

CALL FOR CONTENT 2025

TERMS & CONDITIONS

CONTENT

PRESENTATION.....	2
DEFINITION OF USE/BUSINESS CASE PRESENTATION.....	2
DEFINITION OF END-USER IN A USE/BUSINESS CASE PRESENTATION?	3
THE AUDIENCE	3
CATEGORIES FOR USE CASE SUBMISSIONS.....	4
TIMELINE	15
BEFORE SUBMISSION	16
SUBMISSION.....	16
ACCEPTED PAPERS/ABSTRACTS	17
INTELLECTUAL PROPERTY	17
ADDITIONAL INFORMATION	17
CONTACT.....	18

PRESENTATION

The call for content aims to recruit presentations focused on the solutions that drive digital transformation. These include IOT, Digital Twins, Artificial Intelligence, Augmented Reality, Edge Computing, 5G, Wireless Connectivity, Quantum Computing, and Robotics, among others. Industries of focus include Aerospace, Energy, Healthcare, Manufacturing, and Process industries,

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, 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 from 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) i.e., improved productivity, improved security, reduced operating costs, reduced downtime, new revenue streams, supply chain optimization, emissions reduction, 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 favor 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:

Fostering Innovation

Digital Transformation Strategy

Digital Transformation efforts will account for a large capital outlay in 2025, but are companies seeing a return on their investment? Let the experts help perfect your strategy, create realistic goals, and map out a realistic value case for your DT efforts.

Session Topics:

- **"DT Adoption" Strategy**

Why do most digital transformation efforts fail? Often, it's not the technology, but the strategy behind the technology that fails. That's why specific, measurable goals are critical to staging and executing a successful digital transformation.

- **Sustainability Initiatives**

One of the most exciting aspects of Industry 4.0 is improved efficiency. Not only do these automated systems reduce downtime and streamline processes, they may also eliminate waste, save energy, and lower your carbon footprint.

- **Putting Data to Work**

The remote sensor revolution and the advent of supercomputing have led to an exponential growth of both real-time and aggregate data. How can you make the most of all this information?

- **Using AI to Generate ROI**

Artificial intelligence holds huge promise for the future. But what are the best ways to leverage this burgeoning technology in its current state? What are the quick wins that will impact your bottom line?

Advancing Technology

Emerging Technologies and Processes

Emerging technology allows a deeper understanding of the root cause of persistent challenges. Knowing the problem you're trying to solve is the first step to leveraging automated solutions to deliver data in a form that can improve processes and operations.

Session Topics:

- **Supercomputing**

The digital revolution has unleashed so much valuable data, that it often takes massive computer power to process and interpret it. Everything from predicting weather patterns to understanding molecular interactions owes a debt to these state-of-the-art systems.

- **Alternative Fuels**

From Hydrogen Fuel Cells to Lithium-Ion Batteries, the future doesn't belong to a single energy source. Explore the various opportunities created or enabled by the energy transition.

- **Standards and Regulations**

Fostering technology adoption is a group effort. It requires cooperation and, in some cases, regulation to ensure safety, equity, and connectivity. See how industrial standards and government

regulation work to encourage progress, while promoting cooperation.

- **Deep Learning**

Neural networks process vast amounts of data in a new and novel manner. The results from these “layered” systems are only as good as the large data sets, they are trained on and the quality of their backpropagation algorithm. So, the question becomes: How do we learn to teach?

Navigation, Connectivity, and Remote Operations

Working in Space and Other Harsh Environments

5G and Wireless Connectivity are critical components of remote operations. Faster connectivity makes it possible for an autonomous system, or remote pilot to incorporate real-time data into the decision-making process. 3D-visualization, through-water telemetry, and digital twins allow for remote inspections and surveys to be conducted in hostile environments 4,000 meters beneath the sea or millions of kilometers into space. Learn how commercial applications of these cutting-edge technologies are fueling the “space economy” and fostering new business strategies.

Session Topics:

- **Autonomous Vehicles**

Drones, Robots, and Digital Twins can work in concert to map, explore, and interact with realworld equipment and environments too distant or dangerous for humans. See how these systems can accelerate our understanding of the universe and open the door to new resources and opportunities.

- **Wireless Connectivity**

At the heart of the Internet of Things is the need for rapid and robust wireless connectivity. Collecting data and sending instructions to PLCs and remote sensors requires a reliable, high-speed connection. Harsh environments and remote locations often require a novel system, or in many cases, a dedicated 5G network.

- **Remote Operations**

One of the key drivers behind autonomous vehicles and wireless connectivity is the opportunity for governments and industry to operate at scale in environments outside the reach of man. Deploying these systems at an operations level requires a high degree of connectivity, redundancy, and reliability.

- **The Public/Private Future of Space**

While there are numerous historic examples of how government-funded science and engineering have benefitted the private sector, this relationship is becoming more and more of a two-way street. How have government funded programs in space, defense, energy, and conservation benefitted from technological advances in the private sector?

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
- Data sharing
- Edge computing integration

Artificial Intelligence (AI):

- Machine learning
- Deep learning
- Natural language processing
- Computer vision
- Expert systems
- Neural networks
- Cognitive computing
- Data integration
- Data sharing
- Risk vs. Regulation of advanced AI applications
- Subsea telemetry
- Subsea IoT

Augmented Reality (AR):

- Marker-based AR
- Marker-less 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
- Additive manufacturing
- Predictive analytics
- Preventive maintenance

Autonomous vehicles:

- Self-driving cars
- Unmanned Aerial Vehicles (UAVs)
- Autonomous trucks
- Robotic delivery systems
- Automated agricultural vehicles

Big data analytics:

- Data mining
- Predictive analytics
- Prescriptive analytics
- Real-time analytics
- Text analytics
- Social media analytics
- Big Data's role in feeding LLMs

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

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
- Alarm Management Systems
- Edge computing

Mobile technology:

- 5G networks
- Connectivity/Service Areas
- Mobile apps
- Mobile payments
- Location-based services

- Augmented reality apps
- Mobile health technologies

Precision medicine:

- Personalized genomics
- Pharmacogenomics
- Disease modeling
- Digital health technologies
- Data sharing
- 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
- Nanobots

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 and BCC are 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 including 20 minutes for the presentation + 10 minutes for Q&A.
- **Panel discussion:** 60 minutes including 45 minutes for the presentation +15 minutes for Q&A (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 15th December 2024 23:59h CET

Program Director Review:

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

Revision:

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

Committee Review:

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

Notification:

Notifications to be sent to abstract authors by mid-February 2025

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 link:

<https://app.oxfordabstracts.com/stages/76448/submitter>

Until December 15, 2024 23H59 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 Technical Office with all the relevant information, you will also find your session date, session guidelines and recommendations, and all necessary instructions for the onsite event.

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 Program Committee. Any change in the presenting author/speaker line-up needs to be communicated in writing 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

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