

# CALL FOR CONTENT 2024

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## PRESENTATION

The call for content aims to provide the audience with relevant content focused on the technological solutions that initiate digital transformation within the enterprise, including IOT, Digital Twins, Artificial Intelligence, Augmented Reality, Edge Computing, and 5G for Manufacturing, Healthcare, Smart Buildings/ Smart Cities, Connected Transport/Smart Vehicles, Energy industries and more.

We welcome submissions from original papers/abstracts relevant to these themes. IOT Solutions World Congress receives hundreds of proposals for the available speaking slots. To improve the likelihood of selecting your proposal, we recommend focusing your proposal on one or more real-world implementations: **use case/ business case-oriented with a confirmed \*end-user speaker.**

## DEFINITION OF USE/BUSINESS CASE PRESENTATION

**Use case/business case definition:** solutions or applications that deliver lessons learned, collaboration strategies, and the latest approaches in **applied solutions to new or existing challenges**, with the metrics of a positive outcome to the customer clearly defined and illustrated.

Outcomes can be defined as improved efficiency, security, reliability, asset management, remote monitoring, increased productivity, decreased downtime, increased profit, enhanced safety, reduced costs, etc.

**Use/business cases with a confirmed customer speaker** will be rated higher and have a better chance of being selected for the program. Please note that the complete contact information of the customer/end-user must be provided in this proposal.

We also encourage multiple speakers of collaborating companies to present in a co-presentation or panel discussion format.

## DEFINITION OF END-USER IN A USE/BUSINESS CASE PRESENTATION?

The end-user, as referred to in the term “use case” and “business case,” **is the company or organization receiving the business value** created by the technology.

The **end-user directly benefits** from the solution(s)/outcomes, i.e., improved productivity, remote monitoring, predictive maintenance, improved security, reduced costs, new revenue streams, asset management, improved safety, etc.

The end-user is not a solutions provider, partner, or integrator; instead, **they are the recipient of the solution**. Therefore, if you sell your technology to another solution provider who then wraps it into a more robust solution, they are not the company from which to build your use case presentation. Instead, the use case should be built on the industry customer they then sell the solution to, including your technology.

## THE AUDIENCE

Our audience is interested in hearing the outcome metrics of these end-user companies and hearing directly from the end-user customer. End-users tend to favour sessions presented by their peers. These “customers” speak more freely about projects and in general, generate more and higher quality discussions during the Q&A.

## CATEGORIES FOR USE CASE SUBMISSIONS

Includes but is not limited to:

### Tech-enabled transformation

**Internet of Things (IoT):** Connecting devices and sensors to gather data, improve connectivity, and enable real-time monitoring and control of processes. Plus, the future of IoT to debate.

**Artificial intelligence and machine learning:** Applying AI and ML algorithms to enhance decision-making processes, automate tasks, and drive operational efficiency. Risks posed by advanced AI will be considered within the scope of IoT and Industrial Automation.

**Automation and robotics:** Integrating automation and robotic solutions to streamline operations, reduce human error, and improve productivity.

**Data analytics and predictive insights:** Leveraging big data analytics and predictive modeling to drive informed decision-making, identify trends, and optimize business processes.

### Climate Change & Sustainability

**Renewable energies:** Harnessing the power of solar, wind, and other renewable energy sources to reduce carbon emissions and combat climate change.

**Smart energy management systems:** Implementing intelligent energy management solutions to optimize energy consumption and promote sustainability.

**Circular economy solutions:** Leveraging technology to develop and optimize resource efficiency, maximizing yield while continually reducing carbon footprint and environmental impact.

**Sustainable transportation:** Advancing electric vehicles, intelligent transportation systems, and shared mobility platforms to reduce carbon emissions and create more sustainable transportation networks.

**Resource optimization technologies:** Implementing IoT-enabled systems to inspect, certify and optimize resource infrastructure and facilities, while applying predictive analytics and remote sensing to monitor usage, and identify potential failure points before they interrupt production. An example would be smart water management solutions.

**Recycling and waste management innovations:** Utilizing disruptive technologies to streamline and enhance recycling processes, reduce waste, and promote circular economy practices.

## Cybersecurity

**Robust security measures:** Implementing advanced encryption, authentication, and access control systems to protect sensitive data and secure technological infrastructure.

**Threat intelligence and monitoring:** Utilizing AI-powered threat detection systems and real-time monitoring to effectively identify and respond to cyber threats.

**Compliance and regulatory frameworks:** Adhering to established cybersecurity standards and regulations to ensure data privacy and protection.

**Employee training and awareness:** Educating employees about cybersecurity best practices and fostering a culture of security to mitigate human-related risks.

**Compliance management solutions:** Implementing technologies to streamline compliance processes and ensure adherence to regulatory requirements.

**Data governance and privacy:** Enforcing robust data governance practices and implementing privacy-enhancing technologies to protect personal information and comply with regulations.

**Standardization and interoperability:** Promoting the development and adoption of industry-wide standards and protocols to enable seamless integration and collaboration among different technologies and systems.

**Regulatory technology (RegTech):** Leveraging technology solutions to automate compliance processes, monitor regulatory changes, and facilitate regulatory reporting to protect critical infrastructure.

## TECHNOLOGIES INVOLVED

For each proposal, you must select the top 3 technologies/use cases/themes that your session will be most focused on:

### 5G technology:

- Ultra-low latency communication
- Massive IoT connectivity
- Enhanced mobile broadband
- Mission-critical applications
- Network slicing
- Edge computing integration

### Artificial intelligence (AI):

- Machine learning
- Deep learning
- Natural language processing
- Computer vision
- Expert systems
- Neural networks
- Cognitive computing
- Risk vs. Regulation of advanced AI applications

### Augmented reality (AR):

- Marker-based AR

- Markerless AR
- Projection-based AR
- AR headsets and glasses
- AR in gaming and entertainment
- AR in healthcare and education
- AR in professional development training

## Automation in manufacturing:

- Industrial robots
- Collaborative robots (cobots)
- Automated assembly lines
- Computer-aided design (CAD)
- Smart factories
- Digital twin technology

## Autonomous vehicles:

- Self-driving cars
- Autonomous drones
- Unmanned aerial vehicles (UAVs)
- Autonomous trucks
- Robotic delivery systems
- Automated agricultural vehicles
- Automated mining vehicles

## Big data analytics:

- Data mining
- Predictive analytics
- Prescriptive analytics
- Real-time analytics
- Text analytics
- Social media analytics

## Blockchain:

- Cryptocurrencies
- Smart contracts
- Decentralized applications (DApps)
- Supply chain management
- Identity verification
- Asset tokenization

## Clean technologies:

- Carbon capture and storage (CCS)
- Waste-to-energy conversion
- Water purification and desalination
- Air pollution control
- Sustainable materials
- Green Chemistry

## Clean transportation:

- Electric vehicles (EVs)
- Hybrid vehicles
- Hydrogen fuel cell vehicles
- Sustainable aviation
- Hyperloop and high-speed rail
- Intelligent transportation systems

## Cloud computing:

- Infrastructure as a Service (IaaS)
- Platform as a Service (PaaS)
- Software as a Service (SaaS)
- Serverless computing
- Hybrid cloud
- Cloud-native technologies



### Cognitive computing:

- Natural language processing
- Speech recognition
- Machine learning
- Knowledge representation and reasoning
- Cognitive agents
- Decision automation

### Cybersecurity:

- Network security
- Endpoint security
- Data encryption
- Threat intelligence
- Identity and Access Management
- Security analytics
- Software Bill of Materials

### Edge computing:

- Edge analytics
- Edge AI
- Edge devices and gateways
- Edge security
- Edge-based data processing
- Edge-based IoT applications

### Internet of Medical Things (IoMT):

- Connected medical devices
- Remote patient monitoring
- Health wearables
- Telemedicine platforms
- Electronic health records (EHR)
- Healthcare data analytics

- Applying blockchain to protect healthcare data integrity

#### Internet of Things (IoT):

- Smart sensors
- Wearable devices
- Industrial IoT
- Connected homes
- Smart cities
- IoT platforms
- Edge computing

#### Mobile technology:

- 5G networks
- Mobile apps
- Mobile payments
- Location-based services
- Augmented reality apps
- Mobile health technologies

#### Precision medicine:

- Personalized genomics
- Pharmacogenomics
- Disease modeling
- Digital health technologies
- Telemedicine
- Predictive diagnostics

#### Virtual reality (VR):

- Immersive VR
- Non-immersive VR
- VR headsets and devices
- VR in gaming and entertainment

- VR in training and simulation
- VR in therapy and rehabilitation
- Robotics:
  - Industrial robots
  - Service robots
  - Collaborative robots (cobots)
  - Autonomous robots
  - Surgical robots
- Quantum computing:
  - Quantum bits (qubits)
  - Quantum algorithms
  - Quantum cryptography
  - Quantum simulation
  - Quantum supremacy
  - Quantum annealing

## Renewable energy:

- Solar power
- Wind power
- Hydroelectric power
- Geothermal energy
- Biomass energy
- Tidal and wave energy

## Energy storage:

- Lithium-ion batteries
- Solid-state batteries
- Flow batteries
- Supercapacitors
- Hydrogen fuel cells
- Thermal energy storage

## Smart grids:

- Advanced metering infrastructure
- Demand response systems
- Grid optimization technologies
- Energy management systems
- Distributed energy resources
- Microgrids

## Smart agriculture:

- Precision farming
- Agricultural drones
- Farm management software
- Livestock monitoring systems.
- Soil sensors and analytics
- Automated irrigation systems

## Smart homes:

- Home automation systems
- Voice assistants
- Smart appliances
- Energy management
- Security and surveillance
- Ambient assisted living

## PRESENTATIONS FORMAT

Submissions must adhere to the following guidelines to be evaluated for inclusion on the agenda.

- The Program Committee requires all submissions to be use-case/business-case focused, highlighting measurable business outcome metrics.

- Use cases/business cases with a confirmed customer (end-user) presenter will be scored higher in the evaluation process and therefore have a higher chance of being selected for inclusion in the program. We welcome submissions by solutions providers if they include an end-user presenter.
- Session proposals that discuss technology but don't illustrate real use-case/business-case stories with measurable business outcome metrics will not be evaluated.
- Submissions must be complete as the Program Committee is considering the proposal based on the participants and the topic collectively—if any part of that is missing, they cannot make an informed review.
- IOTSWC is committed to diversity and inclusion. You are strongly urged to consider the diversity of speakers, including gender, ethnicity, orientation, nationality, and religion, as well as the diversity of experience brought to bear by job position, responsibilities, and industry represented.
- All abstracts must be submitted and presented in English; please note that the Congress's primary language is English, and translation services are not available.

The program committee will not evaluate abstracts that do not comply with the above requirements.

The time allotted for each presentation will be:

- **Use case Presentations:** 30 minutes distributed on 20 minutes presentation + 10 minutes for Q&A.
- **Panel discussion:** 45 minutes (includes three or more presenters with differing opinions and perspectives for debate). This will be a moderated discussion with time set aside for questions from the audience.

## TIMELINE

The submission process has five major steps:

**Abstract Submission:** submitted by 16<sup>th</sup> October 2023

**Programme Director Review:** November 2023

The Program Director will first review all papers to ensure that the submission meets the general criteria.

**Revision:** November - December 2023

Authors may be asked to revise their proposals to meet the requirements as needed.

**Committee Review:** November - December 2023

The Program Committee will review the submitted papers; authors may again be asked to provide additional information.

**Notification:** January 2024

All the authors whose abstracts have been approved will be notified of their acceptance or rejection.

## BEFORE SUBMISSION

Please read the T&C carefully and ensure that your abstract/paper does meet the criteria and main requirements.

Please note that the short abstract is requested for marketing purposes and must be no more than 600 characters spaces included. The submission form will only accept submissions within the character limits for each section.

## SUBMISSION

Papers can be submitted online at <https://iot.solutions.int-meetings.es/> until October 16<sup>th</sup>, 2023 – 24H00 CET.

All submitted papers/abstracts will be published in an open database with access granted to the Program Director and Program Committee. The author(s) agree with its publication in this open-access database by submitting a paper.

## ACCEPTED PAPERS/ABSTRACTS

The conference registration fee for presenting speaker(s) will be waived. Once your paper has been accepted, you will receive instructions to register for a complimentary **speaker pass with full VIP access to the Congress**, including all sessions and event areas.

Once your session **has been accepted**, you will receive official communication from the Speaker Agency granting you access to the **Speaker Portal**. You must fill in all the required information, including bio, photo, and session description edited for the website. You will also find your session date, session guidelines and recommendations, and all necessary instructions for the onsite presentation on the portal.

Bearing in mind the various security measures and firewalls, please ensure that emails can reach you by adapting your spam filter accordingly.

## INTELLECTUAL PROPERTY

The Speaker authorizes FIRA DE BARCELONA to record and photograph the speech he/she perform, being such recording able to be reproduced, as part of the materials of the general conference. The Speaker will in every case maintain the intellectual property rights related to his/her own work.

Moreover, the Speaker grants FIRA DE BARCELONA the right to reproduce copies of the speaker's speech (for example, PowerPoint slides or supporting documents) in paper and/or electronically, being the referred materials able to be published in

the media, magazines, broadcast streamed on the Event's website, or posted on web pages related to the theme of the Event.

## ADDITIONAL INFORMATION

Submission of an abstract constitutes a formal commitment by the author to present the abstract in the session and at the time decided upon by the IOTSWC Programme Committee. Any change in the presenting author/speaker line-up needs to be communicated in the form of a written statement to the Program Director. Confirmation of the replacement speaker is at the discretion of the Program Director and is not guaranteed.

If the original presenting speaker(s) are unavailable to present the abstract, it is the original author's responsibility to ensure that a qualified speaker from the same company can speak at the session. Failure to present the abstract as submitted may result in the rejection of an abstract submitted for future IOTSWC events.

## CONTACT

IOTSWC Speaker Office:

[iots.technicaloffice@firabarcelona.com](mailto:iots.technicaloffice@firabarcelona.com)