# **Sneak preview into DATEX II version 3.2**

# Sneak preview

DATEXII



# **Sneak preview**

- Next version of DATEX will be published around late spring/early summer 2021
- Will be minor version, i.e.
  - only backwarts compatible changes (except bug fixes)
     (no model changes as such)
  - adding of new content possible, especially new namespaces



DATEXI



# **Sneak preview**

- Energy publications
- Traffic Regulations (and UVAR's)
- Facilities
- Revision of Parking
- open API







## **Energy Infrastructure Publication**

- Describing infrastructure sites for energy supply of vehicles (ordinary petrol stations as well as electric charging stations)
- Describing their current status (availability, status, next free time slot etc)
- A first smaller model part came with the parking publication, but now the model is specified on its own

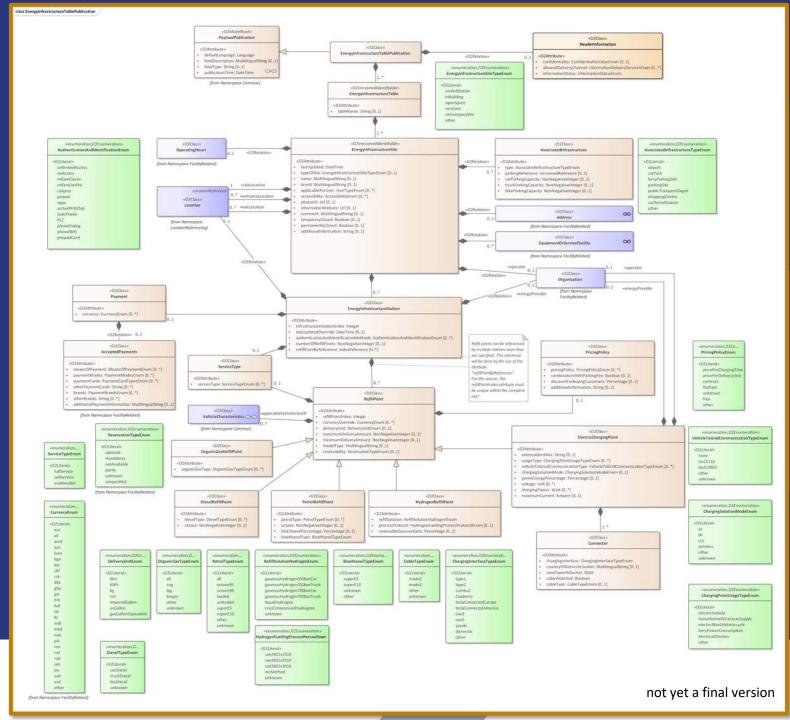




# Infrastructure Publication (only static part shown here)

Currently going to be standardised in CEN/TS 16157 Part 10

Comments from several stakeholder groups are or will be integrated, such as Electromobility sub group, EU project IDACS, Hydrogen community, ...



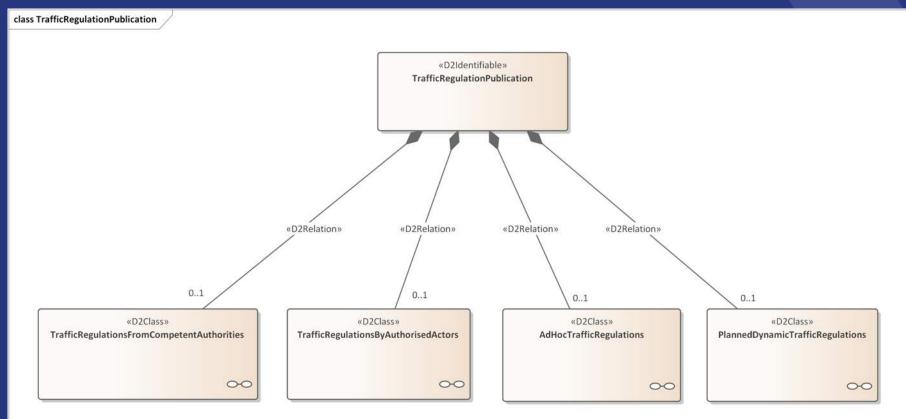
# **Traffic regulations**

- Enabling proper digitalised information about traffic regulation is of rapidly growing importance
  - Increasing number and complexity of access regulations for cities (UVARs)
  - Deficiencies of today's ITS services (navigation says go ahead at closed road)
  - Growing clarity about future requirements (C-ITS, CCAM)
  - ...
- DATEX II has aspects of regulations in the "Situation" model (CEN EN 16157-3), but:
  - Regulations seen primarily from the RO perspective 20 years ago (traffic management)
  - Refactoring inside the current scope not favoured (too big, not focussed, no proper framework)





# **Traffic regulation**









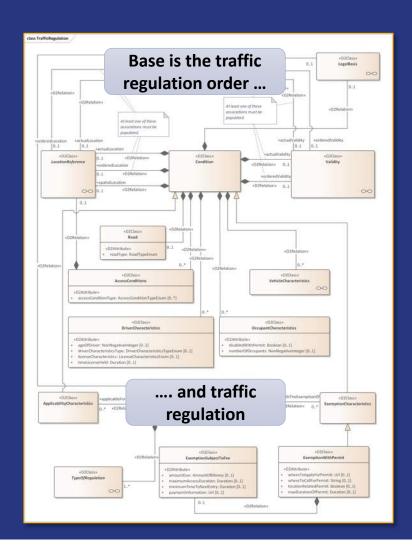
# **Traffic regulations**

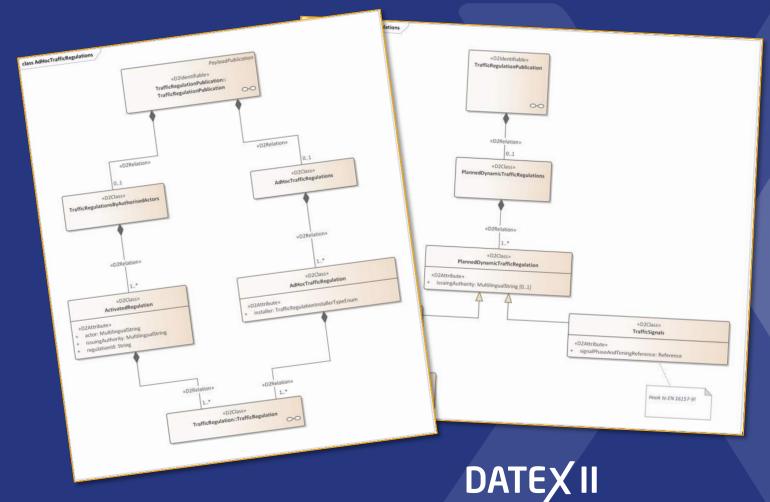
- Each traffic regulation is defined by
  - a type of regulation (e.g. an overtaking ban or a speed limit)
  - conditions for the applicability such as location, validity, access conditions, trailer characteristics, vehicle characteristics and driver characteristics
  - exemptions of the regulation





# Traffic regulations (and UVAR's)

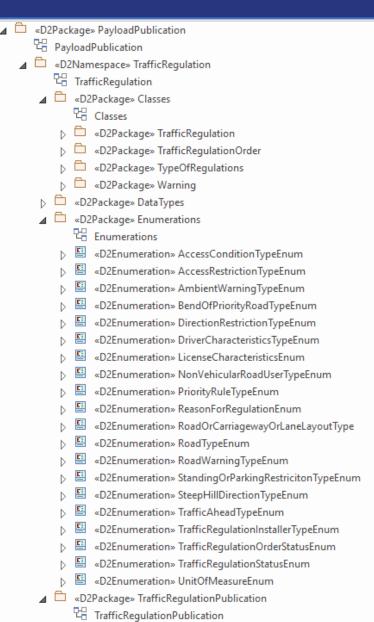






# Traffic regulations model

- Is currently being standardised in CEN/TS 16157
   Part 11
- Will become part of DATEX II, version 3.2
- Is currently being further extended to the needs of UVAR (Urban vehicle access restrictions) using a controlled zone model
  - > will also be standardised (CEN/TS 16157 Part 13)



#### **Facilities**

- New namespace that contains elements used to describe facilities:
  - Opening Times
  - Tariffs and Payment
  - Dimensions
  - Organisation and Contact information
  - Equipment and Service Facilities





#### **Facilities**

- Content was developed in context of Parking & Energy Publications
- Due to larger modifications for Parking, Facilities needed to be sperated from the Parking content
- New namespace "FacilityRelated", in standardisation for CEN/TS 16157 Part 12

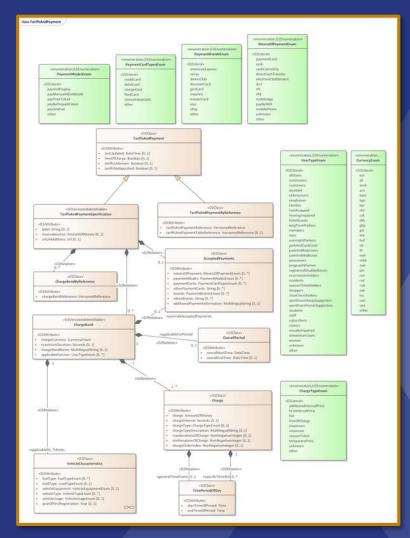




#### **Facilities - Tariffs**

#### Most interesting might be the Tariff model:

- Tariff topic is highly dynamic, lots of stakeholders
- Currently, harmonisation prcoess with APDS
   (Alliance for Parking data standards) is ongoing
- Tariff models have similarities, but are also different







# **Revision of Parking**

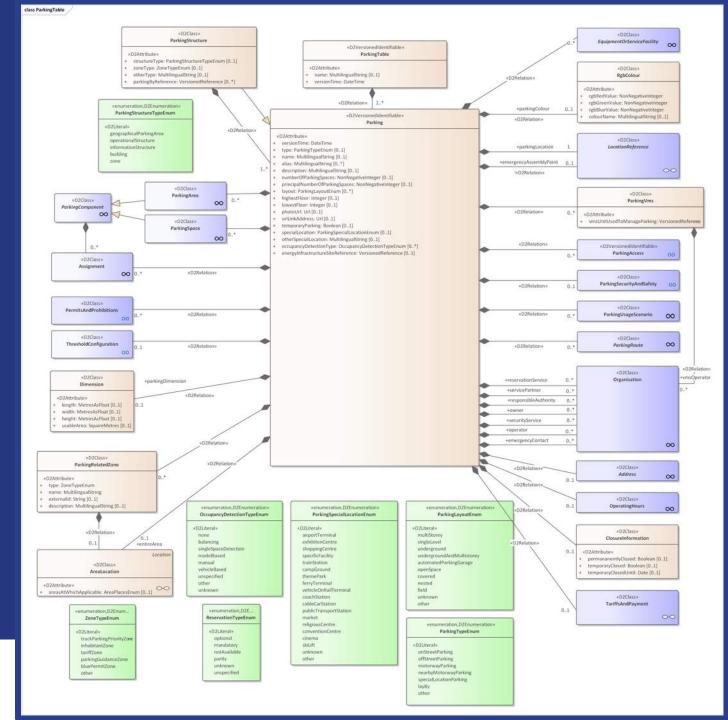
- Huge Parking model exists in DATEX since quite a time, e.g. for Truck Parking according to Delegated
   Regulation (EU) 885/2013
- Alliance for Parking data standards (APDS) started to create an own model and to standardise it in ISO
   TS 5206-1
- In 10/2020 DATEX PSA decided to follow Parking model from APDS
- Huge impact on the next steps: Revison of CEN/TS 16157 Part 6 could not be concluded in early 2021 as planned
- Lot of harmonisation effort is ongoing (methodology side, content side) to get a common core model for parking
- Updated plan is to possibly present a model in version 3.2



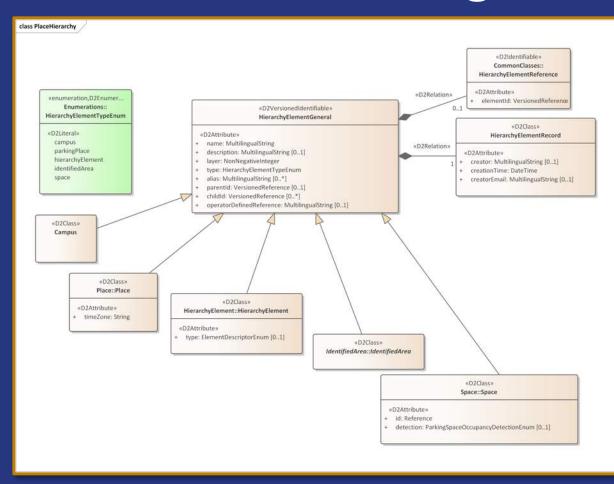


## **Revision of Parking**

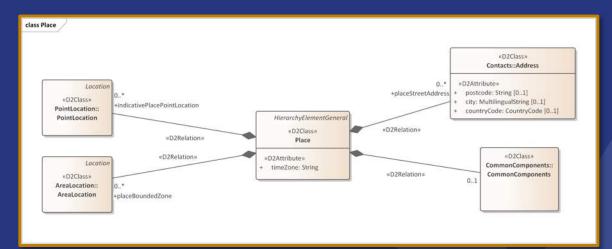
Latest DATEX parking model (extract) – to be updated to APDS core

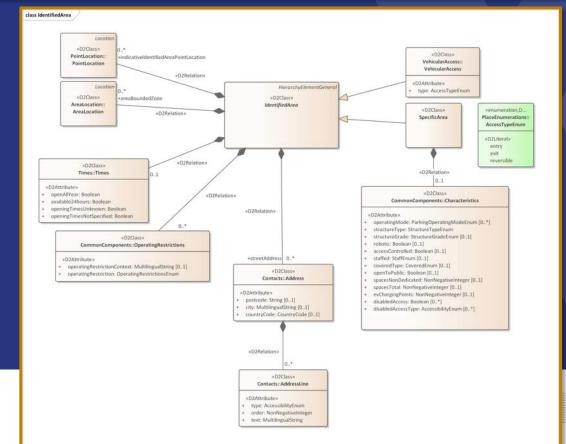


## **Revision of Parking**



Latest APDS draft (extract)





## **OpenAPI**

- Defines a standard, language-agnostic interface to RESTful APIs
- For DATEX, we did a Piece of Code with OpenAPI 3.0 on D2Light/JSON
- No support for JSON Schema at that time
- Now there is OpenAPI 3.1 coming which will support full JSON schema
- OpenAPI 3.1 RC available but limited tool support
- Continue work when OpenAPI 3.1 is released and tools are available





#### **DATEX II Standard Overview**

as of Janaury 2021

Intelligent transport systems – DATEX II data exchange specifications for traffic management and information

#### EN 16157

- Part 1: Context and Framework
- Part 2: Location Referencing
- Part 3: Situation Publication
- Part 4: VMS publication
- Part 5: Measured and elaborated data publications
- Part 7: Common data elements

#### **CEN/TS 16157**

- Part 6: Parking publications (\*)
- Part 8: Traffic management publications and extensions to the urban environment
- Part 9: Traffic signal management publications dedicated to the urban environment
- Part 10: Energy infrastructure publication (\*\*)
- Part 11: Publication of electronic traffic bans and traffic regulations (\*\*)
- Part 12: Facility related publications (\*\*)
- Part 13: Urban Vehicle Access Regulations (\*\*) (\*\*\*)

(\*) in revision - (\*\*) in preparation - (\*\*\*) working title





# DATEXII

# Thank you for joining us on this second webinar day

We hope to see you on the next webinar day:

10th of March 2021 9:00 - 12:00 CET

6<sup>TH</sup> FORUM WEBINAR SERIES

