**Project Brief:**

In 2014 the EPSRC announced an award for a new National Wind Tunnel Facility. Led by Imperial College’s Department of Aeronautics, this initiative will see investment in wind tunnels at several UK universities. The award enables Imperial College to undertake extensive refurbishment and extension of the “Honda” Wind Tunnel, a low speed 10’x5’ wind tunnel located in room L50, Roderic Hill Building, including the necessary enabling works to the area. The scope of works include:

- Increased power supply to room L50.
- Upgrade and modernise all 10’x5’ Wind Tunnel systems and provide a stable air temperature
- Increase the flow quality
- Provision of a high quality general purpose facility, with road and air vehicle test capability
- Provision of additional research capability with an extended test section and additional test section in the upper circuit
- Refurbishment of the area in which the facility is located, to provide accommodation for a control room and instrumentation, to ensure that it is appropriate for housing this national facility.

The 10’x5’ tunnel is one of the facilities selected to form part of the UK’s National Wind Tunnel Facility (NWTF). The joint EPSRC-ATI funding has allowed for the requisite refurbishment and modernisation required to meet the world class capability offered by the NWTF. Already a renowned facility for road and vehicle testing, the refurbishment will also provide a lower test section 20m in length, to enable ground-breaking research on thick boundary layers, the crucial interface between body and flowing fluid. This elevates the tunnel's research capability to a status only enjoyed by two other wind tunnels worldwide.

The lower test section stretch enables the upper return circuit to be used as a second test section with a larger cross-sectional area but lower flow quality, opening up research possibilities in industries such as alternative energy, civil engineering and sports. This will make the facility hugely flexible in the scope and range of projects which can be accommodated.

To learn more about the Department of Aeronautics refer to: [http://www.imperial.ac.uk/engineering/departments/aeronautics/](http://www.imperial.ac.uk/engineering/departments/aeronautics/)
The National Wind Tunnel Facility’s website is: [www.nwtf.ac.uk](http://www.nwtf.ac.uk)

**Construction Project Team:**

- **Project Manager:** William Frame
- **Contractor:** ELECO
- **Mechanical Contractor:** Mechanical Services Ltd
- **Electrical Contractor:** ELECO
- **Tunnel Designer/Installer:** Mid-West Engineering

**Project Facts & Figures:**

- **Construction Value:** £500,000
- **Funding Source:** College Capital and EPSRC
- **Construction Project Programme:**
  - Start on Site: November 2015
  - End Date: October 2016
  - Occupation Date: November 2016

For more information on the project please contact William Frame [w.frame@imperial.ac.uk](mailto:w.frame@imperial.ac.uk)