TRACES
Trade Control and Expert System
the path toward
sanitary electronic certificates
using qualified electronic seals and signatures

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tracks the movements of...

animals

food and feed

plants

...imported from outside the EU or travelling through the EU

23 EU languages

It aims to ensure:
- traceability;
- information exchange;
- risk management.

Food Safety
e- government system

- Certification and customs single window
- Notification and control planning
  - Entry points, at destination, during transit
- Follow up of the decisions taken
  - Feedback of information
  - Help to the decision (reinforced checks)
- Crisis management
  - Trace back and forth the movements of the consignments
Participation in 2015

Users: 34,467

Certificates: 1,685,822
Participation in 2015

84 Countries and overseas territories use TRACES
Participation in 2015

• Compulsory (since 01/01/2005)
  – EU and EFTA

• Voluntary basis
  – non EU-EFTA countries
  – Through the interface
    - 52 countries or P-TOM (38 in development)
  – Electronic exchanges between systems
    - New Zealand (2010)
    - USA (2012)
    - Australia (2016)
eIDAS: the new framework

- Regulation (EEU) No 910/2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/CE (entry into force: 01/07/2016)
  - Defines the norms for the electronic identification means of natural and legal persons
  - Lays down the rules for trust services
  - Defines the services for simple, advanced, qualified electronic signatures, seals, time stamps ...
eIDAS: the new framework

- **uniformisation** of electronic signature approach within EU
- **simplification** of the electronic certificates use
- **Recognition** of the legal value of a digital document

« An electronic document is considered as a proof as well as a handwritten document provided that the person who did it can be identified and that it was issued and stored under conditions that guarantee its integrity ».

- **Means of identity control** of the signing person through points of surveillance
## eIDAS: the 4 levels of signature

<table>
<thead>
<tr>
<th></th>
<th>Level 1 SIMPLE SIGNATURE</th>
<th>Level 2 ADVANCED SIGNATURE</th>
<th>Level 3 ADVANCED + SIGNATURE</th>
<th>Level 4 QUALIFIED SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ETSI NORM</strong></td>
<td>Without registration ETSI 102 023</td>
<td>ETSI 102 042</td>
<td>ETSI 101 456</td>
<td>ETSI 101 456 + SSCD</td>
</tr>
<tr>
<td><strong>IDENTITY</strong></td>
<td>No certificate or certificate on the fly</td>
<td>Simple european certificate Virtual smart card (authentication code) On-line identity control</td>
<td>Qualified european certificate Virtual smart card (authentication code) Face to face identity control</td>
<td>Qualified european certificate Physical means (USB key, SSCD smartcard) Face to face identity control</td>
</tr>
<tr>
<td><strong>INTEGRITY</strong></td>
<td>Qualified timestamp</td>
<td>Qualified timestamp</td>
<td>Qualified timestamp</td>
<td>Qualified timestamp</td>
</tr>
<tr>
<td><strong>TRACABILITY</strong></td>
<td>Electronic evidence Login + password</td>
<td>Electronic evidence Login + password + identity control</td>
<td>Electronic evidence Login + password + identity control</td>
<td>Electronic evidence Login + password + identity control</td>
</tr>
<tr>
<td><strong>LEGAL VALUE</strong></td>
<td>≤ 25%</td>
<td>≤ 50%</td>
<td>≤ 75%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Sanitary certificate and key elements of legal evidence

Electronic Archive:
- Evidence
- Signed documents
Norme ISO 14-641-1

European certificate for electronic seal
eIDAS – n°910/2014

European certificate of advanced signature virtual type
eIDAS – n°910/2014

European certificate
for electronic seal
eIDAS – n°910/2014

TRACES Certificate

Signature Authority

Signature Seal Authority

Signature Authority Agent

Qualified Time Stamp

TRACES DG Santé

INTEGRITY

SUSTAINABILITY

TIME STAMP

NON REPUDIATION

AUTHENTICATION

European certificate
for electronic seal
eIDAS – n°910/2014

Food Safety
E-certification through TRACES

1. Connection
   - Login + password

2. Introduction and validation of the data into TRACES

3. Issuance of the sanitary sanitary certificate under PDF or PDF/A format

4. Signature call
   - Seal authority
   - Automated process

5. Signed PDF or PDF/A generation with evidence

6. Verification of the validity of the signature certificate
   - Signature call
   - Natural representative
   - Authentication key

7. Provision of the signed certificate into TRACES library

8. Signed PDF or PDF/A generation with evidence
   - Signature call
   - TRACES seal
   - Automated process

9. Archive of the evidence and of the TRACES certificate
   - Legal archive of DG SANTE

10. Provision of the signed certificate to the issuing authority

11. Provision of the signed certificate to the issuing authority

12. Provision of the signed certificate to the issuing authority
E-certiﬁcation workflow between a system and TRACES

1. Electronic data exchanges (TRACES EDI)
2. Authentication of the TRACES EDI exchanges (communication protocols)
3. Conformity control of TRACES EDI exchanges (exchange protocol/UM)
4. Acknowledgment of TRACES EDI exchanges
5. Qualiﬁed time stamp of TRACES EDI exchanges
6. Legal archive of the TRACES EDI exchanges and evidence
7. Creation of a copy of the signed PDF (PDF/A (trust service provider))
8. Signature call / seal authority / automated process
9. Provision of the signed certificate into TRACES library
10. Archive of the evidence and of the TRACES certificate
11. Provision of the signed certificate to the issuing authority

Link with TRACES EDI exchanges
Digitisation and issues

- **Optimize** the management of the sanitary certificate
  - Simplification of the exchanges
  - Reliable information at every step
  - Reduction of the copies
- **Reduce** the delays of control
  - Pre-notification, Remplacement
- **Simplify and modernise** the relations between all the actors
- **Guarantee** security, traceability and legal value of the digital documents
  - Archive of sanitary certificates
- **Fight** against fraud
  - Electronic support more accurate than paper support
Implementation of the TRACES certificate: calendar

- **Integration** of electronic signature into TRACES: end 2016
- **Recognition** of the trust service provider: beginning 2017
- **Phytosanitary** IMPORT/EXPORT Certificate: beginning 2017
TRACES
thanks you!

Annual report

WEB site - http://ec.europa.eu/traces

Video (FR, EN, DE, ES, PT, RU)

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