

UNICC



CAREC Webinar on ePhyto Solutions to Support Digitalization of the Export/Import Process in Azerbaijan

DIGITAL TOOLS

Presenter: **Gianluca Nuzzo (Solutions Delivery Manager – Digital Business Solutions)**

Digital.

For the UN family



Who We Are



Over **90** Clients and Partner Organizations



52+ Years of UN and Industry Experience



50 Trusted Services and Digital Solutions



5 Strategic and Operational Locations

Clients and Partner Organizations



Over 90 Clients and Partner Organizations

Value Proposition



Strategic digital business solutions partner to the UN system since 1970



Deep domain expertise and understanding of the UN context



Benchmarked services that are good value for money



Achieving efficiencies of scale



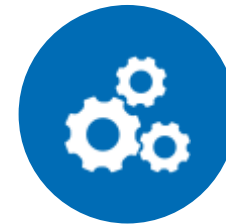
Specialized infrastructure, systems and skills



Transparency of costs and zero cross-subsidy



Cost recovery model



Relevant technical experience and expertise



Bespoke and comprehensive solutions

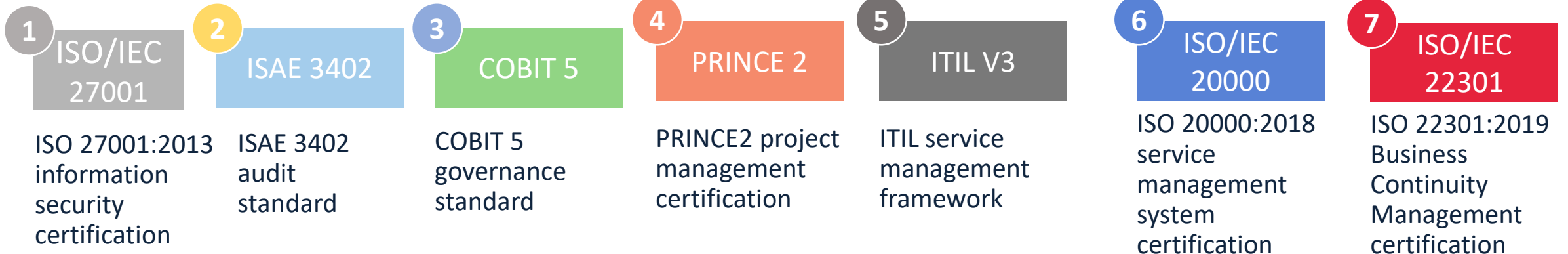


Strategic partnerships with key technology vendors

UNICC – Standards, Certifications & Best practices

UNICC Operations

UNICC staff are trained in many industry certifications, qualifications and best practices.





ePhyto Solution

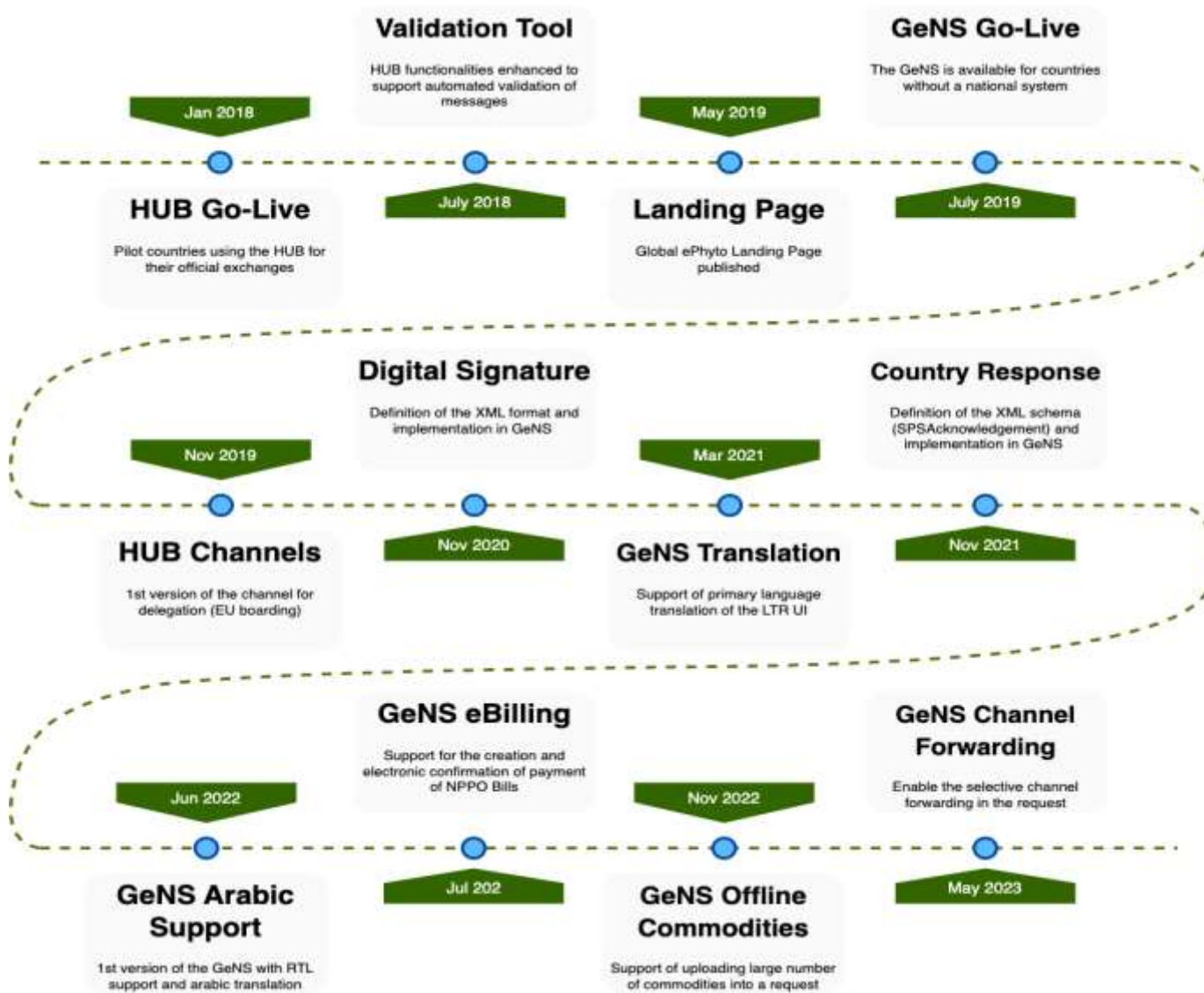
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ePhyto – UNICC Contribution

- UNICC is the Technical Service Provider for FAO/IPPC
- Design, Build, and Implementation of the Solution
 - HUB and Harmonized Message
 - GeNS
 - Training Module
- Product Management
 - Regular Maintenance
 - Enhancements
 - Support in the boarding of countries
 - ESG technical input
- 25 Mayor HUB Releases
- 32 Mayor GeNS Releases
- Workshops and collaborations with regions to promote ePhyto and collect feedback
- Engage through partner organizations (ie ADB) to support the implementation of ePhyto in the country by consulting and providing guidance and support.

ePhyto - Journey



Roadmap

- GeNS Non-Commercial Certificates: Personal certificates + mobile app to support the creation of certificate requests from travelers carrying goods for personal use.
- GeNS - growers, packhouses, inspection facilities additions
- Increased collaboration through portal: communications, Ask the expert, Share ideas and best practices on the electronic certification.
- Feature enhancements - Import Requirements/Permit, additional declarations, Product descriptions
- Other certificate exchanges

ePhyto – boarding experience

- UNICC has been constantly supporting countries in joining ePhyto for IPPC
- Typical questions:
 - Shall we go for the GeNS or the HUB ?
 - The GeNS is a Standardized solution to immediately (with low cost) have a system in the country fully operational and already connected
 - The GeNS is for countries that do not have a National System or that they are envisioning to change it in medium-longer terms
 - The GeNS supports a wide number of customizations in the workflow and functionalities to adapt to the country's needs
 - Countries already issuing ePhyto with a national system should analyze the option of connecting directly to the HUB
 - Gap Analysis of the current system data and the ePhyto harmonized codes
 - Select a technical provider for the implementation with experience in consuming web services
 - Include in the plan the maintenance so that optimizations can be developed in time as they are received from countries
- Some of the lessons learned :
 - Countries with a weak process/system implemented the GeNS and very quickly implemented the process.
 - Some of these countries are using the GeNS to show national providers how the national system should work
 - Underestimation of the work in connecting and maintaining the connection with the HUB (technical issues, non - non-conformities in the XML, etc.)

ePhyto – boarding experience

- Typical questions:
 - Where can I start with the HUB ?
 - Register on the HUB landing page <https://www.ephytoexchange.org/AdminConsole/>
 - Go to the ePhyto landing page www.ephytoexchange.org download and focus on studying the API and the Mapping document
 - The API document provides some samples, it should not be a copy-paste 😊
 - The mapping will help in understanding each single detail on the ePhyto XML
 - Start by implementing the services using the UAT (testing environment), using the Validation tools and the Validate and Delivery operations (make sure you validate before sending), and send and receive within the country
 - Test and instrument the system to have the proper logging, design with the proper handling of errors and data persistency, monitoring, and support will be needed constantly
 - Once ready you can ask to perform some tests with other countries in UAT (GeNS too we will be happy to do that)
 - The switch to go live is then just a matter of configuring the live system with the production HUB where all countries are connected
 - The HUB provides the list of connected countries, their support in receiving by document and types, a validation tool, regular notifications on logs, and messages delivery acknowledgment (ie warnings from receiving countries on improvement required to the XML)
- We can help with all of the steps the technical implementer in the country. Advisable to have a single point of contact.

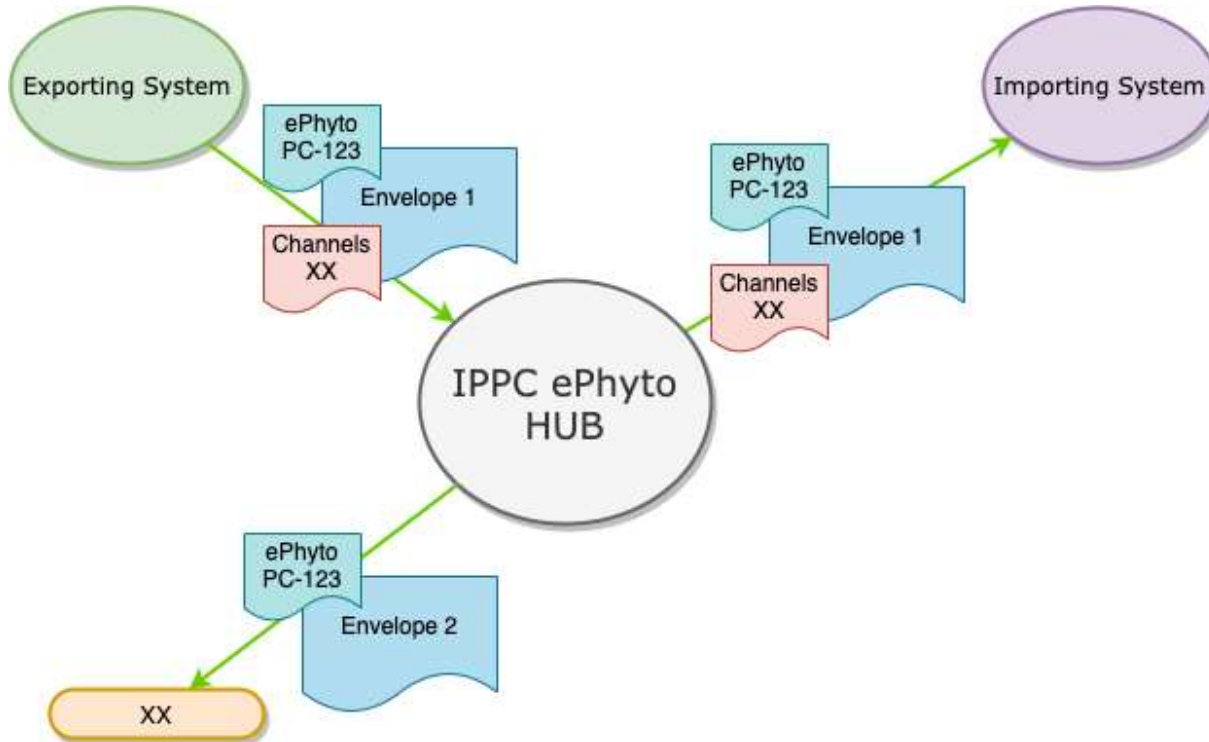
ePhyto – boarding experience

- Typical questions:
 - Where can I start with the GeNS ?
 - Go to the ePhyto landing page www.ephytoexchange.org download the boarding document, compile it, and send it back
 - Make sure you identify the NPPO structure, offices, and most importantly Administrators of the system that can learn and support users
 - We can do training sessions for the trainers
 - Plan for the roll-out progressively in the country
 - Involve companies so you can train them on how to use the system to request certificates and digitalize all the paperwork and back and forward between exporters and NPPO inspectors
 - Leverage the use of the GeNS features to organize the process (ie billing) and write the operating procedures for the teams in each office
 - You will not need to work on technical elements, just workstations or tablets connected to the internet for the users, the connection to the HUB is managed by the GeNS automatically, including the digital signature required by EU for paperless
 - We can help on all of the steps the NPPO administrators to build their knowledge and be able to support the system in the country

ePhyto – boarding experience

- Typical questions:
 - How do I integrate with Single Windows or external platforms?
 - This feature is already there for the HUB and also implemented in the GeNS to be able to selectively or automatically forward messages to another platform that will need to connect to the HUB and receive only what the exporting country selects to forward (contact us to know more)
 - How secure is the platform
 - Both the HUB and GeNS are constantly monitored for security threats and kept updated to match the latest requirements. The design supports encryption of all the data in transit across all the components.
 - The GeNS is a multi-tenant solution, sharing the application code, however, every single country has its own segregated and secured data store
 - The solution is hosted on UN premises, following the relevant privileges, immunities, and confidentiality.
 - Is operated by UN Staff holding non disclosure agreements
 - Admin access is provided to countries to manage users access and roles
 - OWASP Top 10 security threats are protected
 - Attempts to access the system are logged for troubleshooting, usage reporting, and security investigations
 - User/Systems can connect only using HTTPS/TLS secure connections

ePhyto – channel forwarding

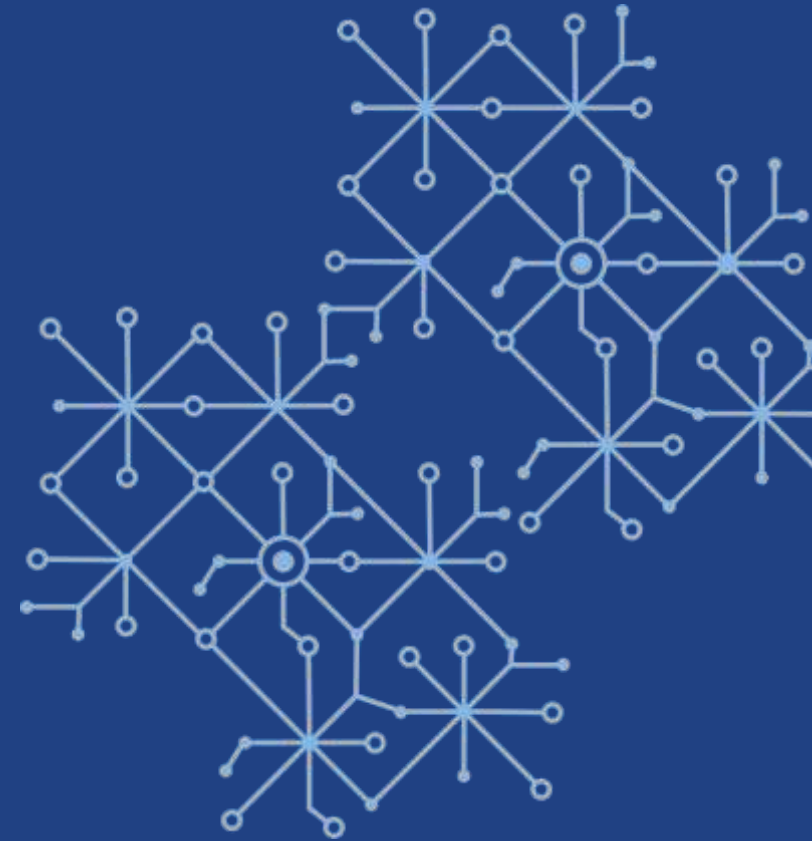


- envelopes delivered to the HUB can be pulled only by the destination country using a secure TLS protocol with client certificate authentication and encryption
- The HUB provides a feature called “Channel” to allow senders to forward the envelope to other entities connected to the HUB (customs, single windows)



Other Technologies & Use Cases

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UN Digital ID (A digital identity for UN personnel)

Blockchain

- Built on opensource technology
- Technology to create and manage immutable, traceable, and independently auditable records
- Stores only credential definitions, schemas and verification data
- No user data stored in the blockchain



UNICC is the technology solution and service provider

Goal

To provide the UN workforce with a **universal** and **easy-to-use** system wide identity

To enable interoperability between organizations without being invasive on ecosystems

What it is ...

A **digital wallet** that will store

UN staff member's digital ID and verifiable credentials and

will be used to share data between UN organizations and systems



First release: **3 June 2024**

Enables the employer and the separating staff member to **share verified data** with UNJSPF via the staff's Digital ID wallet so their pension benefits can be processed with minimum delay.

<https://www.youtube.com/watch?v=mvaYipKtY-c>

Digital Wallet with UNJSPF



Digital Certificate of Entitlement app allows the Fund's retirees and beneficiaries the option to complete the annual Certificate of Entitlement exercise by providing their annual proof of life in a biometric format.

The DCE is a technology solution provided in partnership with UNICC to automate and make immutable the CE process with blockchain, biometrics and a mobile app. This is a new option the Fund is offering in place of the paper-based Certificate of Entitlement (CE), with it being up to retirees and beneficiaries to decide how they wish to complete their annual CE.

The United Nations has selected the DCE solution as the winner of the 2021 Secretary-General Award for innovation and sustainability.



UN Partner Portal

Online Platform for UN Organizations and Civil Society Organizations (CSOs) to Connect
Supports the **Partnership Selection** Process
Simplifies and Harmonizes UN Processes for CSO Partnership

URL: www.unpartnerportal.org

Video: <https://www.youtube.com/watch?v=jQYIGxwSbZ0>



Many of the new capabilities at the UN Partner Portal website, including the new website design, News Centre, chatbot Rafiki and PSEA module, were delivered by UNICC Application Delivery and Communications teams.



UN Secretariat



UNDP- Immunization & Vaccination Supply chain



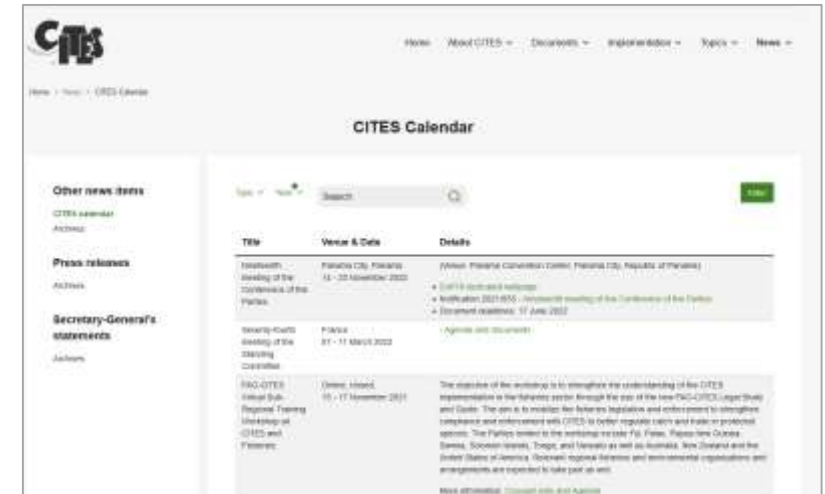
- UNDP Indonesia and Ministry of Health Indonesia commissioned the **SMILE** (Sistem Monitoring Imunisasi dan Logistik secara Elektronik) project to strengthen the immunization vaccine (Routine & Covid) supply chain system in Indonesia. This system provides real-time view of vaccine cold chain logistics and its storage at all points of government vaccine providers.
- The key solution components include
 - Mobile & Web Apps
 - Temperature monitoring
 - IoT device installation
- **UNICC as a partner agency is supporting UNDP Indonesia in**
 - **Building a roadmap and providing oversight and support**
 - **Optimization of the digital solution in the context of scalability, security, best practices and robustness**
 - **Customizing the solution for various programs including integration to waste management**
- **UNICC is also supporting UNDP Malawi by customizing SMILE and delivering for the govt. of Malawi**



Cloud-based Solution to Track and Manage Unsustainable Trade of Wild Species

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement between governments that aims at ensuring that international trade of specimens of wild animals and plants does not threaten their survival.

UNICC, together with the Secretariat of CITES, developed a system to track and manage the Review of Significant Trade (RST) process, which identifies species that may be subject to unsustainable levels of trade and determines recommendations and solutions to address this issue.



AI Applications



CONTENT CREATION

- Summary generation from articles or reports*
- Data Generation, Code Documentation*
- Translation*
- Call recording transcripts
- Create draft proposals or contract



INSIGHT GENERATION

- Sentiment analysis on articles, emails, survey, social media*
- Extraction of key themes/topic modelling from documents*
- Analysis and synthesis of insights from data repositories*
- Categorization of Incidents*
- Extract Structured data from Unstructured doc*

UNICC experience*



INFORMATION RETRIEVAL SYSTEM

- Enable ChatGPT*
- Conversational QA on documents from internal repository*

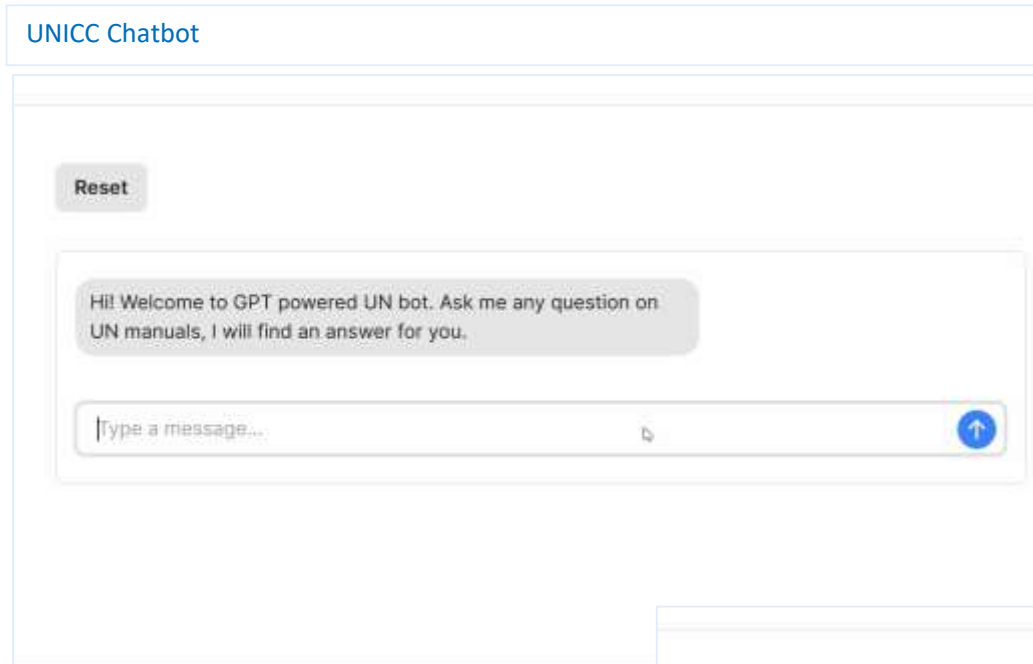
Implementations

Use case:

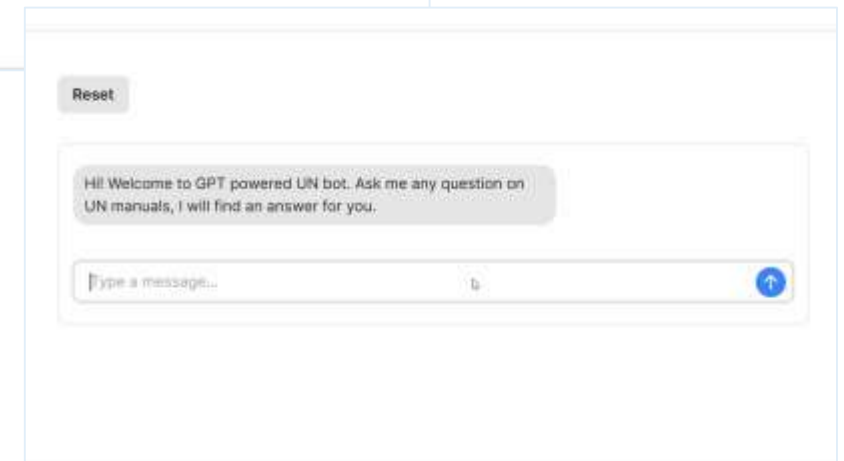
AI chatbot leveraging OpenAI GPT models to enhance operational efficiency and accelerate response times by reducing the time spent on manual data interpretation, optimizing report preparation, and improving data organization

Some use cases related to ePhyto:

- Phytosanitary detection tools
- Harmonization of import requirements
- Automated drafting of certificates
- Automated translations
- Many more...



UNICC Chatbot in Non-English





Thank you!

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