Support when you need it most - the V&V Framework

Case study overview

Preferential access to HORIBA MIRA's heavily-subscribed climatic wind tunnels and electromagnetic compatibility (EMC) test facilities were vital to electric vehicle start-up Tevva during the development of its 7.5-tonne truck.

Early on in the project it became clear that significant delays to the programme could occur if these key facilities and services were unavailable - for instance, if they had already been reserved by another manufacturer.

HORIBA MIRA's response was to work with Tevva on a flexible framework for the project's verification and validation (V&V) activities. This gave priority access to HORIBA MIRA's services, ensuring that support was easily available when required across a wide range of disciplines.

Engineering team deployed: One primary contact, providing access to HORIBA MIRA's international team of technical specialists, covering numerous engineering disciplines across more than 40 locations worldwide.

Thermal engineering, battery development, powertrain verification, EMC testing, and others

Light duty commercial vehicle

UK

> OEMs and startups need to move quickly. This framework provides heads of department with a direct link to HORIBA MIRA, allowing them to authorise work immediately with a simple signature, knowing that all the paperwork is already in place.

Ben Gale, Solution Leader for Automotive Energy Efficiency
HORIBA MIRA

Approach

Support for the project was provisionally scheduled, based on the anticipated test and development requirements. Time, for instance, was pre-booked in the climatic wind tunnel at HORIBA MIRA's Nuneaton facility to ensure access was available when needed.

As with all projects conducted under HORIBA MIRA V&V frameworks, flexibility is key as projects constantly evolve. Although based loosely on a pre-booked schedule, there were no penalties for cancellation or deferment. Instead, Tevva held dates using the framework agreement and had first refusal if other manufacturers requested the same dates, able to trade booking slots to accommodate changes in schedule.

A pragmatic governance process was put in place to control expenditure. Within the framework, extra services could be authorised immediately by Tevva in response to changing situations. If, for instance, a vehicle in the wind tunnel required electrical engineering support, this could be provided on-site without waiting for an additional purchase order to be raised, which is often too late.

The end result was a highly agile process, with priority access to key facilities such as HORIBA MIRA's Climatic Wind Tunnel, Advanced Battery Development Suite, XiL test beds, and EMC testing. This minimised the potential for delays, provided peace of mind for the project team and gave the most value from the HORIBA MIRA ecosystem.

Successes and benefits

HORIBA MIRA's flexible V&V frameworks offer:

- ✓ **Priority access** to HORIBA MIRA's vast range of services, including pre-booked slots in heavily-subscribed facilities, helping to keep project test schedules on track
- ✓ **Rolling contract** with the freedom to expand capabilities covered within the framework, giving visibility on other likely V&V costs
- ✓ **Flexibility** to divert funds from the framework to other HORIBA MIRA capabilities to cover unexpected contingencies
- ✓ **No financial penalties** for cancellation or deferment, saving costs in dynamic project environments

Deliverables

- ✓ Climatic wind tunnel testing
- ✓ Flexible engineering services
- ✓ Durability testing
- ✓ Battery development / abuse testing
- ✓ Powertrain development
- ✓ EMC testing

HORIBA MIRA Ltd. Watling Street, Nuneaton, Warwickshire, CV10 0TU, UK
+44 (0)24 7635 5000 I www.horiba-mira.com/enquiries