

The 3rd IPPC Global Symposium on ePhyto

"ePhyto and Trade Facilitation"

22-26 January 2018







## **Benefits of the Hub & GeNS**

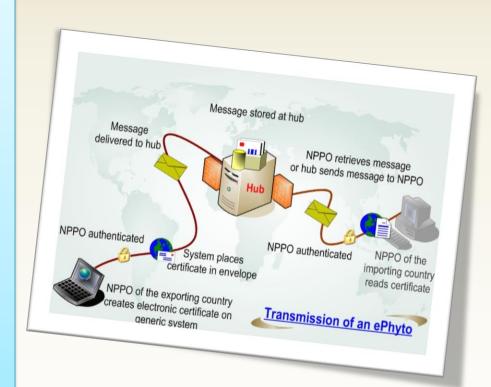
- Everyone using a single harmonised set of rules
- Captures the benefits of harmonisation and maintains them over the long term
- Avoids the costs associated with establishing country by country agreements
- Creates uniform conditions for trade
- Allows developing and developed countries to participate regardless of infrastructure capacity
- Facilitates inclusion of national systems developed by countries
- Simplified setup and participation





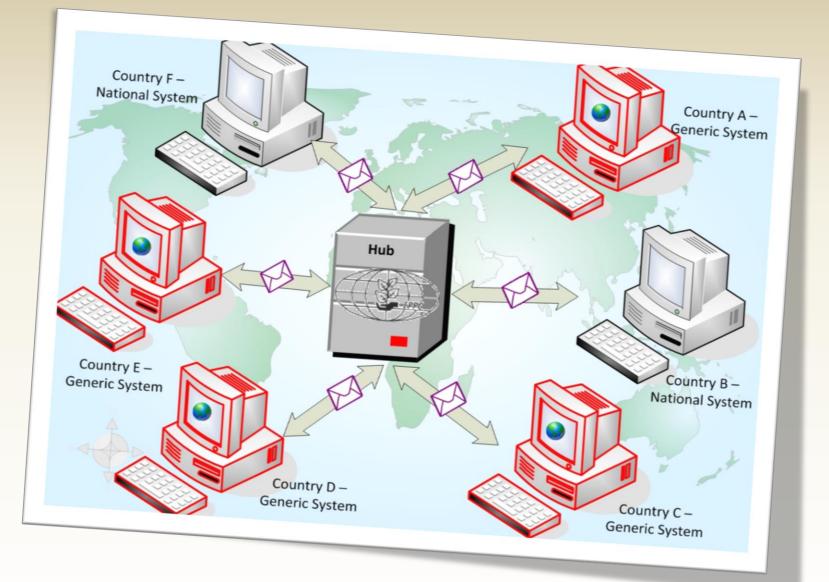
#### **Hub Overview**

- Centralized system to facilitate exchange of ePhytos between NPPOs
- A National system(s) or the Generic National System (GeNS) communicates with the hub
  - ✓ Pushes certificates to the hub
  - Receives certificates from the hub by push or pull
- Hub components
  - ✓ Administration Interface
  - ✓ Web Service
- Prescribed rules of connection
- Defined structure/codes/terms for the XML message.











# **Hub Standards - ePhyto Harmonisation**

- ➤ Authentication of systems that contact the hub through X.509 certificates
- ➤ Sender identity verified through X.509 certificates
- Single Web Services Description Language (WSDL)
- ➤ UN/CEFACT schema v12B
- Exchange protocol is Simple Object Access Protocol (SOAP) over HTTPS
- > Retrieving messages from the hub will be through a push or pull method.





## **Hub - Business Rules**

- Use of the Hub is voluntary
- The Hub is a single, multilateral system
- > The Hub will be available 24/7 (secure and monitored)
- No information (messages, transactions) should be lost
- ➤ There is a single exchange protocol
- > The IPPC determines the version of UN/CEFACT schema
- Participating countries will require a National System to exchange ePhyto through the Hub or use the Generic system





# **HUB participation: Pre-requisites**

For a country to participate in the Hub it is mandatory to have the capacity to produce electronic phytosanitary certificates (ePhytos). Countries having their own national system that produces ePhytos but not exchanging electronic certificates with other countries or countries that are already undertaking point-to-point exchanges can participate in the Hub.

The national system needs to have at least the following functionality:

- > Enter phytosanitary certificate data electronically
- Produce phytosanitary certificates (ePhytos and/or paper)
- Send ePhytos
- Store of electronic phytosanitary certificate data
- Receive ePhytos
- Decrypt ePhytos
- Validate the structure of the ePhyto message
- Read/view/print/produce pdf of ePhytos





# **HUB** components

#### Web Services

- Enables two systems to talk with each other, e.g. computer of NPPO of exporting country with the Hub.
- Web Services Receiving/transfer of ePhytos

# Hub Administration console

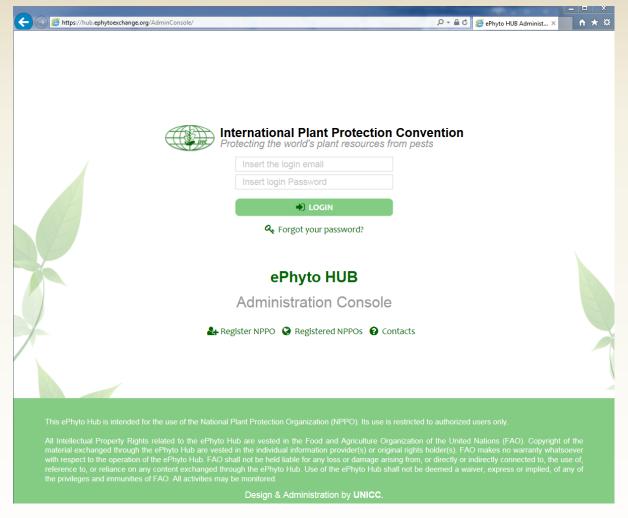
- Manage NPPO information
- NPPO Registration
- Communication and contact tool
- Link to technical tools (Schema, codes, documentation etc)
- NPPO Interface
  - Data on transactions
  - Confirm exchange
  - Change certain settings (password, push/pull, delay)





### **HUB Administrator Console:**

### https://www.ephytoexchange.org/AdminConsole/







# **HUB participation: Pilot Countries**

- Argentina
- Australia
- > Chile
- China
- > Ecuador
- Kenya
- Korea
- The Netherlands
- New Zealand
- United States of America

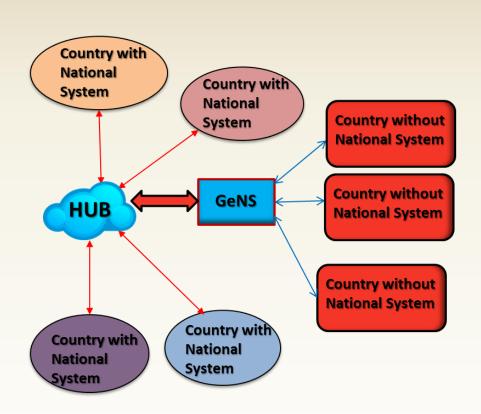
- Pilot countries are testing the hub.
- A few of the pilot countries have completed testing and are ready for production
- ☐ 10,000+ certificates have been exchanged.





# Generic National System Overview

- Centralized system to facilitate the creation of ePhytos.
- Multi-tenanted web-based system
- Developed for countries without their own systems to produce ePhytos, send and receive them electronically
- Has built in workflows around export/import ePhytos







## **GeNS – Main Features**

- Facilitate data entry and standardization of codes, including translations for export certification
- Produces ePhyto with data compliant in the UN/CEFACT format as per ISPM12 Appendix 1
- Built-In Industry workflows to support Inspection and Issuance of the ePhyto
- ➤ Integrated with the HUB for Receiving and Sending ePhyto



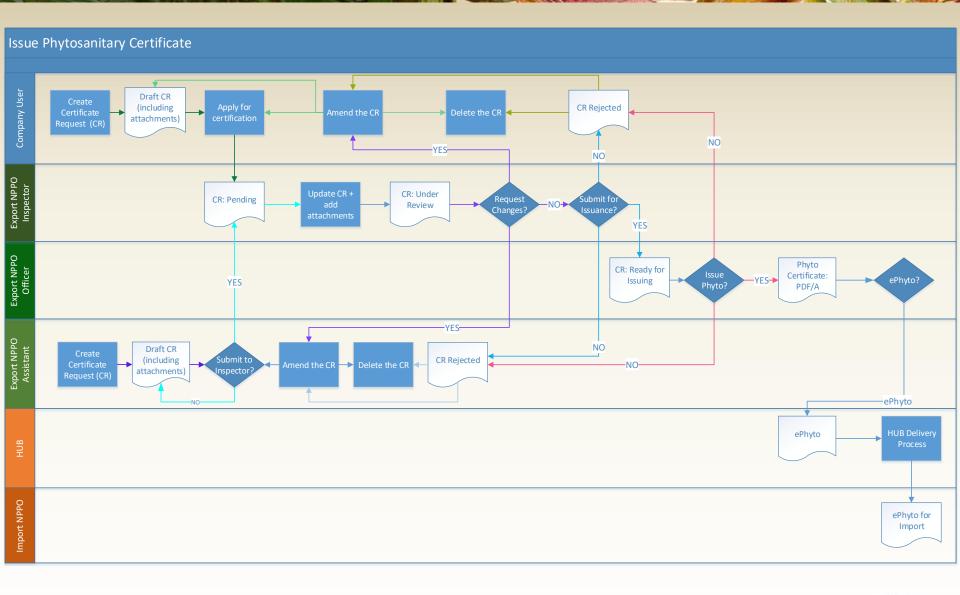


## **GeNS – Main Features**

- Provides storage of issued ePhyto for an agreed time
- Printing of the certificate data for paper based processing (specially non-hub destinations)
- > Ensure authenticity of the received ePhytos.
- Provide data extraction (including reporting)
- Designed to be used in low-bandwidth environment and work with most of the desktop/device & browser







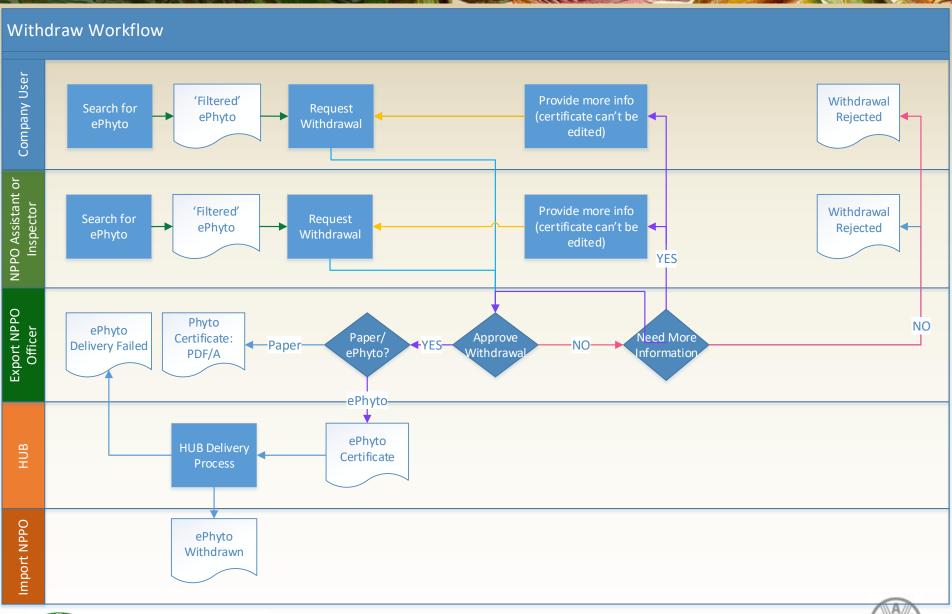




Original Phyto PDF









# **Hub & The Generic National System**

