



LIST OF TOPICS

The IC2 Congress covers the following topics, which are further divided into more specific areas. Each submission must be assigned to one of these specific areas for evaluation by the Technical Committee.

Sponsorship: If you are interested in sponsoring any of the congress sessions, please contact the organizing committee at ptec@plataformaptec.es or info@ic2.es.

EMERGING TECHNOLOGIE IN CONSTRUCTION

Focus: From technological advances already implemented on construction sites to disruptive technologies that are redefining construction processes.

- Artificial Intelligence applied to the construction environment. (Session sponsored by **INGECID**)
- Data Infrastructure (Session sponsored by **FERROVIAL**)
- 3D Printing in construction. (Session sponsored by **CTCON**)
- Construction Software Strategies and Models.
- Cybersecurity. (Session sponsored by **VILOR**)

ADVANCED MATERIALS AND CIRCULAR ECONOMY

Focus: New materials, recycling, and resource reuse for more sustainable and efficient construction. Circular economy applied throughout the entire lifecycle of buildings and infrastructure. Circular models, design and assessment tools, and technologies for waste management, reuse, and valorization.

- Innovation in materials, circular economy, and waste valorization. (Session sponsored by **Instituto Eduardo Torroja de Ciencias de la Construcción - CSIC**)
- Construction materials for urban resilience and nature-based solutions. (Session sponsored by **BECSA-SIMETRIA**)
- Nanotechnology applied to infrastructure. (Session sponsored by the **PHOTOCATALYSIS TECHNOLOGY PLATFORM**)

INDUSTRIALIZATION, MACHINERY, AUTOMATION AND ROBOTICS

Focus: Mechanization and productive innovation to improve efficiency, quality, and safety in construction, inspection, maintenance, and demolition processes. Integration of BIM and IoT in industrialized processes.

- Industrialized Construction. (Session sponsored by **SACYR**)



- Applications of robotics in construction. (Session sponsored by **VIAS Y CONSTRUCCIONES**)
- Construction, inspection, maintenance, and demolition machinery. (Session sponsored by **ANMOPYC**)
- Digitalization in Civil Works. (Session sponsored by **DRAGADOS**)

SUSTAINABILITY, ENERGY AND RESOURCE EFFICIENCY

Focus: Technologies, practices, and policies to reduce energy consumption in buildings, infrastructure, and machinery; clean energy production; decarbonization; and water management as a key resource.

- Sustainability and Decarbonization. (Session sponsored by **FCC**)
- Updates to the 2026 Technical Building Code: Key insights to understand current challenges with innovative solutions. (Session sponsored by **SAINT-GOBAIN**)
- Innovation in the Water Cycle. (Session sponsored by **CETIM**)
- Digitalization of Hydraulic Infrastructure. (Session sponsored by **NEXIO**)
- Energy Efficiency. (Session sponsored by **SINCEO2**)

URBAN RESILIENCE AND CULTURAL HERITAGE

Focus: Strategies and solutions for environmentally responsible construction, adapted to sustainable urban environments and resilient to climate change. Management of the built cultural heritage.

- Sustainable mobility and urban environment.
- Cultural heritage management. (Session sponsored by **TRYCSA**)
- Innovation in building and rehabilitation. (Session sponsored by **AIDIMME**)

CHALLENGES OF THE CONSTRUCTION SECTOR AS A PRODUCTIVE INDUSTRY

Focus: Development of human capital, knowledge transfer, process optimization, and cultural preservation as drivers of sectoral progress. The main short-term challenges facing the industry and the long-term vision.

- Talent and knowledge management through technology. (Session sponsored by **HIBERUS**)
- Strategic challenges of the construction sector: moving toward the future through innovation. (Session sponsored by **SOTHIS-SAP**)
- Digitalization in construction. (Session sponsored by **ANOOK**)



- Fostering innovation through public–private collaboration. (Session sponsored by **AYMING**)
- Optimization of value chain processes to improve productivity and develop new models. Construction 5.0. (Session sponsored by **EVOCONS**)
- Innovation serving Occupational Risk Prevention. (Session sponsored by **NALANDA. ONCE FOR ALL**)

INNOVATION AND INTERNATIONAL COOPERATION

Focus: International partnerships, R&D programs, and collaborative innovation mechanisms.

- Strategies and tools to foster innovation in the sector. (Session sponsored by **Red de Clusters Construcción**)
- The new EU framework program for R&D support
- Challenges in Spain-Chile cooperation

START-UP ECOSYSTEM

Focus: Start-ups play a highly relevant role in innovation within the sector, acting as generators of disruptive technologies and practices. Characteristics and specific needs of start-ups.

- Start-ups: characteristics and needs
- Technologies developed and proposed by start-ups

DUAL TECHNOLOGIES, CRITICAL INFRASTRUCTURES, SECURITY AND DEFENSE

Focus: Emphasis on dual-use technologies and critical infrastructures, with a focus on their construction, maintenance, and management.

- Design, construction, and monitoring in extreme environments.
- Climate control, energy self-sufficiency.
- Logistics. (Session sponsored by **IDONIAL**)
- Dual R&D&I and funding.