



European  
Commission



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# Reaching relying parties after a change of LOTL Administrative Anchors

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eIDAS technical subgroup webinar  
11/05/2017

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# Service continuity for relying parties when LOTL's Administrative Anchors change

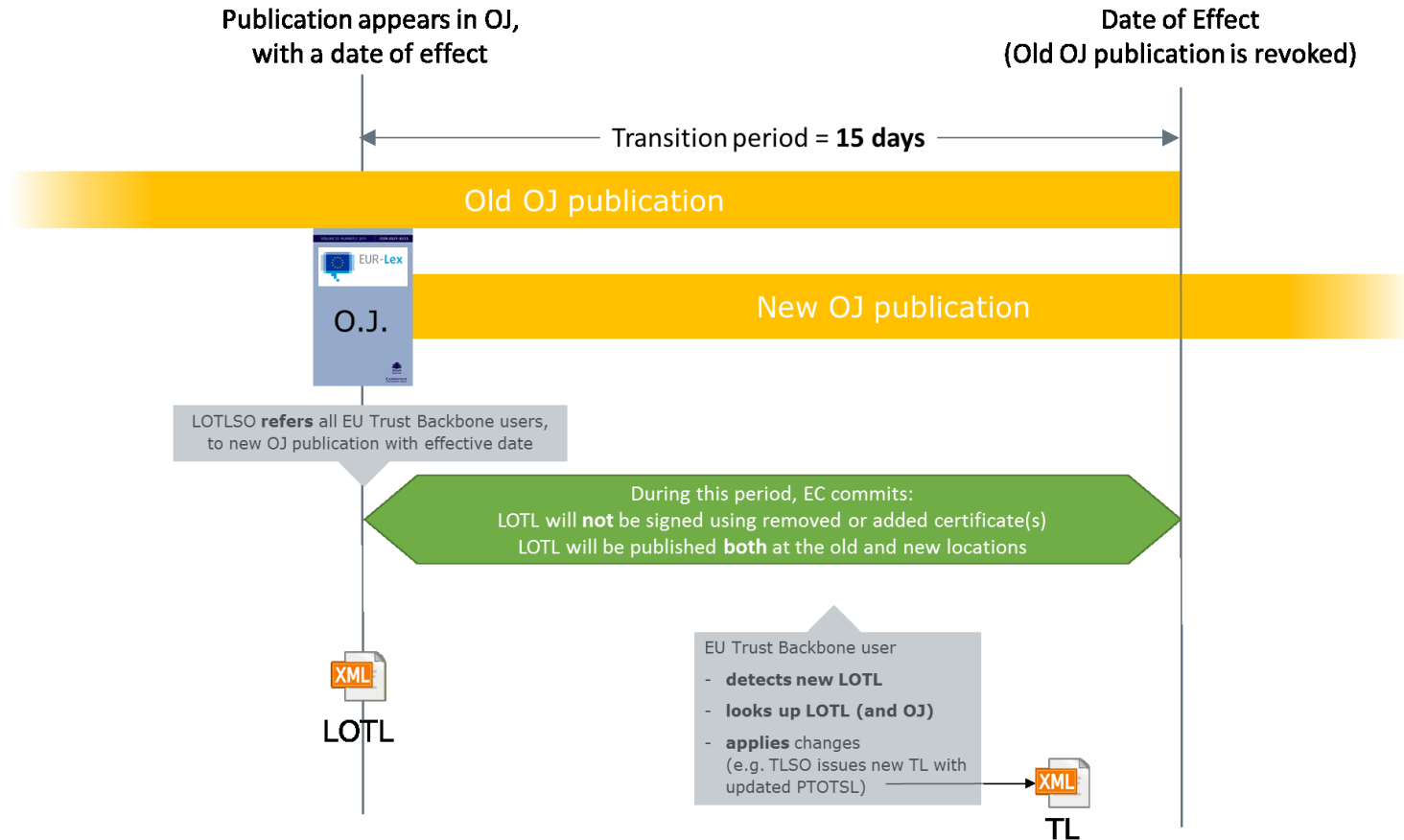
- **Timely update** of the LOTL administrative anchor set is critical
  - For TLSOs in their Member State Trusted Lists.
  - for configuration of end-using services or applications (private eSignature validation platforms, document management solutions enabling eSignature validation, etc.).
- Transition period of **15 days**, yet to be **detected**.
- Measures to **timely inform** all relying parties of all data needed
  - In a machine-processable way.
  - In addition of Official Journal publication, as a root of trust.

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# Machine-processable announcement in the LOTL

- As presented in Official Journal publication 2016/C 233/01  
[http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C\\_.2016.233.01.0001.01.ENG](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2016.233.01.0001.01.ENG)
- Since June 2016, the LOTL now contains:
  - An **EU PTOTSL**, announcing the LOTL signing certificates, and the XML location
    - An <OtherTSLPointer> with <SchemeTerritory> = EU.
  - **URI** pointing to the last issued Official Journal publication
    - added in the <SchemeInformationURI>, before the legal notice URIs.
- Comparing the **URI** to its previous value, relying parties can detect the new Official Journal publication
- Comparing the **EU PTOTSL** to its previous value, relying parties can detect a change in the LOTL Administrative Anchors, and extract the new ones
- Both in a machine-processable way

# Machine-processable announcement in the LOTL



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## Pivot LOTL

- Official Journal Publication 2016/C 233/01 plans for a further improvement:
  - Change of LOTL Administrative Anchors **without** a new Official Journal Publication
- Objective: **Minimize** the number of Official Journal Publications
  - Improve reactivity
  - Minimize risk of disruption
- **EU PTOTSL** may announce a change of administrative anchors
  - Without a new Official Journal Publication
  - This change is **machine-processable**

# Pivot LOTL: Example: Change of signing certificate



cert\_1  
cert\_2



LOTL Sn1  
Signed with cert\_2

cert\_2  
cert\_3



LOTL Sn2  
Signed with cert\_3

cert\_2  
cert\_3

- **LOTL Sn1** announces new Administrative Anchor, and can be trusted as it is signed with cert\_2, and **cert\_2 is in the Official Journal**.
- Relying parties detect the change and have 15 days to update their configuration
- After these 15 days, European Commission may use cert\_3 in a **LOTL sn2**
- LOTL Sn1 is a **“Pivot LOTL”**
- **Trust chain** may continue with other changes of Administrative Anchors in additional **Pivot LOTLs**, or may be reset with a new **Official Journal publication**

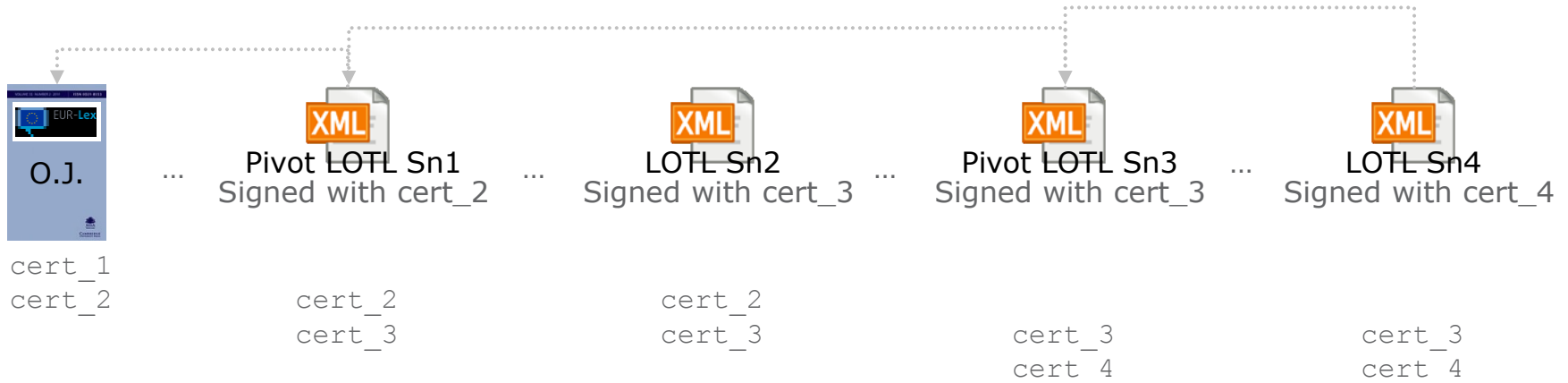
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## Pivot LOTL: Initialization (or missing a step)

- The Trust Chain works if one **follows** every change of Administrative Anchors
- What if a relying party needs to configure a **new** system from scratch ?
- What if a relying party has not implemented a automated detection, **misses** the transition period, and the European Commission publishes a new LOTL using the new Administrative Anchors ?

# Pivot LOTL: Initialization (or missing a step)

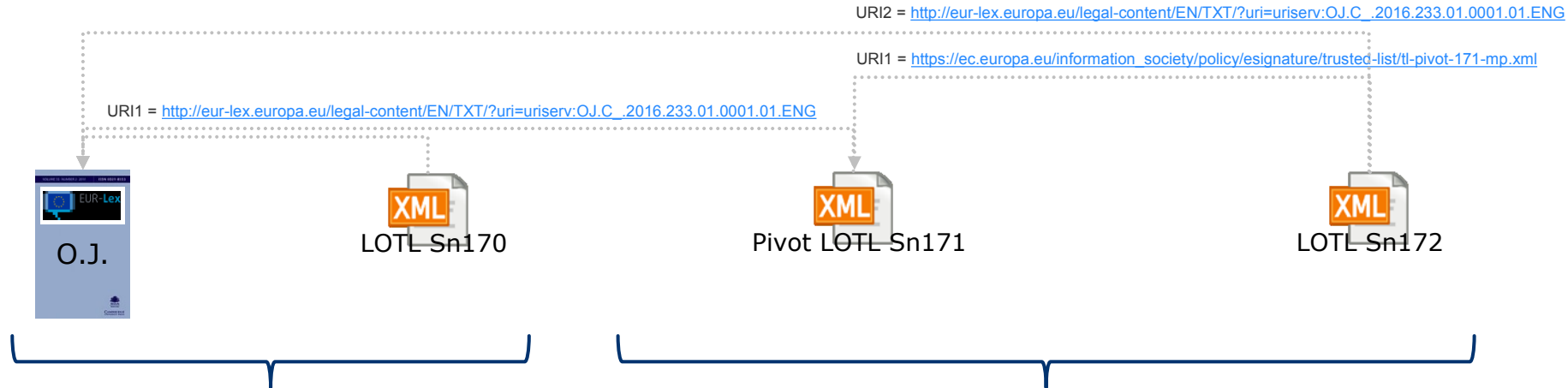
- `<SchemeInformationURI>` will contain
  - **URI** pointing to the last issued **Official Journal publication**
  - **URIs** pointing to all **Pivot LOTLs**, archived at European Commission
- So that one can **reconstruct** the Trust Chain





# Pivot LOTL: Practical case with 2 new signing certificates

- The Trust Chain is:



## Signing certificates

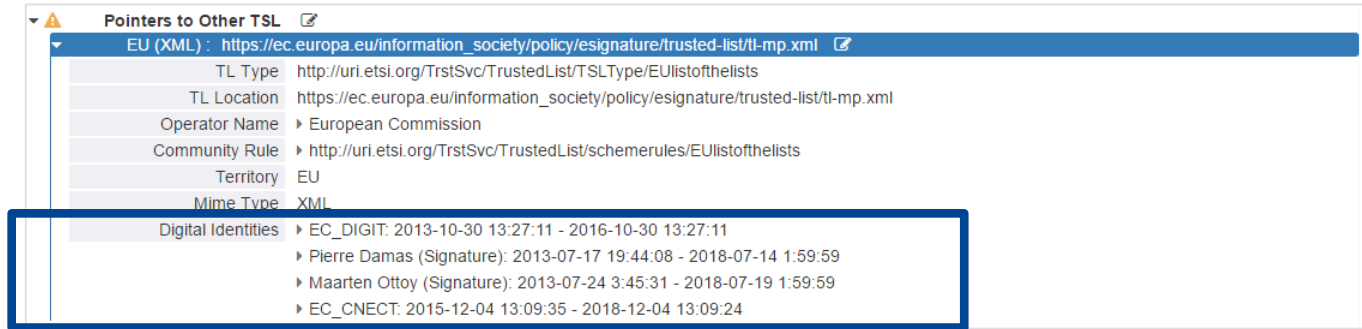
Pierre\_Damas (Signature)  
Maarten\_Ottoy (Signature)  
EC\_DIGIT  
EC\_CNECT

## Signing certificates

Pierre\_Damas (Signature)  
Maarten\_Ottoy (Signature)  
Maarten\_Joris\_Ottoy  
Jean-Marc Verbergt (Signature)

# Pivot LOTL: Practical case, regarding the new signing certificates

Current (Sn170)



The screenshot shows a web interface titled "Pointers to Other TSL" with a warning icon. The main content is a table for "EU (XML) : https://ec.europa.eu/information\_society/policy/esignature/trusted-list/tl-mp.xml". The table lists various fields: TL Type, TL Location, Operator Name, Community Rule, Territory, and Mime Type. A blue-bordered box highlights the "Digital Identities" section, which contains four entries with their respective dates and times.

| Field              | Value   |
|--------------------|---|
| TL Type            | http://uri.etsi.org/TrstSvc/TrustedList/TSLType/EUlistofthelists  |
| TL Location        | https://ec.europa.eu/information_society/policy/esignature/trusted-list/tl-mp.xml   |
| Operator Name      | European Commission   |
| Community Rule     | http://uri.etsi.org/TrstSvc/TrustedList/schemerules/EUlistofthelists  |
| Territory          | EU  |
| Mime Type          | XML   |
| Digital Identities | <ul style="list-style-type: none"><li>EC_DIGIT: 2013-10-30 13:27:11 - 2016-10-30 13:27:11</li><li>Pierre Damas (Signature): 2013-07-17 19:44:08 - 2018-07-14 1:59:59</li><li>Maarten Ottoy (Signature): 2013-07-24 3:45:31 - 2018-07-19 1:59:59</li><li>EC_CNECT: 2015-12-04 13:09:35 - 2018-12-04 13:09:24</li></ul> |

New (Sn171)



The screenshot shows a web interface titled "Pointers to Other TSL" with a warning icon. The main content is a table for "EU (XML) : https://ec.europa.eu/information\_society/policy/esignature/trusted-list/tl-mp.xml". The table lists various fields: TL Type, TL Location, Operator Name, Community Rule, Territory, and Mime Type. A blue-bordered box highlights the "Digital Identities" section, which contains four entries with their respective dates and times.

| Field              | Value   |
|--------------------|---|
| TL Type            | http://uri.etsi.org/TrstSvc/TrustedList/TSLType/EUlistofthelists  |
| TL Location        | https://ec.europa.eu/information_society/policy/esignature/trusted-list/tl-mp.xml   |
| Operator Name      | European Commission   |
| Community Rule     | http://uri.etsi.org/TrstSvc/TrustedList/schemerules/EUlistofthelists  |
| Territory          | EU  |
| Mime Type          | XML   |
| Digital Identities | <ul style="list-style-type: none"><li>Pierre Damas (Signature): 2013-07-17 19:44:08 - 2018-07-14 1:59:59</li><li>Maarten Ottoy (Signature): 2013-07-24 3:45:31 - 2018-07-19 1:59:59</li><li>Maarten Joris Ottoy: 2016-09-15 11:00:12 - 2019-09-15 11:00:12</li><li>Jean-Marc Verbergt (Signature): 2015-05-01 20:54:54 - 2025-04-26 1:59:59</li></ul> |

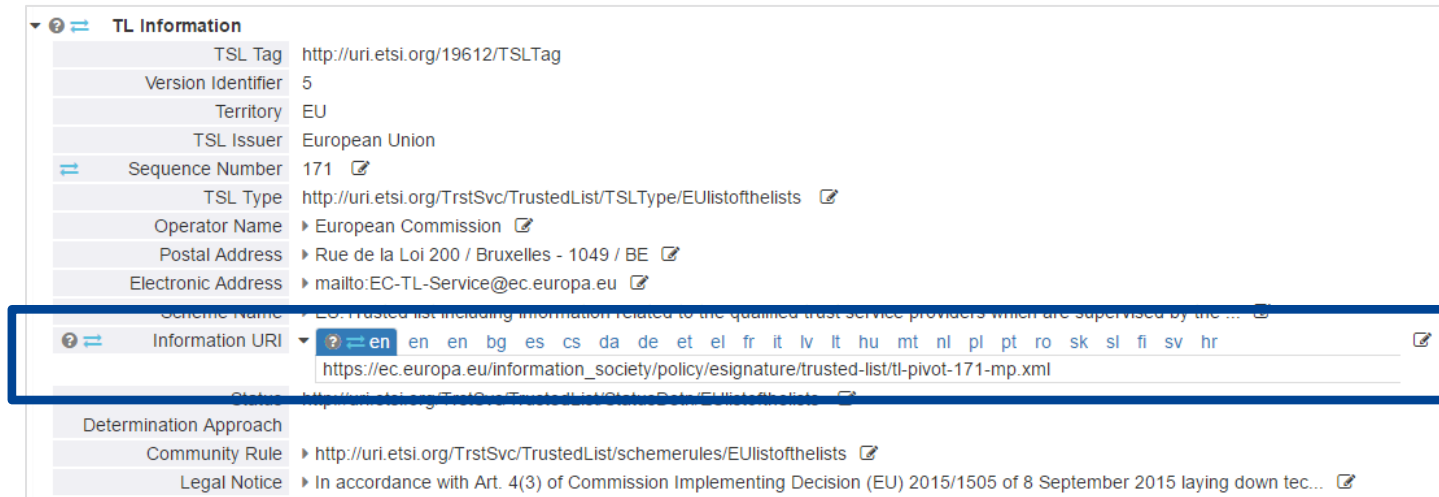
# Pivot LOTL: Practical case, regarding the Scheme Information URIs

No change in LOTL **Sn171** regarding Scheme Information URI:

| TL Information         |  |
|------------------------|--|
| TSL Tag                | <a href="http://uri.etsi.org/19612/TSLTag">http://uri.etsi.org/19612/TSLTag</a>  |
| Version Identifier     | 5  |
| Territory              | EU   |
| TSL Issuer             | European Union   |
| Sequence Number        | 171  |
| TSL Type               | <a href="http://uri.etsi.org/TrstSvc/TrustedList/TSLType/EUlistofthelists">http://uri.etsi.org/TrstSvc/TrustedList/TSLType/EUlistofthelists</a>  |
| Operator Name          | ▶ European Commission  |
| Postal Address         | ▶ Rue de la Loi 200 / Bruxelles - 1049 / BE  |
| Electronic Address     | ▶ <a href="mailto:EC-TL-Service@ec.europa.eu">mailto:EC-TL-Service@ec.europa.eu</a>  |
| Scheme Name            | ▶ EU:Trusted list including information related to the qualified trust service providers which are supervised by the ...   |
| Information URI        | ▼ <a href="#">en</a> <a href="#">en</a> <a href="#">bg</a> <a href="#">es</a> <a href="#">cs</a> <a href="#">da</a> <a href="#">de</a> <a href="#">et</a> <a href="#">el</a> <a href="#">fr</a> <a href="#">it</a> <a href="#">lv</a> <a href="#">lt</a> <a href="#">hu</a> <a href="#">mt</a> <a href="#">nl</a> <a href="#">pl</a> <a href="#">pt</a> <a href="#">ro</a> <a href="#">sk</a> <a href="#">sl</a> <a href="#">fi</a> <a href="#">sv</a> <a href="#">hr</a><br><a href="http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_2016.233.01.0001.01.ENG">http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_2016.233.01.0001.01.ENG</a> |
| Status                 | <a href="http://uri.etsi.org/TrstSvc/TrustedList/StatusDetn/EUlistofthelists">http://uri.etsi.org/TrstSvc/TrustedList/StatusDetn/EUlistofthelists</a>  |
| Determination Approach |  |
| Community Rule         | ▶ <a href="http://uri.etsi.org/TrstSvc/TrustedList/schemerules/EUlistofthelists">http://uri.etsi.org/TrstSvc/TrustedList/schemerules/EUlistofthelists</a>  |
| Legal Notice           | ▶ In accordance with Art. 4(3) of Commission Implementing Decision (EU) 2015/1505 of 8 September 2015 laying down tec...   |

# Pivot LOTL: Practical case, regarding the Scheme Information URIs

- New Scheme Information URI added in LOTL **Sn172**
- LOTL **Sn171** is renamed and kept as a **pivot**



The screenshot displays the 'TL Information' interface. The 'Information URI' field is highlighted with a blue box. The URI is [https://ec.europa.eu/information\\_society/policy/esignature/trusted-list/tl-pivot-171-mp.xml](https://ec.europa.eu/information_society/policy/esignature/trusted-list/tl-pivot-171-mp.xml). The interface also shows other fields such as 'TSL Tag', 'Version Identifier', 'Territory', 'TSL Issuer', 'Sequence Number', 'TSL Type', 'Operator Name', 'Postal Address', 'Electronic Address', 'Scheme Name', 'Status', 'Determination Approach', 'Community Rule', and 'Legal Notice'.

| Field                  | Value   |
|------------------------|---|
| TSL Tag                | <a href="http://uri.etsi.org/19612/TSLTag">http://uri.etsi.org/19612/TSLTag</a>   |
| Version Identifier     | 5   |
| Territory              | EU  |
| TSL Issuer             | European Union  |
| Sequence Number        | 171   |
| TSL Type               | <a href="http://uri.etsi.org/TrstSvc/TrustedList/TSLType/EUlistofthelists">http://uri.etsi.org/TrstSvc/TrustedList/TSLType/EUlistofthelists</a>   |
| Operator Name          | European Commission   |
| Postal Address         | Rue de la Loi 200 / Bruxelles - 1049 / BE   |
| Electronic Address     | <a href="mailto:EC-TL-Service@ec.europa.eu">mailto:EC-TL-Service@ec.europa.eu</a>   |
| Scheme Name            | EU Trusted list including information related to the qualified trust service providers which are supervised by the ...  |
| Information URI        | <a href="https://ec.europa.eu/information_society/policy/esignature/trusted-list/tl-pivot-171-mp.xml">https://ec.europa.eu/information_society/policy/esignature/trusted-list/tl-pivot-171-mp.xml</a> |
| Status                 | <a href="http://uri.etsi.org/TrstSvc/TrustedList/StatusData/EUlistofthelists">http://uri.etsi.org/TrstSvc/TrustedList/StatusData/EUlistofthelists</a>   |
| Determination Approach |   |
| Community Rule         | <a href="http://uri.etsi.org/TrstSvc/TrustedList/schemerules/EUlistofthelists">http://uri.etsi.org/TrstSvc/TrustedList/schemerules/EUlistofthelists</a>   |
| Legal Notice           | In accordance with Art. 4(3) of Commission Implementing Decision (EU) 2015/1505 of 8 September 2015 laying down tec...  |

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## Pivot LOTL: Relying party being unaware ?

- European Commission will sign with a certificate **not known** to the relying party
- Relying party **unable to validate** the signature of the LOTL
- Relying party has to **check the Official Journal** for publication 2016/C 233/01, which explains the behavior
  
- Same situation as when **no announcement** was present in the LOTL: the information is in the Official Journal.

# Pivot LOTL: TL Manager 5.0+

- TL Manager is implementing this LOTL monitoring to update its configuration
- This configuration is used in
  - The checks that are performed on a draft/published TL
  - The prefill of the EU PTOTSL in a draft TL

EU (XML) [https://ec.europa.eu/information\\_society/policy/esignature/trusted-list/tl-mp.xml](https://ec.europa.eu/information_society/policy/esignature/trusted-list/tl-mp.xml)

**Scheme Information**

|             |  |     |
|-------------|--|-----|
| TL Type     | <input type="text" value="http://uri.etsi.org/TrstSvc/TrustedList/TSLType/EUlistofthelists"/>                  | (*) |
| TL Location | <input type="text" value="https://ec.europa.eu/information_society/policy/esignature/trusted-list/tl-mp.xml"/> | (*) |
| Territory   | <input type="text" value="European Union"/>  | (*) |
| Mime Type   | <input type="text" value="application/vnd.etsi.tsl+xml"/>  | (*) |

**Operator Name**

|                                 |  |     |
|---------------------------------|--|-----|
| <input type="text" value="en"/> | <input type="text" value="European Commission"/> | (*) |
|---------------------------------|--|-----|

**Community Rule**

|                                 |   |     |
|---------------------------------|---|-----|
| <input type="text" value="en"/> | <input type="text" value="http://uri.etsi.org/TrstSvc/TrustedList/schemerules/EUlistofthelists"/> | (*) |
|---------------------------------|---|-----|

**Digital Identities (\*)**

- ▶ EC\_CNECT: 2015-12-04 13:09:35 - 2018-12-04 13:09:24
- ▶ EC\_DIGIT: 2013-10-30 13:27:11 - 2016-10-30 13:27:11
- ▶ Pierre Damas (Signature): 2013-07-17 19:44:08 - 2018-07-14 1:59:59
- ▶ Maarten Ottoy (Signature): 2013-07-24 3:45:31 - 2018-07-19 1:59:59

**Load Digital Identities from the EU PTOTSL of the current LOTL.**

Thank you!

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### Contact us



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