Example: A data request and data response for a Registered Organization during a qualification 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
- 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

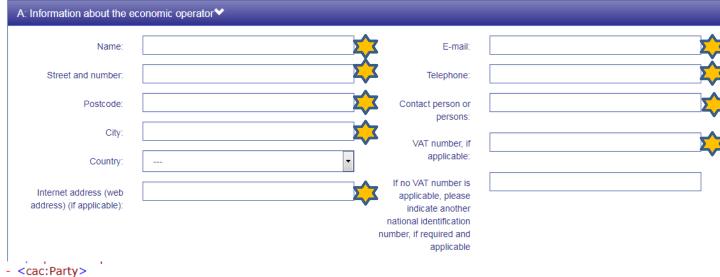
Dezentralized Semantic Mapping

Centralized Semantic Mapping

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

Part II: Information concerning the economic operator

ESPD application



ESDP schema

```
<cbc:WebsiteURI>__EOInternetAddress</cbc:WebsiteURI>

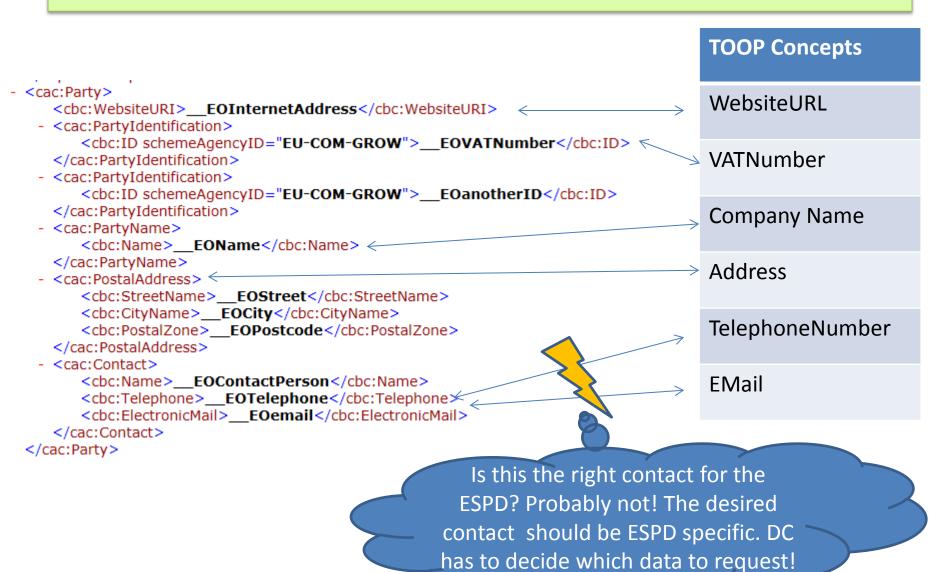
    <cac:PartyIdentification>

      <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> E0email</cbc:ElectronicMail>
   </cac:Contact>
</cac:Party>
```

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

```
<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. Partyldentification
     <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

```
Capability Lookup in SMP.
                                                                Does a DP in Germany support this
<Document Type> Data Request for Registered Organization
                                                                document type?
<Data Subject>
     <Name> University of Koblenz
                                                                Identify DPs located in Germany using
     <Country> DE _____
<Data Request>
     <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. WebsiteURIID
     <Toop Concept> WebsiteURL
<Data Request>
     <Data Consumer Concept> espd-cac: EconomicOperatorParty. Partyldentification
     <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:EntityIdentifyingCodesint-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)

Check

subject

authorization and

identify data

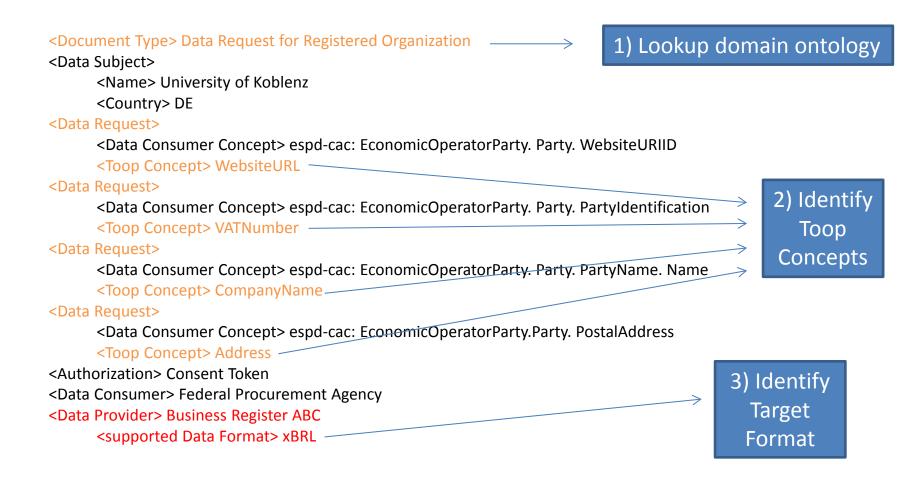
2 Create data response for Registered Organization for the requested data elements

```
<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
                                                                    based on
      <Data provider Value> https://www.uni-koblenz-landau.de
<Data Request>
      <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyIdentification
      <Toop Concept> VATNumber
                                           based on
      <Data provider Value>1234567
<Data Request>
      <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyName. Name
      <Toop Concept> CompanyName
                                                             based on
      <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
```

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</document> |
|---|
| <data subject=""></data> |
| <name> University of Koblenz</name> |
| <country> DE</country> |
| <data request=""></data> |
| <data concept="" consumer=""> espd-cac: EconomicOperatorParty. Party. WebsiteURIID</data> |
| <toop concept=""> WebsiteURL</toop> |
| <data provider="" value=""> https://www.uni-koblenz-landau.de/</data> |
| <data request=""></data> |
| <data concept="" consumer=""> espd-cac: EconomicOperatorParty.\Party. PartyIdentification</data> |
| <toop concept=""> VATNumber</toop> |
| <data provider="" value="">1234567</data> |
| <data request=""></data> |
| <data concept="" consumer=""> espd-cac: EconomicOperatorParty. PartyName. Name</data> |
| <toop concept=""> CompanyName</toop> |
| <data provider="" value="">Universität Koblenz-Landau</data> |
| <data request=""></data> |
| <data concept="" consumer=""> espd-cac: EconomicOperatorParty.Party. PostalAddress</data> |
| <toop concept=""> Address</toop> |
| <data provider="" value="">Universitätsstrasse 1, 56070 Koblenz</data> |
| <authorization> Consent Token</authorization> Part II: Information concerning the economic operator |
| <data consumer=""> Federal Procurement Agency</data> |
| <data provider=""> Business Register ABC A: Information about the economic operator ✓</data> |
| Name > Universität Koblenz-Landau F-mail: |
| Name: Universität Koblenz-Landau E-mail: |
| Street and purpler: Universitätsstrasse 1 Telephone: |
| |
| Postcole: 56070 Contact person or persons: |
| City Koblenz |
| VAT number, if 1234567 |
| Country: \ United Kingdom \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
| Internet address (web https://www.uni-koblenz-landau.de/ applicable please |
| applicable, please address) (if applicable): indicate another |
| national identification |
| number, if required and applicable |
| -ppmano |

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):

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

based on

```
<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
                                                                                                                     based on
Check
                                                   <Data provider Value> https://www.uni-koblenz-landau.de/
                                            <Data Request>
authorization and
                                                   <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyIdentification
identify data
                                                    <Toop Concept> VATNumber
                                                    <xBRL concept> int-gcd:EntityIdentifyingCodes- int-gcd:EntityIdentifyingCodeItemHead
subject
                                                    <Data provider Value>1234567
                                            <Data Request>
                                                   <Data Consumer Concept> espd-cac: EconomicOperatorParty. Party. PartyName. Name
                                                    <Toop Concept> CompanyName
                                                    <xBRL concept>int-gcd:EntityCurrentLegalRegisteredName
                                                                                                                    based on
                                                   <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
                                                                                                                  based on
                                                   <Data provider Value>Universitätsstrasse 1, 56070 Koblenz
                                            <Authorization> Consent Token
                                            <Data Consumer> Federal Procurement Agency
                                           <Data Provider> Business Register ABC
                                                    supported Data Format> xBRL
```

<Document Type> Data Response for Registered Organization

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</document> | |
|---|---|
| <data subject=""></data> | |
| <name> University of Koblenz</name> | |
| <country> DE</country> | |
| <data request=""></data> | |
| <data concept="" consumer=""> espd-cac: EconomicOperatorParty. Par</data> | tv. WebsiteURIID |
| <toop concept=""> WebsiteURL</toop> | ., |
| <pre><xbrl concept="">int-gcd:EntityWebsiteInformation</xbrl></pre> | |
| <pre></pre> <pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre><!--</th--><th></th></pre></pre> | |
| <data <="" https:="" p="" provider="" values="" www.uni-koblenz-landad.de=""> <data request=""></data></data> | |
| <data request=""> <data concept="" consumer=""> espd-cac: EconomicOperatorParty. Par</data></data> | ty Partyldontification |
| · · · · · · · · · · · · · · · · · · · | ty. Partyluentification |
| <toop concept=""> VATNumber</toop> | له مما المسمط ما مما من گذش |
| <xbrl concept=""> int-gcd:EntityIdentifyingCodes— int-gcd:Enti</xbrl> | ntryingCodertemHead |
| <data provider="" value="">1234567</data> | |
| <data request=""></data> | |
| <data concept="" consumer=""> espd-cac: EconomicOperatorParty. Par</data> | ty. PartyName. Name |
| <toop concept=""> CompanyName</toop> | |
| <xbrl concept="">int-gcd:EntityCurrentLegalRegisteredName</xbrl> | |
| <data provider="" value="">Universität Koblenz-Landau</data> | |
| <data request=""></data> | |
| <data concept="" consumer=""> espd-cac: EconomicOperatorParty.Part</data> | ty. Postal Address |
| <toop concept=""> Address</toop> | |
| <xbrl concept="">int-gcd-dt:MainAddress</xbrl> | |
| <data provider="" value="">Universitätsstrasse 1, 56070 Koblenz</data> | Part II: Information concerning the economic operator |
| <authorization> Consent Token</authorization> | A: Information about the economic operator♥ |
| <data consumer=""> Federal Procurement Agency</data> | |
| <data provider=""> Business Register ABC</data> | Name: Universität Koblenz-Landau E-mail: |
| supported Data Format> xBRL | Siteet and number: Universitätsstrasse 1 Telephone: |
| | Postcode: 56070 Contact person or |
| | City: Koblenz |
| | VAT number, if 1234567 |
| | Country: United Kingdom united Kingdom united Kingdom |
| | Internet address (web https://www.uni-koblenz-landau.de/ lf no VAT number is applicable, please |
| | address) (if applicable): indicate another national identification |
| | number, if required and applicable |
| | · · |