IOT SOLUTIONS WORLD CONGRESS

CALL FOR TESTBEDS 2024

TERMS & CONDITIONS

The IOT Solutions World Congress is the only event featuring demonstrations of Industry tech solutions, Be one of the 10 selected to showcase your Testbed at the 2024 edition of the IOT Solutions World Congress!

The Testbeds are strategically placed on our exhibition floor giving attendees the opportunity to experience never-before-seen technology solutions in action.

1. TESTBED CATEGORIES

1.1 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.

1.2 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.

1.3 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.

2. Technologies involved.

Testebeds should use at least one of the following technologies:

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

3. Participation Rules

- The Call for Testbeds welcomes all submissions under the above-mentioned categories.

- Testbeds must be interactive and show the state of the art of technology.
- This is a space designed for testbeds only, in any case, a testbed can be considered a booth, no walls or elements higher than 1m, can be located at the testbed.
- The testbed submission must be accompanied by a render or design that shows how the solution will be displayed in the space provided.
- All testbeds will be reviewed by a professional jury to ensure the submission criteria

4. What's included

- Complementary space at no cost (space to be designated by the organization)
- 1 electrical panel with 3.3kw
- 1 socket
- 1 Totem with the testbed description and logo
- Your testbed is showcased at the event's website an exhibitor's catalogue.
- 1 IOSTWC Full congress Pass
- 10 Expo + tickets (access to the exhibition floor only)

***No additional elements included in case you need additional electricity, internet, transport or furniture you will have to contact the organisation and follow the regular exhibitors' rules**

5. How to Participate

Submit your application online at https://iot.testbeds.int-meetings.es/

by 15th January 2024.

6. Timeline

Submission deadline: 15th January 2024 24:00 CET

Evaluation: January – February

Pre-selected testbeds:

After the first evaluation, the Jury will pre-select 15 testbeds that will be notified. All pre-selected testbeds must send a written confirmation by email and the final render of their proposed staging by 15th February to be reviewed by the jury and organization

Notification:

All participants will be notified in case if acceptance or rejection

Publication:

Selected testbeds will be published on the IOTSWC website by March

7. Evaluation Criteria

For each submission, the jury will score the following questions from 1 to 5:

- Degree of innovation
- Impact for the industry/society: does it represent an incremental change to the past or is it a whole new way of doing business?
- Scalability of the testbeds is the concept applicable across multiple industries or is it a very niche?
- Increased visual effect from the staging
- If the testbed has been in existence for some time, has it published meaning results? Has it delivered “new Knowledge” for the industry?
- Something creative and impactful?

8. Preparation for the Testbed Exhibition

Once you have been selected you will receive:

- Data Sheet with space specifications
- Venue regulations for extra requirements such as internet and electricity
- Access to the exhibitor portal to upload your information on the events exhibitor’s catalogue

9. Contact

Technical Office

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