

DATEX II

DATEX II Linked Open Data

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Linked Open Data

- Background
 - Have activity, aim is create better support for DATEX in Open Data field/community
 - Request from Open Data community to publish DATEX "definitions"
- Ongoing work

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What is Linked Open Data?

- Linked Data is one of the core pillars of the Semantic Web, also known as the Web of Data.
- The Semantic Web is about making links between datasets that are understandable not only to humans, but also to machines, and Linked Data provides the best practices for making these links possible.
- In other words, Linked Data is a set of design principles for sharing machine-readable interlinked data on the Web.
- Open Data - can be freely used and distributed by anyone

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Example, Google Search

The screenshot shows a Google search for "buy tea". The search bar contains "buy tea" and the Google logo is visible. Below the search bar, there are navigation options: "Allt", "Kartor", "Shopping", "Bilder", "Nyheter", "Fler", "Inställningar", and "Verktyg". The search results indicate approximately 1260 million results in 0.74 seconds. A tip suggests searching for Swedish results. The main section is titled "Annonser · Bläddra bland buy tea" and features three product listings:

- Traditionellt startpaket Taragui:** Includes a black teapot and a red package of Taragui tea. Price: 529,00 kr. Seller: Matetea.se. Source: Av Google.
- Dilmah Te sortimentsask 240/fp:** A box of Dilmah tea. Price: 626,08 kr. Seller: Office Depot. Source: Av Shoptail.
- Taylors Yorkshire Tea 80s Teabags (250 g):** A box of Taylors Yorkshire Tea. Price: 79,00 kr. Seller: Tasty America. Source: Av Rooth. Note: Jämför liknande produkter från 3 butiker.

At the bottom, a map shows the location of Siljans Konditori in Falun, with other nearby locations like Borlänge, Gävle, and Åbo marked.

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Example, simple web page

```
<html>
  <head>
    <title>Vehicle Obstruction</title>
  </head>
  <body>
    <h2>Vehicle Obstruction</h2>
    <p>
      2021-04-16 15:00:00
    </p>
    <p>
      Broken down vehicle
    </p>
  </body>
</html>
```

Vehicle Obstruction

2021-04-16 15:00:00

Broken down vehicle

Understandable for human but not for a machine

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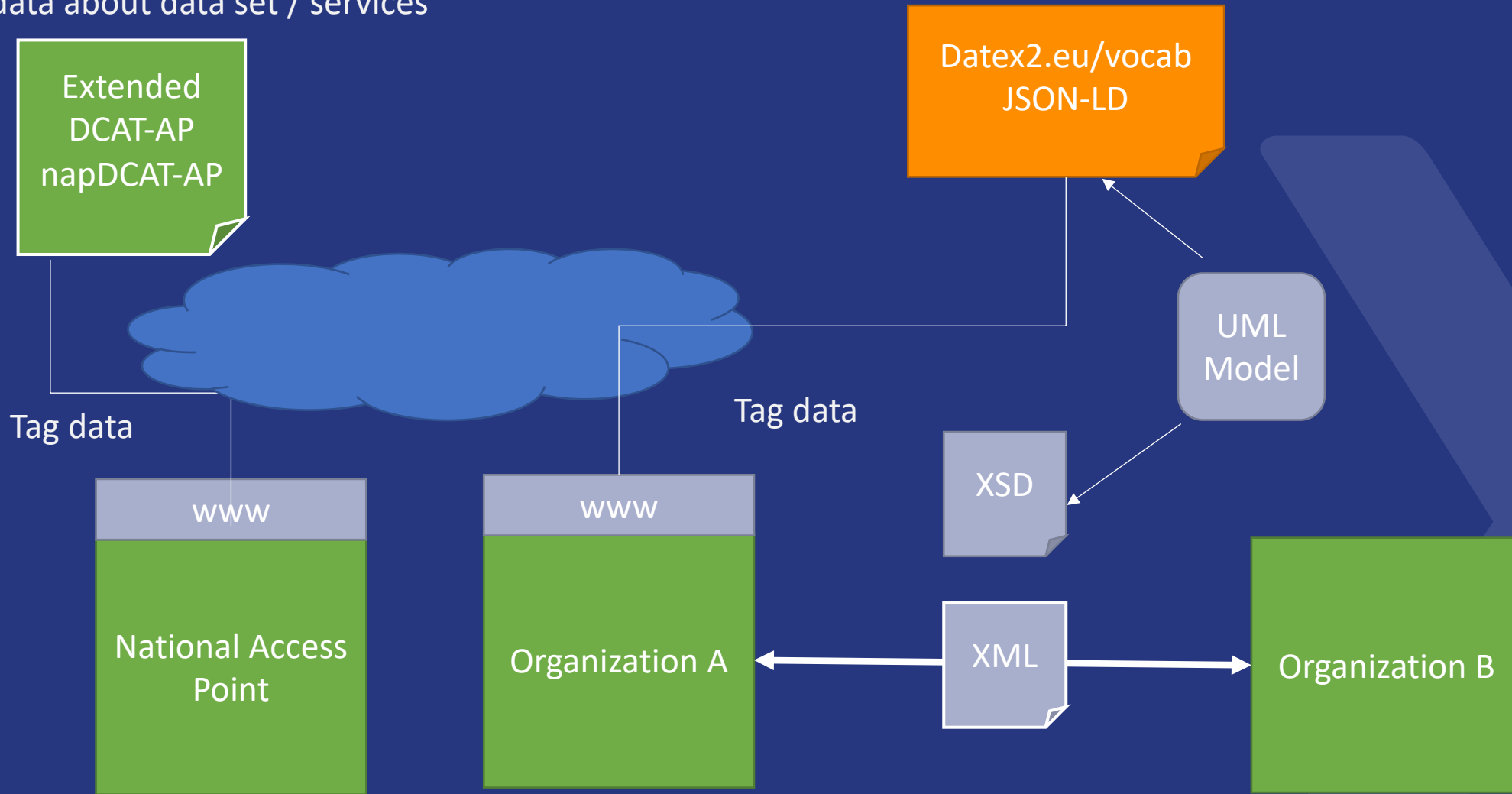
Add JSON-LD

```
<html>
  <head>
    <title>Vehicle Obstruction</title>
    <script type="application/ld+json">
      {
        "@context": "http://datex2.eu/vocab/3/Situation/",
        "@type": "datex_Situation:VehicleObstruction",
        "datex_Situation:VehicleObstructionType":
          "datex_Situation:VehicleObstructionTypeEnum#brokenDownVehicle",
        "datex_Situation:situationRecordCreationTime": "2021-04-16T15:00:00+02:00"
      }
    </script>
  </head>
  <body>
    <h2>Vehicle Obstruction</h2>
    <p>
      2021-04-16 15:00:00
    </p>
    <p>
      Broken down vehicle
    </p>
  </body>
</html>
```

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Metadata about data set / services



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Status

- Ongoing activity
- Draft mapping document exists
- DATEX vocabulary is describe with JSON-LD, draft is available
- Should be ready in April
- Will be published on datex2.eu

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Daft

- <https://datex2.eu/vocab/3/Common/>
- <https://datex2.eu/vocab/3/D2Payload/>
- <https://datex2.eu/vocab/3/LocationReferencing/>
- <https://datex2.eu/vocab/3/Situation/>
- <https://datex2.eu/vocab/3/RoadTrafficData/>
- <https://datex2.eu/vocab/3/Vms/>

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Thank you

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