OPENDRIVE 2010 AND BEYOND –
STATUS AND FUTURE OF THE DE FACTO STANDARD
FOR THE DESCRIPTION OF ROAD NETWORKS
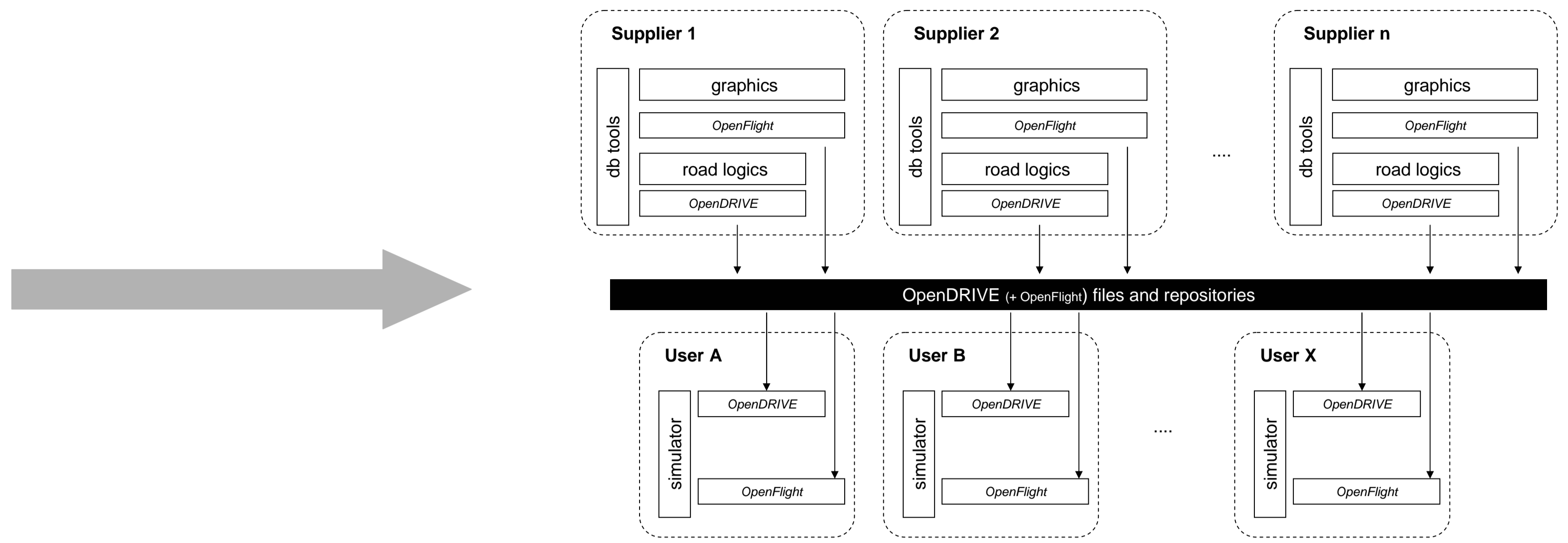
Open*DRIVE*®
managing the road ahead

DSC 2010, **Marius Dupuis** – VIRES Simulationtechnologie GmbH, **Martin Strobl** – BMW Group Research and Technology, **Hans Grezlikowski** – Daimler AG

A Simple Idea
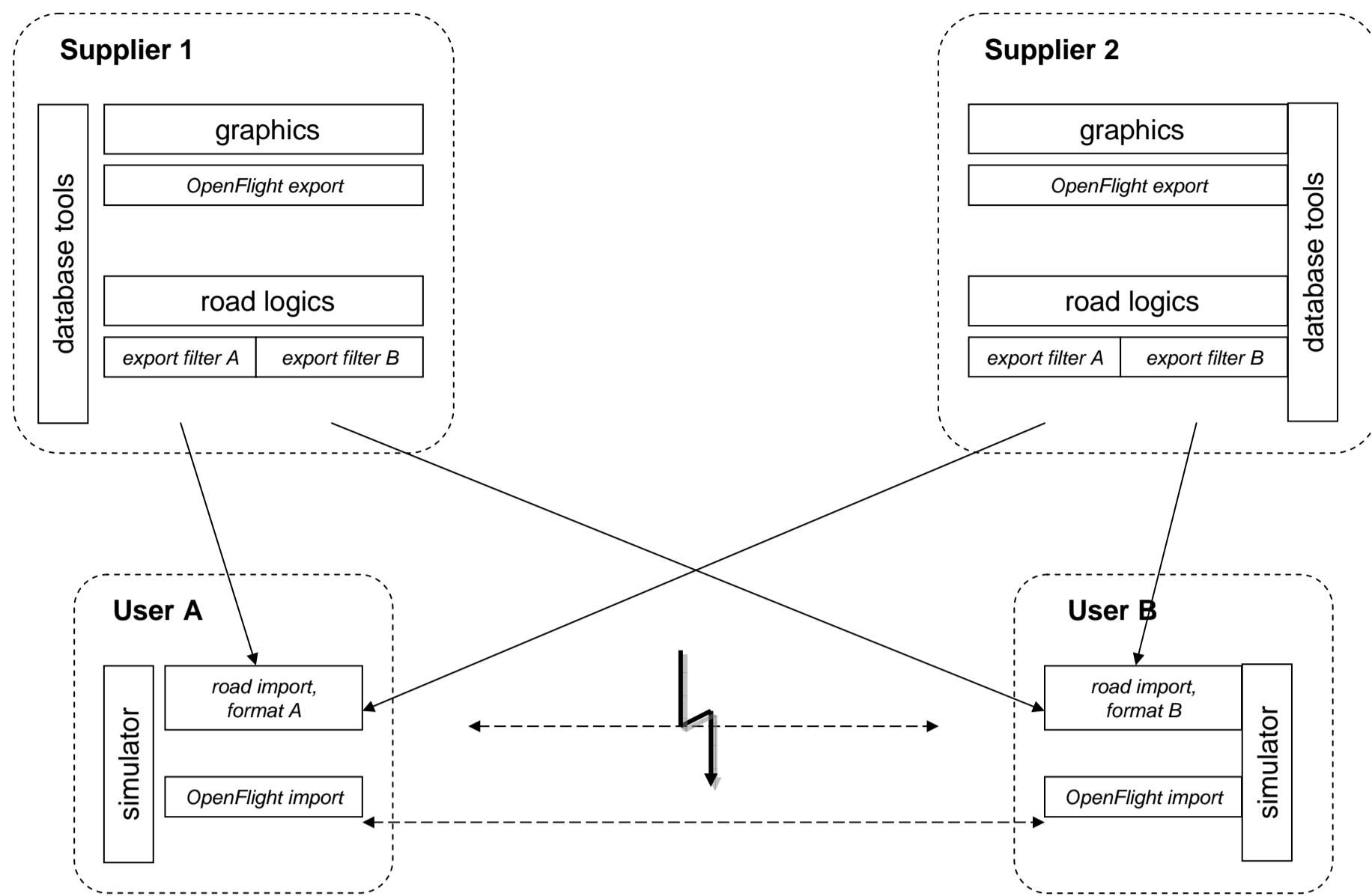
From Custom Solutions to a Common Solution
Achieving for road logics what had already been done for graphics
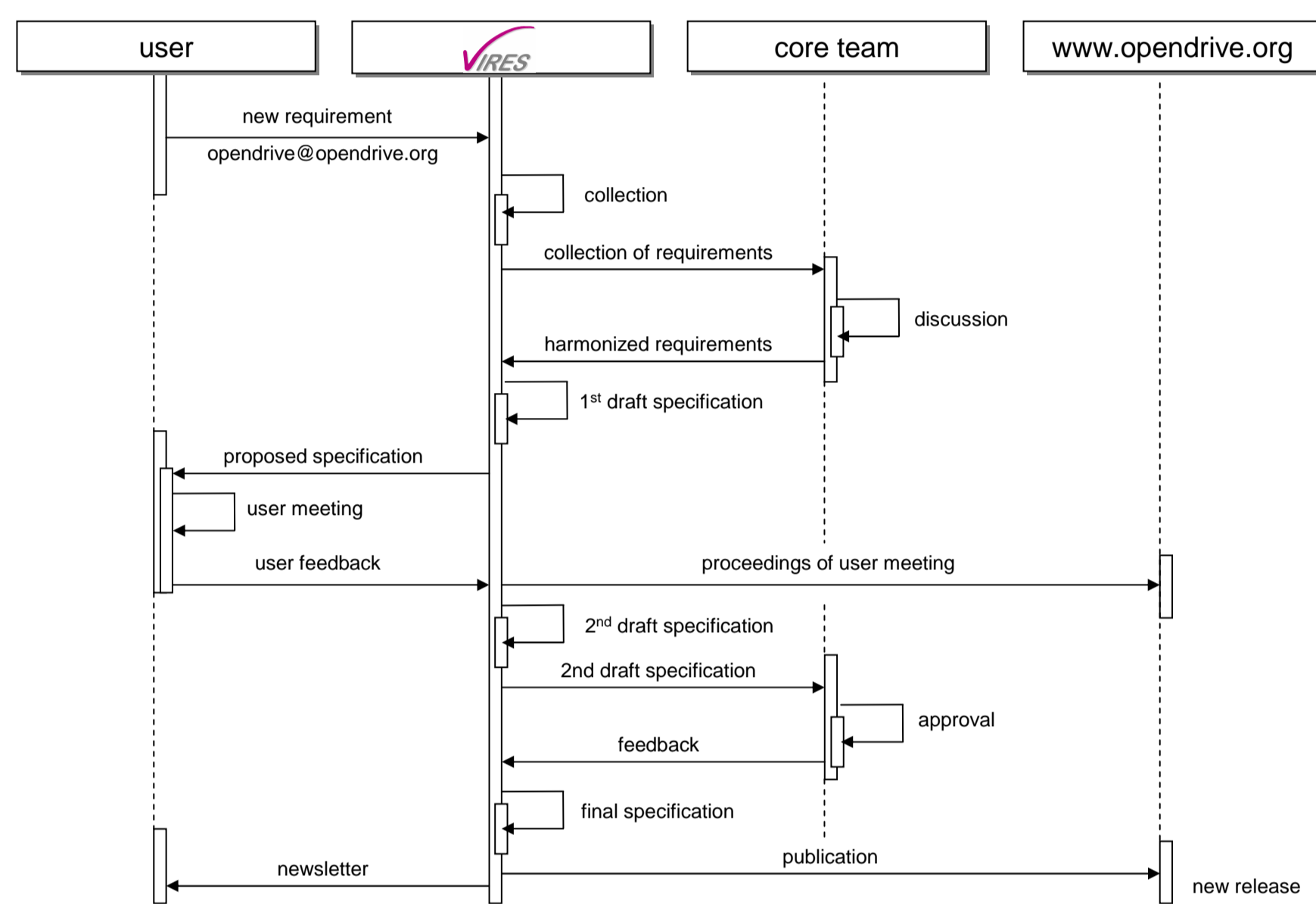

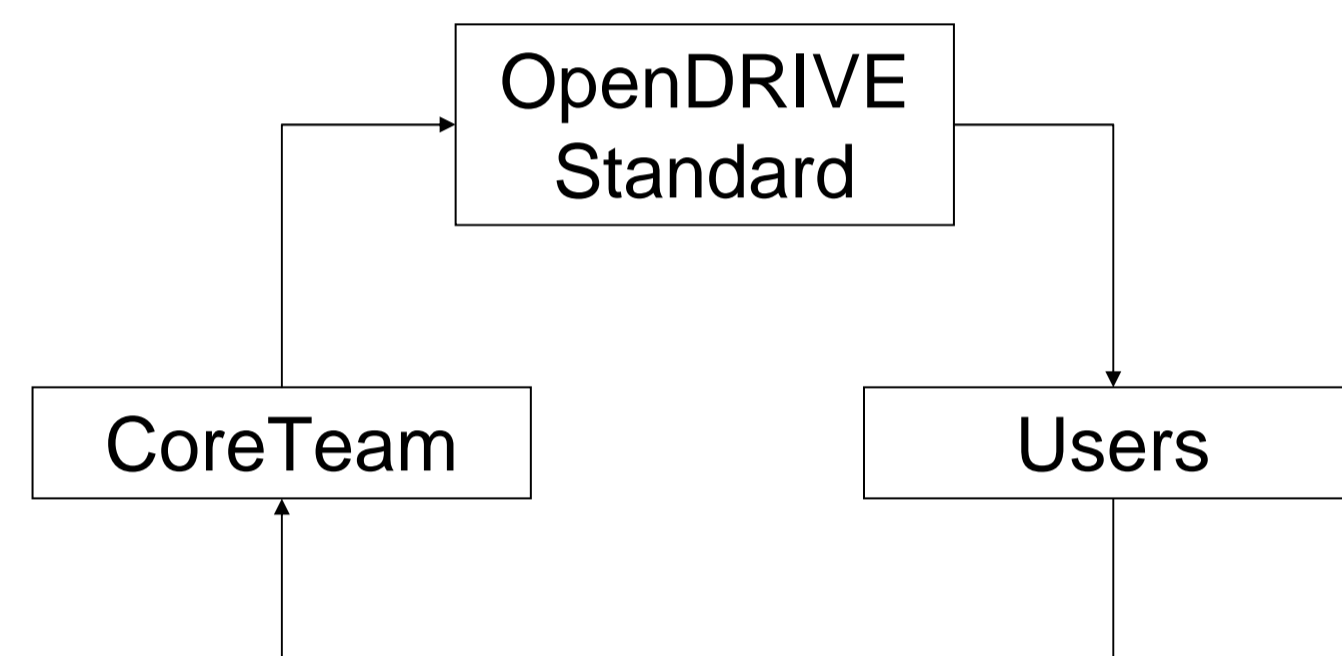**OpenDRIVE: Setting Standards Since 2006!**

A Well Managed Format

OpenDRIVE is Managed by a Core Team of Driving Simulation Professionals
User requirements meet user experience

The OpenDRIVE Revision Process in Detail

Core Team
- Martin Strobl / BMW Forschung und Technik GmbH, Germany
- Hans Grezlikowski / Daimler AG, Germany
- Andreas Richter / Deutsches Zentrum für Luft- und Raumfahrt e.V., Germany
- Dr. Günther Nirschl / Fraunhofer-Institut IVI, Germany
- Ekkehard Klärner / Krauss-Maffei Wegmann GmbH & Co. KG, Germany
- Dr. Bernhard Bock / Rheinmetall Defence Electronics GmbH, Germany
- Ingmar Stel / TNO, The Netherlands
- Marius Dupuis / VIRES Simulationstechnologie GmbH, Germany
- Mats Lidström / VTI, Sweden

A Usable Format

Database Exchange Between BMW Group Research and Technology and Daimler
- more than just a proof-of-concept -

2009
- Exchange of OpenDRIVE / OpenFlight database tiles for mutual use

Simulators
- Similar concepts but different software

Lessons Learned
a) the exchange of databases actually works!
b) details of the databases had to be harmonized in order to interpret technically consistent OpenDRIVE files in the same way within the run-time software (traffic etc.)
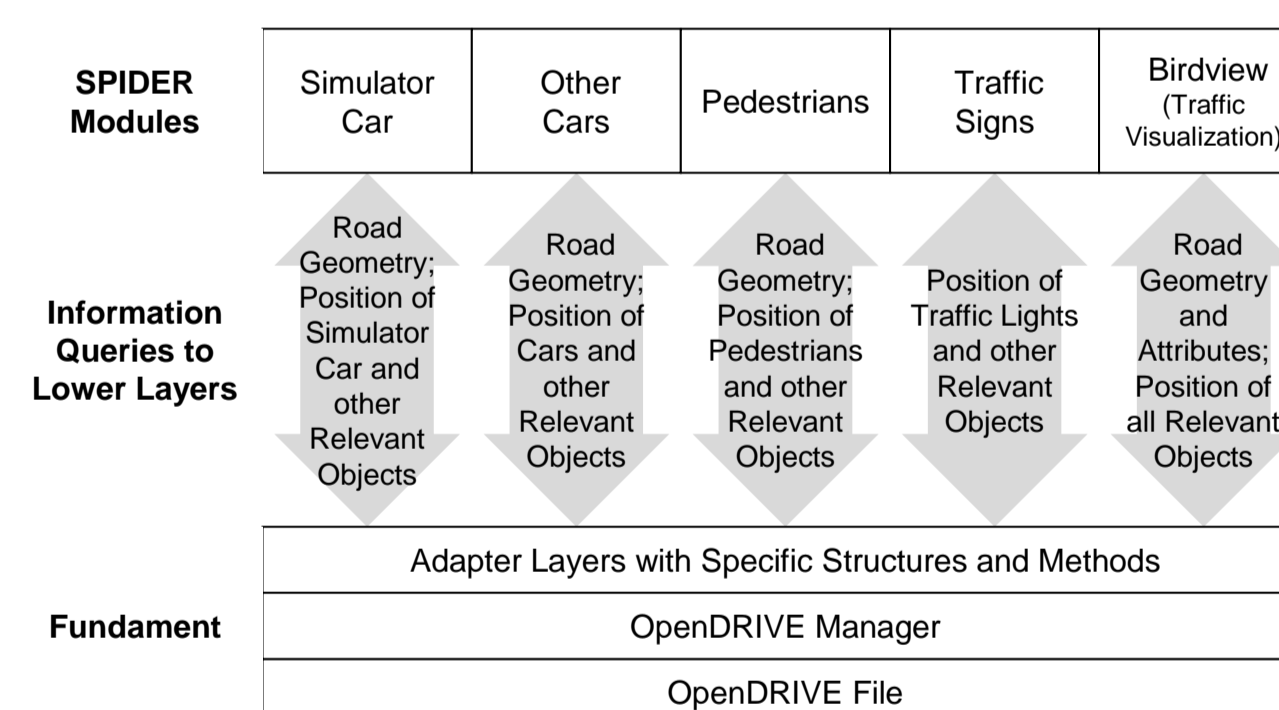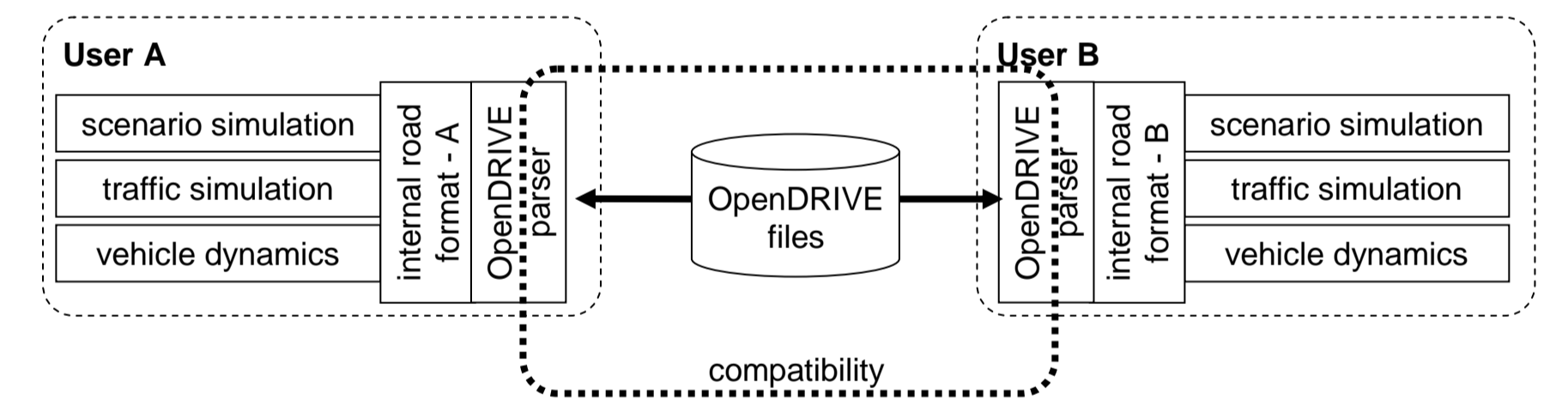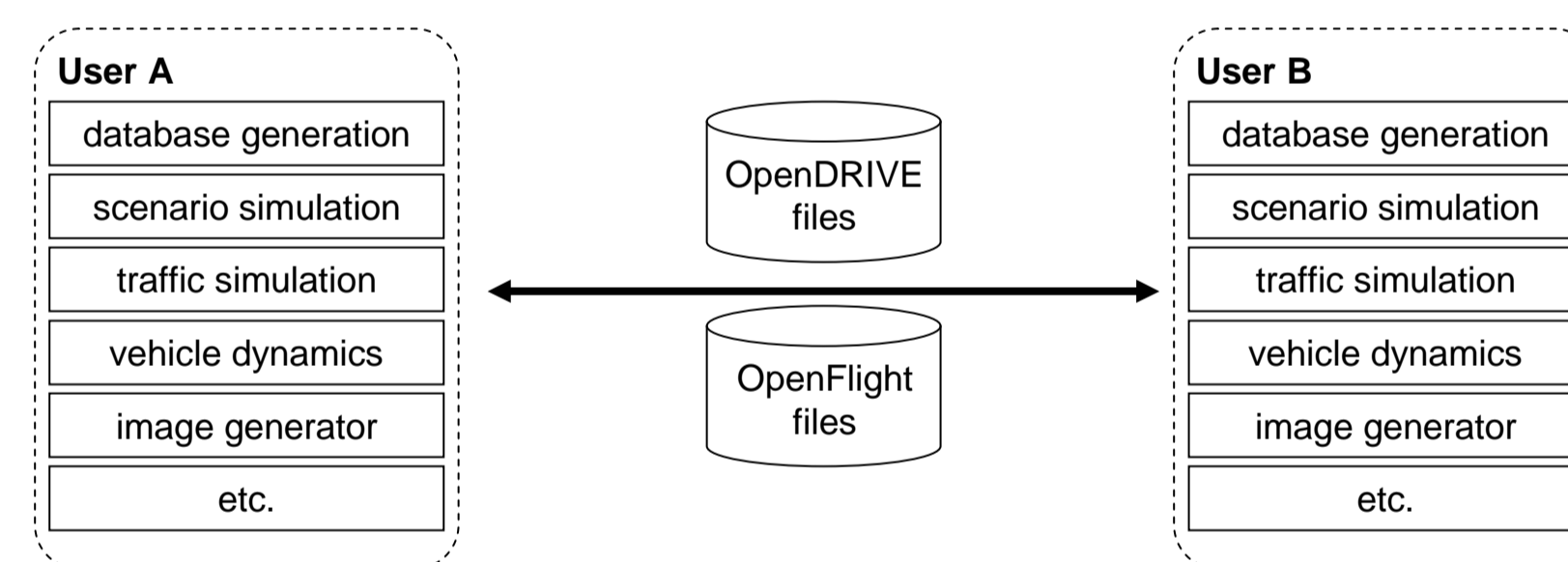
Software Layout (schematic) for the Simulators Involved in the Database Exchange
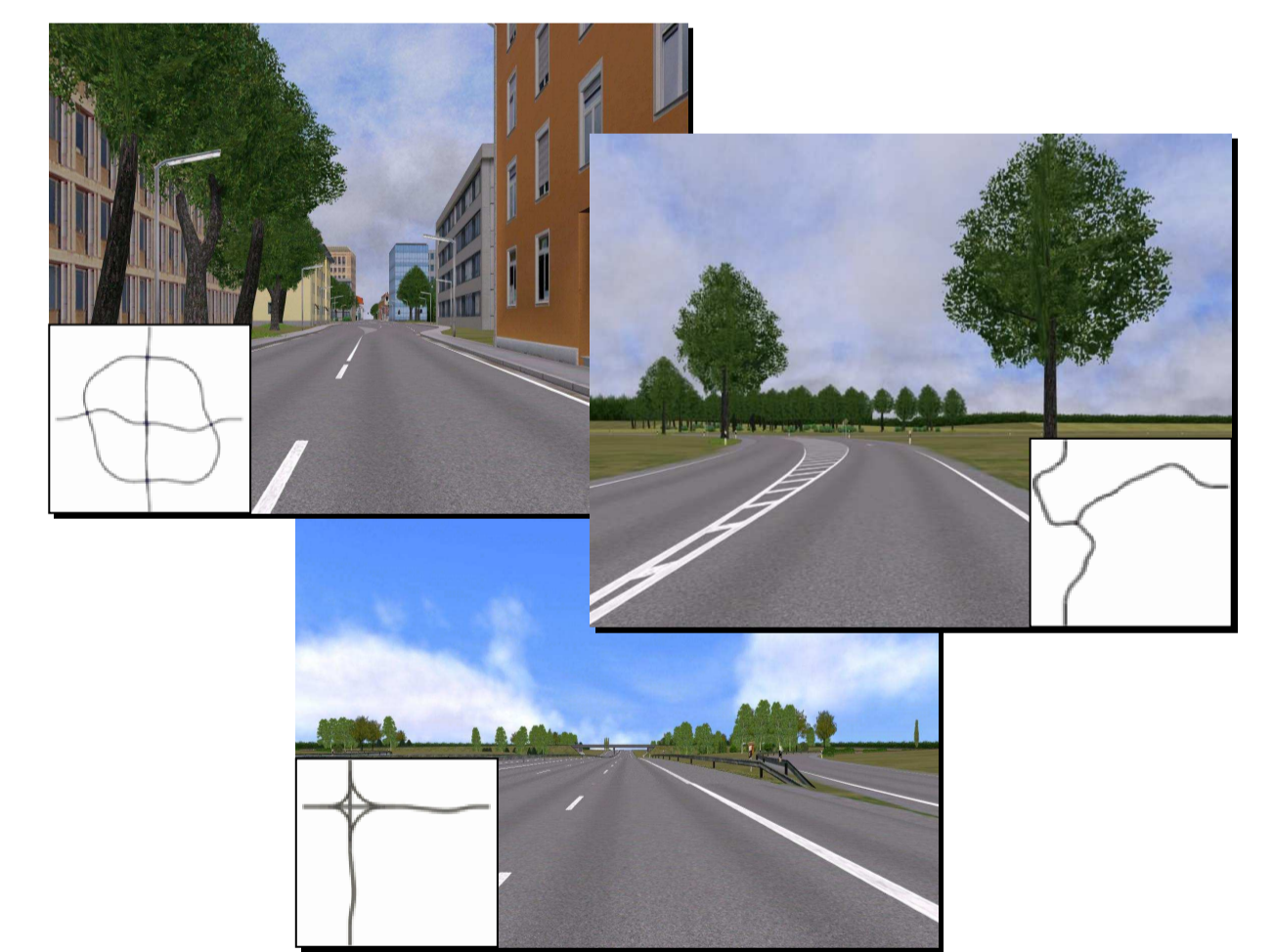
An Established Format

OpenDRIVE – Supported by a Broad User Base
vendor-independent solutions

User Base
- international
- simulator manufacturers
- simulator operators
- universities
- research institutes

Implementations
Various implementations of OpenDRIVE are founded on the format only and are, therefore, independent of any manufacturer

Excerpt from OpenDRIVE Website

Beyond Logics

OpenDRIVE is complemented by **OpenCRG,** an open source project for the standardization of road surface descriptions.

Open*CRG*®
managing the road surface ahead

www.opencrg.org