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PROJECT

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AI at **Extremadura**

Prepared by **Universidad De Extremadura (ES)**

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AI AT EXTREMADURA

1. WHAT IS AI?

The term "Artificial Intelligence" (hereinafter referred to as AI), as defined by the Expert Group on Artificial Intelligence of the European Commission, applies to systems that exhibit intelligent behavior by analyzing their surroundings and taking actions with a certain degree of autonomy to achieve a specific objective.
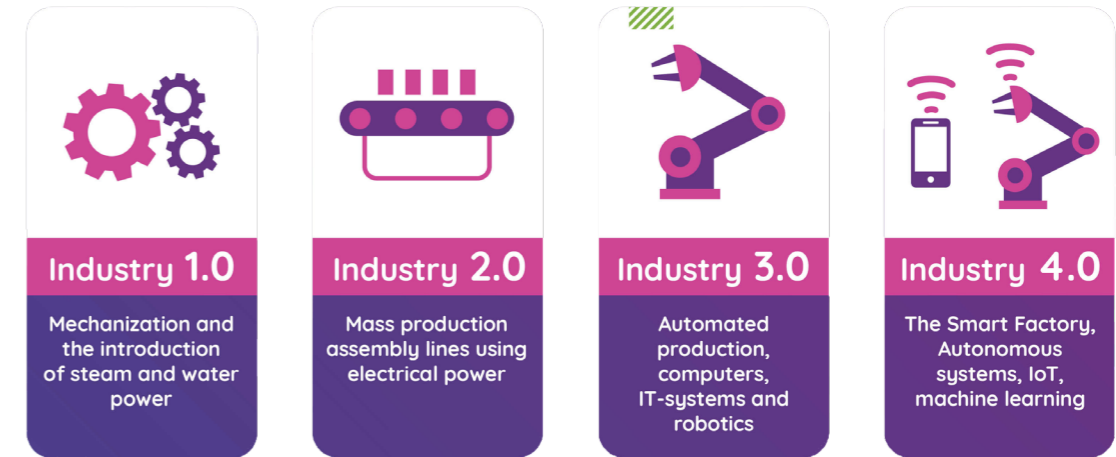
2. HISTORY

Since the 1950s, the prominence of Artificial Intelligence (AI) has experienced exponential growth, particularly in recent years, establishing itself as a pivotal technology in the context of the Fourth Industrial Revolution. This heightened relevance can be attributed to several key factors.

1. The advent of substantial volumes of data, commonly referred to as Big Data, has ensued from the rapid proliferation of digital services and the pervasive digitization of the physical world through sensor technologies.

2. The accessibility of robust computing capabilities at a cost-effective scale has significantly contributed to the advancements in AI applications.

3. The maturation of intricate Artificial Intelligence architectures has empowered the

automatic discernment of patterns and the generation of predictions derived from extensive datasets. This historical progression underscores the transformative role of AI in shaping the contemporary technological landscape.

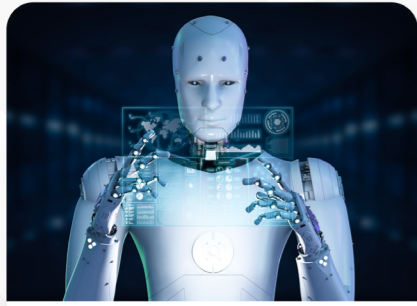| Industry 1.0	Industry 2.0	Industry 3.0	Industry 4.0
Mechanization and the introduction of steam and water power	Mass production assembly lines using electrical power	Automated production, computers, IT-systems and robotics	The Smart Factory, Autonomous systems, IoT, machine learning

3. FUTURE

Moreover, across various social and economic-productive sectors where AI will soon find applications, it's important to highlight that the economic impact of AI in the 2020-2030 decade is expected to reach 15.7 trillion euros (6.6 trillion from increased productivity and 9.1 trillion from consumption effects). In the case of Spain, it's projected that AI could double the current GDP growth rate and generate up to one million new jobs each year, provided the right conditions are met. current GDP growth rate and generate up to one million new jobs each year, provided the light conditions

4. ETHIC

The Independent High-Level Expert Group on AI of the European Commission has laid the groundwork for AI systems to prioritize people, committing to using them in the service of humanity and the common good, with the aim of e hancing the well-being and freedom of individuals. This Independent Expert Group also asserts that "reliable artificial intelligence based on three components is necessary and must be met throughout the entire life cycle of the system: current GDP growth rate and generate up to one million new jobs each year, provided the light conditions are met.

AI must be lawful,
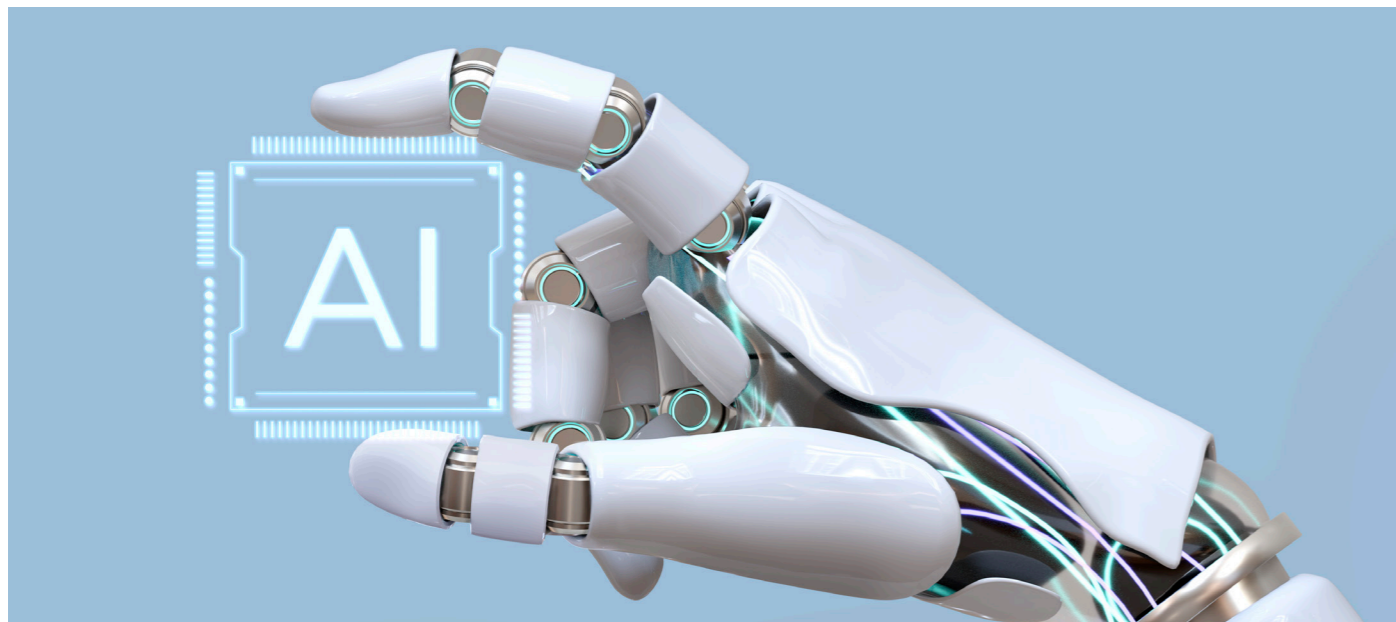meaning it complies with all laws and regulations

It must be ethical,
ensuring respect for ethical principles;

It must be sensible,
both technically and socially, as AI systems can cause accidental harm, either prudently or imprudently

5. REQUIREMENT

The UNESCO Recommendation on the Ethics of Artificial Intelligence, adopted by the General Conference on November 23, 2021, defines AI systems as "those capable of processing data and information in a manner resembling intelligent behavior, generally encompassing aspects of reasoning, learning, perception, prediction, planning, or control.

6. GUIDELINES

In February 2019, "El Libro Blanco de la Inteligencia Artificial" was published, reflecting the commitment of the European Commission to fostering the development of an Artificial Intelligence ecosystem that disseminates the benefits of the technology to the broader society and the European economy as a whole

On April 21, 2021, the European Commission presented a proposal for a regulation to establish standardized rules for artificial intelligence (AI), commonly referred to as AI law.

In Spain, the Digital Spain 2025 Strategy was introduced in July 2020 to drive the country's digital transformation. This strategy, aligned with the European Union's digital approach, encourages public-private collaboration involving all economic and social players in the country. The strategy outlines 10 key areas, including 50 specific measures. Notably, point 9, focused on the Data Economy, promotes the development of technologies like Artificial Intelligence and Big Data.

7. EXTREMADURA

Today, the objective of the Extremadura Regional Government in this field are determined by the priorities of the Digital Modernization Plan 2020-2024. The key objectives include directing actions towards data, safeguarding information while ensuring transparency in the planning, procurement of goods, and provision of information technology services, and aligning administrative capacities with the needs of public management and societal expectations.generally encompassing aspects of reasoning, learning, perception, prediction, planning, or control.

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