

**Grant Agreement N°857191** 

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

Deliverable 8.16 – Dissemination Plan and Report (IV)



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# **Document log**

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## **Executive summary**

This document is the third release of the "Dissemination Plan and report" of IoTwins project. It includes updates about "Partners' networks and initiatives" and "Partners' media channels", as well as the list of the activities performed by the partners in the period from M19 (March 2021) to M30 (February 2022).

The IoTwins Dissemination Plan plays an essential role in involving and informing the research and industrial communities, attracting and engaging SMEs in the manufacturing and service sector. It is a 'living document', enriched and improved as the project unfolds and progresses, answering to the needs of partners and stakeholders, to facilitate the flow of information about the project among all actors involved.

#### Its main **objectives** are to:

- inform on the objectives and intermediate and final results of the project and disseminate the results towards potential users and beneficiaries
- reach national and international networks and organisations
- build participation and consensus around it.

Dissemination is focused on results and moves around the main IoTwins assets:

- the Big Data platform, along with all its technological components (including its Machine Learning based services and Quality of services policies)
- the 12 testbeds, organized in the 3 categories: manufacturing, facility management, replicability.

The IoTwins Dissemination target groups include both internal and external ones.

- As for internal targets, a great relevance is given to project partners, that are involved in
  dissemination actions along with the local ecosystems and networks they belong to, and the
  relations they hold in turn at local, national and European level.
- As for *external ones*, Industries, SMEs and the broader Scientific Communities are identified as crucial for reaching dissemination objectives.

Concerning the **channels and tools** that are used for dissemination activities, the plan identifies:

- Partners' own channels and tools, that will function as amplifier of dissemination actions.
- Scientific publications as main tool to share research results, make them available and ready-to-use
  to others when possible, and to inspire brand new research activities, thus multiplying EU support's
  impact.
- Open Science platforms; Project website; Twitter account, that can be profitably used also during technical and scientific events.
- Press and Media relations; Events, that include a special section dedicated to an ad hoc
  Dissemination events kit for partners, Company guided tours, conferences and technical
  workshops; Trade Fairs and other Exhibitions to be thought as virtual due to the pandemic.



## 1 Introduction

According to the EC Research & Innovation Participant Portal Glossary/Reference Terms, **dissemination** can be referred to as "the public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including scientific publications in any medium", whose objective is **transferring knowledge and results with the aim to enable others to use and take up results**, stimulating further research activities, thus maximizing the impact of EU-funded research.

Dissemination and communication are tied with each other, and sometimes a communication action can end up with producing a dissemination outcome; in this sense, communication actions can often overlap and cross with dissemination ones.

The Dissemination Plan plays an essential role in involving and informing the research and industrial communities, attracting and engaging SMEs in the manufacturing and service sector.

The IoTwins dissemination plan is a 'living document', enriched and improved as the project unfolds and progresses. It is necessary to review the strategy periodically to see what has worked, and what did not, what we should do more of or less of. The plan should answer to the communication needs of all partners - and stakeholders, too - and facilitate the flow of information about the project among all actors involved.

The Dissemination Plan includes:

- 1. the overall scope and specific dissemination objectives to achieve
- 2. the description of the project assets (what to disseminate)
- 3. the target groups (who will be informed and engaged)
- 4. the communication tools for different audiences

This Plan is yearly updated to ensure the alignment with the project timing and results.

Due to the COVID-19 pandemic outbreak, dissemination activities had to be re-shaped so that all foreseen in-presence ones could be run in a virtual mode.



## 2 Objectives

IoTwins **Dissemination Plan** is conceived to provide due relevance to research results and create pathways towards different target groups all along the project life.

It includes a list of actions and tools, toward all partners involved in the implementation of the activities, designed to:

- inform on the objectives and intermediate and final results of the project and disseminate the results towards potential users and beneficiaries
- reach national and international networks and organisations
- build participation and consensus around it.

The IoTwins project is composed by many groups that are involved at different levels across the project organizational hierarchy, namely:

- Consortium level: the 23 IoTwins partners.
- **Network of stakeholders:** organisations that, without being partners in the project, have expressed their deep interest in supporting and being updated on project activities.
- **Interested audience:** relevant audience that IoTwins partners will keep informed during the project lifetime, that will be better detailed throughout the document.

In the next section IoTwins project assets are introduced and they represent the main "objects" we are going to communicate with the specific actions described in section 3 and 4.



## 3 Description of the project assets

IoTwins is a 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.

Key technological elements of the IoTwins approach are:

- A full-fledged platform enabling easy and rapid access to heterogeneous cloud HPC-based resources for advanced big 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.

The 12 testbeds are grouped in three categories:

#### **M**ANUFACTURING TESTBEDS

4 industrial pilots providing predictive maintenance services that exploit sensors data to forecast the time to failure and produce maintenance plans that optimize maintenance costs:

- Wind turbine predictive maintenance Bonfiglioli Riduttori and KK Wind Solutions
- Machine tool spindle predictive behaviour FILL and TTTECH COMPUTERTECHNIK AG
- Predictive maintenance for a crankshaft manufacturing system ETXE-TAR
- Predictive maintenance and production optimization for closure manufacturing GCL International

#### **FACILITY MANAGEMENT TESTBEDS**

3 testbeds for identification of criticalities, optimization techniques to provide efficient facility management plans, operation optimal schedules, and renovation/maintenance plans:

- CAMP NOU Sport facility management and maintenance FUTBOL CLUB BARCELONA and BARCELONA SUPERCOMPUTING CENTER
- EXAMON Holistic supercomputer facility management CINECA
- Smart Grid facility management for power quality monitoring SIEMENS

#### REPLICABILITY TESTBEDS

5 testbeds to demonstrate the replicability and the scalability of the IoTwins platform and of the former manufacturing and facility management testbeds:

- Patterns for smart manufacturing for SMEs CETIM
- EXAMON replication to other data centre facilities CINECA, INFN and BARCELONA SUPERCOMPUTING CENTER
- Standardization/homogenization of manufacturing performance GCL International
- CAMP NOU replicability towards smaller scale sport facilities FUTBOL CLUB BARCELONA
- Innovative business models for IoTwins PaaS in manufacturing MARPOSS



# **4 Target Groups**

In general, the main dissemination target can be summarized as follows:

- Scientific community
- Industrial partners
- Policy makers

In the table below the project's specific audience are introduced. Based on this, the appropriate dissemination channels will be identified along with the most suitable tools. Due to the pandemic, the initiatives will be organised mainly through digital technologies, using new dedicated tools, while they will be in presence only if possible.

TARGET		HOW TO REACH THEM		
WHO	FIELD OF ACTIVITY	INITIATIVES	OTHER CHANNELS	
SMEs keen to implement Industry 4.0 platforms  All actors along specific value	Manufacturing  Value chain within the	<ul> <li>Events</li> <li>Pilots' (testbeds) visits</li> <li>Meetings</li> <li>Conferences and workshops</li> <li>Open Days</li> <li>EC specific initiatives, such as <a href="Id=14MS">IAMS</a>, ICT Innovation for <a href="Manufacturing SMEs">Manufacturing SMEs</a> and <a href="Enterprise Europe Network">Enterprise Europe Network</a></li> <li>Open innovation initiatives</li> <li>Brokerage events</li> <li>Events</li> <li>Moetings</li> </ul>	<ul> <li>Online and traditional media coverage</li> <li>Social networks</li> <li>IoTwins website</li> <li>Partners 'and stakeholders' websites</li> <li>E-newsletters</li> </ul> Online and traditional media coverage	
chains, including OEMs and owners/operators of facilities	within the wind, automotive, sports' events, aeronautic sectors Wind, Automotive, Sports Events, Aeronautic Sectors Value Chains  Energy and manufacturing	<ul> <li>Meetings</li> <li>Conferences and workshops</li> <li>Testbeds visits organisation</li> <li>Fairs/exhibitions</li> <li>Events organized by entrepreneurial associations</li> <li>Pilots' (testbeds) visits</li> <li>Ad hoc meetings</li> <li>Open innovation initiatives</li> <li>Brokerage events</li> </ul>	<ul> <li>media coverage</li> <li>Social networks</li> <li>IoTwins website</li> <li>Partners 'and stakeholders' websites</li> <li>E-newsletters</li> </ul>	
SMEs, Research Centres, Universities developing Industry 4.0 initiatives, including IoTwins Partners	Distributed edge/cloud, Big Data and IoT Industry 4.0	<ul> <li>Open Days</li> <li>Fairs/exhibitions</li> <li>National/EU level events on ICT</li> <li>Entrepreneurial associations' events</li> <li>Scientific Congresses</li> <li>Open innovations initiatives</li> <li>Brokerage events</li> </ul>	<ul> <li>Publications in scientific journals</li> <li>LinkedIn threads, discussions</li> </ul>	



TAR	)	LIOW TO BEACH	THEN
TARC		HOW TO REACH THEM	
WHO	FIELD OF ACTIVITY	INITIATIVES	OTHER CHANNELS
Broader scientific community (including universities and R&D centres, R&D teams, Ph.D.s, post-doc candidates)		<ul> <li>Seminars and webinars within UNIBO, BSC, FOKUS, TUB, INFN and CINECA</li> <li>Open innovations initiatives</li> <li>Brokerage events</li> </ul>	<ul> <li>Publications in scientific journals</li> <li>Post-doc courses that will be started during the project</li> <li>LinkedIn threads, discussions</li> <li>Research Gate</li> <li>OpenAIRE</li> <li>Other European Platforms and initiatives</li> </ul>
IoTwins Partners and stakeholders		<ul> <li>Conferences</li> <li>Brokerage events (e.g. Enterprise Europe Network initiatives)</li> <li>Events related to the following organisations:         <ul> <li>Big Data PPP (BDVA), of which CINECA, BSC, ESI, FOKUS, and UNIBO are already members</li> <li>ETP4HPC: of which CINECA, BSC, FOKUS, INFN and UNIBO are already members</li> </ul> </li> </ul>	Communication among partners that are already members of these platforms
Policy Makers and EC directorates, i.e. relevant departments of the EC Standardization bodies	DG ENER DG DIGIT DG CONNECT DG RTD DG MOVE DG CLIMA DG ENV	<ul> <li>Direct contacts and networking initiatives</li> <li>Workshop organisations with industries and public institutions</li> <li>Conferences</li> <li>Events</li> </ul>	
Regional, National authorities and general public	i.e. CEN and CENELEC	Approached through national press releases, pilots' visits workshops, summer schools, etc.	



## 5 Dissemination channels and tools

For information to circulate with ease among partners, a set of tools was prepared. It includes:

## 5.1 Partners' channels and tools

This plan takes into account that all organizations involved in the IoTwins project are part of bigger innovation ecosystems, at the centre of local, national and international relations and are, in turn, members of different **networks**, **associations and hubs** active at various levels in the fields of the project. Single organizations can thus act as **amplifiers and multipliers of the project's results** towards these networks and their own local territories as well.

As for their own communication channels, all partners can count on corporate websites and social media pages, that could be profitably exploited as further channels to multiply the impact of project dissemination actions.

The tables that follow include a mapping of all partners' communication channels, through which IoTwins partners can contribute to disseminate project's results:

- The first table maps the network and initiatives where the partners are involved in.
- The second table maps the media channels: websites, social media, IoTwins web pages.

PARTNER	NETWORKS AND INITIATIVES
BSC	<ul> <li>Partnership for Advanced Computing in Europe (PRACE) has 26 member countries whose representative organisations create a pan-European supercomputing infrastructure, providing access to computing and data management resources and services for large-scale scientific and engineering applications at the highest performance level.</li> <li>Spanish Supercomputing Network (RES) is a distributed infrastructure that consists of the interconnection of 14 supercomputers with the aim of offering high-performance computing resources to the scientific community, and from now on, the RES also offers data resources. The RES is coordinated by BSC.</li> <li>High Performance Embedded Architecture and Compilation (HiPEAC) is the premier focal point for networking, dissemination, training, and collaboration activities in Europe for researchers, industry, and policy related to computing systems. Today, its network, the</li> </ul>
	biggest of its kind in Europe, numbers over 2,000 specialists.



#### PARTNER NETWORKS AND INITIATIVES

**FCB** 

- Digital Innovation Hubs (DIHs) though Barcelona Innovation Hub (BIHUB): BIHUB is an ecosystem that drives knowledge and innovation. BIH ecosystem works to boost cutting edge technology and innovation generating relevant impact in the sports industry working closely with key partners, such as brands, universities, research centers, start-ups, entrepreneurs or large enterprises. FCB has a sponsorship networks ecosystem with brings international and leading companies such as Nike, Rakuten, Beko, 1xBET, Estrellla Damm, Konami, CUPRA, OPPO, STANLEY Black& Decker, Gatorade, Chiliz, FBS, Thom Browne, Caixa Bank, Assistència Sanitària, Allianz, Shiseido, SK Lubricants, Scotiabank, Yunnan Balyao, Taiping Life Insurance, Coca Cola, Rakbank, Sebang/Rocket, Maybank, SHB, Banco BMG, H&S, Nichiban Cannon Medical Systems, Serveto, Reno and Naulover
- FCB Universitas: FCB's centre for the creation and transmission of knowledge and innovation. It promotes an open and collaborative ecosystem with brands, universities and research centres from around the world (MIT, Stanford, Hardvard, Georgetown, ESADE, IESE and University of Beijing) and aims to position FCB as a leading referent in knowledge dissemination in the sports world, through activities such as online streaming of workshops held by the Club, the launch of innovation challenges on a global scale, and online courses, which are all tools for sharing the Club's knowledge
- Sports Tomorrow Congress: For over 10 years FCB has brought leading experts to inspire coaches, analysts, doctors, nutritionists, physiotherapists, sports scientists, marketers, and business executives to this two-week event to discover, learn and trigger the next innovation in sports industry. IoTwins project had its presence at this congress at the Sports Technology and Sports Business tracks, that put together more than 1,000 attendees and captured the spotlight of the global sports industry for 2 weeks.

**MARP** 

- <u>Ucimu</u> UCIMU-SISTEMI PER PRODURRE is the Italian machine tool, robots, automation systems and ancillary products (NC, tools, components, accessories) manufacturers' association. The value and the long-standing tradition of member companies, characteristic of one of the sectors that best represents the whole manufacturing chain, and the capabilities of the association network, make UCIMU one of the most influential representatives of Sistema Confindustria (General Confederation of Italian industry System). MARP is even a "Confindustria Emilia Romagna Area Centro" Partner.
- <u>Er Amiat</u> Emilia-Romagna Advanced Mechanics and Industrial Automation Technology (E.R.-AMIAT) is a non-profit association that operates on the international level to promote the needs of Emilia-Romagna industrial automation cluster and foster its competitive development.
- <u>Cluster Fabbrica Intelligente</u> Cluster Fabbrica Intelligente is an association recognized with the aim of implementing a strategy based on research and innovation for the competitiveness of Italian manufacturing. It is the only table at which all the stakeholders involved in the fate of Italian industry sit at the same time: companies, business associations, regions, universities and research bodies, institutions.
- <u>Bi-Rex</u> A Competence Center in Bologna for Industry 4.0 Bi-Rex Competence Center intends to be a strategic and operational player to support companies interested in digitalization of industrial processes, within Industry 4.0 framework: from design to production, from R&D to supply chain, from security to blockchain.
- <u>EIT Manufacturing</u> (under registration) EIT Manufacturing is an Innovation Community within the <u>European Institute of Innovation & Technology (EIT)</u> that connects the leading manufacturing actors in Europe. Fueled by a strong interdisciplinary and trusted community, we will add unique value to European products, processes, services and inspire the creation of globally competitive and sustainable manufacturing.



DADENIED	NETHODIC AND INITIATIVE		
PARTNER			
UNIBO	- Seminars and Workshops held at the university, both for master and PhD students		
	- BDVA		
	- BI-REX (Competence center - Digital Innovation Hub)		
	- European Institute of Innovation (EIT) Manufacturing		
	- Industrial Internet Consortium		
	- Other related IoT and Big Data EU projects: Change2Twin and Terminet		
INFN	- High Energy Physics Communities;		
	- Astroparticle Communities;		
	- Europea e-Infrastructures (EOSC);		
	- Italian and European Universities;		
	- European and Worldwide Research Datacenters and Supercomputing Centers;		
	- National and International Research Institutes		
CINECA	BDVA ETP4HPC		
ART-ER	Data Valley and the whole Emilia-Romagna Innovation Ecosystem:		
ANTEN			
	· ·		
	- Big Data and Artificial Intelligence for Human Development		
	- High Technology Network		
	- Clust-ERs Associations		
	- S3 Platforms "Traceability & Big Data" and "Artificial Intelligence & Human machine		
	interface"		
	- Vanguard Initiative		
ETXE	- Industrial Internet Consortium		
	- Digital Twin Consortium		
KK Wind	- Wind Denmark		
Solutions	- Danish Wind Export Association (DWEA)		
	- American Wind Energy Association (AWEA)		
	- APQP4Wind		
	- Engineer The Future		
BEWG	Warrant Hub (WG), Linked Third Party of BEWG, has a customer portfolio of more than 6.000		
DEWG	companies, most of them are manufacturing SMEs. The company newsletter illustrating,		
	among alia, the latest achievements and events related to the H2020 projects in which BEWG		
	and/or WG are involved is periodically sent them.		
	Several collaborations are in place with local innovation districts and main associations		
	representing manufacturing and service companies in Italy, as well as with national		
	associations promoting collaborative and industrial research activities.		
CETIM	EFFRA founding member, Manufuture HLG member, Carnot Art, Quatrium Platform Member,		
CLINI	6500 affiliated members to CETIM.		
ENSAM	- Carnot Arts		
EINJAIVI			
0150 0500	- Digital engineering initiative		
SIEMENS	EM related fairs, Distributech, European Utility Week		
(SAG+SA	MindSphere Application Center (MAC): this is a co-creation platform, along with customers		
GOE)	"Industrial IoT@Siemens" conference series in Nuremberg		
TTT/TIAG	https://www.iiconsortium.org		
THAIFE	Theles group internal technical comingrs, that will accur at least once nor year during the		
THALES	Thales group internal technical seminars, that will occur at least once per year during the		
FILL	project, and probably during one year after project ending.		
FILL	EFRA, Social Media (YouTube, Instagram, LinkedIn, Facebook, Twitter), Homepage, CORE		
	Smartwork internal employee communication tool		

Table 1 – Partners' network and initiatives



DADTMER	Wohaita	Cocial Madia	Novoletten	laTuine Page
PARTNER	Website	Social Media	Newsletter	IoTwins Page
BRI	https://www.bo	https://twitter.com/Bonfiglioli_		https://www.bon
	nfiglioli.com/en	https://www.linkedin.com/comp		figlioli.com/italy/i t/news/Horizon2
		any/bonfiglioli-riduttori-spa		020-IoTwins-
		https://www.youtube.com/chann		news
		el/UC8xvq7lt0om0vzFrDl0bRBw		
		https://www.instagram.com/bon		
		figlioli group		
BSC	www.bsc.es	http://twitter.com/bsc_cns	Monthly	https://www.bsc.
БЭС	www.bsc.es		newsletter	es/research-and-
		https://www.linkedin.com/comp		development/pro
		any/barcelona-supercomputing-	Weekly bulletin	jects/iotwins-
		<u>center</u>		distributed-
		https://www.facebook.com/BSCC		<u>digital-twins-</u>
		<u>NS</u>		<u>industrial-smes-</u>
		http://www.youtube.com/BSCCN		<u>big-data</u>
		<u>S</u>		
		https://www.instagram.com/bsc		
		_cns/		
ESI	https://www.esi	https://twitter.com/ESIgroup		
	-group.com/	https://www.linkedin.com/comp		
		any/esi-group/		
		https://www.facebook.com/ESIgr		
		<u>oup</u>		
		https://www.youtube.com/user/		
		<u>esigroup</u>		
FOKUS	https://www.fo	https://twitter.com/fraunhoferfo		
	kus.fraunhofer.	<u>kus</u>		
	<u>de/en</u>	https://www.linkedin.com/comp		
		any/fraunhoferfokus		
		https://www.facebook.com/frau		
		nhoferfokus		
		https://www.youtube.com/user/ FraunhoferFOKUS		
	1			
TUB	https://www.tu.	https://twitter.com/TUBerlin		https://www.av.t
	berlin/	https://www.linkedin.com/school		<u>u-</u> berlin.de/researc
		/technische-universitaet-berlin		h development/
		https://www.facebook.com/TU.B		projects/iotwins/
		erlin		parameter/en/
		https://www.youtube.com/tuberl		
		intv		
		https://www.instagram.com/tu_berlin/		
		<u>verilliy</u>		



				· IOIWIIIS
PARTNER	Website	Social Media	Newsletter	IoTwins Page
FCB	https://barcainn ovationhub.com /ca/ https://www.fc	https://twitter.com/BarcaInnoHub https://www.linkedin.com/company/barca-innovation-hub	N/A	N/A
	barcelona.com/ en/	https://www.facebook.com/fcbu niversitas		
	https://www.fc barcelona.es/es /	https://www.youtube.com/channel/UCHfk-pApk5etPPFHCLrD9bw		
		https://www.instagram.com/barcauniversitas/		
MARP	https://www.m	https://twitter.com/Marposs/		https://www.mar
	arposs.com	https://www.linkedin.com/comp any/marposs/		poss.com/eng/bi g-data-platform- iotwins
		https://www.facebook.com/Mar poss/		
		https://www.youtube.com/c/Mar possGroup		
		https://www.instagram.com/mar possgram/		
UNIBO	https://www.un ibo.it	https://twitter.com/UniboMagazi ne	Newsletter delivered monthly	
	http://informati ca.unibo.it	https://www.linkedin.com/school/unibo/		
		https://www.facebook.com/unib o.it		
		https://www.youtube.com/user/ UniBologna		
		https://www.instagram.com/unib o/		
INFN	http://home.inf	https://twitter.com/INFN_		https://dbproget
	n.it/en	https://www.facebook.com/page s/INFN-Istituto-Nazionale-di- Fisica-Nucleare/45086217578		ti.dsi.infn.it/dbpr ogetti/modificaPr ogettoGODiVA/2
		https://www.youtube.com/user/comunicazioneINFN		<u>061</u>
		https://www.instagram.com/infn insights/		



				IOIWIIIS
PARTNER	Website	Social Media	Newsletter	IoTwins Page
CINECA	www.cineca.it	https://twitter.com/cineca1969		https://www.cine
	www.hpc.cineca .it	https://it.linkedin.com/company/ cineca		ca.it/en/hot- topics/loTwins
		https://www.facebook.com/Cine ca1969/		
		https://www.youtube.com/user/ CINECA1969/		
ART-ER	https://www.art	https://twitter.com/Arter_ER	Weekly newsletter	
	-er.it/	https://www.linkedin.com/comp any/art-er/	on R&D funding opportunities in Europe, Italy and	
		https://www.facebook.com/arter emiliaromagna	Emilia-Romagna region	
		https://www.youtube.com/channel/UCMIPaepIFW9G6DXnSRzEaxQ	https://first.aster.it /_aster_/registrazi	
		https://www.instagram.com/arteremiliaromagna/	<u>one</u>	
ETXE	https://www.et xetar.com/en	https://www.linkedin.com/comp any/26206399	Monthly newsletter	
	www.ainguraiio t.com	https://www.youtube.com/channel/UCpSJT737TWF7EqzMJSJuOhQ		
KKWS	www.kkwindsol utions.com	https://www.linkedin.com/comp any/kk-wind-solutions	Newsletter is published semi-	
		https://www.youtube.com/channel/UCTA3KnHMfF2YkcsEDKWlEIQ	annually with approximately 250 subscribers	
BEWG	https://www.ef dbewarrant.eu	https://www.linkedin.com/comp any/bewarrant/	https://www.warra nthub.it/news/?cat	
	https://www.wa rranthub.it	https://twitter.com/warranthub? lang=en	egoria=newsletter	
		https://www.linkedin.com/comp any/warranthub/		
		https://www.facebook.com/warr anthub		
		https://www.youtube.com/channel/UC69dsrdwDWVuEdmBE7ZyuBw		
		https://www.instagram.com/war ranthub/?hl=en		



DADTMER	Mark attack	Control Marchine	No. of the	· Ioiwiiis
PARTNER ENSAM	Website	Social Media https://www.twitter.com/Artset	Newsletter	IoTwins Page
EINSAIVI	https://artsetm etiers.fr/en	Metiers		
		https://www.linkedin.com/school /arts-et-m-tiers-paristech/		
		https://www.facebook.com//AM ParisTech		
		https://www.youtube.com/ARTS ETMETIERSCOM		
		https://www.instagram.com/art setmetiers_ensam		
GCL	https://www.gu alaclosures.com	https://www.linkedin.com/comp any/guala-closures-group/		
	/ https://www.ne	https://www.youtube.com/user/ Gualaclosuresgroup		
	stgate- gualaclosures.co m/	https://www.instagram.com/gual aclosuresgroup		
	https://www.gcl technologies.lu/			
SIEMENS	https://www.sie	https://twitter.com/siemens	Quarterly Siemens	
(SAG+SA GOE)	mens.com/glob al/en.html	https://www.linkedin.com/comp any/siemens	internal newsletter (Austria + 20	
	https://hitech.at	https://www.facebook.com/Siemens	Countries)	
		https://www.youtube.com/user/ Siemens		
		https://www.instagram.com/sie mens/		
TTT/TIAG	https://www.ttt ech.com/	https://www.linkedin.com/comp any/tttech		https://www.ttte ch.com/company
		https://www.youtube.com/user/ TTTechGroup		/research- projects/eu- h2020/iotwins/
THALES	https://www.th	https://twitter.com/thalesgroup		
	alesgroup.com/ en	https://www.linkedin.com/comp any/thales		
		https://www.facebook.com/thale sgroup		
		https://www.youtube.com/user/thethalesgroup		



PARTNER	Website	Social Media	Newsletter	IoTwins Page
CETIM	https://www.ce tim.fr/	http://twitter.com/#!/CetimFrance		
		http://www.facebook.com/pages /Cetim-Centre-Technique-des- Industries- M%C3%A9caniques/2294994537 76590		
FILL	https://www.fill .co.at/	http://www.twitter.com/fillgurten_		https://www.fill.c o.at/en/fill/resea
		http://www.linkedin.com/company/fill		rch-/horizon- 2020/1455.html
		http://www.facebook.com/fillma schinenbau		
		http://www.youtube.com/user/fi Ilmaschinenbau		
		https://www.instagram.com/fillm aschinenbau/		

Table 2 - Partners' media channels

## 5.2 Scientific publications

IoTwins scientific results are being widely disseminated by the research partners through **peer-reviewed journals and other scientific publications**. The addressed journals cover all the relevant project's topics: Al, IoT, Big Data, Cloud, Edge/Fog Computing, Simulation and Data Management.

WP8 is in charge of the dissemination of such knowledge to mainstream channels, which will also be subject to a reformulation of the main concepts into a widely understandable and suitable language.

All papers published by partners in the framework of IoTwins project must include the following sentence:

#### **ACKNOWLEDGEMENT**

This research was partly (or fully) supported by the H2020 IoTwins project (Distributed Digital Twins for industrial SMEs: a big-data platform) funded by the EU under the call ICT-11-2018-2019, Grant Agreement № 857191.

Moreover, any dissemination of results must indicate that it reflects only the author's view and that the European Commission is not responsible for any use that may be made of the information it contains.

In section 6.2 the list of IoTwins related scientific publication delivered by project partners is reported.

## 5.3 Open Science platforms

Each beneficiary must ensure open access (free of charge, online access for any user) to all peer-reviewed scientific publications relating to its results.

Rather than keeping data and materials (and ideas) within the confines of academic research labs, open science invites anyone to observe, contribute, and create. Researchers are part of a society composed mostly of nonscientists who fund, participate in, benefit from, and in some cases are the subjects of their



research. At the heart of the open-science movement is the conviction that research in all fields must be performed in dialogue with society - a responsibility that predicates "openness" as the core organizing principle for scientific practices. In order to make research results more accessible and transparent, platforms such as Research Gate and OpenAIRE could be used to submit scientific articles and disseminate project's results towards the scientific community.

## 5.4 Project website

IoTwins website (<u>www.iotwins.eu</u>) is one of the dissemination tools. In particular, the **News and events** sections (the whole project website structure is described in the Deliverable 8.5 - Communication tools) is used as an online tool to inform the audience concerning new achievements or dissemination events.

Also, IoTwins website has a section dedicated to **the project main goals and activities**, a space where all important reports concerning project achievements will be published.

This page can represent an agile tool to tell about the project when no leaflet or other paper material is available.

## 5.5 Twitter account

Project has a Twitter account, <u>@iotwins\_EU</u>. It is managed by ART-ER - as WP8 leader - with contributions from all partners. Tweets are used:

- As a hook to the project website
- To tell in real time about very important events
- To promote dissemination initiatives

Social media is an invaluable tool when it comes to connecting with people and staying updated on events, including conferences. Twitter represents an opportunity to interact with the conference's targeted audience.

#### **G**UIDELINES FOR USING **T**WITTER DURING EVENTS AND CONFERENCES:

- Follow the conference hashtag to see what people are talking about and to join the conversation.
   Partners can also use it to find out about sessions, social events, and anything else they may have missed.
- Inform people that IoTwins partners are attending by using the conference hashtag. This will give the opportunity to connect with people prior to the conference.
- Share photos, videos, and quotes from the conference. According to Twitters Media Blog, posts
  with photos get a 35% boost in retweets, videos get a 28% boost, and quotes get a 19% boost
  compared to regular tweets.
- Twitter is a very good channel for sharing experiences from the conference, but before posting
  anything, be clear on the policy of sharing information. Some speakers don't want their
  unpublished work to be tweeted or shared.
- Partners should use LinkedIn as well. After meeting new people at the conference, adding them on LinkedIn is a great way to connect and stay in touch. The function "Find Nearby" on LinkedIn is an easy way to connect with people at conferences.



## 5.6 LinkedIn account

The project LinkedIn account (<a href="https://www.linkedin.com/company/iotwins">https://www.linkedin.com/company/iotwins</a>) has been created in October 2021, with the purpose of supporting engagement around project activities, providing a landing page for project stakeholders. The page is also used to deliver project related content, e.g. the short video interviews produced and reported in D8.10 Communication tools (III) (<a href="link">link</a>).

The page is managed by ART-ER - as "WP8 - Outreach activities - dissemination and communication" leader - together with BeWarrant/Warrant Hub - as "WP7 - Exploitation and knowledge management" leader.

## 5.7 Press and Media relations

All important achievements and project's milestones will also be announced through press releases during the lifetime of the project. In this period, press releases will include information on specific deliverable accomplishments, events, key results and important announcements. A press release can act as a hook to stimulate companies and researchers to go more in depth through the project activities, that means that also the press can be an effective dissemination tool.

Press releases will be sent not only to common media, but also to specialized business, innovation and research themes magazines. It is important to inform media about the newsworthy events and results. Special attention should be directed towards raising media awareness of the project activities and results, engaging their interest in the subject. Press releases will also be published on the project website and promoted through project social media accounts. Press releases should always include a link to the project website.

## 5.8 Events

The term "event" refers to private or public events, scientific conferences and congresses, meetings, technical workshops, open days, political level events, events organized by the European Commission or its Directorates, trade fairs and exhibitions, in digital or in presence.

Due to Covid-19 pandemic, all necessary means are put in place by ART-ER, in order to implement the activities according to a proactive approach, through the use of digital tools. Since 2020, all necessary preparations to switch from in-presence to online seminars/events/fairs B2B (using Microsoft Teams, Zoom, Google Meet, Lifesize, Brella platforms) have been put in place. Although online seminars do not allow the same kind of benefits (i.e. team-building, social networking, live experiences, etc.) to partners and stakeholders as in-presence meetings do, on the other hand they make it possible to enlarge the number of participants from all over the world.

Events represent an effective channel of communication and dissemination, since the possibility to meet in person with the targeted audience allows for a more proper presentation and explanation of project results, and to go more in-depth on details. They can be the perfect way to arrange also digital one-to-one meetings with other attendants or speakers, or to open up to new networks that are relevant for project activities. Preparing a 30-seconds speech on the object of project's activities can be a good way to introduce themselves during this kind of initiatives.



When talking about events, it should always be considered that their lifetime also includes an amount of time **before** and one **after**.

**Before an event**, whether a technical workshop or a scientific conference, a promotion activity should be started: partners should work on selecting the proper audience, the message to be conveyed, the timing for sending invitations, and all other activities needed for the specific case, according with WP8 coordinator and Outreach team.

After the event, some follow-up actions should be undertaken, so as to keep the audience attention alive and to schedule any further contacts or meeting with people who showed interest in the project's activities.

Events can be both virtual and in presence, public and private, and can be organized by:

- IoTwins Consortium
- Single IoTwins partners
- Third parties

There can be different levels of participation. A full description is included in D8.4- Communication Plan and report (I) (link) in the related Events section.

In case of Scientific Conferences or other types of events, partners will evaluate on a case-by-case basis the actions to be put in place to participate; it can be a speech during a panel session, a poster: these depends on the goals to attain.

#### 5.8.1 Dissemination events kit

TOOL	TO BE USED DURING
Project logo + EU flag	Fairs/exhibition catalogues
	Website pages and other events' promotion materials
Project presentation official template	Speeches
	Meetings
Project rollup	Workshops and other events
	Video-interviews
Project leaflet	Workshops and other events
Project poster	Workshops and other events
	Video-interviews
Project videos	Workshops and other events
Project Twitter account	Events

All the materials are available and in the <u>WP8 folder</u> of the Microsoft Teams platform activated for the project.

## 5.8.2 Company guided tours and technical workshops

IoTwins can count on a rich consortium composed by renowned and important manufacturing industries, companies in the service and ICT sectors, excellent research centres, universities, and large data centres highly visible in big data research.

This represents a great chance to reach a specific audience and disseminate research achievements in a particular way, as it is actually a strong communication and marketing factor.



Due to the uncertainty given by the COVID-19 pandemic the guided tour has to be planned as virtual ones as well, also taking into account the opportunity of capitalizing upon the experience of some partners in this field. A dedicate format will be thought and shared for this action.

Virtual guided tours of the companies and research centre sites will be completed by virtual demonstrations of the specific testbeds. Technical workshops will also be organized and delivered by IoTwins partners in charge of the vertical development of project's distributed digital twins.

According to the "Description of the action" of IoTwins project,

- one Virtual Open Day event per each company that implemented an industrial testbed will be organized. That means that BRI, FCB, CINECA, ETXE, GCL, SAGOE, FILL, CETIM and BSC will be directly involved.
- 3 Technical online workshops will be organized by UNIBO, FOKUS and ESI. The workshop of ESI will
  be organized with the support of BEWG. These events are addressed to ICT SMEs, highlighting the
  possibility for SMEs to open up new opportunities for the creation of new intelligent services based
  on IoTwins distributed digital twins and platform.

Each partner will be responsible for the organization. The events will also be supported by the communication material developed in the project, with specific tools and press release; ART-ER prepared a set of guidelines - **Deliverable 8.11 Open Day and Technical Workshop guidelines** - on how to carry out these activities.

## **5.8.3** Conferences and workshops

Due to COVID-19 pandemic, participation to relevant conferences will be scouted and, also depending on the organizers' proposals, an online participation will be evaluated case by case.

Here following a list of relevant international conferences of interest for IoTwins:

CONFERENCE	PLACE AND DATE	DESCRIPTION	WEBSITE	REF. PARTNER
EMO metalworking fair	Hannover 16-21/11/19 (next on Sept. 2023)	EMO Hannover is one of the world's premier trade fairs for the metalworking industry. It is a key showcase for innovations and an essential driver of global production technology.	http://www.em o-hannover.de	ETXE
ML4CPS - Machine Learning for Cyber Physical Systems and Industry 4.0	Berlin, 12-13 March 2020	The event will be dedicated to the topics of machine learning, industrial analytics and the use of machine learning (ML) in production.	https://www.io sb.fraunhofer.d e/servlet/is/511 52/	
IDTechEx	Berlin, 13-14 May 2020	The IDTechEx Show! presents the latest emerging technologies at one event, with nine concurrent technologies and a single exhibition covering 3D printing, electric vehicles, energy harvesting, energy storage, graphene, internet of things, off grid energy independence, printed electronics, sensors & wearable technology.	https://www.id techex.com/eur ope2020/show/ en/	



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CONFERENCE	PLACE AND	DESCRIPTION	WEBSITE	REF.
	DATE			PARTNER
Smart Manufacturing Summit	•	The Only Event for Mid-Market Manufacturers	www.smartman ufacturingsum mit.com	
European social simulation association events	Cracow, 20- 24th September 2020	The European Social Simulation Association (ESSA) promotes the development of social simulation research, education and application in Europe. Founded on a manifesto signed by many social simulation researchers in 1993, the basis of the ESSA's Constitution was formed.  ESSA has become the most important hub of social simulation worldwide. By collaborating with CSSSA, the Computational Social Science Society of the Americas, and PAAA, the Pacific Asian Association for Agent-based Approach in Economic & Social Complex Systems, ESSA has promoted international initiatives to build a bridge between regional groups and associations.	http://www.ess a.eu.org/events /	BSC
III International Triple Helix Summit	Bologna, 24- 26 November 2020	The 2020 Summit will focus on the theme "Designing globally connected regional innovation ecosystems: overcoming barriers and opening pathways".  New models of cooperation among Government, Industry and Academia steering the opportunities and reducing the hurdles in the right direction for our society at large.	https://www.tri plehelixassociat ion.org/news/b ologna-will- host-the-iii- international- triple-helix- summit-on-24- 26-november- 2020	ART-ER
Big data value association forum	Online+Berli n, 3-5 November 2020 Online+ Ljubljana, 29/11- 3/12/2021	The Big Data Value Association (BDVA) is an industry-driven international not—for-profit organisation with 200 members all over Europe and a well-balanced composition of large, small, and medium-sized industries as well as research and user organizations. BDVA is the private counterpart to the EU Commission to implement the Big Data Value PPP program. BDVA and the Big Data Value PPP pursue a common shared vision of positioning Europe as the world leader in the creation of Big Data Value.	https://www.e uropean-big- data-value- forum.eu/	BSC, CINECA



CONFERENCE	PLACE AND	DESCRIPTION	WEBSITE	REF.
	DATE			PARTNER
Sports Tomorrow	Online, 8-20 November 2020 (next on November 7-11, 2022)	Sports Tomorrow is a new two-week online event, which includes 8 different tracks. For over 10 years FCB has brought leading experts to inspire sports professionals to a two-week event to discover, learn and trigger the next innovation at the sports industry. IoTwins project had its presence at this congress at the Sports Technology and Sports Business tracks, that put together more than 1,000 attendees and captured the spotlight of the global sports industry for 2 weeks.	https://sportsto morrow.fcbarce lona.com/	BSC, FCB
CAE	Online, 30	This annual conference focuses on the business	http://www.ca	CINECA
conference (digital twins)	November - 4 December 2020	and technology issues in the Simulation-based Engineering Sciences (SBES) arena and draws delegates from worldwide industry sectors, ranging from aerospace and oil and gas to civil engineering, manufacturing, and automotive. An innovation this year was the launch of an independent exhibition associated to the conference and focusing on all the technologies, service providers and applications that are interconnected with the digital transformation of businesses as they move towards Industry 4.0.	econference.co m	CINECA
ICT 2020	Cologne, 1-3	The event, co-organized by the European		ART-ER
(canceled)	December 2020	Commission and the German Presidency of the Council of the European Union, will have the following elements: a high-level conference on digital policies, an exhibition of EU-funded research and innovation projects in the field of ICT; a series of networking activities and many more.		
HEPiX - High	Online, 15-	The HEPiX forum brings together worldwide	https://www.h	
energy physics community	19 March 2021	Information Technology staff, including system administrators, system engineers, and	epix.org/#	
conferences	(next on	managers from the High Energy Physics and		
	April 25-29,	Nuclear Physics laboratories and institutes, to		
	2022)	foster a learning and sharing experience between sites facing scientific computing and data challenges. Participating sites include BNL, CERN, DESY, FNAL, IHEP, IN2P3, INFN, JLAB, Nikhef, RAL, SLAC, TRIUMF and many others. The HEPiX organization was formed in 1991, and its semi-annual meetings are an excellent source of information and sharing for IT experts in scientific computing.		



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CONFERENCE	PLACE AND DATE	DESCRIPTION	WEBSITE	REF. PARTNER
Hannover Messe, Home of Industrial Pioneers	Online, 12- 16 April 2021 (next on May 30-June 2, 2022)	HANNOVER MESSE is the most important international platform and hot spot for industrial transformation - with excellent innovations or unusual products.	http://www.ha nnovermesse.d e	
North American Manufacturing Research Conference (NAMRC) 49	Cincinnati, June 21-25,	SME's North American Manufacturing Research Conference (NAMRC) is recognized as North America's preeminent and longest-running international forum for applied research and industrial applications in manufacturing and design with its presentations and publication of original, basic and applied research in advanced manufacturing.  An annual event since 1973, NAMRC advances the scientific foundation of discrete-parts manufacturing leading to next-generation applications of emerging and innovative technology in material removal, forming and additive manufacturing processes and machines, and cyber-physical systems. The conference attracts global academicians, government and industry researchers, engineers, students and leaders in manufacturing to interact with each other and advance the field. NAMRC features peerreviewed papers, keynotes, special opportunities for networking and collaboration, and recognition of research implementation, service and achievements.	http://www.sm e.org/namrc/	ETXE
R2B - Research to Business	Bologna, 8-9 June 2022	17th edition of the annual International Exhibition on Industrial Research and Skills for Innovation, organized by Emilia-Romagna Region in collaboration with ART-ER.	https://www.rd ueb.it/	ART-ER
Isc High Performance 2021 Digital	Online, 24 June – 2 July 2021 (next on May 22-June 2, 2022)	The ISC Exhibition, consisting of over 160 exhibitors, caters to the hardware and software demands of global research centers and businesses in the fields of HPC, artificial intelligence, machine learning and data analytics.	https://www.is c-hpc.com	BSC, CINECA
Mobile world yearly congress	Barcelona, 28 February – 03 March 2022	The GSMA MWC series (formally known as Mobile World Congress) is the world's largest exhibition for the mobile industry, and incorporates a thought-leadership conference featuring prominent executives representing global mobile operators, device manufacturers, technology providers, vendors, and content owners.	https://www.m obileworldcong ress.com	BSC



CONFERENCE	PLACE AND DATE	DESCRIPTION	WEBSITE	REF. PARTNER
IMTS, International Manufacturing Technology Show	September 12 - 17, 2022	IMTS 2022 will be the 35th edition of the Premier Manufacturing Technology show in North America. Industry professionals from all over the world visit IMTS to see and experience more than 15,000 new machine tools, controls, computers, software, components, systems and processes that will solve their manufacturing challenges and improve their efficiency.	https://www.i mts.com/	ETXE
IoT Week	Dublin, June 20-23, 2022	IoTWeek is a one of a kind day conference where leaders from the worlds of business, tech and science shed light on the future of technology and its impact on business and life.	https://iotweek .org/	
MLDT-CSE	San Diego, 26-29 September 2021	1ST IACM CONFERENCE ON MECHANISTIC MACHINE LEARNING AND DIGITAL TWINS FOR COMPUTATIONAL SCIENCE, ENGINEERING & TECHNOLOGY	https://mmldt. eng.ucsd.edu/	ENSAM
IoT Solutions World congress	Barcelona, May 10-12, 2022	Part of the IoT World Series, the event focuses on providing attendees with the knowledge needed to activate the IoT opportunity and execute IoT enabled transformation. Acting as a global meeting point for 2,000+ enterprises and vendors, IoT World Europe is the go-to event for business leaders to discover investment priorities and implementation strategies.	https://www.io tsworldcongres s.com/	BSC
NWC 2021	2529. October 2021, Salzburg	NAFEMS World Congress, a world of engineering simulation	https://www.na fems.org/congr ess/	FILL



CONFERENCE	PLACE AND DATE	DESCRIPTION	WEBSITE	REF. PARTNER		
EOSC -hub -		EOSC-hub brings together multiple service	https://www.e	CINECA		
Services for		providers to create the Hub: a single contact	osc-hub.eu/			
the European		point for European researchers and innovators				
Open Science		to discover, access, use and reuse a broad				
Cloud		spectrum of resources for advanced data-				
		driven research.				
		For researchers, this will mean a broader				
		access to services supporting their scientific				
		discovery and collaboration across disciplinary				
		and geographical boundaries.				
		The project mobilises providers from the EGI				
		Federation, EUDAT CDI, INDIGO-DataCloud and				
		other major European research infrastructures				
		to deliver a common catalogue of research				
		data, services and software for research.				
		EOSC-hub collaborates closely with				
		eInfraCentral, EOSCpilot, GÉANT 4.2,				
		OpenAIRE-Advance and the RDA Europe 4.0				
		projects to deliver a consistent service offer for				
		research communities across Europe.				
		EOSC-hub is funded by the European Union's				
		Horizon 2020 research and innovation				
		programme under grant agreement 777536.				
		The generous EU funding received by the				
		project is complemented with a contribution				
		from the EGI Foundation and its participants,				
		and in-kind contributions made available by				
		service providers of the EGI Federation.				



			11.		
CONFERENCE	PLACE AND DATE	DESCRIPTION	WEBSITE	REF. PARTNER	
Complex		The purpose of the Society is to promote the	https://cssociet	BSC	
systems		development of all aspects of complex systems	y.org/events		
society events		science in the countries of Europe, as well as			
,		the whole international scientific community.			
		See CSS Statutes and CSS By-Laws.			
		The Society aims to promote complex systems			
		research pure and applied (What are Complex			
		Systems?), assist and advise on problems of			
		complex systems education, concern itself with			
		the broader relations of complex systems to			
		society, foster the interaction between			
		complex systems scientists of different			
		countries, establish a sense of identity amongst			
		complexity scientists, and represent the			
		complexity community at all international			
		levels.			
		It is regulated by a CSS Council and by a CSS			
		Executive Committee.			
		The Society was first launched at a European			
		level on 7th Dec 2004 during The European			
		Conference on Complex Systems at Foundation			
		ISI in Torino, Italy. It became an international			
		society in 2006 during the ECCS06 Conference			
		in Oxford.			
		Since 2004, the Conference on Complex			
		Systems organized by the CSS, is the most			
		important annual meeting for the complex			
		systems research community.			

## **5.8.4** Trade Fairs and other Exhibitions

Project achievements, included final results, will be showcased during a selected International Exhibitions at the end of the project. The focus will be both on the **IoTwins platform and the 12 testbeds**.

Potentially addressed exhibitions are:

FAIR	PLACE AND DATE	DESCRIPTION	WEBSITE
Hannover Messe	Hannover, May 30-June 2, 2022	The GSMA MWC series (formally known as Mobile World Congress) is the world's largest exhibition for the mobile industry, and incorporates a thought-leadership conference featuring prominent executives representing global mobile operators, device manufacturers, technology providers, vendors, and content owners.	http://www.hannovermess e.de
BIMU	Milan, Oct 2022	Metal cutting, metal forming and additive machines, robots, digital manufacturing and automation, enabling technologies, subcontracting	http://www.bimu.it



FAIR	PLACE AND DATE	DESCRIPTION	WEBSITE
MECSPE	Parma, June 2022	MECSPE is the greatest event focused on innovations for the manufacturing industry	https://www.mecspe.com/ it/
R2B   Research to Business	Bologna, June 2022	17th edition of the annual International Exhibition on Industrial Research and Skills for Innovation, organized by Emilia-Romagna Region in collaboration with ART-ER.	www.rdueb.it

Actual addressed exhibitions will be selected also taking into account the timing of project activities. Participation to these events will be also **promoted via social media and the website**.

Details of participation to exhibition is included in Section 6 "Report on dissemination activities performed in M19-M30"

Also, participation to these kinds of events can include hiring a booth (also virtual) or not, as an example project partners can be hosted within other organizations' or projects' booths, or even hiring a booth as organization and take that as an opportunity to disseminate project's results. Let's see how many situations can occur.

#### **PROJECT BOOTH**

Having a project booth implies:

- Having a proper graphical layout of the stand with:
  - o project logo clearly visible
  - o IoTwins PROJECT as front head
- Including a brief project description in the official event catalogue together with project logo and EU funds contribution acknowledgement
- Distribute project leaflet and any other relevant informative materials
- Project rollup has to be exposed
- If a screen is available, show the project video

In case a virtual booth is bought, given the diversity of online platforms currently available, it could be necessary to get ready with a kit of embeddable materials such as:

- A short presentation
- A video
- A branded background image
- A full package with a brief project description, project logo end EU flag with EU funds acknowledgement

Also, someone representing the project could be asked to attend the online event to answer to possible questions via the platform chatbox.

#### OTHER ORGANIZATIONS' OR INITIATIVES' SPACES INSIDE EXHIBITIONS OR TRADE FAIR

In such situations, partners should take care of exposing the project rollup or poster, that depends on what is allowed. Project leaflet should also be available, as well as a project description on the initiative catalogue. A short standard presentation of the project is also something to have.



### WORKSHOP OR SPEECH DURING A WORKSHOP INSIDE A TRADE FAIR OR EXHIBITION

Partners can also decide or be invited to organize a workshop during the exhibition, or to give a speech during initiatives organized by third parties. Partners should make sure the right visibility is given to the project, as described in the general rules (see section 5.8 Events).



# 6 Report on dissemination activities performed in M19-M30

In the following pages a list of activities performed by partners in the period M28-M35 (January 2022 – July 2022) is reported.

Activities are organized in three groups: dissemination activities, scientific publications and official project website and twitter account news and events.



# **6.1 Dissemination activities performed by partners**

Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BRI	Big data and predictive maintenanc e in wind sector	General public	12 July 2022	Webinar on teams	-	Organization of a workshop/techni cal workshop	Teams	K, Germany, Italy, Spain, Nederand, Portugal, Belgium, Danmark, Norwey, France	28
BRI	BVDA IoTwins - Big Data Platform for optimized and replicable Industrial and Facility Manageme nt models	General public	26 May 2022	Webinar on teams	-	Participation to a conference	Teams		about 50
BRI	WORKSHOP : "DIGITAL TWIN PER L'INDUSTRI A"	Industry	16 Dec 2022	Technical meeting	-	Participation to a workshop	Bi-Rex	Italy	about 20



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BRI	Post IoTwins publication and sponsorship	Mechanical engineers, construction engineers, automotive engineering, engineering technicians, electrical and electronic engineers	5 July 2022	Publishing and Sponsorship of editorial content - 3 part Instagram post that spans the width of Instagram feed reproducing an infographic on the IoTwins theme, which shows customers the story, functions and aim of the entire project. The content has been sponsored.	Sponsored Post 1	Social Media	Instagram	India, UK, USA, Germany, Spain, France, Italy	Organic Reach: 288 Organic Impression : 315  Sponsored Reach: 1.404 Sponsored Impression : 1.500
BRI	Post IoTwins publication and sponsorship	Mechanical engineers, construction engineers, automotive engineering, engineering technicians, electrical and electronic engineers	5 July 2022	Publishing and Sponsorship of editorial content - 3 part Instagram post that spans the width of Instagram feed reproducing an infographic on the IoTwins theme, which shows customers the story, functions and aim of the entire project. The content has been sponsored.	Sponsored Post 2	Social Media	Instagram	India, UK, USA, Germany, Spain, France, Italy	Organic Reach: 321 Organic Impression : 355 Sponsored Reach: 2.058 Sponsored Impression : 2.159



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BRI	Post IoTwins publication and sponsorship	Mechanical engineers, construction engineers, automotive engineering, engineering technicians, electrical and electronic engineers	5 July 2022	Publishing and Sponsorship of editorial content - 3 part Instagram post that spans the width of Instagram feed reproducing an infographic on the IoTwins theme, which shows customers the story, functions and aim of the entire project. The content has been sponsored.	Sponsored Post 3	Social Media	Instagram	India, UK, USA, Germany, Spain, France, Italy	Organic Reach: 384 Organic Impression : 433 Sponsored Reach: 1.438 Sponsored Impression : 1.523
BRI	Post IoTwins publication and sponsorship	Mechanical Engineers, Industrial Engineers, Civil Engineers, Maintenanc e Technicians	4 July 2022	Publishing and Sponsorship of editorial content - IoTwins themed webinar invitation post with registration link to the event "Big Data and predictive maintenance in the Wind Sector". The content has been	Sponsored Post	Social Media	Linkedin	UK, USA, Germany, Spain, France, Italy	Organic Impression : 4.911 Sponsored Impression : 21.565



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BRI	Post IoTwins publication	Linkedin Page Followers	14 June 2022	Publishing of editorial content. Multi-image grid post reproducing an infographic which shows customers the story, functions and aim of the entire IoTwins project.	Organic Content	Social Media	Linkedin	/	Organic Impression : 4.222
BRI	Setting IoTwins Lead Generation Campaign (Webinar)	Engineers, business developmen t, environmen tal engineers, design engineers, research and developmen t engineer	From 5 July to 11 July	Campaign created to get IoTwins-themed webinar registrations	<u>Ad</u>	ADV	Linkedin	Portugal, Belgium, UK, Germany, Netherlands, Italy, Norbegia, Denmark, France, Spain	Sponsored Impression : 30.378



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BRI	Setting IoTwins Engagemen t Campaign (Webinar)	Engineers, business developmen t, environmen tal engineers, design engineers, research and developmen t engineer	From 5 July to 11 July	Campaign created to get IoTwins-themed webinar registrations	<u>Ad</u>	ADV	Linkedin	Portugal, Belgium, UK, Germany, Netherlands, Italy, Norbegia, Denmark, France, Spain	Sponsored Impression : 30.065
BSC	Participatio n to a conference	General public, industry	4-5 March 2022	Feliu Serra participates in the MIT Sloan Sports Analytics Conference	https://www.sloan sportsconference.c om/research- papers/when-are- they-coming- understanding- and-forecasting- the-timeline-of- arrivals-at-fc- barcelona- stadium-on- match-days	Participation to a conference	Hynes Convention Center	USA	1000 approx.



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BSC	Social Media post	General public, Scientific Community	19 April 22	Repost of Fernando Cucchietti interview on LinkedIn:	https://www.linke din.com/posts/bar celona- supercomputing- center talkingabo utiotwins-a-digital- model-of-activity- 692216568167733 6576-A- xl?utm source=lin kedin_share&utm medium=membe r_desktop_web	Social Media	Online	Spain	362
BSC	Social Media post	General public, Scientific Community	19-apr-22	Repost of Fernando Cucchietti interview on Twitter:	https://twitter.co m/BSC_CNS/status /15163996236902 31808	Social Media	Online	Spain	797
BSC	Social Media post	General public, Scientific Community	19-apr-22	Repost of Fernando interview on LinkedIn	https://www.linke din.com/feed/upd ate/urn:li:activity: 692216568167733 6576/	Social Media	Online	Spain	362
BSC	Social Media post	General public, Scientific Community	04-mag-22	Repost Twitter post Barca Innovation Hub	https://twitter.co m/BSC_CNS/status /15217740792499 93728	Social Media	Online	Spain	652
BSC	Social Media post	General public, Scientific Community	05-mag-22	Twitter post lotwins objectives	https://twitter.co m/BSC CNS/status /15221167782137 11873	Social Media	Online	Spain	2029



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BSC	Social Media post	General public, Scientific Community	05-mag-22	LinkedIn post about IoTwins objectives	https://www.linke din.com/feed/upd ate/urn:li:activity: 692754071675987 5584/	Social Media	Online	Spain	3027
BSC	Article	General public	16-mag-22	Mentions on FC Barcelona website	https://www.fcbar celona.com/en/ne ws/1896169/bara- and-bsc-complete- first-phase-of- iotwins-project	Got an article/interview published by other online magazines or newspapers	Online	All	580
BSC	Article	General public	14-giu-22	Mentions on Barca innovation Hub website	https://barcainnov ationhub.com/cro wd-flow- management-at- stadiums-and- cities/?ext=SMO 3 404&utm source= Linkedin&utm me dium=Post&utm c ampaign=BIHUB B log Post ORG BIH UB GBL TXT WW EN&utm term=BI HUB Blog Post&u tm content=	Got an article/interview published by other online magazines or newspapers	Online	All	183



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BSC	Organisatio n of an Open Day with FC Barcelona	Scientific Community, investors, policy makers	22-giu-22	BSC and FCB organises an open day event		Organization of an Open Day	BSC and Camp Nou stadium	Spain	17
BSC	News about Open Day on BSC Website	Scientific Community, media, investors, customers	27-giu-22	News about Open Day on BSC website	https://www.bsc.e s/news/bsc- news/bsc-and-fc- barcelona- organise-open- day-present- iotwins-project	IoTwins project page on your own website	ONline	Spain	40
BSC	News about Open Day	Scientific Community	27-giu-22	News about Open Day on HPC Wire	https://www.hpcw ire.com/off-the- wire/bsc-and-fc- barcelona-present- iotwins-project/	Got an article/interview published by other online magazines or newspapers	Online	SA, California	131,640 (monthly visitors)
BSC	News about the open day on IoTwins website	Scientific Community, media, investors	28-giu-22	News about Open Day on IoTwins website	https://www.iotwins.eu/barcelona-supercomputing-center-and-fc-barcelona-organise-an-open-day-to-present-iotwins-project/	News published on loTwins website	Online	Europe	
BSC	Social Media post	Scientific Community, General public	22-giu-22	Twitter post about Open Day	https://twitter.co m/BSC_CNS/status /15395469482814 50497	Social Media	Online	Spain	644



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BSC	Social Media post	Scientific Community, General public	22-giu-22	LinkedIn post about Open Day	https://www.linke din.com/posts/bar celona- supercomputing- center bsc- researcher- fernando- cucchietti- presents-activity- 694531308971824 3329- QLEt?utm source= linkedin share&ut m_medium=mem ber_desktop_web	Social Media	Online	Spain	3475
BSC	Podcast with mention of IoTwins	Scientific Community, General public	14-July-22	Podcast "Había una vez un algoritmo" with mention of IoTwins	https://algoritmo. buzzsprout.com/7 58831/10964076	Got an article/interview published by other online magazines or newspapers	Online	Spain	80
BSC	Video	General public	25-July-22	Promotional Video IoTwins	Video sent by Fernando Cucchietti Publication pending	Video	Online	Europe	N/A
FCB	Research Paper Competitio n	Cientific audience	3- 4/03/2022	Paper's presentation		Paper's presentation	MIT Sloan Sports Analytics Conference	All	



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	Social Media	General public	3- 4/03/2022	Post on Linkedin about the presentation of a cientific paper at MIT Sloan Sports Analytics Conference, 2022 Research Paper Competition.	https://www.linke din.com/feed/upd ate/urn:li:activity: 689525965871475 9168/	Social Media	Barça Innovation Hub channels	All	Impression s: 3551 Reactions: 32 Interaction s: 3,3% Clicks: 84
FCB	Social Media	General public	3- 4/03/2022	Post on Instagram about the presentation of a cientific paper at MIT Sloan Sports Analytics Conference, 2022 Research Paper Competition.	https://www.insta gram.com/p/CZhk FAYFMF5/	Social Media	Barça Innovation Hub channels	All	Likes: 60 Saves: 2 Impression s: 1.814 Interaction s: 3
FCB	Social Media	General public	3- 4/03/2022	Post on Facebool about the presentation of a cientific paper at MIT Sloan Sports Analytics Conference, 2022 Research Paper Competition.	https://www.faceb ook.com/1682251 57393165/photos/ a.1716806837142 79/930133684535 638/	Social Media	Barça Innovation Hub channels	All	Interaction s: 6 Reach: 303
FCB	Event	General public	10/05/2022	Participation to IoTwins Solutions Wold Congress	https://www.iotsw orldcongress.com/ speakers/	Participation to an event other than a conference or workshop	Barcelona, Spain	All	50 physical attendees



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	Social Media	General public	10/05/2022	Post on Twitter about the presentation at IoTwins Solutions Wold Congress	https://twitter.co m/BarcaInnoHub/s tatus/1524056731 030065152	Social Media	Barça Innovation Hub channels	All	Impression s: 1,357 Engageme nts: 41 Detail expands: 23 Profile visits: 5 Link clicks: 4
FCB	Social Media	General public	10/05/2022	Post on Linkedin about the presentation at IoTwins Solutions Wold Congress	https://www.linke din.com/feed/upd ate/urn:li:activity: 692982524428727 5008/	Social Media	Barça Innovation Hub channels	All	Impression s: 3144 Reacctions: 51 Interaction : 4% Clicks: 69
FCB	Social Media	General public	10/05/2022	Post on Instagram about the presentation at IoTwins Solutions Wold Congress	https://www.insta gram.com/p/CdYk 5Qguy-o/	Social Media	Barça Innovation Hub channels	All	Likes: 55 Saves: 1 Impression s: 1355 Interaction s: 10



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	Social Media	General public	16/05/2022	Post on Linkedin about the IoTwins Solutions Wold Congress recap	https://www.linke din.com/feed/upd ate/urn:li:activity: 693204539624854 7328/	Social Media	Barça Innovation Hub channels	All	Impression s: 6405 Reactions: 88 Interaction n: 8% Clicks: 419
FCB	Social Media	General public	16/05/2022	Post on Twitter about the IoTwins Solutions Wold Congress recap	https://twitter.co m/BarcalnnoHub/s tatus/1526284767 787991041	Social Media	Barça Innovation Hub channels	All	Impression s: 42,034 Engageme nts: 356 Detail expands: 73 Profile visits: 36 Link clicks: 8
FCB	Event	Targeted audience	22/06/2022	loTwins open day		Organization of an Open Day	Barcelona, Spain	All	20 attendees
FCB	social Media	General public	21/06/2022	Post on Linkedin about our Open Day	https://www.linke din.com/feed/upd ate/urn:li:activity: 694504669667023 2576/	Social Media	Barça Innovation Hub channels	All	Impresione s: 1813 Reacciones : 25 Interacción : 2,15% Clicks: 14



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	social Media	General public	21/06/2022	Post on Twitter about our Open Day	https://twitter.co m/BarcalnnoHub/s tatus/1539280593 942417408	Social Media	Barça Innovation Hub channels	All	Impression s: 1,456 Engageme nts: 10 Detail expands: 1 Profile visits: 2 Link clicks:
FCB	social Media	General public	23/06/2022	Post on Linkedin about our Open Day recap	https://www.linke din.com/feed/upd ate/urn:li:activity: 694575282393862 5536/	Social Media	Barça Innovation Hub channels	All	Impression s: 2497 Reacciones : 34 Interacción : 6% Clicks: 113
FCB	social Media	General public	23/06/2022	Post on Twitter about our Open Day recap	https://twitter.co m/BarcalnnoHub/s tatus/1539987202 452733955	Social Media	Barça Innovation Hub channels	All	Impression s: 1,846 Engageme nts: 30 Detail expands: 6 Profile visits: 4 Link clicks:



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	Article	General public	03/05/2022	Article: Assigning different arrival times to fans based on their profile to optimize the stadium efficiency.	https://barcainnov ationhub.com/tim es-to-fans-based- on-their- profile/?ext=SMO 2997&utm_source =Linkedin&utm_m edium=Post&utm campaign=BIHUB BlogArticle&utm_t erm=0&utm_cont ent=	Website	Barça Innovation Hub website	All	Visitas: 336
FCB	Social Media	General public	03/05/2022	Post on Instagram about the article: Assigning different arrival times to fans based on their profile to optimize the stadium efficiency.	https://www.insta gram.com/p/CdGh Erlj2cj/	social Media	Barça Innovation Hub channels	All	Likes: 191 Saves: 3 Impresions : 2.148 Interaction s: 10
FCB	Social Media	General public	03/05/2022	Post on Linkedin about the article: Assigning different arrival times to fans based on their profile to optimize the stadium efficiency.	https://www.linke din.com/feed/upd ate/urn:li:activity: 692728163289890 8160/	social Media	Barça Innovation Hub channels	All	Impression s: 4890 Reactions: 89 Interaction : 4% Clicks: 109



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	Social Media	General public		Post on Twitter about the article: Assigning different arrival times to fans based on their profile to optimize the stadium efficiency.	https://twitter.co m/BarcaInnoHub/s tatus/1521760371 597533185	social Media	Barça Innovation Hub channels	All	Impression s: 2,049 Engageme nts: 61 Detail expands: 27 Profile visits: 8 Link clicks: 16
FCB	Social Media	General public		Post on Facebook about the article: Assigning different arrival times to fans based on their profile to optimize the stadium efficiency.	https://www.faceb ook.com/permalin k.php?story_fbid= pfbid02vTZmaURv cdor2D3gF5gDETY z5ZYF8o7W3NYwv FgzAgmaT459jeaS UtwEtrqQGBokl&i d=1682251573931 65	social Media	Barça Innovation Hub channels	All	Interaction s: 10 Reach: 461 Clicks: 1



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	Article	General public	16/05/2022	Article: THE IOTWINS PROJECT. HOW TO IMPROVE STADIUM MANAGEMENT THROUGH DIGITAL SIMULATION	https://barcainnov ationhub.com/the- iotwins-project- how-to-improve- stadium- management/?ext =SMO_3176&utm _source=Twitter& utm_medium=Twe et&utm_campaign =BIHUB_BlogArticl e&utm_term=0&u tm_content=&utm _source=twitter&u tm_medium=barca innohub&utm_ca mpaign=fe2fdf69- 9729-42c9-b4b1- cea8e64bf1c2	Website	Barça Innovation Hub website	All	Visits: 580
FCB	Social Media	General public	16/05/2022	Post on Twitter about the article: THE IOTWINS PROJECT. HOW TO IMPROVE STADIUM MANAGEMENT THROUGH DIGITAL SIMULATION	https://twitter.co m/BarcaInnoHub/s tatus/1526600280 996970496	social Media	Barça Innovation Hub channels	All	Impression s: 1,929 Engageme nts: 61 Detail expands: 17 Profile visits: 6 Link clicks: 9



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	Social Media	General public	16/05/2022	Post on Linkedin about the article: THE IOTWINS PROJECT. HOW TO IMPROVE STADIUM MANAGEMENT THROUGH DIGITAL SIMULATION	https://www.linke din.com/feed/upd ate/urn:li:activity: 693259158712213 9136/	social Media	Barça Innovation Hub channels	All	Impression s: 3644 Reactions: 37 Interaction s: 4,5% Clicks: 126
FCB	Social Media	General public	16/05/2022	Post on Twitter about the article: THE IOTWINS PROJECT. HOW TO IMPROVE STADIUM MANAGEMENT THROUGH DIGITAL SIMULATION	https://twitter.co m/BarcalnnoHub/s tatus/1526956274 927259649	social Media	Barça Innovation Hub channels	All	Impression s: 2,830 Engageme nts: 47 Detail expands: 5 Profile visits: 4 Link clicks: 4
FCB	Social Media	General public	18/05/2022	Post on Instagram about the article: THE IOTWINS PROJECT. HOW TO IMPROVE STADIUM MANAGEMENT THROUGH DIGITAL SIMULATION	https://www.insta gram.com/p/Ce4P hkdMlEq/	social Media	Barça Innovation Hub channels	All	Likes: 62 Saves: 5 Impression s: 2.116 Interaction s: 8



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	Article	General public	15/06/2022	Article: Crowd Flow Management at Stadiums and Cities	https://barcainnov ationhub.com/cro wd-flow- management-at- stadiums-and- cities/?ext=SMO 3 404&utm_source= Linkedin&utm_me dium=Post&utm_c ampaign=BIHUB_B log_Post_ORG_BIH UB_GBL_TXT_WW EN&utm_term=BI HUB_Blog_Post&u tm_content=	website	Barça Innovation Hub website	All	Visits: 183
FCB	social Media	General public	15/06/2022	Post on Instagram about the article: Crowd Flow Management at Stadiums and Cities	https://www.insta gram.com/p/Ce0fK c7s4_w/	social Media	Barça Innovation Hub channels	All	Likes: 244 Saves: 7 Impresione s: 2.692 Interaccion es: 13
FCB	social Media	General public	15/06/2022	Post on Linkedin about the article: Crowd Flow Management at Stadiums and Cities	https://www.linke din.com/feed/upd ate/urn:li:activity: 694275603806443 5200/	social Media	Barça Innovation Hub channels	All	Impresione s: 2996 Reacciones : 38 Interacción : 3,6% Clicks: 70



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	social Media	General public	15/06/2022	Post on Twitter about the article: Crowd Flow Management at Stadiums and Cities	https://twitter.co m/BarcaInnoHub/s tatus/1536997431 614791680	social Media	Barça Innovation Hub channels	All	Impression s: 1,500 Engageme nts: 12 Link clicks: 3
FCB	social Media	General public	16/06/2022	Post on Twitter about the article: Crowd Flow Management at Stadiums and Cities	https://twitter.co m/BarcalnnoHub/s tatus/1537525792 086925312	social Media	Barça Innovation Hub channels	All	Impression s: 1,954 Engageme nts: 35 Detail expands: 6 Profile visits: 4 Link clicks: 3
FCB	social Media	General public	21/06/2022	Post on Twiter about Open Day	https://twitter.co m/BarcaInnoHub/s tatus/1539280593 942417408	social Media	Barça Innovation Hub channels	All	Impression s: 1.494 Engageme nts: 12 Link clicks: 2
FCB	social Media	General public	21/06/2022	Post on Linkedin about Open Day	https://www.linke din.com/feed/upd ate/urn:li:activity: 694504669667023 2576	social Media	Barça Innovation Hub channels	All	Impression s: 1.835 Engageme nt rate: 2,13% Clicks: 14



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	social Media	General public	23/06/2022	Post on Twiter about Open Day	https://twitter.co m/BarcalnnoHub/s tatus/1539987202 452733955	social Media	Barça Innovation Hub channels	All	Impression s: 1.891 Engageme nts: 31 Link clicks: 1
FCB	social Media	General public	23/06/2022	Post on Linkedin about Open Day	https://www.linke din.com/feed/upd ate/urn:li:activity: 694575282393862 5536	social Media	Barça Innovation Hub channels	All	Impression s: 2593 Engageme nt rate: 6,13% Clicks: 123
FCB	social Media	General public	01/09/2022	Post on twiter about the end of the project	https://twitter.co m/BarcaInnoHub/s tatus/1565281329 465393153	social Media	Barça Innovation Hub channels	All	Impression s: 1.716 Engageme nts: 27 Link clicks: 1
FCB	social Media	General public	01/09/2022	Post on Linkedin about the end of the project	https://www.linke din.com/feed/upd ate/urn:li:activity: 697078704137879 5521	social Media	Barça Innovation Hub channels	All	Impression s: 5.672 Engageme nt rate: 4,16% Clicks: 145
FCB	social Media	General public	01/09/2022	Post on Instagram about the end of the project	https://www.insta gram.com/p/Ch7q OuwMSVo/	social Media	Barça Innovation Hub channels	All	Impression s: 1.508 Interaccion es: 57 Saves: 4



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FCB	social Media	General public	07/09/2022	Post on Twitter about the Final consortia meeting	https://twitter.co m/BarcaInnoHub/s tatus/1567526204 600631296	social Media	Barça Innovation Hub channels	All	Impression s: 1.351 Engageme nts: 16 Link clicks: 1
FCB	social Media	General public	07/09/2022	Post on Linkedin about the Final consortia meeting	https://www.linke din.com/feed/upd ate/urn:li:activity: 697329192188873 1136	social Media	Barça Innovation Hub channels	All	Impression s: 880 Engageme nt rate: 2,05% Clicks: 8
FCB	social Media	General public	08/09/2022	Final consortia meeting - post event photos on Twitter	https://twitter.co m/BarcaInnoHub/s tatus/1567913483 018141700	social Media	Barça Innovation Hub channels	All	Impression s: 1.863 Engageme nts: 54 Link clicks: 1
FCB	social Media	General public	08/09/2022	Final consortia meeting - post event photos on Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 697367461099101 3888	social Media	Barça Innovation Hub channels	All	Impression s: 2.916 Engageme nt rate: 8,4% Clicks: 207
ETXE	IoTwins project descritpion to DTC	Industry	Jan-22	Project has been introduced to the Digital Twin Consortium as part of potential open presentation in its Q1 meeting in Germany	-	Organization of a workshop/techni cal workshop	Germany, reschedule as 100% online	Mainly US and Europe	1



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ETXE	IoTwins TB3 activities presentatio n during IOTSWC'22	Industry, Scientific Community, Investors, Customers	May 10-12	Testbed 3 activities within the IoTwins project presented alongside Digital Twin Testbed	https://www.iotsw orldcongress.com/ https://www.iotwi ns.eu/etxe-tar- and-aigura-iot-at- iot-solutions- world-congress- 2022/	Participation to an event other than a conference or workshop	Barcelona, Spain	Europe, US and Asia	12000
ETXE	Published article showing TB3 results within IoTwins	Scientific Community	06/05/2022	Main article including testbed partners and team about Testbed 3 results within IoTwins, together with introduction to the Testbed	http://dx.doi.org/1 0.1109/JIOT.2022. 3173064	Got an article/interview published by other online magazines or newspapers	IEEE Internet of Things Jorunal	World	na
ETXE	Published article showing TB3 partial results within IoTwins	Scientific Community	08 August 2022	Article including partial Testbed 3 results within IoTwins	https://doi.org/10. 1109/TNNLS.2022. 3194597	Got an article/interview published by other online magazines or newspapers	IEEE Transactio ns on Neural Networks and Learning Systems	World	na



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ETXE	loTwins project description updated in Linked Third Party (Aingura IIoT) webpage	Customers, Media, Industry	Jan-22	Updating Aingura IIoT webpage with more detailed information about IoTwins project. Testbed facilities video to be added within this year.	https://www.aingu raiiot.com/en/tech nology	Website	Internet	World	na
GCL	18th Internation al Conference on Artificial Intelligence Applications and Innovations	scientific community	17-20th of June 2022	Presentation of the content of the accepted scientific paper related to the latest achievements of TB4 and 9. IT includes the general presentation of IoTwins projectr and the related development in term of software and hardware of GCL usecase about injection moulding machine	https://ifipaiai.org /2022/	Participation to a conference	Greece	international	>300



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
GCL	Accelerare la Digital Transformat ion in azienda	Industry	31/05/2022	General presentation of IoTwins project and targets and presentation of GCL usecase about predictive maintenance for connected injection moulding machines. The conference is about the plastic sector and GCL was invited as lead indutrial in production based on the plastic material.	https://www.even tbrite.it/e/biglietti- accelerare-la- digital- transformation-in- azienda- 337126282787?aff =gualaclosures	Participation to a workshop	ltaly	International	30
GCL	Robotics Academy Conference for Industrial Robotics "RACIR 2022"	scientific /industry	20/05/2022	Presentation of the content of the accepted scientific paper related to Industry 4.0 and connected and smart machinery. IoTwins was presented as one of leading project related to industry 40.0 aspects and the latest achievements of TB4 and 9 were introduced for the audience.	-	Participation to a conference	Luxembour g	International	35



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
THALES	Counterfact ual examples	Scientific community	28/01/2022	Internal seminar for R&T Thales Lab on Data Science that presents part of the activities done on WP3 on xAl component		Participation to an event other than a conference or workshop	Palaiseau	France	15
SAG	IoT@Sieme ns Conference	Industry	22.03.2022- 25.03.2022	Conference on IoT- related topics, multiple presentations about work carried out in IoTwins	-	Organization of a conference	Nuremberg , Germany	World-wide	>200
SAG	IoTwins OpenDay	Industry	30/06/2022	Main dissemination event for Siemens	-	Organization of a workshop/techni cal workshop	Online	Europe	~60 invited
BEWG	Post on Social Media	General Public	4 July 2022	Post on LinkedIn (Warrant Hub European Funding Development)- Sharing of a LinkedIn post published by BRI to announce their IoTwins workshop	https://www.linke din.com/feed/upd ate/urn:li:activity: 694980629341922 9184	Social Media	online	International	83



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BEWG	Post on Social Media	General Public	25 May 2022	Post on LinkedIn (Warrant Hub) - News on IoTwins Workshop "Gemelli Digitali: applicazioni pratiche e case history" co- organized by UNIBO and BEWG-WG	https://www.linke din.com/posts/war ranthub warranth ub-horizoneurope- iotwins-activity- 693521749861931 4176- Hayo?utm_source =linkedin_share&u tm_medium=mem ber_desktop_web	Social Media	online	Italy	1567
BEWG	Post on Social Media	General Public	25 May 2022	Post on Facebook (Warrant Hub) - News on IoTwins Workshop "Gemelli Digitali: applicazioni pratiche e case history" co- organized by UNIBO and BEWG-WG	https://www.faceb ook.com/warranth ub/posts/pfbid02H vfry5RWYcprAFcq WSBpMG5r8H5kw g3wBtmb6AmU1V Lz7gkxbsoqDiGZh1 d1Mc1gl	Social Media	online	Italy	152
BEWG	IoTwins Workshop "Gemelli Digitali: applicazioni pratiche e case history"	Scientific community, Industry, Policy Makers	25 May 2022	Co-organization and participation to loTwins Workshop "Gemelli Digitali: applicazioni pratiche e case history"	https://innovate.cl ust-er.it/gemelli- digitali-le- applicazioni- pratiche-e-case- history/	Organization of a workshop/technical workshop	Bologna (Italy) and online	Italy	98



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
BEWG	Post on Social Media	General Public	May 2022	Post on LinkedIn (Warrant Hub European Funding Development) - News on IoTwins Workshop "Gemelli Digitali: applicazioni pratiche e case history" co-organized by UNIBO and BEWG-WG	https://www.linke din.com/feed/upd ate/urn:li:activity: 693330776907257 0369	Social Media	online	International	448
BEWG	Post on Social Media	General Public	April 2022	Post on LinkedIn (Warrant Hub European Funding Development)- Sharing of a LinkedIn post published by MARP to announce their IoTwins workshop	https://www.linke din.com/feed/upd ate/urn:li:activity: 691532631020237 2097	Social Media	online	International	71



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
MARP	An innovative business model for hybrid cloud industrial scenarios	General public	12.04.2022	Predictive Maintenance, Anomaly Detection and process control of manufacturing processes require a trial-and-repeat configuration and optimization phase that is costly. Automatizing this step with a pay-per-use cloud based service can speed up the process and reduce machine downtime and scrap production. In IoTwins we validates an innovative business model that bring the resources available in cloud accessible to applications running on manufacturing machines.	https://www.yout ube.com/watch?v =NQ-4DXq8Kxo	Organization of a workshop/techni cal workshop	Online (Zoom meeting)	Italy	16 (73% partecipati on rate)
SAG	IoT@Sieme ns Conference	Industry	22.03.2022- 25.03.2022	Conference on IoT- related topics, multiple presentations about work carried out in IoTwins	-	Organization of a conference	Nuremberg , Germany	World-wide	>200



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
SAG	loTwins OpenDay	Industry	30/06/2022	Main dissemination event for Siemens	-	Organization of a workshop/techni cal workshop	Online	Europe	~60 invited
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	28/07/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 695838433474344 9600	Social Media	Online		9
ART-ER	A NEW VIDEO ON THE DIGITAL TWIN OF THE CAMP NOU STADIUM HAS BEEN RELEASED	Scientific Community Industry Civil society Policy makers Media General public	28/07/2022	News	https://www.iotwins.eu/a-new-video-on-the-digital-twin-of-the-camp-nou-stadium-has-been-released/		Online		



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	BIG DATA AND PREDICTIVE MAINTENA NCE IN WIND SECTOR: AN IOTWINS EVENT	Scientific Community Industry Civil society Policy makers Media General public	12/07/2022	Event	https://www.iotwi ns.eu/events/big- data-and- predictive- maintenance-in- wind-sector-an- iotwins-event/	News published on IoTwins website	Online		
ART-ER	SIEMENS IOTWINS ONLINE OPEN DAY	Scientific Community Industry Civil society Policy makers Media General public	30/06/2022	Event	https://www.iotwi ns.eu/events/iotwi ns-online-open- day/	News published on IoTwins website	Online		
ART-ER	BARCELONA SUPERCOM PUTING CENTER AND FC BARCELONA ORGANISE AN OPEN DAY TO PRESENT IOTWINS PROJECT	Scientific Community Industry Civil society Policy makers Media General public	28/06/2022	News	https://www.iotwins.eu/barcelona-supercomputing-center-and-fc-barcelona-organise-an-openday-to-present-iotwins-project/	News published on IoTwins website	Online		



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	IOTWINS CINECA OPENDAY: IL DIGITAL TWIN DI UN SUPERCALC OLATORE	Scientific Community Industry Civil society Policy makers Media General public	28/06/2022	Event	https://www.iotwi ns.eu/events/iotwi ns-cineca- openday-il-digital- twin-di-un- supercalcolatore/	News published on IoTwins website	Online		
ART-ER	IOTWINS AT THE DATA WEEK 2022   RELIVE THE EVENT	Scientific Community Industry Civil society Policy makers Media General public	23/06/2022	News	https://www.iotwi ns.eu/iotwins-at- the-data-week- 2022-relive-the- event/	News published on IoTwins website	Online		
ART-ER	AN IOTWINS EVENT: BSC AND FCBARCELO NA FACILITY MANAGEM ENT SOLUTIONS	Scientific Community Industry Civil society Policy makers Media General public	22/06/2022	Event	https://www.iotwins.eu/events/an-iotwins-event-bsc-and-fcbarcelonafacility-management-solutions/	News published on IoTwins website	Online		



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	ACCELERAR E LA DIGITAL TRANSFOR MATION IN AZIENDA	Scientific Community Industry Civil society Policy makers Media General public	31/05/2022	Event	https://www.iotwi ns.eu/events/accel erare-la-digital- transformation-in- azienda/	News published on IoTwins website	Online		
ART-ER	IOTWINS @DATAWEE K 2022	Scientific Community Industry Civil society Policy makers Media General public	26/05/2022	Event	https://www.iotwi ns.eu/events/iotwi ns-dataweek- 2022/	News published on IoTwins website	Online		
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	25/05/2022	Tweet	https://twitter.co m/IoTwins_EU/sta tus/152946784476 4770305	Social Media	Online		48



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	25/05/2022		https://www.linke din.com/feed/upd ate/urn:li:activity: 693518066654007 7056	Social Media	Online		13
ART-ER	EVENTO GEMELLI DIGITALI - APPLICAZIO NI PRATICHE E CASE HISTORY	Scientific Community Industry Civil society Policy makers Media General public	25/05/2022	Event	https://www.iotwi ns.eu/events/even to-gemelli-digitali- applicazioni- pratiche-e-case- history/	News published on IoTwins website	Online		
ART-ER	IOTWINS @SIMODEC FAIR	Scientific Community Industry Civil society Policy makers Media General public	24/05/2022	Event	https://www.iotwi ns.eu/events/iotwi ns-simodec-fair/	News published on IoTwins website	Online		



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	ROBOTICS ACADEMY CONFERENC E FOR INDUSTRIAL ROBOTICS "RACIR 2022"	Scientific Community Industry Civil society Policy makers Media General public	20/05/2022	Event	https://www.iotwi ns.eu/events/robo tics-academy- conference-for- industrial-robotics- racir-2022/	News published on IoTwins website	Online		
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	19/05/2022	Tweet	https://twitter.co m/loTwins_EU/sta tus/152723872887 9591424	Social Media	Online		114
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	19/05/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 693300326482936 2179	Social Media	Online		12



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	ETXE TAR AND AIGURA IOT AT IOT SOLUTIONS WORLD CONGRESS 2022.	Scientific Community Industry Civil society Policy makers Media General public	18/05/2022	News	https://www.iotwi ns.eu/etxe-tar- and-aigura-iot-at- iot-solutions- world-congress- 2022/	News published on IoTwins website	Online		
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	17/05/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 693235629303891 1488	Social Media	Online		
ART-ER	IOTWINS AT DATA WEEK 2022	Scientific Community Industry Civil society Policy makers Media General public	17/05/2022	News	https://www.iotwi ns.eu/iotwins-at- data-week-2022/	News published on IoTwins website	Online		



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	THE 2ND WORKSHOP ON CLOUD- TO-THINGS CONTINUU M: TOWARDS THE CONVERGE NCE OF IOT, EDGE AND CLOUD COMPUTIN G - CLOUD2THI NGS 2022	Scientific Community Industry Civil society Policy makers Media General public	16/05/2022	Event	https://www.iotwins.eu/events/the-2nd-workshop-on-cloud-to-things-continuum-towards-the-convergence-ofiot-edge-and-cloud-computing-cloud2things-2022/	News published on loTwins website	Online		
ART-ER	IOTWINS PROJECT HOSTED BY CLUST-ER INNOVATE	Scientific Community Industry Civil society Policy makers Media General public	11/05/2022	News	https://www.iotwi ns.eu/iotwins- project-hosted-by- clust-er-innovate/	News published on loTwins website	Online		



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	BSC AT MIT SLOAN SPORTS ANALYTICS CONFERENC E	Scientific Community Industry Civil society Policy makers Media General public	03/05/2022	News	https://www.iotwi ns.eu/bsc-at-mit- sloan-sports- analytics- conference/	News published on IoTwins website	Online		
ART-ER	IOTWINS AT IOT SOLUTIONS WORLD CONGRESS	Scientific Community Industry Civil society Policy makers Media General public	02/05/2022	News	https://www.iotwi ns.eu/iotwins-at- iot-solutions- world-congress/	News published on IoTwins website	Online		
ART-ER	IOTWINS AT INTELLIGEN T AND CONNECTE D MACHINING CONFERENC E	Scientific Community Industry Civil society Policy makers Media General public	29/04/2022	News	https://www.iotwins.eu/iotwins-at-intelligent-and-connected-machining-conference/	News published on IoTwins website	Online		



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	20/04/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 692255270710690 6112	Social Media	Online		104
ART-ER	THE IOTWINS DEDICATED EVENT BY MARPOSS	Scientific Community Industry Civil society Policy makers Media General public	20/04/2022	News	https://www.iotwi ns.eu/the-iotwins- dedicated-event- by-marposs/	News published on IoTwins website	Online		
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	12/04/2022	Tweet	https://twitter.co m/loTwins_EU/sta tus/151380364096 3801089	Social Media	Online		864



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	AN INNOVATIV E BUSINESS MODEL FOR HYBRID CLOUD INDUSTRIAL SCENARIOS	Scientific Community Industry Civil society Policy makers Media General public	12/04/2022	Event	https://www.iotwi ns.eu/events/an- innovative- business-model- for-hybrid-cloud- industrial- scenarios/	News published on IoTwins website	Online		
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	11/04/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 691929464122996 3264	Social Media	Online		30
ART-ER	CYBERNETIC S ANALYZE — IMPROVE EFFICIENCY AND REDUCE CYCLE TIME WITH MACHINE LEARNING	Scientific Community Industry Civil society Policy makers Media General public	07/04/2022		https://www.iotwins.eu/events/cybernetics-analyze-improve-efficiency-andreduce-cycle-timewith-machine-learning/	News published on IoTwins website	Online		



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	05/04/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 691710070038451 4048	Social Media	Online		44
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	05/04/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 691708255663912 1408	Social Media	Online		3
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	05/04/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 691708124869994 4961	Social Media	Online		3



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	AN INNOVATIV E BUSINESS MODEL FOR HYBRID CLOUD INDUSTRIAL SCENARIOS WEBINAR	Scientific Community Industry Civil society Policy makers Media General public	31/03/2022	News	https://www.iotwi ns.eu/an- innovative- business-model- for-hybrid-cloud- industrial- scenarios- webinar/	News published on loTwins website	Online		
ART-ER	CETIM AT SIMODEC 2022	Scientific Community Industry Civil society Policy makers Media General public	30/03/2022	News	https://www.iotwi ns.eu/cetim-at- simodec-2022/	News published on IoTwins website	Online		
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	21/03/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 691166390600011 3664	Social Media	Online		28



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	GCL INTERNATIO NAL AT RACIR 2022	Scientific Community Industry Civil society Policy makers Media General public	14/03/2022	News	https://www.iotwi ns.eu/gcl- international-at- racir-2022/	News published on loTwins website	Online		
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	07/03/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 690655317460243 6608	Social Media	Online		113
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	22/02/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 690182545323002 6752	Social Media	Online		104



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	08/02/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 689675789265001 6768	Social Media	Online		33
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	24/01/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 689138394814101 9136	Social Media	Online		86
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	22/01/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 688633436005260 4928	Social Media	Online		54



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	20/01/2022	Tweet	https://twitter.co m/IoTwins_EU/sta tus/148415651286 4022529	Social Media	Online		2862
ART-ER	Social media post	Scientific Community Industry Civil society Policy makers Media General public	20/01/2022	Linkedin	https://www.linke din.com/feed/upd ate/urn:li:activity: 688993049592102 9120	Social Media	Online		7
ART-ER	DIGITAL TWINS FOR INDUSTRY: ONLINE TECH4FUTU RE'S INTERVIEW WITH CINECA	Scientific Community Industry Civil society Policy makers Media General public	11/01/2022	News	https://www.iotwins.eu/digital-twins-for-industry-online-tech4futures-interview-with-cineca/	News published on IoTwins website	Online		



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
ART-ER, UNIBO, BRI, CETIM	BDVA Data Week 2022	Scientific Community Industry Civil society Policy makers Media General public	25.05.2022	Presentation of IoTWins project, focusing on the platform and AI services. Testbed #1, #6, #8 have been also presented, showing their relation with the platform	https://data-week- 2022.b2match.io/c omponents/20122 ?session=c2Vzc2lv bjoxMTkxNzM%3D	Participation to a workshop	ON LINE	EU	over 1000 participant s (whole Data Week event)
FILL	Long Night of Research	General public	20/05/2022	Presentation of digitalization of machine-tool and testbed presentation showing advantages and benefits of using edge and cloud computing	https://www.fill.co .at/en/news-and- events/news/das- war-die-lange- nacht-der- forschung	Organization of an Open Day	Gurten, Austria	Austria	>800
FILL	Live Webinar	Industry, Customers	07/04/2022	Presentation of testbed and IoTwins solution	https://www.fill.co .at/en/news-and- events/events/we binar-iotwins	Organization of a workshop/techni cal workshop	Online	Europe	10



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
FILL	Social Media posting	Industry, Customers	Jan 2022	Social media posting announcing and sharing the IoTwins video	https://www.linke din.com/posts/fill talkingaboutiotwin s-cloud- computing-to- activity- 688704527441441 1776- kiL?utm_source= share&utm_mediu m=member_deskt op	Social Media	Online	Worldwide	1735
FILL	Social Media posting	Industry, Customers	01/04/2022	Social media posting announcing the webinar about Testbed 2	https://www.linke din.com/posts/fill iotwins-syncromill- processingmachin e-activity- 691446840688053 8624- AUnf?utm_source =share&utm_medi um=member_desk top	Social Media	Online	Worldwide	1208
FILL	EMO	Industry, Customers	October 2021	Booth at EMO trade fair presenting solutions developed within loTwins	https://www.fill.co .at/en/news-and- events/media/fill- presents-smart- innovations-on-its- return-to-trade- fairs	Exhibition	Milan	Worldwide	>1000



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
KKWS	Big data and predictive maintenanc e in wind sector	Industry	12.07.2022	- Technical and overall presentation of the IoTwins project Specific presentation of TB1 objective and results All the TB1 partners will present their specific activities and results Possible development after the end of the project - Interactive questioner to get feedback from the audience on the technological result of the project Objective of the event: present project results and get feedback from the audience on the perception about our development and how this technology could be deployed in mass production application	N.A.	Organization of a workshop/techni cal workshop	Online (Teams meeting).	UK, Germany, Italy, Spain, Nederand, Portugal, Belgium, Danmark, Norwey, France)	61 registered, 28 participant s



Partner	Title of the activity performed	Type of audience	Date	Description of the activity	Link	Type of activity	Place of the activity	Countries addressed	Audience reached through the activity
TTT industri al	Overview - Edge Computing and it's potential for machine builder	Industry	H1 2022	Technical workshop with industrial partner to enlarge the ecosystem. Presenting the potential of cloud-edge computing with Al applications. The workshop involved the presenation of results out of the research project IoTwins.	in-person at premise of TTT Industrial	Organization of a workshop/techni cal workshop	on- premise, Vienna	DACH region	50
TTT industri al	Technical Training on emerging edge- computing technologie s	Developer / Technician	2021-2022	Technical inhouse training on the topic of computing on the edge, principles and architectures. Within these trainings the technical proposed solutions of the project where introduced and discussed in the context of the NERVE framework	in-person at premise of TTT Industrial	Organization of a training event	on- premise, Vienna	Austria	30-40

Table 3 - Partners' dissemination activities



## **6.2 Scientific dissemination**

## **6.2.1** Accepted Papers

V	VP	Date of Publication	Partners Involved	Type of Scientific Publication	Title of the Scientific Publication	DOI	ISSN or eSSN	Authors	Title of the journal or equivalent		Publisher	Relevant Pages in the Issue	Is available under open access?	
V	VP5	01/04/2020	BSC	Scientific journal publication	Measuring spatial subdivisions in urban mobility with mobile phone data	10.1145 /336642 4.33843 70		EduardoGraells Garrido, Irene Meta, Feliu Més Serra Burriel, Patricio Alejandro Reyes Valenzuela and Fernando Cucchietti	ACM	N/A	ACM	485–494	Yes	https://upcom mons.upc.edu/h andle/2117/336 719
V	VP5	05/06/2020	UNIBO, CINECA	Journal	Countdown Slack: A Run- Time Library to ReduceEnerg y Footprint in Large-Scale MPI Applications	ひとひ ろいい	eSSN: 1558- 2183	Daniele Cesarini, Andrea Bartolini, Andrea Borghesi, Carlo Cavazzoni, Mathieu Luisier, Luca Benini	Transaction s on Parallel and Distributed	31	IEEE	2696- 2709	Yes	https://ieeexplo re.ieee.org/sta mp/stamp.jsp?a rnumber=91096 37



WP	Date of Publication	Partners Involved	Scientific	Title of the Scientific Publication	DOI	ISSN or eSSN	Authors	Title of the journal or equivalent		Publisher		Is available under open access?	
WP4	25 October 2021	FILL	Extended paper for peer reviewed publication	Analyzing the impact of different drive concepts on machine tool dynamics using mechatronic system simulation	N/A	N/A	Roman Binder	NAFEMS World Congress 2021	N/A	NAFEMS World Congress 2021	N/A	N/A	N/A



WP	Date of Publication	Partners Involved	Type of Scientific Publication	Title of the Scientific Publication	DOI	ISSN or eSSN	Authors	Title of the journal or equivalent	Num Publisher ber	Relevant Pages in the Issue	Is available under open access?	Link
WP2	10-13 May 2021	UNIBO, SAGOE, INFN, FOKUS, ESI	Conference (Workshop)	Design and Implementati on of a	021.000 75	1- 7281-	Borghesi,	2021 IEEE/ACM 21st Internation al Symposium on Cluster, Cloud and Internet Computing (CCGrid)	2101 IEEE 3912	N/A	N/A	https://ieeexplo re.ieee.org/doc ument/9499575
WP3	20-23 June 2021	SAGOE	Conference	Re-enacting rare multi- modal real- world grid events to generate ML training data sets		1- 7281-	Daniel Hauer, Matthias Bittner, Stephan Cejka a , Ralf Mosshammer, Florian Kintzler, Thomas Leopold, Stefan Wilker	al Symposium on Industrial	N/A IEEE	N/A	N/A	https://ieeexplo re.ieee.org/doc ument/9576350



WP	Date of Publication	Partners Involved	Scientific	Title of the Scientific Publication	DOI	ISSN or eSSN	Authors	Title of the journal or equivalent		Publisher	Relevant Pages in the Issue	Is available under open access?	
WP3	20-23 June 2021	SAGOE	Conference	Context Aware Monitoring for Smart Grids		1- 7281-	Daniel Hauer, Maximilian Götzinger, Axel Jantsch, Florian Kintzler	2021 IEEE 30th Internation al Symposium on Industrial Electronics (ISIE)	N/A	IEEE	N/A	N/A	https://ieeexplo re.ieee.org/doc ument/9576488
WP2	19 March 2021	UNIBO	Journal	Application- Driven Network- Aware Digital Twin Management in Industrial Edge Environment s	/TII.202 1.30674 47		Paolo Bellavista, Carlo Giannelli, Marco Mamei, Matteo Mendula, Marco Picone	Transaction s on Industrial	me: 17, Issue:	IEEE	7791 - 7801	Under IEEE publishing guidelines	https://ieeexplo re.ieee.org/doc ument/9382113



WP	Date of Publication	Partners Involved	Type of Scientific Publication	Title of the Scientific Publication	DOI	ISSN or eSSN	Authors	Title of the journal or equivalent	Num ber	Publisher	Pages in	Is available under open access?	Link
WP5	14 March 2021	UNIBO, CINECA	Conference (Workshop)	•	10.1007 /978-3- 030- 71593- 9 22		Alessio Burrello, Daniele Jahier Pagliari, Andrea Bartolini, Luca Benini, Enrico Macii, and Massimo Poncino	Notes in	volu me 1248	Springer	pp 277- 289	Under Springer publishing guidelines	https://link.spri nger.com/chapt er/10.1007/978 -3-030-71593- 9 22
WP3 / WP5	21 May 2021	UNIBO, CINECA	Journal	Anomaly Detection and Anticipation in High Performance Computing Systems	10.1109 /TPDS.2		A Borghesi, M Molan, M Milano, A Bartolini	Transaction s on Parallel and Distributed Systems	me: 33, Issue:	IEEE		Under IEEE publishing guidelines	https://ieeexplo re.ieee.org/doc ument/9439169
WP3 / WP5		UNIBO, CINECA	Journal	Predictive Maintenance	/JIOT.20		A Borghesi, A Burrello, A Bartolini	IEEE Internet of Things Journal		IEEE		Under IEEE publishing guidelines	https://ieeexplo re.ieee.org/doc ument/9606215



WP	Date of Publication	Partners Involved	Type of Scientific Publication	Title of the Scientific Publication	DOI	ISSN or eSSN	Authors	Title of the journal or equivalent		Publisher	Relevant Pages in the Issue	Is available under open access?	
WP5		UNIBO, CINECA	Conference	An Explainable Model for Fault Detection in HPC Systems	https:// doi.org/ 10.1007 /978-3- 030- 90539- 2_25		Marrin Molan, Andrea Borghesi, Francesco Beneventi, Massimiliano Guarrasi, Andrea Bartolini	Lecture Notes in Computer Science book series (LNCS, volume 12761) - ISC High Performanc e 2021	N/A	Springer	378-391	No	https://link.spri nger.com/chapt er/10.1007/978 -3-030-90539- 2 25
WP5	5 May 2021	BSC	Journal	A city of cities: Measuring how 15-minutes urban accessibility shapes human mobility in Barcelona	https://doi.org/ 10.1371 /journal. pone.02 50080		Eduardo Graells-Garrido, Feliu Serra- Burriel,Francisc o Rowe, Fernando M. Cucchietti, Patricio Reyes	PLoS ONE		PLOS		Yes	https://journals. plos.org/ploson e/article?id=10. 1371/journal.po ne.0250080#ref erences



WP	Date of Publication	Partners Involved	Type of Scientific Publication	Title of the Scientific Publication	DOI	ISSN or eSSN	Authors	Title of the journal or equivalent	Publisher	Relevant Pages in the Issue	Is available under open access?	Link
WP5	12 October 2021	BSC &FCB	Journal	The Camp Nou Stadium as a Testbed for City Physiology: A Modular Framework for Urban Digital Twins	10.1155 /2021/9		Irene Meta, Feliu Serra- Burriel, José C. Carrasco- Jiménez, Fernando M. Cucchietti, Carla Diví-Cuesta, Carlos García Calatrava, David García, Eduardo Graells-Garrido, Germán Navarro, Quim Làzaro, Patricio Reyes, Diego Navarro-Mateu et al.	Advanced Computer Simulation Technology in Smart Cities	Hindawi		Yes	https://www.hi ndawi.com/jour nals/complexity /2021/9731180 /
WP4	05/06/2022	ETXE (AIN) & BSC	Journal	Asymmetric HMMs for online ball- bearing health assessments			Carlos Puerto- Santana, Concha Bielza, Javier Díaz- Rozo, Filippo Mantovani, Gaizka Virumbrales, Jesus Labarta, Pedro Larrañaga	IEEE Internet of Things Journal	IEEE	Yes	Yes	https://ieeexplo re.ieee.org/abst ract/document/ 9770192 https://upcom mons.upc.edu/b itstream/handle /2117/367523/ TII Special Issu e.pdf?sequence =1



WP	Date of Publication	Partners Involved	Type of Scientific Publication	Title of the Scientific Publication	DOI ISSN or eSSN	Authors	Title of the Nu journal or be equivalent		Relevant Pages in the Issue	under open
WP 4	09/01/2022	ETXE (AIN)	Journal	Feature Saliencies in Asymmetric Hidden Markov Models		Carlos Puerto- Santana, Pedro Larrañaga, Concha Bielza	IEEE Transaction s on Neural Networks and Learning Systems	IEEE	Yes	Yes
WP2		Thales	Conference	Watermarkin g at the service of intellectual property rights of ML models		Katarzyna Kapusta, Vincent Thouvenot and Olivier Bettan	Conference on Artificial Intelligence for Defense			
WP2		Thales	Conference	A Protocol for Secure Verification of Watermarks Embedded into Machine Learning Models	10.1145 /343788 0.34604 09	Katarzyna Kapusta, Vincent Thouvenot, Olivier Bettan, Hugo Beguinet, and Hugo Senet		Association for Computing Machiner yNew YorkNYUnited States		



## **6.2.2 Submitted papers**

WP	Expected Date of Publication	Partners Involved	Scientific	Title of the Scientific Publication	0	Authors	Title of the journal or equivalent	Publisher	Is available Link under open access?
WP5		BSC &FCB	Journal	When are they coming? Understandin g and forecasting the timeline of arrivals at FC Barcelona stadium on match days		Fernando; Graells-Garrido,	Series C		



## 6.3 News and events on IoTwins Website and Twitter

At the very beginning of the project, an online form aimed at collecting news and events to be promoted was prepared. Whenever a partner fills in the form, ART-ER check it and then publish the content on the website.

In order to assure a constant flow of fresh contents on the website, an editorial calendar was prepared, where news sent by partners were integrated with a series of news related to the project's topics that were found and selected from the web. The selection was made taking into account official and reliable sources. The most important ones were also posted via Twitter.

So far, 101 news and events items were published on the website.



