

User-friendly Information Tool on Urban and Regional Access Regulations Schemes

UVAR Box tools

3rd Workshop

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European Commission Directorate - General for Mobility and Transport

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Consortium:



UVAR Box tools process of creating UVARs - generalized overview





UVAR Box tools overview

Main benefits - objectives

- Supports and eases the process of defining UVARs for competent authorities
- Facilitates digitalization and standardization of UVARs
- Uses data-standards to enable publication
- Supports usage of published UVARs by service providers through machine-readable formats
- Helps to ensure the provision of accurate, up to date traffic information to road users
- Availability as open-source tool



UVAR Box tools main components

User-Interface (Web-Application)

- Authentication (Login-Form, Logout)
- The UVAR-Editor which contains
 - a map (for viewing und editing UVAR-Geometries)
 - a list (for search results)
 - a form (for editing the attributes of UVARs)
- Extra-Tasks (e.g. Import/Export)

Application-Layer: Backend Logic




- Database Access
- Validation

Webservices for internal and external clients

- Web-Map Service (WMS) for displaying UVARs




UVAR Box tools mockup - overview

The screenshot displays the UVAR Box software interface. At the top left, there is a 'FILTER' dropdown and a 'LEZ & LTZ' dropdown. The main area is a map of a city with several zones highlighted: a large blue area on the left, and two green areas on the right. A red circle with a white 'E' is placed in the blue area, and two red circles with white centers are placed in the green areas. On the right side, there is a legend table with a '+' and '-' button at the top right.

Name	
<input type="checkbox"/>	 Low Emission Zone
<input type="checkbox"/>	 Limited Traffic Zone
<input type="checkbox"/>	 Limited Traffic Zone




UVAR Box tools mockup - overview - map

The screenshot displays the UVAR Box interface. At the top left, there is a 'FILTER' dropdown and a 'LEZ & LTZ' dropdown. The main map area shows a city with a large blue-shaded area on the left and two green-shaded areas on the right. A red circle with a white 'E' is placed in the blue area, and two red circles with white centers are placed in the green areas. On the right side, there is a legend table with a '+' and '-' button at the top right.

	Name
<input type="checkbox"/>	 Low Emission Zone
<input type="checkbox"/>	 Limited Traffic Zone
<input type="checkbox"/>	 Limited Traffic Zone




UVAR Box tools mockup - overview - list

The screenshot displays the UVAR Box interface. At the top left, there is a 'FILTER' dropdown and a 'LEZ & LTZ' dropdown. The main area is a map of a city with a blue shaded area on the left and two green shaded areas on the right. A red circle with a white 'E' is overlaid on the blue area, and two red circles with white centers are overlaid on the green areas. On the right side, there is a list of zones with checkboxes and icons.

Name	
<input type="checkbox"/>	 Low Emission Zone
<input type="checkbox"/>	 Limited Traffic Zone
<input type="checkbox"/>	 Limited Traffic Zone

UVAR Box tools mockup - overview - filter

The screenshot displays the UVAR Box interface. At the top, a red-bordered header contains a 'FILTER' dropdown and a 'LEZ & LTZ' dropdown. Below the header is a map of a city area with several zones highlighted: a large blue-shaded area on the left, and two green-shaded areas on the right, each with a red circle icon in the center. A vertical toolbar on the left side of the map includes icons for home, zoom in (+), zoom out (-), pan, and other navigation tools. On the right side, a filter panel is visible, featuring a '+' and '-' icon at the top. The panel has a 'Name' header and a list of three items, each with a checkbox and a red circle icon:

Name	
<input type="checkbox"/>	 Low Emission Zone
<input type="checkbox"/>	 Limited Traffic Zone
<input type="checkbox"/>	 Limited Traffic Zone

UVAR Box tools mockup - create an UVAR

The screenshot displays the UVAR Box software interface. At the top left, there is a 'FILTER' dropdown and a 'LEZ & LTZ' dropdown. The main area is a map of a city with a blue shaded area on the left and two green shaded areas on the right. A red circle with a white 'E' is placed in the blue area, and two red circles with white centers are placed in the green areas. On the right side, there is a legend table with a '+' and '-' button at the top right. The legend table has a 'Name' header and three rows of zone types with checkboxes.

		+		-	
		Name			
<input type="checkbox"/>		Low Emission Zone			
<input type="checkbox"/>		Limited Traffic Zone			
<input type="checkbox"/>		Limited Traffic Zone			

UVAR Box tools mockup - create an UVAR - form

The screenshot displays the UVAR Box interface, which is used for creating and managing limited traffic zones. The interface is divided into two main sections: a map and a configuration form.

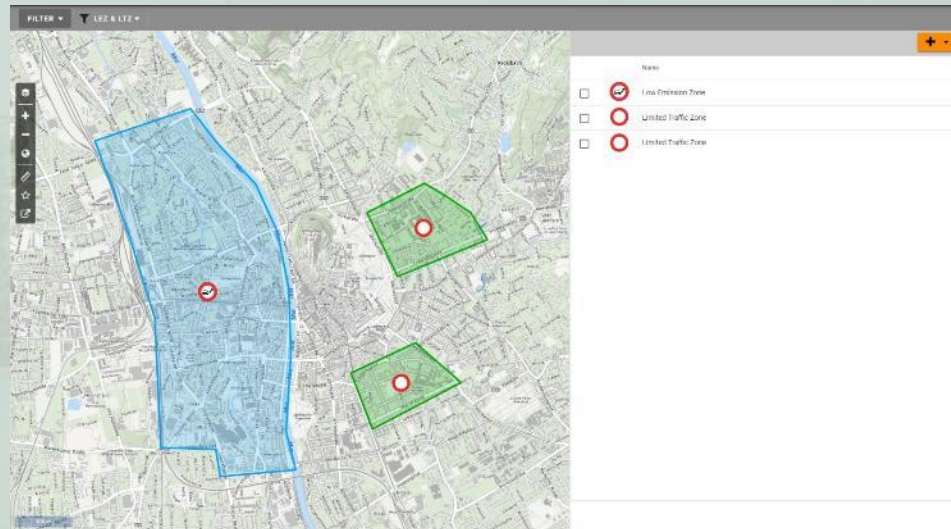
Map Section: The map shows a city street grid with several zones highlighted. A large blue-shaded area covers a significant portion of the city center. Two smaller green-shaded areas are also visible, each with a red circle icon in the center, indicating the location of a limited traffic zone. The map includes a 'FILTER' dropdown and a 'LEZ & LTZ' dropdown menu. A vertical toolbar on the left side of the map contains various icons for map navigation and editing.

Configuration Form Section: The form is titled 'Limited traffic zone' and is outlined in red. It contains the following fields and controls:

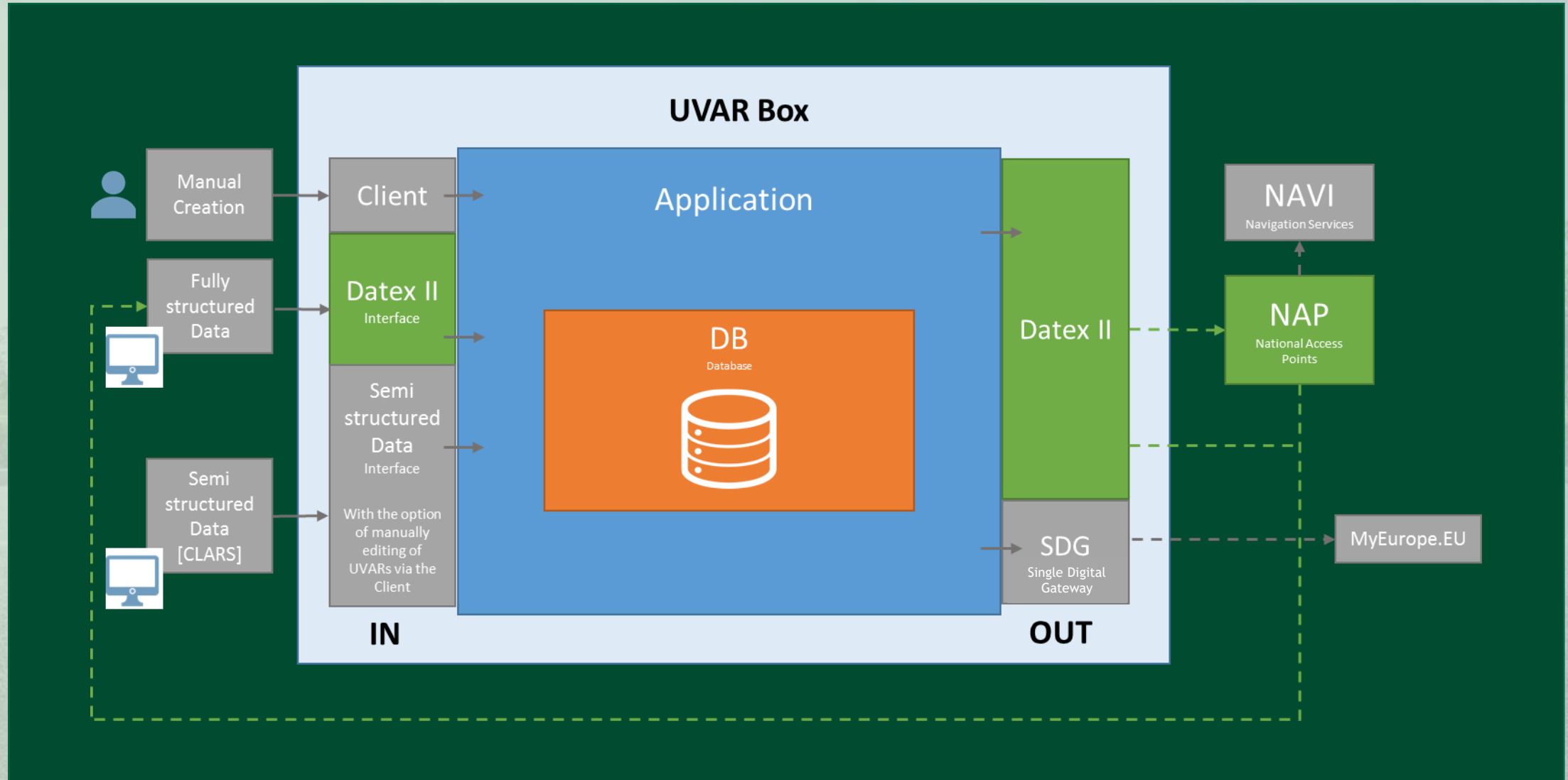
- Name:** A text input field containing the text 'Limited traffic zone'.
- Time validity:** A section with two rows of date and time pickers. The first row is for 'Start' with a date of '12.11.2021' and a time of '00:00'. The second row is for 'End' with a date of '20.10.2022' and a time of '00:00'.
- Type of regulation:** A dropdown menu.
- Applicability conditions:** A dropdown menu.
- Exemptions:** A dropdown menu.
- Buttons:** At the bottom right of the form, there are two buttons: 'CANCEL' and 'SAVE'.

UVAR Box tools mockup - import and export (DATEX II)

```
<?xml version="1.0" encoding="UTF-8"?>
<d2:payload xsi:type="cz:ControlledZoneTablePublication"
  xmlns:cz="http://levelC/schema/3/controlledZone"
  xmlns:com="http://levelC/schema/3/common"
  xmlns:tro="http://levelC/schema/3/trafficRegulation"
  xmlns:loc="http://levelC/schema/3/locationReferencing"
  xmlns:ext="http://levelC/schema/3/extension"
  xmlns:d2="http://levelC/schema/3/d2Payload"
  xmlns:sit="http://levelC/schema/3/situation"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://levelC/schema/3/d2Payload ./Level_3_D2Payload_ControlledZone.xsd"
  lang="en-US" modelBaseVersion="3">
  <com:publicationTime>2021-04-14T14:20:51.0</com:publicationTime>
  <com:publicationCreator>
    <com:country>de</com:country>
    <com:nationalIdentifier>germany</com:nationalIdentifier>
  </com:publicationCreator>
  <cz:headerInformation>
    <com:informationStatus>test</com:informationStatus>
  </cz:headerInformation>
  <cz:controlledZoneTable>
    <cz:tableVersionTime>2021-04-14T14:20:51.0</cz:tableVersionTime>
    <cz:urbanVehicleAccessRegulation>
      <cz:controlledZone>
        <com:values>
          <com:value lang="en">LEZ Aachen</com:value>
          <com:value lang="de">Umweltzone Aachen</com:value>
        </com:values>
      </cz:controlledZone>
      <cz:controlledZoneRecordVersionTime>2021-04-14T14:20:51.0</cz:controlledZoneRecordVersionTime>
      <cz:urlForFurtherInformation>http://www.aachen.de/DE/stadt_buerger/umwelt/luft-stadtklima/luft-
      <cz:trafficRegulationOrder id="" version="">
        <tro:issuingAuthority>
          <com:values>
            <com:value>Straßenverkehrsbehörde der Stadt Aachen</com:value>
          </com:values>
        </tro:issuingAuthority>
        <tro:regulationId/>
        <tro:status>madeAndImplemented</tro:status>
        <tro:trafficRegulation xsi:type="cz:ControlledZoneRegulation">
          <tro:typeOfRegulation xsi:type="tro:AccessRestriction">
            <tro:accessRestrictionType>noEntry</tro:accessRestrictionType>
          </tro:typeOfRegulation>
          <tro:condition xsi:type="tro:ConditionSet">
            <tro:operator>and</tro:operator>
            <tro:condition xsi:type="tro:ValidityCondition">
              <tro:orderedValidity>
                <com:validityStatus>active</com:validityStatus>
                <com:validityTimeSpecification>
                  <com:overallStartTime>2016-02-01T00:00:00</com:overallStartTime>
                </com:validityTimeSpecification>
              </tro:orderedValidity>
            </tro:condition>
            <tro:condition xsi:type="tro:LocationCondition">
              <tro:orderedLocation xsi:type="tro:AreaLocation">
```



```
<?xml version="1.0" encoding="UTF-8"?>
<d2:payload xsi:type="cz:ControlledZoneTablePublication"
  xmlns:cz="http://levelC/schema/3/controlledZone"
  xmlns:com="http://levelC/schema/3/common"
  xmlns:tro="http://levelC/schema/3/trafficRegulation"
  xmlns:loc="http://levelC/schema/3/locationReferencing"
  xmlns:ext="http://levelC/schema/3/extension"
  xmlns:d2="http://levelC/schema/3/d2Payload"
  xmlns:sit="http://levelC/schema/3/situation"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://levelC/schema/3/d2Payload ./Level_3_D2Payload_ControlledZone.xsd"
  lang="en-US" modelBaseVersion="3">
  <com:publicationTime>2021-04-14T14:20:51.0</com:publicationTime>
  <com:publicationCreator>
    <com:country>de</com:country>
    <com:nationalIdentifier>germany</com:nationalIdentifier>
  </com:publicationCreator>
  <cz:headerInformation>
    <com:informationStatus>test</com:informationStatus>
  </cz:headerInformation>
  <cz:controlledZoneTable>
    <cz:tableVersionTime>2021-04-14T14:20:51.0</cz:tableVersionTime>
    <cz:urbanVehicleAccessRegulation>
      <cz:controlledZone>
        <com:values>
          <com:value lang="en">LEZ Aachen</com:value>
          <com:value lang="de">Umweltzone Aachen</com:value>
        </com:values>
      </cz:controlledZone>
      <cz:controlledZoneRecordVersionTime>2021-04-14T14:20:51.0</cz:controlledZoneRecordVersionTime>
      <cz:urlForFurtherInformation>http://www.aachen.de/DE/stadt_buerger/umwelt/luft-stadtklima/luft-
      <cz:trafficRegulationOrder id="" version="">
        <tro:issuingAuthority>
          <com:values>
            <com:value>Straßenverkehrsbehörde der Stadt Aachen</com:value>
          </com:values>
        </tro:issuingAuthority>
        <tro:regulationId/>
        <tro:status>madeAndImplemented</tro:status>
        <tro:trafficRegulation xsi:type="cz:ControlledZoneRegulation">
          <tro:typeOfRegulation xsi:type="tro:AccessRestriction">
            <tro:accessRestrictionType>noEntry</tro:accessRestrictionType>
          </tro:typeOfRegulation>
          <tro:condition xsi:type="tro:ConditionSet">
            <tro:operator>and</tro:operator>
            <tro:condition xsi:type="tro:ValidityCondition">
              <tro:orderedValidity>
                <com:validityStatus>active</com:validityStatus>
                <com:validityTimeSpecification>
                  <com:overallStartTime>2016-02-01T00:00:00</com:overallStartTime>
                </com:validityTimeSpecification>
              </tro:orderedValidity>
            </tro:condition>
            <tro:condition xsi:type="tro:LocationCondition">
              <tro:orderedLocation xsi:type="tro:AreaLocation">
```





UVAR Box tools next steps

Tool development

- Finalizing functional specification
- Start software development

Further tasks

- Tool acceptance
- Data collection and maintenance

Thank you for your attention!