The European Institute for the PCB Community

EIPC SPEeDNEWS

The Weekly On-Line Newsletter from the European Institute of Printed Circuits.
Issue 15– June 2022

NEWS FROM AUSTRIA

AT&S makes significant progress in strategy implementation and boosts revenue and earnings to record levels

- ***Annual revenue 2021/22 increases by 34% to € 1,590 million (PY: € 1,188 million)***
- ***Adjusted EBITDA at € 378 million, up 48% on the previous year***
- ***Guidance for FY 2022/23: revenue of approx. € 2 billion, adjusted EBITDA margin between 23 and 26%***
- ***The medium-term outlook for 2025/26 confirmed***

Leoben – AT&S significantly increased revenue and earnings in the financial year 2021/22 and continues its strong growth course as part of its strategy implementation.

"In a volatile market environment, we were able to close the financial year with revenue and earnings at a record level," says CEO Andreas Gerstenmayer. "This strong performance once again confirms our growth strategy and gives us reason to be optimistic about the future in the new financial year. We expect revenue of roughly € 2 billion and an EBITDA margin between 23 and 26%. The growth course will also continue in the years to come: in the financial year 2025/26, we will generate revenue of approximately € 3.5 billion and increase the EBITDA margin to 27 to 32%," Gerstenmayer comments on the further development.

Consolidated revenue increased by 34% to € 1,590 million in the financial year 2021/22 (PY: € 1,118 million). Adjusted for currency effects, consolidated revenue rose by 33%. Revenue grew on a broad basis, with the additional capacity for ABF substrates in Chongqing, China, proving to be the main driver. In addition, the broader application portfolio for mobile devices and module printed circuit boards also contributed to revenue growth. In the AIM business unit, all three segments benefited disproportionately from the dynamic market environment, with the Industrial segment recording the strongest growth. The Automotive segment also saw an increase in revenue despite the shortage of semiconductors.

EBITDA rose by 42% from € 246 million to € 349 million. The good result was positively influenced mainly by the significant increase in revenue, which more than compensated for burdening effects such as the start-up costs in Chongqing and Kulim, Malaysia, as well as higher material, transport and energy costs. Moreover, research and development expenses were further increased and ensure that AT&S will remain a leading innovation driver going forward. Currency fluctuations, in particular of the Chinese renminbi, had a negative impact of € 20 million on the earnings development; without these fluctuations, the growth rate would have been 50%.

Adjusted for the start-up costs, EBITDA amounted to € 378 million (PY: € 255 million), which is equivalent to an increase by 48%. Without currency effects, adjusted EBITDA would have grown by 56%.

The EBITDA margin amounted to 22.0% (EBITDA margin adjusted for start-up costs: 23.8%), thus exceeding the prior year level of 20.7% (EBITDA margin adjusted for start-up costs: 21.5%). Depreciation and amortisation rose by € 57 million to € 223 million (14% of revenue) due to additions to assets and technology upgrades. EBIT increased from € 80 million to € 126 million. The EBIT margin amounted to 8.0% (PY: 6.7%). Finance costs – net improved from € -20 million in the previous year to € -4 million, mainly due to a change in currency effects. Profit for the year surged from € 47 million to € 103 million, leading to a 138% increase in earnings per share from € 1.01 to € 2.39.

The **financial position** was characterised by an increase in non-current assets at the end of the reporting period. Total assets increased to € 3,746 million, up 57% compared to March 31, 2021 as a result of the inflow of liquid funds due to bilateral agreements, additions to assets and technology upgrades. Despite the significant increase in total assets, the equity ratio remained nearly constant at 33.4% (PY: 33.6%) thus exceeding 30% despite the large-scale investment programme.

Cash and cash equivalents increased to € 1,120 million (March 31, 2021: € 553 million). In addition, AT&S has financial assets and unused credit lines of € 337 million to secure the financing of the future investment programme and short-term repayments.

Advance payments by customers

In the financial year 2021/22, AT&S received payments amounting to € 446 million to finance production facilities as part of bilateral agreements. In accordance with the requirements of the Austrian Financial Market Authority (FMA), these payments are recognised as "contract liabilities" and "cash and cash equivalents" in the balance sheet as well as "cash flow from operating activities" in the cash flow statement, and have significant influence on some AT&S key figures.

- The ratio of net debt / EBITDA is 0.6 and therefore substantially below the medium-term target of <3 (may temporarily also exceed this mark).
- Cash and cash equivalents amount to € 1,120 million.
- Free cash flow from operating activities is positive at € 111

As part of the planned investments, there will be an outflow of the contributions and their effects on the key figures will decline again.

Dividend proposal

Due to the good annual results, the Management Board will propose the distribution of a dividend of € 0.90 per share to the Annual General Meeting on July 7, 2022. This value consists of a basic dividend of € 0.78 and a special dividend of € 0.12 € per share.

The introduction of the special dividend is due to the positive development of all key economic indicators in the financial year 2021/22.

Guidance 2022/23

In the financial year 2022/23, AT&S will continue to concentrate on the start-up of the new production capacities at plant III in Chongqing, and push ahead the investment project in Kulim, Malaysia, and the expansion of the site in Leoben, Austria, and implement technology upgrades at other locations.

The expectations for AT&S's segments are currently as follows: the market conditions for IC substrates continue to offer significant growth opportunities in the medium term. The 5G mobile communication standard as well as the module printed circuit board business will remain a positive driver in the area of Mobile Devices. In the Automotive segment, the semiconductor shortage should ease somewhat and the growth trend should therefore intensify. In the Industrial and Medical segments, AT&S expects a continued positive development for the current financial year.

Planned investments amounting to € 100 million of the investment budget for the financial year 2021/22 have been postponed to the financial year 2022/23. The growing technological requirements and the additionally installed production facilities are leading to an increase in required basic investments; depending on the market development, these are estimated at roughly € 150 million. As part of the strategic projects, the management is planning additional investments totalling up to € 1 billion for the financial year 2022/23 depending on the progress of projects. As a result, the planned investment volume will total up to € 1,250 million.

AT&S expects revenue of approximately € 2 billion (FY 2021/22: € 1.6 billion). Taking into account effects of the ramp-up of the new production capacities in Kulim, Leoben and Chongqing amounting to approximately € 75 million, the adjusted EBITDA margin should range between 23 and 26%. Due to the expected balance sheet increase and possible currency effects, it cannot be ruled out that the equity ratio could temporarily fall below the medium-term target of >30%. The outlook is based on the assumption that no unforeseen effects occur, for example due to an escalation of the war in Ukraine or COVID-related lockdowns.

Outlook 2025/26

The progress of the production capacity expansion in Chongqing, China, and in Kulim, Malaysia, as well as the expansion of the site in Leoben, Austria, is still positive despite the challenging global economic and health situation. Therefore, AT&S assumes that revenue of € 3.5 billion will be generated in the financial year 2025/26 and expects an EBITDA margin in the range from 27 to 32%.

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May 17, 2022 7:00 Published by skhalil

NEWS FROM GERMANY

ILFA Commits to LHMT/Schmoll Machine Group for Automation Strategy

May 25, 2022
CCB

In the course of its modernisation offensive, the Hanover-based (Germany) PCB manufacturer ILFA relies on the experience of the Schmoll Machine Group. From June 2022, the first 16 LHMT handling devices of the type RobiFlex 2x1 will be delivered and successively integrated into production. This will automate a large number of activities that were previously carried out manually. ILFA is currently investing massively in machinery, equipment and personnel, with automation being an essential part of the modernisation offensive.

Thomas Michels, managing director of ILFA GmbH, explains: "We have been relying on Schmoll for a large number of our machines for years. We have numerous laser systems, drilling and milling machines in use, which implement our production steps in a highly reliable and precise manner. So it was only logical for us to rely on Schmoll again. The LHMT RobiFLex 2x1 systems from the Schmoll machine group, with their equipment variants, correspond exactly to our requirements profile and will be seamlessly integrated into our production. On the one hand, this will increase our output and, on the other hand, we will gain more process reliability, as a large number of manual activities will be eliminated in the future. It was also important for us to have a domestic partner with excellent service and product quality at our side."

Martin Hillenbrand, Managing Director at LHMT GmbH, adds: "We are pleased to be able to set up a customised concept for ILFA to automate their processes. After a detailed analysis of the requirements at the production site in Hanover, we have put together a package with which ILFA GmbH can sustainably fulfil its growth targets." Stefan Kunz, Managing Director of Schmoll Maschinen GmbH, is also pleased about the clear commitment to the local economy: "We have been working with ILFA for many years and know their requirements quite well by now. For the consistent growth course, we supply the appropriate solutions and machines and advise on the further development of the technical infrastructure. It is important that European PCB producers prepare themselves for the challenges of tomorrow in order to remain competitive in the long term.”

The modernisation offensive at ILFA is planned over several years and provides for investments in the double-digit million range.

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ELECTRONIC INDUSTRY NEWS

Economy

Global Economy Enters New Era amid Tectonic Shift From China

Tighter fiscal and monetary policies across much of the world are starting to cut into economic growth. A key question now is whether we avoid recession and what role China plays as its economy reels from lockdowns.

May 31, 2022
Edward Harrison
Bloomberg

Inflation is the global bogeyman

Officials across the globe, with a few exceptions, are responding to global inflation by tightening the screws of monetary policy. Combined with less expansive fiscal policy, that means slowing growth. The crucial question now is whether we can steer clear of recession and what role China—and its evolving relationship with America—plays.

What started out as a supply-chain driven rise in prices has become a more entrenched and disconcerting generalized inflation problem. Governments in most of the major industrialized nations have responded with the biggest simultaneous tightening of fiscal and monetary policy that many of us have ever witnessed. They're hoping that will break the back of inflation without breaking their economies. There is, though, one very large variable that's beyond their control: China. In the wake of the 2008-09 crisis, it helped pull much of the western world out of recession as it was still growing rapidly. This time, China's economic woes and transitioning economy could have a much different effect.

Tectonic shifts suggest we're in a new era

First, there's the effect of China's Covid-zero policy, both immediate and longer term. Right now, the lockdowns aimed at curbing Covid are also putting the brakes on the local economy — both in terms of production and consumption — and that's having a flow-on effect in other countries. But they also have a broader transformative potential. The upshot of these lockdowns could be a greater emphasis on internally-driven consumer demand and less focus on the country's role as a cheap manufacturing base. China is a lot richer than it once was and there are other countries that can assume the mantle of low-cost manufacturing hub, at least in part. On the flipside, lockdowns mean that there's potentially a lot of pent-up domestic consumer demand. So, this could turn out to be the ideal time to engage in a shift that China needs to make anyway as its population ages and the demographic dividend it once enjoyed rapidly dwindles.

Another big change concerns the behavior of both producers and consumers globally. On the one hand, there's a growing tendency to shift away from just-in-time global supply chains in the wake of pandemic disruptions. Over the past few decades, after the integration of China and other emerging markets into the global economy, companies have come to engineer supply chains to reduce costs and increase efficiency, taking for granted the frictionless movement of capital and goods across borders.

And that meant just-in-time manufacturing with minimal inventory accumulation made sense. The benefit was lower-cost goods. The cost was wage growth for ordinary workers. But the pandemic and the fallout from the Russia-Ukraine war is only likely to turbocharge companies' move away from these formerly profitable — but apparently more brittle — models, looking more toward regional suppliers, increasing lead times and bolstering inventories.

On the demand side, meanwhile, consumers scarred by the pandemic (and war-related commodity-price shocks) look to be durably shifting their mix of goods and services in unpredictable ways. All that is likely to mean more supply chain near-shoring, greater power for workers in individual markets to demand wage increases and potentially less global integration. That adds up to greater inflationary pressures of course, but also unravels to some degree, networks of global interdependence that have grown and grown over recent decades. Perhaps the biggest of these is the relationship between the US and China.

By the numbers

5.5% - The Chinese government's official GDP growth target for 2022

'Chimerica' may be done and dusted

There was a time when we talked about "Chimerica" to denote the tied-at-the-hip relationship between Chinese manufacturing and American consumption. In the aftermath of the 2008-09 financial crisis, there was a lot of angst about that relationship ending abruptly for politically-driven reasons.

That kind of sudden rupture didn't happen and China was, in many ways, the country that pulled the global economy out of recession after the Great Financial Crisis. Having been an increasingly important engine for growth and a source of disinflation over decades, China stepped up to the plate back then.

The situation now, though is very different. The country is going through what Premier Li Keqiang recently called its worst patch of growth of the pandemic. The slowdown is so vexing, we're now getting discordant messaging from China's leaders. So instead of being a savior, China could in fact be a burden to the global economy: acting as a drag on growth and potentially even exporting more inflation due to broken supply chains.

That's potentially bad news for the world as a whole. But for America, maybe it doesn't matter quite as much as it once did. Even before the pandemic, some gradual and subtle drifting apart had come to pass, and Covid seems to have given that a boost. US consumption is holding up well and even though markets are flagging concerns about growth, recession is far from a foregone conclusion.

One other leg to the US-China relationship that bears examining is the effect of Chinese savings. The glut of extra money spilling out from China has provided a significant boost to global risk assets — in particular US equities. A combination of more spending and/or slower growth in China, ultimately means less to invest abroad, removing a key tailwind for US stocks, which are already taking a beating amid the prospect of slower American growth and higher borrowing costs.

Workers might just benefit
A couple of last points on supply chains. The transition to regional supply chains will be expensive. Supply chain resiliency implies duplication, inventory buffers and proximity to customer at the expense of efficiency and cost. Some of those costs will be borne by end consumers. And that means higher inflation.

And when you have higher inflation embedded in the system, policy makers have to make a choice on whether they're willing to accept that inflation, say 3% inflation, instead of 2%.
The silver lining in all of this is that after years of wages lagging productivity growth, we could be on the cusp of wages catching up. If you look at US productivity growth, the post-World War 2 trend is solid. But from the 1970s onward, hourly compensation stalled. And the gap is now enormous.

The onshoring of supply chains makes it more likely this will change.
So, in the end, there are some reasons to be optimistic. While the changes within China and between China and the US likely mean higher inflation, they also could mean higher wages as a proportion of output. Once we get through the immediate inflationary surge — and the policy response—the economic landscape for ordinary workers could be a lot better than it has been in a long while.

Quote of the Week
"We are in a period of maximum uncertainty vis-a-vis China with the ongoing lockdowns. It has important spillover impact for the global economy, potentially exacerbating the already troublesome supply-side situation."
Ben Powell
Asia-Pacific chief investment strategist at BlackRock Investment Institute

Chip Shortage to Persist Through 2024 - Intel CEO

By Alan Patterson
EE Times

Intel CEO Pat Gelsinger believes that the two–year shortage of chips that's limited output of products ranging from cars to advanced weapons will continue through 2024.

"Chip shortage — we're about halfway through," Gelsinger said in an interview with Yahoo Money on the sidelines of the World Economic Forum in Davos, Switzerland. "My expectation is that it persists through 2024."

Gelsinger's prediction extends by yet another year the earlier forecast of analysts surveyed last year by EE Times. Chipmakers, including Intel, Taiwan Semiconductor Manufacturing Co. (TSMC), and Samsung Electronics, have each announced investments this year worth tens of billions of dollars in locations around the world to catch up with demand that exceeded supply when the Covid outbreak started in 2020.

Demand for chips used in laptops, gaming devices, and data centers soared as more people worked and played from home during the pandemic. Now, chip equipment makers such as ASML and Applied Materials are unable to meet demand from chipmakers because they cannot buy enough semiconductors.

“The big issue we’ve faced over the last six to nine months is the equipment that goes into the fabs,” Gelsinger said. “Those equipment lead times have pushed out pretty substantially.”

Earlier this year, Intel announced new fab projects in the U.S. and Europe. Gelsinger didn’t comment on how shortages of chipmaking equipment might affect Intel’s expansion plans.
The Ukraine war has also crimped supplies of key materials and equipment used to make chips, according to Samsung. Lead times for orders of chip tools are stretching out, according to the company.

ASML, the sole supplier of extreme ultraviolet lithography (EUV) equipment that chipmakers such as Intel, TSMC, and Samsung are counting on to extend Moore’s Law, said at the start of 2022 that it is unable to meet demand. Even so, ASML expects its sales to grow by about 20% this year.

During the first quarter of 2021, ASML received from Intel the first order for its EXE:5200, the equipment vendor’s latest high–volume EUV manufacturing tool. Shipments are scheduled to begin in 2024. ASML said the EXE:5200 would allow chipmakers to reach process nodes well beyond the current threshold (2–nm) for at least another ten years.

A global recession may emerge in the next six months, Gelsinger said. An economic downturn would likely slow demand for chips. China, the world’s largest market for semiconductors, is already showing signs of a drop in demand. As part of its “zero–Covid” strategy, China has locked down entire cities such as Shanghai to stop the spread of the Covid pandemic.

China’s largest chipmaker, Semiconductor Manufacturing International Corp. (SMIC), saw sales grow by more than 66% during the first three months of 2022, but the company warned of weakening demand in its home market.
Demand for smartphones, consumer products, and PCs have “dropped like a rock,” SMIC co–CEO Haijun Zhao told analysts earlier this month. Some SMIC customers hold five months of inventory in the supply chain, he said, describing the oversupply situation as “very serious”.

Supply Chain Snags Poised to Spur New Wave of Corporate Distress

Rising costs, delays, hinder firms’ ability to handle debt
Consumer demand will determine whether defaults are likely

Allison McNeely and Rachel Butt

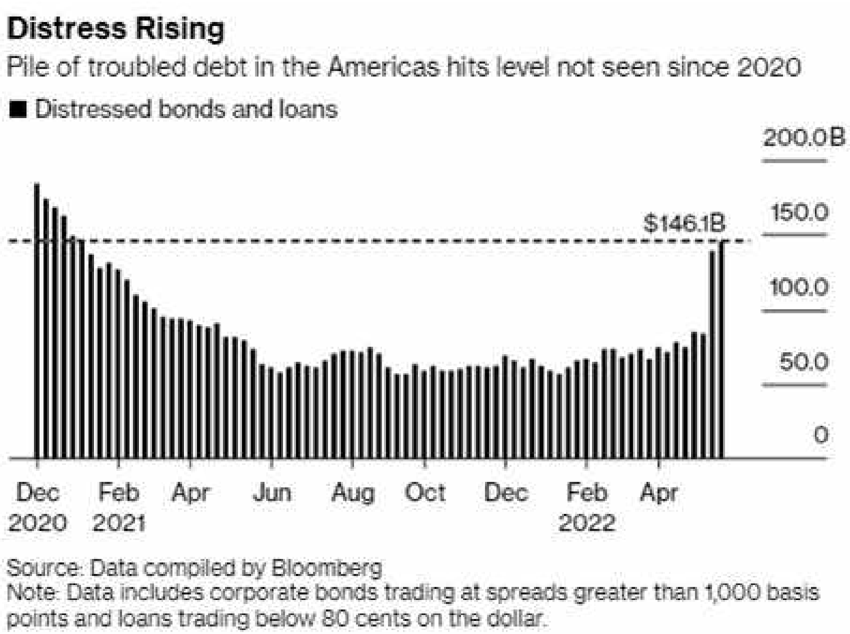
Bloomberg

Rising helium costs, missing auto parts, and shipping delays are spurring a new wave of financial trouble for companies already saddled with debt amid broader concern that the US economy is on the brink of a downturn.

Companies from Party City Holdco Inc. to Diebold Nixdorf Inc. have reported earnings in recent weeks that were crushed by supply chain pressures and red-hot inflation. One company, Armstrong Flooring Inc., has already been pushed into bankruptcy after higher costs eroded its cash. And auto collision repair company Service King is negotiating with creditors over ways to ease its debt load as it struggles to secure auto parts and get mechanics back to work.
Representatives for Armstrong Flooring and Diebold Nixdorf declined to comment, while Party City and Service King didn't respond to a request for comment.
It's an acceleration of a trend that emerged at the end of last year, as companies hit with rising prices struggle to pass on these costs to customers. Specialists in troubled companies say that the pain isn't going to let up any time soon, as supply chain issues show no signs of improving while consumer demand is set to slow due to higher interest rates.

"Those three factors are for sure a recipe for distress, and we're starting to see that," Angelo Rufino, managing partner and chief investment officer of Brookfield Special Investments, said in an interview. "We are rapidly sharpening our pencils."

The bleak outlook drove the amount of corporate debt trading at distressed levels to for the week ended May 20, the highest level since December 2020. US bankruptcy filings also hit a at the start of the month amid a broader pickup in filings with at least $50 million in liabilities.



The Federal Reserve's plans to tamp down on inflation with aggressive rate hikes only adds to the woes of distressed companies. Higher interest rates will make it difficult for them to make debt payments, according to Sanjeev Khemlani, leader of the senior lender advisory practice at FTI Consulting Inc.

Steeper borrowing costs may also spur a new set of so-called “zombies,” companies that have run out of out but don’t have any triggers on their debt that could allow lenders to push the firm to file for bankruptcy, Khemlani said.
The removal of Covid-19 support, such as foreclosure moratoriums and stimulus payments, coupled with higher prices, will make consumers cut back on their spending this year, further pressuring earnings, Melanie Cyganowski, a former bankruptcy judge and partner at Otterbourg PC, said in an interview.
Retail will come under stress due to high transportation costs, as will health-care companies, which have higher labor costs, she said.
“I think we are in a perfect storm,” she said.
Consumer demand over the next few quarters will determine whether the financial pressures these firms face will develop into a full-blown default cycle.
Punishing Time
Companies that are unable to raise prices enough to offset burgeoning costs are being penalized by investors when their earnings fail to meet expectations.
Diebold Nixdorf’s bonds, for example, fell a record 39 cents in a single day after the maker of automated teller machines reported a larger-than-expected loss. The ability to buy and sell credit has tightened amid the broader market conditions, which has exacerbated bond moves, Brookfield’s Rufino said.
But increasing prices for consumers may not be sufficient to offset supply chain woes, as Armstrong Flooring found. The firm, which negotiated amendments to its debt and tried to get acquired prior to filing for bankruptcy, also implemented a freight surcharge, but that still wasn’t enough.
“Simply stated, the company’s increasing costs significantly outpaced its pricing power,” Armstrong’s Chief Executive Officer Michel Vermette said in court papers.
These pressures will be magnified by Russia’s invasion of Ukraine, which has strained the global food supply system, leading to higher prices, said Jim Mesterharm, head of AlixPartners’s turnaround practice in the Americas.
“The supply chain challenges don’t necessarily have an end game set at the moment,” he said.

Nokia CEO says 6G will be here by 2030 — but you might not be able to access it via your smartphone

Sam Shead@SAM_L_SHEAD – CNBC

KEY POINTS

- Nokia builds telecoms networks that enable devices to communicate with one another.
- Asked when he thinks the world will move away from using smartphones to using smart glasses and other devices that are worn on the face, Nokia CEO Pekka Lundmark said it will definitely happen by the time 6G arrives in 2030.
- U.S. tech giants such as Meta, Google and Microsoft are working on new augmented reality headsets that could one day replace the smartphone.

Nokia CEO Pekka Lundmark expects 6G mobile networks to be in operation by the end of the decade but he doesn’t think the smartphone will be the most “common interface” by then.

Speaking on a panel at the World Economic Forum in Davos, Lundmark said he expects 6G to hit the commercial market around 2030, which coincides roughly with when Huawei expects to see the technology on the market.

Headquartered in Finland, Nokia builds telecoms networks that enable phones and other internet-enabled devices to communicate with one another.
Asked when he thinks the world will move away from using smartphones to using smart glasses and other devices that are worn on the face, Lundmark said it will happen before 6G arrives.
"By then, definitely the smartphone as we know it today will not anymore be the most common interface," he said. "Many of these things will be built directly into our bodies."
He did not specify exactly what he was referring to but some companies, such as Elon Musk's Neuralink, are working on producing electronic devices that can be implanted into the brain and used for communication with machines and other people. On a more basic level, chips can be implanted into people's fingers and used to unlock things.
The exact definition of 6G is currently unclear and the world is only just getting to grips with 5G.

5G refers to next-generation mobile networks that offer super-fast data speeds that promise to support technologies like driverless cars and virtual reality.

Elsewhere, U.S. tech giants such as Meta, Google and Microsoft are working on new augmented reality headsets that could one day replace the smartphone.

Speaking on the same panel, Google CFO Ruth Porat said: "We believe that one of the big advantages of augmented reality is actually solving problems here on Earth."

"It will be things like having glasses and being able to translate as you speak with glasses," she added. "Those are very close."
Google previously launched an AR headset called Google Glass but ultimately pulled it after the device failed to gain traction.
The tech leaders also discussed the opportunities and challenges that the metaverse presents.

By 2030, Lundmark said he believes there will be a "digital twin of everything" that will require "massive computational resources."
In order to transmit all the computers bits that the metaverse will require, networks will need to be at least 100 times or even 1,000 times faster than they are today, Lundmark said.

Tech Manufacturing to Expand Through Year-End

High-tech manufacturing is expected to grow for the remainder of the year despite continued inflation and geopolitical unrest. Overall, U.S. manufacturing businesses forecast revenue growth of 9.2 percent for 2022, slightly higher than projections at the end of last year.
Few of the challenges faced in 2021 – inflation, materials and component shortages and logistics delays – have abated this year, according to the Institute for Supply Management's Semiannual Survey. A tight labour market continues to limit manpower in the factory sector which, in turn, constrains production output. But demand remains robust.

Plants are already operating at 87.2 percent of capacity, ISM reports, and that's expected to increase 5.8 percent throughout the year. Capital expenditures will help that push—capex is forecast to grow by 7.2 percent.
Even with multiple headwinds, the manufacturing sector continues to expand, said Tim Fiore, chair of the ISM's manufacturing survey committee.
"With an operating rate of 87.2 percent and projected increases in capital expenditures, prices paid for raw materials and employment by the end of 2022, manufacturing continues its comeback from the turmoil of 2020 and 2021," he said. Sixteen out of 18 sectors tracked by ISM are expecting revenue growth and 13 anticipate hiring this year.
Capex is, of course, much higher for the semiconductor industry — up by 24 percent in 2022 — which is well into its second year of a severe chip shortage. But new fabs won't come online soon enough to remedy a worsening supply situation.
"Everything's in trouble right now and it's not getting better," said Vern Densler, solutions engineer for components distributor Sourceability. "We know about the issues all the way down to the foundry level. There's materials, which has worsened with the Russia-Ukraine conflict. There's been the recent lockdown in China. We were behind [demand] for awhile and now we are even further behind."

Ukraine is the world's leading supplier of neon which is used in chip manufacturing. China is a source of critical metals, materials and services used in all electronics.
Roughly 54 percent of ISM respondents expect the supply chain to worsen in Q3 and Q4. About half say the problems come from foreign, rather than domestic, sources.

Materials prices were climbing steeply even before recent supply chain events but they're set to stabilize, ISM reports. Manufacturers expect to pay 11.1 percent more for raw materials for all of 2022 – they had already increased 11.4 percent as of April. Manufacturers are able to pass on these price increases because demand remains very strong.

The ISM's monthly index, the PMI, has cooled in recent months but remains well into expansion territory at 55.4 in May. Any reading above 50.0 indicates growth.
The end of Q1 likely affected several manufacturing metrics, Fiore explained. Finished products are shipped out the door and the end of calendar quarters. Manufacturers that had adequate inventory didn't place new orders, perhaps anticipating a price break.

But the window for downward price adjustments is narrowing this year. Cost and demand signals are changing more frequently than before the pandemic, manufacturers said, and costs are being passed to customers.

Panelists were asked, relative to the pandemic, if they were more likely to pass on increases. They responded:

- Yes, demand is higher now than before the pandemic, so we can (8 percent)
- Yes, our competitors are raising prices, so we can (11 percent)
- Yes, changes in costs are expected to be long term, so we must (38 percent)
- Yes, our margins are tighter now than they were before the pandemic, so we must (21 percent)
- Yes, for another reason (8 percent)
- No (14 percent)

Employment in the manufacturing sector is forecast to increase by 3.2 percent this year but remains a significant challenge for factories. Labor costs are also on the rise. Eighty-nine percent of manufacturers reported difficulty in hiring as of May. More than half – 56 percent – raised wages to remedy the situation. The employment index has hovered around 50 for most of the past 18 months.

Russia's invasion of Ukraine has not had a major impact across all U.S. manufacturing industries. When asked about disruption, responses were:

- Yes, it's very disruptive (5 percent)
- Yes, it's disruptive (15 percent)
- Yes, it's somewhat disruptive (40 percent)
- No, it's not disruptive (40 percent)

Sentiment in the manufacturing sector was consistent with the April's PMI report where positive comments outweighed negative, Fiore said.

Author: Barbara Jorgensen

Barbara Jorgensen

Barb Jorgensen is editor-in-chief for supply chain publication EPSNews and has covered electronics manufacturing, procurement and business for more than 25 years. Barb spent most of her career with Electronic Business magazine and EBN; freelanced; and then founded online publication EPSNews with two industry veterans—Bolaji Ojo and Gina Roos. EPSNews was acquired by AspenCore in 2017.

SEMI urge adoption of European Chips Act

BRUSSELS, Belgium - May 30, 2022 - SEMI Europe, the industry association that unites the entire electronics manufacturing and design supply chain in Europe, today urged swift adoption of the European Chips Act and invited discussions on the legislation with the European Parliament, Member States and the European Commission. The Act aims to strengthen Europe's competitiveness and resilience in semiconductor technologies and applications while enabling the region's digital and green transition.

"Speedy adoption of the European Chips Act will significantly accelerate Europe's work to attract investments to build up chip manufacturing capacity and R&D," said Laith Altimime, president of SEMI Europe. "The Act is also a key step forward for Europe to substantially decarbonize semiconductor manufacturing and drive digital transformation."

The European Council and Parliament continue to refine the European Chips Act with inputs from semiconductor industry stakeholders. A newly published SEMI Europe position paper offers the following recommendations for consideration of the European Commission, the Parliament, and the Council:

Chips for Europe Initiative

Strengthen R&D capabilities and ensure adequate funding.

Align new and existing pilot lines with anticipated future needs and trends and support open access to all parties within the EU semiconductor value chain.

The Chips Joint Undertaking needs to target Europe's semiconductor industry needs.

Establish a dedicated skills and workforce development funding stream under the Chips Joint Undertaking.

Security of Supply

Provide a first-of-a-kind classification to target all relevant technology projects.

Foster fast track procedures.

Preparedness and Monitoring

Minimize risks to the semiconductor value chain and overall EU economic system.

Eliminate redundant data reporting requirements that cause administrative inefficiencies for semiconductor companies.

Establish requirements for safeguarding the confidentiality of industry data.

Encourage European initiatives with global partners, such as the EU-U.S. Trade and Technology Council.

Governance

Include stakeholders in Europe's semiconductor ecosystem.

SEMI Europe also co-authored and signed a Joint Industry Statement with other industry stakeholder organizations representing the worldwide and European semiconductor ecosystem. The statement urges the European Commission, the Parliament, and the European Council to do the following:

Focus on investment conditions and opportunities to enhance European competitiveness.

Create a crisis response framework to help alleviate semiconductor industry disruptions.

Involve the semiconductor industry in Europe Chips Act governance.

Coordinate actions with global partners.

For more details, contact SEMI Europe:

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About SEMI

SEMI® connects more than 2,500 member companies and 1.3 million professionals worldwide to advance the technology and business of electronics design and manufacturing. SEMI members are responsible for the innovations in materials, design, equipment, software, devices, and services that enable smarter, faster, more powerful, and more affordable electronic products. Electronic System Design Alliance (ESD Alliance), FlexTech, the Fab Owners Alliance (FOA), the MEMS & Sensors Industry Group (MSIG) and SOI Consortium are SEMI Strategic Technology Communities.

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NEWS FROM THE IPC

IPC Establishes European Subsidiary

Munich, Germany, May 25, 2022 — To better support our European members' interests, IPC announces the formation of IPC Electronics Europe GmbH. The subsidiary was officially registered with the German government on May 4, 2022. The new entity's main office is located in central Munich.

John W. Mitchell, IPC president and CEO commented, "While we have been actively engaged and successful in Europe for more than 30 years, having a legal entity here now enhances our ability to serve the regional electronics industry and our membership in newer and bolder ways with renewed vigor."

"We are very excited about the prospects of actively participating in significant consortiums and working groups in the EU to help drive newer standards, education, and advocacy solutions that will be vital in transforming the continent's factories of the future," said Sanjay Huprikar, president of IPC in Europe and South Asia.

IPC has plans in place to expand staff in Europe in addition to Francisco Fourcade who joined IPC in April as electronics standards manager to liaise with the growing number of new standards development committees forming in Europe. The organization will be adding talent to the certification, marketing, and industry intelligence teams over the next 18 months.

For more information on IPC Electronics Europe GmbH and the new office location, contact Philippe Leonard, senior director of operations, at PhilippeLeonard@ipc.org.

North American EMS Industry Up 4.3 Percent in April

IPC releases EMS industry results for April 2022

BANNOCKBURN, Ill., USA, May 31, 2022 — IPC announced today the April 2022 findings from its North American Electronics Manufacturing Services (EMS) Statistical Program. The book-to-bill ratio stands at 1.36.

Total North American EMS shipments in April 2022 were up 4.3 percent compared to the same month last year. Compared to the preceding month, April shipments fell 10.7 percent.

EMS bookings in April fell 7.2 percent year-over-year and 2.4 percent from the previous month.

"EMS shipments continue to be constrained by supply chain disruptions and have been unable to keep pace with orders," said Shawn DuBravac, IPC's chief economist. "Shipments are 2.7% below last year's pace through the first four months of the year, while bookings are up 9.7% over the same time horizon."

Detailed Data Available

Companies that participate in IPC's North American EMS Statistical Program have access to detailed findings on EMS sales growth by type of production and company size tier, order growth and backlogs by company size tier, vertical market growth, the EMS book-to-bill ratio, 3-month and 12-month sales outlooks, and other timely data.

Interpreting the Data

The book-to-bill ratios are calculated by dividing the value of orders booked over the past three months by the value of sales billed during the same period from companies in IPC's survey sample. A ratio of more than 1.00 suggests that current demand is ahead of supply, which is a positive indicator for sales growth over the next three to twelve months. A ratio of less than 1.00 indicates the reverse.

Year-on-year and year-to-date growth rates provide the most meaningful view of industry growth. Month-to-month comparisons should be made with caution as they reflect seasonal effects and short-term volatility. Because bookings tend to be more volatile than shipments, changes in the book-to-bill ratios from month to month might not be significant unless a trend of more than three consecutive months is apparent. It is also important to consider changes in both bookings and shipments to understand what is driving changes in the book-to-bill ratio.

IPC's monthly EMS industry statistics are based on data provided by a representative sample of assembly equipment manufacturers.

North American PCB Industry Sales Up 2.1 Percent in April

IPC releases PCB industry results for April 2022

BANNOCKBURN, Ill., USA, May 31, 2022 — IPC announced today the April 2022 findings from its North American Printed Circuit Board (PCB) Statistical Program. The book-to-bill ratio stands at 1.03.

Total North American PCB shipments in April 2022 were up 2.1 percent compared to the same month last year. However, compared to the preceding month, April shipments fell 20.4 percent.

PCB year-to-date bookings in April were down 14.3 percent compared to last year. Bookings in April fell 5.4 percent from the previous month.

"PCB shipments have been marginally stronger than bookings through the first four months of the year. Shipments are up 6.7% compared to a decline in bookings of 2.6%," said Shawn DuBravac, IPC's chief economist. "The disconnect between shipments and orders is likely driven by backlogs for other components. Companies are disinclined to place PCB orders if they are waiting on other components. Despite strong shipments, the book-to-bill remains above 1."

Detailed Data Available

Companies that participate in IPC's North American PCB Statistical Program have access to detailed findings on rigid PCB and flexible circuit sales and orders, including separate rigid and flex book-to-bill ratios, growth trends by product types and company size tiers, demand for prototypes, sales growth to military and medical markets, and other timely data.

Interpreting the Data

The book-to-bill ratios are calculated by dividing the value of orders booked over the past three months by the value of sales billed during the same period from companies in IPC's survey sample. A ratio of more than 1.00 suggests that current demand is ahead of supply, which is a positive indicator for sales growth over the next three to twelve months. A ratio of less than 1.00 indicates the reverse.

Year-on-year and year-to-date growth rates provide the most meaningful view of industry growth. Month-to-month comparisons should be made with caution as they reflect seasonal effects and short-term volatility. Because bookings tend to be more volatile than shipments, changes in the book-to-bill ratios from month to month might not be significant unless a trend of more than three consecutive months is apparent. It is also important to consider changes in both bookings and shipments to understand what is driving changes in the book-to-bill ratio.

IPC's monthly PCB industry statistics are based on data provided by a representative sample of both rigid PCB and flexible circuit manufacturers selling in the USA and Canada. IPC publishes the PCB book-to-bill ratio by the end of each month.

The European Institute for the PCB Community

EIPC SPEeDNEWS

The Weekly On-Line Newsletter
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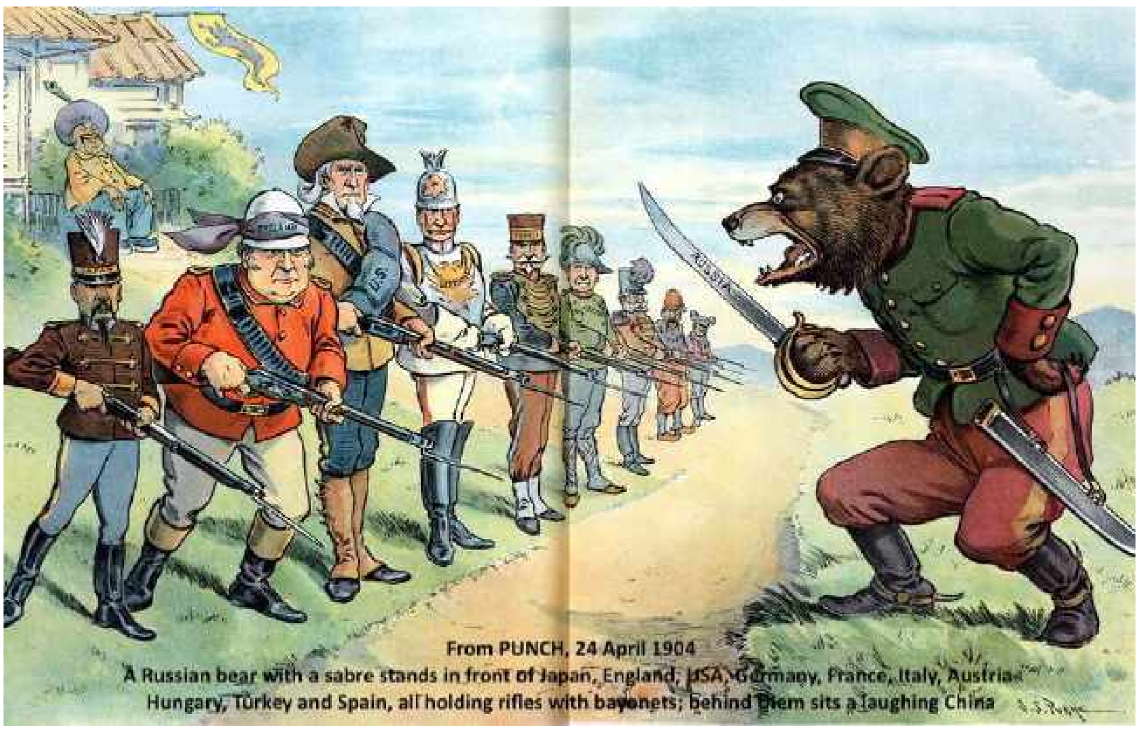
History Repeats itself


From PUNCH, 24 April 1904
A Russian bear with a sabre stands in front of Japan, England, USA, Germany, France, Italy, Austria Hungary, Turkey and Spain, all holding rifles with bayonets; behind them sits a laughing China

The European Institute for the PCB Community

EIPC SPEeDNEWS

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International Diary

2022

EIPC Summer Conference
Visit Ericsson Product Development Test Centre
14 & 15 June
Örebro, Sweden

18th EIPC Technical Snapshot Webinar
Registrations via www.eipc.org
September

KPCA Korea
21-23 September
Korea

EIPC @ FED Conference
29-30 September
Bamberg, Germany

19th EIPC Technical Snapshot Webinar
Registrations via www.eipc.org
October

TPCA Taiwan
26-28 October
Taiwan

EIPC @ Electronica
15-18 November
Munich, Germany