MISRA celebrate 25 years since landmark publication of guidelines

The MISRA consortium, a world-leading collaboration between manufacturers, component suppliers and engineering consultancies, is today celebrating 25 years since the landmark publication of "Development Guidelines for Vehicle Based Software".

The guidelines, and the revisions and amendments that have followed, have underpinned significant improvements in vehicular software safety; and the success has seen the principles adopted by many other industries.

The MISRA consortium was conceived in the early 1990s as a project in the UK government's "SafeIT" programme to develop guidelines for embedded software in road vehicle electronic systems. Membership now consists of members from other industries in the safety-related embedded systems world, alongside automotive companies.

The consortium started with eight core members in the funded project, and now consists of a board of ten in voluntary roles.

Dr David Ward, Founding Member of the MISRA group, said, "In the late 1980s, the automotive industry had to adapt to more complex systems of embedded electronics in our road vehicles. Starting with the publication of our guidelines in 1994, we have been at the forefront of making sure our safety standards have developed hand-in-hand with the technological breakthroughs in the industry."

From the introduction of the MISRA C guidelines in 1998 to the latest announcement of *Guidelines for Automotive Safety Arguments* in September 2019, the fingerprints of the consortium can be seen in three decades of automotive electronics development.

In the 1990s mass-market vehicles introduced engine management and, later, airbags as standard. Then came stability control at the start of the century, and driving assistance aids such as radar, cruise control and emergency braking that became commonplace in the last decade. Each development added a layer of complexity to the electronic systems with road vehicles, and a greater need for robust and comprehensive safety guidelines.

Outside of the automotive sector, the MISRA guidelines have supported the development of renowned technological projects. The Joint Strike Fighter (JSF) project C++ Coding Standard and NASA Jet Propulsion Laboratory C Coding Standards, as used on the Mars Rover missions, are both based on MISRA guidelines.

Dr Ward added, "When we started this journey, I cannot imagine that we envisioned having quite this reach and for such a long time. I certainly could not have seen us making it to Mars! It is a privilege, and a testament to the numerous people involved in MISRA, that we are still seen as the trusted authority, twenty-five years later."

"Our minds are now on the next twenty-five years and the role that the consortium has in providing guidelines that support the next wave of challenges. We are now seeing vehicles with more emphasis on autonomous systems, artificial intelligence and other elements that add up to a much more complex electronic architecture."

Notes to editors

For more information, or to arrange an interview with David Ward, contact Luke Harrison on luke@lhcomms.com, or (44)7792 051739.

<u>About MISRA</u>

MISRA is a collaboration between manufacturers, component suppliers and engineering consultancies which seeks to promote best practice in developing safety and security-related electronic systems and other software-intensive applications.

The MISRA members at present are (in alphabetical order):

- Bentley Motor Cars
- Delphi Diesel Systems
- Ford Motor Company
- Jaguar Land Rover
- HORIBA MIRA
- Protean Electric
- Ricardo UK
- University of Leeds
- Visteon Engineering Services
- ZF