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TO GAIN INTERNATIONAL VISIBILITY, **ELETTRONICA AV** HAS BEEN ENRICHED WITH A SPECIAL "**ENGLISH ABSTRACT EDITION"**, PUBLISHED AND DISTRIBUTED IN DIGITAL FORMAT. CONTENTS ARE CAREFULLY SELECTED ACCORDINGLY TO THE MAIN TOPIC-AREAS: ELECTRONICS MARKETS, COMPANIES AND INNOVATION.
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by Fritz Walter

"Sliding Doors"

Claiming that we have reached a turning point is quite reductive; claiming that we have reached a double turning point is far from an overstatement. Our destiny as entrepreneurs (and also as ordinary citizens) has reached its crucial issue: a European turning point. Indeed, our path inevitably intersects with Italy's future positioning with Europe, some members of which too often bend to "national-souveranist" rules; bureaucrats who probably do not grasp that the economic crisis caused by Coronavirus risks marking the destiny of the 12-star flag, in one sense or the other. It is true, we had a first piece of good news, a first positive sign in mid-June when EU leaders discussed about both the long-term budget (for the 2021-2027 timeframe) and a plan for recovery, aimed at responding to the Covid-19 crisis that put our societies and economies to the test like never before. Europe's biggest public health emergency quickly turned into the biggest economic crisis in its history.

Since the early days of the pandemic, while the EU was taking immediate measures to face the crisis by decisions that were not unanimous, mainly due to the ECB led by Christine Lagarde, it became clear that recovery would require a joint effort. For this very reason, although The Netherlands, Austria, Denmark and Sweden opposed it, we enthusiastically heard the news of the 750 billion euro lifebuoy thrown by the European Commission through the Recovery Fund that was renamed "Next generation EU".



1998 FILM DIRECTED BY **PETER HOWITT**. A GIRL TAKES THE UNDERGROUND BUT JUST MISSES IT AS THE TRAIN DOORS CLOSE. THE MOVIE THEN REWINDS AND THE SCENE IS REPLAYED EXCEPT THAT NOW SHE JUST MANAGES TO BOARD THE TRAIN. THE STORY CONTINUES ALTERNATING BETWEEN THE TWO STORYLINES IN WHICH DIFFERENT EVENTS HAPPEN.

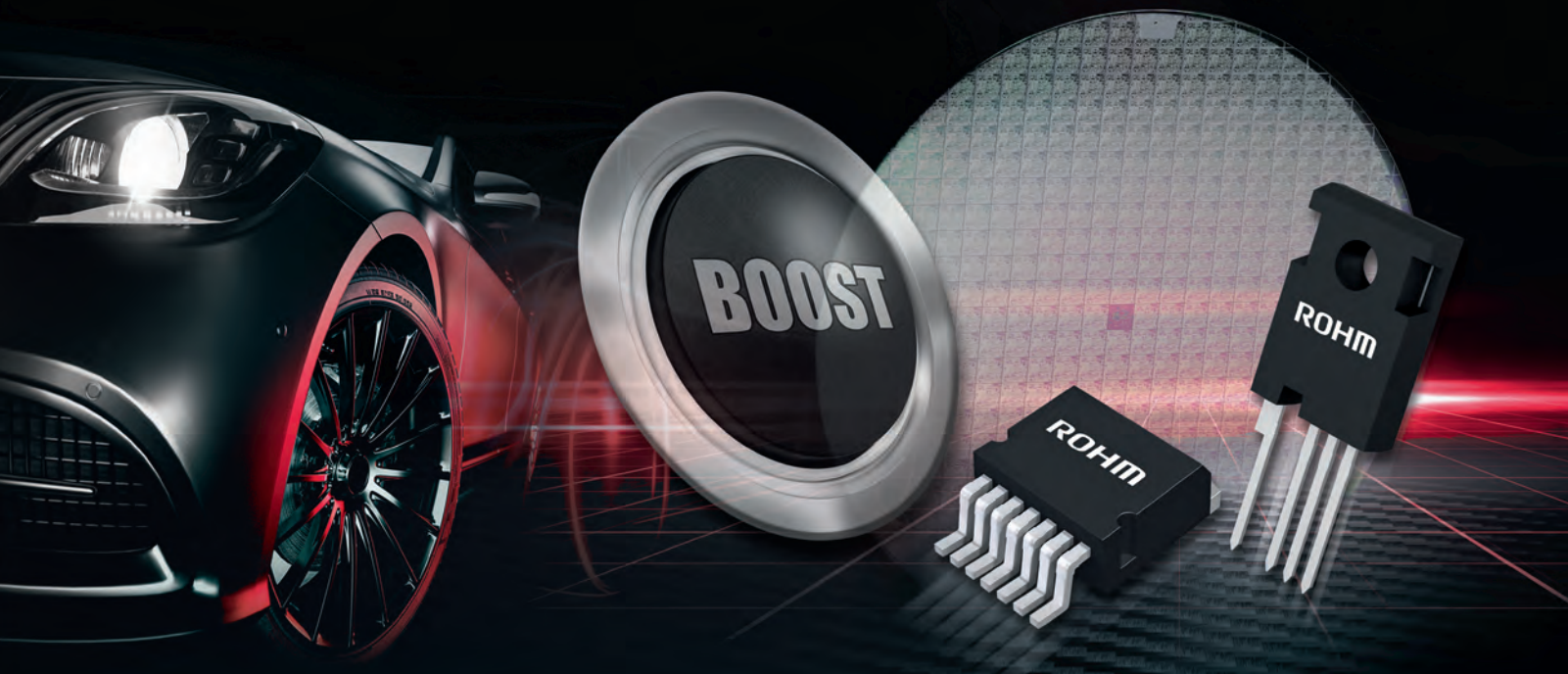
Italy took the lion's share, accounting to 172.7 billion euros, 81.807 billion of which was paid as non-repayable aid and 90.938 billion as loans. And this is the second and most significant turning point, our "Sliding Doors": something completely unpredictable (Coronavirus) that can change our lives in an equally unpredictable way. For Italy it was a great opportunity to become a more modern country and also a suitable occasion for electronics.

A great opportunity for Italy and a special opportunity for electronics. Just think that the main tool used to help the recovery of Member States is the "Recovery and Resilience Facility". Financial support for investments and reforms aimed at rekindling recovery and making the economies of EU countries that were most affected by the pandemic more resilient and better prepared for the future: digitization, green solutions, infrastructure and training; these are the pillars that Mother Europe has asked us to observe.

Now, while on the one hand we are waiting for Rome to quickly clarify ideas to meet the economic needs of all industrial sectors (including ours) that were most affected by Coronavirus, on the other, operators of the electronics market, for which Book-to-Bill in 2020 second quarter reached its lowest in living memory, have to grit their teeth (let me stress it, teeth), roll up their sleeves and use resilience deadened by 2014-2018 five-year success story. We cannot afford to miss our subway!

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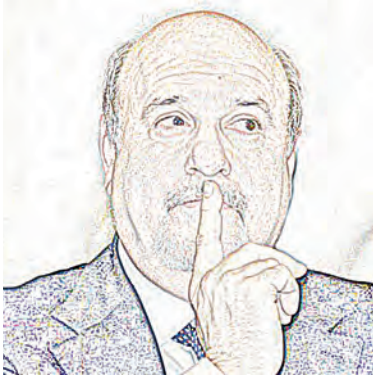
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by Alan Friedman

Italy relaunch could also be successful

I recently interviewed Professor Michael Spence, the Nobel Prize winner in economics in 2001 (along with Joe Stiglitz), and I asked him for some forecasts on when Italy would emerge from this period of recession and difficulty. The Premio Nobel was surprisingly optimistic. As opposed to the crisis of 2008-2010, which left Italy weakened for a decade, Professor Spence told me he thinks that Italy's GDP can recover to its 2019 level within a couple of years, by 2022. Professor Spence also said that the prospects for Italy's economic recovery will be enhanced if the government invests wisely in the modernization of the nation's economic and technological infrastructure.

What does that mean? It means that the conclusions of the Colao Report are valid. It means that the Stati Generali may have been done with a lot of emphasis but it was nonetheless a reasonable effort at building consensus, a 21st century form of what we used to call "consultation." It means that Italy should make use of all the European subsidized loans and non-repayable money it can obtain, including low-interest loans from Mes, from the Bei, and help from the Sure program, as well as whatever eventually is decided under the European Recovery Fund. And finally it means that the key priorities include both investing in the green economy and sustainable development and also in the digitalization and internationalization of the economy, of trade fairs, of small and medium sized brands, of category associations. In the post-Covid epoch, the key to reaching buyers and clients for Made in Italy products will be to adopt a hybrid approach to branding and marketing, including both live events and digital platforms to reach customers in North America and in Asia. Italy, in short, needs to relaunch its national brand and its industrial excellence. The government's newly announced "Patto per l'Export" is a step in the right direction. It contains huge incentives for small companies to internationalize and for trade fairs to exploit funds for digitalization. It contains a plan to relaunch the Made in Italy megabrand, and to remind the world that "Italy is back!" and stronger than ever.



Alan Friedman, journalist, writer and economics expert

Let us be clear: a large part of the task of encouraging economic recovery will come from substantive investments in physical infrastructure projects and in the technological infrastructure of broadband and of digital platforms. Yet another part will also come from public spending policies in the next few months that help families and companies to make it through the autumn of 2020. Economic recovery will also be enhanced by pushing ahead with three basic reforms that can make Italy a more competitive economy that is better able to attract foreign direct investment. These reforms include tax reform, a reform of the civil justice system and also a serious reform of the bureaucracy.

Many entrepreneurs are cynical, and some are very critical of the way the Fase 2 and the Fase 3 are being debated in the political world. But what will count is the substance, what will matter is what kind of economic policies and public investment are finally decided, and then implemented. The key is to spend the European funds wisely and invest in the future. Italy has a unique opportunity right now to make a great leap forward, to finally modernize its economy. The tools are now available.



We do not need a Welfare State

After the pandemic and lockdown dramatic period, the only possibility to have a fresh start is growth and free act that the Government must support and not hinder.

by Rossano Salini

After the most acute phase of Covid-19 contagion, we are slowly returning to normal and in this-summer we are also in a way re-experiencing the beauty of life we were accustomed to, with outdoor walks and group dinners, preventing limitations such as distancing and face masks from affecting our rediscovered good mood.

The number of inpatients is getting lower and lower, severe cases are gradually disappearing, and we can say that we have left the worst and most dramatic part of the pandemic behind us for now, with its trail of mourning, especially in some areas of Northern Italy.

Economic and social consequences

However, we are well aware that this only applies to medical and healthcare issues. Conversely, we cannot claim the same about economic and social consequences stemming from Coronavirus. Business has restarted but wounds left on the body of Italian economy are very deep and one cannot say how long it will take to return to normal. Forecasts on the GDP decline are devastating and the fear of a heavy wave of layoffs in early autumn is becoming increasingly real. It is therefore high time to make radical and incisive decisions to avoid the economic collapse of a country like Italy, which was certainly not in good health even before Coronavirus. And decisions must

be made by proving that the right approach can be taken, that is one through which Italy can shake off those ancient and almost crystallized flaws which are the actual hurdles for economic recovery. Everyone knows such flaws very well: too much red tape, sky-high taxes, lack of strategic investments.

A fatalistic and government-dependent mindset

Considering such shortcomings, the weight of which is exacerbated at a time of deep crisis such as the present one, the current path seems to go in the opposite direction to the one required. What happened indeed in the hardest months of Coronavirus emergency? A somehow fatalistic mindset spread in Italy, where the population was lost and completely dependent on decisions made at a central level, as if they were salvific donations coming from above and being the only source of hope for dazed citizens. Unfortunately, we have somehow become accustomed and addicted to considering government intervention as the only way to be saved in such a dramatic period. And the government has not failed to ride this wave, making the situation even worse.
As sociologist **Luca Ricolfi** rightfully noted on several occasions, the risk we are currently facing is that of becoming a "mass parasite" society, that is, a society where no initiative is taken, incapable to build and undertake, consisting of individuals who are completely dependent on government intervention. As mentioned above, the Italian Government has kindled the flames of such a scenario and actions that have been planned so far, starting from the Decree that was inappropriately named "Relaunch", as it actually does not involve anything for relaunch, are based on mere welfarism and do not aim at giving a thrust to Italy at all. Indeed, when one keeps using public funds to plan indiscriminate funding and bonuses, the issue is always clumsily mitigated temporarily, though with no strategic systemic vision which may lead to medium and long-term virtuous consequences.

The role of the entrepreneurial fabric

What our country needs now is to unleash energies existing in society, mainly giving status to the entrepreneurial fabric; able to generate not only profit but also and especially jobs and employment. However, such vitality is being choked by the weight of taxes and red tape. And, now more than ever, there is a need for structural measures rather than bonuses and individual support measures. Especially in case red tape was reduced, such structural measures would be free of charge for the public purse, which is already heavily jeopardized by devasting debt, to say the least. Conversely, actions are being taken that are somehow paradoxical, as well-known state aids of the last few months that have simply turned into liquidity required to pay taxes, especially for businesses. A vicious short circuit that is killing businesses and sentencing Italy to absolute immobility.

The road to growth

The only way out of the crisis is growth. And the role of the government is that of supporting such growth. Definitely not slowing it down, creating it or building it from above. Simply supporting it. Making it possible for it to happen, for businesses to produce, for individuals to set off, to undertake something, to do what their creativity can generate. As long as the government keeps blocking everything, using taxes on the one hand and reins and restrains on the other, to secure its dominant position and indiscriminately giving money to do so, the scenario is bound to get worse. And as mentioned, the dreaded wave of redundancies forecasted for next autumn may lead to general unease and discontent, having an extremely negative potential. This is why it is first and foremost citizens who must be aware of the change in mindset that such scenario is triggering and requires.
Unfortunately, the temptation to rely on life-saving government intervention is a fascinating and politically appealing shortcut. Especially in cases of economic emergency. It is therefore necessary to recover and strengthen a path that is first of all cultural and then political and economic. This path involves the centrality of individuals and society vis-à-vis the government. It is a fundamental principle, which is also at the basis of the Italian Constitution (see article 2) and entails knock-on positive effects also in economic terms. The comfortable path of welfare state is little satisfactory, and only in the short term, but leaves devastating traces in years to come; the road to growth and free act is beneficial for all and is a real opportunity for a fresh start, especially after a dramatic time such as the pandemic and lockdown.



Six crises “Made in Usa”

As the year leading up to the presidential elections becomes more and more surreal, European allies and friends are asking themselves: what will happen to us, and to the whole world, if the US is in crisis?

by Alan Friedman

The United States is in crisis. Perhaps it would be more accurate to say that the United States is facing six different crises, all at the same time.

There is a health crisis, a pandemic underway, with 120,000 Americans dead and more than 2.5 million cases, and with contagion and death numbers still rising in some states, whether the current occupant of the White House wishes to admit it or not. When **Donald Trump** repeatedly says *“there is too much testing”* he always explains himself: *“If there were fewer tamponi being done then the number of cases would be lower.”* What he means is that showing fewer cases would be better for his poll numbers against Biden, or so he thinks. He does not even try to hide it anymore, while his White House press team scrambles to minimize as a joke, or spin, or distract or simply lie in defense of Trump. The Big Lie is as popular in Trump’s America as it was in Goebbels’ Germany. What Trump calls “fake news” is often the truth.

The health crisis

The Covid virus is still spreading in states governed by Republicans, like Florida or South Carolina or Arizona or Oklahoma, where these extreme right wing governors opened up restaurants and cinemas and everything else too soon. Imagine that in Italy they would have opened bars and restaurants as early as late April, and you understand what these states did, and the price they are now paying. But they will not shut down again. Trump has made denial of Covid threat a mark of machismo for his followers, and many Republicans have fallen in line. Doctor **Anthony Fauci**, the voice of reason, the most respected

medical expert in America, has been largely silenced. Trump has taken him off the palco and kept him away from the White House. Dr Fauci tells the truth, warns of a second wave in the autumn, says that premature re-opening will lead to a jump in the number of cases, and none of these realities please Donald Trump. So Fauci is no longer seen around.

The social crisis

We are also living through a major national social crisis, a national upheaval, an unprecedented series of protests that are different from the 1960s, a period of social unrest and racism and violence in our streets. In many states the forces of law and order, the police, unfortunately, are a part of the problem. The racial aspect of the problem has been aggravated by the incendiary rhetoric of a U.S. president who often sounds like a white suprematist when he speaks. Trump has shown no empathy with George Floyd or Black Lives Matter. He has embraced the white suprematist viewpoint. He has embraced the police. While botching the Covid response, Trump meanwhile used Twitter to distract and divided, to egg on the racists and nationalists and anti-immigrant crowd in his base. **Never before in American history has an American president divided his nation as much as Donald Trump. Never before has a U.S. president behaves so much like a caudillo.** At a time of violent protest, of social chaos and crisis, Donald Trump's solution was to deploy the U.S. Army against his own popolo. He called in the military, and the para-military men in black suits, with machine guns, omn the streets of Washington, DC. His violent attack on peaceful protesters in Lafayette Square, in order to take a picture of himself with a bible upside down in his hand, is a dark moment in his slide toward authoritarianism. The U.S. President is now virtually the principal cause of the social crisis underway, because he fuels it, each and every single day.

The civil rights crisis

Beyond the health crisis, and the social crisis, America is also experiencing a civil rights crisis, wherein the government is seeking to take away well-established civil rights for minorities, women, gays and immigrants. His call to make abortion illegal has succeeded in more than 15 states. Trump's swing toward an illiberal democracy has seen him use courts, judges, lawsuits and decrees that have progressively stripped away major civil rights from women, from the LGBT community, and from ethnic minorities. He has promoted the old racist policy of voter suppression, meaning that in many Republican states, and some of the key states that Trump needs to win, the local authorities are not staffing polling stations enough to allow people to vote on Election Day, machinery will often falter, and black and Hispaic American voters are having their eligibility made more difficult and complicated, in order to discourage them from voting. At the same time Trump is trying to bankrupt the U.S. Post Office and keeps attacking the right of mail ballot or early voting by mail, because he thinks this will favor the Democrats. So he is trying to disenfranchise voters with extreme steps that threaten our democratic practices, and even the right to vote.

The crisis of the judicial system

The civil rights crisis is just one aspect of the crisis in our judiciary, a serious problem for our democracy, because it is supposed to be a counter-vailing and balancing power, the judiciary, alongside the executive and legislative branches. But Trump was mentored by Roy Cohn, a former adviser to New York's crime families and the man behind the McCarthy era of witch hunts for Communists in Hollywood. So when somebody investigates Trump he tends to fire the investigator. He did it with Jim Comey, the head of the FBI, and now he has that work done by William Barr. Trump uses the Justice Minister like a personal lawyer, and Barr has probably broken the law himself frequently in recent weeks by obstruction of justice. He has intervened personally to stop prosecutions or turn around convictions stemming from the Mueller Report. He has lied about Russiagate and embraced the Trump and Putin counter-narrative that it was all "a hoax" and a conspiracy by leftwing Democrats. The crisis in our judiciary reached a peak on June 19th when Barr fired the Attorney General of New York, Geoffrey Berman, evidently because Trump told him to get rid of Berman. Mr Berman was investigating Trump himself on possible criminal charges, as well as Trump's bankers, family trust, insurance and tax dealings, and more. Berman was also investigating Trump's friend and personal lawyer, Rudy Giuliani. The move by William Barr represented the fullest politicization of the Ministry of Justice ever seen in modern history. It is nominally



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against the law for a President or his Justice Minister to engage in politically motivated firings of prosecutors who dare to investigate the President's associates or family. Yet that is what is happening.

The economic crisis

There is, of course, also an economic crisis underway, and to many this may be the most important of all these several crises. We are entering a zig-zag and erratic period of emergence from a deep recession, in other words we are living through the after-effects of the Covid lockdown. Although the U.S. economy will recover its strength over the next year or two, there are still tens of millions of Americans without a job and millions of small businesses that are at risk. Any new economic policy that is introduced between now and November will be a highly electoral policy, an attempt by Trump to print money in order to buy votes, whether it is another trillions of dollars of helicopter money for Americans, or other public spending initiatives. The American economy will suffer in 2020, and it may take one or two years before it returns to 2019's GDP level. Yet Wall Street soars with optimism, and the Dow Jones appears too exuberant at times.

The crisis in foreign policy

There is also a foreign policy crisis, the result of the current U.S. president having either attacked or withdrawn our country from nearly all multilateral institutions, from the OMS to the Paris accord on climate change, or the World Trade Organization, or Nato or the Human Rights Commission of the United Nations. America is no longer a pillar of the liberal world order that has guaranteed peace and prosperity for much of the world since 1945. The U.S. has abdicated its global leadership role and Trump has launched vicious attacks on its closest allies in Europe. The U.S. President feels closer to Putin, Bolsonaro, Erdogan, Orban and Mohammed bin Salman. He hates Angela Merkel, and one can see that when he speaks about here, against her, with anger and misogyny. The geopolitical consequences of Trump's abdication of Washington's leadership position has been to accelerate the growth of China as the putative economic superpower of the 21st century, and to let Vladimir run wild anywhere and everywhere, and do as he pleases. As long as Trump is the American president, the world's most notorious dictators can run free.

The consequences of the crises

So there you have it. There are six crisis underway in America today: a health crisis, a social crisis, a civil rights crisis, a crisis in our judiciary, an economic crisis and a foreign policy crisis. Six different crises. And the consequence of all this is largely negative for Europe and the rest of the world. The economic recovery will be slower if Trump is re-elected, and the world will be a darker place. Trump has legitimized racism at home, and if he is elected again he will legitimize dictatorship around the world. And then the flashback to the 1920s could be frighteningly realistic.

Who is Alan Friedman

Alan Friedman is a journalist, writer, television host and economist. Correspondent for the *International Herald Tribune*, global economy columnist for the *Wall Street Journal*, he worked for the *Financial Times* in London from 1979 to 1993: in this period he was awarded with the *British Press Award* four times. He also had a professional experience as Presidential Management Intern in the administration of President Jimmy Carter. He conceived and hosted several Rai Tv shows, cooperated to the creation of Rainews24 and in 2003 he worked with Robert Murdoch to the kickoff of Sky TG24. The scoop regarding the Iraqgate scandal in 1991, which involved the CIA and the Italian BNL, was one of his most famous. The book "Questa non è l'Italia", published by Newton Compton, is his ninth best-seller.





Ten years of connectors

The value of the global connector industry went from $ 37.4 billion in 2009 to $ 64.2 billion in 2019. The best growth rate was China, which in the past ten years has also seen its share increase market from 24.6% to 30.4%.

by Ronald Bishop

The world electronic connector industry was $37.4 billion in size in 2009. In the 10 years since, the industry has achieved a compound annual growth rate of ✦5.6% with worldwide sales of $64.2 billion in 2019.

During this 10-year period China grew the fastest with a 10-year Cagr of 7.8%, followed by the Asia-Pacific region at 6.5%. Japan had the lowest 10-year Cagr at 0.7%. During this ten-year period, the connector industry experienced four down years (2009, 2012, 2015 and 2019). World connector sales declined -21.8% in 2009, -2.7% in 2012, -6.1% in 2015 and -3.8% in 2019. In 2010, connector sales grew 28.2%, resulting in the largest year-over-year change in history.

During the last decade, 2009-2019, the China and Asia Pacific regions increased their share of the world connector market. This is a function of the continued higher economic growth in the Far East and particularly in low-cost economies such as China. The Asia-Pacific market increased from 13.4% in 2009 to 14.6% in 2019.

The North America market increased from 20.1% in 2009 to 21.6% in 2019. The Japanese market declined to a 7.6% share in 2019 from 12.2% in 2009. China's market share increased from 24.6% in 2009 to 30.4% in 2019. Dividing the connector world into East versus West, in 2019 the East accounted for 52.7% of world connector demand and the West 42.7%. In 2009, the East accounted for 50.2% of world connector demand, the West was 43.5%.

AREA	2019	2014	2009-2014 Cagr	2019	2014-2019 Cagr
North America	7.505 $	11.598 $	+9,1%	13.887 $	+3,7%
Europe	8.745 $	11.803 $	+6,2%	13.544 $	+2,8%
Japan	4.565 $	5.604 $	+4,2%	4.891 $	-2,7%
China	9.193 $	14.950 $	+10,2%	19.477 $	+5,4%
Asia Pacific	5.010 $	8.584 $	+11,4%	9.435 $	+1,9%
Rest of the World	2.370 $	2.863 $	+3,9%	2.934 $	+0,5%
TOTAL WORLD	**37.388 $**	**55.402 $**	**+8,2%**	**64.169 $**	**+3,0%**

Sales of connectors by geographic area and relative growth rate over the years
(values in million $, source Bishop & Associates)

The last five years

World Cagr was 3.0% for the five-year period 2014-2019. This was down from a Cagr of 8.2% in the 2009-2014 period. In the 2014-2019 period, Cagr decreased in all regions when compared to the 2009-2014 period. China had the highest Cagr in the 2014-2019 period at 5.4%. North America's Cagr for 2014-2019 is 3.7%. Japan's was the only region in the 2014-2019 period to post a negative Cagr at -2.7%. Sales decreased -3.8% in 2019 to $64.169 million, in 2018 sales were $66.710 million which was an increase of 11.0% over 2017 sales. The five-year Cagr for the period 2014 to 2019 is 3.0%. The five-year Cagr for the period 2009 to 2014 was 8.2%. The period from 2009 to 2014 includes one of the worst years in industry history when sales fell -21.8% in 2009. Without the economic boom of 2010, the connector industry's five-year compound annual growth rate would have been lower in this period.

The Year-Over-Year Growth

Since 2000, the connector industry has had three outstanding years, 2000, 2004 and 2010, with 2010 the best year in the connector industry since we have tracked sales statistics. After experiencing the worst decline in industry history in 2009, the industry rebounded in 2010. Prior to 2009, 2001 and 2002 had been recorded as the worst years the industry had experienced. The industry experienced growth from 2003 through 2008, although the slide in sales began in 2007 and continued through 2009. In 2012, industry sales again fell into negative territory experiencing a decrease of -2.7%. In 2015, industry sales slipped into negative territory, but rebounded in 2016 with a positive increase in worldwide sales of 4.1%. In 2017 and 2018, the industry achieved growth of 11.0% each year. In 2019, the industry experienced a decrease in sales of -3.8%.

Who is Ron Bishop

Ronald E. Bishop is a world's leading connection expert. In 1985 he founded **Bishop & Associates**, a market research firm that specializes in the world electronic connector industry. The firm publishes **"The Bishop Report"**, a monthly research newsletter and several weekly publications by connectorsupplier.com. A staff of 20 researchers produces reports centered on geographic regions, end-use equipment markets, connector products and interconnect technologies. The US headquarters is located in St. Charles, Ill., Chicago. The firm also has offices in Brussels, Sidney and Hong Kong.





Better than expected but concerns for the future

Indefinite 2020 first quarter for distribution of electronic components which only loses 3.5 percentage points versus the same quarter of last year. Given the 40% drop in orders occurred in April and May, the biggest concerns are for the next few months.

by Laura Reggiani

For distribution in the electronics industry in Italy, the first quarter of the year ended on 31st March with mixed though reasonable results, especially considering a very complex general economic situation.

Indeed, sales in 1Q20 amounted to 360 million euros, down 3.5% from 374 million euros in 1Q19.Semiconductors lost 3.5%, IP&E 2.9%, whereas systems held and grew by 2.8%. Such results were disclosed in the latest market report issued by **Assodel** *(National Association of Electronic Suppliers - Italy)* on electronic components distribution, presented to members on 19th May in a virtual videoconference attended by over 50 people representing distributors and manufacturers.

Positive results for power semiconductors

According to Assodel data, semiconductors closed the first quarter of the year with a 227.6 million euro turnover, down 4.5% compared to

PRODUCTS	1Q19	2Q19	3Q19	4Q19	1Q20	Q/Q-1	Ytd
Total SC	238,2	224,0	192,1	185,1	**227,6**	+23,0%	-4,5%
Total IP&E	112,2	103,0	82,6	80,5	**109,0**	+35,4%	-2,9%
Total Systems	23,3	25,0	22,5	21,4	**23,9**	+11,7%	+2,8%
TOTALE DIST.	**373,7**	**352,0**	**297,2**	**286,9**	**360,5**	**+25,6%**	**-3,5%**
Ytd	373,7	725,7	1.022,9	1.309,8	**360,5**		
Ytd%	3,9%	-1,2%	-4,7%	-5,0%	**-3,5%**		

The quarterly trend of the turnover of distribution in Italy by product family
(values in millions euro, source Assodel)

the first quarter of last year. Power components, that is Mosfet, Igbt, Diodes and Power IC were the best performers, growing against the trend by 5%, overperforming the total market by almost ten percentage points. Deep diving into semiconductor results, one will find the worst performance in the opto segment, which lost over 10%, and in the logic segment, down 9%. Excellent performance was instead achieved by sensors, which grew by 18 percentage points. However, while sales performance was poor, orders achieved good results, with a 1.20 book-to-bill in the quarter.
Such figures did not surprise Assodel Chairman **Maurizio Maitti**, who commented: *"In the first months of the year we all did our best to collect orders and avoid stock outs and supply problems during relaunch, assuming that the virus issue would remain limited to Asian manufacturing. Subsequently, widespread lockdown made all previous forecasts useless and led the market (in this case customers) to reposition itself, in terms of both manufacturing organization and supplies".*

Stable IP&E products

By contrast, the passive and electromechanical components segment, reaching 109 million euro sales in the first quarter of the year, had a more moderate decline in turnover, down 2.9%. Book-to-bill for passive components was 1.01, just above parity, a significantly less brilliant figure than for semiconductors. Justifying the difference in orders compared to active components, Chairman Maitti stated: *"For IP&E products, which have always been much less stressed on deliveries, there was no need to push orders".*

Systems on the rise

The systems segment was the only one closing with a 2.8% positive trend index, compared to 2019 first quarter. Among best performers appeared wireless systems, with their explosive 58% growth. Even though the trend was positive, book-to-bill was below the unit: 0.97.

Uncertainties, with cautious optimism

It was the second quarter of the year that raised the concerns of electronic components distributors. Many reported that booking was 40% lower than expected in April and May. This will significantly impact on second and third quarter results.
Maurizio Maitti confirmed: *"Booking in the second quarter will remarkably slow down and will be back to normal only after summer".* It is to be noted, however, that no significant cancellations or re-scheduling were made, just a few limited cases. Also payment-wise, even though the alert threshold has risen, the situation seems to be under control for the moment and all participants declared to be willing to *"listen to customers' needs and find with them a solution to current issues".* It is hard, if not impossible, to make forecasts on the end of a year that had such a complex start and the rest of which is still to be understood.
"Nobody commented on future expectations, as one might have imagined; however, I am pleased to note that our panel is more positive than negative", added Maitti. *"Electronics is indeed increasingly pervasive and the post-Covid-19 era will lead to more and more technology in our lives. We can therefore envision many new opportunities for our world".*



A perfect mix in passives

Japanese model, German technology and Italian passion. A rare example of deep-rooted national presence, capable of supporting the local market in design and marketing through a mix of traditional and innovative solutions. This is TDK Italy told by its Managing Director Giovanni Visin.

by Laura Reggiani

Seniors may remember it as EPCOS, a company founded in 1999 with Infineon through a spinoff of Siemens. Over 20 years have elapsed; it has now become **TDK Electronics**, part of TDK Corporation, a Japanese giant that develops, manufactures and markets electronic components and systems for growing technological markets including automotive, industrial and consumer industries, supported by over 100,000 employees and an extensive sales network.

Product offering includes capacitors, ferrites and inductors, piezoelectric and protective devices, sensors and much more. TDK Europe is a Munich-based sales company having approximately 390 employees which manages its sales network all around Europe through its 17 subsidiaries.
These include TDK Italy, led by current Managing Director **Giovanni Visin**, who spoke to us about trends, results and the future outlook.

Since 2009 you have been part of TDK as an electronic components division of the Japanese giant. How has the company developed since it became independent from Siemens in 1999? Who is TDK Electronics today?
After being a "public company" for 9 years, EPCOS was acquired by TDK in 2008. A long process then began of sales integration (still underway in some Asian and Nafta regions) resulting in the establishment of TDK Europe in February 2015. As TDK Italy we are part of TDK Europe dealing with the marketing of TDK and EPCOS brands. As TDK Italy, we have been operating from our Milan office under the coordination of Munich headquarters for over 5 years to confirm our leadership in passive electronic components in Italy.

We cannot but mention Coronavirus and current and future fallouts of the epidemic on global economy. What is your take on the outlook for this year considering the current situation?
One does not need a "crystal ball" to make forecasts for the coming months. Indeed, it is not hard to assume that, even in our sector and especially at a European level, a significant drop in turnover will take place in 2020, equal if not greater than the one occurred in 2008-2009. One may still hope in subsequent gradual recovery, starting from the first months of next year as it happened in 2010, the year of the photovoltaic energy boom in Italy, which was largely beneficial also to our company. In this regard, I believe it is pivotal to keep following macrotrends we had already focused on: electric and hybrid vehicles, 5G and Industry 4.0.

Could you give us some figures on last year's performance and some comments on results achieved?
Like for all major Japanese companies, our fiscal year begins on 1st April. Official figures for our previous year, ended on 31st March, which were disclosed a few days ago, show that, like TDK Corporation, sales reached 1,363 billion yen (-1.4% on the previous year), the operating income was 97.9 billion yen (-9.2%) and the net income was 57.8 billion yen (-29.7%). The main reasons for these results globally are: the economic slowdown in China and the rest of the world, also caused by worsened trade relationships between the US and China; the impact of Covid-19 which led to stagnant business in all countries and affected our last quarter results and also impacting on our fiscal year; the growth of the ICT segment driven by the development of 5G technology, which, however, failed to offset the decline in automotive, industrial and home appliance segments.

Your solutions for electronics: what types of products do they include and what are their distinguishing features on the market?
Historically, the flagships through which we have built our positioning in the Italian market include a wide range of capacitors based on different technologies (electrolytic, plastic film and ceramic), overvoltage and overcurrent protections (PTC, NTC and varistors, both in disk and SMD versions), temperature sensors, ferrite cores and related accessories to manufacture windings. We have significant market shares of some of these, this is why we are

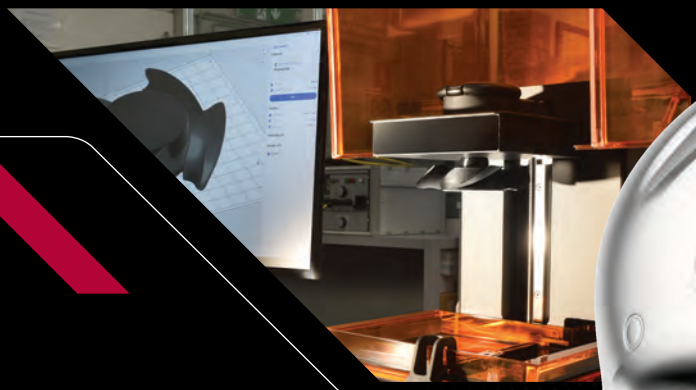


Giovanni Visin, Managing Director TDK Italy



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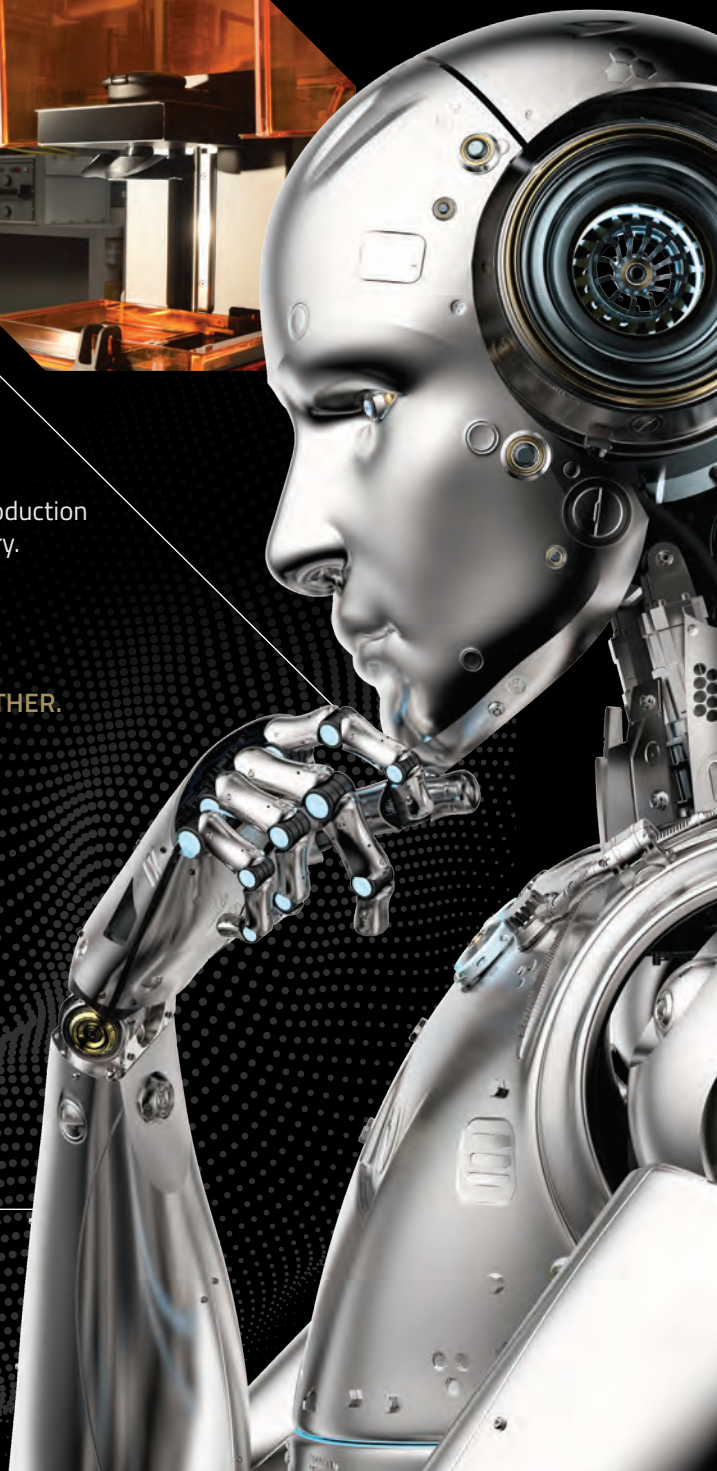


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recognized as industry leader. TDK has indeed always been sensitive to product innovation. Let me mention just a few of our latest innovations: CeraCharge, a rechargeable solid-state SMD battery for safety backup applications; PowerHap, a line of piezoelectric actuators for tactile feedback applications; piezoceramic disks, ultrasonic sensor systems for distance and level detection; HVC, high-voltage contactors used in safety devices; µPOL, the world's smallest micro DC-DC converter to power FPGA; SoC, Asic, MCU and brand-new NFC, an antenna for smart entry in cars. In addition, our constant focus on sensors should not be underestimated, also due to the acquisition of Micronas and InvenSense.

For distribution you rely on global players as well as local partners. How much is distribution worth to TDK? What are your policies and support solutions for your partners? What is your take on distribution in Italy?
We have an excellent partnership with six distributors operating throughout Italy, that are, in alphabetical order: Arrow, Avnet Abacus, Comelec, Melchioni, Rutronik and TTI, some of which are global and others domestic. The list is complemented by partners operating online: Digi-Key, Farnell, Mouser and RS Components. Italian onshore percentage of sales in distribution is around 45% of the total and in the last few years it has remained substantially unchanged. We offer our distributors dedicated and unique support through our two resources in Milan, our quoting centre in Munich, to ensure better streamlining and traceability at a European level, and a centralized Customer Service in Budapest. The structure of the Italian market, typically based on small and medium-sized companies, can only stimulate us to keep fostering the development of the distribution channel to ensure maximum presence of our brand in the country.



Sergio Mietta, Distribution Manager TDK Italy

TDK in Italy is a rare example of deep-rooted domestic presence of a manufacturer. How important is it to have a local organization supporting the market and customers?
We are virtually the only ones left in the passive components sector that have maintained such an important and widespread operating structure in the country with around 20 people dedicated to proactive business development. This model has allowed us treating all customers with care, effectiveness, passion and dedication from corporations to start-up companies, from designers having decades of experience to university students. Our mission has always been that of having TDK at all levels of the domestic market for both design, with our technical experts, and sales activities, with our different sales channels: a well-established organization in the country is crucial to pursue such mission.

What has changed in the last 20 years and what do you still hope will change in the electronics market?
Much has changed in Italy. Mass production has definitely decreased, after being relocated to lower-cost regions. Historical sectors like ICT have disappeared after being so successful in the past. Even salespersons have changed; traditional ones have evolved into specialists who can provide technical solutions for manufacturing of competitive devices in international markets, due to their expertise in products and the market segment. What is more, our offshore turnover stemming from our local design activities will allow us disseminating TDK message, hoping to always provide services and support that meet the needs of our partners.

Future paths

Broadline technical distributor looks to a changing electronics market and bets on Demand Creation for future growth. The Italian organization is led towards new targets by Roberto Politi, Country Director of Future Electronics Italy.

by Laura Reggiani

Operating for over 50 years in the electronic components distribution market, Future Electronics, based in Montreal, having Emea headquarters in London and around 170 subsidiaries operating in 44 countries globally, owes its reputation to its excellent services and the development of effective and complete supply chain solutions

Unparalleled customer service, a unique global IT infrastructure providing real-time availability and access to inventory, the world's largest stock of products available for sale, innovative customer-specific programs and processes and support for global e-commerce are just a few of the strengths of the company, which has been committed in the last few years to carrying out extensive changes aiming at future growth through a new strategy strongly based on Demand Creation. Such organizational change in Italy was led by **Roberto Politi** who, as Country Director, has offered the company his expertise to power the growth of **Future Electronics** and expand the business in the country. We talked with him about strategies and targets, the approach and processes needed to lead the change in the new direction shown by the owner, founder and Chairman **Robert Miller**.



Roberto Politi, Country Manager
Future Electronics Italy

Future is at the top of global rankings. How did you achieve it? What are Future's strengths and what makes you stand out from your competitors?

Today Future ranks third among global distributors, which is a very successful result probably due to the characteristic that differentiates it from its competitors: it is a private distributor. Due to this, Robert Miller, extremely long-sighted founder of the company, has implemented strategies effectively and directly, leading the company to a significant organic growth. Future's strengths include its ability to react quickly to changes and novelties in the market and the execution pace of strategies, complemented by its constant willingness to support customers' needs by investing in stock. Differentiating factors undoubtedly include a unique IT system, which allows accessing the same information at the same time all over the world and unparalleled logistic and stock capacity.

How has Future evolved since its foundation in 1968? What is still changing in your company in terms of strategies and market approach?

Future was born due to long-sighted Robert Miller who built it based on brilliant ideas, including inve-

sting in lighting when no one would have imagined it, establishing a Solid State Lighting division when the market did not exist yet. Still working in the company with its second generation, in recent years Miller has decided to help the initial plan of action, which made us very strong by offering products at a competitive price on the market, with a new strategy based on Demand Creation. Today's investments aim indeed at expanding support to suppliers and customers in demand creation. In this regard, we are investing in new Field Application Engineers and new salespersons having technical background. We are also implementing new activities ranging from boards development in collaboration with suppliers to technical workshops organization, so that both suppliers and customers will increasingly see us as their partner focusing on Demand Creation.

You have recently moved to a new office in Vimercate and opened a sales subsidiary in Turin. What is your current organization operating in the Italian market? What do such investments mean for Future?

The Italian organization I lead, supported by **Angelo Crippa**, who coordinates **Future Lighting Solutions**, employs over 70 people. Milan headquarters, which were recently moved to Vimercate, host credit, finance and HR divisions including everything from accepting orders to fulfilling them and the organization dedicated to Demand Creation consisting of generalist FAEs assisted by specialist FAEs. In addition, several salespersons operate throughout the country. Geographically speaking, we have four subsidiaries in Milan, Padua, Bologna and Turin, led by the relevant branch managers. Recent investments made in the Italian market, including a new office in Bologna, but also a large number of new hires, prove that we want to increase our presence in Italy and our market share.

What is Future's positioning in the Italian market? What are end application sectors and product areas you are focusing on for future growth?

We are a broadline technical distributor, we cover all technologies and products and target all end applications, including those linked to current technological trends, such as 5G and car electrification. We not only focus on lighting, which is still extremely important for us, but also on industrial and traditional applications as well as niche industries. An example of that is the sanitizing and social distancing market, that is currently very sound and in which we offer specific solutions to customers that are new to distribution, which gives us several opportunities.

How much has Coronavirus impacted on your business? What are the main hurdles you have encountered? Can you forecast the fallouts on Future's 2020 results?

In 2018 we experienced an extremely peculiar market situation, as it was very complex to deliver goods due to shortage, whereas we made adjustments in 2019. It is hard to forecast 2020 results: our first quarter was positive, in terms of both turnover and orders, which is why our headquarters congratulated us for our excellent work, but in the second quarter we experienced a sharp slowdown especially in terms of booking. We already have guidelines for Q3 but it is hard to say what will happen in Q4, due to numerous uncertainties. In this peculiar moment, we have been constantly aware of existing issues and have proactively dealt with customers who have chosen to be our partners. It is to be noted, however, that the toll for Italy was higher than for other countries, as it was the first nation affected by the pandemic. I am afraid that some measures implemented by the government, while safeguarding jobs, have not helped business but rather slowed down free act and blocked the entrepreneurial and industrial system. The challenge is now that of coming out of it well and before the others, which is possible provided we can seize new opportunities.

Where do you think that your company will be in the next few years? What will Future's next challenges be?

Future is an important player as it has engaged customers by offering top-quality added-value services. Our goal is to increase partnerships with customers and our mission is to expand our customer base also through new activities of Demand Creation. Future's challenge is therefore to increase its visibility and find new customers, as well as to become a reference for the Italian market, through a service-oriented strategy differentiating it from competitors. This is why we ask customers to engage with us and to evaluate us for what we can do together and for our added value in stock, service and demand creation. The goal for Italy, which Covid is slowing down to some extent, is to keep growing and increasingly strengthen our positioning in the market. Considering Future's privileged position, I am confident that we can do it, as the market offers many opportunities and many spaces to be taken.



Connectivity and profitability

Overlooked financial perils threaten IoT product success. Here's how to get connected at a profit.

by Jack Ogawa*

Once, the financial model of a profitable embedded device business was relatively simple: make sure that the unit production cost, plus selling and shipping fees, is less than the price the buyer pays. Of course, product manufacturers have always been exposed to additional, post-sale expenses such as those associated with warranty and support, and to standard legal liabilities. But now, by connecting embedded devices and turning them into IoT devices, manufacturers are exposed to a new category of lifetime costs which arise from their products' connectivity. And this connectivity can complicate the profitability equation.

To embedded device engineers, this can at first seem to be an accounting and not an engineering issue. So during product development, it is all too easy to omit a thorough analysis of all sources of connectivity costs to the manufacturer, over the operating lifetime of the product in the field. Unexpected and unbudgeted lifetime costs have the potential to destroy the business model of a product. If the product is a start-up's sole source of revenue, these costs can destroy the company.

Design engineers can give their products a much greater chance of profitable survival in a competitive market if they take proper account of the lifetime cost of their connectivity choices.

The consumer's view: just make my connection work!

The problem for IoT device manufacturers is that the cost of building in internet connectivity to an end product such as a smart doorbell, a washing machine, or a fork-lift truck is not limited to the bill-of-materials cost of the components required to access the network – typically a wireless module, an antenna (if not integrated in the module), and perhaps a few passive devices.

As soon as a manufacturer adds a descriptor such as 'smart', 'connected' or 'IoT' to their device, the buyer

will expect it to fulfil the promise of connectivity, exposing the OEM to the additional costs of:

• **Onboarding** – most consumers are not tech-savvy. The experience of manufacturers of smart home appliances is that, on average, just 20% of buyers of appliances that can connect to the internet actually attempt to connect them. And just half of those who try manage to maintain a connection over the long term. As cloud services become increasingly integral to devices' operation, this generally ineffective process of onboarding is going to be less and less acceptable. OEMs can expect to bear an increasing burden of remote support to help users get their device online.

• **Lifetime technical support** – the user's expectation that the device manufacturer will help to keep the device connected extends for the lifetime of the product. The help desk is not just for onboarding – it should be a permanent consideration of an IoT device manufacturer's operating budget, in much the same way as the IT department of a big corporation provides a helpdesk to employees to support their use of PCs and other company-supplied technology.

• **Security and feature updates** – the PC and smartphone models of connected device maintenance have built in the expectation that the original device manufacturer remains responsible for securing the device from malware, hacking and other threats. In a connected world, devices also need to be updated to maintain compatibility with evolving ecosystems and platforms. The cost of creating and delivering these updates to connected devices also falls on the OEM.

These three types of costs continue to accrue for the entire lifetime of the device in the field.

And critically for the manufacturer's financial planning, they are front-loaded: there are considerable set-up costs for establishing a data center, staffing a help desk and training the support and IT staff who will help customers with onboarding, troubleshooting, updating application software and managing the delivery of over-the-air security patches and other updates. This is a radically different business model from the traditional approach of manufacturers of non-connected devices such as conventional washing machines or doorbells: this has been to build a device, ship it to a merchant, and maintain a small reserve only to cover the repair or replacement costs of in-warranty returns.

Mortal threat to IoT device manufacturers

In any case, cellular connectivity provisioning is not the only way to address the problems that consumers face in onboarding to an IoT network. Innovative device makers have been able to make Wi-Fi commissioning consumer-proof, for instance by using a supplementary Bluetooth® Low Energy connection to transfer network credentials from a trusted source such as a smartphone. Alternatively, services such as Cirrent's IoT Network Intelligence provide tailored, installation-specific connection data and analytics to the support center, which in turn helps dramatically improve the success rate of the onboarding experience.

* **Jack Ogawa**, Senior Director of Marketing
Cypress Semiconductor.

THE VALUE OF ROBUST WI-FI CONNECTIVITY

Cypress Semiconductor's family of Wi-Fi and Wi-Fi/BT combo devices benefit from unique technical innovations and a long heritage of Wi-Fi product development to provide the industry's best performance ratings. Attention to the performance and quality of Wi-Fi components offers a bigger payoff than ever before, given that it can help ensure IoT devices remain connected continuously and therefore reduce end user calls on device manufacturers' product support services.





CCell and Vicor helps the coral reef

The innovative energy supply system, born from the collaboration between CCell and Vicor, accelerates the restoration of the coral reef to save coasts and protect local populations.

di Cleopatra Gatti

CCell Renewables is a marine engineering company with a mission to combat coastal erosion and enhance marine ecosystems by restoring and growing new coral reefs on a large scale. According to the latest figures over 70% of the world's coastlines are eroding. With 200 million people worldwide reliant on the protection that coral reefs offer, communities and livelihoods are at risk in many habitats around the world.

The CCell reef-growing system is based on the electrolysis of seawater to deposit calcium carbonate (limestone) on large steel frames which function as anodes and cathodes (electrodes) and to give the new reef its early structure. The technique is revolutionary in that instead of hundreds of years, it takes just five years to produce incredibly strong limestone rock on which coral can grow. CCell also uses renewable energy sources such as solar, wind and wave energy to power the reef-growing systems.All of these renewable power sources have widely varying output voltages due to environmental conditions, a major problem for the electrolysis process. The limestone structure on which coral grows must be grown at an optimum rate, without impurities and with a strong molecular structure. The electrolysis process must be precise: too slow and nothing will grow, too fast and the limestone will not be tenable. The power delivery network must therefore be able to operate over wide-ranging and challenging conditions with a high degree of control and accuracy.

The Power Delivery Network

Faced with a widely varying input-voltage specification and the need to tightly regulate the potential difference (electric field) between the electrodes within a 'goldilocks zone' of 1.2 – 4V to drive a precisely calculated current through seawater, Vicor recommended its Factorized Power Architecture or FPA.By factorizing the DC-DC function into two modules, a PRM regulator and a VTM current multiplier, the power delivery network can be optimized for regulation and conversion. The PRM buck-boost regulator operates over a wide input voltage range and has a zero-voltage switching (ZVS) topology, delivering very high efficiency and power density. In addition, PRMs are easily paralleled for higher power. The VTM is a fixed-ratio (non-regulating) resonant converter with high current density. Working seamlessly together, the PRM tightly regulates the voltage required for the reef and the VTM handles the down conversion and current delivery to the electrodes.



AI for system vision

RZ/V2M kicks off new MPU series with real-time AI inference and low-power consumption for cameras used in Industrial, Infrastructure and Retail applications.

by Cleopatra Gatti

The demand to have real-time, AI-based person and object recognition functionality in applications such as surveillance cameras for industrial and infrastructure, as well as product scanners and POS terminal cameras, has been growing rapidly. However, the higher power consumption and heat generation required for AI processing are introducing new challenges for embedded developers. The RZ/V2M leverages the DRP-AI's excellent power efficiency to realize power consumption as low as 4W. This eliminates the need for heat sinks and cooling fans, greatly simplifying heat dissipation measures. This enables RZ/V2M to be used in compact devices or help to minimize equipment sizes, expanding the opportunities to incorporate AI in embedded devices.

High performance and low power consumption

"The new RZ/V Series delivers both high performance and low power consumption, the two key issues that are keeping Vision AI processing from achieving a higher level of real-time performance," said **Hiroto Nitta**, Senior Vice President, Head of SoC Business, IoT and Infrastructure Business Unit at **Renesas**. *"The RZ/V Series will dramatically expand the range of AI applications in embedded devices through object recognition, for example cameras in smart shopping cart systems that automatically calculate totals based on the cart items, robots in factories that can safely work together with humans, and medical cameras that assist doctors in making diagnoses."* In addition to the DRP-AI, the RZ/V2M features an imaging signal processor (ISP) capable of processing high-resolution 4K pixels at 30 frames per second. The ISP employs high dynamic range (HDR) functionality capable of handling images with large differences between brightness and darkness, noise reduction functionality, and distortion correction functionality to substantially boost precision in AI recognition. This ensures the ability to produce clear images regardless of factors such as the weather, the time of day, and the installation location. "*With these integrated features, the RZ/V2M delivers a major innovation capable of bringing highly accurate AI and low power consumption to a wide range of embedded devices.*"

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Reliable connections

Top reliability and high-performance under extreme environmental conditions.

by ODU

When it comes to rough environmental conditions, reliable connections are a must. The ODU AMC® High-Density connector series – with the impressive number of contacts it accomodates in the smallest space – is a very suitable component part for such purposes.
These features open up new options and solutions for developers, while also challenging the manufacturer – as top reliability in the connectors as well as electrical and mechanical robustness, high data transmission performance such as high shock and vibration resistance must be maintained despite the product's compact size. To meet these growing demands, ODU is continuously developing its series of robust mini connectors. The demand for application solutions requiring a higher level of vibration resistance and also ensure high-performance data transmission has prompted ODU to expand its ODU AMC® High-Density series and include an additional solutions.



ODU AMC® High-Density Miniature Connectors

Increased variability with dual-lock solution

Thanks to the newly developed Dual-Lock solution, a screw locking, which smoothly fits into the existing connector design, the AMC® product series has become even more powerful and variable. In the future, two different locking types – screw-locking and break-away – are combined in one component. Both the connector and the device part are downward compatible. This means that the flexible Dual-Lock capability can offer both the option of quick mating and unmating of the connection and additional security through the screw lock for high vibration loads.

High-performance data transmission in smallest space

Due to the dynamic development of technology markets, these options meet the needs of constantly increasing growth of data. The main focus is on a fast and secure data transmission. Current standard connector solutions often no longer meet the continuously increasing technical requirements for robust and space-saving connector solutions in these applications. With the new 10 GBit/s Ethernet inserts for the ODU AMC® High-Density connector series, ODU offers the ideal solution for these requirements. The inserts for the robust miniature circular connector series guarantee secure, high-performance data transmission and meet thereby the current MIL standards.

Complete standard system solutions

In addition to applications in military and security technology, ODU offers high-class quality connections such as the ODU AMC® High-Density series, including cable assembly, overmolding for standard and customer-specific applications or flex-layer assemblies for all markets and applications with demanding requirements. ODU also offers its proven contact technology in high-quality, reliable system solutions that are tailored to the customer. Small, light, assembled!

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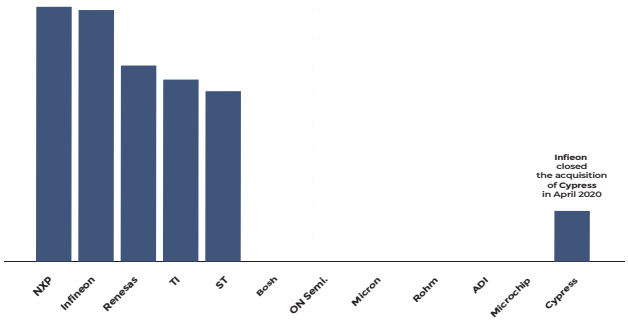
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AUTOMOTIVE

Nxp, Infineon, Renesas, Texas Instruments and STMicroelectronics stay top five for auto ICs

Nxp, Infineon, Renesas, TI and ST maintained their positions in the top five of Strategy Analytics' annual assessment of the automotive semiconductor industry vendor market share rankings.

Total automotive semiconductor revenues taken by vendors in 2019 were down 1.3% to $37.2 billion, compared to 2018, with Nxp, Infineon, Renesas, Texas Instruments and STMicroelectronics maintaining their top five rankings. The gap between Nxp and Infineon effectively closed to zero, while STMicroelectronics was the only company to be able to demonstrate revenue growth. *"2019 continued to see global automotive semiconductor demand slowing down with vehicle production flat or down in all of the major regions including China"* noted SA's **Ian Riches**, *"this was partially offset by revenue opportunities coming from high growth applications such as Adas, electrified powertrains and wireless connectivity. However, this was not enough to translate to automotive semiconductor vendor revenue growth in 2019". "Our analysis shows a lot of companies struggled to show positive revenue growth in 2019, though there were some notable vendor year-on-year revenue increases, as exemplified by Bosch, Micron, Nexperia, nVidia, Qualcomm and Xilinx",* says report author **Asif Anwar**. *"We will see a major shakeup in market share rankings moving forwards. In 2019, Infineon announced that the company had entered into a definitive agreement to acquire Cypress. This acquisition closed successfully in April 2020, and effectively propels Infineon into the number 1 spot moving forwards".*



2019 Automotive semiconductor relative vendor share rankings (source Strategy Analytics)

WEARABLE DEVICES

Covid-19 causes wearable shipments to plummet by 27 million

Wearables have been affected by the Covid-19 pandemic because consumer interest in buying non-essential devices has dropped in the first quarter of 2020, along with the issues associated with a hampered supply chain. Wearable shipments in 2020 are now expected to be 254 million, down from the previously forecasted 281 million, states **ABI Research**. Although a significant drop, this new Covid-19 impacted forecast is a minor increase from the 241 million shipments in 2019. However, this now puts the estimated YoY increase at 5%, compared to 23% between 2018 and 2019 and the previously expected 17%. *"While wearables will see fewer shipments this year than originally expected, shipments of devices that can track and monitor healthcare vitals has lowered the impact,"* says **Stephanie Tomsett,** research analyst at ABI Research. *"Healthcare wearables are already being utilized to help track the progression of Covid-19 and monitor patients remotely."*

All wearable device types are expected to see a small amount of increase in the second half of 2020, with smartwatches and sports, fitness, and wellness trackers leading this growth. Many devices, such as those from **Apple, Samsung, Fitbit, Withings,** and **Oppo,** are offering, or expected to soon offer, advanced monitoring features such as ECG tracking, sleep apnea detection, arrhythmia detection, and blood oxygen tracking. The incorporation of these features into devices that already have several other features, allows users to utilize one device rather than multiple devices for different purposes. *"The Covid-19 pandemic has brought a higher health awareness to all individuals around the world. Wearables with advanced health monitoring features will begin to buoy the wearables market in the second half of 2020 and pave the way for 289 million wearable shipments by 2021 and 329 million by 2022 as the world recovers from the pandemic,"* concludes Tomsett.

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DISTRIBUTION

Molex unveils 2019 European Distribution Award Winner

Molex has announced the recipients of its 2019 European Distributor of the Year Awards, which pay tribute to the regional successes of the company's valued distribution partners.

Comprised of eight accolades, the awards programme recognises distributors whose efforts have contributed to advancing **Molex**'s business across Europe. These relate to exceptional levels of sales performance, project conversion, customer engagement and new business generation, as well as the ability to demonstrate superior financial, operational and executive management. Molex named **TTI** (specialist distributor of passive, connector, electromechanical components), as its European Distributor of the Year for 2019. The company received a further three regional awards – in relation to Eastern Europe, Southern Europe and Central Europe; demonstrating their broad-based success across our key territories.
In the second year since its inauguration, the European eCatalogue Distributor of the Year award went to **Mouser**. **Avnet Abacus** retained the title of Northern Europe Distributor of the Year, while Czech-based distributor **Official Electronic** was named as the Single Country Franchise European Distributor of the Year. Molex also commended the individual contribution that has been made by **Marina Iem**, Digital Project Manager for **Arrow**, with the award for 2019 Most Valued Person.

Comments:
"As ever, our European Distribution Awards are an acknowledgement of the key role our Distributors play in our success and their ongoing commitment to bringing Molex's products to a wider audience. We would like to thank all of the winners for their excellent contributions and continued support this past year, and congratulate their respective teams on our shared success".
Paul Keenan, sales director distribution Europe, **Molex.**

AWARDS

BAE Systems Honors Analog Devices with a "Supplier of the Year Award"

Analog Devices announced it received a **BAE Systems** Partner 2 Win Supplier of the Year Award for "*Original Component Manufacturer of the Year"* based on exceptional performance and contributions to supply chain success in 2019 for BAE Systems' Electronic Systems sector.
ADI was selected from a pool of more than 2,200 suppliers that worked with the sector in 2019. *"It is with great pride that Analog Devices accepts this award from BAE Systems,"* said **Bryan Goldstein**, vice president and general manager at Analog Devices. "*Our collaboration with BAE is bringing differentiated, cutting-edge electronic technologies to the warfighter and we recognize the criticality of both on-time delivery and quality. It is truly an honor to be recognized in these areas."*
BAE Systems' Partner 2 Win program is designed to achieve operational excellence and eliminate defects in its supply chain by raising the bar of performance expectations to meet the demand of current and future customers.



Information and Opinions about the Electronics Market
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IN-DEPTH

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