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NEWS

FEDERATION IDEA

November 2018

Price - Only One Element ...

How often have you heard it said, "of course other things have to be factored in but at the end of the day customers are only really interested in the price…?" It's a widely held industry belief, but progressive procurement organisations have for decades been harnessing supply network collaboration and market intelligence to enable them to recognise the transition from a buyers' to a sellers' market and keep them ahead of the curve. In the light of changing industry dynamics ***IDEA*** *chairman Adam Fletcher suggests that the issue of price in the electronic components supply network in the short, medium and long term is worthy of further consideration...*

by Adam Fletcher, ECSN

We must thank Prof. James Culliton of Harvard University who in the 1940s came up with the ideas that that form today's classical rules of marketing. Culliton's vision was further developed by fellow academic Prof. Neil Borden with his proposal for a *"Marketing Mix"*, and some two decades later by E. Jerome McCarthy who set out the *"4Ps of Marketing"* - Product, Price, Promotion and Place.
But it was Dr. Philip Kotler whilst at the Kellogg School of Management, Northwestern University in the 70s who really popularised these concepts. Most marketeers today have been influenced by Kotler's work and have actively followed the *"4Ps"* strategy in bringing products to market.

According to Kotler the "4Ps" should be applied in strict order and that modifying any of the four elements had the potential to change the results within the market. It's interesting that **"Price"** is high on McCarthy's list but according to Kotler it's not the most important.
He argued that to have any chance in the market the **"Product"** first had to be developed based on satisfying the needs

and aspirations of the customer and had to function as anticipated.
He also asserted that the three remaining "Ps" - Price, Promotion and Place - had to accurately reflect the positioning of the Product in its market.

In the 1980s other academics (Boom and Bitner) suggested adding three further "Ps" - **"People"**, **"Process"** and **"Physical Evidence"** to the marketing mix to reflect interest and developments in service industries as well as in the product itself.
In 2013 Kotler added a 5th "P" (Purpose) to McCarthy's original list suggesting

that organisations that successfully implemented the "5P" marketing strategy over a sustained period would be wholly aligned with their customers, employees and suppliers and would thereby have the best chance of maximising returns.

It may not be widely recognised but all Electronic Equipment Manufacturers and Electronic Components Manufacturers adhere to these established marketing principles today when taking the vast majority of their products to market. However, in some markets - typically those in very high-volume legacy commodity products such as MP3 players, DVDs, USB Memory Sticks, MLCCs, memory etc., - the manufacturer cannot always manage the marketing mix for all of their vast output and merely allow the "4Ps" and in particularly the "Price" for these products to find their own position within the global marketplace.

PROCUREMENT

In their book *Purchasing and Supply Chain Management* first published the 1970s and still in print, Dr. Brian Farrington and Dr. Kenneth Lysons defined the *Five Rights of Procurement* as **"Right: Quality, Quantity, Place, Time and Price"**. Although these academics saw the "Five Rights" as closely inter-related they believed that "Right Price" belonged in last place on the list because it serves as a summation of all the other variables.

Many procurement organisations invest significantly in supplier evaluation tools to help ascertain if their partners are meeting the *Five Rights of Procurement* in the specified and/or agreed mix.

Much of their efforts (guided by Pareto Analysis) are focussed on the higher value products (often termed "A-" and "B-class" items), where their impact on procurement cost can be significantly greater. Findings are reviewed by both parties who then go on to agree a plan of action with the aim of fully meeting the buyer's expectations, which often do include a reduction in the price to be paid. It's a case of "heads I win, tails you lose" because only extremely rarely does pricing increase when the supplier exceeds the customer's expectations of performance.

> ***"Much of their efforts are focussed on the higher value products"***

This focus unfortunately often overlooks the lower-cost "C" class items that easily make up >70% of the components on a bill of materials.
In this application Pareto Analysis does not measure supply risks, just value.
All is well until a supply problem occurs with several "C" class products, when it may be necessary to find an alternative source of supply. The nature of "C" class items means that buyers often do not monitor them closely and market

intelligence concerning them is easily be overlooked.
And if this omission relates to a "merchant market commodity product" over which no manufacturer has control it's likely to be a recipe for commercial disaster, particularly when a number of suppliers have recently exited the market.

MARKET FAILURE?

A great example of failing to manage the market can be seen in the problems currently effecting availability of some very low value MLCC and chip resistors components.
Manufacturer lead-times for these parts are extending to many weeks and product shortages and possibly allocation looks likely for some larger case-sized MLCC.

I'm certain that the manufacturers of these components believe that they have taken the correct course for their shareholders by focussing production on the high-volume, small case size, high performance products demanded by their largest customers, but it does also mean that customers for their legacy products have been left in the lurch and/or are faced with unsustainable pricing and poor availability.
In the short-to-medium term there has been little evidence of the additional investment in manufacturing capacity necessary to resolve the problem and the reality for electronic equipment manufacturers faced by supply problems like this could well be to re-engineer their existing designs using the latest generation of smaller case size MLCC products.
However un-palatable this may be, it represents the best and lowest cost solution to what is becoming a major industry issue in Europe and the USA.

PAYMENT

In my view one very important "P" that doesn't currently featured in the Fundamentals lists of both the Marketing and Procurement camps is **"Payment"**.
Payment terms have a significant impact on price and profitability and for some transactions credit or alternative forms of financing can improve profitability for the seller and ease cash burdens for the purchaser.

> ***"Payment terms have a significant impact on price"***

A good example can be seen in new car sales today: In the 1940s a new car was predominantly paid for in cash via savings and/or a bank loan, whereas in the UK today most are sold on Personal Contract Plans financed by the manufacturers for whom such deals are a major source of revenue, but like the driver of a new car, failure to pay on time or defaulting has very serious ramifications for the cash flow of all parties in the electronic components supply network.

The underlying industry fundamentals in the electronic components supply network have changed.

Changes to semiconductor scaling resulting in hugely increased costs and the on-going consolidation within the industry has made it much more attractive for manufacturers to focus on production of ever more integrated high-value proprietary parts.

The good news is that in the medium-to-long term pricing for most semiconductors will be more stable over their life-cycle and will not follow historical price declines.

But that's not to say that supply and demand across the electronic components supply network will be less cyclical and that changes in the market won't occur, because they will!
The trick to maximising intelligence and obtaining the benefits for your organisation is increased collaboration with partners both up and down your supply network.

News

Y-O-Y IC GROWTH SLOWING

The first half of 2018 started out with strong quarterly year-over-year growth for the IC market. However, 3Q year-over-year IC market growth dropped to 14%.

Moreover, with the softening of the memory market, **IC Insights** projects that year-over-year IC market growth in 4Q will be only 6%.

Source: Electronics Weekly

POWER ELECTRONICS MARKET WORTH 51 BILLION USD BY 2023

According to the market research report on the *"Power Electronics Market by Material, Device Type, Application and Geography - Global Forecast to 2023"*, the power electronics market is estimated to grow from USD 39.03 Billion in 2018 to USD 51.01 Billion by 2023, at a CAGR of 5.5%.

Source: Markets and Markets

Q3 2018: growth continues but uncertainty rises too

Sales of Electronic Components through Distribution in Europe continue to grow but the economic clouds are gathering.

by **Aubrey Dunford**
www.ideaelectronics.com

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.

Despite some slowing in global economic growth in mid-2018 growth, in the European Electronic Components Distribution Market as shown in the Q3 2018 European Electronic Components Statistics has continued at around 7% when compared with the same quarter of 2017. Billings in Q3 2018 were slightly up compared to the second quarter.

Total Billings as reported by the trade associations shows that sales by the member companies were 6.9% higher in Q3 2018 than in Q3 2017 and 7.3% for the first nine months of 2018 compared with the same months in 2017.

As can be seen from *Graphic T1* the book:bill ratio was 1.06 which means that the ratio has been positive for 8 successive quarters. Although slightly down on the first two quarters of the year the ratio remaining in positive territory is a strong sign that growth in the market will continue into early 2019.

THE ECONOMIC OUTLOOK

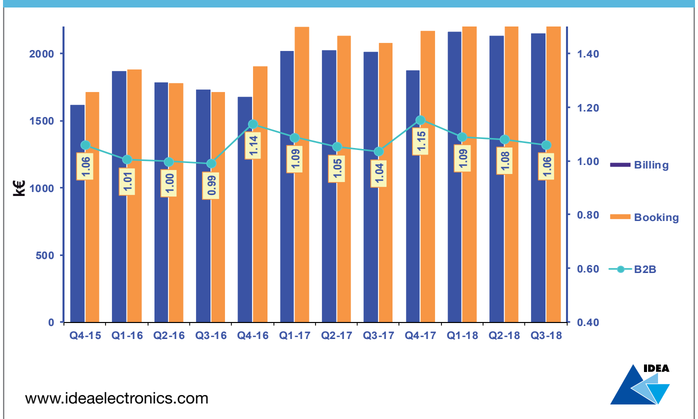
According to the International Monetary Fund's World Economic Outlook published in September 2018 - "Less than 6 months ago, the global economy enjoyed healthy synchronised growth. Now, the landscape has changed. Global growth is hitting a plateau, uncertainties over the path forward abound, and risks from trade restrictions and tighter financial conditions have already started to materialise in some countries.

> **"The book/bill ratio has been positive for 8 successive quarters"**

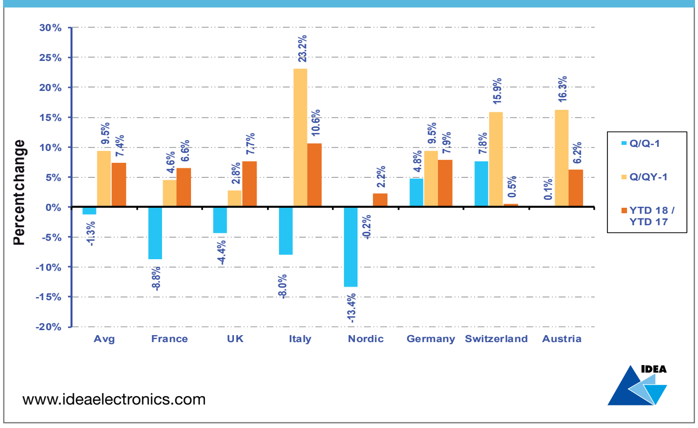
Global growth is projected to be at 3.7% in 2018 and 2019 in our latest Interim **Economic Outlook**, which remains an elevated pace. At the same time, it also reflects weaker prospects than anticipated just a few months ago, and some fragilities. Growth performance has become less synchronised across the world: while it remains strong in the United States, India and China, it has faltered in many other economies.

Another risk that has started to dent growth is,

3RD QTR. 2018 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

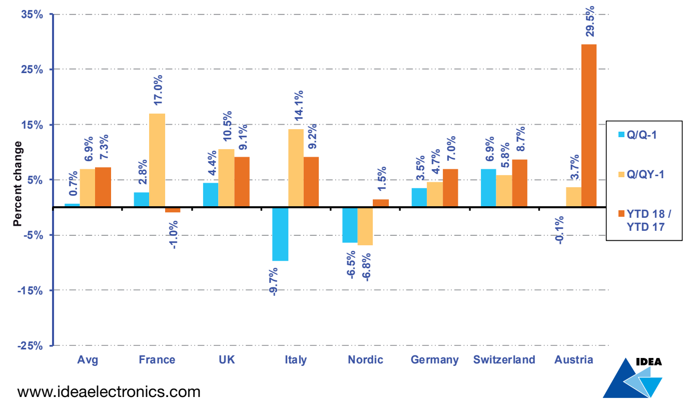


3RD QTR. 2018 TOTAL COMPONENTS BOOKING TREND *Graphic T2*
Distribution orders for Electronic components by country comparing current qtr with prior quarter (Q/Q1)and same quarter prior year (Q/QY-1) and YTD 18/17



3RD QTR. 2018 TOTAL COMPONENTS BILLING TREND *Graphic T3*

Distribution sales for Electronic components by country comparing current qtr with prior quarter (Q/Q1)and same quarter prior year (Q/QY-1) and YTD 18/17



in emerging market economies (EMEs), the effect of rising interest rates and US dollar appreciation. Argentina and Turkey, having significant shares of debt in foreign currency, large external financing needs and high domestic inflation, have been the most exposed to turbulence in currency markets.

"Uncertainties over the path forward abound"

In Europe, political risks could harm growth and social cohesion. Brexit is an obvious source of uncertainty. It is vital that a deal is struck that maintains the closest possible relationship between the United Kingdom and the European Union. As for Italy, public finances need to respect EU rules, ensure debt sustainability while privileging productive investments badly needed to raise growth. More largely, the EMU policy framework needs to be strengthened along the commitment made in the wake of the euro area crisis to enhance confidence, growth and ensure the euro area thrives as it should."

Later in this edition, Ron Bishop discusses the implications of tariffs within the connector area and shows some of the complexities that companies are having to consider as they try to find their way through the political uncertainties.

GROWTH IN MOST AREAS

As can be seen in *Graphic T3* there has been growth in Q3 2018 over Q3 2017 in all countries except Nordic where there was a decline of -6.8%. France and Italy showed the largest growth at 17% and 14.1%. Overall the growth is 6.9%. The third quarter of the year in line with the normal seasonal pattern has shown a small rise over the second quarter in most countries, the exceptions to this were Italy and Nordic where there was a decline in Q3 2018 compared to Q2 2018.

The figures shown in *Graphic T2* show that bookings in Q3 2018 were overall 1.3% lower than Q2 2018 with declines in 4 countries but an increase in Germany, Switzerland and Austria.

"Overall the growth is 6.9%"

QUARTERLY SALES BY PRODUCT FAMILY

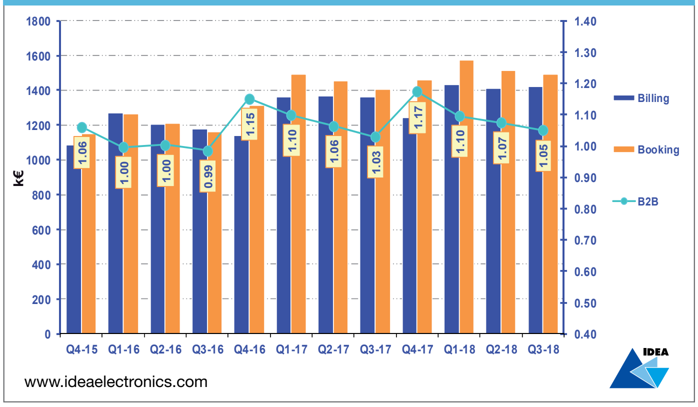
As we do each quarter, we look at the booking and billing trends by product and regional market.

SEMICONDUCTORS

In the first three quarters of 2018 billings of Semiconductors have accounted for 66% of the total billings, and the book:bill ratio for semiconductors as shown in *Graphic S1* shows the same pattern as for the total components with 8 quarters with the ratio being above

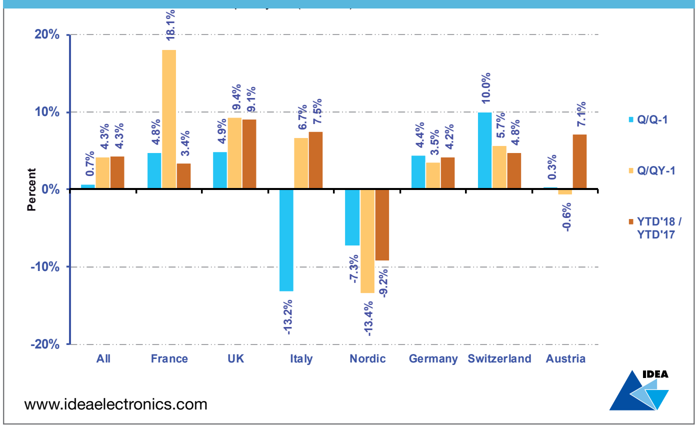
3RD QTR. 2018 SEMICONDUCTOR BOOKINGS, BILLINGS & BOOK:BILL RATIO *Graphic S1*

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



3RD QTR 2018 SEMICONDUCTOR BILLING TREND *Graphic S3*

Distribution sales for semiconductors by country comparing current qtr with prior quarter (Q/Q1)and same quarter prior year (Q/QY-1) and YTD 18/17

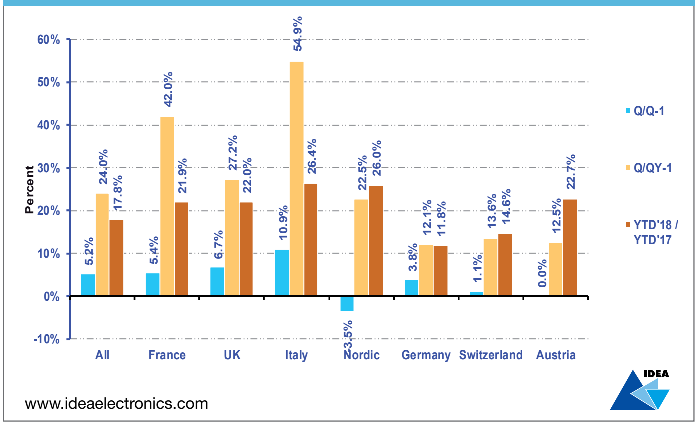


one and with the highest value so far in Q4 2017. The last quarter of the year tends to have the highest book:bill ratio as billings in the last quarter are lower due to less working days in December and also many companies keeping lower stocks at the end of the year. However as can be seen in *Graphic S3* Billings in Q3 2018 were 4.3% higher than in Q3 2017 but with Nordic showing a large decline and Austria a small decline. Growth was strongest in France.

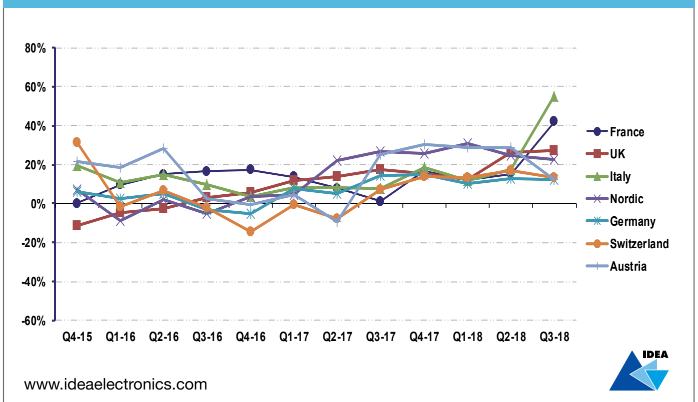
PASSIVES

Passive components sales in 2018 have been 14% of the total sales of components. The book:bill ratio trend for Passives has been the same as for semiconductors with eight consecutive quarters with a ratio above one with

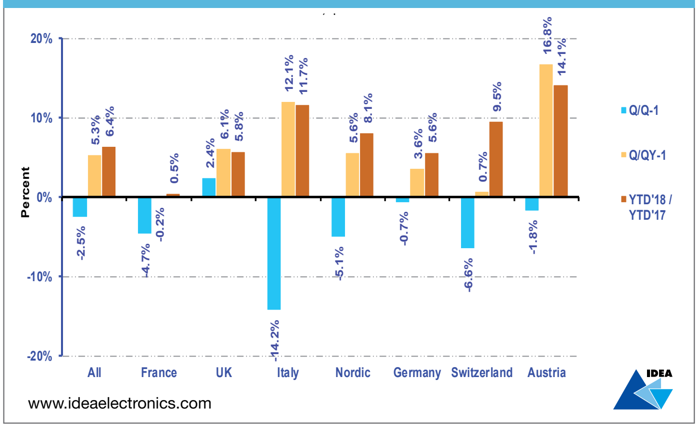
3RD QTR. 2018 PASSIVE COMPONENTS BILLINGS TREND *Graphic P3*
Distribution sales for passive components by country comparing current qtr with prior quarter (Q/Q1)and same quarter prior year (Q/QY-1) and YTD 18/17



3RD QTR. 2018 PASSIVES TENDENTIAL INDEX BY COUNTRY(Q/Q_{y-1}) *Graphic P6*
Trend showing growth/decline % in quarterly sales of passives through distribution by country compared with the same quarter prior year.



3RD QTR. 2018 EMECH COMPONENTS BILLINGS TREND *Graphic E3*
Distribution sales for emech components by country comparing current qtr with prior quarter (Q/Q1)and same quarter prior year (Q/QY-1) and YTD 18/17



the highest ratio in Q2 2018. However as can be seen from *Graphic P3* there has been strong growth in Q3 2018 when compared to the same quarter in 2017 with a growth between 12.1% in Germany and 54.9% in Italy with an overall growth of 24%. As *Graphic P6* shows there is still a strong upward trend in all areas.

E-MECH AND OTHER COMPONENTS

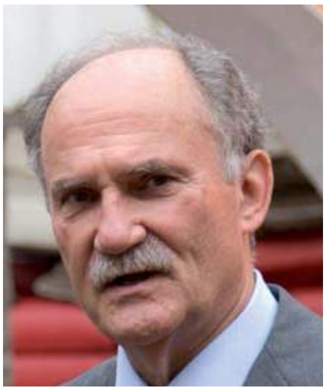
Our Emech and Other Components Category contains many of the newer and growing product categories such as displays and Modules (including Wireless) and accounts for the remaining 20% of the total. The trend for the book:bill ratio is the same as the other product categories except that Q3 2018 was the ninth quarter with the ratio being above one. The last quarter of 2016 and 2017 showed the highest ratios.

Graphic E3 shows that as with the other categories there has been growth in all countries in the third quarter of 2018 compared to the same quarter of 2017 except a very small decline in France.
Total growth was 5.3% with growth in Italy at 12.1% and Austria at 16.8%.

Illuminotronica 2018

The Italian exhibition of system integration and home & building automation

by Silvio Baronchelli
Assodel



One month before its start, **ILLUMINOTRONICA**, scheduled for November 29-30 and December 1st 2018 at Bologna fairground, presents itself as an international fair focused on the new system integration market. The Internet of Things (IoT) technology is the key factor that will make both building automation and smart city markets grow in double digits and lead to smarter and more comfortable buildings and cities. The event is promoted by **Assodel**, the Italian Association of Electronic Clusters, the main reference point for the italian electronics and high technologies industry.

SMART SPACES: BUILDING & ENERGY MANAGEMENT

One of the focus of the Bologna edition of Illuminotronica is to re-think, design and manage "Smart Spaces"... The spaces we live in have to be transformed, thanks to new technologies and IoT, to improve our way of living and working. Places have to be built with a human centric approach to put people 's well-being above all. On this sense, Illuminotronica will orgnaize a series of talk shows, demo areas and training courses on the correct use of new technologies in different applications, from smart home to smart cities, from smart buildings to smart retail.

A TECH GYMN TO REMAIN UPDATED

During the fair, manu professional training gourses and networking opportunities will focus on the (positive) impact of new technologies on our daily lives, from corect lighting design to cyber security, from energy management to privacy, from IoT connectivity to professional qualification.

Furthermore, in collaboration with **KNX Italia** and **EnOcean**, the exhibition area will offer demo panels dedicated to building management and control.

Thanks to the collaboration of **VEM Sistemi** with **Cisco Systems** and **Schneider Electric**, it will also be possible to visit a real shop of the future, with an interactive and immersive experience. A Retail 4.0 demo area to explain how to improve customer experiences with the use of new technologies.

SMART LIGHTING, A FOCUS OF ILLUMINOTRONICA

The lighting sector has definitely entered the digital age, as shown by announcements of many companies of the lighting world in the last year. This means that we are increasingly talking about connected light and Internet of Things also in this sector. It also means that a lighting system must necessarily "speak" and "be integrated" with other system of a specific environment - city, home or building - to improve its liveability.

ILLUMINOTRONICA has always paid much attention to the subject which remain a focus of the fair, both in the exhibition area and in the conference program where many speeches on the subject have been scheduled.

Giving the distribution sector the recognition it deserves

by Andreas Falke
FBDi

Since May this year **Andreas Falke** is responsible as Managing Director of the Fachverband Bauelemente Distribution *(FBDi, Professional Association of Component Distribution)*. Having more than 20 years of professional experience in the retail and component distribution segments, Falke brings a wealth of expertise to the role. In this interview, he talks about the current challenges facing the distribution sector and the professional association's future.

1. Mr Falke, with your background, you have a good perspective of the industry. Where to you see the greatest challenges for the FBDi in the near future?
I consider my position as Managing Director at the FBDi as an ideal platform from which to pass on my accumulated knowledge of processes, opportunities and risks and to support the association and its members in what is a time of change. After all, changes across all areas demand extreme adaptability and increased efficiency from distributors in particular. Only in this way can they continue to act as the link between the two poles of "manufacturer" and "customer".
In the same way as the distributors themselves, the professional association must rise to this challenge to position itself accordingly as well as to promote and represent the distribution model.

"The association has to represent the distribution model"

2. During your career, you have accumulated a great deal of experience in the area of change management. To what extent do you also see a need for change at the FBDi?
Against a background of continuously changing guiding principles and parameters, it would be foolish to adhere rigidly to traditional ideas. Leaner and more efficient processes and communication are forcing massive changes in the retail sector. We must further develop the strengths of distribution, such as the value proposition, and publicise this added value more clearly.
We must speak with one collective voice to command greater attention in the market and among relevant authorities.
We are working to introduce the necessary activities and adaptations in the structure of the association as well to meet the requirements of changing markets and our members.

"We must speak with one collective voice"

3. The FBDi currently comprises 29 member companies and 3 supporting members. Do you see potential for further growth in membership as a means of strengthening your position?
Although the members of the FBDi cover a high proportion of the distribution market, there are still many distributors who have yet to organise themselves. With that in mind, I still see potential for additional members in the market.
In this context, it is important that we explore the opportunities and possibilities of cooperation and that we

hold individual discussions to examine common interests and the potential to add value. I have little interest in setting quantitative targets. My priority is to focus on the quality and added value of our interest group as I am convinced that these factors will prevail. This in turn automatically makes membership a more attractive proposition.

4. What opportunities do you see to raise the association's public profile?

The saying "Do good and talk about it" was coined for good reason – and the FBDi has already done a great deal of good that we can talk about: Current position papers, the **FBDi Compliance Compass**, the FBDi guidelines and the advantages that the members derive from the work groups speak for themselves. Specifically, the FBDi Compass combines man-years of expertise contributed during countless meetings and offers valuable support for dealing with EU Directives. Given that the transition periods of many EU Directives expire this year, many of our solutions and documents are at present gaining a new relevance. Consequently, we are now updating the relevant papers and tools and expanding them, where necessary. We will keep the industry informed of progress as we have done up to now. We also want to use social media to make the public more aware of the FBDi.

5. How would you assess the cooperation work between the FBDi and other (inter)national associations?

Many issues faced by the FBDi are also relevant at supra-regional level. Therefore, I believe it makes good sense to look beyond borders, to strengthen cooperative ties and to promote a collective voice for the distribution sector.

The association's current strong position is extremely helpful in this regard. I am very keen to expand the existing ties to ensure that the interests of members and of the association are also taken into consideration at European level, and, of course, to add weight to them and achieve greater clout.

"We offer valuable support to deal with EU Directives"

6. On the subject of the international dimension... there are growing fears of a global trade war, stirred up by the punitive tariffs imposed by the USA on steel and aluminium. Many manufacturers are based in Asia, and the sales market there is also significant. To what extent do you see this impacting distribution?

Although there is no cause for scaremongering, even we would not escape unscathed by any escalation in these disputes. If we merely consider the possibility of having to document the flows of goods, this would impose an extreme additional burden. For the time being, the focus is not on us, but we continue to monitor developments closely.

7. Due to shrinking margins, the distribution sector is faced with a dilemma with regard to value-added services. How can the FBDi ensure greater appreciation of this "distributor USP' again?

In recent years, distributors have had to contend with the new reality in which they do a great deal of development work against a backdrop of shrinking margins – and many a time come away empty-handed. This painful experience is certainly bringing about a change in thinking and causing individual companies to position themselves as specialists in various niches.

This is where the FBDi, in its capacity as an interest group, has the opportunity, during the course of the **Competence Circles** – for example the CC Market & Future - to progress and intensify discussions and the forming of opinions with economic partners. The most important role of distribution is to ensure availability of the right quantity of the right products and information at the right time and at the required quality. In addition, it must provide a credit function as well as targeted support when product innovations are introduced. The goal is to secure appropriate recognition of these distribution services among the market partners. If something runs so smoothly that it is no longer acknowledged, this then begs the question: What happens if it is no longer financially viable to provide these services to the familiar quality standard?

"The distribution has also a credit function"

8. What this actually means is...?

The way I see it, the problem relates to the value that is attached to the services provided. Paradoxically, there are still many business partners who think that value-added services provided by the distributors do not justify any additional charges but are already included in the mark-up calculation. This situation can only be addressed by more detailed cost calculations for additional services provided in each case.

Only if added value and a price are allocated to these - which is unavoidable due to the pressure on margins - will the resulting price discussions also positively influence the recognition of distributors in general. This also requires distributors to assess whether a transaction is worthwhile with regard to the internal return on investment, or whether it would be better to distance oneself from it.

AREI Agm Report

by Warren Muir
AREI
adec@icon.co.za

The Association of Representatives of the Electronics Industry (AREI) of South Arica had its **Annual General Meeting** at Blanford Manor near Johannesburg on 20th September 2018.

The committee reported that they had concentrated their efforts for the past financial year, on the following areas:

- Increasing Membership
- Improving our Value Proposition to members
- Improving the Accuracy of the Statistics
- Arranging a worthwhile Trade Show
- Focused engagement with other Associations, Government and Educational Institutions

MEMBERSHIP

They reported an increase in membership of five new members with a resignation of only one member.

VALUE PROPOSITION

The committee completed a Survey early in 2018 to establish what the perceived Value Proposition of the Association was. A large proportion of responses indicated that the members wanted the committee to focus on three specific areas, namely:

- Accurate Industry Statistics
- A high impact Trade Show
- More collaboration with associated stakeholders in the Electronics Industry

As these were aligned with the strategies the committee started with in October 2017, they kept their focus on these three areas for the rest of the year.

THE STATISTICS

The committee attempted to improve the accuracy of the Statistics by asking members to estimate what they believed the Total Available Market numbers to be for the categories that they were involved in. Although a few members contributed, the sample size was not large enough to justify any changes to the formulation of the Stats. Interestingly of all the members who did contribute, the consensus was that the TAM was significantly higher than the AREI reported DTAM figures.
Comparing the DTAM for H1-2017 and H1-2018 the numbers have decreased by 2.5% in Rand (ZAR) terms but have increased by 4.9% in US Dollar terms due to the strength of the Rand in the first half of the year.
The DTAM for H1-2018 has increased by 10% and 20% in ZAR and USD terms respectively compared to the figures declared for H2-2017. *Figure 1* therefore does pose a picture of hope for the Sector, as there is growth in USD terms.

NEW TRADE SHOW

AREI co-ordinated a Trade Show at Kyalami Exhibition Centre in 2016, and although the committee felt it was a success for the first show AREI had arranged on its own, the general sentiment and number of feet through the door did not agree.

> **"The DTAM for H1-2018 has increased by 20% in USD terms"**

The committee therefore decided not to put on a Trade Show for 2018, but to try get ideas on a way forward from the members. Based on the feedback from the Survey and brainstorming they decided to try a collaborative approach with other associations and exhibition experts. After negotiations with a few associations and entities, they decided to partner with **Specialised Exhibitions Montgomery**. The committee announced at the AGM that they had structured an agreement for the members with Specialised to exhibit at the **Local Southern African Manufacturing Exhibition (LME)** in May 2019. The show promises to be world class, with numbers and quality of the visitor that will exceed those that attended the 2016 show.

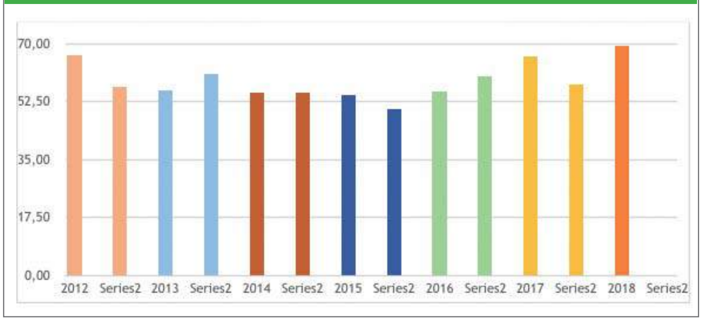
FOCUSED ENGAGEMENT

The committee reported little success with engagement with Government Institutions. Engagements with other Associations and Educational Institutions had been successful with a signed Reciprocal Membership Agreement with the **Society for Automation, Instrumentation, Measurement and Control (SAIMC)** and a good working relationship with **Tswane University** of Technology and **Vaal University of Technology**.

THE YEAR AHEAD

The Chairman concluded that the committee had made reasonable progress in the financial year, but that the new committee would need a concerted effort next year to keep up the momentum of the association with the current economic environment. He thanked the members and specifically the committee for affording him the opportunity to serve as the Chairman of AREI and informed the meeting of his intention to step down, as his 2-year tenure was complete.
The Chairman closed his report by stating that AREI's mission remained to grow the South African Electronics Industry through Collaboration and that he trusted that the new committee and elected chairman would drive this Vision.

NORMALISED DTAM ($M) (HALF YEAR) *Figure 1*



US Trade War with China reaches stalemate

The US has implemented another round of tariffs against China. The electronics industry is caught in the middle

by Ron Bishop
Bishop & Associates

We have now reached the next phase of the Trump administration's planned tariffs on imports from China. On September 24, a third round of tariffs went into effect on midnight. This round includes some products used by the electronics industry, such as copper, nickel, steel, and other metals; select tools; select wire products; select appliances, machinery, and automotive parts; select batteries, insulators, LEDs, and printed circuit assemblies; TV and broadcast equipment; a range of substances used in the soldering of electronic parts; and chemical preparations used in lead, metal, and plastics. These tariffs are currently at 10% but will increase to 25% on January 1st, 2019, if the US and China fail to reach a successful agreement before the end of the year. *(See the full tarrifs list for more details.)* This is a powerful incentive for China to negotiate.

"The tariffs will increase to 25% on January 1st, 2019"

In the meantime, China's Commerce Ministry accused the US of causing an "economic emergency" and announced its own retaliatory measures, imposing a tariff of 5% to 10% on $60 billion worth of US products. More than **5,000 US goods will be affected**, including food and beverage products, chemicals, clothes, machinery, and auto parts. This marks a new phase in a prolonged and, for some companies, painful trade war with China.

Both countries are now locked in an economic stalemate that is not expected to budge before the US midterm elections.

Lindsay Walters, deputy White House press secretary, said, *"We remain open to continuing discussions with China, but China must meaningfully engage on the unfair trading practices."* China says it is also open to negotiations. *"The door for trade talks is always open but negotiations must be held in an environment of mutual respect,"* according to a white paper issued by the Xinhua News Agency, saying that negotiations *"cannot be carried out under the threat of tariffs."*

"China is on track to overtake the US as the largest economy by 2030"

However, in China, some theories are circulating that suggest that the tariffs situation isn't simply about rebalancing trade, but about a larger US strategy to contain China's trajectory towards global dominance. Despite cooling growth in recent years, China is on track to overtake the United States as the world's largest economy by 2030. The tariffs come amid a larger troubled relationship context that includes the exclusion of China from Pacific Rim military exercises, the US focus on Taiwan, and other perceived slights.

Economists are concerned about the global impact of these actions. Fitch Ratings downgraded its world growth forecast for 2019 by 0.1% to 3.1% and warned of additional risks. Retailers such as Target, Home Depot, and Walmart have said tariffs will force them to raise prices on consumer goods. *(Some companies, including Apple and Fitbit, have managed to negotiate special exclusions from the tariffs lists.)*

Bishop & Associates is paying special attention to trade actions that impact electronics components. We also recognize that US trade actions serve the ultimate goal of protecting the electronics industry and the significant intellectual property it has contributed to global technologies.

The US has accused China of unfair trading practices, including dumping, industrial subsidies, IP theft, and forced technology transfer. By targeting trade, the hope is to reduce trade imbalances and secure US intellectual property.

THE TARIFFS SITUATION

To see relevant tariffs dating back to the beginning of the year, revisit our *July 31, 2018, article* on the tariffs situation. We pick up here where that tally left off.

August 10: The US doubles tariffs on aluminum and steel from Turkey.

August 14: Turkey announces new tariffs on US exports of automobiles, machinery, alcohol, and tobacco in retaliation for US tariffs on Turkish goods.

August 23: The US imposes tariffs on an additional $16 billion in goods imported from China. (See Item 70.00 on the tariff schedule: Connectors for optical fibers, optical fiber bundles, or cables.)

August 30: President Trump rejects EU offer to eliminate all tariffs on US autos if the US did the same. A new working group is established to negotiate EU-US trade issues.

September 22: China calls off planned talks with the US, stating it will resume the matter after the US elections

September 24: The US slaps China with $200 billion worth of tariffs on imported goods; China responses with $60 billion worth of tariffs on US goods.

September 24: The US announces a new trade agreement with South Korea.

September 30: The US, Canada, and Mexico reach an agreement for a new trade deal called the United States, Canada, and Mexico agreement.

October 1: China cuts import taxes on non-US products for steel, wood, machinery, electrical equipment and other products.

SIGNS OF PROGRESS

On September 24, the Trump administration announced that it has reached its first successful major trade agreement. The US has revised the **KORUS agreement** with **South Korea**, reducing the US trade deficit with that country by permitting the sale of 50,000 US vehicles in Korea that meet US emission standards, rather than Korean standards. South Korea will also cut 30% of its steel imports to the US. Both of these developments have a positive impact on connector and electronics companies.

The deal will take effect on January 1 - if South Korean lawmakers sign off on the deal; this depends on the US exempting South Korean vehicles from tariffs. In exchange, the US will provide its support to South Korea as it negotiates peace with North Korea. The US has also reached a tentative agreement to preserve trade between its two largest export markets, **Canada** and **Mexico**. The revised deal will give the US greater access to Canada's dairy markets, cap automobile exports from Canada to the US, and have yet-to-be-disclosed impacts on manufacturing, online shopping, and IP.

Europe is in **"exploratory talks"** with the US about a limited trade agreement; we expect those talks to begin in November.

We see these steps as positive signs that point towards an eventual successful negotiation with China.

IPC - Association Connecting Electronics Industries issued a statement in support of continued strong measures.

"IPC backs robust efforts by the United States to address discriminatory treatment of US companies by its trading partners. We hold this same position in each of the countries where we have member companies. Trade agreements are meaningful only so long as countries that voluntary enter into them live up to the obligations they have made," said **John Mitchell**, IPC president and CEO.

We also recognize that some of these trade actions have put direct pressure on the connector industry. Many companies are experiencing stress and uncertainty during this process. We are listening to companies like **TLC Electronics**, which says it will bill its customers for increases caused by tariffs as a separate and temporary line item, rather than impose an across-the-board price increase.

> ***"Trade agreements are meaningful only so long as countries live up to the obligations"***

Companies like **ECCO Connectors** are working closely with their customers to come up with alternative sourcing options when possible, and communicating about the costs of tariffs when they cannot be avoided. We recognize the uneven consequences on small companies like **Blue Jeans Cable**, who says that most classes of connectors they work with are subject to the tariffs, but not cable assemblies with connectors already installed on them.

"What this means is that a Chinese cable assembly house can buy these connectors at low cost, not having to pay the punitive tariffs, and can then make cable assemblies and export them to the US, and still not pay these tariffs. If we build the same cable assembly using the same cable and connectors, we pay the tariff because we've brought the connector in separately — subject to the tariff — *while the Chinese producer has brought it in as part of an assembly, not subject to the tariff. The result is a systematic competitive advantage for Chinese-based cable assembly firms over domestic cable assembly firms like Blue Jeans Cable. We could, indeed, were we so inclined, open a cable assembly shop over there — paying lower Chinese wages and buying our connectors without tariff - and, in so doing, lay off American workers in favor of Chinese workers. We're not going to do that, but we're not the only people in this industry; somebody else very well might."*

"Each company in the industry is making difficult decisions"

These are challenging scenarios, and each company in the industry is making the difficult decisions it needs to in order to ultimately reap the rewards of more fair future trade relationships. We take assurances from organizations such as the **ECIA**, which is working closely with its members to understand and minimize the impact of this situation and remain optimistic that an equitable solution can be achieved.

As the US and China continue to hold their respective grounds, industries and companies are taking protective measures to weather its impacts. Some companies that manufacture in China are looking at other countries in Asia as alternatives that avoid the tariffs situation while continuing to provide the advantages of manufacturing in the region. In the US, **moving operations to Mexico** to avoid Chinese tariffs on metals has been a solution for some companies caught in the trade war.

US farmers impacted by tariffs on crops such as soybeans, sorghum, cotton, and corn are now receiving the first round of checks from a $12 billion subsidy plan.

As they look forward, they are focusing on developing new markets for these goods in new foreign markets. In **China,** meanwhile, the government is pressing farmers to increase production to replace American imports. In a scenario in which China doesn't negotiate a better deal, we do see potential upsides. The US could gain in many ways, including the return of manufacturing to the US and resulting increases in collected taxes, the end of IP loss, and other benefits associated with reshoring.

All of these shifts create additional uncertainty across a range of industries. A stable, long-term solution is needed to bring stability and equity to all global trading relationships.

New Privacy Law in U.S.

by Robin Grey
ECIA

Just when you thought that you were done with compliance with data protection regulations, the State of California recently passed a law which expands consumer privacy protection.

The **California Consumer Privacy Act** of 2018, which takes effect in 2020, is the most stringent privacy protection within the United States.

While the law only applies to Californian companies and those companies doing business in California, the new law is likely to have broad application throughout the digital world.

The basic premise of the CA Privacy Act, while similar to the **General Data Protection Regulation (GDPR)**, expands consumer rights regarding the collection and protection of personal information. The definition of personal information includes elements of GDPR and adds tracking data and unique identifiers, behavioral and profiling data, and professional data (specifically including employment-related data).

Like the GDPR, the law permits an individual to know what information is being collected about them, with whom that data is being shared and permit data collected about them to be deleted. The statute adds requirements about the sale/transfer of data to third parties and specifically permits an individual to opt out of data sales to third parties.

The **Privacy Act**, in short, clearly establishes the principle that consumers own and control their personal information. Its greatest impact is likely to affect businesses that monetize personal information by selling such information to third parties. One unique provision is that the law permits businesses to incentivize consumers who allow for the sale of their personal information. These financial incentives could include a different price, rate, level or quality of goods and services when *"reasonably related"* to the value provided to the consumer by use of the consumer's data. However, the law adds potentially conflicting language that says businesses cannot discriminate against consumers who opt out.

Indian PCB Industry

by Rajoo Goel
Elcina
www.elcina.com

The electronics market in India is expected to increase with a CAGR of 14 per cent to USD 229 billion in 2022 from USD 104 billion in 2016-17. Currently only 35% of this demand is being met by local manufacturers.

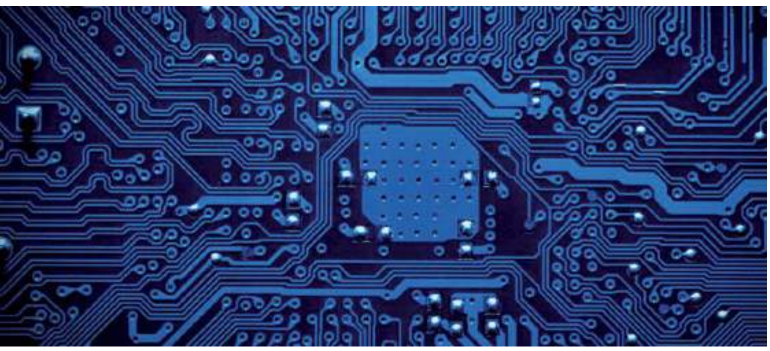
And for the remaining 65%, India is still dependent on imports. Components and PCB are the pillars of the electronics industry. India is all set to move forward by encouraging manufacturing of electronics for which various schemes and incentives are in place to support Electronic Systems Design & Manufacturing (ESDM) in India.

PCB - being the backbone of electronics holds a huge demand in India. Current demand of USD 2.38 Billion represents demand based on the total PCBs (which includes both the bare board PCBs and the populated PCBs) – This accounts for around **6.5%** of the total Electronic products manufactured in India.

Current market size for bare PCBs is USD 1.38 Billion - Only 27% of this demand is currently being met by local PCB manufacturers. And for the rest 73%, India is still dependent on imports, while nearly USD 1 billion dollar worth of Populated PCB's are imported into the country.

This current demand of US$ 2.38 Bn is likely to be USD 6.8 billion by 2020 and USD 10.4 billion by 2022. This represents a huge demand which cannot be left to Imports only and all efforts are needed to be made to encourage more domestic manufacturing of PCBs.

> ***"The Indian PCB market is growing at a much faster rate"***



INDIAN BARE PCB MARKET SIZE* (in USD millions) *Graphic 1*

DIFFERENCE REMAINS BETWEEN LOCAL PRODUCTION AND OVERALL MARKET DEMAND FOR BARE PCB (in USD millions) *Graphic 2*

SIZE OF THE PCB INDUSTRY

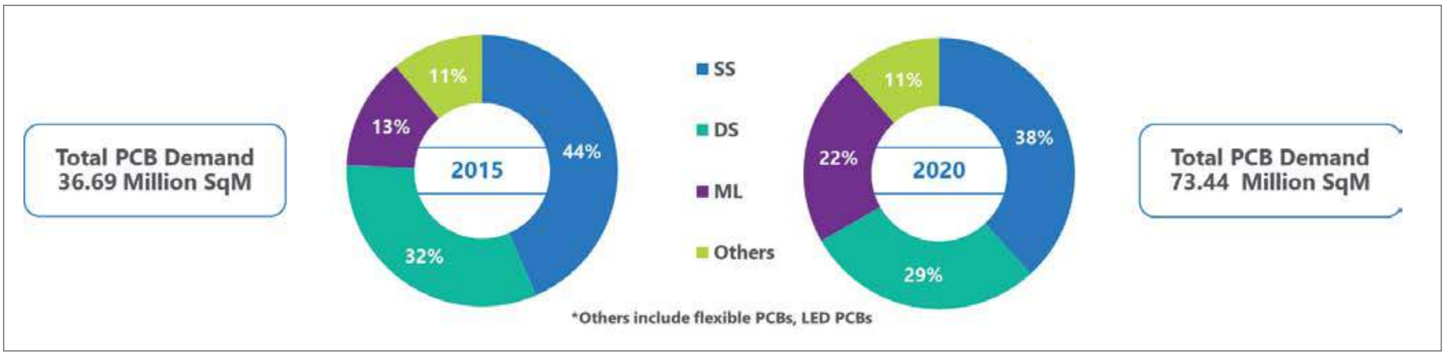
The global printed circuit board (PCB) market for the year 2016-17 was at USD 60.2 Billion. This is a growth of 2.19% over 2015-16.

The global PCB market is expected to reach USD 69 billion by 2022 with a forecast CAGR of **3.4%** from 2016 to 2022 *(Source: N T Information)*.

In contrast to the global market, the Indian PCB market is growing at a much faster rate. The Indian printed circuit board (PCB) market demand is forecasted to reach an estimated USD 6.8 billion in 2020 with a CAGR of 16.05% during 2014-2020.

> ***"There is a lot of headroom for growth"***

While the total consumption of bare PCBs in India was worth about USD 1.38 billion in 2016, the total production of bare PCBs by Indian manufacturers was **USD 372 million**. This provides a lot of headroom for the industry's growth. The scenario continues to be the same over the last two years where the country has not seen any major expansion in



the local production volume of bare PCBs. Large PCB manufacturing companies have reported growth of ~10% which is not adequate to cater to the growing requirement of bare PCB.

The policy framework is now shifting in favour of manufacturing and import duties have been imposed or increased on products not covered under ITA-1. These include smart mobile phones, energy meters, LED lighting, set top boxes and others, all of which are large volume products. Phased manufacturing programs are being introduced for key products which encourage assembly as well as manufacturing from component level. At the macro level, there is considerable effort to enhance ease of doing business as well as better tax administration and rationalization of the indirect tax under GST regime. Major initiatives have been taken including “Make in India”, “Digital India”, “Solar Power Mission”, “Mission for energy efficiency lighting”, promotion of electric vehicles, “Bharat Net” for Internet connectivity across the country, smart cities etc. all of which drive demand for electronics and boost the derived demand for PCBs and PCBAs.

“India is a big opportunity for global players”

INDUSTRY STRUCTURE

About 200 units are in operation in India which includes about 15 organised PCB manufacturers including **AT&S, Epitome Components, Ascent Circuits, CIPSA, Sahasra Electronics/Info Power** and **Shogini** which have over INR 250-300 Mn. turnover with the large ones between INR 1000-5000 Mn. In spite of this, import of bare PCBs continues to rise.
(Note: US$ = INR 73)

The Indian PCB industry has not achieved critical mass and thus has not kept pace with the global industry with respect to technology adoption. Domestic manufacturers continue to focus on single side and double side PCB that accounted for about 67% of the overall Indian bare PCB production in 2016.
This is similar to previous year’s production focus and growth. This clearly indicates that domestic PCB manufacturers are continuing to focus on existing capability rather than developing newer capabilities that will help them compete globally and enter higher technology segment which require higher capital investment and have higher value addition.
Globally, the market for flexible circuits is expected to grow much faster than that for rigid PCB since flexible circuits can facilitate form factor reduction and elimination of connectors. However, Indian PCB manufacturers are mostly focused on single-sided, double-sided PCBs and multi-layer PCBs with layer count of 4-6 in most of the cases. Indian manufacturers follow a high mix-medium volume strategy – where different types of PCBs are manufactured in low to medium volume.

Indian PCB Industry provides a huge opportunity due to low cost structure in India and a growing market expected to witness double digit growth for next 10-15 years. Investors in the PCB value chain at this time would reap the benefits of this growth as they will be able to capture the virgin market. India is a big opportunity for global players and the Government is providing incentives for the investments in ESDM value chain and is coming up with a new **National Policy for Electronics Version 2.0**. This will take manufacturing forward from the NPE Version 1.0 which was launched in 2012 and has already provided considerable momentum to investments in the sector.

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