi-conductor market, for instance, **Gartner** is expecting a mild downturn, with Europe remaining more stable, at around **US$ 34 billion**.

I haven't seen latest statistics yet, but for distribution I can say that the semi market grew by 3.8% Europe-wide amd 3.6% in Germany.

What is to be expected of 2017?
G. Steinberger: I'm no wiser than the market researchers here – they see 2017 at a similar level to 2015, so slightly higher again. Incidentally, it's not much more for 2018 either. I have no idea where this gentle optimism is coming from, but our industry is always good for surprises – including unpleasant ones, unfortunately.

> *"We need to let all the noise surrounding the IOT hype die down to see what's left over"*

What do you consider as the most important upcoming trends?
G. Steinberger:
In geopolitical terms I would estimate the US election as much more serious than Brexit. The conduct of the **new American government** can massively influence global trade and consequently also economic performance in our industry. It's a highly complex topic, but in general I would be inclined to anticipate more negative consequences.

I see **Brexit** on the other hand as a medium-term affair, but with massive consequences for European unity. That this is only going to have political consequences and no economic impact is something that I can hardly imagine.

China as a driver of growth in the electronics industry already showed signs of stuttering this year, and according to Gartner, the Asian high-tech trees won't be sprouting up to the skies in 2017 either.

The consumer market is saturated with telephones, tablets and other gadgets, and there's nothing new in sight. The generally sluggish outlook is also the reason for what is beyond a doubt the most important trend, namely the wave of consolidation among semiconductor manufacturers.

Are you referring to the recent developments with Qualcomm and NXP?
G. Steinberger: Not only that, there's more. The market isn't growing, but there is enough capital available at low interest rates, so manufacturers buy each other out to exploit synergy benefits and find profitability in general costs, even though the market currently isn't providing such profitability.
Alex Lidow, the former head of **International Rectifier** (acquired by Infineon), said not too long ago that no semiconductor manufacturer with less than 5 billion dollars in market capitalisation (share value) would survive in the longer term. A lot of names fall under that category. I would even say that the pressure will persist on medium-sized businesses – any company with up to 5 billion dollars in revenue and maybe 10 to 15 billion dollars in market capitalisation – to expand by means of acquisitions and to improve their economic or portfolio situation.

So eventually they'll all be swallowed up?
G. Steinberger: Maybe not that, but to give an example: when I started out as a technical journalist – in 1987 – there were around 400 semi-

conductor manufacturers, new and exciting enterprises every year. My first press conference was with MIPS Computer, a developer of RISC processors. All the hype – the "end" of 68000 processors and x86... Now, the Pentium architecture has been RISC for a long time. MIPS was bought out in 1993 by Silicon Graphics, which has been owned since 2016 by Hewlett Packard Enterprise. That's how things can turn.

Today, there are perhaps a quarter of that, 100 semiconductor companies, with a downward trend.

Does this bring benefits to the customer?
G. Steinberger: Well, first of all, portfolios are streamlined, which is probably not particularly good for developers who have just incorporated chips or modules into designs. Difficult to say what customers can expect. If the past is any indication, then mergers have always resulted in a wave of obsolescence, which is why it is all the more important during the design process to account for such changes.

But you do need to view this with a degree of serenity. Acquisitions are nothing new, well, maybe at this scale. And they do happen among customers too. Sometimes it's just quicker to buy out than do it yourself.

Everything grows, and there's a certain excitement inherent in this (if I were a journalist in any case). The only question I'm asking myself is – **what about innovation?**

"The conduct of the new American government can massively influence global trade"

What does that mean for the distributors?
G. Steinberger: The larger distributors have certainly been fortunate enough to have most of the merging manufacturers on their line cards. But the consequences of such acquisitions always involve expenditure, and in this case, they need to somehow cushion customers against the impact of manufacturer consolidation and provide more active consulting to avoid problems in the product lifecycle. Another trend from the low overall growth is the **increasing cost pressure on distributors**, mainly from manufacturers.

Is the current distribution model being called into question?
G. Steinberger: Distribution is a service industry, and as such is always under pressure to do more for less. But if someone feels the need to question the current model because they can do it better, they're ignoring the enormous progress that distribution has made over the past 20 years, as well as the investments made in all kinds of resources, from whole brigades of technical specialists to supply chain experts whose expertise exists neither among customers nor among the manufacturers. It would be nice if the manufacturers would at least recognise that distributors are not part of their extended tool chain, but

source Fotolia, 40258833

rather their largest customers. And customers seeking unbiased, capable advice are well catered to by a distributor. I know many distributors who do wonderful work and provide a thousand little services that nobody else can provide but which are totally taken for granted.

"A wave of consolidation among semiconductor manufacturers"

Distributors must no longer let the value of their service be undermined. And if there is any doubt, maybe just drop certain business relationships if they no longer meet the distributor's own standards in terms of return on investment.

What else will distributors have to face?
G. Steinberger: One topic that the **FBDi** and its work groups are currently concerned with is **REACh**. The ECJ ruling on the effect of REACh in relation to components and the actions of the ECHA in Helsinki (SVHCs not at component level, rather at the smallest homogeneous unit as with RoHS) appear to be gradually turning REACh into a bureaucratic monster. I see the electronics industry, unlike with RoHS, as collateral damage of REACh's effects, a regulation that was actually intended for major consumers of chemical products.

However, due to the "diversity" of types in the component industry, we are facing the greatest expense. For traders, this will create an enormous data management problem and necessitate a protracted search for all required information, something which only the manufacturer can resolve. *(Original interview published in Markt&Technik/Germany, January 2017)*

Brexit… Implications for the Electronic Components Supply Network

by Adam Fletcher
ECSN

Following Prime Minister Teresa May's recent guidance on the government's intended direction as the UK heads towards Brexit, with particularly regard to leaving the EU Single Market (Customs Union), it is perhaps the appropriate time to share some thoughts and industry comments on how the electronic components supply network might be affected. In this article, Adam Fletcher reviews some of the key points and considers the likely impact of exiting the single market.

SINGLE MARKET (CUSTOMS UNION)?

A Single Market (Customs Union) system establishes a common set of rules relating to how goods enter member countries from countries outside the organisation. These rules are agreed and maintained by all members and all members must adhere to them if the union is to operate successfully. Procedures are put in place to ensure that no individual or organisation is able to circumnavigate the rules to gain a commercial advantage. Surprisingly, large global economies have been notably reticent about setting up customs unions. In fact the EU system is unique in both number of members and scale.

The EU customs union agrees tariff levels (import duty) and from time to time, agrees quotas (quantity restrictions) for goods entering the EU. It also agrees specific standards that goods have to meet and ensures compliance prior to the goods being placed on the market. The EU monitors all the individual member states to ensure compliance within their area of jurisdiction.

> **"The European Free Trade Agreement (EFTA) covers Switzerland, Norway, Iceland and Lichtenstein"**

Once within the EU customs union goods may be freely transferred between member countries and are not subject to any further controls or tariffs. The Treaty of Rome conferred *"exclusive competence"* on the European Commission to negotiate external trade agreements. So an additional obligation for EU customs union member countries is that they cannot negotiate individual trade agreements with non-member countries. Any disputes are referred to the European Court of Justice for binding resolution on all members.

At the point of entry within the customs union the tariff and VAT is nominally collected, but in practice the VAT is often deferred as Onward Supply Relief or Inward Processing Relief for Authorised Economic Operators i.e. large organisations, freight forwarders etc. The tax is held within a common fund because the final destination member state is often still to be determined, so the applicable tariff and local VAT rate the consumer will ultimately pay is unknown.

HOW DOES A CUSTOMS UNION DIFFER FROM A FREE TRADE AREA?

A **Free Trade Area (FTA)** also achieves reduced or zero tariffs between member countries but members are able to operate with different external tariffs on imports from non-member countries. FTA agreements apply tariff relief to goods which originate within a member state but not to goods which are simply imported into - and pass through - another member of the FTA. This ensures that tariffs imposed by a member state are not undermined by goods from outside that simply pass through the ports of another member. All FTA members check the *"Point of Origin"* and only levy tariffs if they originate outside the FTA. The European Free Trade Agreement (EFTA) covers Switzerland, Norway, Iceland and Lichtenstein.

WHAT HAPPENS IN THE EU?

The EU's Single Market (Customs Union) is in effect a hybrid model. We also enjoy FTA status with almost all other European states who are not themselves single market members,

> **"The reasons for introducing tariffs are primarily economic"**

For instance Turkey - a non-EU member - has a "light" or "basic" version of a customs union with the EU that primarily covers manufactured goods and excludes agriculture. It is however a very one sided agreement where Turkey is mandated to adopt and reflect current EU

> *"It is very unlikely that the UK government will want to meddle with the tariffs for electronic components"*

Single Market tariffs as they are set, must harmonise with EFTA and must not negotiate any parallel trade agreement with any non-member states. Turkey is highly reliant on the export of manufactured goods, particularly "white and brown" electronic consumer products (TVs, washing machines, fridges etc.) and industrial products to Europe, so membership of the European Economic Area even via a one sided FTA has significant benefits to the country's economy.

NEXT STEPS…

The UK Government has stated that as part of the **Brexit** process it intends to leave the European Single Market - probably in a phased process over two years - but wants to remain a trading partner with EU member states. This implies a transition to a European Free Trade Agreement. However the UK also wishes to establish trade agreements with countries that do not have an EU trade agreement i.e. USA, India.

This looks to be very difficult process as other EU countries are unlikely to agree to UK membership of EFTA and then allow additional parallel trade agreements from which they do not benefit. There is also an implied risk that goods could enter the EU customs union with zero tariffs via the UK.

WHY TARIFFS (IMPORT DUTIES)?

The reasons for introducing tariffs are primarily economic, to protect industries in domestic markets and to encourage change, which itself can be politically motivated. Examples include: increasing tariffs on certain steel products made outside the EU in an effort to protect the domestic producers, and India imposing a tariff of 25% on imported electronic components to encourage domestic manufacturing capacity, with international organisations establishing local facilities.

HOW DOES THIS IMPACT ELECTRONIC COMPONENTS MARKETS?

At the current time in the European Single Market (Customs Union) 99.9% of all imported electronic components do not attract any tariff (import duty).

A few very specific modules (discrete assemblies of electronic components, often incorrectly regarded by some users as components) do however attract a small tariff of 2.5%. This tariff situation is unlikely to change because of mutual dependency: The EU is predominantly an importer of electronic components but also has important local manufacturers who trade within the customs union and export outside of it.
It is very unlikely that the UK government will want to meddle with the tariffs for electronic components. It's an important market but probably pales into insignificance when compared to the **Automotive** or **Aerospace** markets, and our domestic producers are not raising any objections with other European or international manufacturers.

> *"The EU does not want to encourage other states to follow the UK"*

In future trade agreement negotiations between the UK and other states, electronic components could be caught in some "crossfire", but this is unlikely to be on tariff issues. The likely problems are more practical in nature.
All the IT systems used by exporters, importers and regulators required to effect any agreed changes to document flows etc., will have to updated, which may cause some short term glitches for the electronic components supply network. However it is likely that there will be a reasonable period of introduction to enable these changes to be made and tested.

FINAL THOUGHTS…

Extracting or transferring the UK from the European Single Market (Customs Union) to a form of Free Trade Agreement on terms that are acceptable to all parties looks to be a very difficult task. The EU does not want to encourage other states to follow the UK and so understandably wants the UK to be seen as being in a slightly inferior position outside the single market.

Given that this is being politically led I suspect much depends on just how 'inferior' the eventual agreement actually is and if our economy can stand the wait required to achieve an acceptable outcome. Perhaps we'll even decide to transition to Word Trade Organisation Terms and then work it out. In the meantime, the message for all in the electronic components supply network, where we are primarily spectators, continues to be *"remain focussed on your customers' needs and when appropriate collaboratively engage to manage any changes as they occur…"*

Caution: uncertainty ahead for distributors worldwide

by Bruce Rayner - ECIA
GlobalPurchasing.com

Distributors are forecasting business growth in 2017 to be modestly better than 2016. But the results of the Brexit vote in June, the U.S. election in November, and expectations for 2017 elections in Europe create a challenging environment for industry decision makers.

From the big global players to niche specialists, electronics distributors are generally optimistic about 2017. Their reading of the usual metrics - GDP growth, interest rates, book-to-bill ratios, DTAM - all point to low single-digit revenue growth in the New Year. This is good news, considering the languid market conditions that have dominated the market since the Great Recession of 2008, the subsequent collapse of oil and commodity prices in 2014, and the reverberations in 2015 and 2016.

"I'm pretty bullish on 2017 - says **Michael Knight**, **TTI**'s senior vice president, Americas - *We have nice momentum and leading indicators are looking good. It won't be a barn burner, but it'll be a good year for the industry."*
Whether this broadly held optimism is justified and will herald sustainable growth for the next 12 months depends on two factors. The first is the growing uncertainty about global economic performance due in large part to rising populism around the world. The second, and related factor, is the impact this uncertainty will have on the pace of new technology adoption.

MANAGING ECONOMIC UNCERTAINTY

Deriving the heightened economic uncertainty is the political challenge to government policies that for two decades have promoted globalization. In June, the UK surprised itself and the world by voting to leave the European Union. Five months later, the U.S. shocked the world again by electing Donald J. Trump as the 45th president of the United States.

Both have impacted global stock markets and exchange rates and have called into question expectations about government policies, trade agreements, inflation, and global economic growth. Indeed, economists are busy revising their economic forecasts for 2017 and beyond.

How much of an economic impact a Trump administration will have on U.S. and global economic performance is a moving target. It depends on whether the new administration pursues protectionist policies espoused during the campaign or more pragmatic, pro-growth policies. If the latter - which, as of the beginning of December, is what many economists expect - then U.S. economic growth, inflation and interest rates are all expected to rise, which economists believe will benefit most economies. One of Trump's most important pro-growth policies is a commitment to increase government spending on infrastructure programs.

THE ECONOMY INDICATORS

Independently, global commodity prices of ferrous and non-ferrous metals have been on the rise, which are expected to contribute to inflationary pressure. The price hikes are caused by the cyclical nature of commodity prices but more recently have been in response to the expectation of higher infrastructure spending in the U.S., some economists suggest.

With inflationary pressures mounting, the **U.S. Federal Reserve Bank** is likely to hike interest rates in mid-December. Pundits expect the Fed to accelerate the pace of rate hikes through 2017 to prevent the US economy from overheating.

According to **IHS** Economics' November *Global Executive Summary* newsletter, world GDP growth is projected to be 2.8% in 2017, a healthy increase from 2.4% in 2016. IHS Economics forecasts US growth to be between 2.0% and 2.5% in 2017, up from 1.5% in 2016 *(See Figure 1.)* World GDP growth is projected to be 2.8% in 2017, a healthy increase from 2.4% in 2016. IHS Economics forecasts US

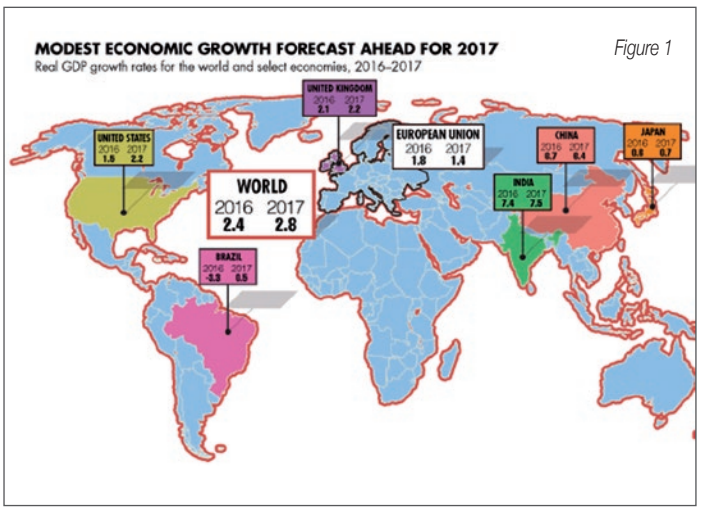


Figure 1

growth to be between 2.0% and 2.5% in 2017, up from 1.5% in 2016.
"We see more imports into the U.S., a stronger dollar, and stronger U.S. growth due in large part to the proposed infrastructure programs of the Trump administration - says **Chris Christopher**, director, U.S. and Global Consumer Economics, IHS Economics, IHS Markit - *This points to an increase in technology investment."*

ECIA'S FEELINGS

Electronic Components Industry Association (ECIA) members largely agree with the IHS US outlook. Fourth quarter 2016 growth projections based on a recent survey of ECIA members found that in all component categories—connectors, electromechanical, resistors, semiconductors, etc. - and all industry sectors - automotive, consumer, industrial, medical, etc. - a significant percent of members expected growth of 1% or more.

"We are polling our members now, but I suspect the trend will continue through 2017 - says **John Denslinger**, ECIA president and chief executive - *The semiconductor companies have done an excellent job of integrating acquisitions with little to no impact on lead times."*

Of course, there is the potential for more economic shocks to come. In 2017, the Netherlands, France and Germany all have elections, which could lead to protectionist policies with potential negative implications for economic growth, exchange rates and business confidence. *"If there's political turmoil in Europe, the Euro could take hit after hit after hit,"* says Christopher.

IHS Economics is projecting persistent lackluster GDP growth for the European Union, with GDP growth dropping to 1.4% in 2017 from 1.8% in 2016.
Turning to Asia, China's economic growth is expected to slow from 6.7% in 2016 to 6.4% in 2017, according to IHS Economics.

> **"In June 16, the UK surprised itself and the world by voting to leave the European Union. Five months later, the U.S. shocked the world again by electing Donald J. Trump"**

Growth is expected to remain in that range for the next few years as the country continues its economic shift from export-led growth to domestic market growth. As part of a managed exchange-rate reduction, China's currency, the renminbi, has been falling steadily in value against the U.S. dollar and is expected to continue to fall in 2017.

If the Trump administration follows through with the stated plans to abandon the 12-nation **Trans-Pacific Partnership (TPP)** trade deal, China is expected to fill the void.
"China believes we should set a new and very practical working plan, to positively respond to the expectations of industry, and sustain momentum and establish a free trade area in Asia-Pacific at an early date", said **Li Baodong**, China's vice-foreign minister in November.
Japan, which is a TPP participant, is perhaps the economy that has been hurt the most by China's pivot and stands to suffer the most from U.S. protectionism policies. Its economy remains weak and is expected to post GDP growth in 2017 of just 0.7%, a slight improvement over 0.6% growth in 2016, according to IHS Economics. On the bright side, Japan stands to gain from the prospect of higher economic growth in the U.S.

The uncertainty around trade pacts raises concerns for the global electronics value chain, including the physical global footprint of distributor operations.
"Because of the threat of increased protectionism, it would be advantageous for electronics distributors and

manufacturers to have an economic presence in every trading bloc, thereby avoiding potential trading negatives such as tariffs, duties, and currency manipulation," cautions Denslinger.

MANAGING IOT UNCERTAINTY

It's impossible to have a conversation about distributor business growth without mention of the Internet of Things (IoT), Industry 4.0, cloud and SaaS computing, artificial intelligence (AI), machine learning, and a variety of other disruptive technology trends. Their long-term collective market and social impact is profound and the revenue potential in component sales for the electronics value chain is significant.

In August, **Machina Research** forecast that the global IoT market would grow from 6 billion connected devices today to 27 billion by 2025, generating $3 trillion in revenue. That includes revenue from device sales, connectivity, service and application revenue, as well as application development, systems integration, and managing and monetizing data. In June, International Data Corporation forecast U.S. organizations would invest over $230 billion in IoT in 2016, and the investment level would grow at a compound rate of 16% through 2019. The top applications are in manufacturing operations, freight management, and smart buildings, according to **IDC**.

> **"World GDP growth is projected to be 2.8% in 2017, a healthy increase from 2.4% in 2016"**

The driver for most of this spending is cost reduction and improved efficiency, including energy efficiency, according to **Douglas Handler**, chief economist, **i-Futurist**.

"We haven't seen the productivity gains yet because it takes a long time and a lot of investment," he says. Electronics distributors know the projections and have been anticipating a bump in revenue from IoT for a few years. However, to date the impact has not been evident. *"Sensors are a fast-growing business for us but they are mainly in traditional markets,"* says TTI's Knight. Still, many distributors believe 2017 will be the year of IoT. *"I think the industrial market is finally starting to get a lift from IoT* - says Gerry Fay, president, Global Electronic Marketing, Avnet - *We are starting to see machine-to-machine applications for IoT, such as predictive maintenance and dispatching."*

While it's too early to quantify the lift from IoT-related investments, there are economic factors that could either accelerate adoption rates. At the same time, there are other factors that could slow the pace of IoT adoption. On the positive side is the promise of federal government support for infrastructure investments. *"If the government pursues an honest nationwide infrastructure investment, smart cities and IoT will be big winners that will drive strong semiconductor and sensor demand for next several years,"* says ECIA's Denslinger. Prior to the election, the market potential for smart-city IoT spending was estimated to hit $1.6 trillion by 2020, according to **Frost & Sullivan**. From traffic management to information kiosks, security, water waste management and energy efficiencies, investments in smart-city projects account for the lion's share of IoT investment to date.

> **"Expectations about elections in Europe in 2017, particularly in France and Germany, may contribute to the uncertainty"**

On the negative side, other policy implications could decelerate IoT adoption. The Trump administration's position on climate change, for example, may de-emphasize government projects aimed at reducing greenhouse gas emissions. This may include smart city and other IoT investments earmarked for boosting energy efficiency.

Expectations about elections in Europe in 2017, particularly in France and Germany, may contribute to the uncertainty - and business risk - as both France's National Front party and Germany's Alternative for Germany (AfG) party are climate-change skeptics. Both the National Front and AfG are expected to make gains in 2017.

For more details: http://globalpurchasing.com/features/caution-uncertainty-ahead-distributors-worldwide

IoT in the automotive sector

Similarly, the growth of autonomous vehicles may be slowed. **Tesla Motors**, for example, relies on a $7,500 federal tax credit to promote sales of its electric Model S, a luxury car with advanced driver assistance systems (ADAS). Tesla's Model 3, due to be released in late 2017, has a lower retail price point than the Model S and is aimed at the mass market. The Model 3 has the potential to be a catalyst for autonomous-vehicle adoption, which would likely accelerate IoT investments, specifically ADAS and vehicle-to-vehicle and vehicle-to-infrastructure investments.

However, there is speculation that the Trump administration may eliminate the federal tax credit for energy efficient electric vehicles. This would have a short-term impact for Tesla and other car makers developing electric vehicle, which could slow the adoption of electric autonomous vehicle sales and impact the growth rate of IoT in the automotive sector. While it is too soon to tell, the uncertainty these options present increases the perception of risk, which could delay investment.

Billings down in the Quarter but what a super growth in Bookings! Hopefully an indicator for a great 2017!

by Gary Kibblewhite
www.ideaelectronics.com

2016 has ended up a good year for the industry with a jump in total component bookings in the last quarter leading to a 6% European bookings growth over 2015 and a 3.5% billings growth.

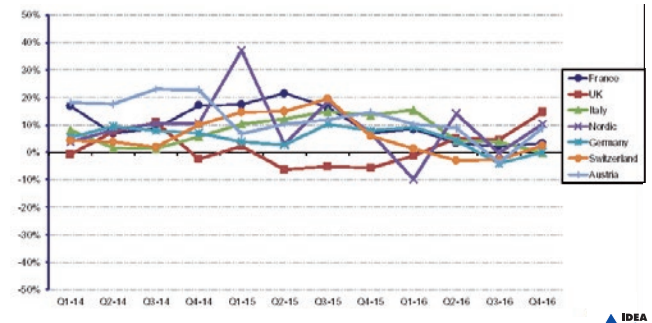
It is, however, unclear just how much of that growth is attributable to currency fluctuations. Clearly the market uncertainty resulting from both the UK's Brexit and what is happening in the USA will impact us all but we have not yet experienced that!

The bookings growth was driven by a 7.4% growth in Semi bookings, Semiconductors were the highest percentage and currency growth of any component sector in 2016. Emech, however, had the lowest bookings growth over 2016 with just 1.6%.

Just to remind readers. If you would like to have the original graphics used in this article just email to the IDEA secretary at segreteria@ideaelectronics.com

The IDEA statistics are taken from actual bookings and billings returns made by a substantial percentage of the electronic component distributors in Europe, including all the major distribution groups. Their sales represent over 66% of the total European electronic component distribution market so the trends shown are truly representative. These published statistics now include, from Q3 2015 onwards including historical adjustments, Switzerland and Austria.

4TH QTR. 2016 TOTAL COMPONENTS TENDENTIAL INDEX BY COUNTRY (Q.QY-1) *Graphic T6*
Trend showing growth/decline % in quarterly sales off all components through distribution slipt by country compared with same quarter prior year



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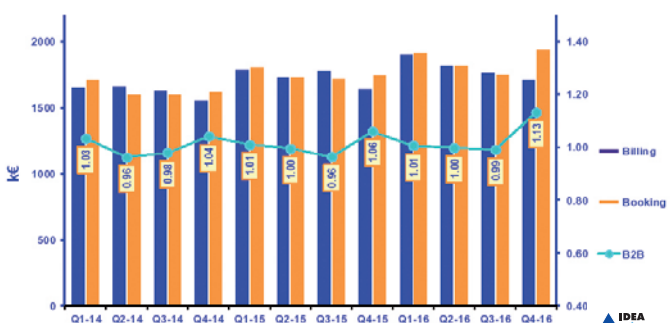
Total european sales growth over the prior year by quarter continues to be mostly positive indication a continuing strong market.

4TH QTR. 2016 TOTAL COMPONENTS BOOKING, BILLING & BOOK: BILL RETIO *Graphic T1*
Total distribution electronic componentsbooking, billing and book: bill ratio for Germany, France, Italy, UK, Sweden, Norway, Danmark, Finland, Switzerland and Austria



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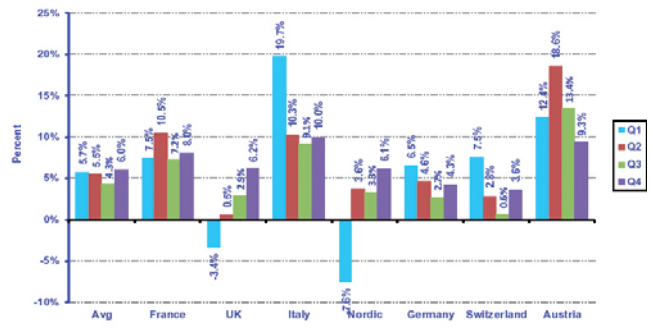
The extent of the total bookings growth is shown in Graphic T1 above. Whereas the quarterly billings have dropped consistently quarter on quarter since Q1 2016, Q4 bookings has changed the trend. The 1.13: 1.00 book:bill ratio is the highest since Q2 2010!

> *"The bookings growth was driven by a 7.4% growth in semis"*

4TH QTR. 2016 TOTAL COMPONENTS YTD BOOKING TREND *Graphic T5*

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



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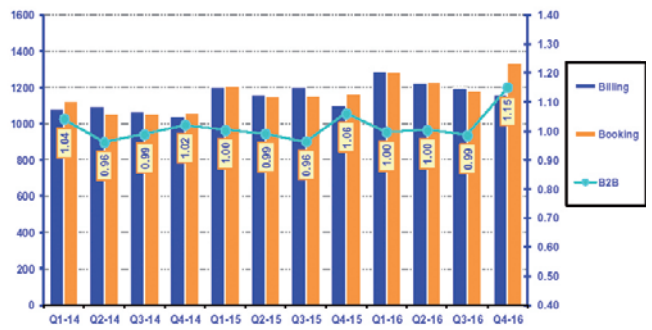
The last three quarters have seen the UK grow bookings consistently quarter on quarter and now all regions are in a growth mode. The strongest % growth of the major countries is Italy followed by France.

4TH 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



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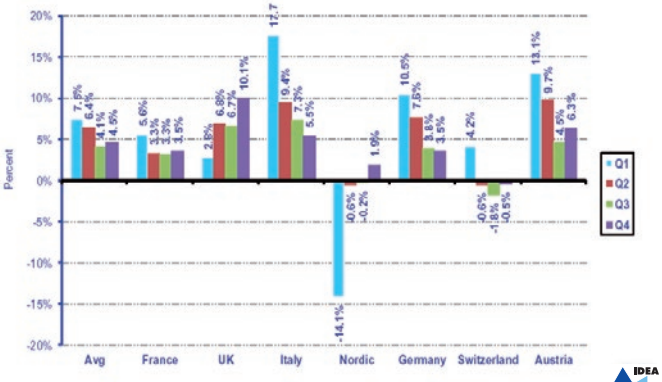
The largest market element, semiconductors, experienced a 1.15:1.00 book:bill ratio driving the total semi bookings to its highest level for at least 6 years.

4TH QTR. 2016 SEMICONDUCTOR YTD BILLING TREND *Graphic S4*

Cumulative sales of semiconductor components through distribution split by country and showing the growth/decline % compared with the same period prior year



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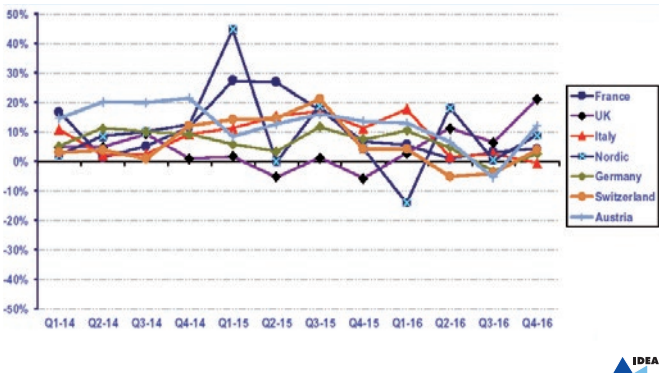
The semi billings trend by country remains reasonably strong but, in Q1 2017, the strong Q4 bookings should drive the trend upwards.

4TH 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



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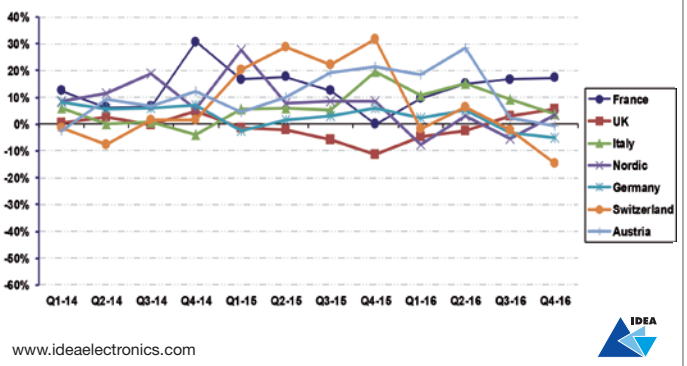
The impact on the Semi billings trend graph is clear with only Italy's semi billings dropping into negative territory in the quarter. However, their strong growth in Q1 semi billings seen last year will hopefully again be evident this year.

"The strongest overall % growth of the major countries was Italy followed by France"

4TH QTR. 2016 PASSIVE 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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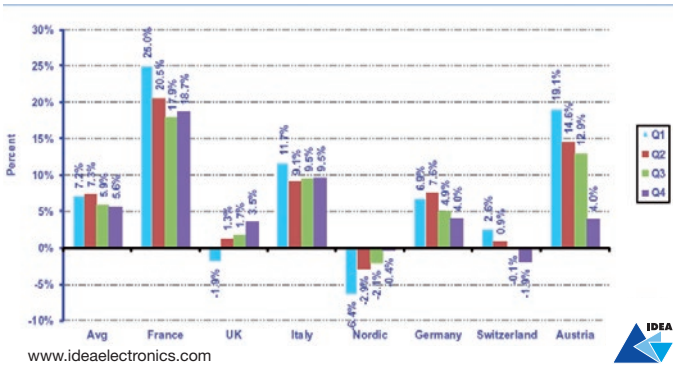
Passive component sales in Germany declined by just 0.2% in total 2016 compared with 2015, However, the graph above shows a 5.2 decline in the quarter. Also the german bookings have not sharply risen in Q4. For the rest of the countries, apart from Switzerland, passives are starting 2017 in a good position, ie all "above the line".

4TH 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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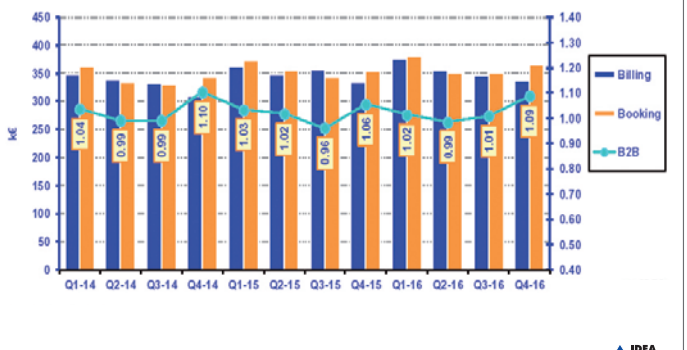
In 2016 there were solid bookings performances from Germany, Italy, Austria and France with just Nordic and Switzerland ending the year poorly.

4TH 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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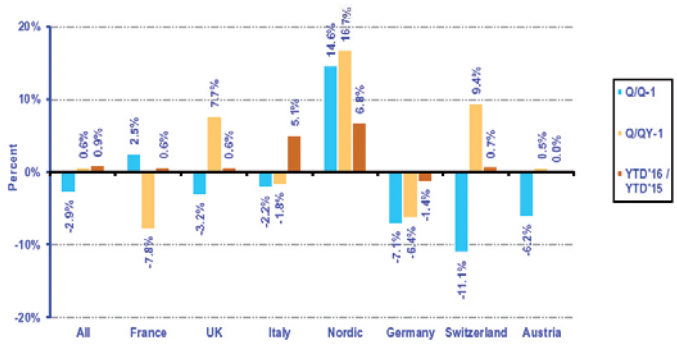
Total European Emech has been the most stable sector during the year but with little growth quarter on quarter for the last 3 years. The small book:bill growth should lead to a strong Q1.

"Emech has been the most stable sector during the year"

4TH QTR. 2016 EMECH COMPONENTS BILLINGS TREND *Graphic E3*

Distribution sales of emech components comparing current qtr (Q/Q-1) and same qrt prior ear (Q/QY-1) plus YTD trend



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On a country by country Emech billings basis Nordic has the strongest performance. Good to see as this is the only product sector measured that has shown growth last year.

Identifying the Top 10 – It's harder than you think

by Ron Bishop
Bishop & Associates

Design engineers and purchasing personnel want to use the best connector companies for their design and purchasing requirements. However, identifying the best companies is not an easy task. Asking the following questions helps narrow the field.

IDENTIFYING THE TOP 10 CONNECTOR MANUFACTURERS

Which companies offer the required products and services?

- Which companies offer faster delivery, shorter lead times, reasonable prices, and higher quality?
- Which companies offer the best customer service?
- Which companies can we count on when there is a problem?
- Which companies best understand their customers' needs, goals, and products?

The answers to these questions are not always obvious. It takes experience. It takes time. Only the experience of actually working with companies will provide the answer to the question, *"Which companies will become valuable parts of our supply chain?".*
The first step is to identify the most successful companies.

We believe identifying the top 10 companies, using different definitions of what constitutes top 10, is the logical starting point for identifying the best connector suppliers. Specifically, who are the:

- Top 10 in world sales
- Top 10 in each geographic region
- Top 10 in products manufactured
- Top 10 in markets served.

"Which company will become valuable parts of our supply chain"

This article will provide you with the names of the companies in the above four classifications. You may further refine your selection to consider which companies are uniquely qualified to become part of your supply chain.

For example, what are the largest companies that offer:

- A specific type of connector in North America, Europe, etc.
- A specific type of connector in the U.S., England, France, Germany, China, Japan, etc.

A more granular approach is required, but the designer or buyer should always start by examining the largest companies first.

We believe that achieving size suggests a level of success. After all, customers have rewarded them with their business for a reason.
The remainder of this article identifies the largest companies in total world sales, sales by regions, sales by market sector, and sales by product manufactured.

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.

2015 TOP 10 BY GEOGRAPHIC REGION

Table 2

2015 rank	North America	Europe	Japan	China	Asia Pacific	Row
1	TE Connectivity	TE Connectivity	TE Connectivity	TE Connectivity	TE Connectivity	Yazaki
2	Amphenol	Amphenol	Yazaki	Amphenol Inc	Molex	Amphenol
3	Delphi	Delphi	JST	Foxconn (FIT)	Amphenol	TE Connectivity
4	Molex	Molex	Molex	Molex	Yazaki	Sumitomo
5	Yazaki	Harting	Sumitomo	Luxshare	Foxconn (FIT)	Delphi
6	Carlisle	Rosenberger	JAE	JAE	Hirose	Korea Electric
7	Samtec	Yazaki	Hirose	Caoe	JST	Rosenberger
8	JST	Phoenix Contact	3M	Delphi	Korea Electric	Foxconn (FIT)
9	CommScope	Samtec	Amphenol	Yazaki	Sumitomo	Belden
10	Glenair	Weidmüller	DDK Ltd	Hirose	Rosenberger	ITT Interconnect

Source:Bishop & Ass.

2015 TOP 10 RANKED BY MARKET SECTOR

Table 3A

Rank	Computers and peripherals	Busines retail education	instruments	Medical equipment	Industrial equipment	Automotive equipment
1	Foxconn	Molex	Luxshare	Molex	TE Connectivity	TE Connectivity
2	Molex	JST	Rosenberger	TE Connectivity	Amphenol	Yazaki
3	Luxshare	Foxconn	Molex	Amphenol	Molex	Delphi
4	Amphenol	TE Connectivity	Lemo SA	Lemo SA	Harting	JAE
5	Foxlink	Iriso	Samtec	3M	JST	Sumitomo
6	Lotes	3M	Foxconn	ODU	Phoenix Contact	JST
7	TE Connectivity	Smiths	TE Connectivity	Samtec	Belden. Inc.	Rosenberger
8	Shenzhen Deren	Luxshare	Radiall	Luxshare	3M	AVX/Elco
9	Hirose	Hirose	Hosiden	Radiall	Weidmüller	Korea Electric
10	Samtec	I-PEX	Iriso	Delphi	Samtec	Amphenol

Source:Bishop & Ass.

2015 TOP 10 RANKED BY MARKET SECTOR

Table 3B

Rank	Transportation equipment	Military electronics	Telecom Datacom equipment	Consumer electronics	Other electronics equipment
1	TE Connectivity	Amphenol	Amphenol	Molex	TE Connectivity
2	Delphi	China Aviation	TE Connectivity	TE Connectivity	Sumitomo
3	Amphenol	TE Connectivity	Molex	JST	Hirose
4	Molex	Glenair	JAE	CommScope	Delphi
5	Carlisle	Carlisle	Luxshare	Luxshare	Multi-Contact
6	Yazaki	ITT	Rosenberger	Iriso	Amphenol
7	Sumitomo	Radiall	Hirose	Delphi	Foxconn
8	Korea Electric	Delphi	CommScope	Foxconn	Korea Electric
9	ITT	Souriau	Foxconn	JAE	3M
10	Souriau	Ametek	Bel	Hirose	Molex

Source:Bishop & Ass.

TOP 10 BY MARKET SECTOR

The following table identifies the top 10 in the 11 market sectors *(Table 3)*.

When market sector is used as the definition, 39 companies achieve top 10 ranking.

"What are the leading companies in Germany, the UK, France, Malaysia, Taiwan and beyond?"

THE WORLD'S CONNECTOR COMPANIES

Bishop & Associates compiles more than 700 connector company profiles on a special website designed to make your research and decision-making easier.
Our website *The World's Connector Companies* can help you determine which companies will best meet your requirements. The site provides informative profiles that can be sorted by annual sales, region, country, markets served, and products manufactured. Each sort prepares a report that may be downloaded and saved.

Contact Lynda Nolen at *lnolen@bishopinc.com* for a demonstration of how *www.wccreport.com* can help your company search for the providers that can best meet your requirements. The "Go-to-Meeting" conference call requires about 30 minutes. Those 30 minutes could save you hours, even days, in your search for that perfect partner.

TOP 10 IN WORLD SALES

We identified the top 10 connector manufacturers in world sales in the October 2016 Bishop Report, issue *(Table 1)*.

TOP 10 BY GEOGRAPHIC REGION

We identified the 10 largest connector companies by region in the November 2016 Bishop Report, issue *(Table 2)*. When the definition is top 10 connector manufacturers by region, 25 companies earn a top 10 ranking.

TOP 10 BY PRODUCT MANUFACTURED

The following table *(Table 4)* identifies the 10 largest connector manufacturers of the 12 major product categories (PCB, circular, IC sockets etc.).
When "products manufactured" is the definition, 43 companies achieved top ten ranking.

EUROPE ELECTRONICS DIGEST

- **Intel** announced plans to invest more than $7 billion to complete Fab 42, which is expected to be the most advanced semiconductor factory in the world. The high-volume factory will produce microprocessors to power data centers and hundreds of millions of smart and connected devices worldwide.
- **Qualcomm** and **TDK** announced the completion of the previously announced joint venture under the name **RF360 Holdings Singapore**. The joint venture will enable Qualcomm's RFFE Business Unit to deliver RF front-end (RFFE) modules and RF filters into fully integrated systems for mobile devices and fast-growing business segments, such as Internet of Things (IoT), automotive applications, connected computing, and more.
- **Keysight Technologies** announced a definitive agreement for Keysight to acquire **Ixia** in an all-cash transaction totaling approximately $1.6 billion in consideration, net of cash. Ixia provides testing, visibility, and security solutions, strengthening applications across physical and virtual networks for enterprises, service providers, and network equipment manufacturers.
- **Alliance Memory** has expanded its manufacturers' representative agreement with **Ismosys**, the principal trading division of the Spectrum Electronics Group. Having offered Alliance Memory's entire lineup of SRAMs and DRAMs in Italy since 2006, Ismosys is now the exclusive representative for these solutions to direct OEMs and distributor channels in Spain, Portugal, and Turkey.
- **Telit**, a global enabler of the Internet of Things (IoT), has agreed to acquire Silicon Valley-based **GainSpan**, a wireless connectivity solution provider that specializes in the design and development of ultra-low power Wi-Fi technology.

Source: www.europelectronics.biz

2015 TOP 10 RANKED BY PRODUCT TYPE

Table 4A

Rank	PCB	I/O Rectangular	IC Sockets	RF	Circular	Telephone/Telecom
1	Te Connectivity	Te Connectivity	Foxconn	Rosenberger	Amphenol	Molex
2	Molex	Foxconn	Te Connectivity	Amphenol	Te Connectivity	Amphenol
3	Amphenol	Molex	Molex	Te Connectivity	Carlisle	Te Connectivity
4	Foxconn	Luxshare	Lotes	Huber+Suhner	Lemo	Bel
5	JST	JAE	Yamaichi	Hirose	Belden	CommScope
6	Samtec	Amphenol	Foxlink	Luxshare	China Aviation	Luxshare
7	Luxshare	JST	Amphenol	CommScope	Souriau	Foxconn
8	JAE	Delphi	Hirose	Radiall	ITT	JST
9	Hirose	Yazaki	Shenzhen Deren	Telegärtner	Glenair	Telegärtner
10	AVX/Elco	Radiall	3M	I-PEX	Delphi	Foxlink

Source:Bishop & Ass.

2015 TOP 10 RANKED BY PRODUCT TYPE

Table 4B

Rank	Fiber Optic	Terminal Blocks	Heavy Duty	Power/High Voltage	Application Specific	Other
1	Te Connectivity	Phoenix Contact	Harting	Amphenol	Delphi	JAE
2	Amphenol	Weidmüller	Amphenol	Te Connectivity	Yazaki	Amphenol
3	Molex	Wago	Te Connectivity	Hirose	Te Connectivity	Te Connectivity
4	CommScope	ABB Entrelec	Molex	JST	Amphenol	Yazaki
5	Hirose	TE Connectivity	Souriau	Yazaki	Molex	Delphi
6	China Aviation	Molex	JST	Molex	Sumitomo	Molex
7	Delphi	AVX/Elco	China Aviation	Delphi	Korea Electric	3M
8	Rosenberger	Harting	ODU	China Aviation	Kostal Kontaky	China Aviation
9	Huber+Suhner	SMK	Ametek	Sumitomo	Rosenberger	Sumitomo
10	Radiall	Amphenol	Delphi	Korea Electric	Lear	Radiall

Source:Bishop & Ass.

COMPANIES WITH TOP 10 STATUS

We identified 48 companies with a top 10 ranking. We believe this information is very useful to the user community in identifying, researching, and selecting the companies with whom to partner.

"Which companies can we count on when there is a problem?"

Other levels of information are also important. For example, what are the leading companies in Germany, the United Kingdom, France, Malaysia, Taiwan, etc.?

What are the leading companies in Germany that supply military circular connectors or have heavy-duty power types? The quest for the right supplier for your company is not easy. However, identifying the companies under various definitions makes a difficult task easier.

Other levels of information are also important. For example, what are the leading companies in Germany, the United Kingdom, France, Malaysia, Taiwan, etc.? What are the leading companies in Germany that supply military circular connectors or have heavy-duty power types?

TOP 10 COMPANIES

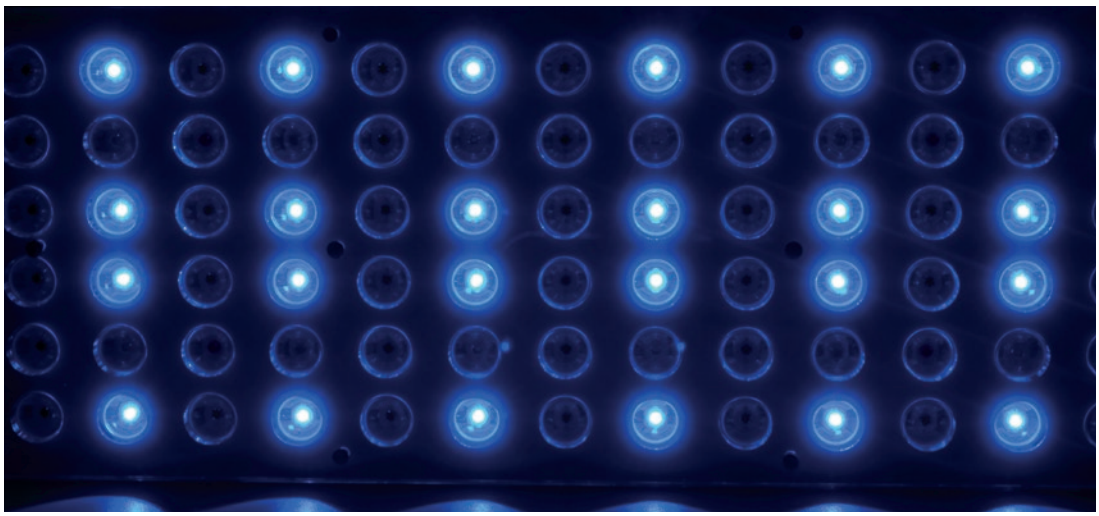
Table 5

Rank	Company
1	TE Connectivity
2	Amphenol
3	Molex
4	Delphi
5	Yazaki
6	Foxconn
7	Jae
8	JST
9	Luxshare
11	Rosenberger

Source:Bishop & Ass.

The quest for the right supplier for your company is not easy. However, identifying the companies under various definitions makes a difficult task easier.

A LED lighting market outlook



by Silvio Baronchelli
Assodel

Assodel's outlook on the LED lighting and optoelectronics worldwide markets reports a very interesting situation, with potential of growth for distribution and manufacturing companies. Among the latest researches and studies analized by **Assodel**, in cooperation with the partner society **Phot**, here are some of the most interesting highlights:

1. According to **Research and Markets**, the global optoelectronics market will grow at a CAGR of **16.84%** during the period 2017-2021. The report *"Global Optoelectronics Market 2017-2021"* underlines that one of the major drivers for this market is the growing adoption of LED for lighting due to government projects linked to the use of LED lamps especially for street and urban lighting.

> **"The demand for LEDs is set to rise amid the trend of promoting energy-efficient lighting solutions"**

2. The demand for LEDs is set to rise amid the trend of promoting energy-efficient lighting solutions. Smart lighting and Light Fidelity (Li-Fi) technology are two upcoming technologies in the LED industry.

3. Key application markets include industrial lighting, outdoor lighting, architectural lighting and commercial lighting.

4. Key manufacturers for the global LED lighting market include Cree, Epistar, GE Lighting Solutions, Everlight Electronics, Gyled, Lite-On Technology, Mitsubishi, Osram, Philips, Lighting Science Group, Solid State Lighting Systems, Samsung, Black Dog LED, Bridgelux, Litecontrol, Lowcled and Toshiba.

5. Epistar is mainly focused on 200mm technology. Other major companies such as Philips, Samsung and Osram are concentrating GaN on silicon technology.

6. The latest analysis *"2017 Global Lighting Market Outlook"* by **LEDinside** finds that the Global LED lighting market is estimated to be worth US $29.6 billion in 2016 and is set to rise to **US $ 33.1 billion** in 2017. Meanwhile, the global penetration rate of LED lighting will reach 52% in 2017.

> **"The Global LED lighting market is set to rise to US $ 33.1 billion in 2017"**

7. Thanks to regional lighting development, LED lighting accounted for **23%** of total lighting in Europe in 2016, which is the highest across the world. The second and third highest region are North America and China. However, Asia-Pacific will experience the fastest growth rate.

8. The China LED lighting market is expected to grow at a CAGR of over **35%** from 2016 to 2023.

Power Forum 2017: a renovated and improved 2 day event

POWER FORTRONIC

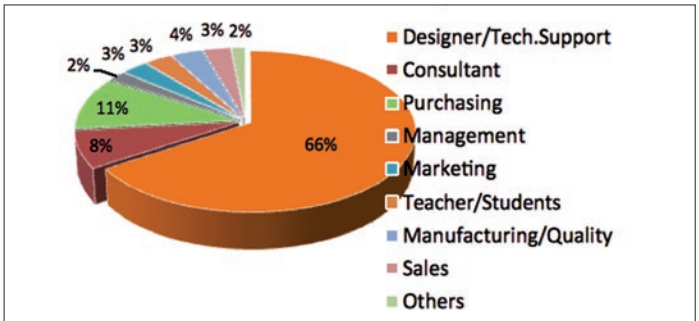
by Franco Musiari
Assodel

More time for meeting designers and suppliers, more potential subjects to motivate people attendance and an additional "vision" on the expected evolution of the market and of the technologies.
Last year, when we ran the 13th edition of the **Power Forum**, we achieved an outstanding result: almost 60 sponsors, either distributors and manufacturers, 16 papers presented in two plenary session and 15 workshops, in a day full of contacts between attendees and sponsors.
But most important of all approximately 350 people attended the event.

THE CORRECT TARGETS

As shown in the graph *"Attendees job description"*, 74% of the people were designers, technicians and consultants. The people that have the responsibility to choose the components to be used in the next design, in other words the right target for the sponsors to get in touch with.

ATTENDEES JOB DESCRIPTION



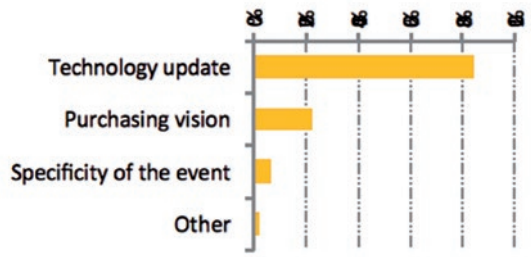
Power forum 2016 - XIII edition

> *"Attendees want to know what is happening at the "sharp end" of technology!"*

WITH THE RIGHT OBJECTIVE IN MIND

The motivation of the attendees – see graph *"Reason of attendance"* – was reported as the need for a 'technology update'.
That is, attendees wanted to know what was happening at the "sharp end" of technology!
And this was the objective of both the paper presentation part of the plenary sessions and of the workshops set up by the sponsors.

REASON OF ATTENDANCE



Power forum 2016 - XIII edition

THE XIV EDITION WITH A NEW FORMAT

The success of the XIII edition was enthusiastically recognized by all the sponsor who immediately adopted the idea of extending the event to two days in a new location able to provide more room for the exhibition area, extending the coverage not only to the strict high power applications but to all the aspect of component for more general power applications. So, among the others attention will also be given to power management, battery chargers, power supplies and wireless charging, energy storage and energy harvesting.

One more plenary session, a third one, will be dedicated to the *"vision of the foreseeable future"* which is designed to attract the mid and high management of all the companies that are looking to understand which power application will become the "drivers" for the industry.
A market analyst will give his vision on how the different segment of the power industry will develop in the next five years and how the manufacturers of power semiconductor technology will work to follow such growing markets.

The new format, covering a larger floor area, will give more room for the exhibition area and over a longer timeframe too! It will allow both the demand and supply elements to meet each other, and more workshops to let manufacturers show, in detail, new technologies and applications. Part of this "vision of the future" will be given by different Universities that are, in cooperation with local industries, focusing their activities on research & development of advanced applications.

> *"Attention will also be given to power management, battery chargers, power supplies and wireless charging, energy storage and energy harvesting"*

The 2017 edition of Power Fortronic will be held in Reggio Emilia (near Bologna) on the **20th and 21st September**.

CEDA Executive conference and the 2016 Top China 50 Electronics Authorized Distributors

by Amy Wang
CEDA

CEDA *(China Electronics Distributor Association)* released the publication *"2016 Top China 50 Electronics Authorized Distributors"* on December 9, 2016 at the JW Marriot Hotel, Shenzhen and conducted the CEDA Executive Conference on Supply Chain, e-Commerce and Demand Creation.
80 Executives from leading authorized distributors, semiconductors, OEM/EMS, Investment players and government officials attended this event. This is CEDA's annual event to promote the value of the authorized distribution service and to serve China's ongoing industry upgrade and smart manufacturing.

Based on CEDA observations, the electronics distribution business has developed from a low-buy and high-sell trader business. This will continue for many years, but accompanied by substantial innovation.
In the 80's, US component manufacturers wanted to focus on Fortune 500 companies and this resulted in the development of the authorized distribution business model. In the 90's with the development of JIT, distribution introduced a supply chain service. In 2000's with US manufacturers moving out, distributors provide a demand creation service to capture a buy-decision at the design location. In 2010's with .com, distributors use the Internet to mainly improve marketing efficiency. However, the last change was not very successful because we have not seen many Internet only based distributors survive. Therefore, CEDA has seen innovation accompanying components sales for the last 30+ years, from authorized model, supply chain, design chain to Internet value added service, but this still leaves us with many problems to solve.

The CEDA annual event explored discussions and solutions for authorized distributors in many areas. We believe that more strategic co-operations are likely in the future.

Mr. Yuchun Nie, President of China Information Industry Trade Association conducted an opening speech at this event. Mr Ye said, it's very meaningful to release China's Top 50 authorized distributors every year, which would help OEM/EMS companies and research institutes find reliable purchase channels for their research and production while it also helps China's semiconductor companies to get sales channels for their semiconductor products.

Mr Yuchun Nie praised CEDA executive leaders with "Distinguished Awards of Serving China's Distribution Community". These leaders are: Dr. Paolo Wang, Chairman of BOB Group, Amy Wang, Vice President of CNT Networks, Henry Li, General Manager of Comtech Communications; Lambert Hilkes, Industrial Expert; Jiguo Zhou, Executive Director of CEACSZ; Charles Tan, CEO of YKY; Dr. Michael Liu, CEO and Founder of 52Solution.com; Wenhai Chen, General Manager of CEAC.

Mr Yuchun Nie praised CEDA executive leaders with "Distinguished Awards of Serving China's Distribution Community". These leaders are: Dr. Paolo Wang, Chairman of BOB Group, Amy Wang, Vice President of CNT Networks, Henry Li, General Manager of Comtech Communications; Lambert Hilkes, Industrial Expert; Jiguo Zhou, Executive Director of CEACSZ; Charles Tan, CEO of YKY; Dr. Michael Liu, CEO and Founder of 52Solution.com; Wenhai Chen, General Manager of CEAC.

Amy Wang, CEDA Executive Board Member shared with executives about CEDA's mission and service.

Keynote Speech on Global Economy, Semiconductors' Acquisition, Challenge and Solutions for Authorized Distributors by John Denslinger, ECIA President

2016 TOP CHINA 50 ELECTRONICS AUTHORIZED DISTRIBUTORS *Table 1*

	公司名称	Company Name	总部
1	大联大	WPG Holdings Limited	台湾
2	Avnet	Avnet Electronics Marketing	美国
3	Arrow	Arrow Electronics	美国
4	科通芯城	Cogobuy Group	深圳
5	文晔电子	WT Microelectronics	台湾
6	益登科技	EDOM Technology	台湾
7	泰科源科技	Techtronics Technology	北京
8	Macnica Cytech	Macnica Cytech	日本
9	深圳中电器材	CEACSZ	深圳
10	帕太集团	Powertek Electronics	上海
11	好上好	BOB Holdings	深圳
12	新晔电子	Serial System	新加坡
13	芯智控股	Smart-Core Holdings Limited	香港
14	信和达	Xiamen Holding Electronics	厦门
15	湘海电子	Sanet Electronics	深圳
16	富昌电子	Future Electronics	加拿大
17	世健系统（香港）	Excelpoint Systems (H.K.)	新加坡
18	增你强	Zenitron	台湾
19	新雷电子	Sunray Electronics	深圳
20	威雅利	Willas-Array Electronics	香港
21	威健	Weikeng Industrial Group	台湾
22	Promate	Promate	台湾
23	北京晶川电子技术	BJ Jingchuan Electronics Tech	北京
24	南京商络电子	Nanjing Sunlord Electronics	南京
25	上海美德电子	TTI Asia	美国
26	武汉力源信息技术	Wuhan P&S Info Tech	武汉
27	亚讯科技	Asiacom Technology (HK)	深圳
28	广州周立功	ZLG MCU	广州
29	上海润欣科技	Fortune Techgroup	上海
30	雷度电子	LETDO Electronics	厦门
31	利尔达	Lierda	杭州
32	贝能国际	Burnon International	香港
33	博思达科技	Upstar Technology (HK)	深圳
34	上海丰宝电子	Fengbao Electronics Info Tech (Shanghai)	上海
35	棋港	Kei Kong Electronics	香港
36	深圳世强先进科技	Shenzhen Sekorm Advanced Technologies	深圳
37	深圳梦想电子	Momsun Electronics	深圳
38	儒卓力电子	Rutronik Electronics Asia	德国
39	Digi-Key	Digi-Key	美国
40	Mouser Electronics	Mouser Electronics	美国
41	易达电子	EDAL Electronics	香港
42	RS Components	RS Components	英国
43	星亮电子	EIL	香港
44	北京元六鸿远	BJ Yuanliu Hongyuan Elctronics	北京
45	深圳中电华星	CEPower	深圳
46	e络盟	Element 14	英国
47	深圳市仁天芯科技	Kingsky (China) limited	深圳
48	北京上积电科技	BEIJING UPSE TECH CO.,LTD	北京
49	北京基创卓越	Zetron Excellence Eletronics	北京
50	赫联电子	Heilind Asia Pacific	美国

Chart 4: CEDA President Charles Tan announced the list of Top 50 Authorized Distributors in China

Picture 24: A successful executive conference!

About CEDA
CEDA is a non-profit organization to serve franchised electronics component distributors with operations in greater China. At present, CEDA is under the leadership of China's Information Industry Trade Association to serve China's innovation activities by one-stop reliable supply chain solutions.

Union Budget of India & Reforms in the Indian Economy

by Rajoo Goel
Elcina
www.elcina.com

As per the Constitution of India, the **Union Budget**, also referred to as the annual financial statement, is an estimate of receipts and expenditure of the government for a fiscal year which runs from 1st April to 31st March. In summary, it keeps account of the government's finances consisting of the Revenue Budget and Capital Budget. The Revenue budget includes the government's revenue receipts and expenditure and Capital Budget includes capital receipts and payments of the government which is expenditure on development of assets, economic and social infrastructure.

While this may be true for most countries, in India the annual Union Budget is awaited every year with much expectation by all citizens as it announces changes in taxes and outlines the government's priorities through the allocation of financial resources as per its priorities.

2017 UNION BUDGET

This year, the Budget has many firsts to its credit and comes in the backdrop of several major steps taken by the Indian government in tax reform and establishing a transparent tax and money economy. These steps are bound to have a major impact on the way people live and do business in India.

> *"Establishing in India a transparent tax and money economy"*

The Goods and Service Tax which has been in the making for the last decade is about to see the light of day. This will be the most significant indirect tax reform since India's independence in 1947. For the first time since pre-independence colonial times, the **Indian Railway Budget** was merged and presented along with the Union Budget with a higher allocation of funds.

Another first was the advancement of the Budget presentation date from the usual 28th February to 1st February possibly for effective implementation of the proposals from 1st April which is the beginning of the Indian fiscal year. Demonitization of Indian Rupee 1000 and 500 currency notes on 8th November 2016 was the biggest shock treatment received by Indian businesses and all citizens. This was a drastic step and almost earth shaking for the country as it wiped out over **80%** of the country's cash from circulation overnight.

The reasons for this step are indeed compelling and include eradication of fake money, controlling spread of black money, confining widespread corruption in the country and moving towards a less cash economy with greater transparency in economic transactions.

> *"It wiped out over 80% of the country's cash from circulation overnight"*

However, this severe step to cleanse the economy has resulted in considerable destabilization in routine business affairs and for almost two months economic activity was impeded and slowed down to a snail's pace.

It is gradually limping back to normalcy as fresh cash is getting infused into the system and new measures and systems for cashless transactions are getting established. However, it is now well accepted and documented that the GDP growth of the country during the Fiscal Year ending 31st March, would

shrink by at least one percentage point due to this step.

KEY FEATURES

The budget has broadly focused on **10 themes** — the farming sector, the rural population, the youth, the poor and underprivileged healthcare, infrastructure, the financial sector for stronger institutions, speedy accountability, public services, prudent fiscal management and tax administration for the honest. Its broad objective is to Transform, Energize and Cleanse the economy and open-up opportunities for all sections of society.

> *"The most significant indirect tax reform since India's independence in 1947"*

Allocations for infrastructure development (US$58 Bn), education, employment generation, agricultural credit (Target US$140Bn), digitalization and internet connectivity for remotest areas (High Speed Optic Fibre connectivity in 150,000 Villages) and incentives for low cost housing are some key features. There is a move towards **a lower tax structure** with reduction in taxes for individuals, small businesses and companies with sales of approximately US$ 8 million (Indian Rs 500 Million) annually.

> *"Considerable destabilization in routine business affairs"*

A similar move is expected with the GST rolling in by July this year which should push growth back up by 1-1.5 percentage points and lower tax incidence on goods and services. Businesses are looking forward eagerly to GST which would simplify tax administration and reduce the tax slabs and compliance requirements being an online internet based system.
India is moving towards becoming a low tax and sustained high growth economy and with a bit of luck thrown in, over the next decade could be a strong contributor to global growth.

21st edition of the "Trophées du SPDEI"
A new modern and dynamic look

by Pascal Fernandez
SPDEI

For the 21st consecutive year SPDEI rewarded 27 components manufacturers at the "Automobile Club de France" in Paris on December 1st 2016 **Pascal Fernandez**, President of **SPDEI** presented the Trophées rewarding Manufacturer for the quality of their support and collaboration with their distribution network.
Several product categories were represented Optoelectronics & Display, Standard components, Analog and Microwave, High End Digital, Passive, Connectors, Cables and Accessories, E-Mech, Energie and for the 2nd time Embedded.

SPDEI
SYNDICAT PROFESSIONNEL DE LA DISTRIBUTION EN ÉLECTRONIQUE INDUSTRIELLE

"We have been extremely happy to host once more this friendly event with all the actors of the Electronic Value Chain. This 21st edition was also the opportunity for us to present the new branding of SPDEI, new logo, website, value proposition better representing the dynamism of electronic distribution. This is not just a relooking exercise, but the result of the increasing value of our profession and our desire to better promote our member's strength addressing the complexity of our ecosystem", says Pascal Fernandez President of SPDEI.

> *"We are going through a spectacular transformation of our industry"*

During the first part of the event, **Eric Jourde**, Delegue General of the FIEEC - *the Federation of Electric, Electronic and Communication*

industries - highlighted the key structuring role of the Electronic value chain, in particular related to the digitalization of the industry.

This is one of the key challenges of the French industry, with the potential of regaining lost ground by restoring competitiveness and innovation.

The Federation, fully committed to the promotion of innovation created an Industry 4.0 award as well as a **"Start-up Club"**.

> **"SPDEI is promoting values of professionalism and ethical practices and is a label of excellence for its members"**

A round table gathering, Christian Ulrich, Responsable design, Thales communications & security, André Cottard, Directeur général PDCi et Damien Rossignon, CEO, Protoelectronique representing the diversity of the industry debated on *"Digital Transformation: Opportunity of Threat"*.

Regarding the state of the business, mergers and acquisitions and digital transformation are re-shaping the environment, radically changing relationship between players creating opportunities for electronic solutions across all industries.

Distributors are pivotal to accelerate the success of all industry players. After a strong first part of 2016 and a weaker summer period SPDEI is anticipating an average growth of 3% in 2016.

> **"Distributors are pivotal to accelerate the success of all industry players"**

More than ever SPDEI is promoting values of professionalism and ethical practices and is a label of excellence for its members.

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The Elint Consortium acts in the SSL (Solid State Lighting) and Electronics area to promote “made in Italy” products and applications internationally. Elint is a member of Federexport-Confindustria and actively cooperates with several public Institutions for matters regarding export

2017 PROGRAM

>Showroom

temporary showroom of lighting/LED solutions and design products

>International fairs

participation to the most important fairs and events in Italy and abroad

>Workshops & Events

conferences, events and forums devoted to new technologies

>Communication

Web, directories, newsletters, magazines

in partnership with

assodel

>Roadshows

itinerary events to promote smart technologies for lighting and home automation

>B2B meetings

One-to-one meetings with International operators in the SSL field

>International promotion

activities to promote SSL/Made in Italy applications and products

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