e-Certification: The European Union approach and experience

Philippe LOOPUYT
European Commission
Head of Unit SANTE.G5
Alerts, Traceability & Committees

Geneva, 10 July 2018
Objective

Electronic Certification aims at replacing paper based SPS certificates by their electronic equivalent.
CERTIFICATION

Paper VS Electronic

Paper:
- Signature can be falsified
- Stamp can be falsified
- Problem of "original certificate" and copies
- Deterioration
- Storage
- Difficult to read
- You can make paper planes

Electronic:
- Very difficult to falsify signature, stamp or dates
- Bring with you as many as you want
- Accessible everywhere
- No problem of obtaining "officially certified copies"
- No Deterioration
- Unlimited storage
- You cannot make paper planes
Data versus Document

1. Data exchange between two IT systems is **not enough** to replace a paper document

2. Data exchange can become a document exchange if:
   1. Is based on structured data
   2. Is electronicaaly signed (endorsed by issuing authority)
   3. Can comply with document management rules (check authenticity during entire document lifecycle)
Applicable international standards

1. Data structure based on:
   1. IPPC, OIE & WCO standards defining the semantic used in exchange
   2. UN/CEFACT eCERT electronic message standard
2. Electronic signature: ISO 14533 & 14888
# Electronic document following European eIDAS Regulation (2014/910)

<table>
<thead>
<tr>
<th>Paper Certificate</th>
<th>Electronic Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text</td>
<td>electronic data</td>
</tr>
<tr>
<td>Format</td>
<td>Advanced to Qualified Timestamp</td>
</tr>
<tr>
<td>Layout</td>
<td>Advanced to Qualified Electronic Signature</td>
</tr>
<tr>
<td>Date</td>
<td>Advanced to Qualified Electronic Seal</td>
</tr>
<tr>
<td>Signature of Authorising Officer</td>
<td>Electronic fingerprint of document</td>
</tr>
<tr>
<td>Stamp of the Organisation</td>
<td></td>
</tr>
<tr>
<td>Paper Security features</td>
<td></td>
</tr>
</tbody>
</table>
Actors

- Competitive Authority Officer from non-EU country (CAO-nonEU)
- Competitive Authority Officer from EU country at BCP (CAO-EU)
- Trusted Third Party provider (TTP)
- Economic Operator

and

Elements

- Electronic Stamp (also called eSeal)
- Electronic signature of an individual
- Electronic Fingerprint of content of document
Paperless SPS certification with non-EU system

EO creates validates & eSigns

NonEU System

CA origin

Trusted Third Party

IMSOC-TRACES

CA EU borders

Checks, clones & eSigns EU entry doc

Paper copy (optional)
Advantages of the solution

• Each step of the transaction can be checked against its "fingerprint" at any time during document lifecycle (even years later)
• Is recognised by law (in all 28 EU MS) as an original electronic document replacing paper
• Solution supported worldwide by electronic signature standards and Trusted Third party providers
Implementation of eSignature in the EU Certification system (IMSOC-TRACES)

- Phytosanitary certificates from **Feb 2018**
- EU entry documents by **Nov 2018**
- Veterinary certificates by **July 2019**
- eSigned XML by **Q1-Q2/2019**
Acceptable implementation of eSignature with non-EU countries

- Option 1: use TRACES interactively and eSign (for free)
- Option 2: Use non-EU system using our EU eSignature Trust Provider (for free)
- Option 3: non-EU system using non-EU eSignature Trust Provider accepted after a conformity check with the 'EU Advanced eSignature' level
- Option 4: Apply eSign with Trust Provider on Hub (as discussed with IPPC ePHYTO)
- Option 5: Paper still accepted...
Challenges in implementing eSignature

• Technically easy
• Human factor is key
• Enrollment process need to be very well explained
• Strong initial training phase is very important
• Impact on burden reduction can be major (→ reorganisation)
Thank you for your attention