

IOT SOLUTIONS WORLD CONGRESS

REPORT 2023

*GAME-CHANGING
TECHNOLOGIES
FOR INDUSTRY
TRANSFORMATION*




Fira Barcelona

OFFICIAL PARTNERS

 Industry IoT
Consortium.

 digital twin™
CONSORTIUM

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Marc Tarragó
EVENT DIRECTOR

IOTSWC23 was a resounding success. It was invigorating to welcome more than **15,600 visitors from over 100 countries**: discover the latest and most innovative solutions from over **330 exhibitors** and learn from **250 dynamic speakers** presenting real-world use cases and sharing digital innovation strategies on-stage.

We had the opportunity to welcome Sean O'Reagain, Deputy Head of Unit Industry 5.0, Directorate General for Research, and Innovation of the European Commission. He talked about how the human-centric approach in the path to Industry 5.0 has become critical. And so have sustainability and resilience in a world where workers want employers who share their values.

We learned that **Productivity and growth are not sufficient anymore and that in this transition from Industry 4.0 to Industry 5.0, what makes a difference is the people**. Now it is time to invest in technology to adapt to the enormous challenges faced by the industry and the Planet.

On the show floor, at the **Startup pavilion**, our visitors could meet **ten innovative young projects** able to scale to the next level. Also, at the **Testbed area**, we discovered how new technologies and services can be **deployed in real-world conditions**.

As happened last year, IOT Solutions World Congress and Integrated Systems Europe (ISE), the world's leading professional audiovisual (AV) and systems integration show, joined forces to provide an unparalleled ecosystem for digital transformation to professionals from many industries. We had the opportunity to welcome thousands of ISE visitors interested in the power of IoT, AI, Digital Twin, or 5G, among other disruptive technologies.

Despite the positive results of the synergies between the two events, **IOTSWC has decided to move to May**, thinking of the interest of both visitors and exhibitors. IOT Solutions World congress keeps consolidating as the leading event in trends in digital transformation based on disruptive technologies and has become a unique and vibrant technological ecosystem.

It is the ideal place to gather once a year in an idyllic location like sunny Barcelona.

Our vision is to keep evolving from IoT to all the advanced technologies and solutions that disrupt and change all industries. We are here to help business leaders learn to navigate what's next and focus on technologies with the most significant business impact. I am thrilled to accept the challenge of leading this event after Roger Bou's direction over the past seven years. I want to thank him especially and our partners, Industry IoT Consortium, and the Digital Twin Consortium, without whom this event couldn't have been what it is today.

I would love to welcome you all personally next year, from **21-23 May 2024, in Barcelona Gran Via Venue** to unlock the power of disruptive technologies and their impact on changing the world as we know it.



Facts & Figures: Onsite

15,600
VISITORS

100+
COUNTRIES

330
EXHIBITORS

250
SPEAKERS

172
SESSIONS





Media coverage

3,5K
Editorial mentions

12M€
Economic value

1,8B
Potential reach

83
Countries

Online coverage

+150K
Website users

567K
Pageviews

70M
Impressions in digital advertising

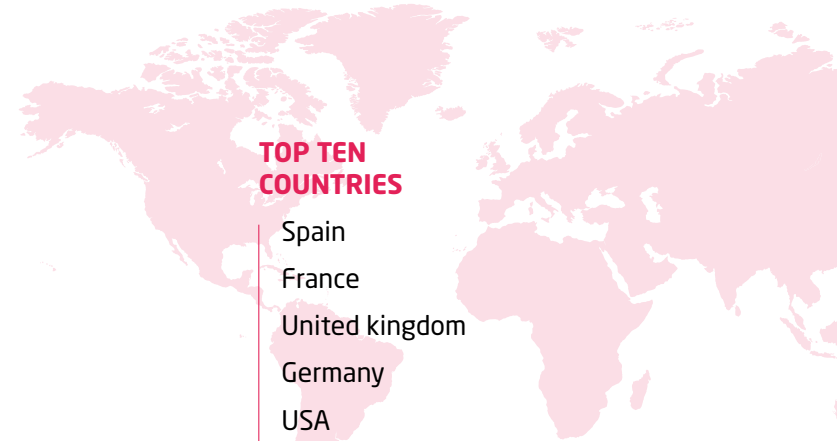
+50K
Followers on Social Media

+3M
Organic Impressions



Profiles

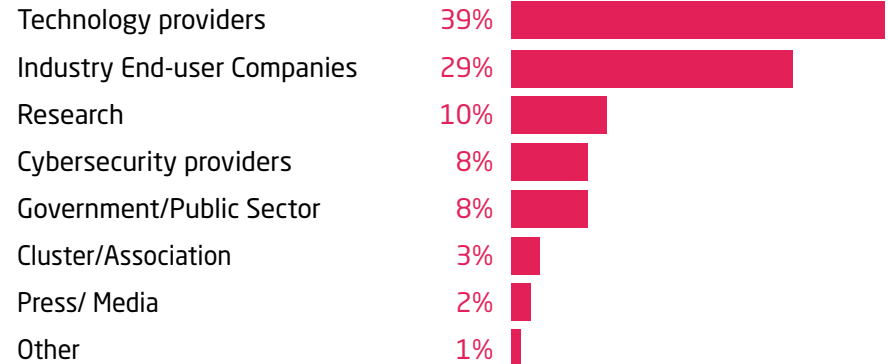
67%
DECISION MAKERS



TOP TEN COUNTRIES

- Spain
- France
- United kingdom
- Germany
- USA
- Italy
- Netherlands
- Belgium
- Switzerland
- Portugal

TYPE OF COMPANY





END-USER COMPANIES BY VERTICAL INDUSTRY

Manufacturing _____	21%	Chemical _____	3%
Consultancy _____	14%	Robotics _____	3%
Energy _____	11%	Government/Education/ Research _____	3%
Healthcare _____	8%	Legal/Real _____	3%
Buildings _____	7%	Agriculture _____	2%
Transportation _____	6%	Hospitality _____	2%
Food _____	5%	Investment _____	2%
Wholesale/Retail _____	4%	Association/Cluster/NGO _____	1%
Aerospace/Defense _____	3%		
Financial/Banking _____	3%		

AIM OF ATTENDING

Explore new ideas & trends	16%	
Create business opportunities	14%	
Searching for technology solutions	14%	
Looking for partnerships	13%	
Socialize with peers	11%	
Showcase technology solutions	10%	
Cluster/Association/Research networking	9%	
Looking for investors / Invest in projects	6%	
Job seeking / Talent	5%	
Press/Media networking	4%	

The Congress Tracks

The Congress is dedicated to creating a dialog between leaders who are driving powerful digital innovation initiatives and are transforming industries. As the challenges facing our planet grow, so does the need for game-changing solutions.

INDUSTRY JOURNEYS

For targeted audience groups across multiple industry sectors and markets. We learned how these technologies are transforming industries and how they can be foundational to your business.



MANUFACTURING / SUPPLY CHAIN



HEALTHCARE



ENERGY / UTILITIES



SMART BUILDINGS / CITIES



CONNECTED TRANSPORTATION



TECHNOLOGY STAGES



INDUSTRY IOT

Exploring the latest challenges, opportunities, and innovations within the Internet of Things and its impact on vertical industries including, manufacturing, transportation, supply chain, government, energy, utilities, healthcare, retail, and more. Sessions on this stage highlighted innovative use cases of IoT and the results that are transforming industries by creating greater efficiency, sustainability, and connection to the people served.



DIGITAL TWIN

No longer a nice-to-have, digital twins have shifted to become a critical business tool for competitive advantage. The world's most influential knowledge-sharing and benchmarking stage explored real-world case studies of how leading organizations are adopting and capitalizing on digital twins. Expert speakers helped our audience build a clear, actionable, and flexible digital twin roadmap to capture bottom-line benefits.



AUGMENTED REALITY

Sessions on this stage showcased how Augmented Reality can be used in industry solutions, including the status of the technology at work today and what we can expect in both the near and far future. Should AR be a top priority for your company? We explored the use cases and applications that are showing the greatest ROI and learn how to find low-hanging fruits in your company.



ARTIFICIAL INTELLIGENCE

As more and more things are connected to IoT, the volume of data associated with and generated by IoT devices is increasing exponentially. Managing and making sense of this data is essential if IoT solutions are to deliver value. A new spectrum of possibilities opens when IoT and technologies such as machine learning and AI are combined to provide enterprises with the tools needed to interpret relevant, but sometimes non-structured, data. We heard from expert speakers on recent, relevant developments and applications of AI across various industries as they share challenges and opportunities that shape their AI strategies and success.



EDGE COMPUTING

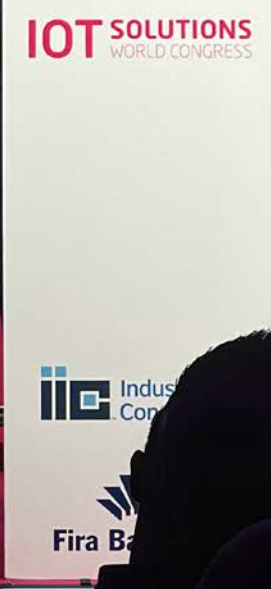
Edge computing, the practice of moving computer power physically closer to where data is generated, helps to address latency, network bandwidth, security, reliability, and data gravity challenges. With a strong focus on edge use cases and edge users, sessions on this stage were designed to help our audience stay on top of the latest developments and trends on the edge and provide a realistic look at how companies can activate new opportunities and capabilities previously unimaginable.



5G / NEXT-GENERATION CONNECTIVITY

High-performance connectivity is at the heart of the digital transformation of industrial systems and selecting the most flexible and cost-efficient connectivity option is one of the critical decisions that enterprises will make. This stage spotlighted use cases that are possible, thanks to new technologies like 5G. We learned how 5G fits with other innovative technologies such as AI and edge computing, opening new doors of opportunity and sparking innovation of what is possible.

Highlighted Sessions



Plenary Session:

The Key to Future-Proofing Industry: Capitalize on Flexible and Adaptable Technologies

Sean O'Reagain, Deputy Head of Industry 5.0 at the European Commission kicked off IOT Solutions World Congress 2023 with an update on Industry 5.0 as a human-centric, resilient, and sustainable approach to the digitalization of industry. We heard from the European Commission how the Industry 5.0 journey has moved from concept to rollout and implementation. This awe-inspiring session helped the audience to discover the profound impact that digitalization is having on industry innovation, explored the challenges and opportunities that this presents, and considered the significant implications for business strategies.

Speaker:



Séan O'Reagain
Deputy Head of Unit ' Industry 5.0; Directorate General for Research and Innovation
European Commission

Keynote Session:
The future of IoT in Home and building automation

This Keynote opened by KNX Association CEO, Heinz Lux, with a review of how a solid foundation guarantees a future-proof, secure and state-of-the-art technology.

Speaker: Heinz Lux
CEO, **KNX Association**



Keynote Session:
Equipment as a Service: More than A Theoretical Model

Equipment as a Service (EaaS) requires understanding and building the various components. During implementation, industrial companies need to address core elements of change, such as program enablement, financial structuring, asset management, technology, and risk solutions. The stakes are high. For that reason, a turnkey EaaS bundle becomes a stepping stone to driving long-term value and bringing theory into practice. Ultimately, managing potential challenges and adopting a unified EaaS approach across the organization leads to better chances for success.

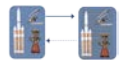
Speaker: Jessica Poliner
CEO, **Relayr**



Parallel Session:
Digital Twins and IoT: Integrating the Physical and Virtual Worlds

The value of Digital Twins can only be realized if Digital Twins and their virtual environment contain the same data and resulting information as their corresponding Physical Twins and real-world environment. This means that the need for more extensive, faster, and richer sensing of the physical world will dramatically increase as valuable use cases proliferate. In addition, we will evolve from working in either the physical or virtual environments to integrating and working simultaneously in both environments. Dr. Grieves discussed his views on the opportunities and issues of this evolution.

Speaker: Michael Grieves
Chief Scientist | Executive Director,
Digital Twin Institute



Panel Discussion:
Vision and Industry Initiatives
Driving the Future of Mobility

Software-defined mobility represents a new era of connected intelligent transportation platforms leveraging multiple ecosystems and significant revenue by the middle of this decade. Digital twins, 5G, and Edge will accelerate innovation and collaboration. Our panel of industry experts explored the challenges and opportunities that defined this future-forward intelligent transportation and connected mobility ecosystem, underlying technology requirements, fundamental changes to data and autonomy platforms, functional safety, and sustainable benefits.

Speakers:



Said Tabet
 Chief Architect,
 Emerging Technologies
 & Ecosystems, CTO
 Office
Dell Technologies



Jeff White
 CTO - Edge | Chief
 Technology &
 Information Office
Dell Technologies



Nikos Michalakis
 Distinguished Technical
 Fellow **Woven Planet**

Panel Discussion:
Industry 5.0: Productivity, People
and Planet

Industry 5.0 provides a vision of an industry that looks beyond efficiency and productivity as the sole goals and reinforces the role and contribution of industry to society. It places the wellbeing of the worker at the center of the production process and uses new technologies to provide prosperity beyond jobs and growth while respecting the production limits of the planet. It complements the existing "Industry 4.0" approach by specifically putting research and innovation at the service of the transition to a sustainable, human-centric and resilient future industry. In this panel discussion, we hosted government and industry leaders from across the globe discussing Industry 5.0 in vision and practice.

Speakers:



Ken Forster
 Executive Director,
Momenta Engelberg



Girish Juneja
 Senior Vice President
 & Chief Digital Officer
Dover Corporation



Jessica Poliner
 CEO, **Relay**



Séan O'Reagain
 Directorate General for
 Research and Innovation
European Commission



Cyril Perducat
 Chief Technology Officer
**Rockwell
 Automation**

Keynote Session:
ICS Security: How to Navigate
Successfully in a Multi-Vendor and
Multi-Site World

Production and process industry digitalization and connectivity to IT services and cloud introduce new threats in OT. New connections and smart IoT devices tear down the ICS isolation myth. Vendors must be prepared and support OT asset owners to manage the risks of possible consequences. When new IoT assets and connectivity are added to production networks, new countermeasure requirements must be considered. Valmet is developing secure ICS products and services using on-premises and cloud computing. The session introduced concerns and new OT countermeasure solutions responding to new threats and managing risks for production.

Speakers:



Ari Rajamäki
 Product Manager,
Cybersecurity
Valmet



Dmitri Belotchkin
 Technical Director,
 Europe
TXOne Networks



Keynote Session:
Under Data Review: Energy Savings

The Industry faces the challenges of Net Zero targets and rising energy costs. Expert analysis of data from digitally connected motors and drives can identify the best potential ones to boost energy efficiency. This is where we can monitor and evaluate data in ways that were never possible before. This keynote discussed how a digital powertrain energy appraisal has a lot to offer industrial companies as they take action toward Net Zero targets and look for ways to cut energy costs. Identify the best opportunities that yield great returns with just small improvements across entire fleets of motors.

Speakers:



Mari Emilia Haapala
 Motion Digital Lead
ABB



Panel Discussion:
Driving Value for Your Business
with Digital Twins

Multiple analysts forecast that by 2030, the Digital Twin market revenue will exceed \$100 billion, representing over 40% CAGR from today. Virtually every industry can benefit from the use of Digital Twins. The list of companies using digital twins recognizing transformative business outcomes and commensurate value continues to increase. We discussed the challenges, needs, uses, and business value of digital twins and we learned from industry leaders how to compose Digital Twin to easily scale to help ensure companies are on the path to achieving significant value during their Digital Twin journey.

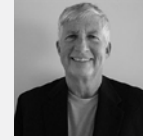
Speakers:



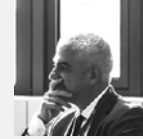
Dan Isaacs
 Chief Strategy Officer,
 OMG and General
 Manager, **Digital Twin
 Consortium**



Christian Kehrer
 Business Development
 Director, **System
 Simulation Altair**



Michael Grieves
 Chief Scientist |
 Executive Director,
**Digital Twin
 Institute**



Giuseppe Padula
 Founder **The Beta
 Factory**



Carlos Toro Senior
 Manager (Digital Twins)
 - Digital Architecture
**NTT Data Europe and
 latam**

Parallel Session:

Orbital Reef: A Low Earth Orbit Destination for Industry Transformation

This session explored how the future of space will be advanced with Orbital Reef, a commercially developed, owned, and operated space station to be built in low Earth orbit. Led by principal partners Blue Origin and Sierra Space, Orbital Reef will open the next chapter of human space exploration and development by facilitating the growth of a vibrant ecosystem and business model for the future. Designed to open multiple new markets in space, Orbital Reef will provide anyone with the opportunity to establish their own address in orbit.

Speakers:



Timmy Mbaya
Orbital Reef Avionics and Software Lead
Blue Origin



Amalaye Oyake
Senior Flight Software Engineer
Blue Origin

Parallel Session:

How Lockheed Martin Built a Delivery System using IoT and Robots

Lockheed Martin recently used IoT and robotics to build a flexible, real-time delivery system for their manufacturing center. The new connected interface and data lake allows machine operators to order tools on demand, as well as dispatch a Boston Dynamics Spot robot to deliver tools to machining centers. In this session, we learned about how the system uses a data lake, machine learning, and IoT to provide predictive ordering and direct Spot to run inspection tasks to keep the facility running smoothly.

Speakers:



Dave Bader
WW GTM Lead for Robotics & Factory/Warehouse Automation
Amazon.com, Inc.



Tim Wilson
IoT Enablement Specialist
Amazon Web Service (AWS)

Parallel Session:

Fireside Chat: Digital Transformation on the Move at New Jersey Transit

NJ TRANSIT rapidly transformed its IT infrastructure to focus on rider engagement and safety, deploying solutions to support a fleet of 3500+ vehicles across three U.S. states. Using remote sensing, predictive analytics, and cutting-edge security initiatives, Lookman takes a servant leadership approach to evolve a service used by a million daily riders and elevate public transit to the next level.

Speakers:



Tim Scannell
Director of Strategic Content & Operations
CIO Executive Council/
IDC



Lookman Fazal
Chief Information & Digital Information Officer
NJ TRANSIT

Parallel Session:

Technology Leadership at the Crossroads - Challenges, Choices, and Concerns

Technology leaders today face a range of concerns as they work to make existing systems more resilient, apply innovative tech solutions that drive revenue, and adapt to shifting internal and external customer demands. Key areas of focus this year include IT talent retention and recruitment, resiliency planning, infrastructure upgrades and legacy elimination, security, the practical application of AI, and emerging technology. This session explored the changing face of the IT organization as it adjusts and, in many cases, reinvents itself to meet new demands and challenges.

Speakers:



Tim Scannell
Director of Strategic Content & Operations
CIO Executive Council/
IDC



Lookman Fazal
Chief Information & Digital Information Officer
NJ TRANSIT



Sunil Dadlani
CIO, **Atlantic Health System**



Menekli Berke
VP/IT and Head of Digital Platform Services
BSH Home Appliances

Parallel Session:

High Value Manufacturing Catapult - Driving Industrial Foresight and Transformation

This session explored how The High Value Manufacturing Catapult, UK's strategic research & innovation hub for industry, operates and how it is responding to the UK's areas of importance for manufacturing. We shared use-cases that showed how IoT is enabling data-centric manufacturing and how capture, movement and analysis of data is helping make better decisions, removing non-value-added activity, driving productivity, sustainability, and better jobs. We explored different stages of the lifecycle and focus on novel sensors, 5G, AI machine learning and close loop adaptive control systems.

Speakers:



Katherine Bennett
Chief Executive Officer, **High Value Manufacturing Catapult**



Rab Scott
Chief Engineer, Digital Manufacturing, **High Value Manufacturing Catapult**



Parallel Session:
Enabling the Shop Floor to Pave the Way for Efficiency and Sustainability: the LEGO Group Story

There isn't a person among us who hasn't played with LEGO bricks at some stage in their lives. We pass on bags of LEGO bricks from generation to generation, yet the company still manufactures a whole lot of new LEGO products each year. In fact, laid end-to-end, the number of LEGO bricks sold in 2022 would stretch to more than 22 times around the globe. One of the reasons for the company's success is the constant innovation of its manufacturing process, at all levels of the industry.

Speakers:



Jesper Toubøl
 VP Operations
LEGO Group

Keynote Session:
Reinventing Business and Operations with IoT Solutions

Billions of IoT devices will connect with the cloud over the next five years. Organizations are unlocking their data to create new business models through these connected devices, coupling them with artificial intelligence and driving outcome-based analytics that enhances customer experiences, optimize operational efficiencies, streamline asset management, and improve workflow safety. This session highlighted new innovations in IoT and robotics that are helping commercial, industrial, and automotive organizations securely and reliably transform business and operations by sending data to the cloud and bringing actionable insights back to the device to effectively deliver business value.

Speakers:



Yasser Alsaied
 President of IoT
Amazon Web Services (AWS)



Parallel Session:
How Ford Motor Company is Facilitating an Evolution to Industry 5.0

The future of Ford Motor Company centers on a purpose bigger than building vehicles. They are helping to build a better world, where every person is free to move and pursue their dreams. With a focus on driving the future of automotive manufacturing, Dr. Seonhi Ro, Manufacturing Industry 4.0 Specialist at Ford, presented the company's innovative technology approaches on their journey to Industry 5.0. We learned how Ford identifies and scales appropriate technologies, including IoT, AI, machine learning, 3D printing, 5G, robotics AR/VR, and blockchain.

Speakers:



Seonhi Ro
 Manufacturing Industry 4.0 Specialist
Ford Werke GmbH

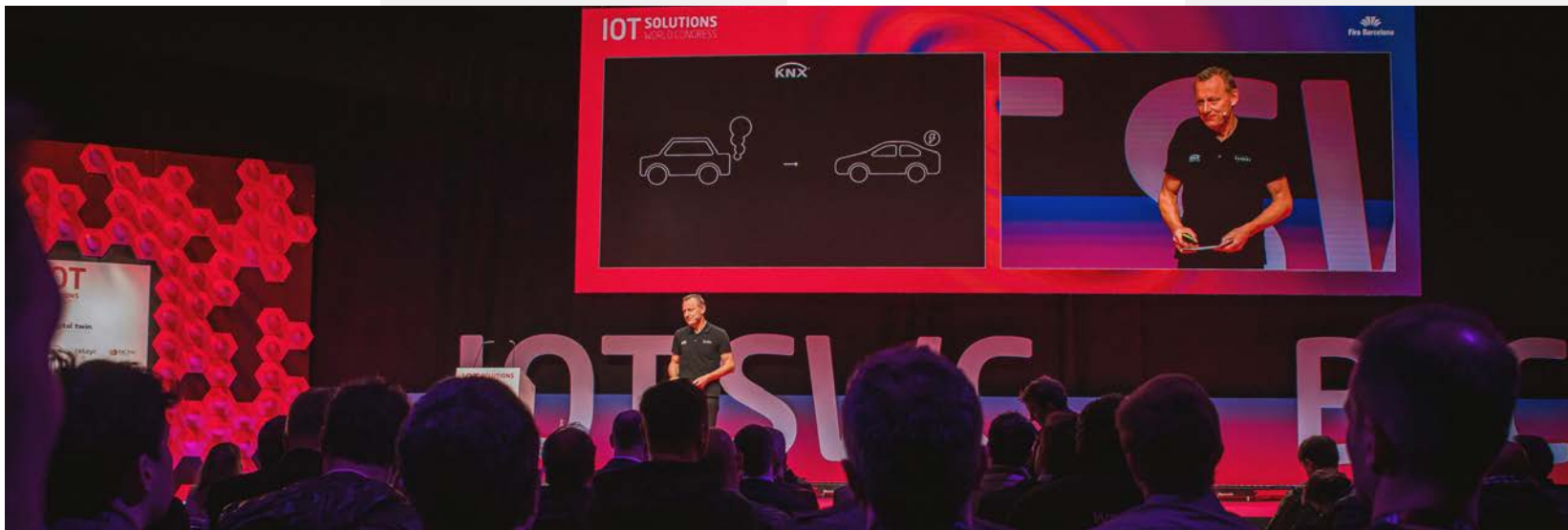
Parallel Session:
Driving Smart Retail Pricing through IoT and cloud based solution at scale for Apple stores

Updating SKU pricing for products in Retail setting has always been a manual process driving costs for retailers. We learned how a cloud-based IoT solution can automate this at scale where multiple merchants are involved. We discussed how the solution can be scaled at scale for millions of devices, overcome networking issues and achieve near real-time price distributions. We discovered how AI can play a role at self-correcting content and data on the edge when there is network connectivity issues.

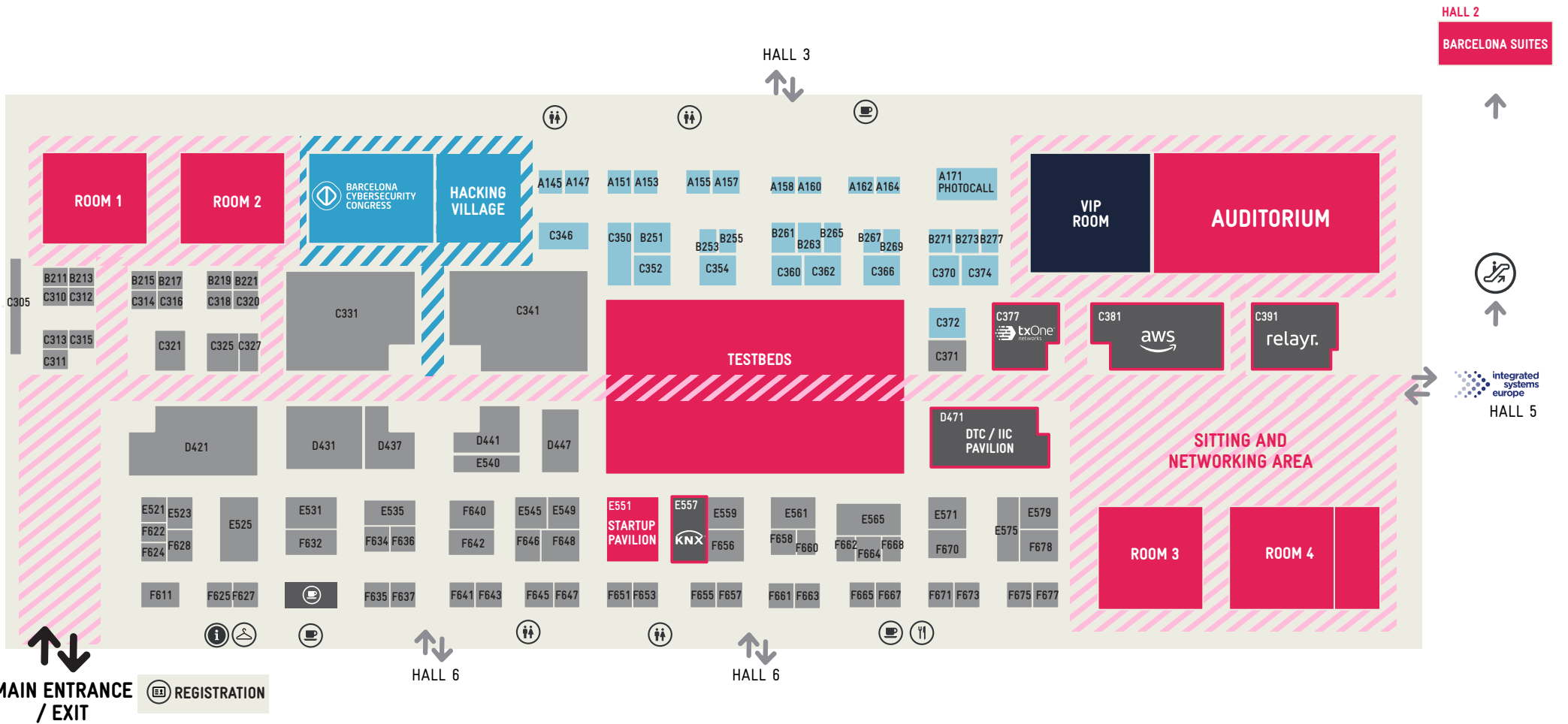
Speakers:



Sandeep Shekhawat
 Director of Engineering
Walmart Labs



Exhibiting Companies



Exhibiting Companies

3DTHINKS
11 IOT INFIWARE
A4RADAR
ABB MOTION SERVICES
ABLE DEVICE INC.
ADDICTDEV
ADEUNIS
AEI AERTIC
AEINNOVA
AEONICS
AERIAL TECHNOLOGIES INC.
AGÈNCIA DE CIBERSEGURETAT DE CATALUNYA -GOVERNMENT OF CATALONIA
AJUNTAMENT DE BARCELONA
AKENZA AG
ALINE PRECIÓN
ALLNET
ALLTERCO ROBOTICS LTD.
ALPHA RLH
ALTAIR
AMAZON WEB SERVICES
AMPER
AONCHIP
ARANTEC
ARROW
ARUBA
ASSURED
ASYGN
ATIM
ATIOS AG
ATISGN
AUGMENTED REALITY FOR ENTERPRISE ALLIANCE
AVTELAM
BAVARIAN PAVILION C/O BAYERN INTERNATIONAL
BELGIUM WALLONIA
BIECO
BIEL GLASSES
BILLINGLABS BY SPIKEELABS
BIM6D
BINALYZE

BINARE OY
BLACKNED GMBH
BLINQY
BLOOCK
BNET-ENGINE (DAGRAM GROUP)
BOOKLINE SOLUTIONS SL
BOSCH
BRT SYSTEMS PTE LTD
B-SENS
BUILD38 - MOBILE APP SECURITY
BUSINESS FRANCE
CAN-NX
CAPGEMINI
CARNET, FUTURE MOBILITY RESEARCH HUB
CATIE
CEA IRT NANOIELEC
CELL & SAT CONVERGENCE
CIL4SYS ENGINEERING
CINTOO
CITC
CLIICX NETWORKS
CLOUDFLARE
CODE FACTORY
COMPUTER VISION CENTER (CVC)
COMTAC AG
CONCEPT13
CONSOLE CONNECT
CONTACT SOFTWARE
COOL PLANET
COPPER HORSE LTD
COREAVI
CTHINGS.CO
CTRL4 ENVIRO. VISION + AI
CTTC
CYMULATE
CYRENE
CYTE
DATA CONTROL PC
DATA-WAREHOUSE GMBH
DATISION

DECENTLAB
DELOITTE
DEUTSCHE TELEKOM IOT
DEVICE AUTHORITY
DIGI INTERNATIONAL GMBH
DIGIFED - DIGITIZING EUROPE TOGETHER
DIGITAL TWIN CONSORTIUM
DIPROTECH
DRACULA TECHNOLOGIES
EBV ELEKTRONIK GMBH & CO. KG
EESY-INNOVATION GMBH
EKKONO
ELSYS
EMBEDDED OCEAN GMBH
EMITU
EMNIFY
EMSFACTORY
ENCORE LAB
ENDEPRO
ENERGIOT DEVICES
ENGINKO SRL
ENOCEAN ALLIANCE
ENTELGY INNOTEC SECURITY
ENTRUST CORPORATION
EOT
EQUANS DIGITAL
ESEYE LTD.
ESPRESSIF SYSTEMS
EURECAT
EUROTECH S.P.A
EVOWATER
EXCLUSIVE NETWORKS
EXPACIA XR
EXTREME NETWORKS
EY
FAIRCOM
FARNELL COMPONENTS S.L.
FISHY
FLEETENERGIES
FORTINET
FUTURE-SHAPE GMBH
GEORIDE

GIESECKE+DEVRIENT
MOBILE SECURITYGMBH
GLOBAL CERTIFICATION FORUM (GCF)
GOVERNMENT OF CATALONIA
GROUND CONTROL SATELLITE IOT
H&D WIRELESS AB
HARFANGLAB
HARWARIO
HCB BATTERY CO., LTD.
HEDYLA
HEWLETT PACKARD ENTERPRISE
HITACHI VANTARA, LLC
HIVEMQ
HOLOGRAM
HORNETSECURITY
HUXELERATE
HYDRA SPACE SYSTEMS
HYPERNYM
I2CAT FOUNDATION
I-CARE
IGNIS BLOCKCHAIN BY JELURIDA
IMMERSIA
INDOMINUS AS SL
INDUSTRIAL TALK / PHOTOCALL
INDUSTRY IOT CONSORTIUM
INEO SENSE
INESO COMPANY
INFINEON TECHNOLOGIES
INFOBLOX
INGRAM MICRO
INSTRUMENTATION TECHNOLOGIES
INTEGRA
INTELSAT
INTERNATIONAL DATA SPACES ASSOCIATION E.V.
INTERNET OF TREE BY TREE-NATION
IOTAC
IOTIZE SAS
IOTSENS

IQUADRAT
IRDETO
KEYFACTOR
KIGEN
KNOWBE4
KNX
KONE CORPORATION
LACROIX ELECTRONICS FRANCE
LANTRONIX
LEGIC IDENTSYSTEMS LTD
LEPLAN
LIGNA ENERGY
LITMUS
LOGITRADE SAS
LOOKOUT
MALTEGO
MANAGEENGINE
MATTERPORT
MAXSENS
MCSYSTEMS
MEDIANE SYSTEME
MEND.IO
METRONLAB
MFTURBO
MICROSOFT
MILESIGHT IOT
MINALOGIC
MINGO THINGS INTERNATIONAL
MOBILE WORLD CAPITAL
MOBILEKNOWLEDGE
MODPOW ENGINEERING
MOÏZ
MONB5G
MONOCEROS
MONOLITIC
MULTI-TECH SYSTEMS INC
NETSKOPE
NETTITUDE
NETWITNESS
NEXT BIG THING AG
NIMMSTA
NINJAONE
NIXI FOR CHILDREN

NORPOO
NOZOMI NETWORKS
NXP
OFFPAD
OLYTHE
ONE IDENTITY
ONE SOFTWARE SRL
OPENMOTE TECHNOLOGIES
OPTIMIZ NETWORK
ORAMA SYSTEM
ORIONM2M
PAL ROBOTICS
PALO ALTO NETWORKS
PANORAMA ANTENNAS SAS
PEPPERL+FUCHS
PERCEPTION POINT
PERINET
PICKDATA
POLE SCS
POWER FACTORS
PRASAGA FOUNDATION
PROVENRUN S.A.S.
PWC
QT GROUP
QUARKSLAB
QVADIS
RELAYR
RIGADO
ROCKWELL AUTOMATION
RSA
RTONE
S21SEC
SAFT
SANCUS
SAPPIENCE
SARENET
SAVOIR-FAIRE LINUX
SC ROBOTICS
SECURITY SCORECARD
SEIDOR
SENSE REPLY
SENTINELONE
SETITEM INFORMATICS
SHORELINE

SIEMENS AG
SIEMENS INDUSTRY SOFTWARE
SIERRA WIRELESS SA
SIFIS-HOME
SIGMA INDUSTRIAL PRECISION
SIMBASE
SIMLAB
SITEP
SLINGSHOT SIMULATIONS
SMARTAXIOM
SMARTECH CLUSTER
SMARTER TECHNOLOGIES GROUP
SMILICS
SOFFICO
SOFTWARE AG
SOLAREGY
SOLMES
SONATYPE
SONICAT SYSTEMS
SONICWALL
SOSAFE GMBH
SPARKLE
SSTEAM
START UP PAVILION E551
STARTUP FACTORY CHINA
STERNA INNOVATION
STERNUM
STMICROELECTRONICS
STORM REPLY DE
STREAM ANALYZE
STREAM ANALYZE
SUEZ
SWEDISH IOT
SYNTAX SYSTEMS
SYSTEMATIC PARIS-REGION
SYSTEMEL
TAGO IO
TAM
TARIDES
TAXITRONIC
TD SYNnex
T-DAB. AI

TELEFÓNICA TECH
TERAGENCE LTD
THALES
THE THINGS INDUSTRIES
THINGS
THINGTIA
THINKDEEP AI
THUNDERCOMM
TOKENME
TORADEx
TRAXMATE
TRUPHONE
TURURUT
SMARTER TECHNOLOGIES GROUP
TWIN OAKS COMPUTING
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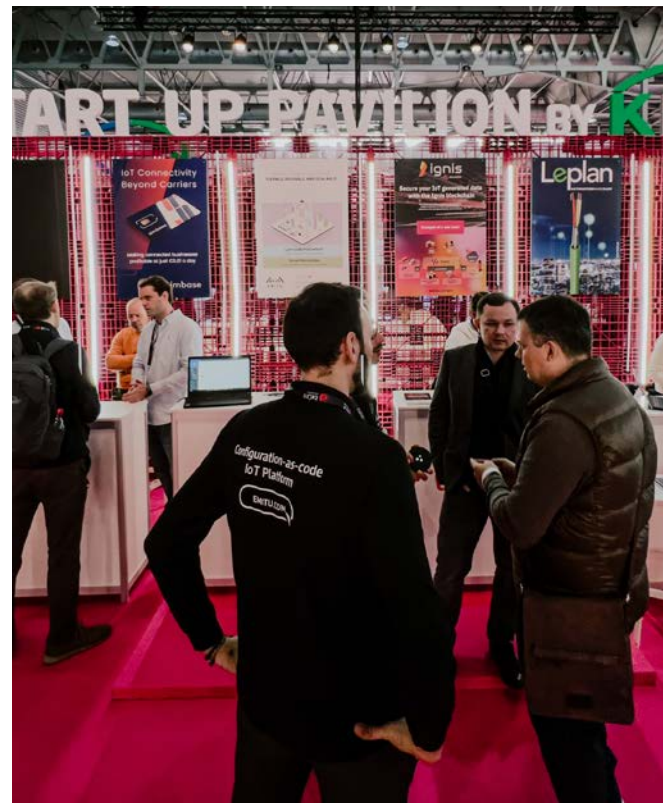
IOTSWC23 / EXHIBITION AREA

Areas

Startup Pavilion

The Startup Pavilion is the perfect opportunity for the international visibility innovative startups deserve. Only a limited number of selected startups had the opportunity to be present at the exhibition area

2023 EDITION POWERED BY:





*3 days of
knowledge-
sharing,
business
building,
and
networking.*

IOTSWC23 / EXHIBITION AREA

Areas

Testbeds

Testbeds are experimentation platforms deployed and tested in an environment that resembles real-world conditions. They show how new technologies & services (Industry IoT solutions, Cybersecurity solutions, Digital Twins, Artificial Intelligence, Augmented Reality, and disruptive technologies) can be usefully deployed. The testbeds are strategically placed on our exhibition floor allowing our attendees the opportunity to experience the most advanced and innovative solutions.

1. The most secure logistics management solution, from ground to cloud

Powered by: **ZARIOT**
Clients: **SmartAxiom**

Embedded blockchain technology in action! SmartAxiom's logistic management solution is directly embedded in the device and within the connectivity infrastructure, and is the first solution to be blockchain-secured from device to cloud. Come and learn how the solution increases productivity and efficiency while providing full end-to-end security for devices and data.



4. Deloitte project george™ - explore an immersive demonstration of digital supply chain solutions

Powered by: **Deloitte IP and Oracle Cloud**

Deloitte Project George™, named after the inventor of industrial robotics, helps organizations visualize leading edge supply chain technologies to drive manufacturing competitiveness and business value realization via automation.

Deloitte.

2. Ona - autonomous delivery device for last - mile logistics

Powered by: **CARNET Future Mobility Research Hub**

Ona is an autonomous delivery device that aims to improve the efficiency of urban goods distribution in the last-mile delivery sector. The robot is a 6-wheeled vehicle and is capable of autonomously navigating both car-normal-streets and pedestrian areas thanks to integrated sensors.

The robot has also two big screens, one at the front and one at the back, allowing the automation of human-machine interaction, and interaction with other robots.



5. Auto-cleaning solutions for beverage dispensers

Powered by: **Evowater Technology Company**

Digitalization of the sanitization process of water dispensers (canister, reverse osmosis, and Bag in Box), as well as the sanitization of reusable bottles for different beverages; providing information on the consumption and properties of the water being served, empowering users with the knowledge of what water they are consuming and that its properties have not been altered.



3. Vehicle hacking simulation

Powered by: **Copper Horse Ltd**
Client: **Siemens**

Drive Copper Horse's car hacking simulator, complete with a real car network! Featuring working lights and accessories including a CANbus connected instrument cluster, head unit, dashcam, rear cameras, seatbelts and much more. There are various hacking scenarios to try out including - removal of brakes / accelerators, mileage modification and remote control of vehicle functions.



6. Sustainable smart cities thanks to iot, connected vehicles and mixed reality

Powered by: **Integra**
Clients: **Rigual**
Companies Involved: **Integra, Rigual, Hidrotec, Microsoft, Teltonika**

To build the sustainable future we need in our cities, it is necessary to increase efficiency in resource consumption and service management.



Areas

Testbeds



7. Offshore wind energy data space based on ids architecture

Powered by: **International Data Spaces Association**

Wind turbines produce valuable data. Currently, only wind farm owners and wind turbine OEMs have access to this data. Other players in the energy value chain do not benefit from the value of this data.



9. Force-sensitive teleoperation of an arm of an amr to boost human-robot collaboration

Powered by: **PAL Robotics**

Current trends in collaborative robotics support human-robot interaction and allow for easy and safe handling of robots on the shop-floor. This changes the focus of robots, from automation to collaboration with human workers. This testbed shows teleoperation of the robotic arm of PAL Robotics' TIAGo with force feedback, including how the robot detects disturbances.



8. 360 Degree cybersecurity for iomt devices

Powered by: **Irdeto**
 Clients: **CLB BV**
 Companies Involved: **Irdeto BV**

This testbed features the first healthcare-specific cybersecurity platform that combines on-device detection capabilities with a cloud platform that proactively identifies software vulnerabilities, manages the SBOM lifecycle, provides rapid mitigation measures, and enables stakeholder transparency.



10. Carbon reporting demonstrator

Powered by: **Microsoft**
 Clients: **General Electric, Festo**

Carbon Reporting Demonstrator for the manufacturing supply chain using IEC standards OPC UA, MQTT and Asset Admin Shell.

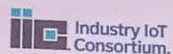


IOT SOLUTIONS
WORLD CONGRESS

2023 INDUSTRY SOLUTIONS AWARDS

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Industry IoT
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Industry Solutions Awards

The awards distinguish the exceptional work of IOT and digital transformation in specific fields and highlight the results that are transforming industries by creating greater efficiency, sustainability and connection to the people served.



Game Changer of the year 2023

Dr Michael Grieves

Chief Scientist and Executive Director Chairman of the Digital Twin Institute.

Best Connected Transport & Smart Vehicles solution

"Volvo Cars Developer Portal - From concept to reality"

VOLVO

Best Healthcare solution

"Biosensing and eHealth Multipurpose Radar. Non-contact vital signs monitoring"

 **Advanced Algorithms for radar**

Best Energy & Utilities solution

"HYBot - Hydrogen downhole sensors for hydrogen production optimization"

 **أرامكو السعودية**
saudi aramco

Best Smart Manufacturing/ Industry 4.0 solution

"socialProduction sustainable & innovative products for production monitoring"

KraussMaffei

Best Smart Buildings & Smart cities solution

"3D Digital Twin of Utrecht Central Station, improve comfort, detect outage, improve safety"



Best Cybersecurity Solution

"AIShield AI Security Solution"

 **AIShield**
Powered by Bosch

IOTSWC23

Advisory Board

Our committee of experts are dedicated to building the leading global event on key technological solutions that will change the game for all industries. Members include industry visionaries, technology experts and executives who are focused on accelerating the awareness and deployment of disruptive technologies.



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CTO



Al Beydoun
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Director



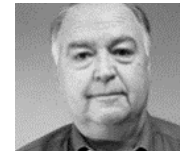
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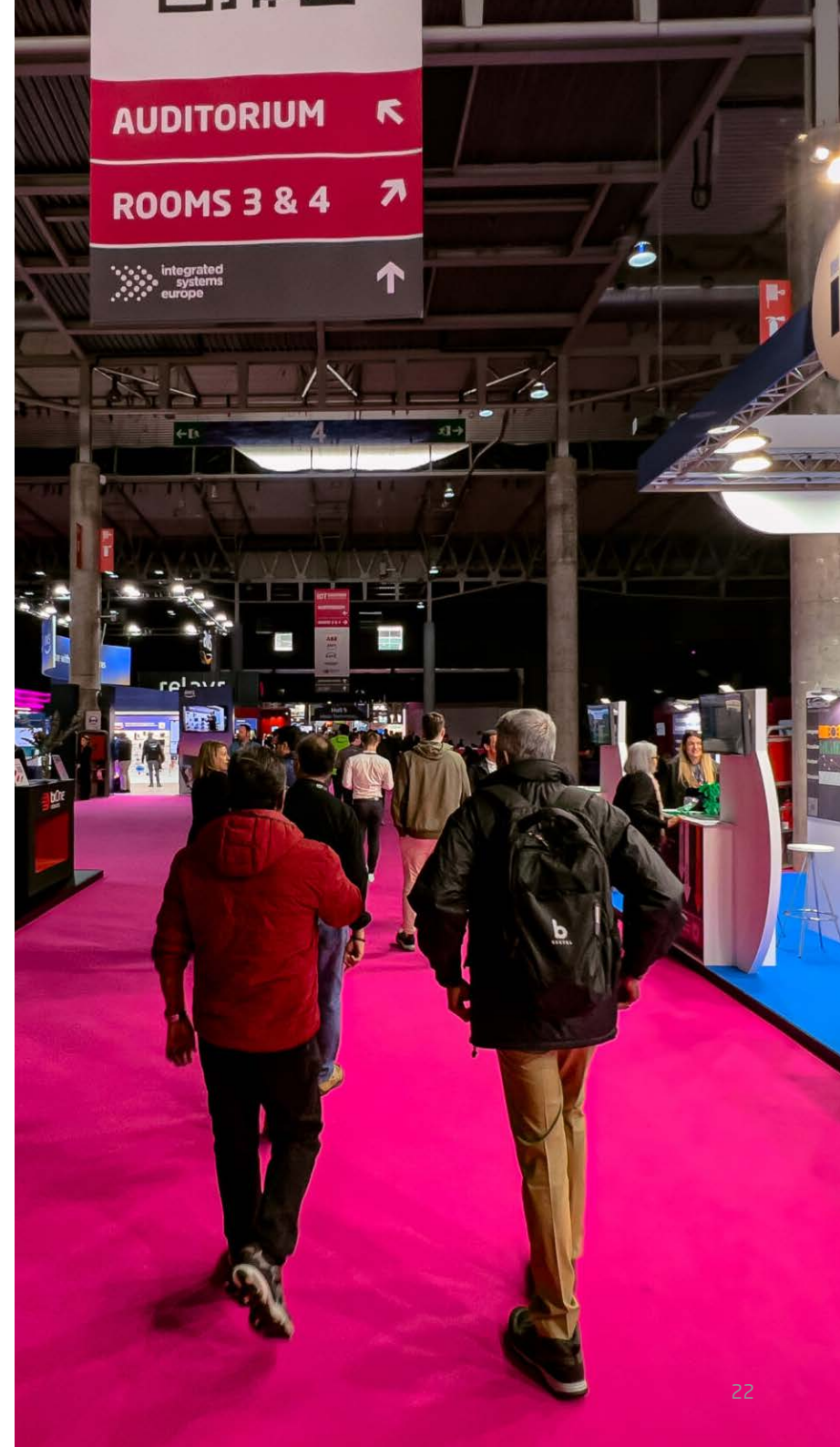
Jessica Poliner
CEO



Vincent Rutgers
Global Leader, Industrial Products and Construction



Rafael Salmi
Global President & General Manager



Program Committee

Our Program Committee is responsible for developing the strategy for the Congress, the overall content, and bringing together industry leaders to participate in our conference program. The committee builds the program covering multiple industries, technologies, standards, and applications.



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Senior Director,
Product Supply Strategy
Management



Jackson Bond
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CEO, CTO,
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Shyam Nath
Specialist Leader,
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Dr. John O'Shea
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formation Officer



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Said Tabet
Senior Technology
Strategist, Corporate
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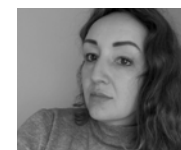
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IoT Solution
Architect



Sumita Yadav
VP of Cardiovascular
and Orthopedics Ser-
vice Lines



Izabel Alfany
Operations and
Business Develop-
ment Director



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rity Advisor, Critical
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Ron Zahavi
Chief Strategist for
IoT Standards



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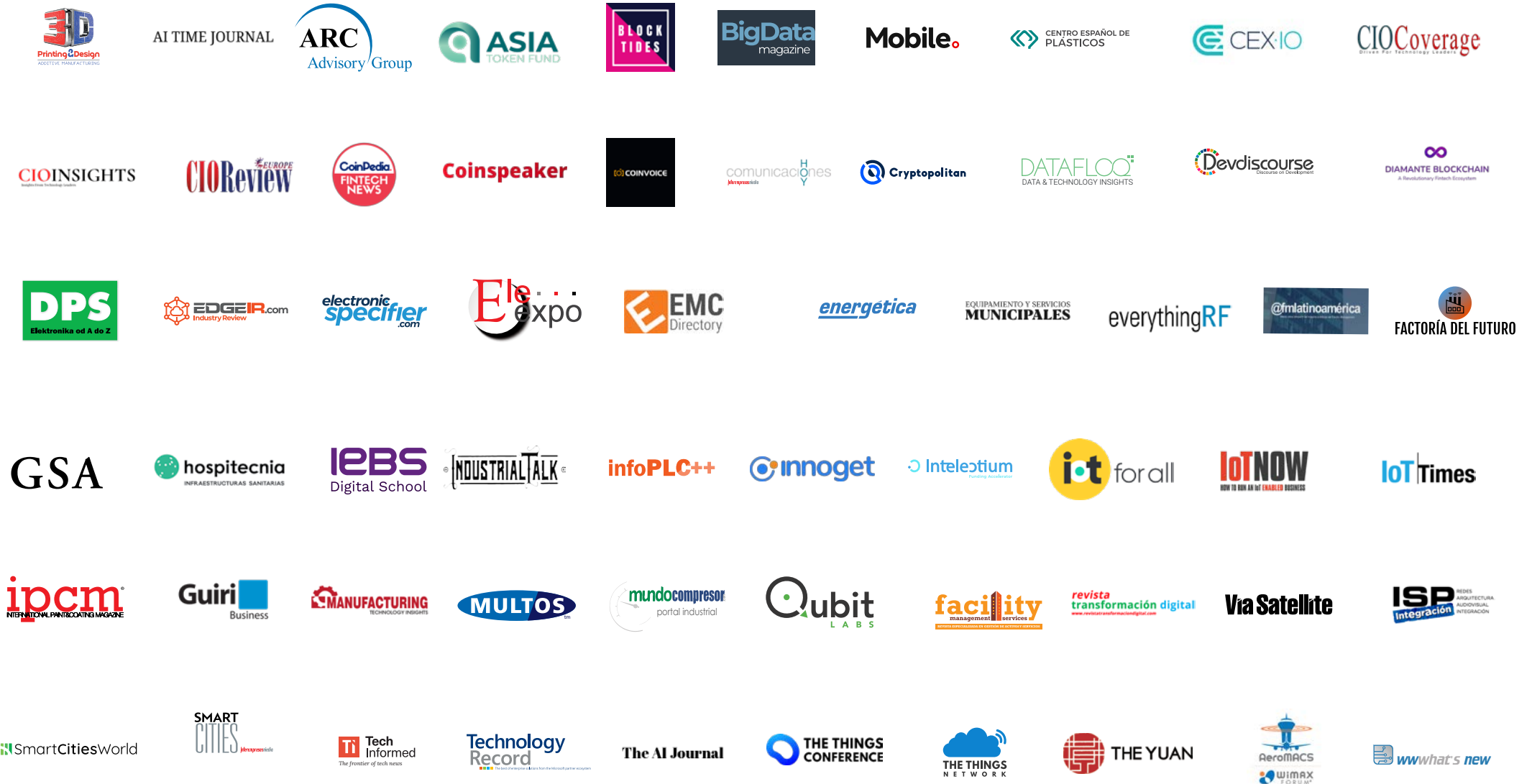
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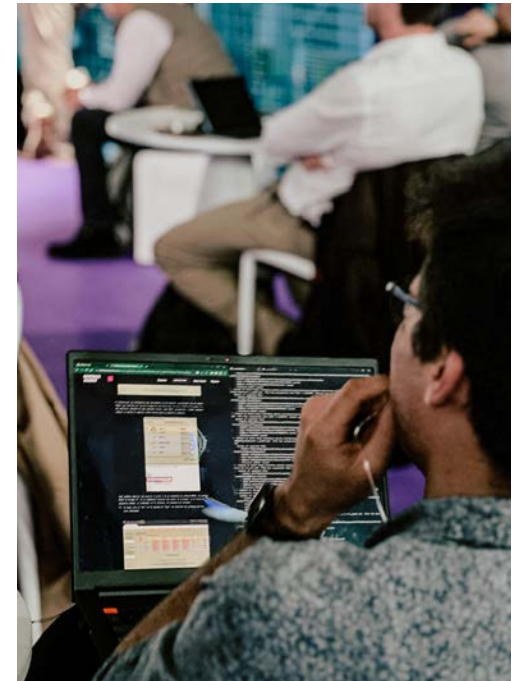


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**BARCELONA
CYBERSECURITY
CONGRESS**



THE PATH TO SECURITY

Facts & Figures

The fourth edition of the Barcelona Cybersecurity Congress, organized by Fira de Barcelona and the Agència de Ciberseguretat de Catalunya, highlighted the importance of cybersecurity as one of the most critical challenges facing an increasingly digitalized world. The BCC23 featured companies such as Cloudflare, Fortinet, Knowbe4, ManageEngine, S21sec, SentinelOne and Telefónica Tech. In addition, the event organized a Hacking Village with workshops and activities, including various competitions.

15,600 +

VISITORS (Joint Exhibit Hall with IOTSWC)

60

SPEAKERS

100 +

Visitors' countries

30

SESSIONS



Profiles

54%

DECISION MAKERS

TOP TEN COUNTRIES

- Spain
- Mexico
- Germany
- France
- Italy
- Belgium
- Israel
- United Kingdom
- Portugal
- Andorra

DEPARTMENTS



MAIN AIM OF ATTENDING



Highlighted Sessions



Parallel Session:
Advanced Cybersecurity Architectures to Protect Against Advanced Threat Actors

Organizer:
FORTINET

Speakers:



Joan Ruiz
Manager Systems Engineering
Fortinet

Parallel Session:
Security Culture: making cybersecurity an active part of your organization

Having a successful security posture is more easily said than done. It takes a well-designed strategy for a host of multi-faceted parameters to come together to truly bring security to an organization. Security Culture, being the ideas, customs, and social behaviors of an organization that influence security, is a powerful tool to help nurture and sustain that which keeps your organization safe. In this session, we heard from industry expert Jelle Wieringa about how to use security culture to our advantage.

Speakers:



Jelle Wieringa
Security Awareness Advocate
Knowbe4

Parallel Session:
Models, Risks, and Mitigations

IIoT is being adopted very rapidly in the industrial environment due to the implementation of Industry 4.0. Like the adoption of Ethernet within industrial facilities, IIoT offers many advantages, but if poorly implemented, it also brings many security issues associated with it. Just as there is a reference model for typical industrial network architectures, there is also a model for IIoT. The IIoT presents new risks to the industrial environment, stemming from its new communication paths and reliance on the Internet for cloud services. New cybersecurity solutions and strategies must be implemented to address these risks.

Speakers:



Jairo Alonso Ortiz
Team Leader IACS
S21Sec

Parallel Session:
Cybersecurity and IoT - The worst of both worlds How do we help non-security professionals secure their smart buildings?

The talk covered the adoption of IIoT within the smart built environment, the cybersecurity challenges it brings, and how we address the knowledge/skills gaps.

Speakers:



Sarb Sembhi
CTO **Virtually Informed**

Parallel Session:
Cybersecurity and digital transformation in the industry: two inseparable travel companions

Nowadays, no sector of the economy is not deeply involved in digital transformation projects. In the particular case of the industry, there is a common pattern in these projects: the need to connect and, consequently, expose business assets that have traditionally been isolated and that perform critical functions (e.g. automation cells, electrical substations, pumping stations, robots...), which makes cybersecurity more relevant. In this keynote, Telefonica Tech shared their experiences helping their clients navigate the digitization process while successfully managing cybersecurity risk.

Speakers:



Vicente Segura Gualde
Head of OT&IoT
Security
Telefonica Tech

Plenary Session:
Understanding risk: supply chain transparency and SBOM

Why do we expect transparency from food but not from the ingredients integrating the OT? With this provocative question, Allan Friedmann made it clear that organizations should care about the quality of the software they use. And this is where SBOM comes into play. A Software Bill of Materials (SBOM) is a nested inventory, a list of ingredients that make up software components. And it's beginning to play a big part in the industry as it enables organizations to think about the risks they care about.

Speakers:



Allan Friedman
Senior Advisor and
Strategist
CISA

Parallel Session:
How to calculate the cost savings in a SIEM implementation

Cybersecurity is often perceived as expensive, but this perception can change if we analyze the benefits of a SIEM implementation. During the session we discussed:

- The reasons to measure cost savings for a SIEM deployment.
- Ways to quantify the benefits of a SIEM solution.
- Three perspectives of cost savings: compliance reporting, operational efficiency, and breach impact mitigation.
- How to calculate cost savings for a SIEM deployment using an example.

Speakers:



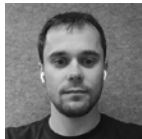
Luis Pedroche Montes
Business Development
Manager **IREO Solu-
ciones y Servicios**



**Parallel Session:
Protecting Critical Infrastructure
Against Ransom DDoS Attacks**

A deep-dive of what's happening on the Internet here and now, with a focus on the latest Distributed-Denial-of-Service, or DDoS, attack threat landscape – and how they target critical infrastructure. We covered DDoS attack trends we see from the unique vantage point of the Cloudflare global network, review Ransom DDoS attacks that targeted an energy provider, and review their lessons learned to guide the audience on the steps they can take to defend their critical infrastructure assets.

Speakers:



Sergio Maeso Jiménez
Solutions Engineer
Cloudflare



Omer Yoachimik
Product Manager for
DDoS & Network
Analytics
Cloudflare

**Parallel Session:
The Challenges and Considerations
of Preparing IoT for PQ**

When it comes to improving cybersecurity, IoT has been of particular focus with mandates and regulations popping up at federal, state, and industry levels. If those weren't challenging enough to navigate, there's also the inevitable threat of post quantum. When a quantum computer is realized that can break traditional cryptography in use today, organizations need to be ready - and that preparation will take several years. During this session we heard about some of the challenges that have arisen with IoT regulations, IoT security, and the impact post quantum will have in this place.

Speakers:



Robert Hann
VP Sales Global Entrust
Godalming



Robert Dobson
Vice President, Technology Partners
Device Authority

**Panel Discussion:
What do managers and board
members need to know about
cybersecurity?**

In this roundtable, organized by Women4Cyber Spain, we counted on the presence of referents from different industries and profiles to benefit from their experiences on the main questions that Board directors and company executives should ask themselves about cybersecurity in their organisations. Security is fundamental to business and therefore, it should be a topic addressed by executives on the Boards of all organisations regardless of size and sector. In this conversation, we shared some thoughts on the day-to-day business security risks and challenges we face to ensure business continuity.

Speakers:



Maria Angeles de Dios
Global Chief Risk Officer
Amadeus



Olga Forné
Global CISO,
Abertis Group



Eduvigis Ortiz Moronta
Founder & President
Women4Cyber



Toni García Estopa
CISO, Digital Transformation, CIO and Board Member
LETI Pharma

**Parallel Session:
From EDR to XDR**

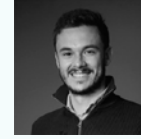
How to effectively transition from an endpoint centric approach to a data platform?

Experts from SentinelOne gave us useful insights to help us navigate through this transition.

Speakers:



Jan Tietze
Director of Security
Strategy Europe,
SentinelOne



Carlos Payés
Solution Engineer
SentinelOne

**Panel Discussion :
Cybersecurity Strategies
of various European
governments**

In this panel we heard from high-level speakers representing different European Governments, how they apply their cybersecurity strategies.

Speakers:



Joanna Swiatkowska
COO ECSO, **European
Cyber Security
Organisation**



Oriol Torruella
Director, Compliance
Area **Cybersecurity
Agency of Catalonia**



Matteo Lucchetti
Director, **National
Cyber Security
Competence Center.
Italia**



Sarah Putscher
Policy Officer for Foreign
Affairs, **Ministry
of the Interior,
Digitalisation, and
Local Governments
Baden-Württemberg**

Activities

Hacking Village

The Barcelona Cybersecurity Congress Hacking Village is a place for cybersecurity experts to come together to practice cybersecurity skills and learn new ones in an inspiring and interactive environment.

The ideal scenario to level up your skills in practical workshops, play CTF's, explore hacking activities, network with your peers, and enjoy our hot cybersecurity debates. It was undoubtedly the busiest and most lively area of the event. The way to discover the world of cybersecurity from a fresh new dimension!



Analyzing 2022 attack trends from a defense perspective.

Cyber attackers are increasingly employing different techniques to achieve their goals. In this talk we intend to analyze the trends of the year 2022 with respect to attack vectors and review which defenses to propose.

Speaker:

Tommaso Pegoraro
Cybersecurity Specialist
pwc

Immersive Hacking with ReconVR

Remote working has resulted in reduced workspaces compared to offices, and social interactions in the work environment have been modified. With virtual reality, it is possible to create unlimited spaces with which to share information among colleagues in a friendly way.

Speaker:

Martina Matarí
Head of Offensive Security Services
Telefonica.Tech

Towards a Barcelona-based Information Security Community

This talk shared the story behind the born and growth of the BCNCybersecurity community and BSidesBCN event, our mission and vision, its present and future, in the hope to involve more people to join us to create a thriving and exciting environment where we can grow together by sharing knowledge and experiences.

Speaker:

Davide Barbato
Security Enthusiast
BSides Barcelona

How to adopt a Zero Trust security strategy in a complex and large IT legacy environment

Speakers:

Marc Arderius
Zero Trust strategies & Identity Access Management Specialist
EY

Fabi Paez
Cyber Threat Intelligence Specialist
EY

Attracting and Retaining Talent in the Cybersecurity Market

One of the main challenges in the cybersecurity sector is the recruitment and retention of technological talent.

Speakers:

Angela Lalatta
Head of the DCA Cybersecurity Community
DCA

César López
President at **Good Job Foundation**

Joan Figueras
President at **ISACA Chapter Barcelona**

Marina Jiménez
Talent Manager
Ackcent Cybersecurity

Manel Medina
Director of the Master, Cybersecurity Management at **UPC School**

Tomàs Moré
RSI - Cybersecurity Culture Service.
Cybersecurity Innovation and Competence Center at **Cybersecurity Agency of Catalonia**

Girls Power: Challenges and Triumphs of Women in Cyber

It's 2023 and the cybersecurity industry is still lacking a significant presence of female experts and leaders. The advantages of a diverse workforce have been discussed and agreed upon for years, yet it seems that the progress made to get us there is slow. In this chat, we discussed what efforts are being made to address

this issue, what additional measures can be taken to expedite results, and what other challenges still need to be tackled. Participants shared their journey, valuable lessons learned and addressed the topic of why it is crucial to attract and support women leadership in the cybersecurity industry.



ECSO cyberinvestors day

The Catalonian Cybersecurity Agency, in collaboration with the National Cybersecurity Institute (INCIBE) - the organization responsible for cybersecurity in Spain -, the European Cybersecurity Organization (ECSO) and the Women4Cybe Foundation, promoted the **Cyber Investors Day**, a cybersecurity business event designed to covering the different phases of investment, from early stage to strategic investment, mergers and acquisitions, as well as providing exposure to potential customers and business partners.

The 10 nominees presented their innovative solution to a European jury and had the unique opportunity to present to high-level investors, executives, and cybersecurity experts.

From these 10 nominees, two companies were selected to defend their project at the final of the European Cybersecurity STARTup Awards 2023 organized by ECSO, the European Cybersecurity Organization.

Selected companies:

- Build38
- OutKept

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Thank You!

We would like to thank our partners and sponsors for supporting us and showing their trust in this edition of the event. Many thanks also to the IIC and organizing committees for their cooperation and efforts to attain the levels of excellence that have characterized our show.

We hope to see you again in 2024.

Come join us!

21 – 23 MAY 2024

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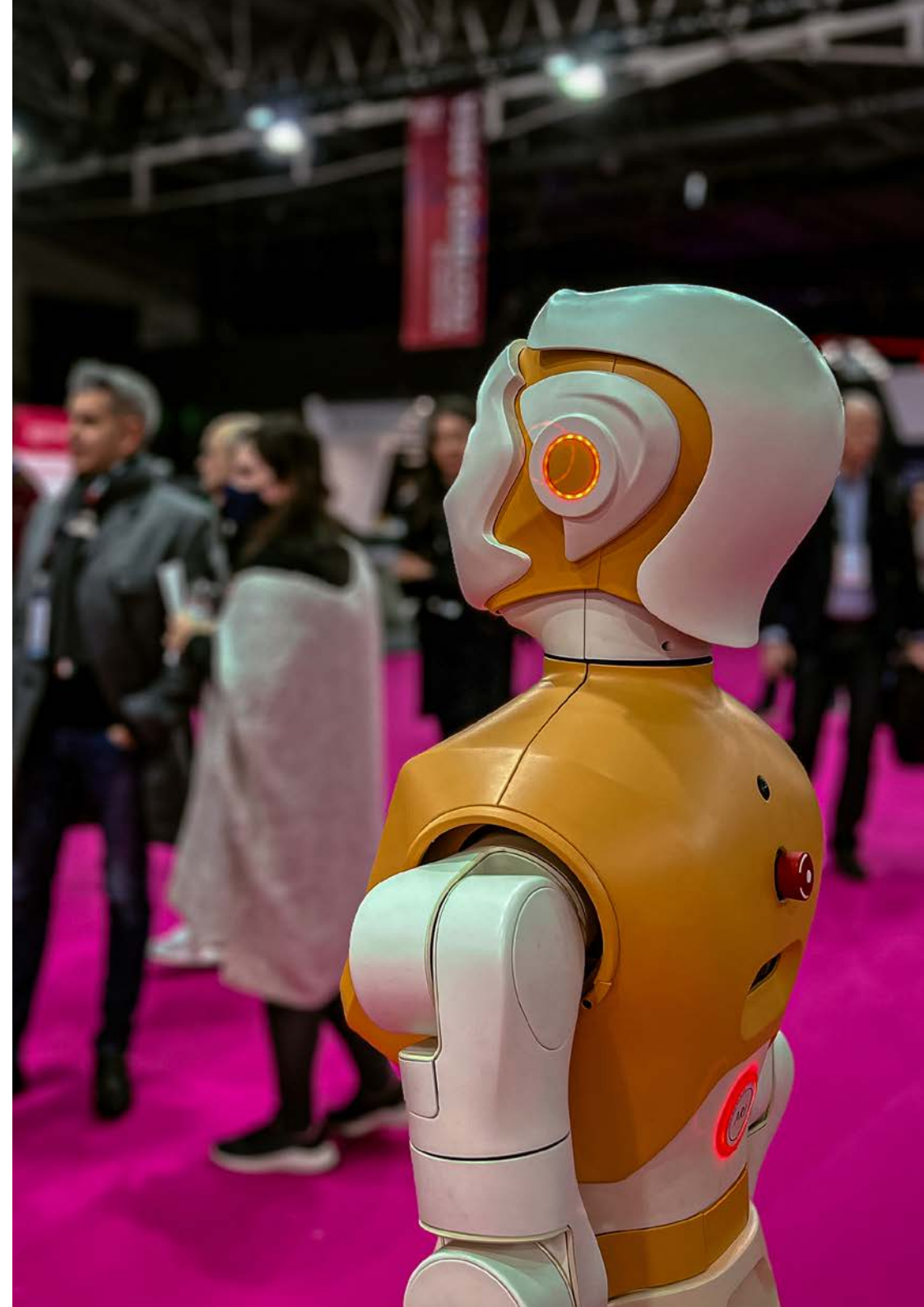
iots.sales@firabarcelona.com

Visitors contact:

iots.visitors@firabarcelona.com

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