

ARTIFICIAL INTELLIGENCE

FUTURE MARKETS. DISCOVERED TODAY.

GETTING REAL

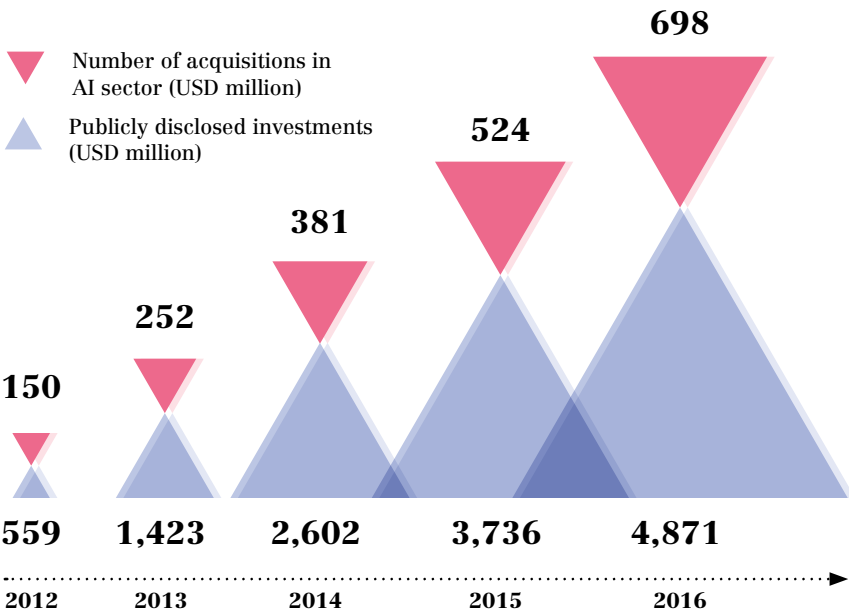
**AVNET CEO
AMELIO RELIES
ON AI**

**HOW CHIPS
MIMIC THE
BRAIN**

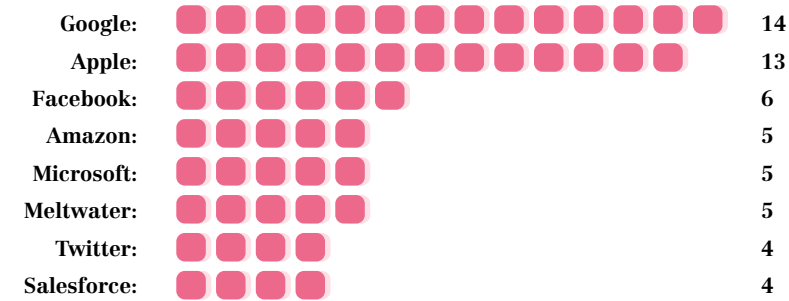
**CREATING
NEW BUSINESS
MODELS**

THE AI RACE IS HOTTING UP

Large companies in all sectors, from retail to agriculture, are now integrating Artificial Intelligence solutions into their products. At the same time, there is an acute shortage of specialists to meet the demand. A combination of these factors is breeding fierce competition for the best AI start-ups. In particular, large companies in the IT industry are adding expertise and professional staff by acquiring young companies.



The number of AI start-up acquisitions has increased by a factor of 4.6 in the last five years, from 150 in 2012 to 698 in 2016.
Source: CBInsights



Number of AI companies taken over between September 2010 and January 2018.
Source: CBInsights

FROM PURE FICTION TO A REAL MARKET OPPORTUNITY

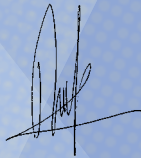
Intelligent machines and self-teaching computers will open up exciting prospects for the electronics industry.

The idea of thinking, or even feeling, machines was long merely a vision of science-fiction authors. But thanks to rapid developments in semiconductors and new ideas for the programming of self-teaching algorithms, Artificial Intelligence (AI) is today a real market, opening up exciting prospects for businesses.

According to management consultants McKinsey, the global market for AI-based services, software and hardware is set to grow by as much as 25 per cent a year, and is projected to be worth USD 130 billion by 2025. Investment in AI is therefore booming, as the survey “Artificial Intelligence: the next digital frontier” by the McKinsey Global Institute affirms. It reports that, in the last year, businesses – primarily major tech corporations such as Google and Amazon – spent as much as USD 27 billion on in-house research and development in the field of intelligent robots and self-teaching computers. A further USD 12 billion was invested in AI in 2016 externally – that is, by private equity companies, by risk capital funds, or through mergers and acquisitions. This amounted in total to some USD 39 billion – triple the volume seen in 2013. Most current external investments (about 60 per cent) is flowing into machine learning (totalling as much as USD 7 billion). Other major areas of investment include image recognition (USD 2.5 to 3.5 billion) and voice recognition (USD 600 to 900 million).

Intelligent machines and self-teaching computers are opening up new market opportunities in the electronics industry. Market analyst TrendForce predicts that global revenues from chip sales will increase by 3.1 per cent a year between 2018 and 2022. It is not just the demand for processors that is rising, however; applications of AI are also driving new solutions in electronics fields such as sensor technology, hardware accelerators and digital storage media. Market research organisation marketsandmarkets,

for example, forecasts a rise from USD 2.35 billion in 2017 to USD 9.68 billion by 2023 – among other reasons as a result of big data, the Internet of Things, and applications relating to Artificial Intelligence. The creation of AI-based services is also increasing demand for higher-performance network infrastructures, data centres and server systems. AI is thus a vital market for the electronics industry as well. With our semiconductor solutions, experienced experts and extensive partner network, we will be glad to help you develop exciting new products.



Slobodan Puljarevic
President EBV Elektronik



THE AGENCY BEHIND TQ

How much knowledge is needed for an idea to impress? And how much heart is needed for it to be moving? Munich-based marketing agency IndustryAgents combines both, providing in-depth technological knowledge, professional marketing and a love for excellent design. This is clear to see from TQ, the knowledge magazine which is issued twice a year in an inspiring collaboration between EBV and IndustryAgents. Whether the matter at hand is Robotics, Smart Cities or Artificial Intelligence, the agency has extensive know-how when it comes to issues of the future, along with a large network of high-tech experts.

www.industryagents.de



DEAR READER,

Scarcely any technology is as emotionally charged at present as Artificial Intelligence. The fear is that intelligent machines will replace us in the not-too-distant future, or even lead to the extinction of mankind. Hollywood has contributed in no small way to the sombre picture that many people have of AI. These fears are seemingly confirmed by words of warning from our brightest minds, such as Stephen Hawking or Elon Musk. With the latest edition of The Quintessence, we take a closer look at what AI is all about. Two things quickly become clear: firstly, Artificial Intelligence does not simply exist in one form, rather it is made up of an array of many smaller solutions for precisely defined tasks. Secondly, AI is already used in many more products and applications than most people realise. Indeed, AI has already been a reality for a long time now following many years of research. This is not in the form of humanity-threatening machines, however, rather more so as a useful tool that supports people in production, medicine, research and many other areas. AI is intended to complement rather than replace people, as the participants in our expert discussions also emphasise. Nevertheless, AI will have a considerable impact on our lives and our economy. "AI will alter the way we work, make decisions and structure our business models," explains William Amelio, CEO of our parent company



Eva von Einsiedel (CEO of the agency IndustryAgents) and Bernd Schlemmer are pleased about the ninth award for the TQ magazine.

Avnet, in an interview. We have to embrace the opportunities offered by AI without losing sight of the risks. The ethics of AI decisions or prejudiced underlying data have to be discussed and appropriate rules formulated, since AI certainly offers far more opportunities than risks and will help to improve our lives in many areas. Speaking of doing better – The Quintessence has already won three awards this year, bringing the total to nine. Our magazine triumphed over numerous competitors in global competitions. Most recently, TQ won the Astrid Award and clinched gold in the Mercury Excellence Award: an achievement that we're incredibly proud of. Naturally, we won't be resting on our laurels – if you have any ideas or suggestions to make the magazine even better, I'd be delighted to receive any feedback at bernd.schlemmer@ebv.com. I look forward to hearing from you.

Yours,

A handwritten signature in black ink, appearing to read "Bernd Schlemmer".

Bernd Schlemmer
Vice President Communications, EBV Elektronik

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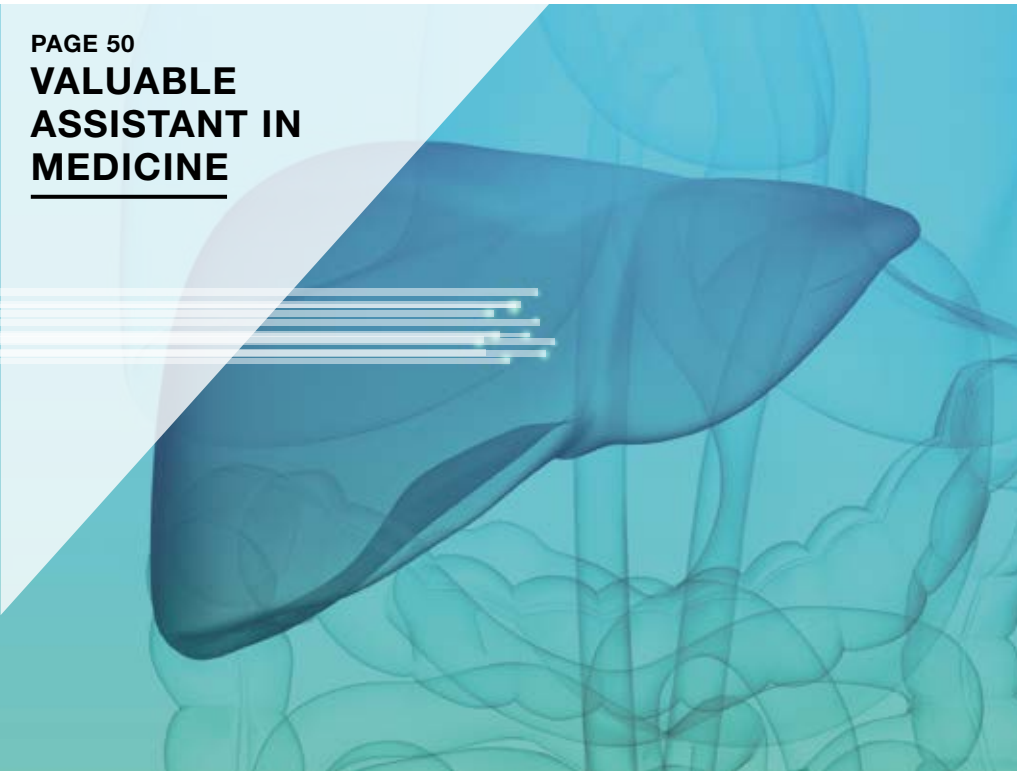
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