

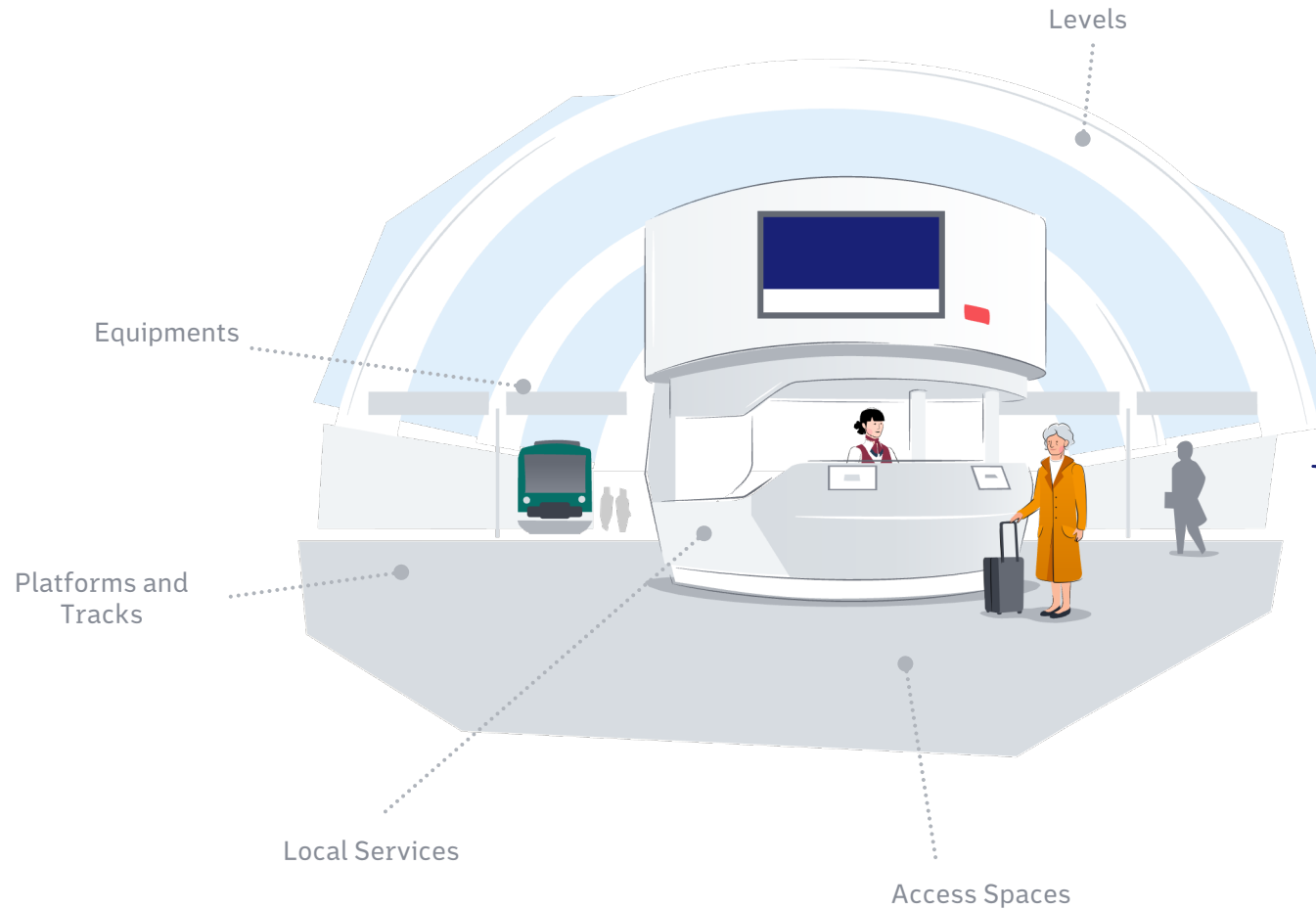


# DB InfraGO's OpenStation

NeTEx and SIRI for railway stations

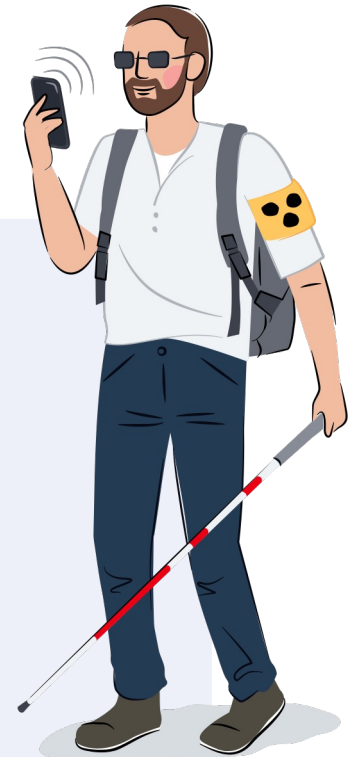


Julius Tens, 2026-01-31

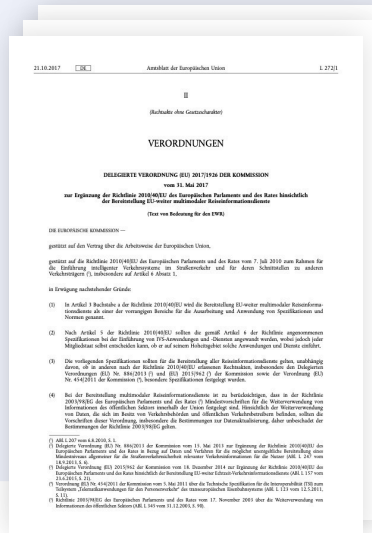


## A new API for station data

- Focus: Accessibility information
- Based on European Standards (NeTEx, SIRI)
- Open Data, Open License

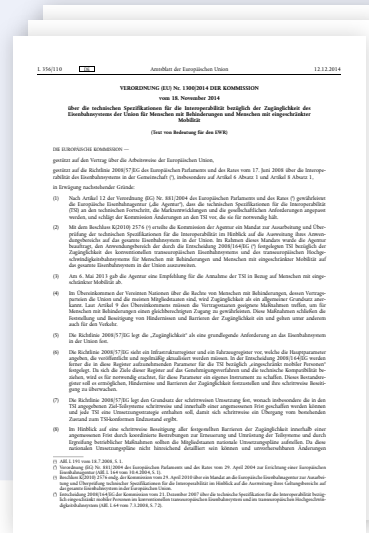


# We have to and want to publish data



## EU Regulation 2017/1926 MMTIS

Mandates publication of timetable and infrastructure data for the entire transportation sector



## EU Regulation 2014/1300 TSI PRM

Mandates publication of accessibility data for “heavy metal” railway sector (“Inventory of Assets”)

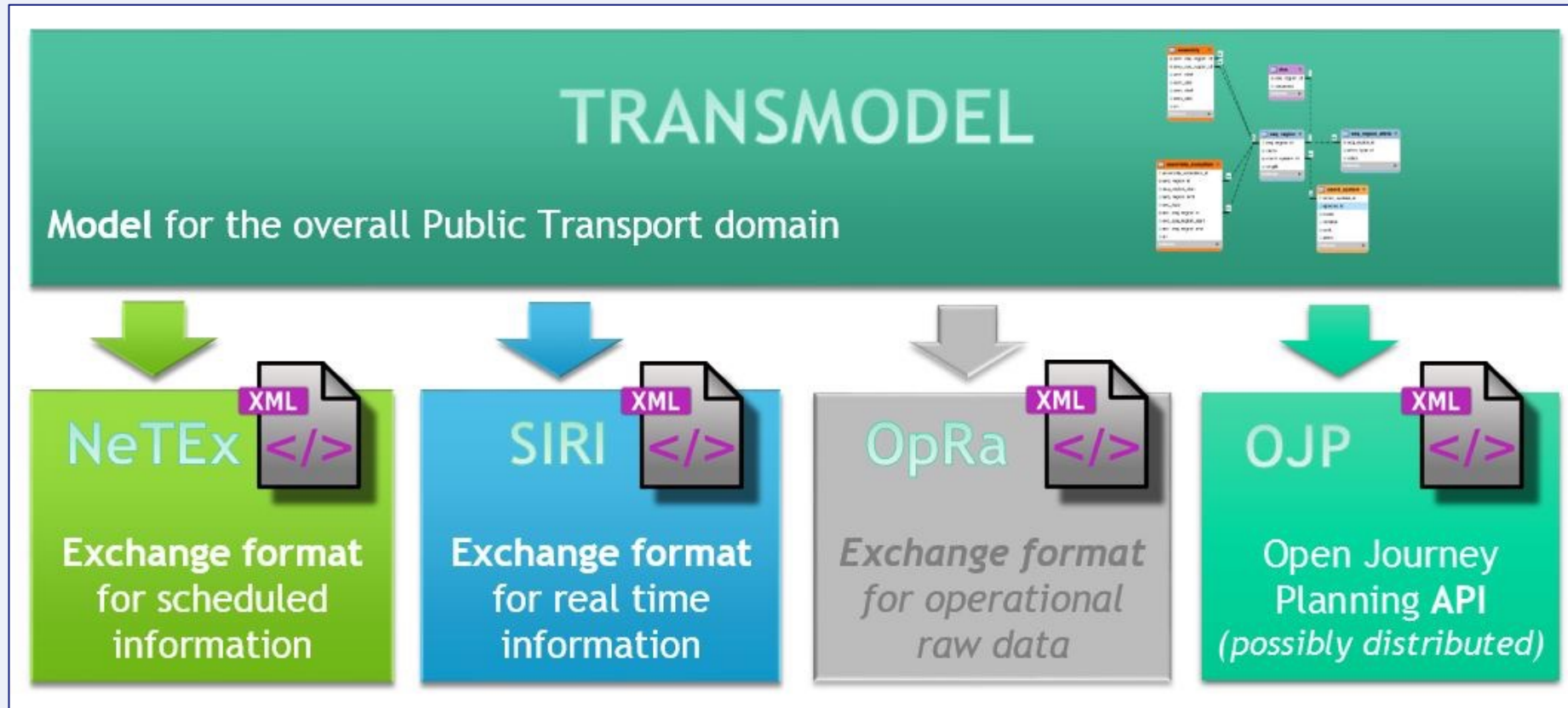


## For the common good – DB InfraGO

We want to enable new use cases and create transparency on the state of our infrastructure



Usage of European Standards  
NeTeX + SIRI

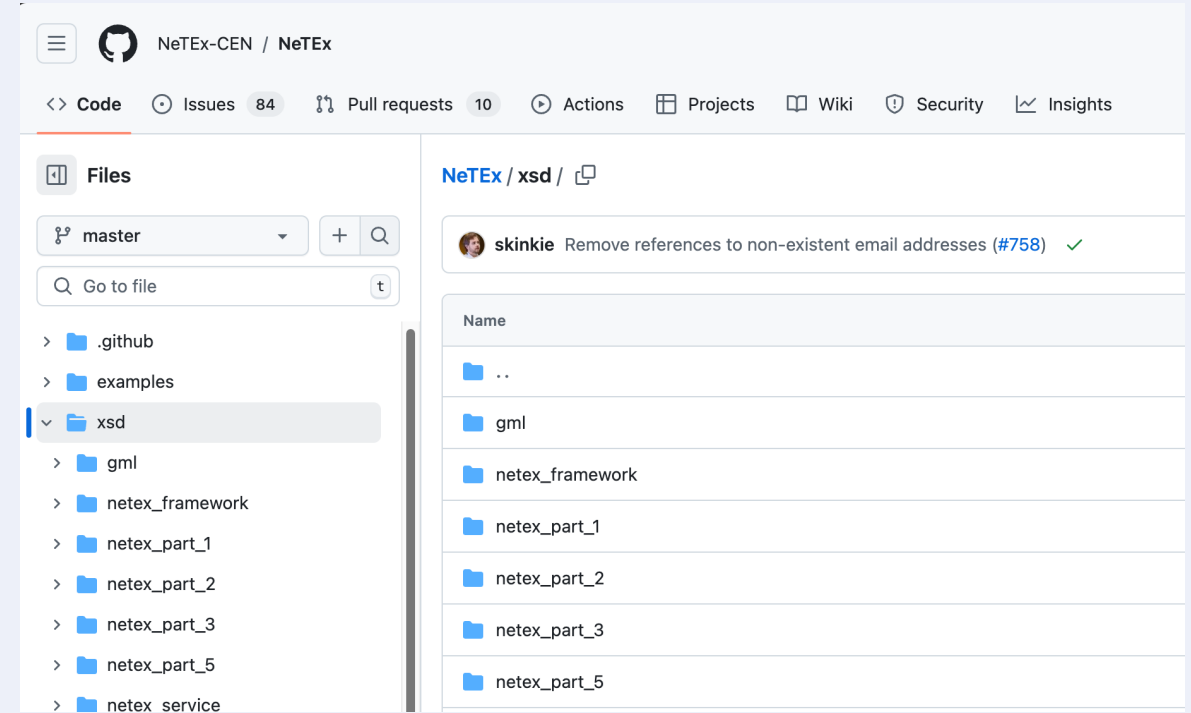


<https://data4pt.org/>

# NeTEx

## Static/Planned data

NeTEx Part	Description
Part 1	Network topology
Part 2	Scheduled timetables
Part 3	Fare information
Part 4 (Profile)	EPIP – Passenger information profile
Part 5	„Alternative modes“
Part 6 (Profile)	EPIAP – Passenger accessibility information profile



# NeTeX

## Schema definitions

```
1 <xsd:element name="TopographicPlace" substitutionGroup="Place">
2   <xsd:annotation>
3     <xsd:documentation>A town, city, village, suburb, quarter or other name settlement within a country. Provides a Gazetteer of Transport related place names.</xsd:documentation>
4   </xsd:annotation>
5   <xsd:complexType>
6     <xsd:complexContent>
7       <xsd:restriction base="TopographicPlace_VersionStructure">
8         <xsd:sequence>
9           <xsd:sequence>
10            <xsd:group ref="EntityInVersionGroup" minOccurs="0"/>
11          </xsd:sequence>
12          <xsd:sequence>
13            <xsd:group ref="DataManagedObjectGroup"/>
14          </xsd:sequence>
15          <xsd:sequence>
16            <xsd:group ref="GroupOfEntitiesGroup"/>
17          </xsd:sequence>
18          <xsd:sequence>
19            <xsd:group ref="GroupOfPointsGroup"/>
20          </xsd:sequence>
21          <xsd:sequence>
22            <xsd:group ref="ZoneGroup"/>
23          </xsd:sequence>
24          <xsd:group ref="PlaceGroup"/>
25          <xsd:sequence>
26            <xsd:group ref="TopographicDescriptiveGroup"/>
27            <xsd:group ref="TopographicRelationGroup"/>
28          </xsd:sequence>
29        </xsd:sequence>
30        <xsd:attribute name="id" type="TopographicPlaceIdType">
31          <xsd:annotation>
32            <xsd:documentation>Identifier of TOPOGRAPHIC PLACE.</xsd:documentation>
33          </xsd:annotation>
34        </xsd:attribute>
35      </xsd:restriction>
36    </xsd:complexContent>
37  </xsd:complexType>
```

# NeTeX

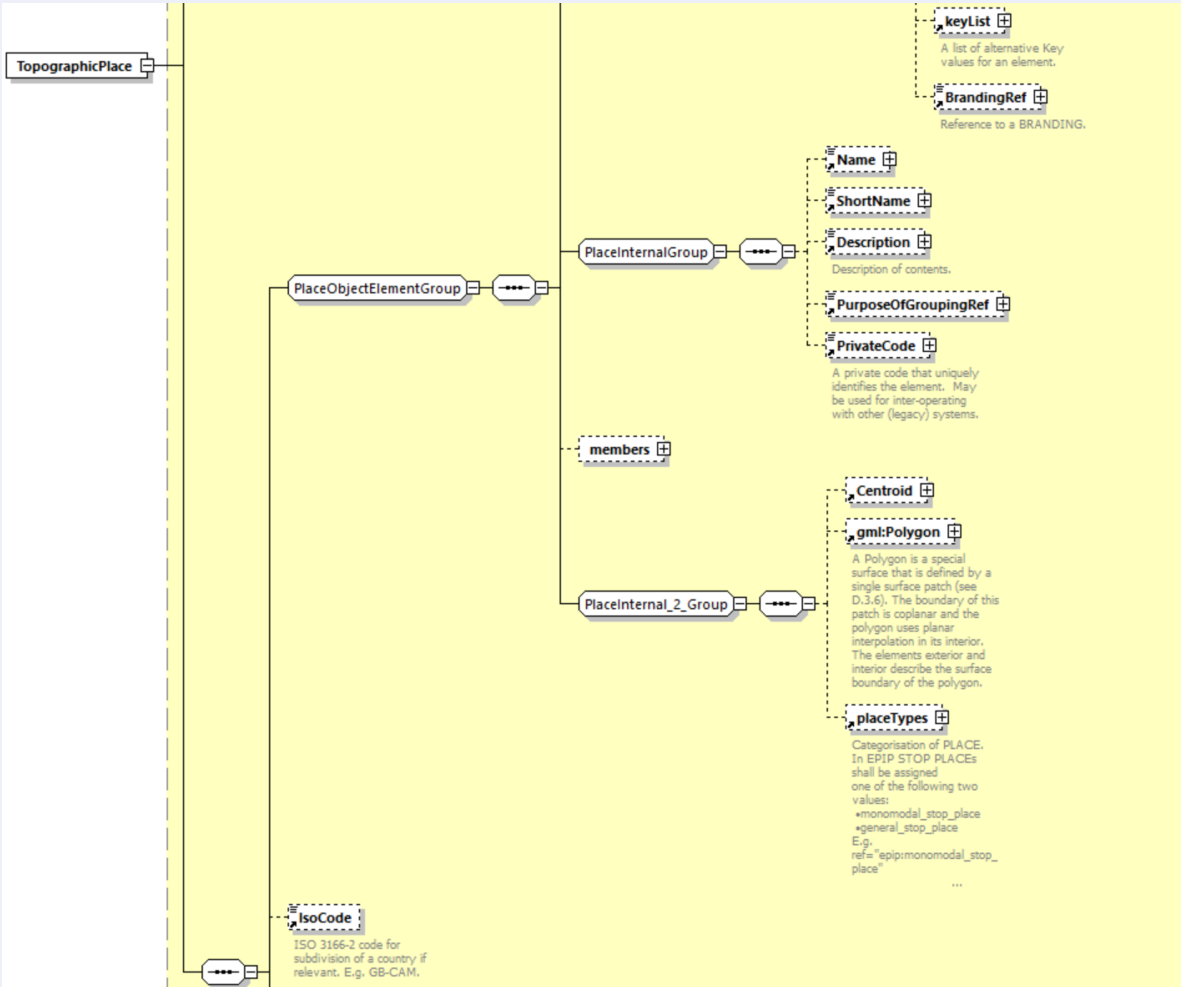
## Schema definitions

```
1 <xsd:group name="TopographicDescriptiveGroup">
2   <xsd:annotation>
3     <xsd:documentation>Elements of a TOPOGRAPHIC PLACE DESCRIPTOR.</xsd:documentation>
4   </xsd:annotation>
5   <xsd:sequence>
6     <xsd:element name="IsoCode" type="SubdivisionIdType" minOccurs="0">
7       <xsd:annotation>
8         <xsd:documentation>ISO 3166-2 code for subdivision of a country if relevant. E.g. GB-CAM.</xsd:documentation>
9       </xsd:annotation>
10    </xsd:element>
11    <xsd:element name="Descriptor" type="TopographicPlaceDescriptor_VersionedChildStructure">
12      <xsd:annotation>
13        <xsd:documentation>Structured text descriptor of TOPOGRAPHIC PLACE.</xsd:documentation>
14      </xsd:annotation>
15    </xsd:element>
16    <!-- [...] -->
17    <xsd:element name="TopographicPlaceType" type="TopographicPlaceTypeEnumeration" minOccurs="0">
18      <xsd:annotation>
19        <xsd:documentation>Classification of the TOPOGRAPHIC PLACE as a settlement. Enumerated value.</xsd:documentation>
20      </xsd:annotation>
21    </xsd:element>
22    <xsd:element name="PostCode" type="xsd:normalizedString" minOccurs="0">
23      <xsd:annotation>
24        <xsd:documentation>Post code or partial post code associated with area. v1.1</xsd:documentation>
25      </xsd:annotation>
26    </xsd:element>
27  </xsd:sequence>
28 </xsd:group>
```

# NeTEx

## Schema definitions

- [TimeZone](#)
- [TimingLink](#)
- [TimingLinkRef](#)
- [timingLinks](#)
- [TimingPoint](#)
- [TimingPointRef](#)
- [timingPoints](#)
- [TimingPointStatus](#)
- [To](#)
- [ToDate](#)
- [ToJourneyRef](#)
- [TopographicPlace](#)
- [TopographicPlaceRef](#)
- [topographicPlaces](#)
- [TopographicPlaceType](#)
- [TopographicPlaceView](#)
- [ToPointRef](#)
- [TotalCapacity](#)
- [Train](#)
- [TrainBlockPart](#)
- [TrainBlockPartRef](#)
- [TrainBlockRef](#)
- [TrainComponent](#)
- [TrainComponentRef](#)
- [TrainElement](#)
- [TrainNumber](#)



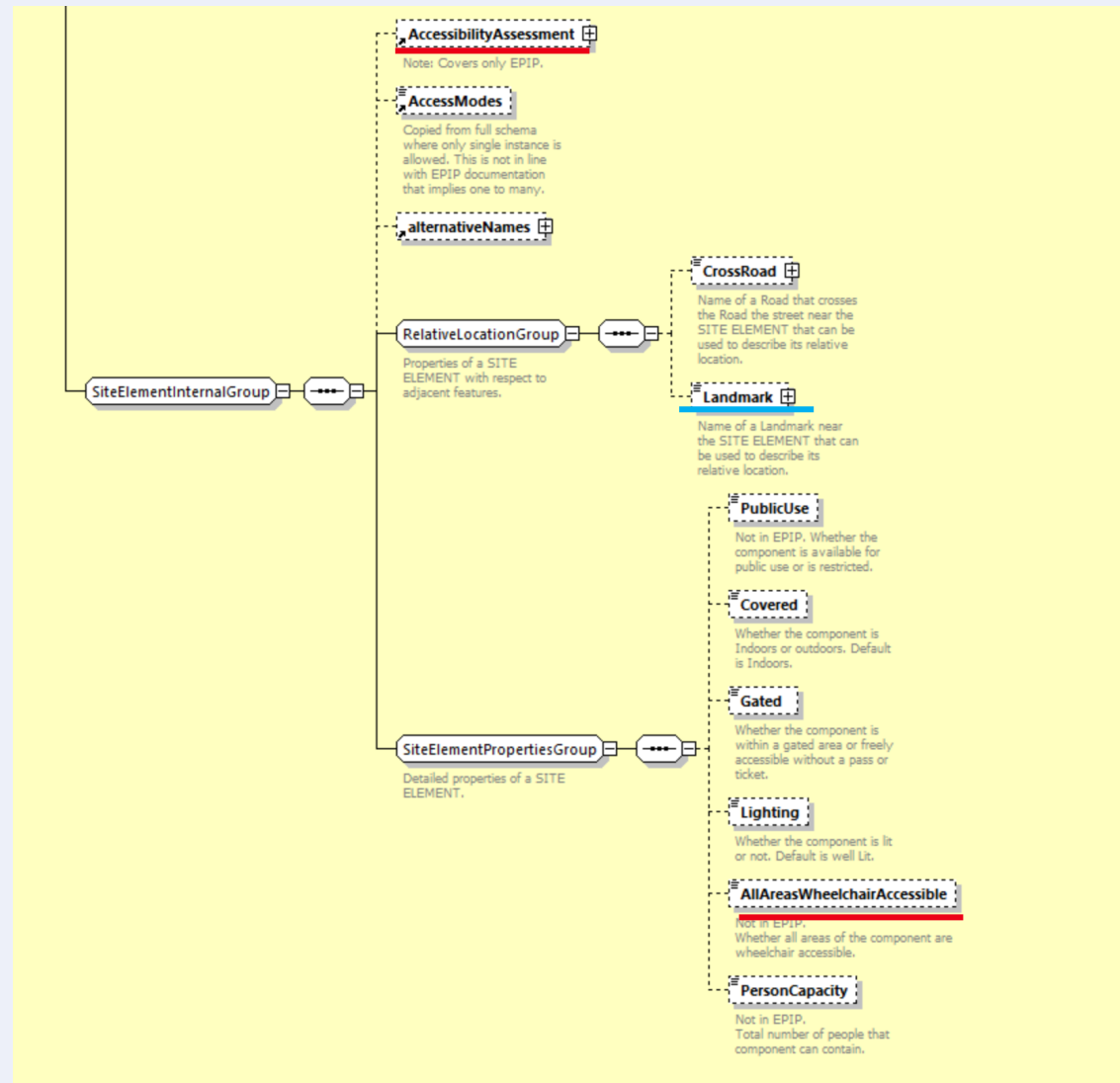
element IsoCode		
diagram		
namespace	http://www.netex.org.uk/netex	
type	xsd:string	
properties	content simple	
used by	complexType <a href="#">TopographicPlace_VersionStructure</a>	
source	<xsd:element name="IsoCode" type="xsd:string"/>	

[https://data4pt.org/NeTEx/GraphicKit/Documentation\\_of\\_reduced\\_XSD.html](https://data4pt.org/NeTEx/GraphicKit/Documentation_of_reduced_XSD.html)





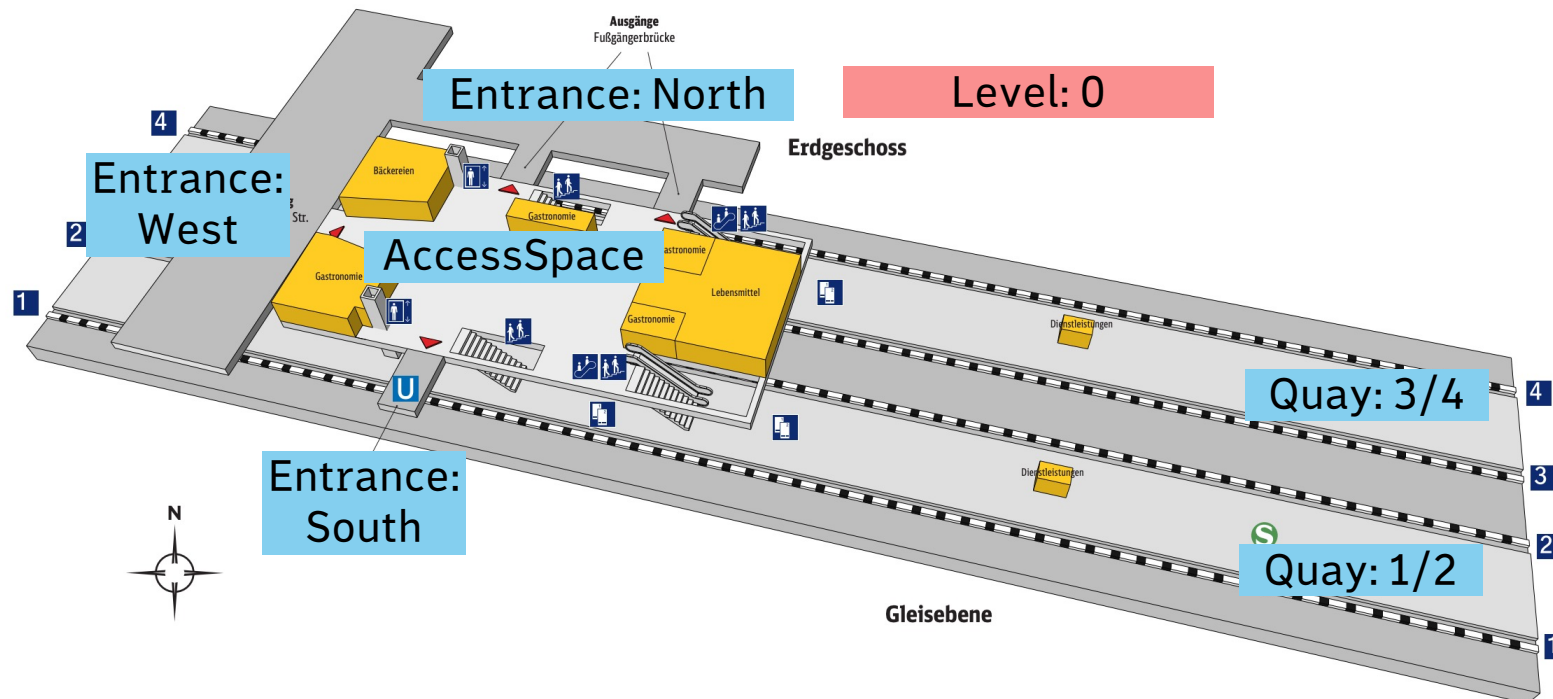
```
1 <TopographicPlace id="de:12000000" version="any">
2     <Name>Brandenburg</Name>
3     <IsoCode>DE-BB</IsoCode>
4 </TopographicPlace>
5
6 <TopographicPlace id="de:12054000" version="any">
7     <Name>Potsdam</Name>
8 </TopographicPlace>
```



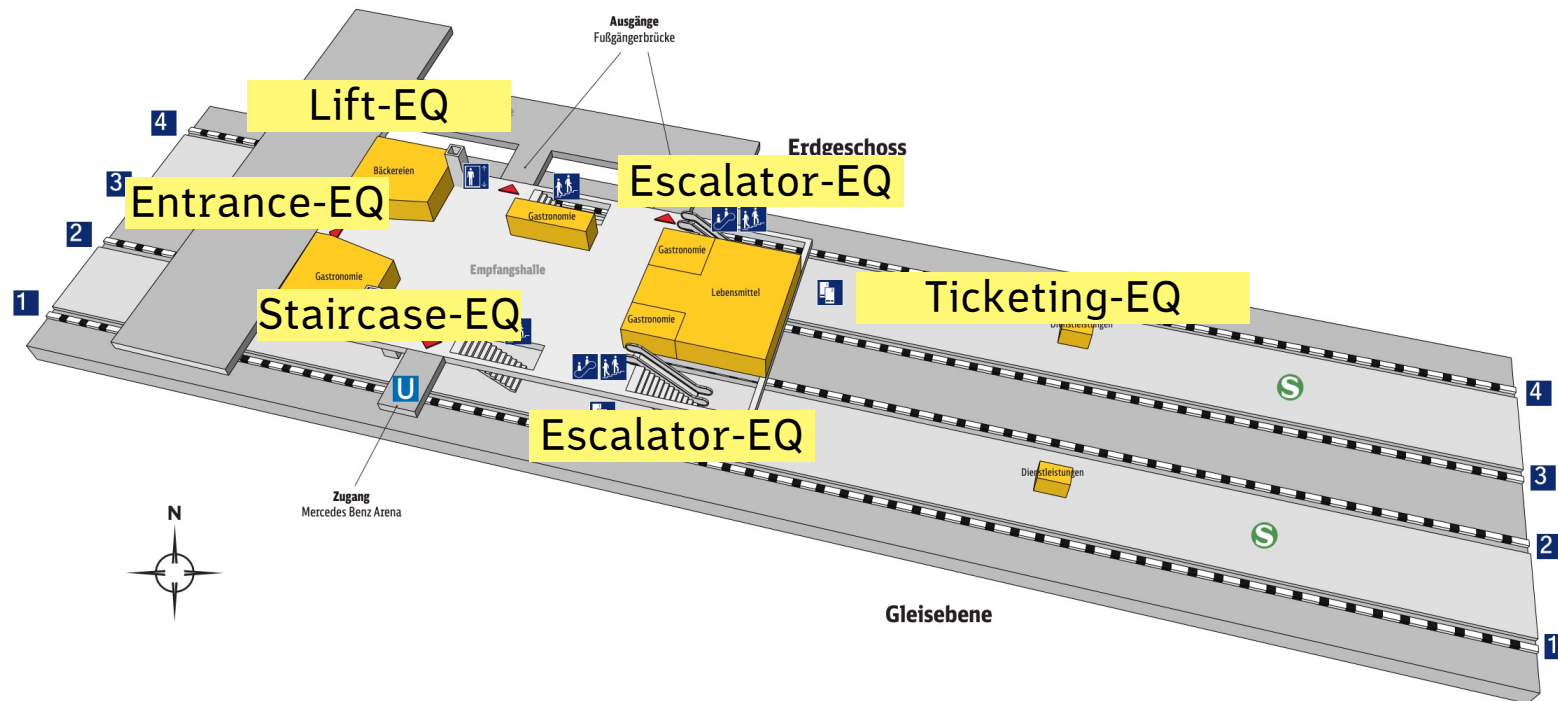
## S-Bahnhof **Berlin Warschauer Straße**

StopPlace (multimodal): S+U Warschauer Straße

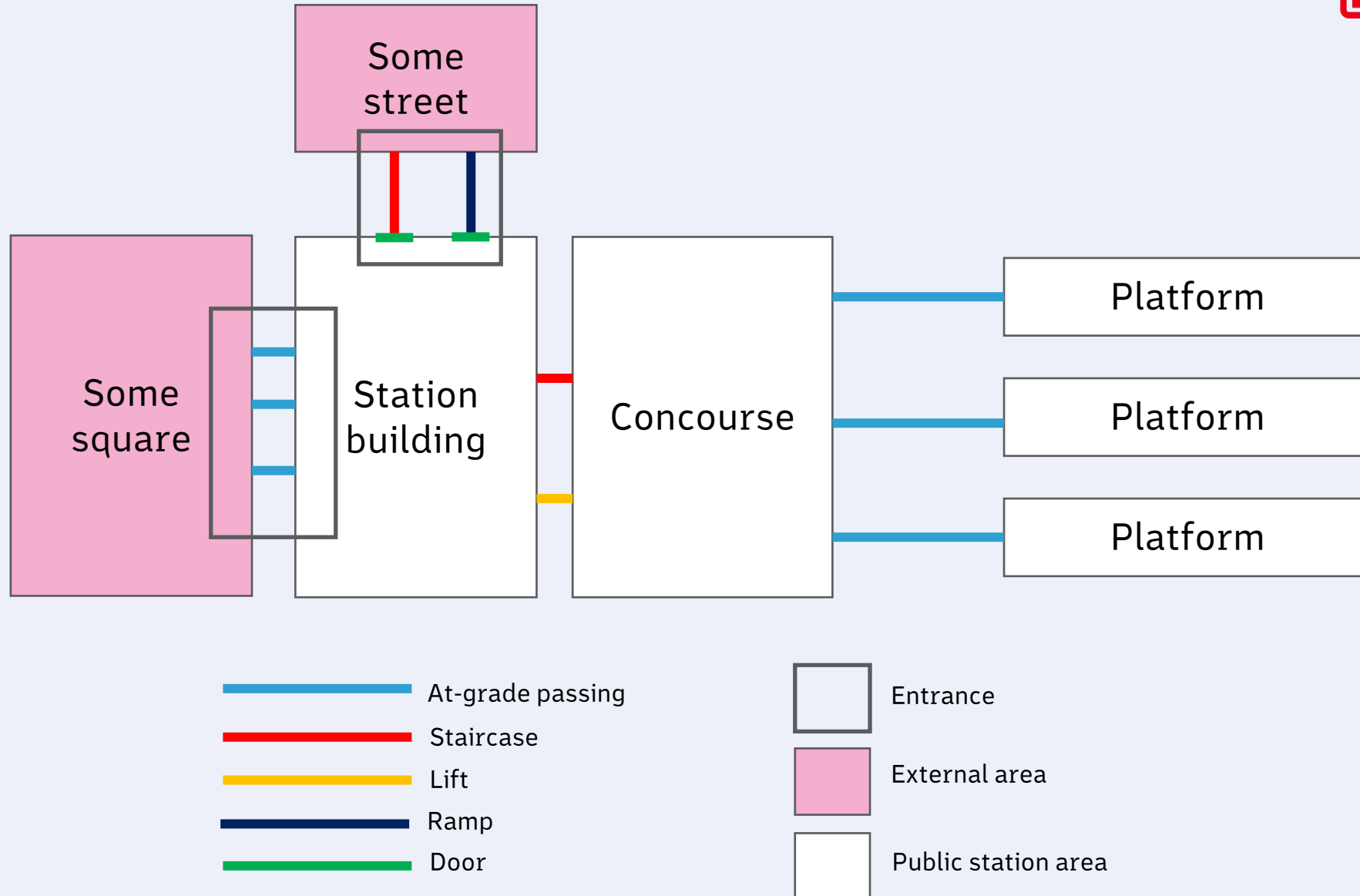
StopPlace (monomodal): S Warschauer Straße

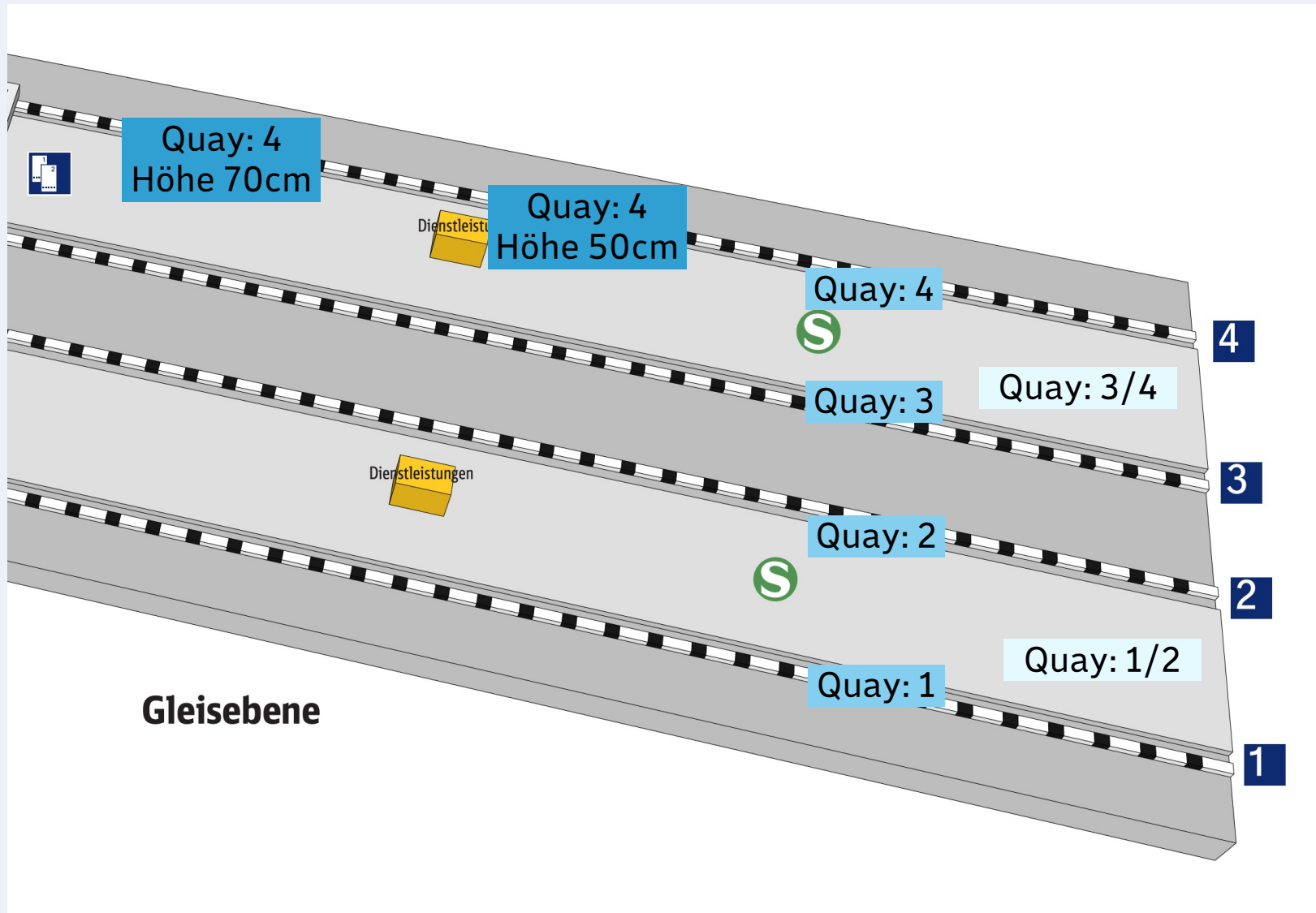


## S-Bahn **Berlin Warschauer Straße**









# Our new API: NeTeX

```
1 <?xml version="1.0"?>
2 <PublicationDelivery xmlns:ns3="http://www.siri.org.uk/siri" xmlns:ns2="http://www.opengis.net/gml/3.2" xmlns="http://www.netex.org.uk/netex">
3   <PublicationTimestamp>2024-09-04T17:25:57.739Z</PublicationTimestamp>
4   <ParticipantRef>DB</ParticipantRef>
5   <dataObjects>
6     <SiteFrame version="any" id="33076ac1-d94b-484a-9a43-e09a3ebb953c">
7       <stopPlaces>
8         <StopPlace version="any" id="de:11000:900120004">
9           <Name lang="de">Warschauer Straße</Name>
10          <!-- ... -->
11          <Locale>
12            <TimeZone>Europe/Berlin</TimeZone>
13            <DefaultLanguage>de-DE</DefaultLanguage>
14          </Locale>
15          <OperatorRef ref="68bf1a02-be07-3965-8bad-45e9c522ce5c"></OperatorRef>
16          <quays>
17            <Quay id="de:11000:900120004:1">
18              <!-- ... -->
19            </Quay>
20            <!-- ... -->
21          </quays>
22          <accessSpaces>
23            <AccessSpace id="296d0c5c-adab-4872-86f3-4f540eb9687a">
24              <!-- ... -->
25            </AccessSpace>
26          </accessSpaces>
27        </StopPlace>
28      </stopPlaces>
29    </SiteFrame>
30    <ResourceFrame version="any" id="b6507dfb-2d08-4ca9-9cb7-58c740c01258">
31      <organisations>
32        <Operator version="any" id="68bf1a02-be07-3965-8bad-45e9c522ce5c">
33          <Name>DB InfraGO AG</Name>
34          <ShortName>DB InfraGO AG</ShortName>
35        </Operator>
36      </organisations>
37    </ResourceFrame>
38  </dataObjects>
39 </PublicationDelivery>
```



# Our new API: NeTEx

```
1 <Quay id="de:11000:900120004:2">
2   <keyList>
3     <KeyValue>
4       <Key>URI</Key>
5       <Value>https://daten.bahnhof.de/resource/de:11000:900120004:2</Value>
6     </KeyValue>
7     <KeyValue>
8       <Key>EQ-ID</Key>
9       <Value>10499069</Value>
10    </KeyValue>
11  </keyList>
12  <Name lang="de">S-Bahnsteig Gl.3/4 -&gt; West</Name>
13  <PrivateCode>06550-01-SB2</PrivateCode>
14  <PublicUse>all</PublicUse>
15  <Covered>outdoors</Covered>
16  <Gated>openArea</Gated>
17  <Lighting>wellLit</Lighting>
18  <SiteRef ref="de:11000:900120004"></SiteRef>
19  <TransportMode>rail</TransportMode>
20  <BoardingUse>true</BoardingUse>
21  <AlightingUse>true</AlightingUse>
22  <Length>157.00</Length>
23  <Width>9.01</Width>
24  <QuayType>railIslandPlatform</QuayType>
25  <PlatformHeight>0.96</PlatformHeight>
26 </Quay>
27 <Quay id="DE:11000:900120004:2:53">
28   <keyList>
29     <KeyValue>
30       <Key>URI</Key>
31       <Value>https://daten.bahnhof.de/resource/DE:11000:900120004:2:53</Value>
32     </KeyValue>
33   </keyList>
34   <Name lang="de">4</Name>
35   <Length>157.00</Length>
36   <QuayType>railPlatform</QuayType>
37   <PlatformHeight>1.03</PlatformHeight>
38   <ParentQuayRef ref="de:11000:900120004:2"></ParentQuayRef>
39 </Quay>
```

```
1 <LiftEquipment id="DUMMY-fda5f8ab-02ef-4d61-a9c7-22bb7d35d36d">
2   <keyList>
3     <KeyValue>
4       <Key>URI</Key>
5       <Value>https://daten.bahnhof.de/resource/DUMMY-fda5f8ab-02ef-4d61-a9c7-22bb7d35d36d</Value>
6     </KeyValue>
7   </keyList>
8   <Name lang="de">AZ Gl. 3/4 / Fabrik-Nr:10997117</Name>
9   <PrivateCode>10499258</PrivateCode>
10  <infoLinks>
11    <InfoLink>https://www.bahnhof.de/id/6550/aufzuege</InfoLink>
12  </infoLinks>
13  <Width>1.10</Width>
14  <DirectionOfUse>both</DirectionOfUse>
15  <SafeForGuideDog>true</SafeForGuideDog>
16  <Depth>2.10</Depth>
17  <MaximumLoad>1000.00</MaximumLoad>
18  <WheelchairPassable>true</WheelchairPassable>
19  <WheelchairTurningCircle>1.10</WheelchairTurningCircle>
20  <InternalWidth>1.10</InternalWidth>
21  <InternalHeight>2.20</InternalHeight>
22  <ThroughLoader>true</ThroughLoader>
23  <Attendant>false</Attendant>
24  <AlarmButton>true</AlarmButton>
25 </LiftEquipment>
26 <StaircaseEquipment id="DUMMY-00772212-061f-4d26-a0f6-acd500914d42">
27   <keyList>
28     <KeyValue>
29       <Key>URI</Key>
30       <Value>https://daten.bahnhof.de/resource/DUMMY-00772212-061f-4d26-a0f6-acd500914d42</Value>
31     </KeyValue>
32   </keyList>
33   <Name lang="de">Treppe 2 Bstg B Ost</Name>
34   <PrivateCode>10499342</PrivateCode>
35   <SafeForGuideDog>true</SafeForGuideDog>
36   <StepColourContrast>true</StepColourContrast>
37   <StepCondition>even</StepCondition>
38   <HandrailTactileSign>true</HandrailTactileSign>
39   <TopEnd></TopEnd>
40   <BottomEnd></BottomEnd>
41 </StaircaseEquipment>
```

```
1 <FacilityCondition>
2   <FacilityRef>diid:02b2be0f-c1da-1eef-a490-adbba6a917ad</FacilityRef>
3   <FacilityStatus>
4     <Status>notAvailable</Status>
5     <Description xml:lang="en">under maintenance</Description>
6   </FacilityStatus>
7 </FacilityCondition>
8 <FacilityCondition>
9   <FacilityRef>diid:02b2be0f-c1da-1eef-a490-d394f84557ae</FacilityRef>
10  <FacilityStatus>
11    <Status>available</Status>
12    <Description xml:lang="en">available</Description>
13  </FacilityStatus>
14 </FacilityCondition>
```

# How to get access

**mobilithek**

Full dataset  
for productive use



**API Marketplace**

API for exploration  
with additional filters

Allgemein Dateien oder Inhalte **Nutzungsbedingungen** Erklärungen Datenqualität

**Art der  
Nutzungsbedingungen**

Lizenz, freie Nutzung/Open Data

**Standard-Lizenz**

Creative Commons CC Zero License (cc-zero)

**Datenzugriff über die API  
erst nach Freigabe des  
Abonnements erlaubt**

Nein

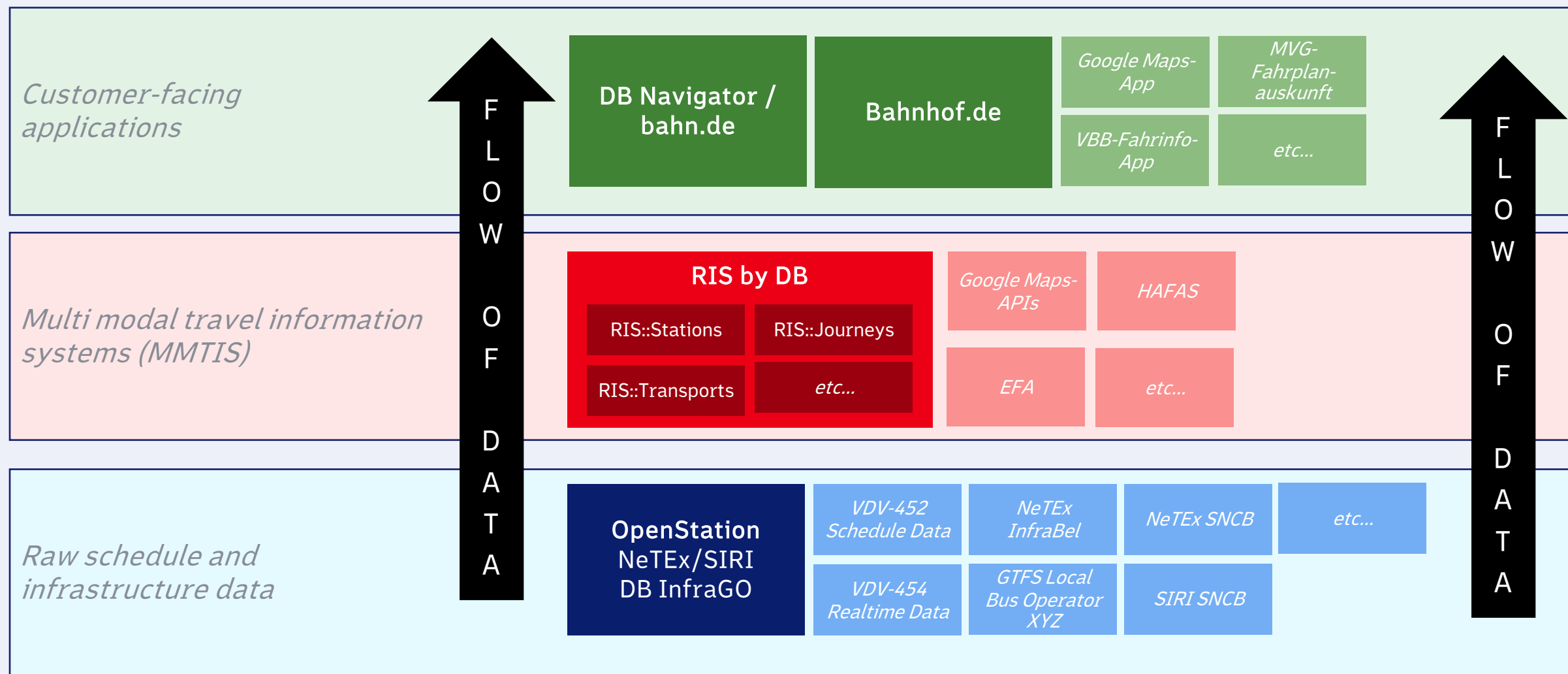
**Einzeldatenzugriff über  
das Portal für anonyme  
Nutzer erlaubt**

Ja



<https://github.com/dbinfrago/openstation-docs>

# OpenStation within DB's API ecosystem



# Next steps



# Thank you!



Documentation



Extended Version of this Talk