



Grant Agreement N°857191

## Distributed Digital Twins for industrial SMEs: a big-data platform

### DELIVERABLE 8.5 – COMMUNICATION TOOLS (I)



# Document Identification

Project	IoTwins
<b>Project Full Title</b>	Distributed Digital Twins for industrial SMEs: a big-data platform
<b>Project Number</b>	857191
<b>Starting Date</b>	September 1st, 2019
<b>Duration</b>	3 years
<b>H2020 Programme</b>	H2020-EU.2.1.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)
<b>Topic</b>	ICT-11-2018-2019 - HPC and Big Data enabled Large-scale Test-beds and Applications
<b>Call for proposal</b>	H2020-ICT-2018-3
<b>Type of Action</b>	IA-Innovation Action
<b>Website</b>	iotwins.eu
<b>Work Package</b>	WP8
<b>WP Leader</b>	ART-ER
<b>Responsible Partner(s)</b>	ART-ER
<b>File Name</b>	DELIVERABLE 8.5 – COMMUNICATION TOOLS (I)
<b>Contractual delivery date</b>	29/2/2020
<b>Actual delivery date</b>	29/2/2020
<b>Version</b>	1
<b>Status</b>	Final
<b>Dissemination level</b>	Public
<b>Author</b>	Daniele Sangiorgi, Luisa Secci, Debora Facchini
<b>Contact details of the coordinator</b>	Francesco Millo, <a href="mailto:francesco.millo@bonfiglioli.com">francesco.millo@bonfiglioli.com</a>

# Table of Contents

Document Identification.....	2
Introduction.....	4
1 Website.....	5
2 The IoTwins Brandbook .....	10

# Introduction

In the following deliverable all the IoTwins communication materials are presented in detail.

**Section 1** explains the **website** structure, describing the wireframe used for the website content definition and design.

**Section 2** introduce the **IoTwins Brandbook**, explaining the reasoning along the development of project logo and of the brand identity of the project. The application on the communication materials is also included: **slide, notepad, folder, leaflet, poster and rollup, video**.

All the materials have been designed having in mind sustainability goals and the materials that are going to printed will be all FSC MIX labeled<sup>1</sup>.

---

<sup>1</sup> FSC-Forest Stewardship Council is an international non-profit organization that promotes responsible management of the world's forests. FSC is globally recognized as the World's Most Trusted Sustainable Forest Management Solution.

The FSC Mix label, means the wood within the product is from FSC-certified forests, recycled material, or controlled wood.

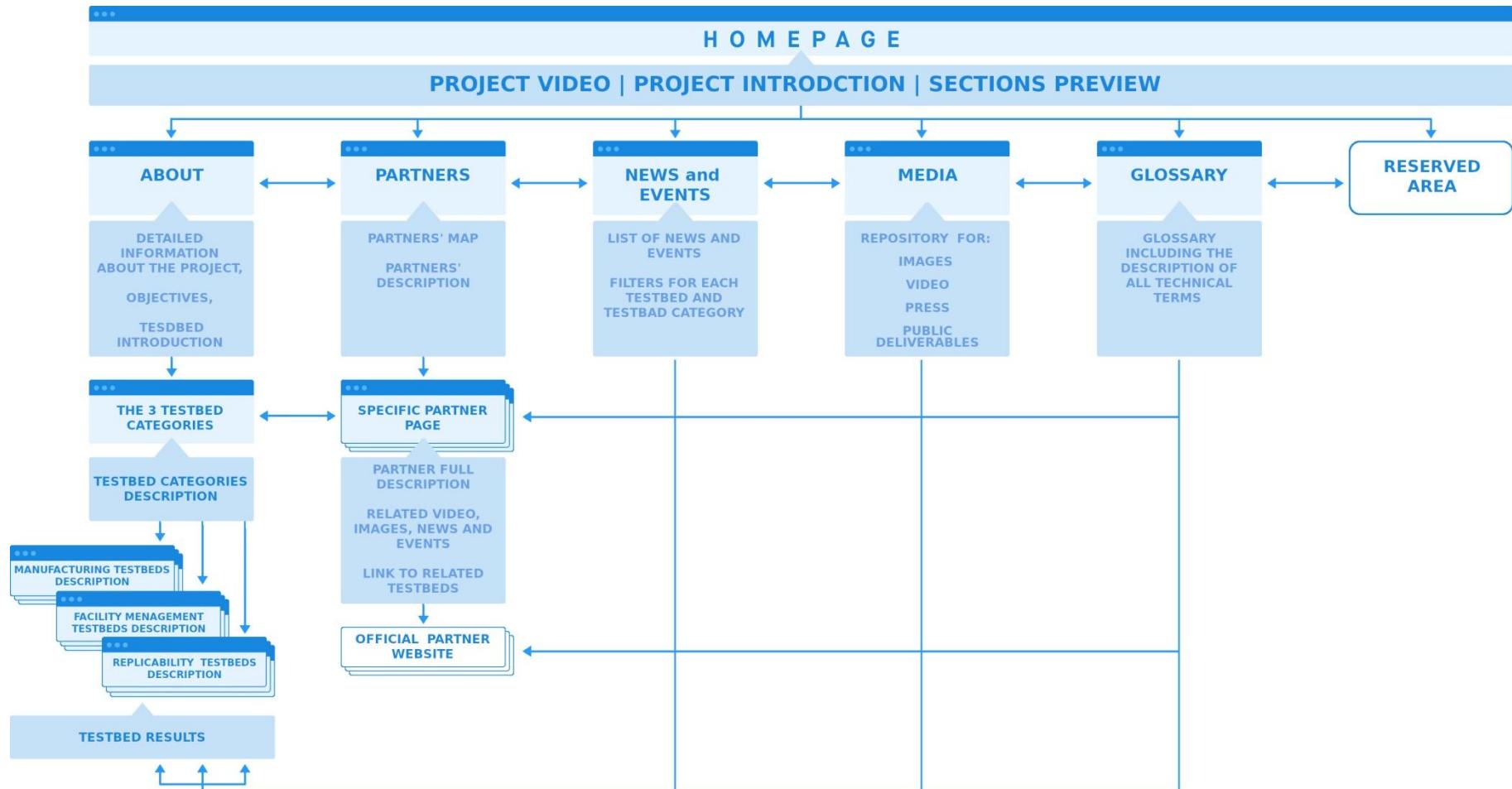
# 1 Website

IoTwins website is available at the page <https://www.iotwins.eu> since February 27, 2020.

It has been developed in Wordpress, in order to allow prompt and continuous content updates, following all the projects advancement.

The website structures is based on the wireframe described in the following pages.

In its first release some of the presented section are hidden (those related to project results) and will be added during project lifetime.



As depicted in the image above, the website is organized in the following sections, available from the main menu:

- Homepage
- Project (About)
- Partnership
- News & Events
- Media
- Glossary
- Reserved Area

### Homepage

The Homepage opens showing the project logo, the project title and the project statement "BIG DATA PLATFORM FOR OPTIMIZED AND REPLICABLE INDUSTRIAL AND FACILITY MANAGEMENT MODELS.", a short description setting the context and explaining what the project is about and which context it belongs to.

Then the following contents are also included:

- 2 paragraphs about **the project and its goals**, giving a first short information about the it. The description will be deepened in the section "project (about)", available through a link. The project video is also linked in this section
- A widget presenting the **3 application areas** of the testbeds (manufacturing, facility management, replicability) and the link to the related pages
- the **partnership**
- **the ID Card of IoTwins** (Grant number, Call identifier, Topic, Start/end dates, Costs and EU funding, Coordinator name)
- a preview of the most recent **news&events**

### Project (About)

This section opens with the project payoff and is organized in the following subsections:

- an **infographic**, depicting the principal project data: the total costs and the related EU funding, the number of partners, the technological platform, the 12 testbeds and the 3 application areas
- a detailed description of the **project**
- a detailed description of the project **objectives**
- a widget presenting the **3 application areas** of the testbeds with an extensive description and the link to the related pages
- a list of **benefits for companies** from the IoTwins outcomes
- the **governance board**
- the **partnership** (like in homepage)
- a **preview** of the most recent **news&events** (like in homepage)

The links to the 3 application areas take to the specific pages of the manufacturing, facility management and replicability testbeds. Each of these pages includes:

- the **application area** general description
- a widget for each **testbed** belonging to the application area, with a testbed short description and link to the specific testbed page
- a selection of **news and events** related to that specific application area.

The 12 specific testbeds pages are organized in a similar way. They include:

- a detailed testbed **description**
- the testbed **objectives**
- the **partners** involved
- the testbed **results**
- the testbed **documentation** available for the download
- the link to the next testbed

### PARTNERSHIP

The partnership is presented in two ways

- through a **map**, showing the European distribution of the partners.
- through an **accordion**, giving a short description of each partner and the link to organisations official website

### NEWS & EVENTS

The page starts with the last (or the most relevant) news highlighted. Each news is presented through a card with an image and a short text. After clicking on the image or on the text, the news detail page opens, with the full text and the bigger card image.

Each news is tagged with specific categories tags (eg. #general, #manufacturing, #facility management, etc...), allowing to have specific filters and present the related news in each testbed category page.

The news are listed following a last in, first showed order. As the news number increase, filtering and alternate sorting tools will be made available.

### MEDIA

Media section shows all the document, reports, public deliverables, images and videos produced by the project partners.

### GLOSSARY

The Glossary page includes the definition for all technical term faced in IoTwins project and included in the website, in order to facilitate the visitors.

Moreover, all over the website, all the terms included in the glossary appear as a link and if clicked a small window appears over the term, with its glossary definition. This solution allow a quick and efficient access to the glossary terms, without the need to directly go to the glossary page during the navigation.

#### RESERVED AREA

The website includes a link to the login page of the ©EMDESK Platform, the IoTwins project management tool which will be also used as a collaboration and common repository tool.

## 2 The IoTwins Brandbook

IoTwins Brand Book collects all the information concerning the project Brand, including the reasoning developed to identify project key elements and the related visual and verbal identity. The brand application on the communication materials and the relation with the EU emblem is also included.



# BRAND BOOK

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 857191



- 01| From the project analysis to keywords.**
- 02| Brand identity.**
- 03| Visual identity.**
- 04| Verbal identity.**
- 05| Use of EU emblem.**
- 06| Applications on materials.**
- 07| Video.**
- 08| Digital.**

**Summary**

01|

# From the project analysis to keywords.

## **What is IoTwins?**

It is a project designed to develop Digital Twins of real machines, systems and infrastructures.

Through the implementation of advanced technology platforms, capable of interpreting big data from the actual systems and devices, it enables predictive and prescriptive models for operation optimization and predictive maintenance.

01| From analysis  
to keywords

**What is  
IoTwins?**

# What IoTwinS is for?

## Direct purpose

To generate models and algorithms aimed at efficiency maximization, predictive maintenance, assessment of industrial and facility management processes that will be applied to actual operations, in order to optimize and define scalable and replicable models.

01| From analysis  
to keywords

**What  
IoTwins  
is for?**

## Indirect purpose

To improve environmental footprint of industrial processes and facilities.  
Reduce resource consumption and improve operations.

# **IoTwins: what does the name mean?**

**The name is the merger of two advanced technological systems:**

## **Internet of Things**

A neologism referring to the Internet expansion to the real world of things and places, thus becoming able to provide inner data and read aggregate information by third parties in a recognisable and smarter way.

## **Digital Twins**

A dynamic virtual representation of a physical object or system (infrastructure/process/machine) across its lifecycle, using real-time data to enable understanding, learning, reasoning and to forecast its behaviour.

**01| From analysis to keywords**

**What does the name mean?**

## **IoTwins in brief.**

IoTwins delivers a platform for modeling, simulating and optimizing real machines, plants and infrastructure in a virtual environment in order to anticipate findings, optimize efficiency and identify replicable models to improve industrial performances, thanks to advanced technologies of Artificial Intelligence and Big Data analytics.

01| From analysis  
to keywords

**IoTwins  
in brief**

Simulation

Virtual twins

Advanced technologies

Facility management

Predictive maintenance

# IoTwins keywords

Industrial plants and projects

Replicable models

Big Data

Efficiency optimization

Actual realities

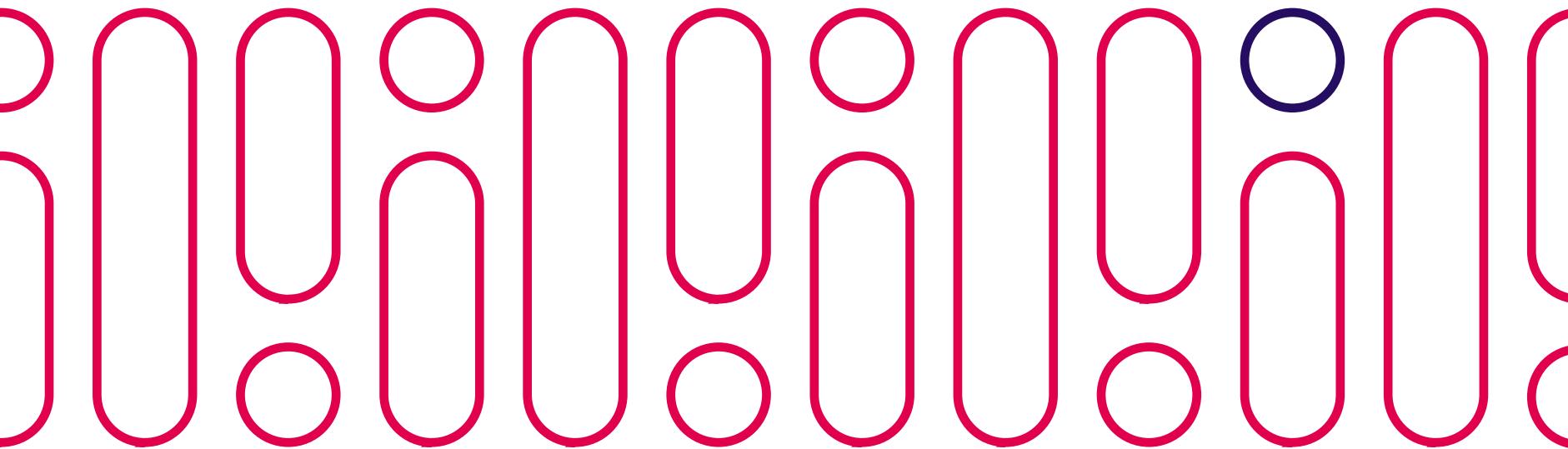
01| From analysis  
to keywords

IoTwins  
keywords

02|

# Brand identity.

## **Advanced replicability systems**



More than simple copies of a starting prototype, a complex system that interprets and sets up Big Data in optimized models to ensure the most efficient result.

**Base unit: the single data.**

02| Brand identity

**Advanced  
replicability  
systems**

03|

# Visual identity.



Visual identity

# The colours.

# RED

pantone  
1925 C

cmyk  
0 100 60 0

rgb  
224 0 77

hex  
e0004d

03 | Visual identity

**Primary  
colours**

# BLUE

pantone  
2755 C

cmyk  
96 100 21 26

rgb  
37 14 98

hex  
250e62

# BRAND BOOK

03 | Visual identity

## Secondary colours





Visual identity

# The logo.

# BRAND BOOK



03 | Visual identity

Official logo  
with motto

# BRAND BOOK



03 | Visual identity

## Official logo clearspace



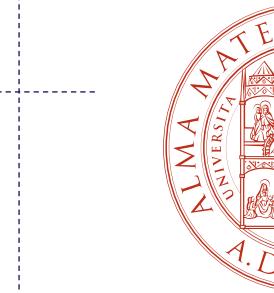
hofer  
FOKUS

NS  
for life

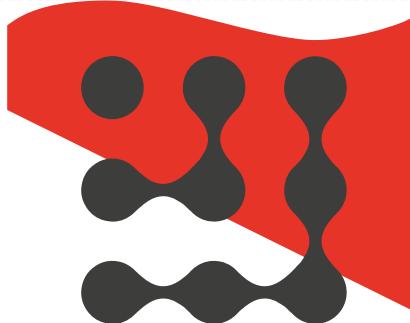
CA  
18



BRAND  
BOOK



ALMA MATER  
UNIVERSITÀ



ART-ER

ATTRACTIVENESS  
RESEARCH  
TERRITORY



•••. IoTwins  
BIG DATA OPTIMIZE INDUSTRY AND SERVICES

03 | Visual identity

Official logo  
co-branding  
rules



03 | Visual identity

**Official logo  
without motto**





03 | Visual identity

**Official logo  
clearspace**



hofer  
FOKUS

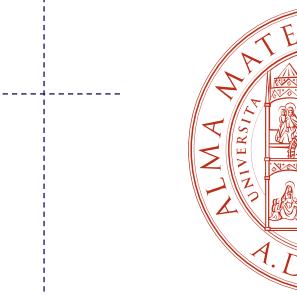
NS  
for life

CA  
21

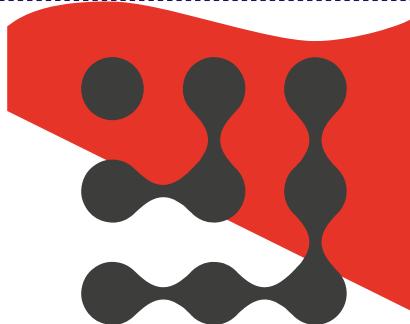


BRAND  
BOOK

The IoTwins logo features the text ".IoTwins" in a bold, dark blue sans-serif font. To the left of the text is a red graphic element consisting of three vertical bars of decreasing height, followed by a small red circle at the bottom.



ALMA MATER  
UNIVERSITÀ



ART-ER

ATTRACTIVENESS  
RESEARCH  
TERRITORY



The IoTwins logo features the text ".IoTwins" in a bold, dark blue sans-serif font. Below it, the tagline "BIG DATA OPTIMIZE INDUSTRY AND SERVICES" is written in a smaller, white sans-serif font.

03 | Visual identity

Official logo  
co-branding  
rules

# BRAND BOOK

03 | Visual identity

**Official logo  
on coloured  
background**

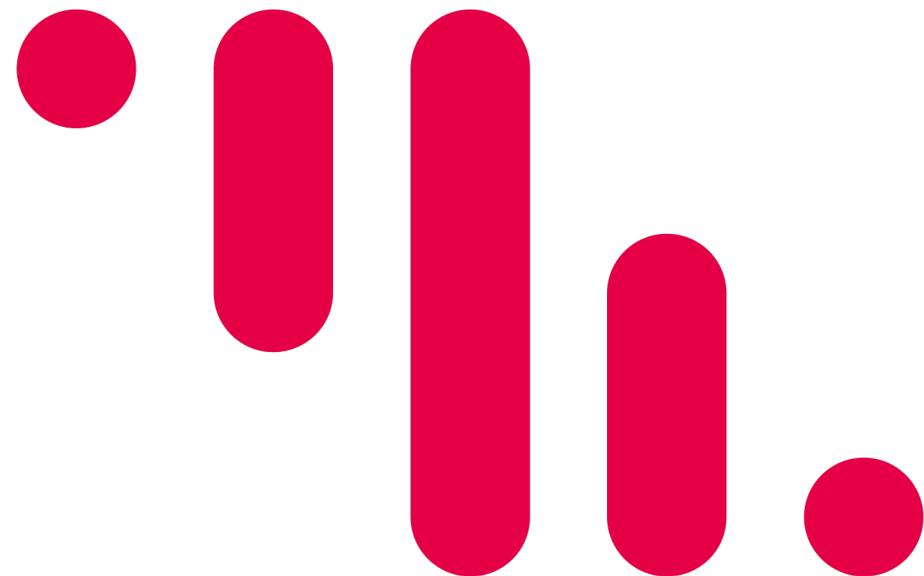


# BRAND BOOK

03 | Visual identity

**Official logo  
monochrome  
version**

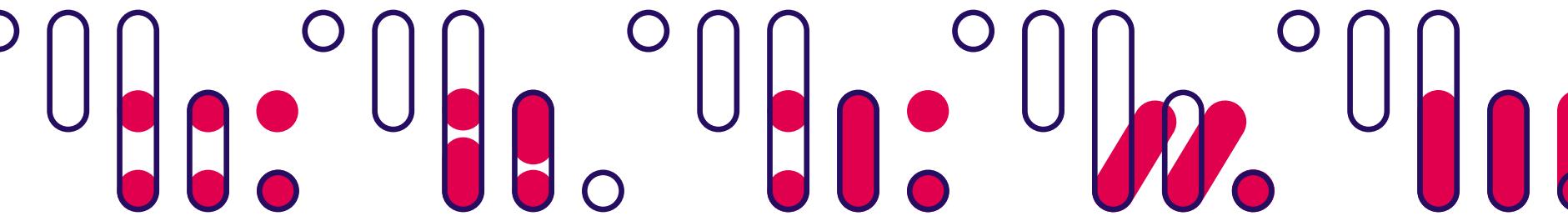




03 | Visual identity

## Monogram

**IoTwins**  
BIG DATA OPTIMIZE INDUSTRY AND SERVICES



03 | Visual identity

## Formal variations



03| Visual identity

**Testbeds  
logos**

# BRAND BOOK



03| Visual identity

**Testbed logos  
on coloured  
background**

Visual identity

# The typefaces.



O o

Extra-Light      Regular      Semi-Bold  
Light                Medium      Bold

ABCĆĆDĐFGHIJKLMNOPQRSŠTUVWXYZŽabcććdđefgh  
ijklmnopqrsštuvwxyzžĂĔӮăâêô1234567890‘’!”(%)[]  
# ] { @ } / & \ < - + ÷ × = > ® ® \$ € £ ¥ ¢ : ; , . \*

03| Visual identity

Typeface for  
headlines



fonts.google.com

**Nunito**  
FONT FAMILY

Nn

Extra-Light	Regular Italic	<b>Extra-Bold</b>
Extra-Light Italic	Semi-Bold	<b>Extra-Bold Italic</b>
Light	Semi-Bold Italic	<b>Black</b>
Light Italic	<b>Bold</b>	<b>Black Italic</b>
Regular	<b>Bold Italic</b>	

ABCĆĆDĐFGHIJKLMNOPQRSŠTUVWXYZŽabcć  
ćđđefghijklmnopqrsštuvwxyzžĂĔӮăâêô1234567  
890‘?’“!”(%)[#]{@}/&\<-+÷x=>®©\$LANGUAGE:,:,\*

03| Visual identity

**Typeface for  
body copies**



Cc

Regular      *Italic*      Bold      ***Bold Italic***

ABCĆĆDĐFGHIJKLMNOPQRSŠTUVWXYZŽabcććdđfgij  
klmnopqrsštuvwxyzžĂĔӮăêô1234567890‘’“!”(%)[#]{  
@ } / & \ < - + ÷ x = > ® © \$ € £ ¥ ¢ : ; , . \*

03 | Visual identity

Typeface for  
Powerpoint,  
Excel, Word  
& Outlook

## Visual identity

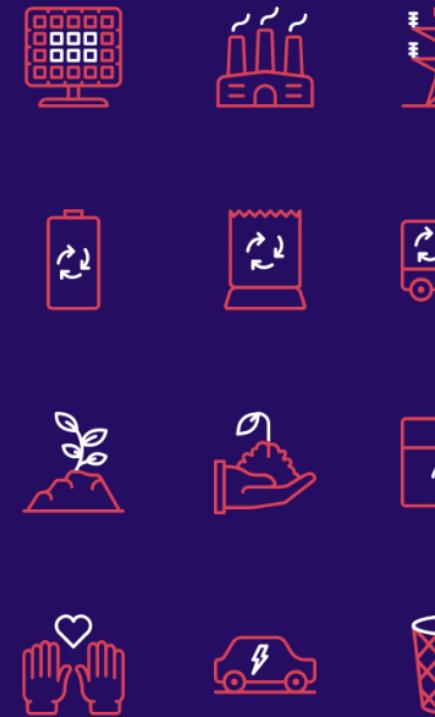
# The iconography.

● × ■ Noun Project

[thenounproject.com](http://thenounproject.com)

## Smashicons Ecology

Outline Collection



03 | Visual identity

## Iconography outline collection

04|

# Verbal identity.

## **What is IoTwinS?**

**Professional and divulgative. Reliable and explicative.**

A tone of voice that doesn't forget the value, the range and the mission of the project: reliable, authoritative and clear at the same time.

04 | Verbal identity

### **Tone of voice**



04 | Verbal identity

## Payoff

A verbal element that goes with the logo  
and sums up the immediate purposes of the project.

# **BIG DATA PLATFORM FOR OPTIMIZED AND REPLICABLE INDUSTRIAL AND FACILITY MANAGEMENT MODELS.**

A short description integrating logo and payoff setting the context and explaining what the project is about.

04 | Verbal identity

**Descriptive  
overview**

05|

# Use of EU emblem.

# **Use of EU emblem.**

## **Associated to IoTwins.**

Beneficiaries of the EU's Horizon 2020 research and innovation programme (...) **have the obligation to explicitly acknowledge that their action has received EU funding.**

**This must be done (...) in all communication, dissemination and IPR activities** as well as on all equipment, infrastructure and major results funded by the grant.

**The EU emblem and reference to EU funding must be displayed in a way that is easily visible for the public and with sufficient prominence** (taking also into account the nature of the activity or object).

Examples: for equipment and major results a sticker or poster, for an infrastructure a plaque or billboard.

Guidelines for beneficiaries and other third parties:

[https://ec.europa.eu/info/sites/info/files/use-emblem\\_en.pdf](https://ec.europa.eu/info/sites/info/files/use-emblem_en.pdf)  
<http://publications.europa.eu/code/en/en-5000100.htm>

05 | Use of EU emblem

## **Guidelines**

# Use of EU emblem.

## How to display the acknowledgment of EU funding.

### Publications & dissemination material.

TYPE OF COMMUNICATION	PLACEMENT OF LOGO/GUIDELINES FOR USE
Website & Social media account	<ul style="list-style-type: none"> <li>Same place on every page</li> <li>Ideally as part of the website frame which appears on all sections</li> <li>Landing or intro page (social media)</li> </ul>
Brochure, information leaflet, factsheet, newsletter, poster	<ul style="list-style-type: none"> <li>Bottom right corner of publication</li> <li>Front or back cover</li> <li>On white background (unless placed on a large photo or illustration as on a poster)</li> </ul>
Report & internal project publication	<ul style="list-style-type: none"> <li>Front cover</li> </ul>
Power Point or other graphical presentation	<ul style="list-style-type: none"> <li>First or last slide of a presentation or in the footer of each slide</li> </ul>
CD-ROM, DVD	<ul style="list-style-type: none"> <li>On label of jewel box or CD label</li> </ul>
Video & animation	<ul style="list-style-type: none"> <li>Intro or closing screenshot</li> </ul>

### Public Works.

WHEN	WHAT	HOW
Before / during the works	Billboard/signage erected on site	Must contain funding statement and EU emblem
After the works	Permanent commemorative plaque or billboard/signage	Must contain funding statement and EU emblem

# Use of EU emblem.

## Dissemination & communication activities.

### DISSEMINATION ACTIVITIES (ART 29.4)

The following must be included in all dissemination activities:



This project has received funding from the [European Union's Horizon 2020 research and innovation programme][European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme][Euratom research and training programme 2014-2018] under grant agreement No [number]

### COMMUNICATION ACTIVITIES (ART 38.1.2)

The following must be included in all communication activities:



This project has received funding from the [European Union's Horizon 2020 research and innovation programme][European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme][Euratom research and training programme 2014-2018] under grant agreement No [number]

[https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/acknowledge-funding\\_en.htm](https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/acknowledge-funding_en.htm)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement Nº 857191



**05| Use of EU emblem**

**IoTwins  
funding  
notification**

# BRAND BOOK

## 05| Use of EU emblem

### Samples



06|

# Applications on materials.

# BRAND BOOK



05 | Applications on materials

## Block notes

# BRAND BOOK



05 | Applications on materials

**Folder**

# THE PROJECT: A BIG DATA PLATFORM.

## IoTwins

IoTwins is an **European project** that aims to build a reference architecture for the development of **efficient and distributed digital twins** for specific manufacturing and facility management domains.

**12 dedicated large-scale testbeds** will collect large amounts of data to generate and refine the associated digital twins, including optimized models of resources, systems and processes involved.

IoTwins digital twins will be used to improve **the efficiency of production processes and of facility management**, as well as to demonstrate **the replicability of the achieved results** in similar scenarios and to determine new application areas and business models.

All the IoTwins testbeds share the same methodology, grounded on the concept of **distributed IoT-/edge-/cloud-enabled hybrid twins**, to replicate complex systems, with the ambition of predicting their dynamics and temporal evolution.

## Technological Approach

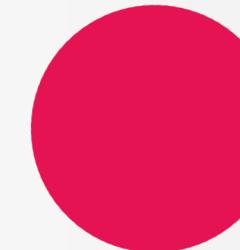
based on:

full-fledged platform enabling easy and rapid access to heterogeneous and HPC-based resources for advanced data services.

Intelligent services to simplify and accelerate the integration of advanced **Machine Learning algorithms, physical simulation, on-line and off-line optimization** into distributed digital twins.

Advanced edge-oriented mechanisms, tools, and orchestration to support **Quality of Service** in the runtime execution of the distributed digital twins.

## DIGITAL TWINS AND TESTBEDS.



**20M€**  
Project Total Value

**23**  
Partners

**3**  
Application Areas

**1**  
Technological Platform

**12**  
Testbeds

### II. MANUFACTURING

- 1 Wind turbine predictive maintenance | **Bonfiglioli Riduttori, KONGSIK**
- 2 Machine tool spindle predictive maintenance | **EMCOR**
- 3 Predictive maintenance for a manufacturing system | **EMCOR**
- 4 Predictive maintenance approach for closure manufacturing | **EMCOR**

### III. FACILITY MANAGEMENT

- 5 NOU CAMP - Sport facility management and maintenance | **Futbol Club Barcelona**
- 6 EXAMON - Holistic supercomputing management | **CINECA**
- 7 Smart Grid facility management and quality monitoring | **SIEMENS**

### IV. REPLICABILITY TESTS

- 8 Patterns for smart manufacturing | **Centre Technique des Industries**
- 9 EXAMON replication to other domains | **Istituto Nazionale di Fisica Nucleare, Barcelona Supercomputing Center**
- 10 Standardization/homogenization of performance | **GCL International**
- 11 NOU CAMP replicability toward sport facilities | **Futbol Club Barcelona**
- 12 Innovative business models for IoT in manufacturing | **Marposs**

### 05 Applications on materials

## Leaflet

# BRAND BOOK



05 | Applications on materials

Roll up

# BRAND BOOK

05 | Applications on materials

Poster



07|  
**Video.**

A first project overview video has been conceived  
to catch people attention during exhibition,  
opening of conference, etc.

06| Video

**Project  
overview  
video**

[Watch the video](#)

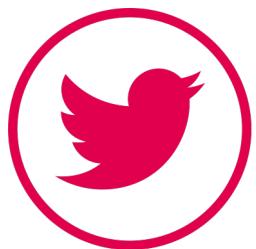
08|  
**Digital.**

# BRAND BOOK

[www.iotwins.eu](http://www.iotwins.eu)

07| Digital

Website



**@IoTwins\_EU**

**07| Digital  
Socials**

**info@iotwins.eu**



# THANK YOU

This project has received funding from the  
European Union's Horizon 2020 research and innovation  
programme under grant agreement N° 857191

