ODETTE INTERNATIONAL

API - the next step in standardising digital communication in the automotive supply chain

Jörg Walther

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Odette Mission

- Industry driven, not-for-profit, pan-European collaboration platform:
  - bringing together **supply chain professionals and digitalisation experts** to develop **consensus solutions to common problems**.
  - focused on developing **standard tools and best practice recommendations** for the **entire automotive supply chain**.

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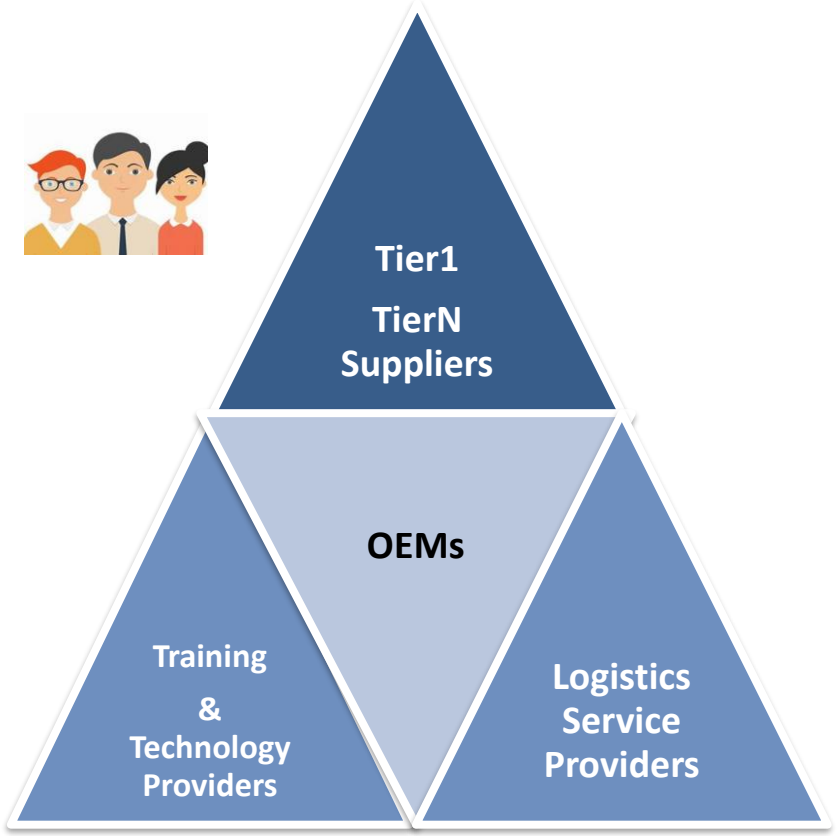
✓ *DIGITALISATION*
✓ *STANDARDISATION*

Odette Scope



Digital Messaging for Buy, Ship, Pay

Transport Management

Cybersecurity

Supply Chain Management

Auto-ID / Track & Trace

Packaging Management

Vehicle Distribution

SCM Capability, Performance and Risk

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Odette Member Organisations

Members

GALIA
France & Monaco
WWW.GALIA.COM →

VDA Verband der Automobilindustrie
Germany
WWW.VDA.DE →

ODETTE SWEDEN
Scandinavia
WWW.ODETTE.SE →

OSD OTOMOTİV SANAYİİ DERNEĞİ AUTOMOTIVE MANUFACTURERS ASSOCIATION
Turkey
WWW.OSD.ORG.TR →

SMMT DRIVING THE MOTOR INDUSTRY
United Kingdom
WWW.SMMT.CO.UK →

Technology Partners

axway imagination takes shape
HÜNGSBERG connects your business
QAD
SEEBURGER BUSINESS INTEGRATION

Regional Partners

B.A.S.I.C.S. Business Assessments & Systems Integration Consulting Services — North America

edex 中企数据 — China

INSTITUTO DA QUALIDADE AUTOMOTIVA I.Q.A. — South America

OPCO CREATING SOLUTIONS — Iberia and North Africa

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Odette Co-operations

- **Global co-operation with other supply chain organisations** to develop worldwide solutions:
  - Founding member of the Joint Automotive Industry Forum **(JAIF)** with **AIAG** (North America) and **JAMA /JAPIA** (Japan)
  - Working with **Automotive Technology providers** to ensure incorporation of Odette standards in supply chain solutions
  - Partnerships with **training organisations** in key markets to ensure the diffusion and support of Odette recommendations

- **Cross industry co-operations with:**
  - standardization bodies (**UN/CEFACT, CEN, ISO, DTLF**)
  - Industry associations (**ECG – European Vehicle Logistics Association**)

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Odette API Activities

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International Standardisation

- Odette participates in UN/CEFACT projects to reduce barriers for international trade by standardising IT solutions for structured B2B, B2G and B2C solutions.
- Odette was project leader and contributed to UN/CEFACT recommendations for API development; deliverables:
  - **JSON Schema Naming and Design Rules - Technical Specification** – allows to convert standardised model artefacts from CEFACT's Reusable Data Models into JSON - schemas
  - **OpenAPI Naming and Design Rules - Technical Specification** – specifies a standardised way to define API interfaces using openAPI 3.1 syntax
  - With these documents we have a technical basis for both for globally applicable API , e.g. for international transport and trade as well as for industry specific standardisation.

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Transport Track & Trace Project as PoC

- Conducted together with VDA based on member requirements
- Designed to improve transparency in transport processes beyond the level of EDI message exchange (i.e. more agile, less technical infrastructure requirements, direct support for mobile devices)
- Prototype project to get familiar with the new concept of micro-services and the technology of REST-API
- Results available on GitHub

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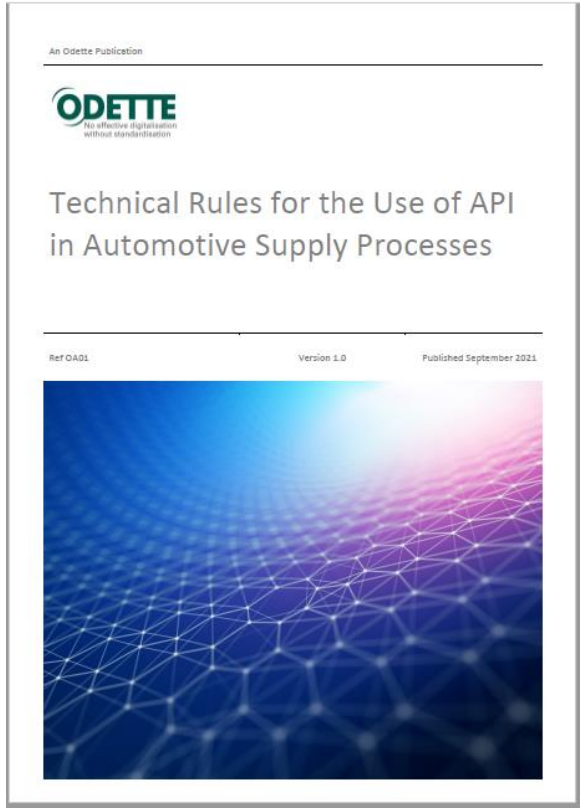
Our API “Toolbox”

	UN/CEFACT DATA MODEL	UN/CEFACT API DESIGN RULES	OPEN-API V3.1 SPECIFICATION
Description	The required data structures are to be used and accepted internationally, therefore artefacts from the UN/CEFACT Reference Data Model are used.	Here, too, the UN/CEFACT recommendations are used as the basis for the recommendations. Beside the documentation an openAPI 3 specification is generated and published.	From this, program codes can be generated automatically in various programming languages for implementation.
Result	There is a uniform framework for the specification of API regardless of the specific application area (logistics, finance, master data, etc.). The Odette recommendations use international standards as far as possible.		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Technical Rules for the Use of API in Automotive Supply Processes

Ref OA01 Version 1.0 Published September 2021

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Business Requirements Specification

Use Case definitions

Use-Case	Loading confirmation
Proposed by	VDA PG API
Proposed on	16.10.2020
Description	The ship-from-party notifies, which shipment has been loaded on a particular means of transport.
Actors	Ship-from, LSP, optional: copy to ship-to / transport ordering party
Pre-condition	and transport means ID are known
Post-condition	
Functions	Create, Update, Read
Process	Sender: ship-from Receiver: API HUB Potential subscriber: ship-to, transport ordering party, transport service provider
Alternative	EDIFACT IFTSTA and / or DESADV
Motivation / Business Value	Automated, accelerated communication
Frequency	Event driven

Data requirements

Input Name		Description
Sender	1..1	Only in envelope
Receiver	1..1	Only in envelope
ID Transport Order	0..1	Order number
Ship-from ID	1..1	Unique (global) ID - e.g. DUNS or Odette
Ship-to ID	0..1	Unique (global) ID - e.g. DUNS or Odette
LSP-ID	1..1	Unique (global) ID - e.g. DUNS or Odette
Shipment ID	1..1	
TLU ID	0..n	ID of the loaded transport loading units
Number of TLU	1..1	
Transport means ID	1..1	Unique reference to the transport means
Date / time	1..1	Actual date/time of completion of loading

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New, agile system of maintenance

1. Publication as „Draft“
2. Pilot implementations (POC) necessary, before status „Stable“ – **Do / Check**
3. Continuous improvement – **Adjust / Act**

Status	Definition	Usage
RAW	Every new specification or major version starts with raw status	experimental use only
DRAFT	When a specification is completed and testable (i.e. it has a working test harness) then it becomes draft	suitable for beta testing
STABLE	When a specification has a successful third-party implementation (i.e. passes conformance test cases) then it becomes stable.	safe to implement in production systems
DEPRECATED	When a specification is superseded by a new major version then the previous major version is deprecated	may still be used in production but should not be used for new builds
RETIRED	when a specification is obsolete and should no longer be used in any production deployment then it becomes retired	remains on this site for historical reference purposes

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Odette API Experts Group

- Established in September 2022, lead by Peter Höfner, DRÄXLMAIER GROUP
- Intention to identify areas / applications, where API can bring a new quality to existing processes
- Continuous development, improvement and maintenance of API recommendations
- Proposed business processes to focus on:
  - Transport transparency in the automotive supply chain (inbound)
  - Automated synchronisation of packaging agreements & instructions between supplier and customer
  - Commissioning & preparation for shipment of instructed deliveries
  - Automated synchronisation of price data
- A specific document will contain recommendations regarding security, rights and role management, which are common for various scenarios of API facilitation.
- Open for additional ideas and participants …
  Using APIs to achieve real 'real time visibility'in the Automotive Supply Chain (office.com)

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Learn more and discuss about API and many more supply chain digitalisation topics

Questions?

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