

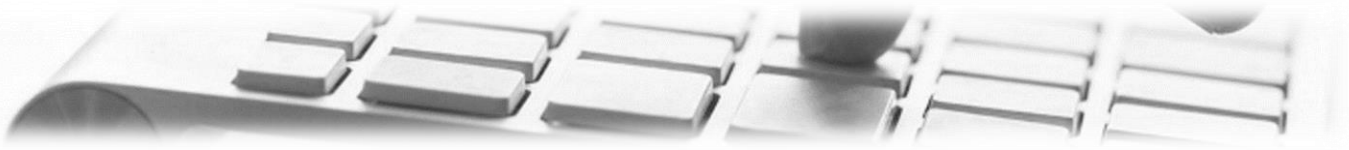


openMDM[®] Working Group

Platform for implementing Test Data Management



Christian Domrös



Challenges

„Central repository for test data“

- Uniform storage of test data coming from different data sources
- Independent from specific measurement and analysis tools
- Suitable for building integrated tool chains
- Management of the test context (meta data)
- Unambiguous interpretation of the stored test results
- Global / company wide search for test data over all test storages
- Scalable in terms of data volume, number of users and global use
- Capabilities to protect information from unauthorized access





openMDM[®] Working Group

„Collaboration of several companies“

- Since: 2014
- Aim: Development of an open source framework for the efficient implementation of test data management solutions based on the **ASAM ODS** standard
- Basis: A software framework called openMDM 4, mainly driven by Audi since 2010
- Intension: Creation of a organizational framework which makes it possible to drive collaborative development and push further improvements of openMDM more intensively



- Founding members:



DAIMLER

MÜLLER-BBM
VibroAkustik Systeme

SIEMENS



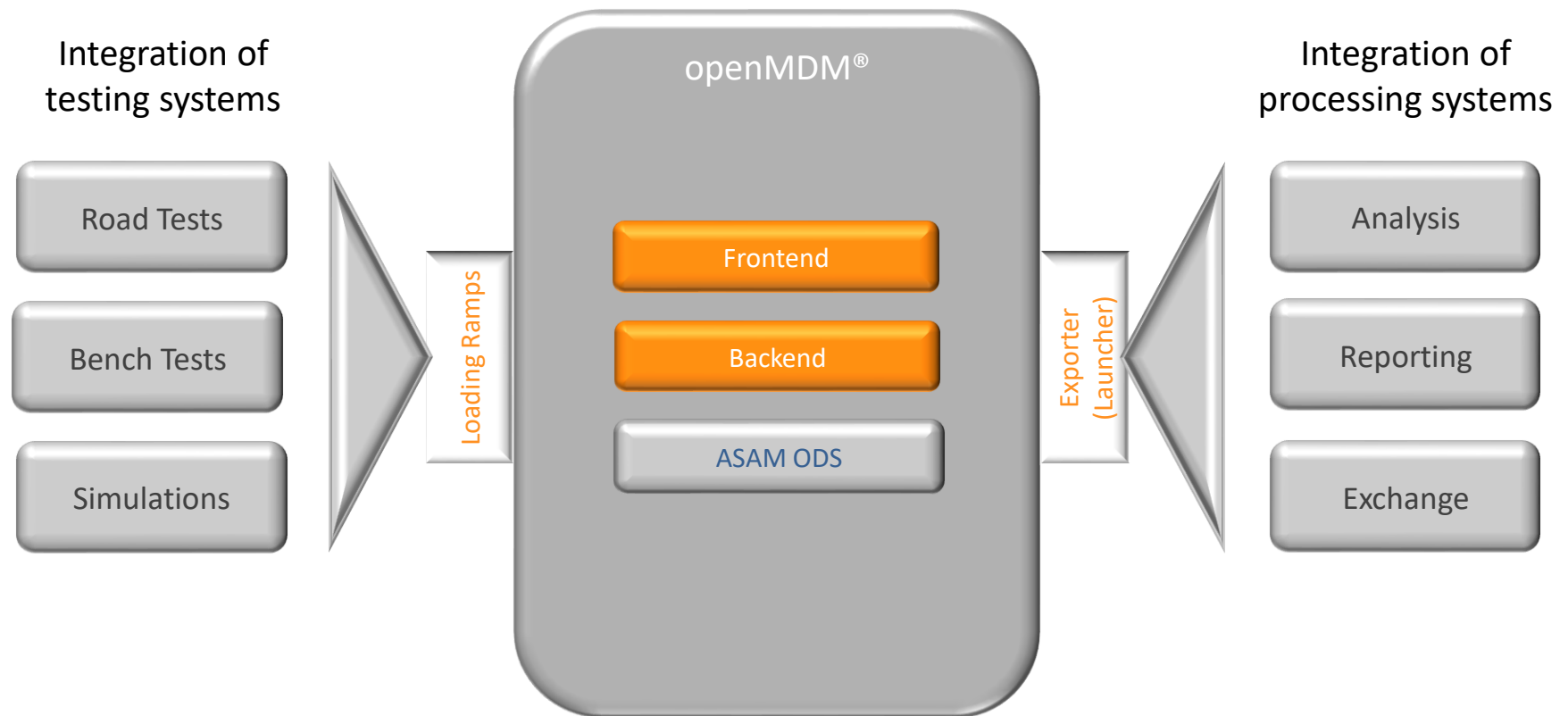
Karakun.





Overview openMDM[®]

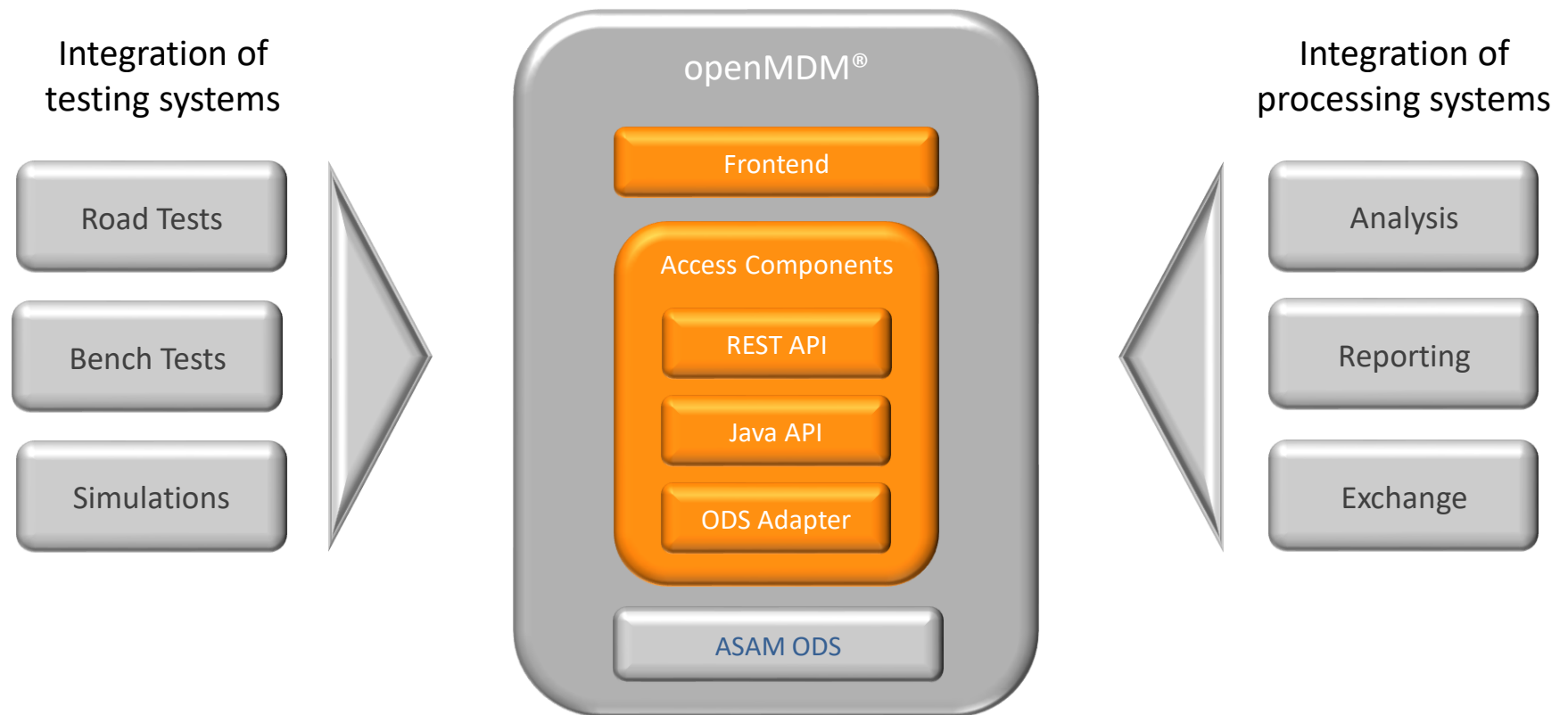
Framework for Test Data Management – Central data hub for ALL testing data





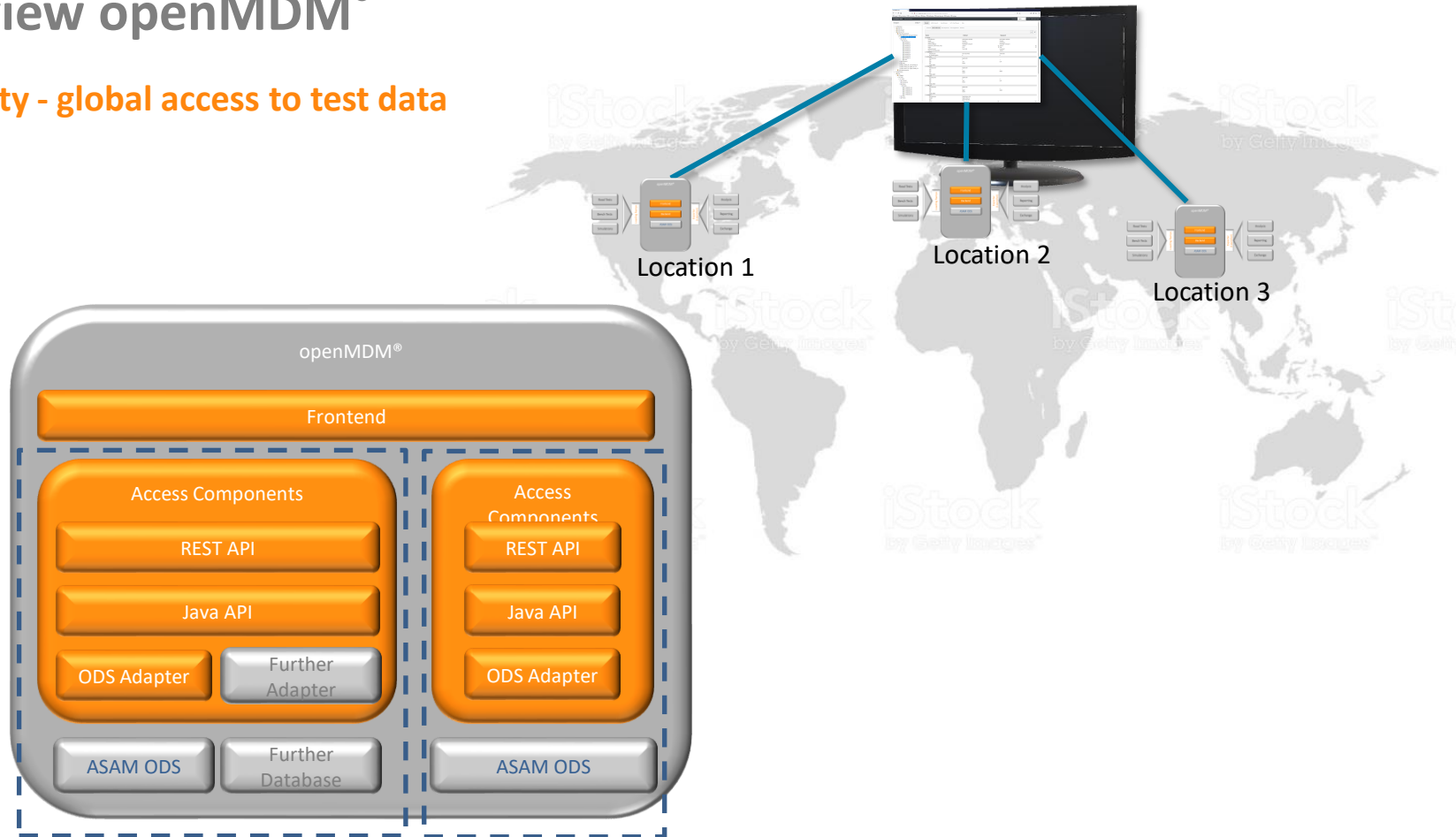
Overview openMDM[®]

Backend Components



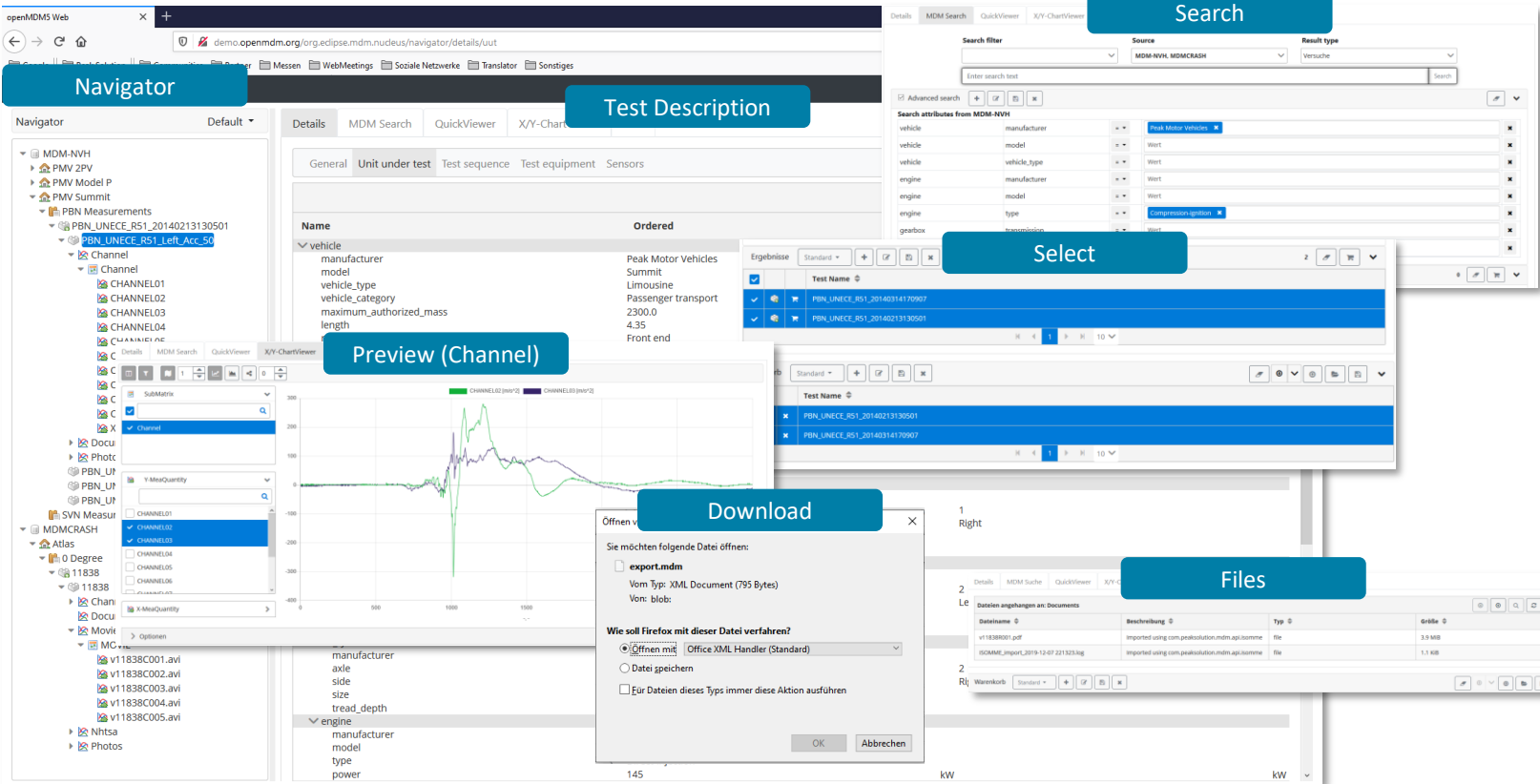
Overview openMDM®

Scalability - global access to test data



Overview openMDM[®]

Web Client



The screenshot displays the openMDM web client interface with several callout boxes highlighting key features:

- Navigator:** A tree view on the left side of the interface showing a hierarchical structure of data, including folders like 'MDM-NVH', 'PMV 2PV', 'PMV Model P', 'PMV Summit', 'PBN Measurements', 'PBN_UNECE_R51_Left_Acc_50', 'Channel', 'CHANNEL01', 'CHANNEL02', 'CHANNEL03', 'CHANNEL04', 'CHANNEL05', 'SubMatrix', 'Docu', 'Photo', 'PBN_UP', 'PBN_UP', 'SVN Measur', 'MDMCRASH', 'Atlas', 'Degree', '11838', 'Chart', 'Docu', 'Movik', 'MC', 'v11838C001.avi', 'v11838C002.avi', 'v11838C003.avi', 'v11838C004.avi', 'v11838C005.avi', 'Nhsta', and 'Photos'.
- Search:** A search filter interface at the top right, allowing users to search for data. It includes a search filter dropdown, a source dropdown (MDM-NVH, MDMCRASH), a result type dropdown (Versuche), and a search input field.
- Test Description:** A detailed view of a test, showing a 'General' tab and a 'Unit under test' tab. The 'Unit under test' tab displays a table of test equipment with columns for 'Name' and 'Ordered'. The table lists various vehicle components like 'manufacturer', 'model', 'vehicle_type', 'vehicle_category', 'maximum_authorized_mass', 'length', 'Front end', 'axle', 'side', 'size', 'tread_depth', 'engine', 'manufacturer', 'model', 'type', and 'power'.
- Preview (Channel):** A graph showing a channel preview, with a blue callout box labeled 'Preview (Channel)'. The graph displays two data series (CHANNEL01 and CHANNEL02) over time, with values ranging from -400 to 300.
- Download:** A dialog box titled 'Öffnen v...' (Open v...) asking the user to choose how to open a file. The options are 'export.mdm' (XML Document, 795 Bytes, blob), 'Datei speichern' (Save file), and 'Für Dateien dieses Typs immer diese Aktion ausführen' (Always use this action for files of this type). The 'Datei speichern' option is selected.
- Select:** A table of search results with a blue callout box labeled 'Select'. The table has columns for 'Test Name' and 'Test ID'. The results are:

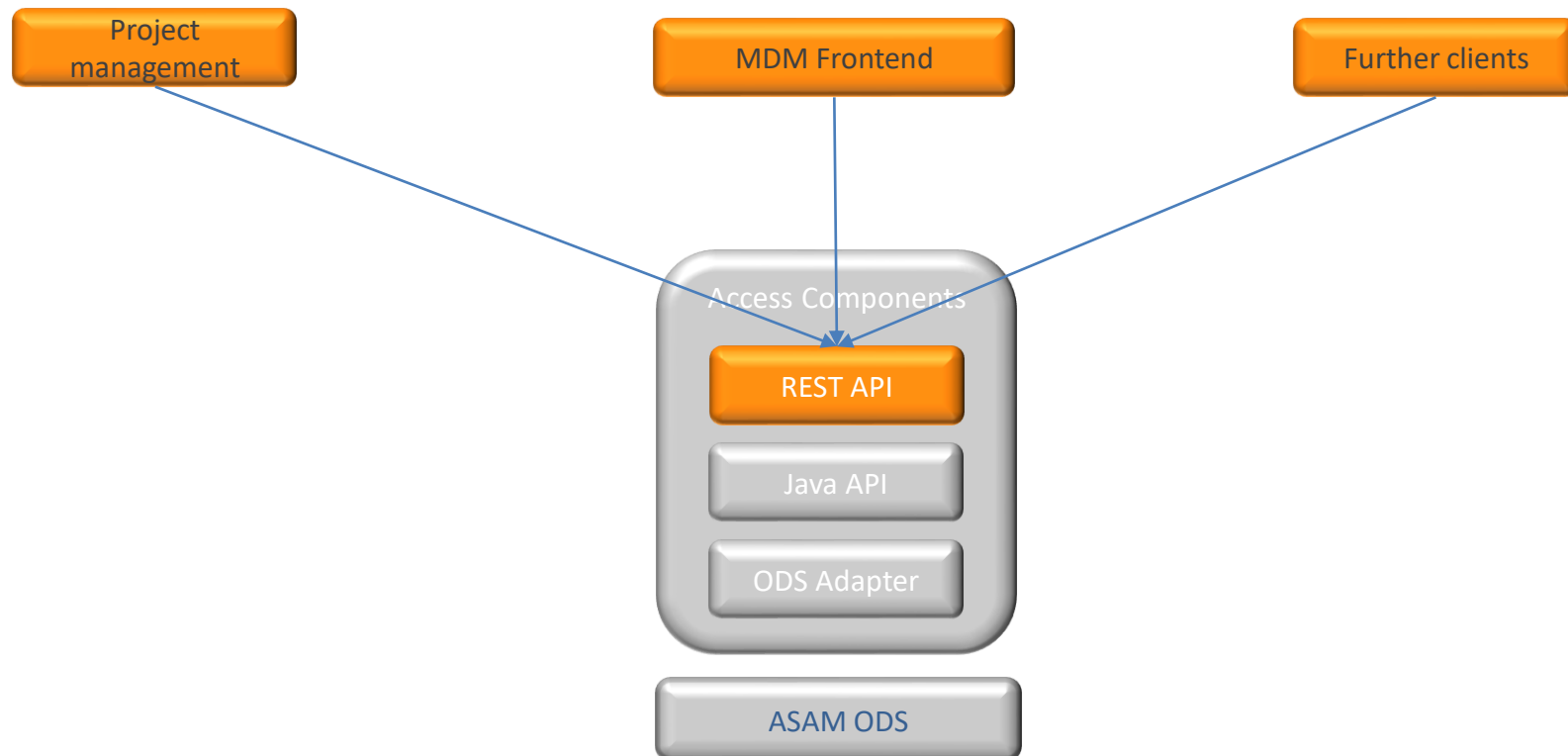
Test Name	Test ID
PBN_UNECE_R51_20140314170907	
PBN_UNECE_R51_20140213130501	
PBN_UNECE_R51_20140314170907	
- Files:** A file explorer window showing a list of files with columns for 'Dateiname' (Filename), 'Beschreibung' (Description), 'Typ' (Type), and 'Größe' (Size). The files listed are:

Dateiname	Beschreibung	Typ	Größe
v11838001.pdf	Importiert using com.peaksolution.mdm.api.isomme	file	3.9 MB
ISOMM_IMPORT_2019-12-07_221323.log	Importiert using com.peaksolution.mdm.api.isomme	file	1.1 KiB



Overview openMDM[®]

REST API – Endless possibilities for integrations

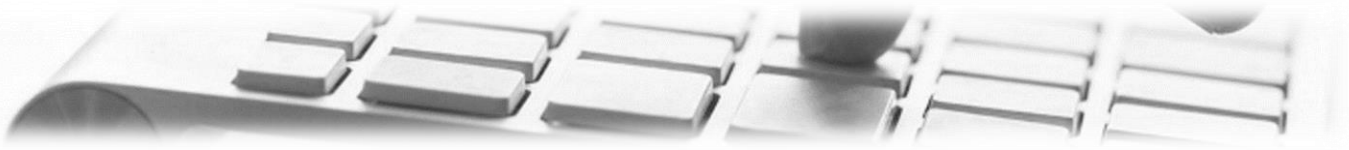




Overview openMDM[®]

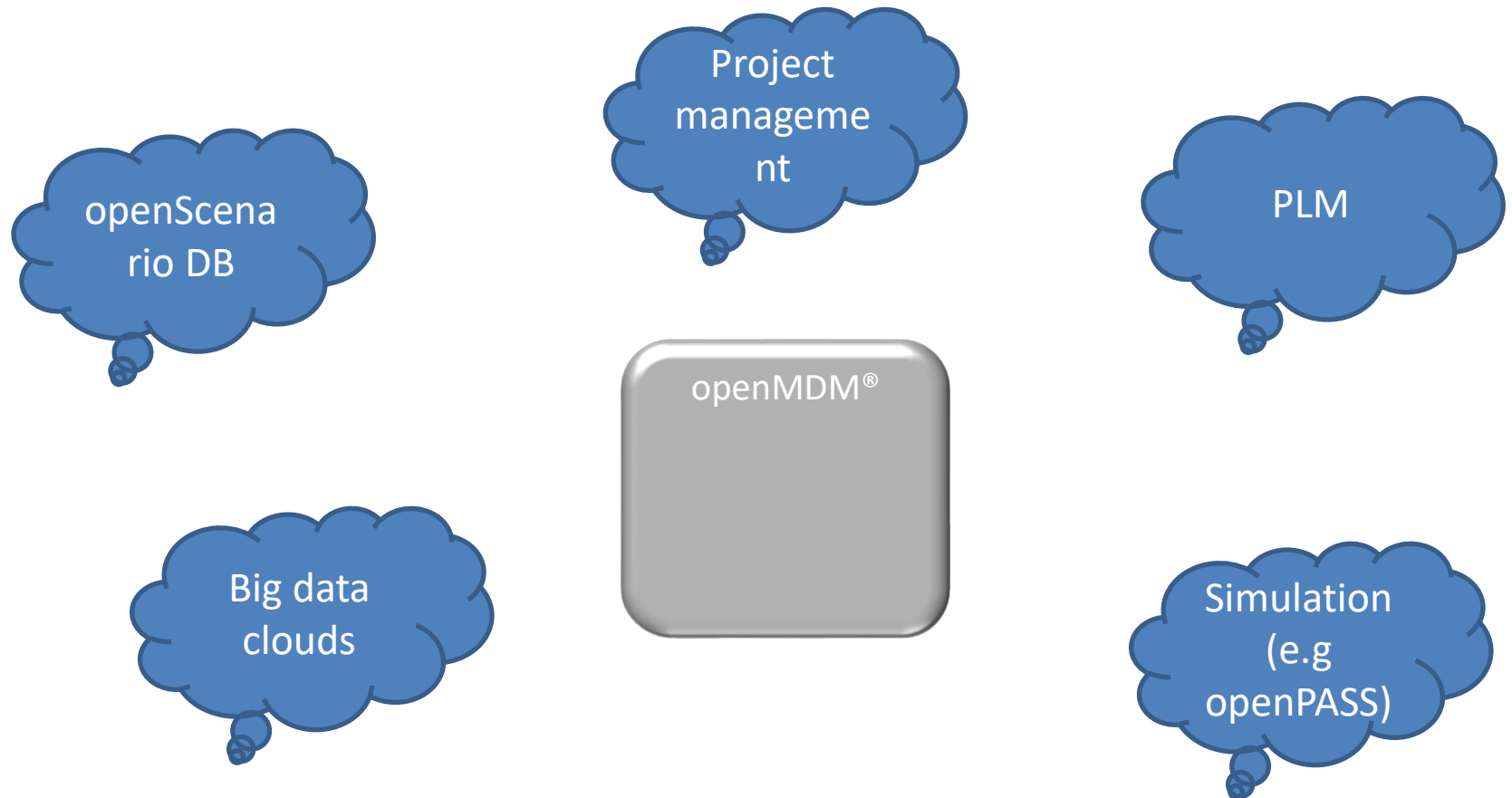
A mature platform for diverse testing fields - existing use cases

- NVH
- Passive safety (Crash)
- Active safety (Driving Assistance systems)
- Classic engine development (combustion)
- Electronic testing
- HVS (High Voltage Storage)
- E-mobility
- Fuel and consumption
- Environment testing



openMDM® - new trends

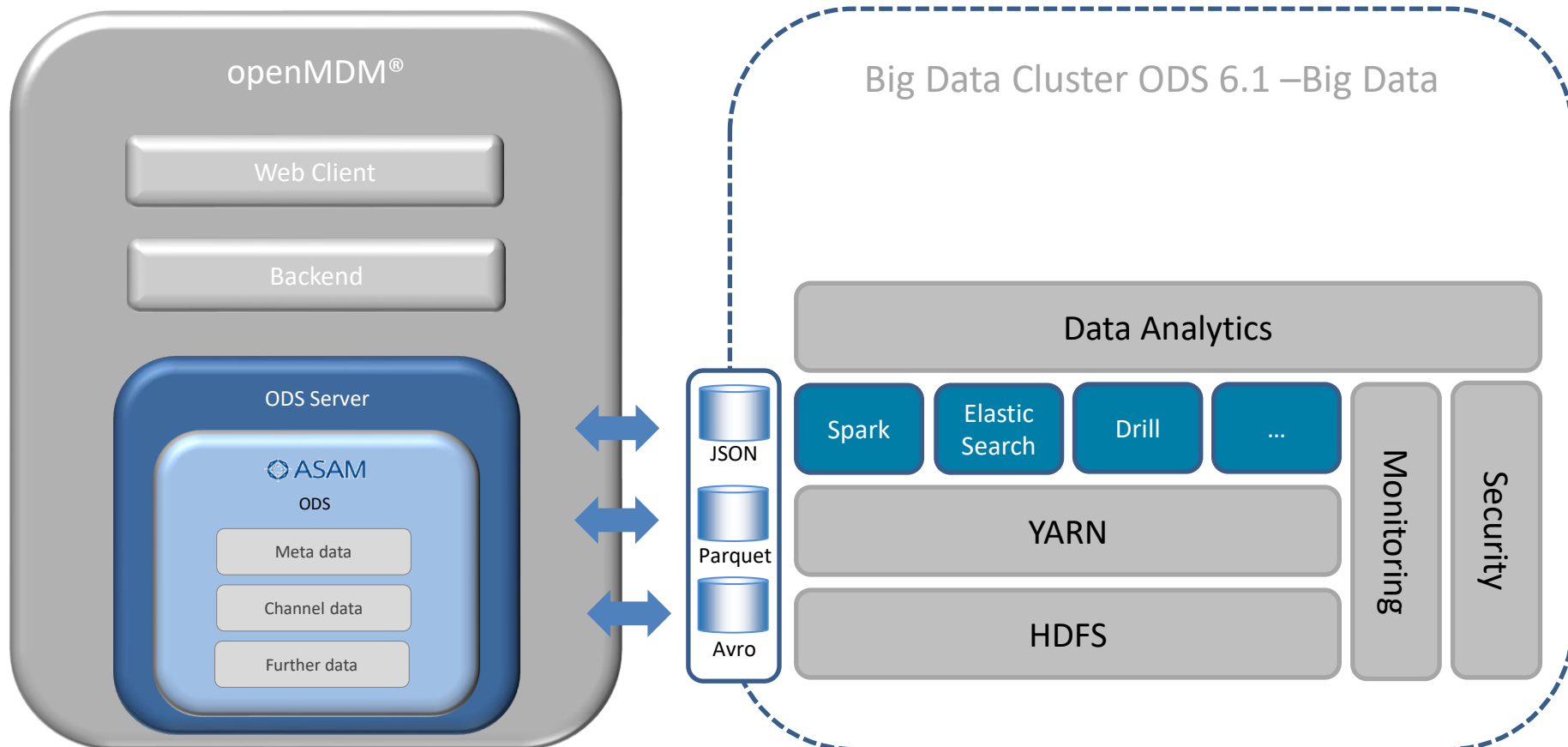
further integration possibilities





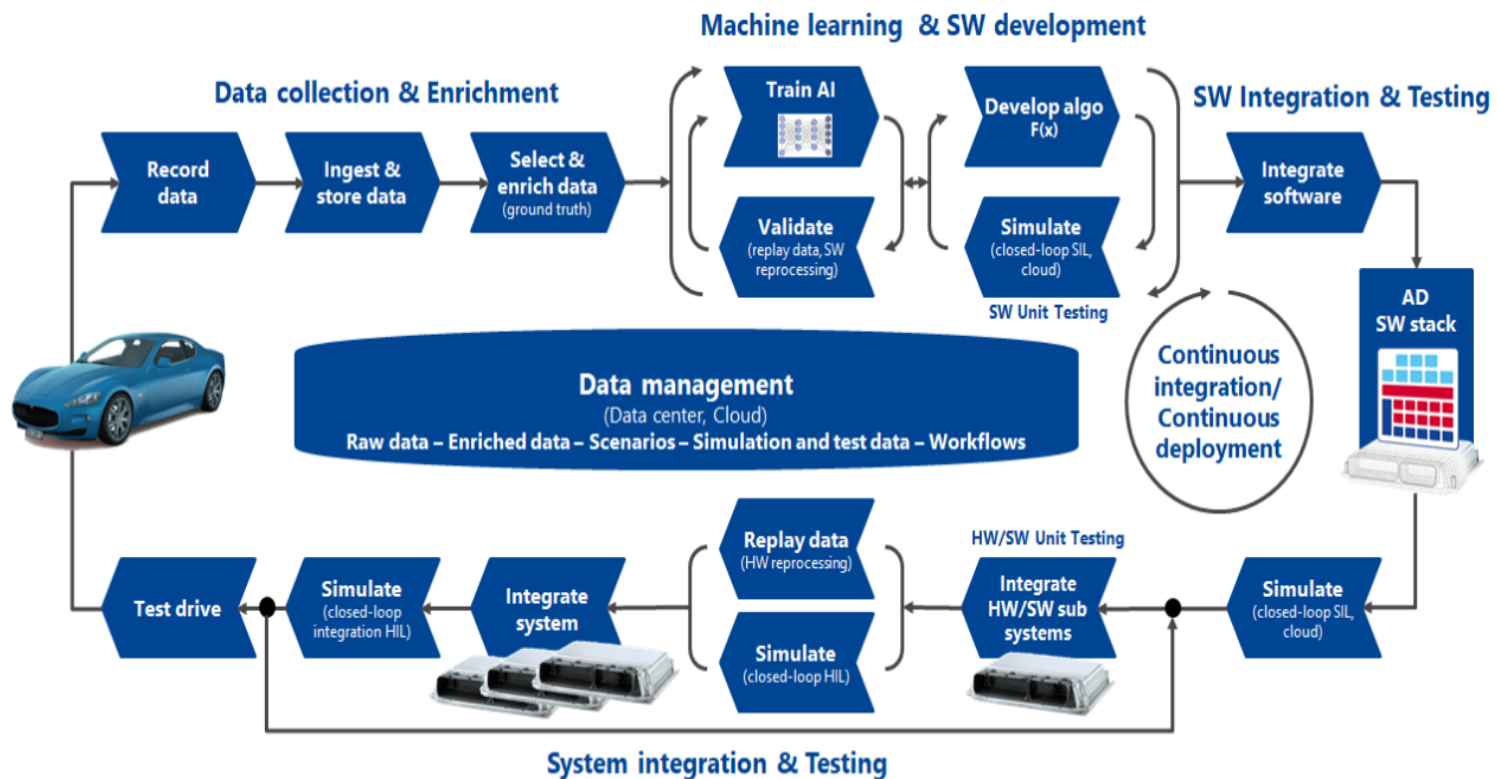
openMDM[®] - new trends

New trends example- Data Running openMDM with big data cluster (in the cloud)



openMDM[®] - new trends

Integration as test data hub for ADAS / AD development





openMDM® - new trends

We are looking for partner for further integration!

- Working groups
- Research institutes / projects
- Standardization organization
- Interested companies



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Beyond proprietary solutions for Test Data Management

- Standardized
- Open
- Vendor-independent
- Versatile
- Adaptable / Integrative
- Future-proof



More information:

- Homepage of openMDM: <https://www.openmdm.org/>
- Project Page of openMDM: <https://projects.eclipse.org/projects/technology.mdmb1>

Check it out - Try it out (Proof of concept) - Become an active part of the openMDM Working Group ...



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Beyond proprietary solutions for Test Data Management



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