Acelera pyme

# The Digital Twin Revolution: Applications and benefits for SMEs and freelancers

"Una manera de hacer Europa"
Fondo Europeo de Desarrollo Regional

Financiado por la Unión Europea NextGenerationEU

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Plan de Recuperación, Transformación y Resiliencia

KIT DIGITAL

España | digital 2026

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# Introduction

Digital twins have emerged as an **innovative technology** that has the potential to transform the way businesses operate and make decisions. **These virtual replicas of real-world objects, systems and processes** are becoming a widely used tool in a variety of industries, as well as in SMEs and the self-employed.

For SMEs, they represent a **unique opportunity to improve their productivity, efficiency and competitiveness.**

# What is a Digital Twin?

> A digital twin is a **virtual representation** of a physical object, process or system in real time, which is **constantly updated** with data from its physical counterpart.

## Elements that compose it

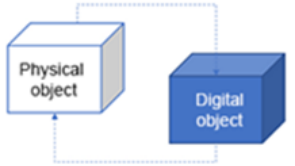
The physical part


The virtual part

The connectivity between them

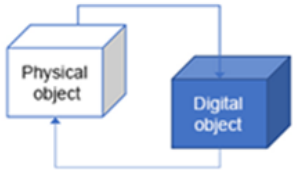
## Main differences

Digital model




Digital shadow


Digital twin



# Benefits of using Digital Twins

> The main advantages of the use of digital twins for SMEs and self-employed are :

**PROCESS OPTIMIZATION**

**INFORMED DECISION MAKING**

**COST AND RISK REDUCTION**

**INNOVATION AND PRODUCT DEVELOPMENT**

# Incorporation of Digital Twins in daily activities for SMEs and the self-employed

## GUIDELINES FOR IMPLEMENTATION

1. Identify objectives
2. Feasibility assessment
3. Selection of technologies and suppliers
4. Creation of the digital model
5. Sensor integration and data collection
6. Integration with existing systems
7. Training and adoption
8. Monitoring and continuous improvement

*It is advisable to **start with pilot projects in specific areas and then expand** their use as experience is gained and positive results are obtained.*

# Use cases

> SMEs can apply the digital twins in areas such as :

**Optimization of manufacturing processes**

**Predictive maintenance**

**The supply chain**

**Product design**

**Virtual prototyping**

# Tools

> To implement digital twins, you can make use of platforms such as:


It allows users to **create complex and realistic models** in a wide variety of industries.


3D simulation and optimization used to **model and analyze a wide range** of systems and processes.

> In addition, platforms are needed that offer connectivity and data analytics capabilities such as:


It allows **users to visualize, analyze and act on data in real time.**

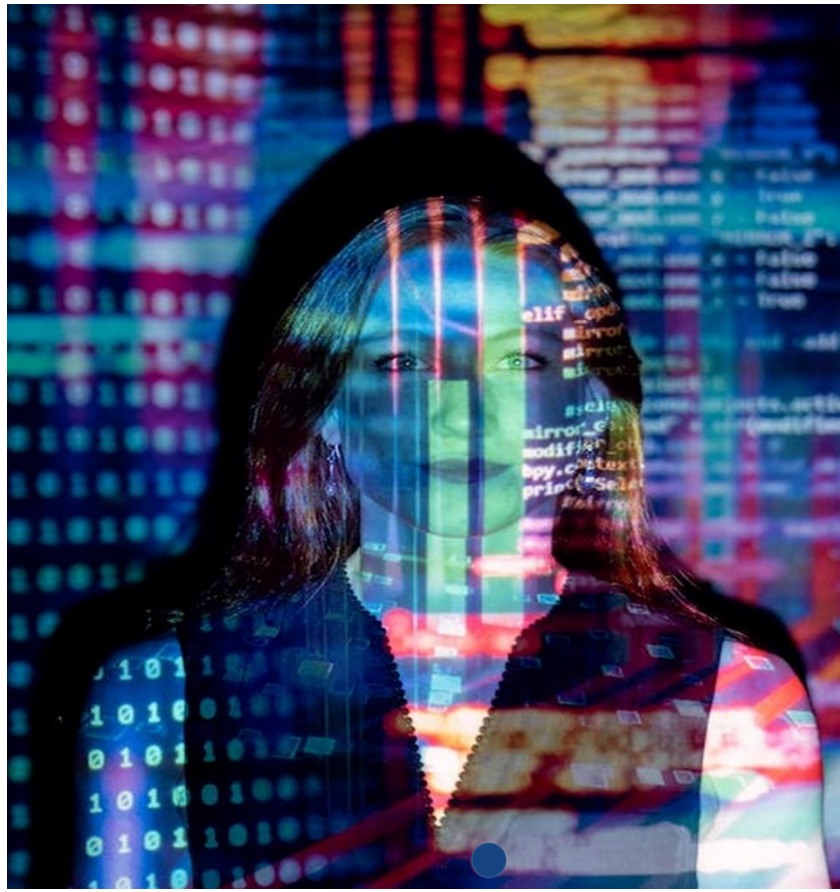

Designed for the **collection, storage and analysis of data** from IoT connected devices.

# Conclusion

Digital twins represent a transformative tool for SMEs, **offering benefits in terms of process optimization, informed decision making and innovation.**

Their **gradual implementation,** tailored to the needs of each company, can drive competitiveness, adaptability and growth in a **constantly evolving business environment.**

**In conclusion, digital twins are virtual replicas of real-world objects, systems or processes that are gaining popularity in various industries, including SMEs.**



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