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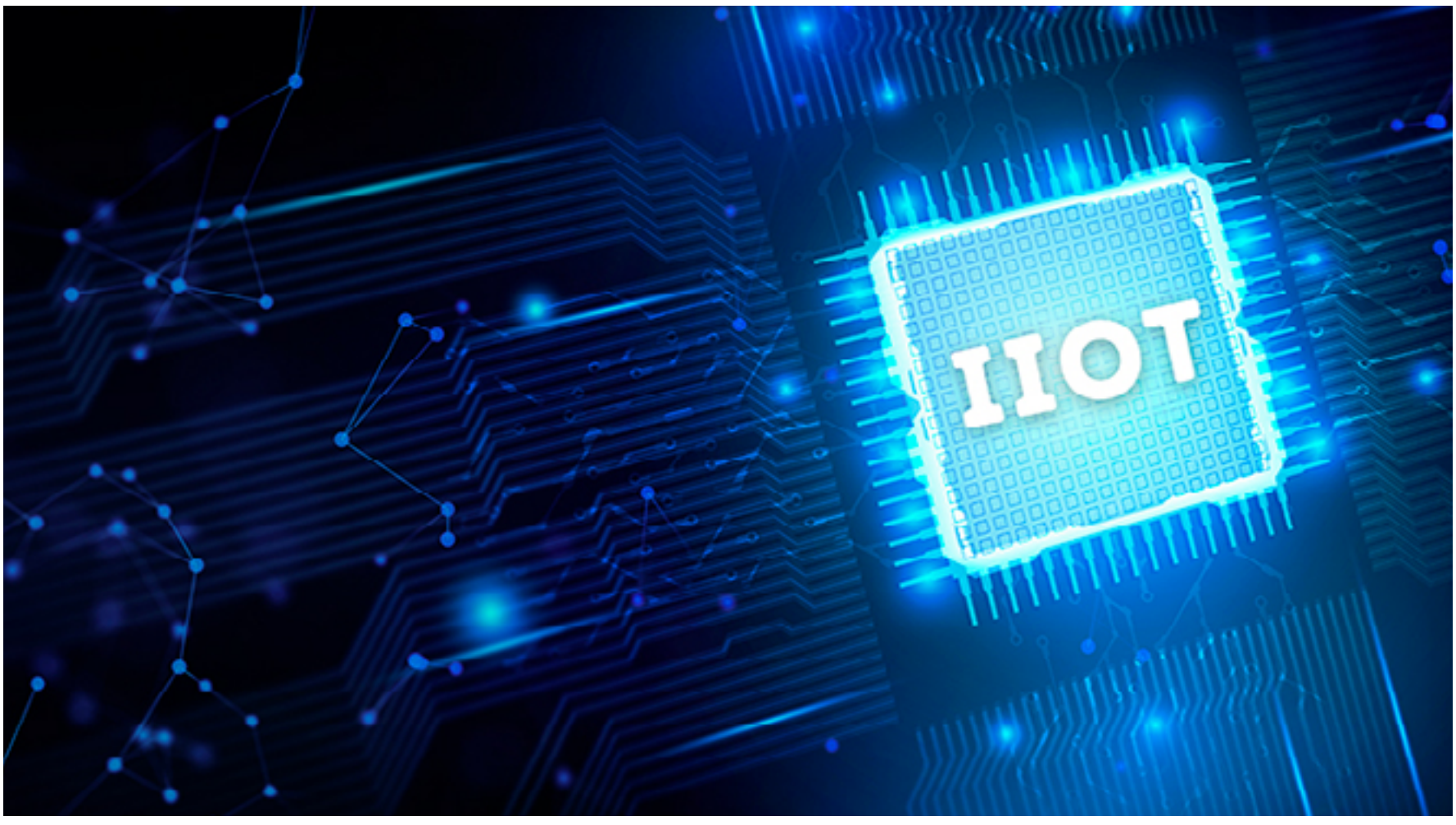
IIoT: Connecting Every Node of the Supply Chain

> *When we talk about IIoT, we refer to the **Industrial Internet of Things,** also known in the sector as smart **manufacturing**. This term encompasses the integration of the Internet of Things (IoT) with industrial production systems, enabling optimal interconnection between machines, systems, and people.*



However, it is important to highlight that the **Industrial Internet of Things** (IIoT) emerges as a revolutionary tool that connects every node of the supply chain in an intelligent, autonomous, and efficient way. From suppliers to customers—including transportation, manufacturers, and communication—IIoT is transforming how material and data flows are managed and optimized throughout the entire supply chain.

According to Oxford Economics, IIoT can impact industries representing **62% of GDP** in G20 countries, including sectors such as manufacturing, energy, and food.

Learn more about the relevance of IIoT and how it significantly helps optimize every node in the Supply Chain.

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Industrial Internet of Things: Efficiency and Sustainability

IIoT brings **efficiency and productivity** to processes. Let's see how:

Efficiency and Productivity: IIoT introduces unprecedented operational efficiency in manufacturing processes. By implementing smart sensors and data analytics systems, companies can monitor and optimize their production operations in real time. According to a report by McKinsey, the application of IoT in industrial environments can increase productivity by up to **25%.** This translates into:

- Reduction of waste.
- Better inventory management.
- More efficient adaptability to market changes and demands.

IIoT systems offer more comprehensive visibility into the supply chain, helping companies **prevent disruptions and better manage resources.** According to a study by Bain & Company, companies integrating these systems enable their workers to focus on developing skills that complement technology and guide them toward **higher-value activities.**

Innovation and Sustainability: In addition to improving efficiency, **IIoT promotes sustainability and innovation.** Companies can use real-time data to optimize resource use, reduce waste, and minimize their environmental footprint.
Thanks to its high analytical capacity, IIoT allows companies to **make better decisions based on solid data,** while also enabling **faster and more effective responses.** This results in greater agility and innovation in production processes. According to Statista, IIoT is expected to experience **strong annual growth (CAGR 2024–2028) of 12.68%,** reaching a market volume of **USD 525.2 billion** by 2028.

IIoT: A Connected and Efficient Future:

Main IIOT applications

Transport of components to the plant or products to the waghouse can be carried out by autonomous vehicles, which detect obstacles.	Uso of vehiculos automatics
Thanks to sensors and data processsing, machine performance can be optimized, avolding its inactivity.	Optimization of improving machine performance
Errors decrease thcanks to the interconnection of tools, focilitating the operator's work.	Reduction of errores humanos
Stored products incorporate sensors that provide real-time data on their location and even on their temperature or environm-ental conditions.	Stored products to loccately & distribution
Wearables, such as glasses, bracelets or gloves, allow operator dota to be retrieved by the wearer, which reduces 'recosibility of accidents.	Disminucion of the nümer of accidents

Source. Iberdrola

IIoT is just beginning its implementation across various industries, and its full potential is yet to be realized. According to Mordor Intelligence, the **Industrial Internet of Things market** is expected to grow from **USD 114.68 billion in 2024 to USD 503.07 billion by 2029,** at a **compound annual growth rate (CAGR) of 34.41%** during the forecast period (2024–2029).

Meanwhile, Microsoft reports that **87% of decision-makers in the manufacturing sector** have considered and supported IIoT adoption to increase industrial automation, improve quality and compliance, and enhance planning and scheduling within the supply chain and logistics.

While growth projections are favorable, it is also true that **several challenges must be addressed**, including:

- With many devices and systems connected, **data vulnerability becomes a critical issue.** If not properly managed, it can lead to **massive thefts and losses.**
- Full interconnectivity—when mishandled—**can put operations at risk,** potentially harming processes, people, and corporate finances.

As you can see, **the future of IIoT is promising,** aiming for secure integration. However, **overcoming challenges** such as interoperability and data management requires a **holistic and collaborative approach** by companies with the vision to implement **innovative solutions** for the future. IIoT transforms how business operations are managed and opens the door to **new business models.**

In this digital era, where change can happen at any moment, corporations must focus on **building systems that provide flexibility, responsiveness, and accurate, timely attention**—and **IIoT is a powerful ally** to achieve those goals!

Information Keeps You One Step Ahead

That's why we encourage you not to miss our expert-driven content, where we share the latest industry trends and key highlights.

Posted by: G.I.Eicom
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