



## Enhancing turbulence modelling capabilities in OpenFOAM: Plans and activities of the Technical Committee on Turbulence

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A Technical Committee on Turbulence has been established within the OpenFOAM Governance structure. The long-term objective of the committee is simple yet ambitious:

*To establish OpenFOAM as the first-choice code for turbulent flow simulation in research and industry*

Effective, transparent and structured community engagement is considered a key means to achieving this ambition and for realising the full potential that the open source nature of the code offers.

The initial committee members span a wide range of technical specialisms and application areas, as summarised in the table:

Name	Institution	Tech. expertise	Application areas
Dr. Michael Alletto	Enercon GmbH	Atmospheric boundary layer, particle-laden flows	Wind energy
Dr. René Cecora	Volkswagen AG	Reynolds stress modelling	Automotive
Dr. Andy Heather	OpenCFD Ltd	Verification & Validation, code development	Release & Maintenance
Dr. Charles Mockett	Upstream CFD GmbH	Hybrid RANS-LES, Verification & Validation, Numerics for LES	Aerodynamics, Aeroacoustics
Dr. Timofey Mukha	Chalmers University of Technology	Wall-modelled LES, LES inlet BCs	Marine
Dr. Philippe Spalart	Boeing Commercial Airplanes	RANS, Hybrid RANS-LES, DNS	Aeronautics, Aeroacoustics
Dr. Stefan Wallin	KTH Royal Institute of Technology	RANS, LES, Hybrid RANS-LES	Aeronautics, Flow control

The presentation is intended on the one hand to build awareness in the OpenFOAM community about the committee, its plans and activities. On the other hand, and more importantly, participation of the community in the activities of the committee on numerous levels will be actively encouraged.



The outline of the talk is as follows:

- An overview of the OpenFOAM Governance structure as an initiative for community engagement
- Objectives, remit and structure of the Technical Committee on Turbulence
- Turbulence modelling capabilities in OpenFOAM
  - Review of existing features
  - Highlight of upcoming features
  - Ideas and recommendations for future developments
- Online presence of the committee and channels for community engagement

The final 10 minutes of the presentation slot will be dedicated to an active discussion session to answer questions and to gather feedback and ideas from the audience.