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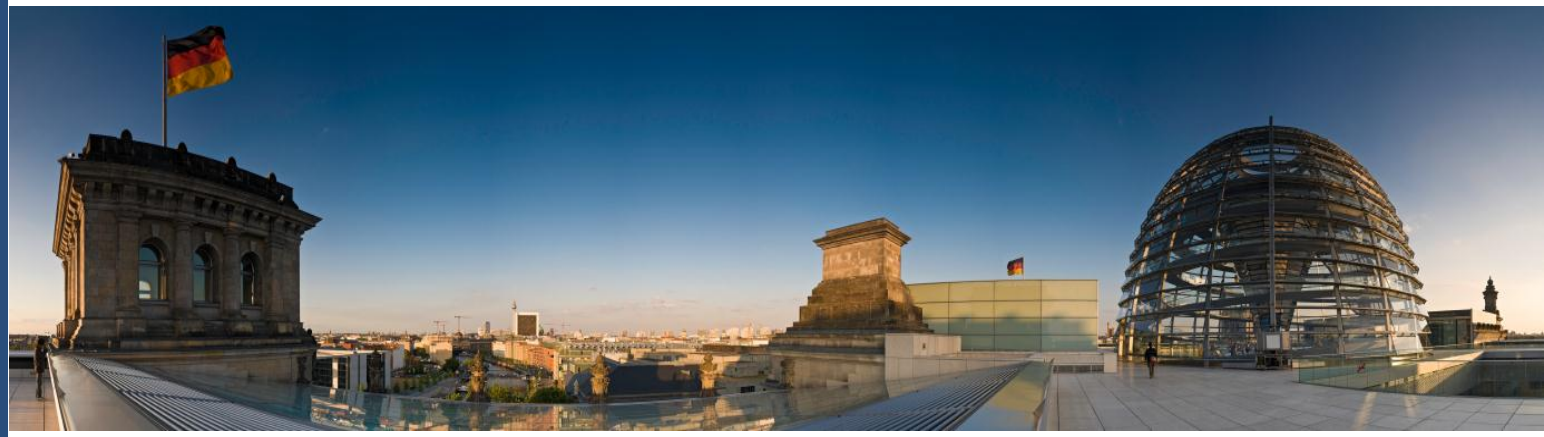

Virtual Testing

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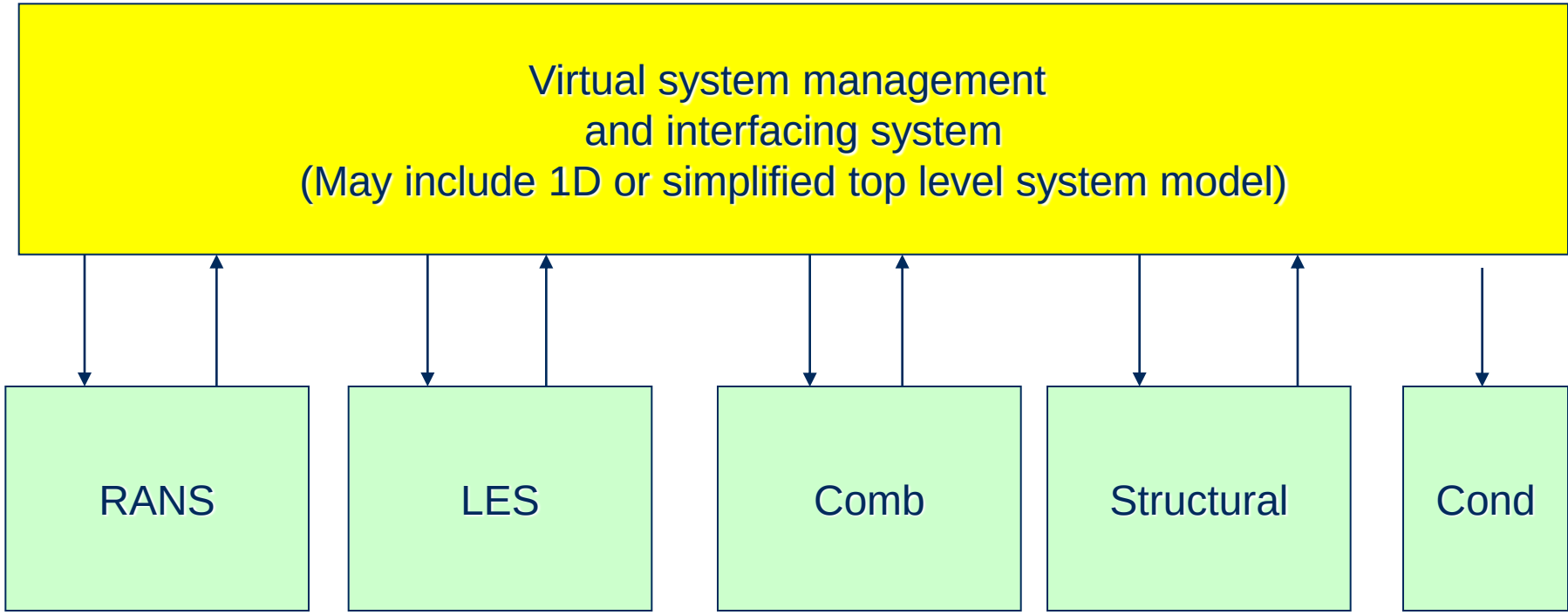
Vision

- To develop a gas-turbine virtual testing environment which should enable:
- Complete test of a machine with varying degree of modelling fidelity for various components according to needs
- Primarily flow and heat transfer features, but other features such as structural can be progressively included in the model

Potential use

- Reduce rig and engine tests during the design cycle (OEMs)
- Post design and in-operation investigation of problems (OEMs/Users)
- Investigate operational issues (Users)
- Research and development (R&D institutions)

Proposed layout



Areas of R&D

- Envisaged that industrial partners would want to use existing validated models
- R&D required to build the top level system to manage the Virtual Testing environment
- This requires standardising interfaces and data structures, managing data transfers and computer load balancing etc...
- Validation

What should we do next

- Get interested parties together
- Gather support from industrial partners
- Form a project group
- Research similar initiatives, particularly aero-related
- Identify requirements to develop the system
- Identify sources of funding