

Below are extracts from two articles, published by Yahoo on its website (Yahoo Finance 16th & 18th April 2024) and RTE.ie (18th April 2024) reviewing projections for the semiconductor market and news of a digital conference in Ireland.

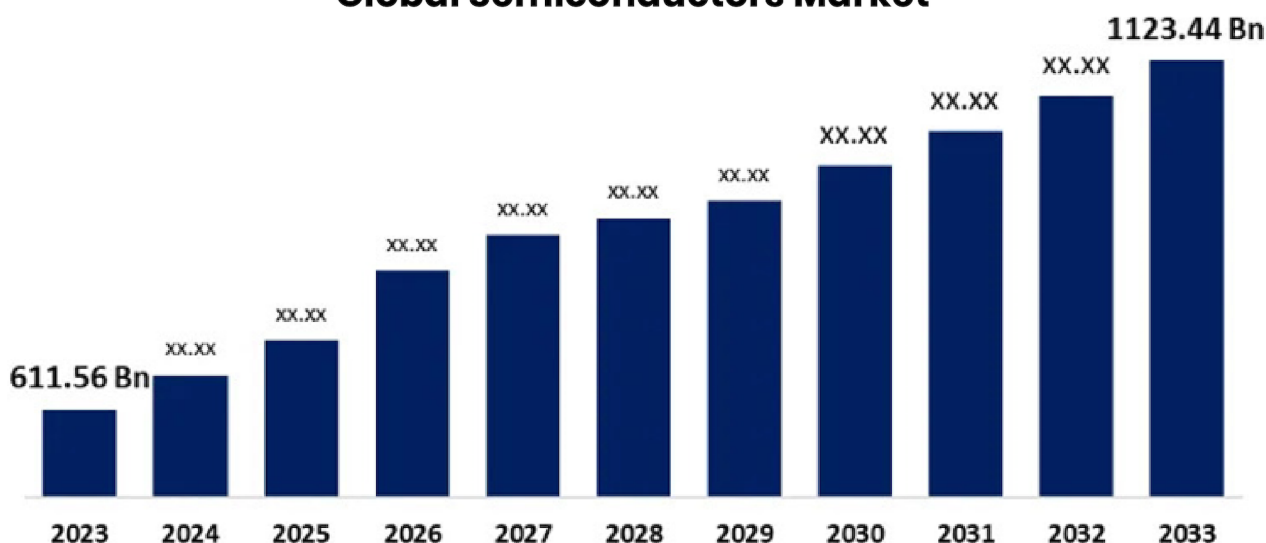
Research reports the global semiconductor market is set to grow to over USD \$1123 billion by 2033, with Asia-Pacific leading the way. While Ireland hosts digital conference, examining the integrity of electoral integrity of online platforms and AI regulation.



Global Semiconductors Market Size To Exceed USD \$1123.44 Billion By 2033 | CAGR Of 6.27%.

In its recent report , Yahoo (2024) details findings from a research report commissioned by Sphere Insights Consulting LLP, with contributions from the world's leading semiconductor manufacturers. Yahoo(2024) concludes from the report that growth will continue in applications such as cloud computing and artificial intelligence, similarly with EV's. Plus, the increased conflict between the US and Chinese governments over chip production may lead to a reduction in US dominance of the global market . Companies contributing to the Sphere Insights report included Intel, Samsung, TSMC, Sony and Nvidia:

Global Semiconductors Market



A semiconductor is a substance with specific electrical characteristics which allow it to serve as the foundation for technological and other electronic devices. It is usually a solid chemical element or compound that conducts electricity in some conditions but not in others. For instance, Tata Electronics begins construction on India's first semiconductor manufacturing facility. The Indian government approved Tata Electronics' bid to build the semiconductor plant in February 2024, following an invitation for proposals to launch a 'Make in India' semiconductor ecosystem. China is expected to experience high demand for mobile chips as a result of the establishment of manufacturing and assembly plants by several well-known smartphone manufacturers, including Apple and OnePlus. The use of semiconductors in healthcare is expected to grow as electronic medical devices including blood pressure gauges, at-home clinical therapy and diagnostics, and others gain popularity. Advanced medical devices and equipment, such as MRI machines, CT scanners, and X-ray machines, rely heavily on semiconductor components to operate. Semiconductors are necessary for the processing and imaging capabilities, as well as the proper operation of these complex machines. However, After China's leadership changed in 2018, the US started imposing trade restrictions on the country. If the restrictions continue, China's market share is expected to fall by around 16%. As a result, increased conflicts with China are expected to reduce the dominance of the US semiconductor market, shifting the focus to Asia Pacific during forecast period.

The memory devices segment dominates the market with the largest revenue share over the anticipated timeframe.

On the basis of component, the global semiconductors market is segmented into memory devices, logic devices, analog IC, MPU, discrete power devices, MCU, sensors, and others. Among these, the memory devices segment is dominating the market with the largest revenue share over the anticipation timeframe. The need for memory devices is growing daily as advances in technology like cloud computing and virtual reality are developed, and these devices are becoming more and more integrated with users' other devices.

The networking & communications segment is witnessing significant growth over the anticipated timeframe.

On the basis of the application, the global semiconductors market is segmented into networking & communications, and data processing. Among these, the networking & communications segment is witnessing significant growth over the anticipation timeframe. Consumer electronics, particularly gaming, have advanced to the point where semiconductors are now absolutely required. The automobile industry is another expanding sector. a combination of several electric cars leading the automobile industry in recent years, their reliance on electronic components has become unchangeable, and it will remain so until cheaper alternatives are found in the global electronic components market.

Yahoo (2024)

According to Yahoo (2024), in the specified timeframe of the report, China will continue to dominate the global semiconductor market as a result of the increased demand for chips and their application to mobile phone technology, AI and the Internet of Things in particular. Meanwhile, the United States market is expected to grow the fastest across the same time period :

Asia Pacific dominates the market with the largest market share over the anticipation timeframe.

These local market players typically provide a diverse range of products at discounted bulk prices. As a result, market growth in China will accelerate during the forecast period. As the region's developing countries adopt high-tech consumer goods, demand for semiconductors has recently increased. Technological advancements such as IoT(internet of things) and LTE (Long Term Evolution 4G) are expected to further boost the global semiconductors market in this region. China dominates the global semiconductor market, which is expected to grow moderately during the forecast period.

North America is expected to grow the fastest during the anticipation timeframe with increased funding for R&D activities. According to the Semiconductor Industry Association (SIA), R&D expenditures in the U.S. industry increased at a compound annual growth rate of approximately 6.6% from 1999 to 2019. US companies consistently spend heavily on R&D activities, regardless of annual sales cycles, demonstrating the importance of investing in R&D production. In 2019, R&D investments totaled USD 39.8 billion.

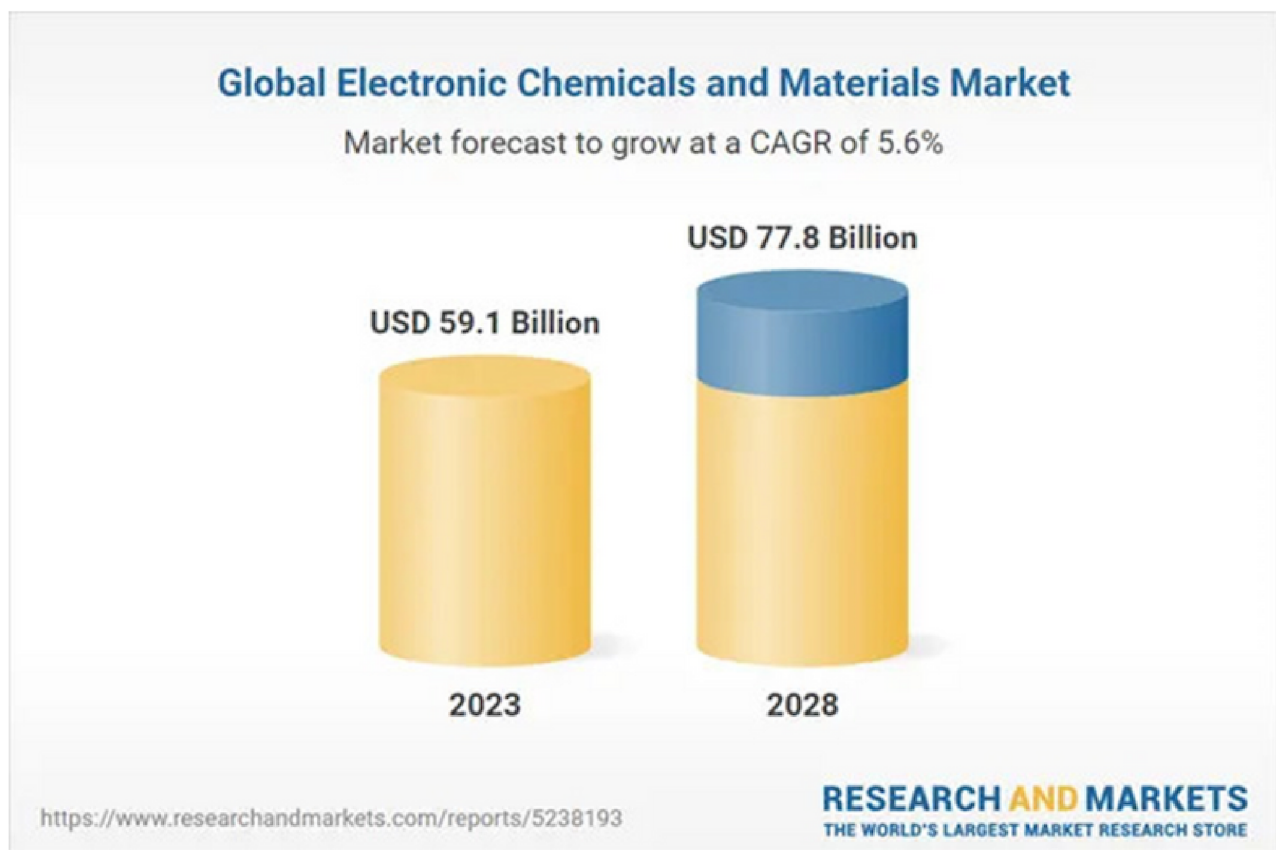
Yahoo (2024)



Global Electronic Chemicals and Materials Market 2024–2028: Semiconductor Applications Forecast to Dominate Amid Rising Demand and Technological Advancements, China to be the Fastest-Growing Market.

Meanwhile in another article in recent weeks , Yahoo (2024) cites a **ResearchAndMarkets.com** paper, which reports on the expected growth specifically in electronic chemicals and materials, which mirrors the growth outlined above in semiconductor market output generally ,in the major regions :

The global electronic chemicals and materials market is projected to grow from USD 59.1 billion in 2023 and is projected to reach USD 77.8 Billion by 2028, at a CAGR(growth rate) of 5.6%. Several factors are driving this growth, including the increasing demand for consumer electronics, growth in the semiconductor industry, and advancements in electronic devices requiring specialized materials. Additionally, the proliferation of 5G technology and the Internet of Things (IoT) are expected to further boost market growth as these technologies require sophisticated electronic components and materials.



Yahoo (2024) continues to quote the Researchandmarkets.com research in some detail, describing how a core element of integrated circuits, or ' silicon wafers' will be the component demonstrating the most growth in the defined period. Such technology demands specialized materials and as applications grow, so too will materials supply chain requirements. It notes yet again how countries like China, Japan, South Korea, and Taiwan have cemented their positions as leaders in semiconductor manufacturing and consequently in the supply of the electronic chemicals and materials required for ever-advancing chip manufacture:

The silicon wafers segment is projected to register the highest CAGR during the forecast period

The projected growth of the silicon wafers segment in the electronic chemicals and materials market is indicative of the expanding demand for semiconductors and electronic devices worldwide. Silicon wafers serve as the fundamental substrate for manufacturing integrated circuits (ICs) and other semiconductor devices essential for various electronic applications, including smartphones, computers, automotive electronics, and industrial automation systems. The increasing adoption of advanced technologies such as 5G, Internet of Things (IoT), artificial intelligence (AI), and augmented reality (AR) is driving the need for more powerful and efficient semiconductor components.

Consequently, there is a growing requirement for high-quality silicon wafers with enhanced specifications, such as larger diameters, higher purity levels, and improved uniformity, to meet the performance demands of next-generation electronic devices. Moreover, the proliferation of emerging trends like electric vehicles (EVs) and renewable energy systems further contributes to the surge in demand for silicon wafers, as these technologies heavily rely on semiconductor-based components for their operation. Additionally, ongoing advancements in semiconductor manufacturing processes, such as the transition to advanced node technologies like 7nm and below, are fueling the demand for specialized electronic chemicals and materials used in the fabrication of silicon wafers. Overall, the projected high compound annual growth rate (CAGR) of the silicon wafers segment underscores its pivotal role in driving innovation and progress within the electronics industry, laying the foundation for the development of cutting-edge electronic devices and technologies.

Semiconductor application segment is expected to hold the larger market share during the forecast period.

The semiconductor application segment is projected to dominate the electronic chemicals and materials market during the forecast period due to several key factors. Firstly, the increasing demand for semiconductors in various electronic devices such as smartphones, laptops, and tablets is driving the growth of this segment. As these devices become more advanced and sophisticated, the need for high-performance semiconductors and advanced electronic materials also increases. The growing trend of miniaturization in the electronics industry is further fueling the demand for electronic chemicals and materials used in semiconductor manufacturing.

Asia Pacific projected as the fastest growing electronic chemicals and materials market during the forecast period.

The Asia Pacific (APAC) region emerged as the powerhouse driving the electronic chemicals and materials market, outpacing other regions in growth. This surge can be attributed to the exponential expansion of the global electronics industry within the APAC territory. Countries like China, Japan, South Korea, and Taiwan have cemented their positions as leaders in electronics manufacturing, fueling demand for electronic chemicals and materials. The region's robust infrastructure, skilled labour force, and favourable government policies have created an environment conducive to innovation and production efficiency in the electronics sector. Moreover, the increasing adoption of advanced technologies such as 5G, Internet of Things (IoT), and artificial intelligence (AI) has further accelerated the demand for electronic components and devices, driving the need for specialized chemicals and materials. With its dynamic market landscape and strategic positioning in the global supply chain, the APAC region continues to be a focal point for electronic chemicals and materials suppliers, presenting lucrative opportunities for growth and investment in the foreseeable future.

Yahoo (2024)



RTE (2024) tells us that the internet watchdog in Ireland is not overly impressed with plans by the social media platforms to counteract disinformation around the upcoming EU elections in June. Last week at the Digital Ireland Conference held in Dublin, Digital Services Commissioner John Evans said that Ireland needs to be extremely vigilant around the issue of electoral integrity and that politicians should be made aware of the pitfalls and priority facilities made available to them by the online platforms:

The head of Ireland's internet watchdog has said he is not overwhelmed by the "quality" of the plans that are being put in place by online platforms to counter disinformation ahead of the local and European elections in June. Digital Services Commissioner at Coimisiún na Meán John Evans said that Ireland needs to be extremely vigilant around the issue of electoral integrity.

"We're talking to the Electoral Commission, we also issued a request for some information to the platforms about their readiness and how they're operationalising what is in the guidance produced by the European Commission," Mr Evans said.

"I wasn't overwhelmed by the quality of the responses I got back, to be honest, so we'll need to go back and do that again and get good answers," he added. Mr Evans was speaking at the Digital Ireland Conference which is taking place today in Dublin Castle.

He said that his office is also focussed on the safer participation of politicians, particularly with regards to women in politics, and that they are planning to prepare information packs for people who are putting themselves forward for election. "It will give information at their fingertips of what they can do if they encounter a 'deepfake' of themselves online or something like that," Mr Evans said. "The platforms have priority channels available for public representatives so it's a question of drawing people's attention to them and making use of those channels," he added.

RTE (2024)

Beyond the safety of politicians and the whole issue of fake news, RTE (2024) further reports that the conference will also touch on digital regulation and AI (artificial intelligence) and Ireland's key role in driving the digital regulation agenda in the EU, given the strong presence of global technology companies here, many of whom contributed speakers for the conference:

Panel discussions are focussing on digital regulation and artificial intelligence (AI). Ukrainian deputy digital minister Georgii Dubynskyi will take part in a virtual discussion on Ukraine's cybersecurity journey. Other speakers include executives from companies such as Microsoft, Google, Amazon and OpenAI, the firm behind ChatGPT.

The Digital Ireland Conference is hosted by the Department of Enterprise, Trade and Employment. "As a small, open economy, Ireland has been hugely successful in attracting eight of the global top ten information technology companies to establish a significant presence here," said Minister for Enterprise, Trade and Employment Peter Burke.

"We are the second largest exporter of computer and IT services in the world. We also have a dynamic domestic innovation ecosystem, with the third highest number of 'unicorns' per capita in the EU." "Ireland is at the heart of the digital transformation, both as a home to a vibrant digital economy, and through our key role in the EU, in particular in the digital regulatory space," Mr Burke said.

RTE (2024)

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