



Plant Protection Service
*Ministry of Economic Affairs, Agriculture and
Innovation*

Electronic certification status of IPPC developments

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on behalf of
the IPPC ePhyto Steering Committee

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1. What is electronic certification?

*Electronic phytosanitary certification is the **secure and authentic transmission** of phytosanitary **certification data**, including the certifying statement, **from** the **NPPO** of the exporting country **to** the **NPPO** of the importing country **by electronic means**. (definition ISPM12)*

EXPORTING COUNTRY

**1. Certification
proces**
(inspection, testing)

**2. ISSUANCE OF
CERTIFICATE**

3. CERTIFICATE

**3. SENDING
CERTIFICATE
DATA**

5. Import procedures
(inspection, release)

**4. RECEIPT OF
CERTIFICATE
DATA**

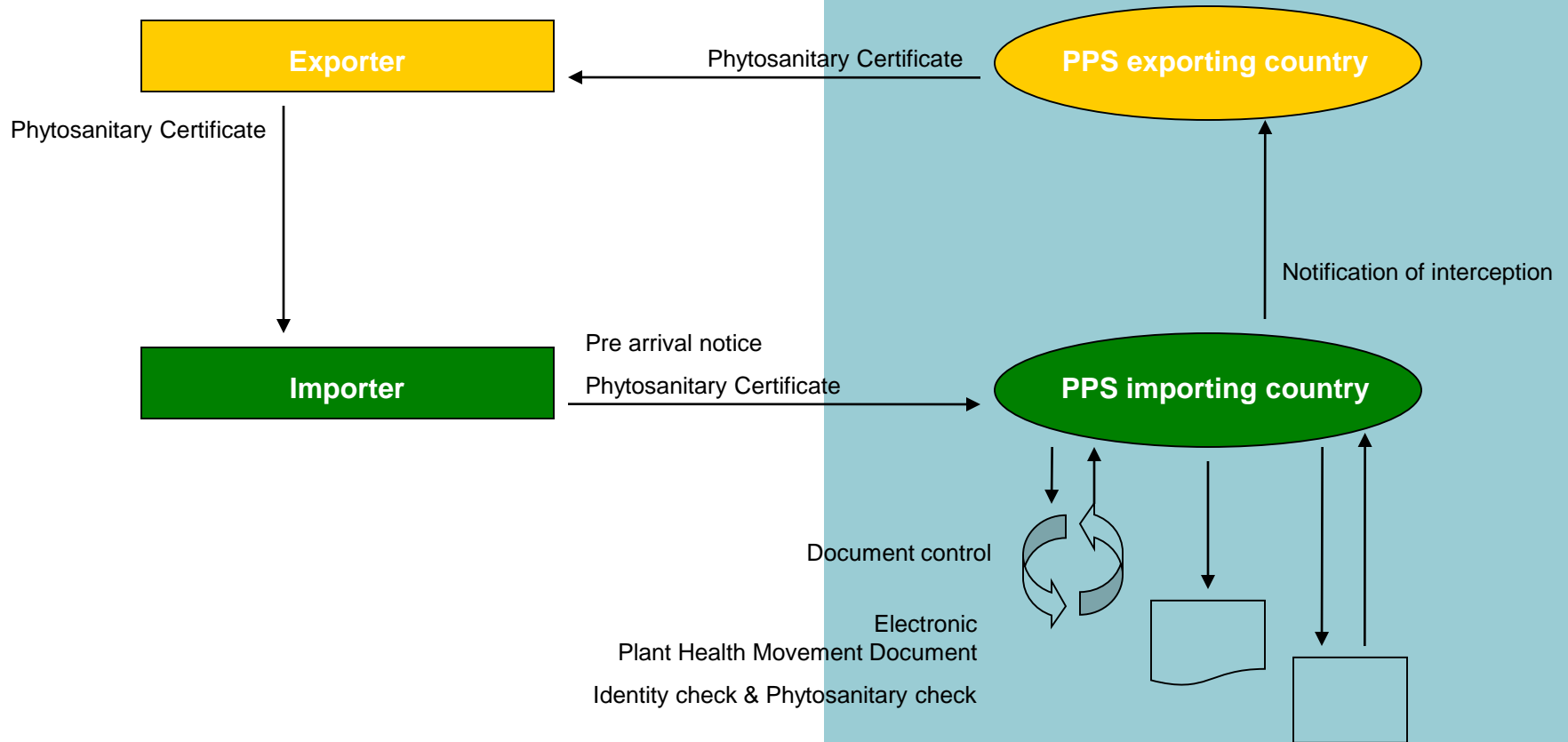
**IMPORTING
COUNTRY**



Plant Health certificate



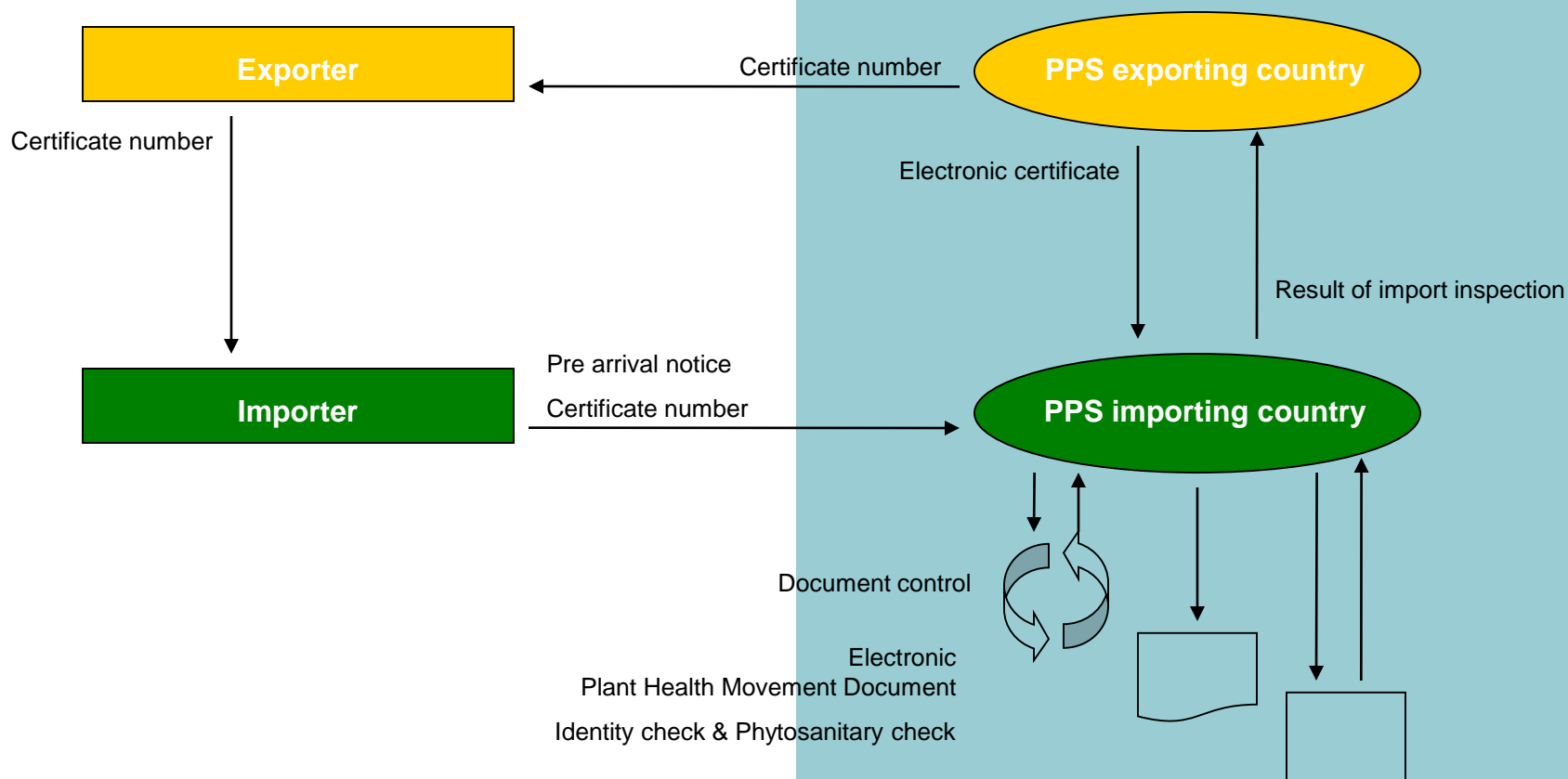
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Plant Health certificate



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2. What is NOT electronic certification

- Text processing or other electronic generation of paper forms
- Transfer of electronic version of a paper certificate (e.g. pdf)
- On-line data entry in system of importing country
- National electronic system to facilitate phytosanitary certification
- National system to facilitate phytosanitary import process through inspections

EXPORTING COUNTRY



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IMPORTING COUNTRY



3. ISPM 12 revised version 2011

- Phytosanitary certificates can be in paper form or, where it is accepted by the NPPO of the importing country, in electronic form
- NPPOs may use electronic phytosanitary certificates, using standardized language, structure of the message and exchange protocols
- APPENDIX 1: Electronic certification, information on standard XML schemas and exchange mechanisms *[Under development]*
- Mechanism preferably based on technical input from UN/CEFACT (SPS XML Schema)



This appendix is for reference purposes only and is not a prescriptive part of the standard.

APPENDIX 1: Electronic certification, information on standard XML schemes and exchange mechanisms

[Under development] This appendix is expected to contain standardized language, structure of the message and exchange protocols preferably based on the technical input of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT).

4. IPPC workshop

Seoul June 2011



- 50 participants
- from 23 countries
- Covering the whole world
- IPPC and NAPPO secretariat present
- Good mix of NAPPO and IT experts
- Constructive and fruitful discussions
- Steps forward
- Right time for harmonisation
- ePhyto WGs formed to work out details



5. What is needed for global electronic certification?

- a. Language
- b. Harmonisation of message format and contents (codes)
- c. Secure transfer mechanism that validates authenticity



Not re-invent the wheel for ePhyto

- Use standards already available, e.g. UNCEFACT, code lists
- Use existing proven technology e.g. security comparable to what is used in banking
- Easily available
- Quick start
- Save money





Language: XML

- eXtensible Markup Language
- Designed for data transfer over internet
- Already addressed in ISPM12

XML example



```
<Name>Phytosanitary certificate for export<Name>  
<ID>NVWA-NL/88888/2011<ID>  
<IssueDateTime>2011-11-  
01T08:33:06<IssueDateTime>  
<IssuerSPSParty>  
<Name>Ministry of Economic Affairs, Agriculture and  
Innovation<Name>  
<IssuerSPSParty>  
<RecipientSPSParty>  
<Name>APHIS-USA<Name>  
<RecipientSPSParty>  
<Description>Cut flowers<Description>  
<ScientificName>Rosa spp. <ScientificName>  
<Quantity> 10,000 stems<Quantity>
```



SPS XML Schema

- UN/CEFACT: Centre Trade facilitation and e-business
- UN/CEFACT standaard SPS XML Schema
- For SPS issues
- This Schema will be used for phytosanitary context (ISPM12 proof)
- Agreement needed on exact use of minimum data elements (data mapping)



6. Developments after IPPC workshop: ePhyto WGs

- Result from Korea meeting:
Working groups
- WG1 XML schema, data mapping
- WG2 Code lists
- WG3 Security and authenticity



ePhyto WG1:Message format phytosanitary XML data mapping

- The structure of the XML message
- What ISPM 12 elements are in the data map
- What are the names of the elements
- What is meant by each element
- How do we describe the elements
- Coverage of all ISPM12 elements



ePhyto WG1:

Message format XML Schema: results

- UN/CEFACT schema: ISPM 12 proof
- Some elements still need alignment
- Schema available for export
- Schema available for re-export
- Schema available for replacement
- Description for re-export situations

2

PHYTOSANITARY CERTIFICATE



1 Name and address of exporter

3 Declared name and address of authority

ORIGINAL

4 Plant Protection Organization of the Netherlands

6 Declared means of conveyance

agriculture, nature
and food quality

7 Declared point of entry

8 Distinguishing marks, number and description of packages; name of product;
botanical name of plants

9 Quantity declared

10 This is to certify that the plants, plant products or other regulated articles described herein:

- have been inspected and/or tested according to appropriate official procedures, and
- are considered to be free from the quarantine pests specified by the importing contracting party, and
- are considered to conform with the current phytosanitary requirements of the importing contracting party, including those for regulated non-quarantine pests.

11 Additional declaration

DISINFESTATION AND/OR DISINFECTION TREATMENT

12 Treatment

13 Chemical (active ingredient)

14 Duration and temperature

15 Concentration

16 Date

17 Additional information

18 Place of issue

Date:

Name of authorized officer:

Stamp of Organization:

For details of the requirements for this certificate, see Annex 1 to the Plant Protection Agreement between the European Community and the Netherlands.

<Name>Phytosanitary
certificate<Name>

<ID>EC/NL/04026805<ID>

<IssueDateTime>2011-07-
20<IssueDate Time>

<IssuerSPSparty>

<Name>Plant Protection Organization
of the Netherlands<Name>

<RecipientSPSparty>

<Name>APHIS<Name>

<Description>Cut
flowers<Description><ScientificName>Rosa
spp.<ScientificName>



ePhyto WG 2:

Harmonisation contents: CODES

- Why codes?
 - Avoids mismatches by typing errors
 - Unambiguous spelling of names etc.
 - Language independent
 - Makes digital checks possible
 - Full use of electronic system possible
 - More efficient



CODES

- Country codes
- Botanical names plants
- Scientific names pests
- Commodity Classes
- Treatments
- Additional declarations



ePhyto WG 2: Harmonisation contents: CODES results

- Country codes: ISO codes
- Botanical names plants: EPPO codes
- Scientific names pests: EPPO codes
- Commodity Classes: table on IPP
- Treatments: CODEX list
- Additional declarations: table on IPP
- UNECE lists for general elements



ePhyto WG3:



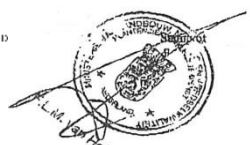
Exchange mechanism

- Security
 - No changes to the certificate after issuance
- Authentication
 - Is the received certificate from the NPPO?
- Acknowledgement of receipt

SECURITY

Paper Certificate

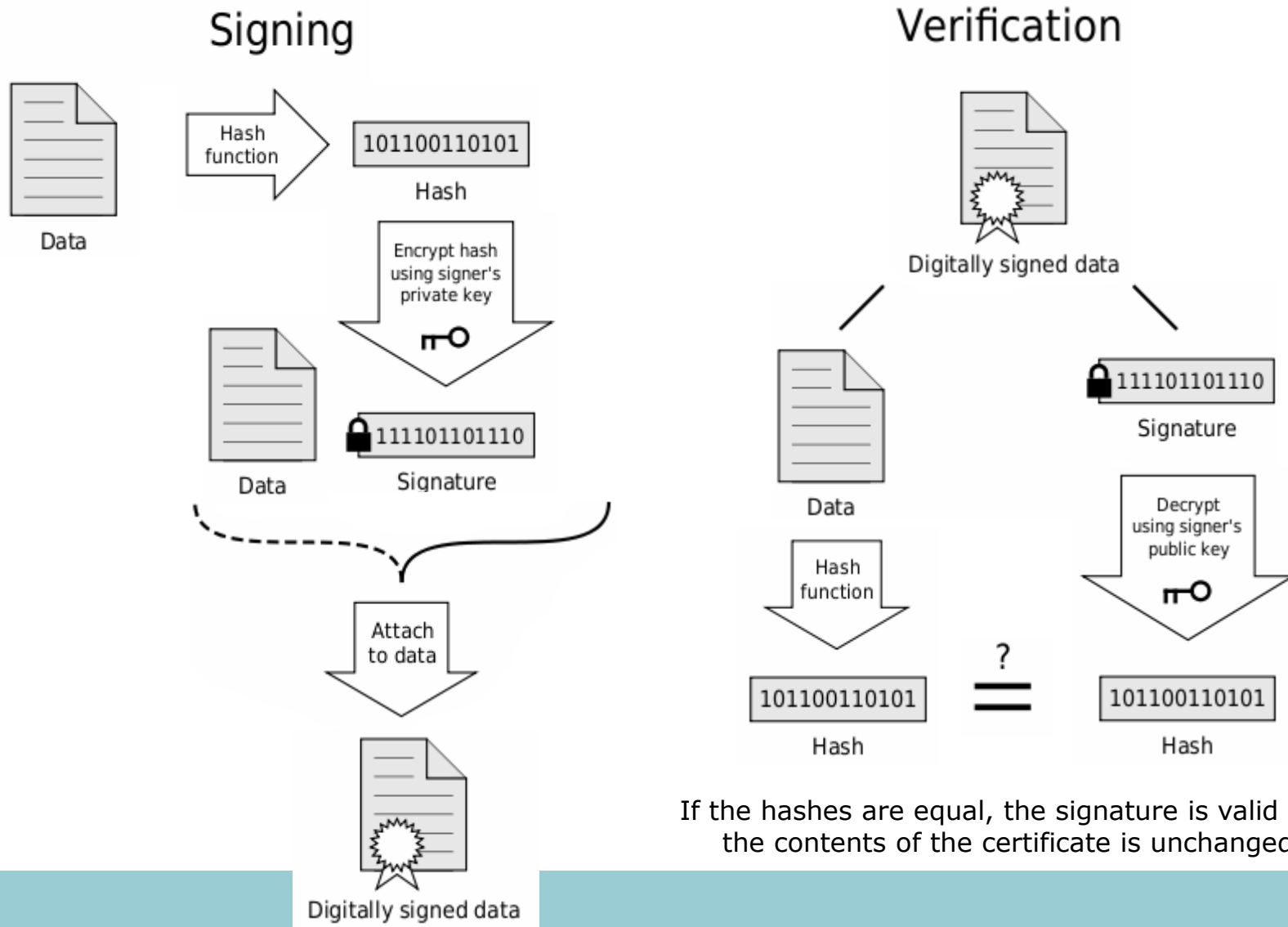
- Security paper
- Water mark
- Stamp
- Signature

1 Name and address of exporter		2 PHYTOSANITARY CERTIFICATE No. EC / NL /  ORIGINAL 01016805	
3 Declared name and address of consignee		4 Plant Protection Organization of the Netherlands to (Plant Protection Organization(s) of 5 Place of origin	
6 Declared means of conveyance		 agriculture, nature and food quality	9 Quantity declared
7 Declared point of entry			
8 Distinguishing marks, number and description of packages; name of product botanical name of plants			
10 This is to certify that the plants, plant products or other regulated articles described herein: — have been inspected and/or tested according to appropriate official procedures, and — are considered to be free from the quarantine pests specified by the importing contracting party, and — are considered to conform with the current phytosanitary requirements of the importing contracting party, including those for regulated non-quarantine pests.			
11 Additional declaration			
DISINFESTATION AND/OR DISINFECTION TREATMENT 12 Treatment 13 Chemical (active ingredient) 14 Duration and temperature 15 Concentration 16 Date 17 Additional information		18 Place of issue Date: Name of authorized official  (Signature)	

PD-artikelnummer 2312

No commercial liability with respect to the certificate shall attach to the Plant Protection Organization of the Netherlands or to any of its offices or representatives.

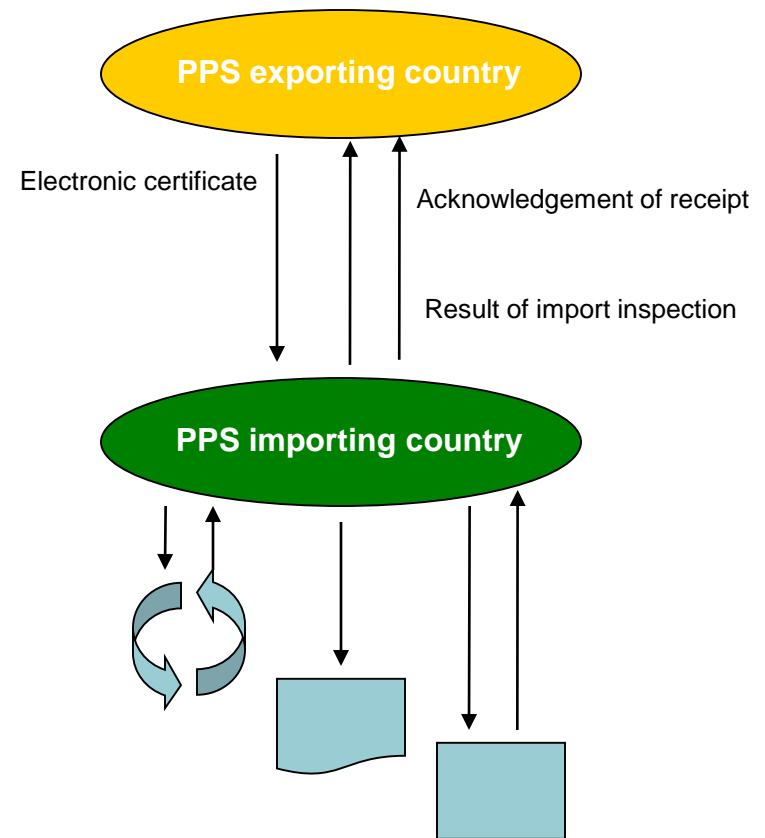
SECURITY, option: digital evidence





Acknowledgement of receipt of electronic certificate

- Acknowledgement
- Result of inspection
 - Approval or
 - NOI
- Extra security





ePhyto WG3:

Exchange mechanism: results

- Security & authenticity : needed, level under discussion, UN/CEFACT standard digital evidence

7. IPPC Appendix 1 to ISPM 12: Planning.



- WG1 Phytosanitary XML data map
- WG2 Code lists
- WG3 Security and authentication
- Draft proposal to SC February 2012
- Side event during CPM in March 2012
- Meeting of experts to finalize
- Proposals through IPPC approval process
- Immediately use in pilot projects

8. Worldwide pilots



Electronic certification

- New-Zealand – China: Initial discussions
- Australia - New-Zealand: discussions initiated
- Kenya – the Netherlands (cut flowers)
 - Using XML, UNCEFACT schema, security, CMS, paper document in parallel, no codes used yet
- The Republic of Korea – the Netherlands (seeds)
 - Using XML, UNCEFACT schema, security, CMS, paper document in parallel, no codes used yet
- Others???



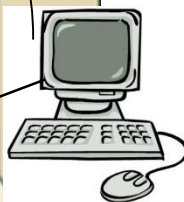
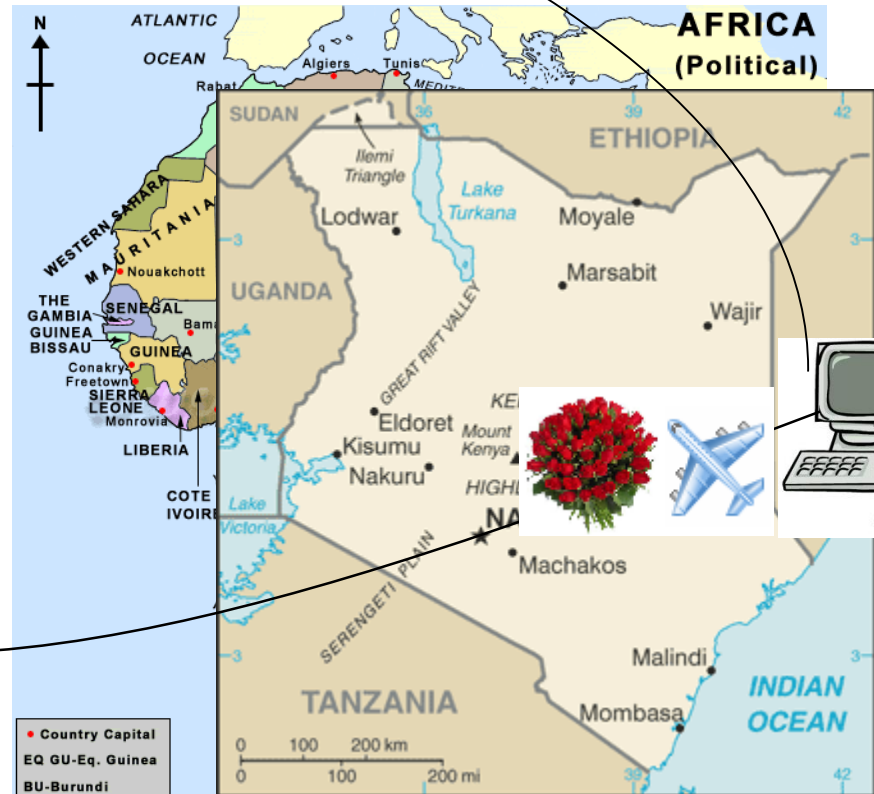
Future of ePhyto

- Getting it started takes many efforts
- Initial development takes time and money
- Fortunately, we have the IPPC and ISPM12
- Harmonisation is essential
- When harmonisation is achieved developments will be much easier and cheaper
- Experiences of pilots can help all countries



1. Personal particulars of applicant Name: [blank] Date of birth: [blank] Place of birth: [blank] Nationality: [blank] Occupation: [blank] Address: [blank] Telephone: [blank] E-mail: [blank]		2. Passport particulars Passport No.: [blank] Date of issue: [blank] Date of expiry: [blank] Place of issue: [blank] Authority: [blank]	
3. Travel purpose (circle one) Tourism Business Study Other: [blank]		4. Entry stamp Date: [blank] Place: [blank] Authority: [blank]	
5. Remarks [blank]		6. Signature [blank]	







DEMONSTRATION

[illegible]