

# Economic Outlook

## How did 2020 turn out for Machine Vision and how will be 2021?

Economic developments in 2020 were dominated by the Covid-19 pandemic. Therefore inVISION has asked the three machine vision associations AIA (America), EMVA (Europe) and VDMA (Germany) how the year was for their members and what the forecasts for 2021 are.

### North American machine vision market down 6%

2020 has been a difficult year for the machine vision market in North America due to a variety of factors. The latest data (January - September 2020) show the North American machine vision market is down 6% to \$1.94 billion, and the second quarter of 2020 was the lowest quarter for sales volumes in the last three years. The second quarter was also the peak of the pandemic response policies, travel restrictions and lockdowns here in the United States and North America. The current state of the market is mixed, with companies being affected in many ways – both positive and negative. That said there are some shifting signs of optimism to watch as we close out the year and head into 2021. AIA's latest surveys show that in the next six months (Q4 2020 and Q1 2021) 50% of respondents believe the North American machine vision market will expand, 45% expect sales to remain flat, and 5% expect a contraction. In the second quarter surveys just 15% of respondents expected increases, and in the

first quarter only 17%. This shift indicates that the market is looking more favorable for machine vision component and system manufacturers right now than it did

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Alex Shikany, A3

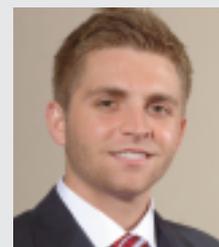


Bild: AIA

earlier this year, driven in part by increasing demand in industries like life sciences, e-commerce (logistics) and electronics. We are pleased to hear these signs of optimism from machine vision companies and are hopeful 2020 ends on a positive note. ■

[www.a3automate.org](http://www.a3automate.org)

Author: Alex Shikany, Vice President – Membership & Business Intelligence, A3 Association for Advancing Automation

### German Machine Vision industry expects decrease of 9%

The VDMA Robotics + Automation association is currently expecting a drop in sales of at least 20% in 2020 for the German robotics and automation industry. According to the annual VDMA statistics, the German robotics and automation industry recorded the second-highest turnover in 2019, at 14.7 billion euros, with a slight decline of 2% compared to the previous year. The sub-sectors of robotics and automation developed differently in 2019: integrated assembly solutions recorded a 4% drop in sales to 8 billion euros. Sales in robotics fell

only slightly by 2% to 4 billion euros. Machine vision, on the other hand, was able to grow slightly: Industry sales rose by 1% to 2.8 billion euros. Luckily, the machine vision industry is far less dependent on a single customer industry or a single target country. The industry is already very diversified and highly export-oriented. Hence, distortions can be better compensated for. According to the VDMA monthly incoming orders and turnover statistics, the machine vision industry seems to be far less affected than robotics or the integrated

assembly solutions by the Corona crisis. Demand from USA for machine vision products made in Germany seems to be more resilient, and according to a recent survey among VDMA member companies, with subsidiaries in China, the situation in China has already returned to normal. However, there still is a lot of insecurity and of course the variance among the machine industry is very high. For the machine vision industry in Germany, VDMA Machine Vision forecasts a turnover decrease of up to 9% for 2020. I strongly believe that the corona pandemic will prove to be a veritable accelerator of digitalization and machine vision. The Corona crisis has highlighted how vulnerable industrial production has become in global value chains. The realization that more resilience is required opens

up new potentials for robotics and automation. Supply chains are being rethought and the manufacturing of critical parts and products will be done more locally – and with an increased share of internally produced components. This can only be implemented economically with a higher degree of automation. There are also considerable catch-up effects from previously postponed investments. All of these factors will fuel demand in robotics and automation in the post-Corona era. ■

**»» In 2021, I expect the industry to be back on the growth path ««**  
**Anne Wendel, VDMA**



Bild: VDMA e.V.

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[ibv.vdma.org](http://ibv.vdma.org)

Author: Anne Wendel, Director Machine Vision, VDMA Robotics + Automation Association

## Vision sector in Europe has shown a mixed picture

In many ways 2020 has been an eventful year with the dramatic emergence of a new global pandemic, tremendous losses and gains in equity markets, and the impending spectre of a no-deal Brexit. Against this background, the vision sector in Europe has shown a mixed picture albeit with cautious optimism for the future, due in part to the importance of vision technology to many different verticals. In revenue terms and based on numbers generated

by the EMVA every quarter through a vision specific survey, at the end of 2019, the vision sector was already experiencing a slowdown, with fourth quarter revenues down from 18% against 2018, and 21% down against the previous quarter due to a combination of factors including trade wars between the US and China as well as a shrinking of the automotive sector. In the first quarter of 2020 there were indications of a more positive picture with an overall decrease of only 3% against the previous quarter, and some product groups showing an increase in demand, particularly in component hardware such as cameras and processor boards, albeit with revenue decreasing in the major category of vision systems. As the world reacted to the pandemic during the second quarter, a renewed focus on strong balance sheets fed into reduced orders and an overall drop in revenue of 11% against the first quarter, and almost 30% against the previous year. The contraction was almost reversed in the latest third quarter figures with an increase in revenues of 10% bringing third quarter revenues almost on par with the first quarter. As 2020 closes, signs of renewed optimism are apparent, particularly with continued positive news regarding potential Covid-19 vaccines. This may build on the already positive sentiment expressed by the industry where, in the latest figures, over two thirds expected to see growth in the short term, especially among vision system suppliers. However, the macroeconomic environment remains uncertain, and there may be short terms reversals as the vision sector transitions to more stable growth patterns. ■

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Bild: EMVA European Machine Vision Association

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Author: Thomas Lübke-meier, General Manager, EMVA (European Machine Vision Association)