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

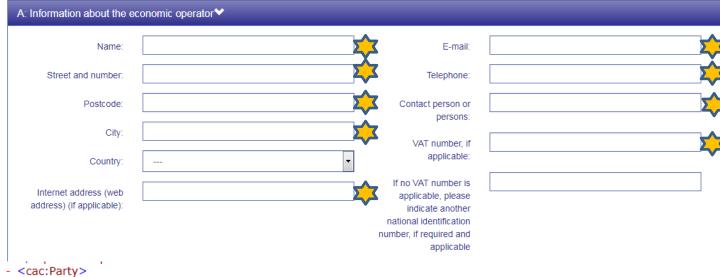
**Dezentralized Semantic Mapping** 

**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>

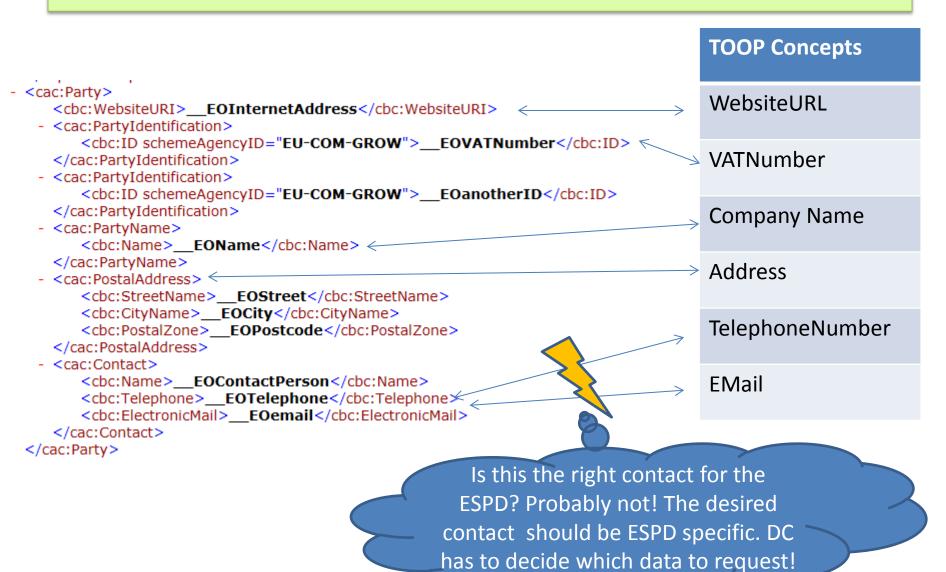
    <cac:PartyIdentification>

      <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	<ul><li>int-gcd:EntityIdentifyingCodes</li><li>int-gcd:EntityIdentifyingCodeItemHead</li></ul>
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

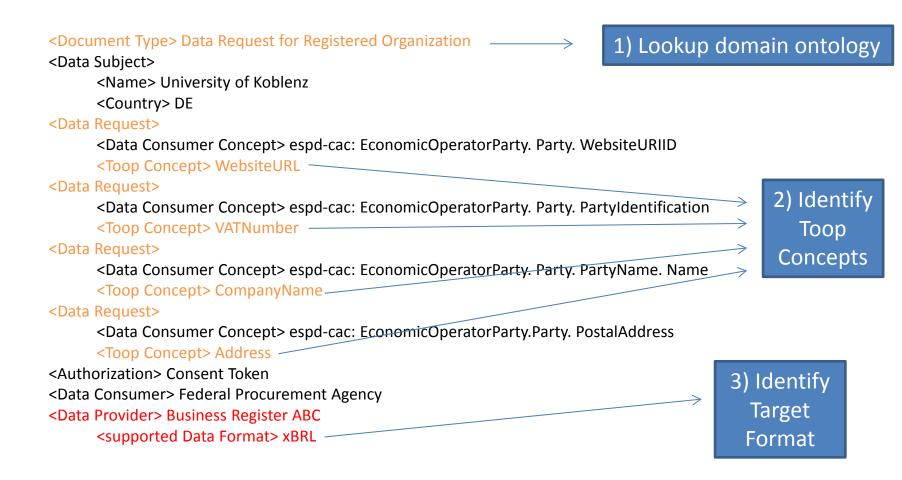
#### 2 Create data response for Registered Organization for the requested data elements

```
<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>
<a href="#"><authorization> Consent Token</authorization></a> <a href="#">Part II: Information concerning the economic operator</a>
<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)



<sup>\*</sup> 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
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