



CAJ/72/5

ORIGINAL: English

DATE: August 15, 2015

**INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**

Geneva

**ADMINISTRATIVE AND LEGAL COMMITTEE****Seventy-Second Session  
Geneva, October 26 and 27, 2015**

## ELECTRONIC APPLICATION SYSTEMS

*Document prepared by the Office of the Union**Disclaimer: this document does not represent UPOV policies or guidance*

## EXECUTIVE SUMMARY

1. The purpose of this document is to report on developments concerning the development of a prototype electronic form, since the seventy-first session of the Administrative and Legal Committee (CAJ), held in Geneva on March 26, 2015.

2. The CAJ will be invited to:

(a) note the developments concerning the development of a prototype electronic form as set out in this document;

(b) note that a report of the sixth meeting on the development of a prototype electronic form, to be held in Geneva on October 26, 2015, will be made to the CAJ at its seventy-second session; and

(c) consider the proposal for the next steps of the EAS as set out in this document, paragraphs 18 to 25.

3. The following abbreviations are used in this document:

CAJ:	Administrative and Legal Committee
TC:	Technical Committee
TWC:	Technical Working Party on Automation and Computer Programs
TWPs:	Technical Working Parties
EAS:	Electronic Application Systems

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## BACKGROUND

5. The aim of the project is to develop a multilingual electronic form containing questions relevant for plant breeders' rights (PBRs) applications. As a first step a prototype electronic form will be developed, covering all relevant information required for a PBR application in the members of the Union concerned and with questions translated in the relevant languages for the members of the Union concerned (see document CAJ/66/5 "Electronic Application Systems", paragraph 2).

6. The background to the development of a prototype electronic form and developments prior to the seventy-first session of the CAJ are provided in document CAJ/71/4 "Electronic Application Systems".

## TECHNICAL COMMITTEE (TC)

7. The TC, at its fifty-first session held in Geneva on March 23 to 25, 2015, considered document TC/51/7 "Electronic Application Systems" and noted the developments concerning the development of a prototype electronic form (see document TC/51/39 "Report", paragraphs 200 and 201).

8. The TC noted the request made by an expert from the European Union to have additional time to provide comments on the development of the prototype electronic form. The Office the Union clarified that all comments received could be addressed in the subsequent versions of the prototype and invited all UPOV members and breeders to join the project (see document TC/51/39 "Report", paragraph 202).

## FIFTH MEETING ON THE DEVELOPMENT OF A PROTOTYPE ELECTRONIC FORM

9. At the Fifth Meeting on the Development of a Prototype Electronic Form ("EAF/5 meeting"), held in Geneva on March 25, 2015, a presentation on the prototype was given by the Office of the Union.

10. At the EAF/5 meeting, participants were informed that the next phase of the development of the prototype would start in April 2015 and would focus on the data exchange functionalities (import/export facility) and on the on-line electronic form (user interface). Participating members would be invited to test the system in stages, through different interim releases, in order to obtain regular feedback. Comments would be taken into consideration for the development of following releases in order to have a full, functioning prototype by August 2015, for a final test campaign in September 2015, before presentation at the sessions of the CAJ and the Consultative Committee in October 2015, as appropriate.

## ADMINISTRATIVE AND LEGAL COMMITTEE (CAJ)

11. The CAJ, at its seventy-first session in Geneva on March 26, 2015, considered documents CAJ/71/4 "Electronic application systems" and CAJ/71/9 "Report on developments in the Technical Committee" and a presentation by the Office of the Union, a copy of which is provided as an addendum to document CAJ/71/4 (see document CAJ/71/4 Add).

12. The CAJ also received an oral report by the Vice Secretary-General on the EAF/5 meeting, which set out the timetable for the development of version 1 of the prototype electronic application form (proof of concept). The Vice Secretary-General reported that the sixth Meeting on the Development of a Prototype Electronic Form ("EAF/6 meeting") would be held on the evening of October 26, 2015. At that meeting the EAF planned to: review version 1 of the prototype electronic application form (proof of concept); discuss legal aspects, including payment modalities and authorization, filing/priority date, data confidentiality; technical aspects, including payment authorization and user authentication, electronic signatures, high availability and integration with external systems (e.g. GENIE /WIPO accounts). In addition, it would discuss the way forward for the project, including possible plans for implementation. The Vice Secretary-General also reported that it was proposed to make a presentation of version 1 of the prototype electronic application form (proof of concept) to the CAJ and Consultative Committee at their sessions in October 2015 and to invite the CAJ and Consultative Committee to consider proposals for the ways forward for the project. With regard to work after October 2015, subject to discussions at the CAJ and Consultative Committee, it was planned to extend the prototype to cover other species, to explore further harmonization and to consider proposals for a launch of the electronic form (see document CAJ/71/10 "Report on the Conclusions", paragraphs 39 to 41).

13. The CAJ noted that the request to WIPO for a two-letter code "XU" to represent the name of UPOV had been accepted and included in the revised version of WIPO ST.3 "Recommended Standard on Two-Letter Codes for the Representation of States, Other Entities and Intergovernmental Organizations" (see document CAJ/71/10 "Report on the Conclusions", paragraph 42).

14. The CAJ, at its seventy-second session, will receive an oral report on recent developments in relation to the project.

## DEVELOPMENT OF PROTOTYPE ELECTRONIC FORM

Test & Prototype

15. As agreed at the EAF/5 meeting, participating members were invited to test the first version of the prototype electronic system in stages, through different interim releases, as follows:

Test Campaign	From/To	Milestone Release (MR) Contents/ Functionalities to be tested
Release 1	22/05/15 to 05/06/15	Login , Create new application with export application data as XML
Release 2	22/06/15 to 03/07/15	Create new application from existing XML data, Save, Submit new application, User feedback from MR1
Release 3	20/07/15 to 21/08/15	Dashboard, View Recommendations, Copy application, Edit Application, User feedback from MR2
Release 4	07/09/15 to 18/09/15	Remove Application, PDF View, User feedback from MR3
Final Release	05/10/15 to 16/10/15	Full prototype

Legal and Technical aspects

16. In order to discuss during the EAF/6 meeting the specific legal and technical aspects of the project, an on-line questionnaire has been sent to the participating members in the EAS (Circular E-15/168 of August 7, 2015). A report will be made to the EAF/6 meeting to be held on October 26, 2015.

## COMMONALITY OF APPLICATION FORMS AND TECHNICAL QUESTIONNAIRE

17. One of the main benefits of a UPOV electronic form would be to enable applicants to use data from one application in subsequent applications. The system would allow the reuse of data from a single application with one authority or to use a combined set of data (generic application data) of a variety in different authorities. The table reproduced below illustrates the percentage of elements used by all authorities or by at least two authorities:

Indicators	Application Form	Technical Questionnaire (Lettuce)
Percentage of Elements used by all countries/Authorities	6%	1%
Percentage of Elements used by at least two countries/Authorities	67%	18%

The tables below provide the information in common for the application form and the technical questionnaire for lettuce for the authorities that have provided information as part of the Electronic application form project:

## Application Form

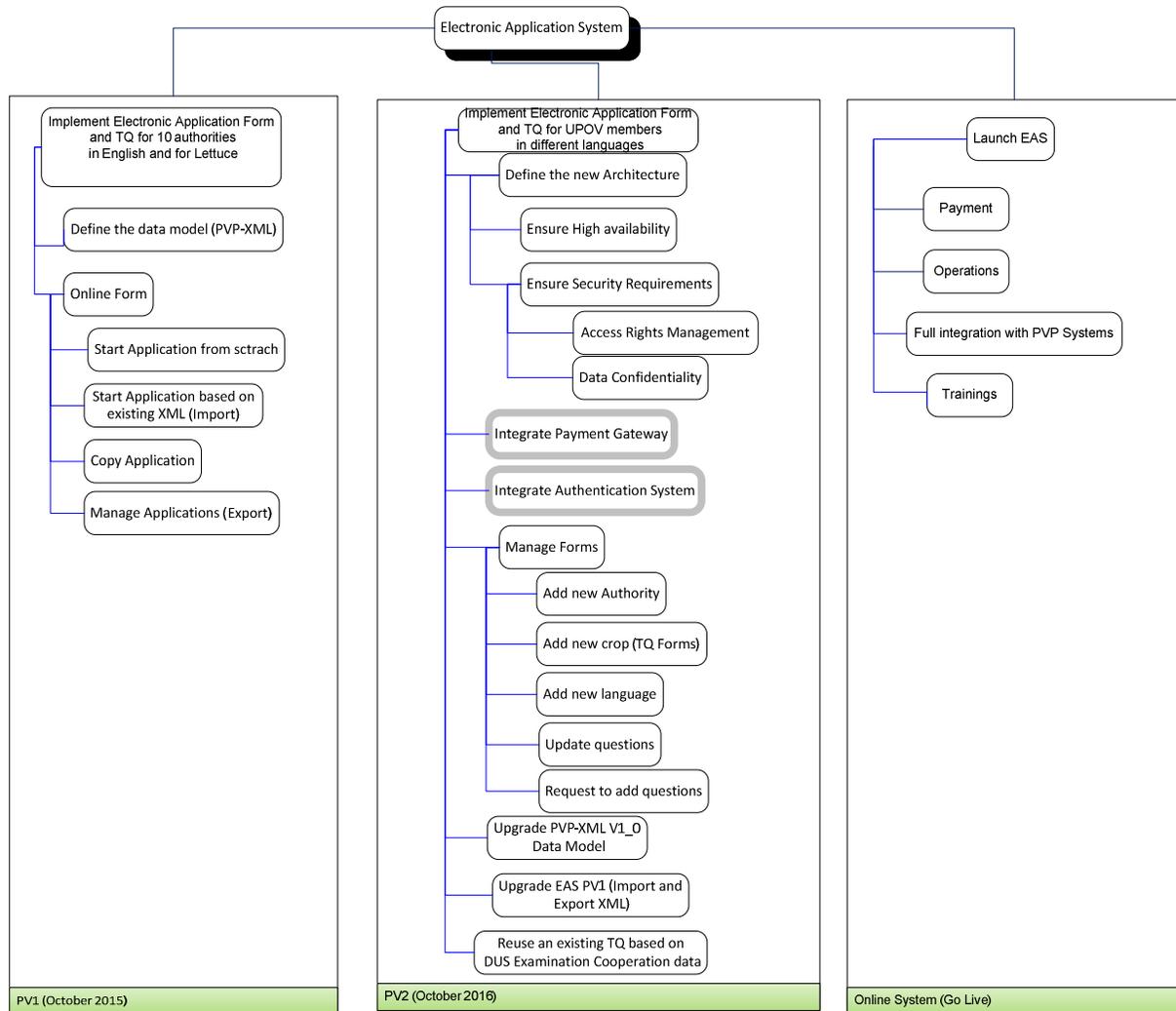
	AU	BR	CA	JP	KR	NL	NZ	QZ	US	VN
AU		40%	39%	39%	17%	44%	24%	29%	34%	33%
BR	55%		48%	52%	31%	47%	31%	35%	43%	36%
CA	50%	51%		33%	29%	44%	37%	30%	34%	37%
JP	42%	56%	24%		19%	39%	22%	29%	24%	26%
KR	46%	59%	51%	46%		51%	31%	38%	41%	44%
NL	50%	39%	34%	41%	22%		31%	29%	21%	28%
NZ	54%	50%	37%	46%	26%	61%		52%	35%	37%
QZ	23%	20%	16%	21%	11%	42%	18%		12%	13%
US	48%	44%	33%	32%	22%	26%	22%	22%		25%
VN	53%	42%	41%	39%	27%	39%	27%	27%	28%	

## Technical Questionnaire

	AU	BR	CA	JP	KR	NL	NZ	QZ	US	VN
AU		16%	8%	8%	3%	8%	12%	14%	5%	12%
BR	27%		16%	13%	9%	16%	18%	24%	11%	18%
CA	56%	78%		22%	22%	44%	11%	44%	33%	44%
JP	8%	67%	3%		6%	8%	18%	14%	3%	14%
KR	4%	9%	4%	9%		7%	7%	9%	9%	2%
NL	15%	18%	10%	15%	8%		35%	39%	5%	25%
NZ	25%	22%	11%	36%	8%	39%		42%	8%	75%
QZ	19%	20%	7%	19%	7%	53%	28%		6%	30%
US	2%	2%	1%	1%	2%	1%	1%	1%		1%
VN	24%	22%	11%	27%	3%	27%	73%	43%	8%	

NEXT STEPS

18. Subject to a successful outcome of the testing of the prototype electronic application form Version 1 (PV1), which would be assessed at the EAF/6 meeting to be held on October 26, 2015, it is proposed that the next steps would be as follows:



Prototype 1

19. The aim of the Prototype 1 (P1) is to demonstrate the feasibility of the project and to obtain the business validation on the data transfer from the breeders to the participating PVP Offices, in terms of data completeness and in conformity with the agreed data model.

20. P1 is composed of the online form, and the data transfer facility through web services according to an agreed format (i.e. PVP-XML schema). P1 should allow:

- (a) users\* to select the language in which the items in the Application Form for PBR would be presented (Input Template language) (restricted to English for the P1);

\* The term "user" is used instead of "applicant" or "breeder", in order to avoid any implication that the use of the Linear Blank Form for PBR Applications might indicate that an application is being filed for a plant breeder's right.

- (b) users to select the crop for which they want to make an application (restricted to lettuce (*Lactuca sativa* L.) for the P1);
- (c) users to select the authority in which they want to make an application (one PVP Office at a time, but with the possibility to reuse data already submitted). The selection is restricted to the participating members who have submitted their forms and data;
- (d) users to complete a blank form or a prefilled form based on existing PBR application data uploaded using an agreed format (PVP-XML);
- (e) users to choose to store the input data in an associated database (hosted by UPOV), in order, for example, to allow its reuse in other applications;
- (f) users to send/submit the input data to the selected PVP Office.

21. The participating members in the EAS will be invited at the EAF/6 meeting to be held on October 26, 2015, to consider if P1 fulfills the original aim of the project. The P1 and the conclusions from the participating members in the EAS will be presented to the CAJ and Consultative Committee at their sessions in October 2015.

### Prototype 2

22. The aim of the Prototype 2 (P2) would be to demonstrate the scalability of the system, i.e. addition of new crops, new languages and new PVP Offices, and also to demonstrate the feasibility of its implementation at the authority level.

23. Subject to agreement, the following items would be considered as a next phase of the project (P2):
- (a) Payment modalities and user authentication;
  - (b) Different languages;
  - (c) Addition of other crops (e.g. potato, rose, apple);
  - (d) Possibility for participating UPOV members to introduce or modify their questions in the form using an online interface;
  - (e) Legal aspects and disclaimer;
  - (f) Compliance with Web Content Accessibility Guidelines (WCAG);
  - (g) Security requirements such as:
    - (i) Data confidentiality;
    - (ii) Access rights management;
  - (h) High availability (HA) of the system;
  - (i) Communication with existing and external systems such as:
    - (i) GENIE Database;
    - (ii) WIPO Users Account;
    - (iii) Existing systems in PVP Offices;
  - (j) Architecture of the system.

24. It is proposed that the participating members in the EAS be invited to test the system in stages, through different interim releases, in order to obtain regular feedback. Comments would be taken into consideration for the development of following releases in order to have a full, functioning prototype (P2) by August 2016 for a final test campaign in September 2016, before presentation at the sessions of the CAJ and the Consultative Committee in October 2016, as appropriate.

Live Online system

25. Subject to agreement and the validation of Prototypes 1 and 2, the following items would be considered as a next phase of the project for the launch of an online system:

- (a) Agreement on fees;
- (b) Operations such as:
  - (i) users support;
  - (ii) routine maintenance provisions;
- (c) Integration with PVP systems;
- (d) Support for users (e.g. trainings).

26. It is proposed that the CAJ and the Consultative Committee at their sessions in October 2016 will receive a presentation of the project brief and the proposed detailed timetable for the development of a functioning online system.

27. *The CAJ is invited to:*

*(a) note the developments concerning the development of a prototype electronic form as set out in this document;*

*(b) note that a report of the sixth meeting on the development of a prototype electronic form, to be held in Geneva on October 26, 2015, will be made to the CAJ at its seventy-second session; and*

*(c) consider the proposal for the next steps of the EAS as set out in this document, paragraphs 18 to 25.*

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