ST.26 Software Development Project
CWS/5

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Head, Standards Section
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Project Objectives

- Develop a new common software tool to enable applicants to prepare sequence listings and verify that such sequence listings are in compliance with WIPO Standard ST.26, for Offices to facilitate processing of the application containing these sequence listings.
- Support smooth transition from ST.25 to ST.26 for national and international patent applications.
- Put the new common software tool in production by the end of 2018.
Project Scope

- Development of ST.26 software, including:
  - business analysis
  - architecture
  - proof of concept
  - coding software application
  - acceptance test

- This project excludes:
  - training applicants and IPOs’ staff
  - integration of the software into IPOs’ IT system
Expected Benefits

- Enable applicants to prepare sequence listings and verify that such sequence listings are in compliance with the new Standard ST.26
- Facilitate processing of the application containing sequence listings by IPOs
- Increase quality at source by using a common software tool by applicants and IPOs
- Raise cost efficiency in the whole data flow of sequence listings, which benefits all IP and biotech communities
The project will be conducted with four phases:

- **Phase 1:** Business analysis
- **Phase 2:** Architecture and Proof of concept
- **Phase 3:** Development of application
- **Phase 4:** Delivery of acceptance and production environments
Functional Requirements

- Editing or importing sequences in ST.26 format
- Validation of sequences
- Transformation of ST.25 sequences to ST.26
- Displaying sequences in xml for human viewing
- Importing sequence data in industry format, e.g. EMBL and FASTA
- Multi language support
# Architecture Options

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Online</th>
<th>Offline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployment, updates and compatibility</td>
<td></td>
<td>Some kind simpler in the online solution but feasible for the offline option</td>
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<tr>
<td>Unpublished Data Security</td>
<td></td>
<td>Though security can be achieved for the online solution, perception for the user and the assumed risk for WIPO is higher</td>
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<tr>
<td>Large data files transfer</td>
<td></td>
<td>The solution on the offline option is simpler to implement</td>
</tr>
<tr>
<td>Performance</td>
<td></td>
<td>Performance for a desktop application tend to be easier to acquire</td>
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<tr>
<td>User experience</td>
<td></td>
<td>Both options can deliver a similar user experience</td>
</tr>
<tr>
<td>Availability</td>
<td></td>
<td>For the offline solution no HA architecture is required</td>
</tr>
<tr>
<td>Multisite deployment</td>
<td></td>
<td>No special requirements for the offline option</td>
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### Transition Roadmap (draft)

<table>
<thead>
<tr>
<th>Task</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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<tbody>
<tr>
<td>ST.26 Software Development</td>
<td></td>
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<tr>
<td>Revision of PCT Admin. Instructions</td>
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<tr>
<td>Modification of national regulations</td>
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<tr>
<td>Upgrade of IPOs’ IT systems</td>
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<tr>
<td>Training of applicants and IPOs’ staff</td>
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<td>Maintenance of the ST.26 software</td>
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<tr>
<td>Users support</td>
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<tr>
<td>Transition from ST.25 to ST.26</td>
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</tbody>
</table>
Challenges

- Collaboration with IPOs (regulations, training, IT systems integration, etc)
- Communication with applicants and other stakeholders
- Continuous maintenance to be aligned with industry standard (INSDC updates twice per year) and new technologies
- Users support
Key for success

- Working as ONE
Questions and Discussions

Thank you for your attention!