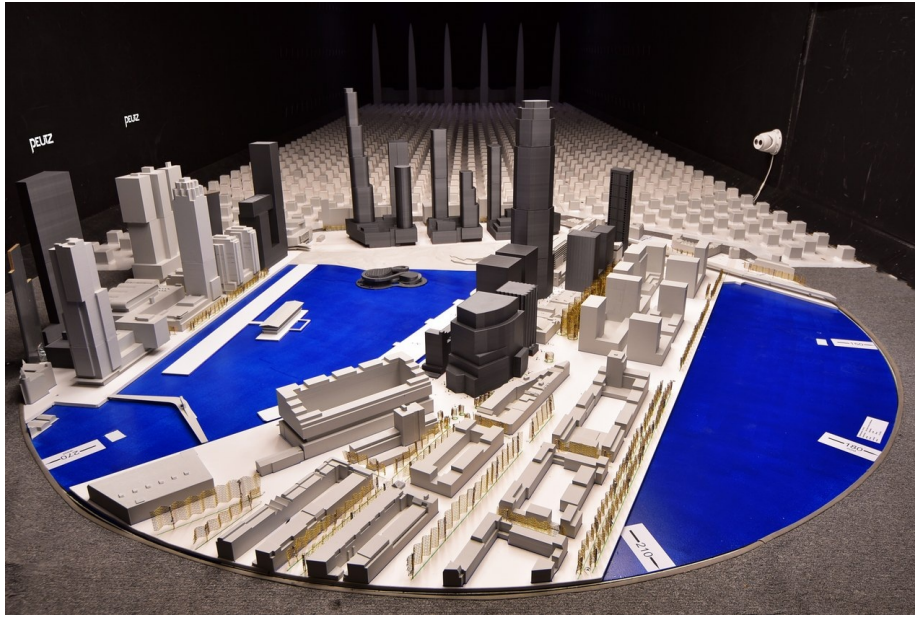


Wind engineering for structural design



Date: 3 March 2026 | 13:30 – 16:00

Join our experts in this webinar to explore the crucial role of wind tunnel testing in the design and realisation of buildings and structures. Discover how wind engineering delivers valuable insights during early design stages, enhances structural integrity, and improves vibration comfort for building occupants.

This webinar is designed for structural engineers, architects, and building developers involved in building realisation, high-rise development, industrial structure design, stadium canopy engineering, bridge design, and/or other types of structural developments.

This session covers essential wind engineering topics in the field of structural engineering. Providing clear, practical guidance for efficient, reliable, and cost-effective structural designs.

[See full program and register here](#)



Niels Moonen

Welcome and opening by our host and chairman

A historical perspective of wind engineering and its applications at Peutz nowadays. A perspective on the collaboration of the architects, developers, structural engineers and wind engineering consultants.

Wind Load analysis using wind tunnel testing – The Why and How

How does wind tunnel research work and how does it relate to the Eurocode? This talk delves into the fundamentals of wind loading and demonstrates how wind loads are determined. Discover wind tunnel deliverables and their practical application in structural engineering practice.

Key Takeaways:

- Why wind load analysis is essential
- Basic principles of wind-structure interaction



Lourens Aanen

- Fundamentals of wind tunnel tests
- Project examples where wind load studies make a difference

CFD in Structural Engineering – The Multitool for Wind Problems?

CFD (Computational Fluid Dynamics) is more accessible than ever, but is it truly the universal multitool for solving complex phenomena associated with wind engineering? This talk covers the opportunities and limitations of CFD in structural engineering practice. Guidance is provided to structural engineers for addressing wind-related design challenges.



Frank Kemper | Guest speaker



Key Takeaways:

- Critical modelling choices that influence reliability
- The structural engineer's role in using CFD responsibly
- Why CFD is not a universal solution for all wind-related problems
- When CFD adds real value and when simpler approaches are better
- Combining CFD with Eurocode provisions, engineering judgment, and WT testing

From Wind Load Testing to Wind Load Design – Early Integration for Optimal Results

Wind tunnel testing is typically conducted late in the design process, possibly leading to costly design revisions, or conversely, to only limited utilisation of design optimisations. This talk explores wind load testing in the earliest design stages allowing improved feasibility assessments, enhanced risk management, and efficient design optimisations.



Thomas Saes

Key Takeaways:

- How early wind load testing supports project feasibility
- Cost optimisation and risk reduction through early wind engineering
- Optimal timing for local and global wind load testing in the design process
- Building aspects with the strongest influence on global wind loads

Wind-Induced Building Vibrations – Design for Comfort

This talk explores the prediction of wind-induced dynamic responses of a high-rise through wind tunnel testing. Wind tunnel responses are compared with Eurocode predictions and validated using in-situ measurements. The talk also demonstrates the significance of surrounding buildings on a high-rise's response.



Ivo van de Weijer

Key Takeaways:

- Impact of surroundings on wind-induced responses
- How wind tunnel results relate to in-situ measurements
- Advantages and limitations of wind tunnel testing vs. Eurocode calculations
- Parameters structural designers must consider to ensure comfort

[See full program and register here](#)
