

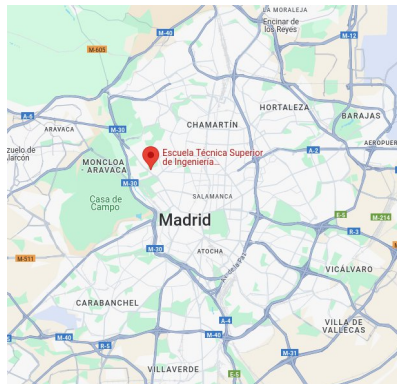
Venue

Universidad Politécnica de Madrid (UPM)

Escuela Técnica Superior de Ingeniería Aeronáutica y del Espacio (ETSIAE)

Plaza Cardenal Cisneros, 3, 28040, Madrid

Aula Magna - Building C



Registration and Contact

Registration to the 1st USES² Industry Day is free but compulsory. Please register before the 31st of January, 2025.

For more information and registration, please click [here](#)

or email uses2@univ-eiffel.fr

Know more about the project and subscribe to the newsletter
<https://www.uses2.eu/>



Stay tuned



[Twitter/X](#)



[Linkedin](#)



FIRST ANNOUNCEMENT 1st USES² Industry Days

USES of novel UltraSonic and Seismic Embedded Sensors for the non-destructive evaluation and structural health monitoring of infrastructure and human-built objects

ETSIA-UPM, Spain, February 18th 2025

Organized jointly with **UPM, Temai and Airbus**

The 1st USES² Industry Day aims at inviting companies, administrations, local authorities, academic experts, policy makers, research scientists, engineers in order to boost networking opportunities, to recognise the challenges of Structural Health Monitoring and to discuss USES2 research work in these fields.

The 1st USES² Industry Day features talks by a panel of experts, discussions, round table, demonstrations, poster exhibition showcasing the 11 Doctoral Candidates research projects of the European project USES²



SAVE THE DATE

February 18th 2025: 1st USES² Industrial Day presentation

February 19th 2025: White Book on SHM challenges



USES² project has received funding from the European Union's Horizon 2021 research and innovation programme Marie Skłodowska-Curie grant agreement No 101072599

Current SHM typically uses sensors that provide local information only, which may be insufficient for detecting interior degradation or require very dense networks. Furthermore, the performance of both in-situ sensing systems and algorithms to process and interpret the sensor data is reduced when subject to Environmental and Operational Conditions (EOC). This limits their large-scale deployment.

USES² aims to develop and combine novel emerging sensing technologies (optical fibre and wireless piezoelectric sensors), advanced processing (compressed sensing, artificial intelligence) and full-mechanical-waveform based imaging to tackle these issues.

USES² includes 3 scientific Work Packages (WP), 7 first-class academic organisations, 3 industrial companies, 12 partner organisations, an advisory board composed of 6 members and 11 PhD students.



White book on Structural Health Monitoring

During the second day, attendees will be divided in three groups to discuss about three main aspects of Structural Health Monitoring (Sensors/systems, signal processing and applications). All the discussions will provide an in-depth report about Structural Health Monitoring, with the objective of presenting the current implementation problems, or present research findings related to the main industrial application developed in the project (aeronautic, civil engineering, energy) and provides a solution.

The objective is to promote the methodologies and technological innovations developed in the project to influence current and prospective customer decisions, as well as to provide wide diffusion about USES²'s philosophy, as well as all the participants companies and institutions.

DAY 1: February 18th 2025: 1st USES² Industry Day presentation

- 9:30 – 10:00** Welcome Coffee
- 10:00 – 10:30** **Opening and Introduction by Gustavo Alonso**,
Director of the School of Aeronautics, UPM, Spain

NEEDS AND CHALLENGES OF SHM in

- 10:30 – 11:00** **Aeronautics, by Fernando de Nicolas**, Head of Structural Integrity and Testing, Airbus, Spain
- 11:00 – 11:30** Coffee Break
- 11:30 – 12:00** **Wind Energy**, Spain
- 12:00 – 12:30** **Oil and Gas**, Respol, Spain
- 12:30 – 13:00** **Civil Engineering, by Dr Matthieu Perrault**,
Ing R&D Structure&SHM, Sercel, France
- 13:00 – 14:30** Lunch buffet
- 14:30 – 15:00** **Work Packages introduction**
- 15:00 – 16:30** **Room discussion with the 11 Doctoral Candidates**
- 16:30 – 17:00** **Discussion feedback and closing**

DAY 2: February 19th 2025: White Book on SHM challenges

- 9:00 – 9:30** **Challenges in measurement systems for SHM by Luis Buisson**,
Temai, Spain
- 9:30 – 11:00** **White book on SHM**, working group session
- 11:00 – 11:30** Coffee Break
- 11:30 – 13:00** **White book on SHM**, working group session
- 13:00 – 14:30** Lunch buffet / Farewell