



The Basics for ePhyto: A Global perspective to Facilitate International Trade of Plant material

Day 1 Opening Session

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**GROWING AND PROTECTING
NEW ZEALAND**



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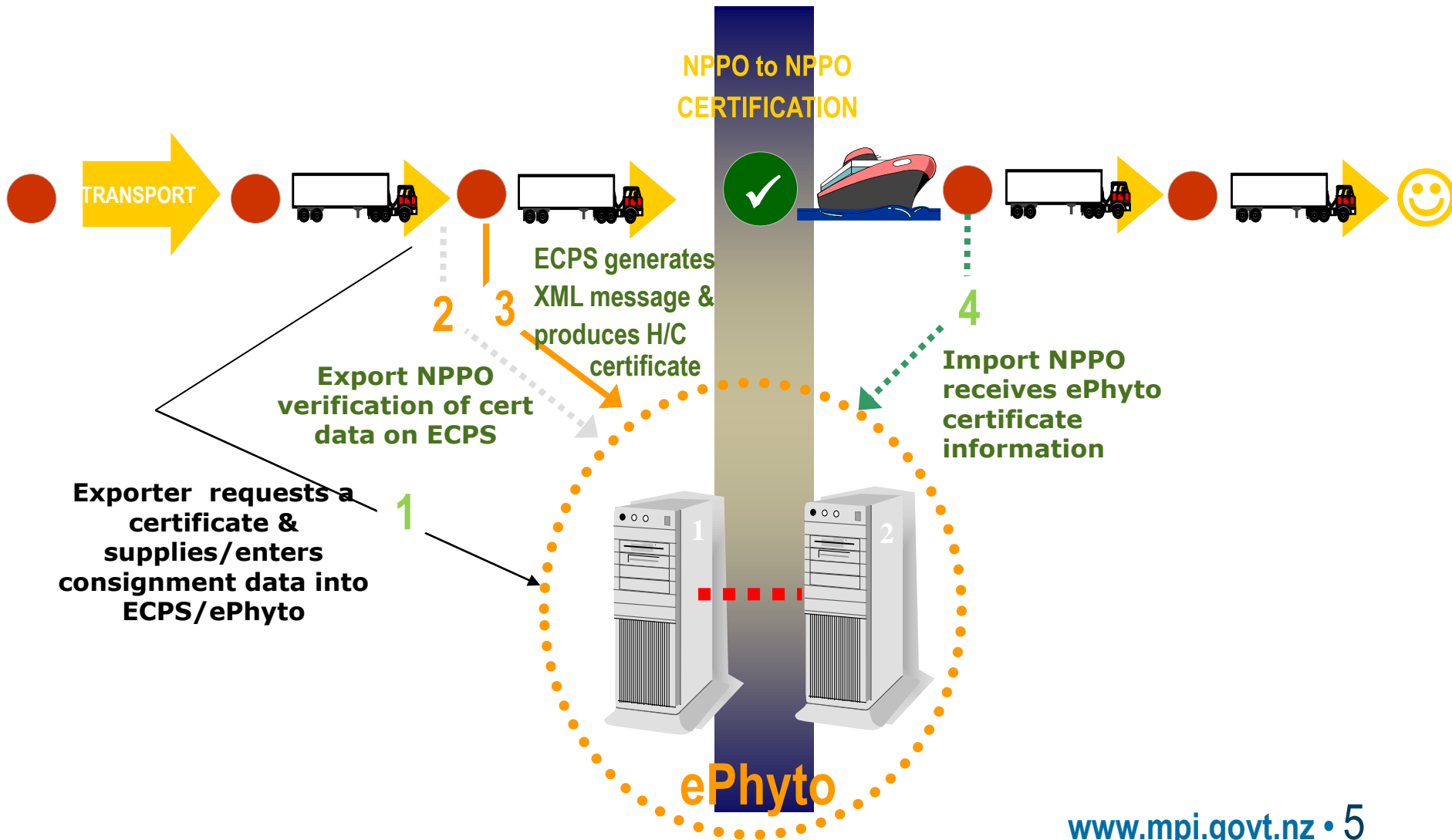
The Basics: ePhyto Challenges!

- Lack of harmonised approach
- Variable use of terms/definitions
- Various official assurance **regimes**
- **Individual** country issues:
 - Sovereignty
 - Preparedness
 - Technology
- Border management **alignment**
- **Confidence and Trust**

The Basics for ePhyto: Agreements

- ISPM 12 states the maximum certification data elements required
- Electronic exchange message in XML
- Alignment with UN-CEFACT SPS XML Schema
- Alignment with ISPM12 Appendix 1

Basic ePhyto Business Model



The Basics: Infrastructure needs (S1)!

From an IT perspective:

- Computer(s)
- A separate server to facilitate Web-based application
- Security arrangements (e.g. SSL certificates)
- Software application (Code) – enabling “Receipt & Dispatch (sending)” of phytosanitary certificate information;
 - as per ISPM 12 Appendix 1
 - in XML as per UN/CEFACT SPS Schema

The Basics: Infrastructure needs (S2)!

From a Phytosanitary business perspective:

- Business decision maker(s)
- Budget
- Skilled phytosanitary inspectors & certificate verification staff
- User support (access & help)”

The Basics: Dependencies!

An electronic system to manage:

- Importing country phytosanitary requirements
- Inspection results (export & import)
- Issuance of export phytosanitary certificates
- Send/receive ePhytos
- Integration with import biosecurity systems

The Basics: “Why ePhyto - Solution?”

- Reduced Fraud
- Certification data pre-clearance
- Supply chain cost reduction
- Improved, rigorous, auditable internal processes
- Transparency
- Respond to rapidly changing market needs
- Secure access - any time, any place
- Provide assurance by ensuring authenticity

The Basics: “What is ePhyto?” (S1)

“A web-based application that enables secure electronic exchange of phytosanitary certification information”

The Basics: “What is ePhyto?” (S2)

A **web-based application**:

- Runs on a server which is remote from the user's computer
- Involves the user's computer communicating with the application by using a web browser
- The application processes requests sent from the user and sends back responses as HTML files

The Basics: Web-based applications

- Web-based applications work well when authorised USERS want to transact on a Controlled system
- HTML is good for defining how things should appear on the user's web browser, but!!
- When users want their system to interact options/alternatives need to be explored

The Basics: What is HTML?

- HTML stands for Hyper-Text Markup Language
- HTML is a set of special codes that give instructions on how to format and display pages made up of
 - Text
 - Images
 - Input controls such as
 - Data entry boxes
 - Buttons
 - Text inputs
 - Drop-down data selection lists

The Basics: Internet security?

- Remember, the internet is public network!!
- The internet is great for connecting together remote computers,
- As soon as computers connect up there can be security issues that need to be dealt with, For example;
 - Managing/Controlling access
 - Stopping malicious attacks
 - Maintaining privacy of the information being transmitted across the network

The Basics: Sensible security precautions MAY include

- Usernames and passwords to prevent unauthorised access
- Encrypted responses from the application (https:// address rather than http://)
- Ensuring your NPPO servers are protected by firewalls that limit the type of transactions that are allowed through

The Basics: Alternatives?

- HTML codes are good for giving instructions to web-browsers about web-pages but can't tell the user about the attributes of data
- When users need to send / receive data to/from ePhyto **XML** is currently the best alternative

The Basics for ePhyto: “Core features ”

- Production of hard copy certificates (EC)
- Data entry by exporter (online or batch)
- Online certificate view
- Local language
- Online data clearance
- Online manual
- XML output
- Simple robust security to protect electronic exchanges

The Basics: What is XML?

XML = Extensible Markup Language

An ePhyto application should use the XML tag names contained in the UN/CEFACT SPS Schema

The Basics for ePhyto: “Key Components”

- **IT coding holding;**
 - **The business rules as per ISPM12 Appendix 1 ,**
 - **The building blocks needed for the user interface**
- **Web server**
- **A database to record the user inputs (certificate records) and system information (e.g. user permissions)**
- **Production of hard copy certificates**
- **XML output (as per UN/CEFACT SPS Schema)**
- **Simple electronic exchange security (Secure Socket Layout - SSL)**

Thank you!

