



Wind Tunnel

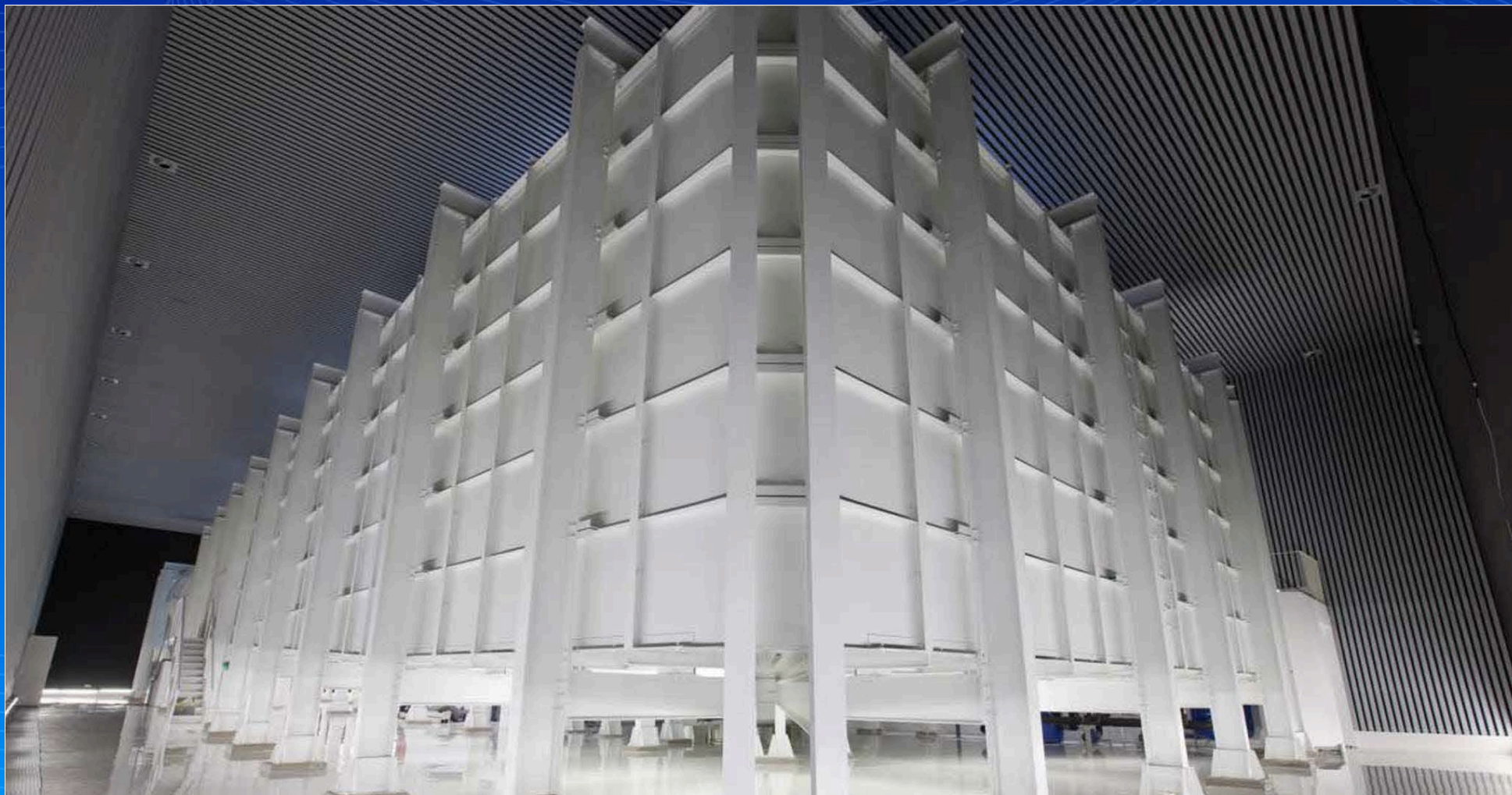


CTA is an Aerospace Center specialised in technology validation for development of aerospace materials, structures and systems with a high R&D activity.

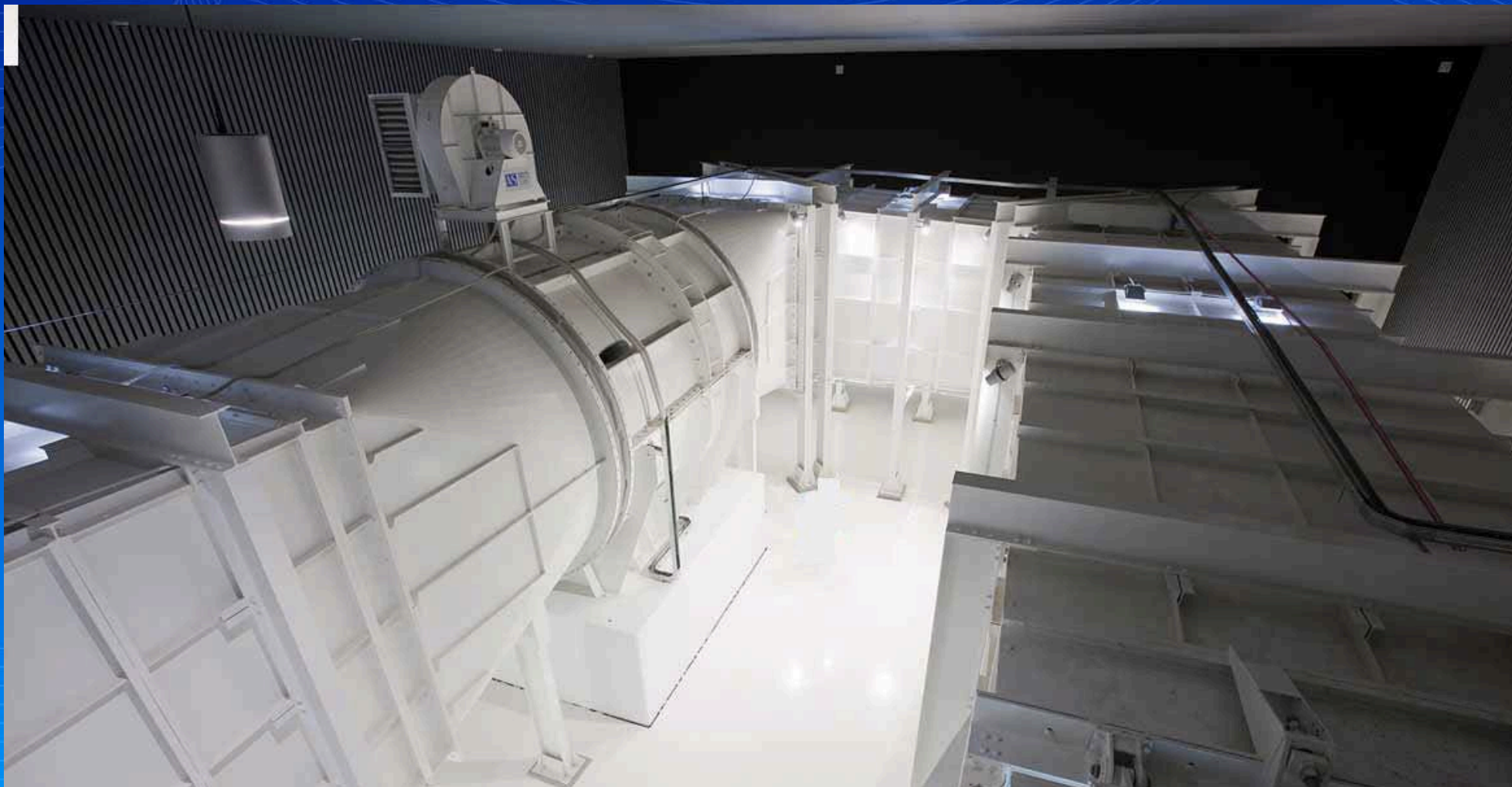
# Standard features

Type	Single return closed circuit
Overall dimensions: circuit length x width x height (m)	150 x 15 x 7
Test area section: circuit width x height x length (m)	3.25 x 2.23 x 8.0
Approx. maximum speed (depending on the model) (m/s)	55
Turbulence level (%)	0.2
Air cooling system	Yes
Reaction load measurement	Yes (six axis)
Pressure mapping	Yes
Yaw angle rotation	Yes

# External View



# Wind Tunnel Turbine



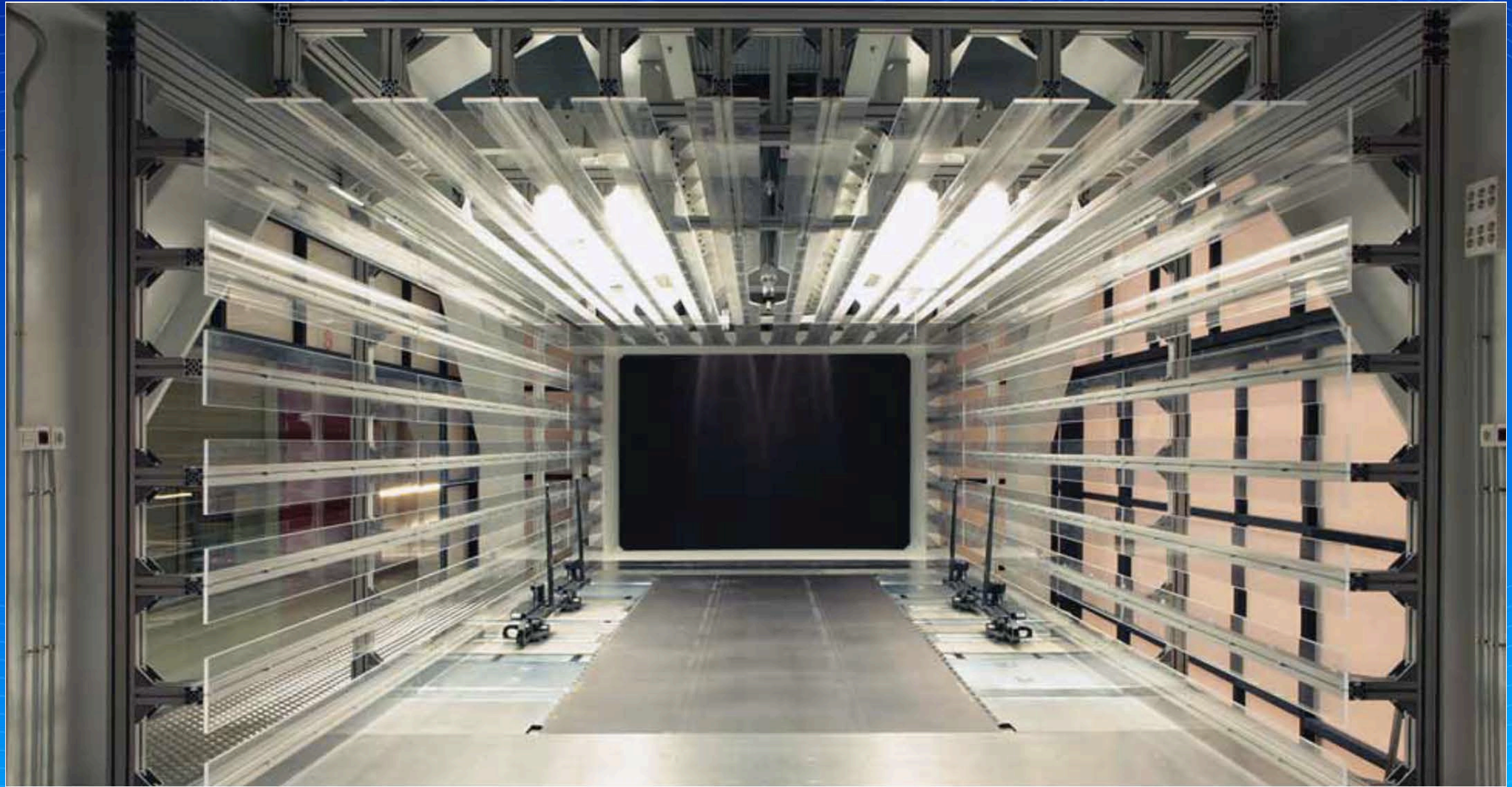
# Top View



# Air Deflectors



# Test Section





# New technologies

- **Self Calibration System**

Development of an automatic calibration system based on a 3D controlled and motorized positioning system synchronized with multiple measurement sensors array. Including possibility of wakes measurement.

- **Monitoring**

Particles movement measurement.

3D Optical measurement to verify models deformation under aerodynamic load.

Loads measurement at model (lift, drag, yawing, moments,..) at dynamic (oscillatory) condition.

Infrared thermographic cameras with enough sensitivity to detect boundary layer transition in air.

- **Future technologies in the aerospace industry**

Aerostructures behavior under morphing, plasma and H<sub>2</sub>

