Example: A data request and data response for a Registered Organization during a qualificaiton process in a public procurement procedure

Steps

1. A DC wants to fill the following Economic Operator Data of an ESPD with offical data from a business register
2. DC has configured his application for the TOOP semantic concepts (precondition)
3. Create a *Data Request for Registered Organization* to be used in the ESPD
4. Forward *Data Request for Registered Organization* to the responsible DP

5a. DP has configured his application which is based on xBRL to understand the TOOP semantic concepts

6a. DP checks the authorization of the data subject and provides the target values into the *data response for Registered Organization*

7a. DC receives *data response for Registered Organization* and loads the retrieved values into the ESPD application

Dezentralized Semantic Mapping

5b. DP forwards received the received *data request for Registered Organization** to the central semantic mapping service by adding the desired target format

6b. The semantic mapping service adds the requested paths for the desired target format to the received *data request for Registered Organization* and sends it back to the DP

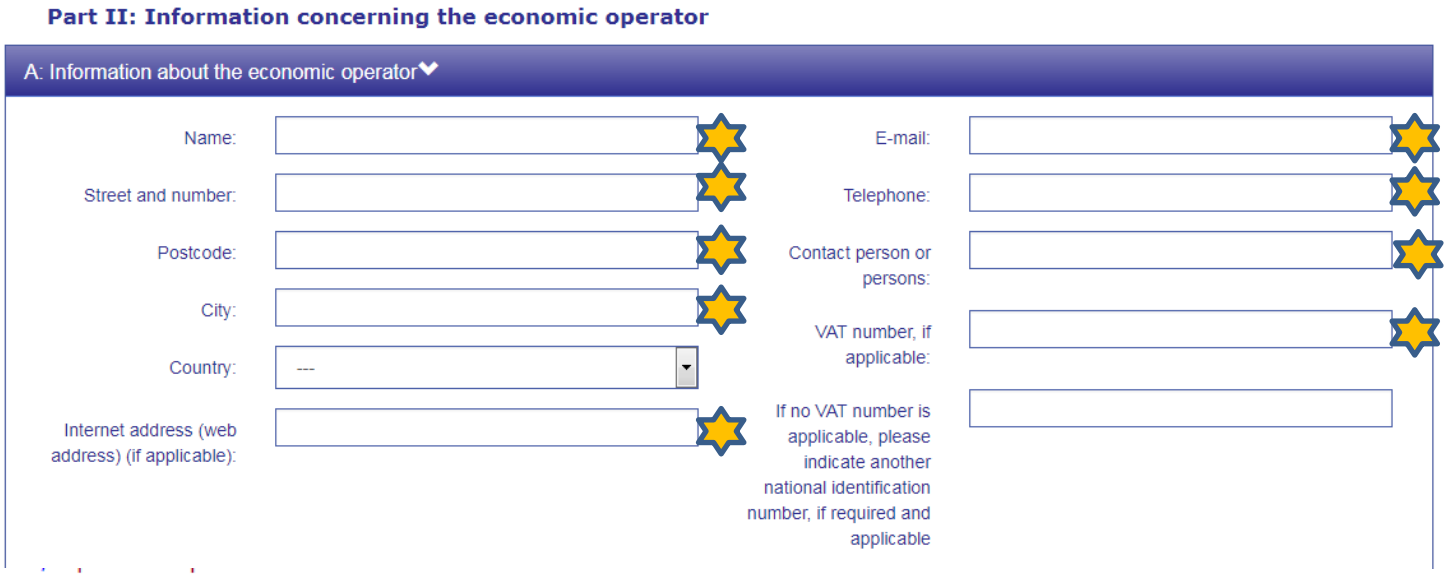
7b. DP checks the authorization of the data subject and provides the target values into the *data response for Registered Organization*

8b. DC receives data response for certificate of registration and loads the retrieved values into the ESPD application

Centralized Semantic Mapping

1) A DC wants to fill the following Economic Operator Data of an ESPD with offical data from a business register

ESPD application



ESDP schema

```
- <cac:Party>
    <cbc:WebsiteURI>__EOInternetAddress</cbc:WebsiteURI>
  - <cac:PartyIdentification>
      <cbc:ID schemeAgencyID="EU-COM-GROW">__EOVATNumber</cbc:ID>
    </cac:PartyIdentification>
  - <cac:PartyIdentification>
      <cbc:ID schemeAgencyID="EU-COM-GROW">__EOanotherID</cbc:ID>
    </cac:PartyIdentification>
  - <cac:PartyName>
      <cbc:Name>__EOName</cbc:Name>
    </cac:PartyName>
  - <cac:PostalAddress>
      <cbc:StreetName>__EOStreet</cbc:StreetName>
      <cbc:CityName>__EOCity</cbc:CityName>
      <cbc:PostalZone>__EOPostcode</cbc:PostalZone>
    </cac:PostalAddress>
  - <cac:Contact>
      <cbc:Name>__EOContactPerson</cbc:Name>
      <cbc:Telephone>__EOTelephone</cbc:Telephone>
      <cbc:ElectronicMail>__EOemail</cbc:ElectronicMail>
    </cac:Contact>
</cac:Party>
```

2) DC has configured his application for the TOOP semantic concepts precondition

```
- <cac:Party>
    <cbc:WebsiteURI>__EOInternetAddress</cbc:WebsiteURI>
  - <cac:PartyIdentification>
      <cbc:ID schemeAgencyID="EU-COM-GROW">__EOVATNumber</cbc:ID>
    </cac:PartyIdentification>
  - <cac:PartyIdentification>
      <cbc:ID schemeAgencyID="EU-COM-GROW">__EOanotherID</cbc:ID>
    </cac:PartyIdentification>
  - <cac:PartyName>
      <cbc:Name>__EOName</cbc:Name>
    </cac:PartyName>
  - <cac:PostalAddress>
      <cbc:StreetName>__EOStreet</cbc:StreetName>
      <cbc:CityName>__EOCity</cbc:CityName>
      <cbc:PostalZone>__EOPostcode</cbc:PostalZone>
    </cac:PostalAddress>
  - <cac:Contact>
      <cbc:Name>__EOContactPerson</cbc:Name>
      <cbc:Telephone>__EOTelephone</cbc:Telephone>
      <cbc:ElectronicMail>__EOemail</cbc:ElectronicMail>
    </cac:Contact>
  </cac:Party>
```

TOOP Concepts
WebsiteURL
VATNumber
Company Name
Address
TelephoneNumber
EMail

Is this the right contact for the ESPD? Probably not! The desired contact should be ESPD specific. DC has to decide which data to request!

3) Create a *Data Request for Registered Organization* to be used in the ESPD

<Document Type> Data Request for *Registered Organization*
<Data Subject>
    <Name> University of Koblenz
    <Country> DE
<Data Request>
    <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. WebsiteURIID
    <Toop Concept> WebsiteURL
<Data Request>
    <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyIdentification
    <Toop Concept> VATNumber
<Data Request>
    <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyName. Name
    <Toop Concept> CompanyName
<Data Request>
    <Data Consumer Concept> espd-cac: EconomicOperatorParty.Party. PostalAddress
    <Toop Concept> Address
<Authorization> Consent Token
<Data Consumer> Federal Procurement Agency in Germany

4) Forward *Data Request for Registered Organization* to the responsible DP

<Document Type> Data Request for *Registered Organization* — 2 → **Capability Lookup in SMP. Does a DP in Germany support this document type?**

<Data Subject>

<Name> University of Koblenz

<Country> DE — 1 → **Identify DPs located in Germany using BDXL**

<Data Request>

<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. WebsiteURIID

<Toop Concept> WebsiteURL

<Data Request>

<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyIdentification

<Toop Concept> VATNumber

<Data Request>

<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyName. Name

<Toop Concept> CompanyName

<Data Request>

<Data Consumer Concept> espd-cac: EconomicOperatorParty.Party. PostalAddress

<Toop Concept> Address

<Authorization> Consent Token

<Data Consumer> Federal Procurement Agency

5a) DP has configured his application which is based on xBRL to understand the TOOP semantic concepts (dezentralized)

TOOP Concepts	xBRL
WebsiteURL	**int-gcd:**EntityWebsiteInformation
VATNumber	**int-gcd:**EntityIdentifyingCodes – **int-gcd**:EntityIdentifyingCodeItemHead
Company Name	**int-gcd:**EntityCurrentLegalRegisteredName
Address	**int-gcd-dt:**MainAddress
TelephoneNumber	**int-gcd:**PhoneNumber
EMail	**int-gcd:**E-mailAddress

6a) DP checks the authorization of the data subject and provides the target values into the *data response for Registered Organization* (dezentralized)

1

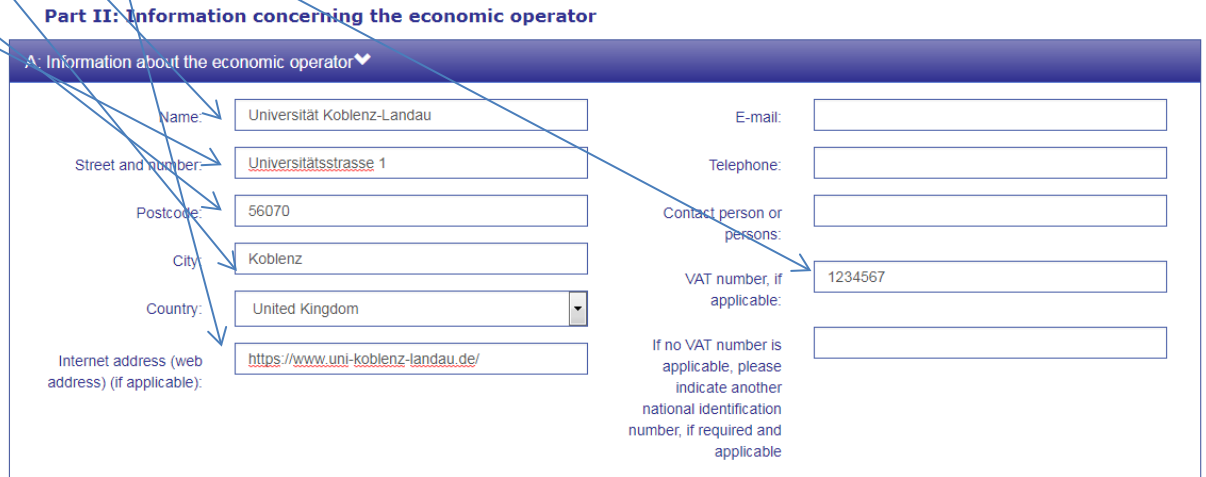
Check authorization and identify data subject

2 **Create data response for *Registered Organization* for the requested data elements**

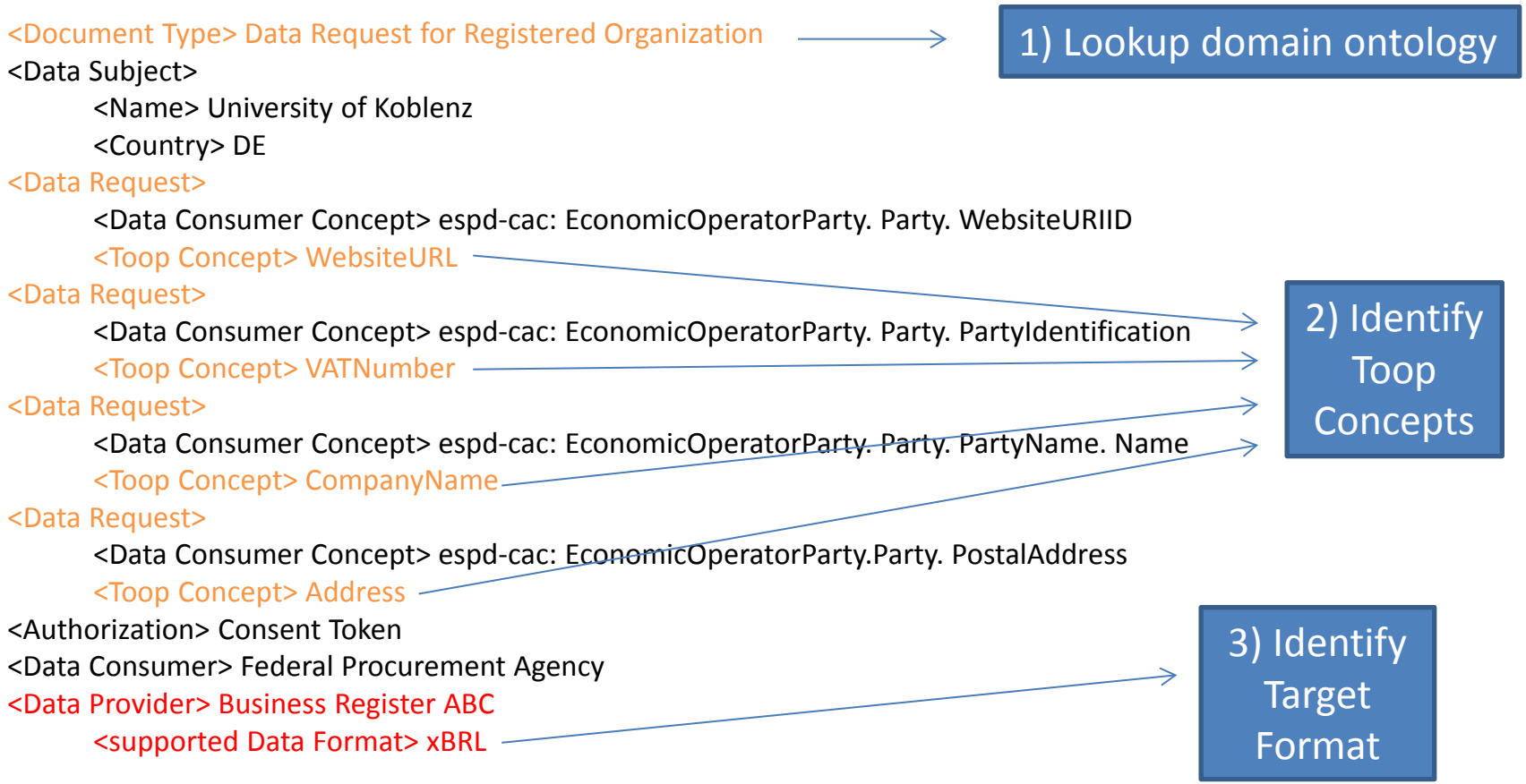
<Document Type> Data Response for certificate or registration
<Data Subject>
<Name> University of Koblenz
<Country> DE
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. WebsiteURIID
<Toop Concept> **WebsiteURL**
<Data provider Value> https://www.uni-koblenz-landau.de/ **based on**
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyIdentification
<Toop Concept> **VATNumber**
<Data provider Value>1234567 **based on**
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyName. Name
<Toop Concept> **CompanyName**
<Data provider Value>Universität Koblenz-Landau **based on**
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty.Party. PostalAddress
<Toop Concept> **Address**
<Data provider Value>Universitätsstrasse 1, 56070 Koblenz **based on**
<Authorization> Consent Token
<Data Consumer> Federal Procurement Agency
<Data Provider> Business Register ABC

7a) DC receives *data response for Registered Organization* and loads the retrieved values into the ESPD application (dezentralized)

<Document Type> Data Response for *Registered Organization*
<Data Subject>
<Name> University of Koblenz
<Country> DE
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. WebsiteURIID
<Toop Concept> WebsiteURL
<Data provider Value> https://www.uni-koblenz-landau.de/
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyIdentification
<Toop Concept> VATNumber
<Data provider Value>1234567
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyName. Name
<Toop Concept> CompanyName
<Data provider Value>Universität Koblenz-Landau
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty.Party. PostalAddress
<Toop Concept> Address
<Data provider Value>Universitätsstrasse 1, 56070 Koblenz
<Authorization> Consent Token
<Data Consumer> Federal Procurement Agency
<Data Provider> Business Register ABC



5b) DP forwards received the received *data request for Registered Organization** to the central semantic mapping service by adding the desired target format (centralized)



* Could be also a system interface which only understands subset of the data request (red/orange)

6b) The semantic mapping service adds the requested paths for the desired target format to the received *data request for Registered Organization* and sends it back to the DP (centralized)

<Document Type> Data Request for *Registered Organization*
<Data Subject>
    <Name> University of Koblenz
    <Country> DE
<Data Request>
    <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. WebsiteURIID
    <Toop Concept> WebsiteURL
    <xBRL concept>**int-gcd:**EntityWebsiteInformation
<Data Request>
    <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyIdentification
    <Toop Concept> VATNumber
    <xBRL concept> **int-gcd:**EntityIdentifyingCodes– **int-gcd**:EntityIdentifyingCodeItemHead
<Data Request>
    <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyName. Name
    <Toop Concept> CompanyName
    <xBRL concept>**int-gcd:**EntityCurrentLegalRegisteredName
<Data Request>
    <Data Consumer Concept> espd-cac: EconomicOperatorParty.Party. PostalAddress
    <Toop Concept> Address
    <xBRL concept>**int-gcd-dt:**MainAddress
<Authorization> Consent Token
<Data Consumer> Federal Procurement Agency
<Data Provider> Business Register ABC
    <supported Data Format> xBRL

7b) DP checks the authorization of the data subject and provides the target values into the *data response for Registered Organization* (centralized):

1

Check authorization and identify data subject

2 **Create data response for *Registered Organization* for the requested data elements**

<Document Type> Data Response for *Registered Organization*
<Data Subject>
<Name> University of Koblenz
<Country> DE
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. WebsiteURIID
<Toop Concept> WebsiteURL
<xBRL concept>**int-gcd:EntityWebsiteInformation**
<Data provider Value> https://www.uni-koblenz-landau.de/ **based on**
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyIdentification
<Toop Concept> VATNumber
<xBRL concept> **int-gcd:EntityIdentifyingCodes– int-gcd:EntityIdentifyingCodeItemHead** **based on**
<Data provider Value>1234567
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyName. Name
<Toop Concept> CompanyName
<xBRL concept>**int-gcd:EntityCurrentLegalRegisteredName**
<Data provider Value>Universität Koblenz-Landau **based on**
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty.Party. PostalAddress
<Toop Concept> Address
<xBRL concept>**int-gcd-dt:MainAddress**
<Data provider Value>Universitätsstrasse 1, 56070 Koblenz **based on**
<Authorization> Consent Token
<Data Consumer> Federal Procurement Agency
<Data Provider> Business Register ABC
supported Data Format> xBRL

8b) DC receives data response for *Registered Organization* and loads the retrieved values into the ESPD application (centralized)

<Document Type> Data Response for *Registered Organization*
<Data Subject>
<Name> University of Koblenz
<Country> DE
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. WebsiteURIID
<Toop Concept> WebsiteURL
<xBRL concept>int-gcd:EntityWebsiteInformation
<Data provider Value> https://www.uni-koblenz-landau.de/
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyIdentification
<Toop Concept> VATNumber
<xBRL concept> int-gcd:EntityIdentifyingCodes– int-gcd:EntityIdentifyingCodeItemHead
<Data provider Value>1234567
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyName. Name
<Toop Concept> CompanyName
<xBRL concept>int-gcd:EntityCurrentLegalRegisteredName
<Data provider Value>Universität Koblenz-Landau
<Data Request>
<Data Consumer Concept> espd-cac: EconomicOperatorParty.Party. PostalAddress
<Toop Concept> Address
<xBRL concept>int-gcd-dt:MainAddress
<Data provider Value>Universitätsstrasse 1, 56070 Koblenz
<Authorization> Consent Token
<Data Consumer> Federal Procurement Agency
<Data Provider> Business Register ABC
supported Data Format> xBRL