

E-PVP

A blockchain network for PVP

Agenda

- Business Case
- Why Blockchain?
- E-PVP
- Challenges
- Milestones

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Business Case

- PVP Offices have **different** levels of maturity in terms of **digitalization**:
 - No IT system
 - Legacy system to be replaced
 - Satisfactory working system

- Applicants have **same** expectations from all PVP offices:
 - Feedback from a trusted source
 - Monitoring
 - transparency

UPOV

- **Not** a receiving office
- **Not** a centralized system
- **Not** a certifying authority

Business Case

- **UPOV** offers a set of IT tools to their members:
 - UPOV PRISMA : filing system for individual participating authorities
 - PLUTO: Global Plant Variety Database
 - GENIE: Cooperation information in terms of DUS examination
- Set up a machine to machine communication between **PVP Office system** and the UPOV IT Tools:
 - No resources
 - Legal constraints
 - Server location
 - Data storage

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Why Blockchain?

- Decentralized and trustful network
- Flexible to cover all business cases in terms of hosting and maintenance
- Scalable network where new nodes (participating members) can join when they are ready.
- All decisions are traceable : efficient and effortless communication tool with the applicant
- APIs are available to communicate with the blockchain and PVP office systems as well as UPOV IT Tools.

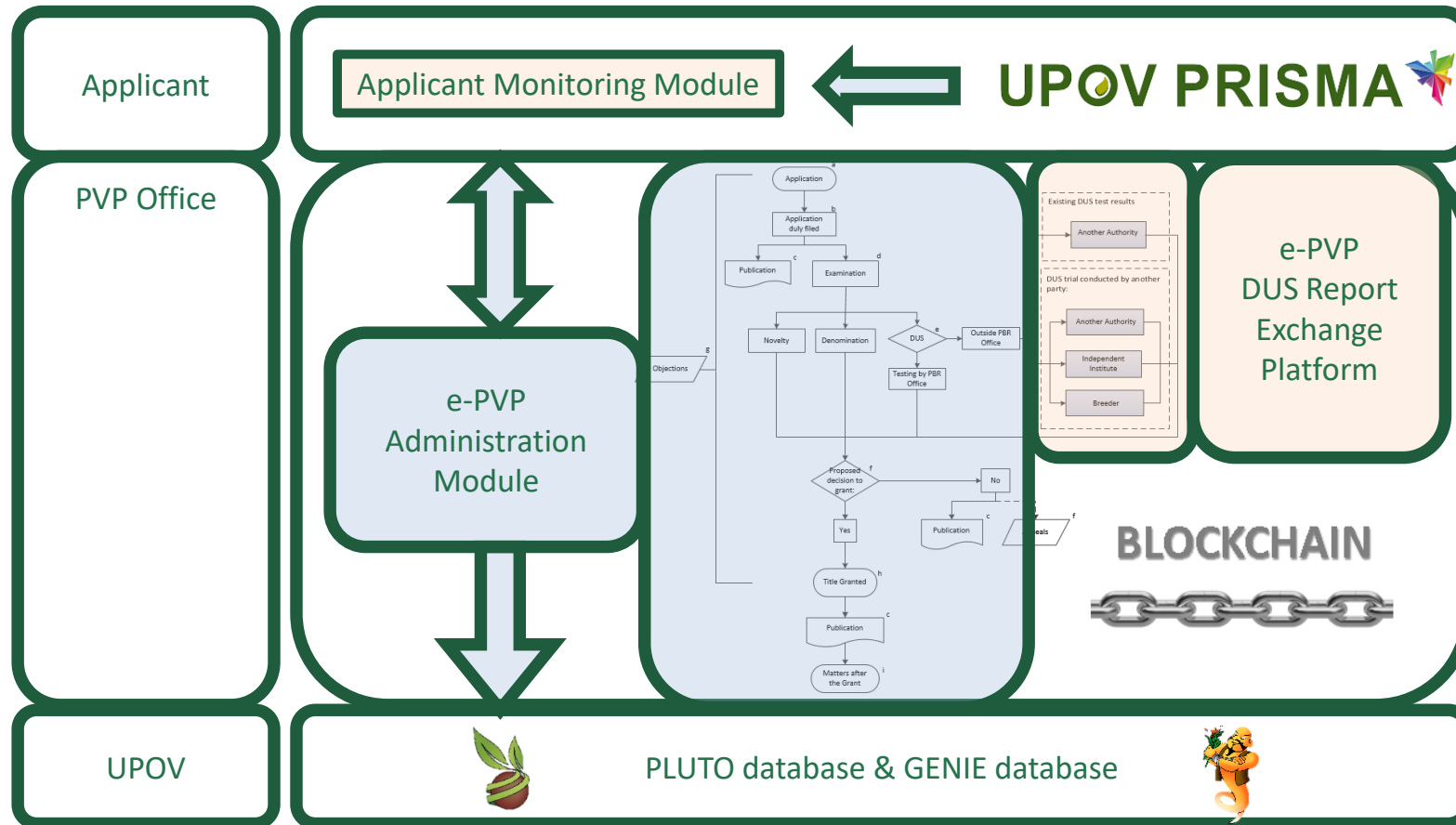
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e-PVP

- As **resource partner**, UPOV offers :
 - For PVP offices (UPOV members) : a working package (Software As A Service)
 - For the applicants: a tool to monitor their applications and get feedback from a trusted source
- **A participating member** has:
 - A node in the blockchain
 - Hosted by UPOV or the member (in different regions)
 - Certified by an independent certifying authority
 - Data is segregated
 - Examination workflow is customized if needed

e-PVP



Applicant Monitoring Module – for Applicants (1)

The screenshot shows the 'Applicant Monitoring Module' interface. The header includes a language selector set to 'English' and a user profile for 'Daniel Janus' with a 'MM' icon. A red box highlights the 'Before Grant' tab. Below the header is a search bar labeled 'Selection criteria'. A table displays the following data:

International Reference Number	Country Code	Breeders' Reference	Botanical Name	Date of Submission	Proposed Denomination	Actions
236CVL7897	MM	REF000				
XU_3111110	MM	REP23391				
XU_302020000204	MM	Test04				

Monitor the progress of the examination of individual applications before and after grant

The screenshot shows the 'Applicant Monitoring Module' interface. The header is identical to the previous view. A red box highlights the 'After Grant' tab. Below the header is a search bar labeled 'Selection criteria'. A table displays the following data:

International Reference Number	Country Code	Breeders' Reference	Botanical Name	Grant Date	Approved Denomination	Actions
236CVL7896	MM	REF00	Lactuca sativa L.	21/06/2022	ARDINAS	View ✓
XU_341110	MM	REP278391	Dianthus L.	17/06/2021	WP04 ESTHER	View ✓

At the bottom right, there is a pagination control showing 'Items Per Page 5', 'Page 1 of 1', and navigation arrows.

Applicant Monitoring Module – for Applicants (2)

The screenshot displays the Applicant Monitoring Module interface, divided into two main sections: 'Details' and 'History'.

Details Section:

International Reference Number	XU_302020000206
Application Status	SUBMITTED
Application Number	
Applicant	SD133VH
Application Type (PBR or NLI)	PBR
Agent	33VHGJ312
Breeder	DSUR342
Botanical Name	Abelia R. Br.

History Section:

Common Name	Abelia
Biological Name	Biological Name
Filing date	
Novelty	
Formality	
Denomination	raspberry profusion
Priority	23/03/2022
DUS Report Status	

At the bottom of the history section, there is a green dot indicating an event: "Application Submitted" on "21/06/2022". A "Hide history" button is located to the right of the history items.

View the details of application and get a view of all shared decisions in the history

Applicant Monitoring Module – for Applicants (3)

The screenshot displays the Applicant Monitoring Module interface. At the top, there is a teal header with the module name, a language selector set to 'English', and the user name 'Daniel Janus' with a circular 'MM' profile icon. Below the header is a teal decorative banner with a leaf pattern. The main content area features a table with four rows of application data. Each row includes an application ID, category (MM), reference number, applicant name, submission date, and product name, followed by a 'View' button and a dropdown arrow. Below the table, a green notification bubble indicates 'Application Submitted' on 21/06/2022. At the bottom right, there are two teal buttons: 'Withdraw Application' and 'Contact PVP Office'. A black line connects the 'Contact PVP Office' button to a callout box below the screenshot.

XU_3111110	MM	REP23391	Dianthus L.	23/03/2022	WP04 ESTHER	View	▼
XU_302020000204	MM	Test04	Abelia R. Br.	23/03/2022	RASPBERRY PROFUSION	View	▼
XU_302020000205	MM	Test05	Abelia R. Br.	23/03/2022	RASPBERRY PROFUSION	View	▼
XU_302020000206	MM	Test06	Abelia R. Br.	23/03/2022	RASPBERRY PROFUSION	View	▲

Application Submitted 21/06/2022

Withdraw Application Contact PVP Office

Contact PVP Office

Contact at any time the PVP Office

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Challenges

- Lack of Blockchain expertise at PVP office level
 - Need a training program
- Certification process when a new node is added
 - Selection of an independent certifying authority (not UPOV)
- Unique identifier
 - WIPO Account is used but not sustainable.
 - Explore the use of WIPO initiative in terms of user identification based on the blockchain.

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Milestones

Target Dates	Milestones
Q1 2023	Launch of e-PVP Asia
Q1/Q2 2023	Expand the coverage for DUS Exchange Module
Q2 2023	Expand the coverage for e-PVP Admin Module for individual authorities
Q3/Q4 2023	Expand the coverage for e-PVP modules for other regions