



Records of WIPO Meetings: Applying Digital Technologies to Improve Quality of Service and Reduce Costs

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Briefing for Ambassadors
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Objective

To provide Member States with an integrated, authentic, searchable, multilingual audiovisual and text record of meetings, which

- delivers promptly available, enriched digital records of meetings to replace the existing system of verbatim reports;
- generates major cost savings;
- supports the six UN-language policy for meeting records;
- adds value to, and increases the user-friendliness of, audiovisual recordings.



WIPO Meeting Records

Current offerings	Languages, availability, features
1. Video-on-demand	<ul style="list-style-type: none">▪ in original spoken language (floor) + English interpretation;▪ available online next day;▪ 3-hour long video segments with <u>no</u> additional functionality (e.g. no search, navigation, etc)
2. Chair's Summary of Decisions	<ul style="list-style-type: none">▪ in all UN languages;▪ available on final day of the meeting;
3. Verbatim Report	<ul style="list-style-type: none">▪ in all UN languages;▪ published online several months after the meeting;▪ labour-intensive, human-edited transcripts plus human translation.

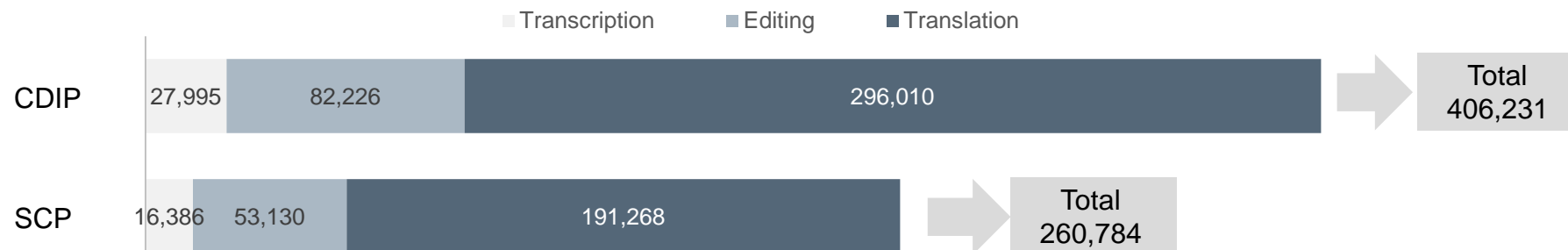
Verbatim Reporting: Cost Analysis

Key Findings

Existing verbatim reports represent a **total cost of 2.6 million Swiss francs per biennium**:

- 160,718 Swiss francs for meeting transcription (captioning);
- 534,151 Swiss francs* for Verbatim Report editing, representing 650 days, or 2.95 years of work for a WIPO Staff
- 1.9 million Swiss francs** for translation, representing 14% of the total biennial non-personnel translation budget in 2018/19

Illustration of cost breakdown for **CDIP and SCP Committees**:



Cost is Biennium based and in Swiss francs

Both CDIP and SCP Meetings are held twice a year, hence 4 meetings total per biennium

* Calculated based on standard costs per grade in 2019

** Calculated based on average cost per word in 2018

All costs are quoted in Swiss Francs

WIPO Verbatim Reports - Cost overview

<u>Meetings</u>		Cost Analysis (based on average time spent on editing and costs) per <u>Biennium</u>				
	Average Report Length (number of pages)	Transcription Cost	Editing Time Spent (Working Days)	Editing Cost	Translation Cost	Total Cost
<u>[1] Main Bodies</u>						
WIPO Assemblies	260	14,534	133	109,423	393,921	517,878
Coordination Committee	19	- ¹	9	7,801	28,083	35,882
<i>Sub-total [1]</i>		14,534	143	117,224	422,004	553,760
<u>[2] Committees (including both permanent and standing committees)</u>						
PBC	75	13,922	57	47,122	169,637	230,680
CDIP	98	27,995	100	82,226	296,010	406,231
SCT	35	11,724	35	29,095	104,742	145,561
SCP	63	16,386	65	53,130	191,268	260,784
SCCR	72	20,913	73	60,299	217,074	298,286
IGC	58	28,217	89	72,738	261,855	362,810
<i>Sub-total [2]</i>		119,157	420	344,610	1,240,586	1,704,352
<u>[3] Working Groups</u>						
PCT	70	8,981	36	29,517	106,260	144,758
Madrid	72	10,228	37	30,360	109,296	149,884
The Hague	15	4,199	7	6,114	22,011	32,324
Lisbon	15	3,620	8	6,325	22,770	32,715
<i>Sub-total [3]</i>		27,027	88	72,316	260,337	359,681
Total		160,718	650	534,151	1,922,927	2,617,793

¹Cost of transcription is included under WIPO Assemblies

Note: Figures in tables may not add up due to rounding.

New Proposal for Meeting Records

Current	Proposed	Languages, availability, features
<p>1. Video-on-demand</p> <ul style="list-style-type: none"> available next day online; in original spoken language (floor) + English interpretation; 3-hour long video segments with no additional functionality (e.g. no search, navigation) 	<p>1. Enriched video-on-demand</p>	<ul style="list-style-type: none"> available same day online; in original spoken language (floor) + English interpretation (i.e. no change); digitally indexed to enable easy navigation by agenda item or speaker; share the link to a specific clip by email or social media; direct access to the document(s) under discussion;
<p>2. Chair's Summary of Decisions</p> <ul style="list-style-type: none"> available on final day of the meeting; in all UN languages; 	<p>2. Chair's summary of decisions</p>	<ul style="list-style-type: none"> available on final day of the meeting (no change); in all UN languages (no change);
<p>3. Verbatim Report</p> <ul style="list-style-type: none"> published online several months after the meeting; in all UN languages; labour-intensive, human-edited transcripts plus human translation. 	<p>3. Complete Speech-to-Text transcript (replacing Verbatim)</p>	<ul style="list-style-type: none"> complete, editable text transcript, which can be checked against synchronized video display; available same day online; in English; <ul style="list-style-type: none"> Plus automated translation into French and Spanish using WIPO Translate embedded in S2T site. (Possible future extension to other UN languages subject to the availability of training data). fully searchable text and video; AI-based, fully automated.

Proposed Trial Phase One

Trial with two WIPO Committees, starting in October 2019:

- CDIP and SCP - Selected for the average length of their verbatim reports
 - CDIP: 98 pages
 - SCP : 63 pages

- Total estimated savings in 2020/21 = **CHF 667,015**
 - CDIP: CHF 406,231 plus
 - SCP: CHF 260,784

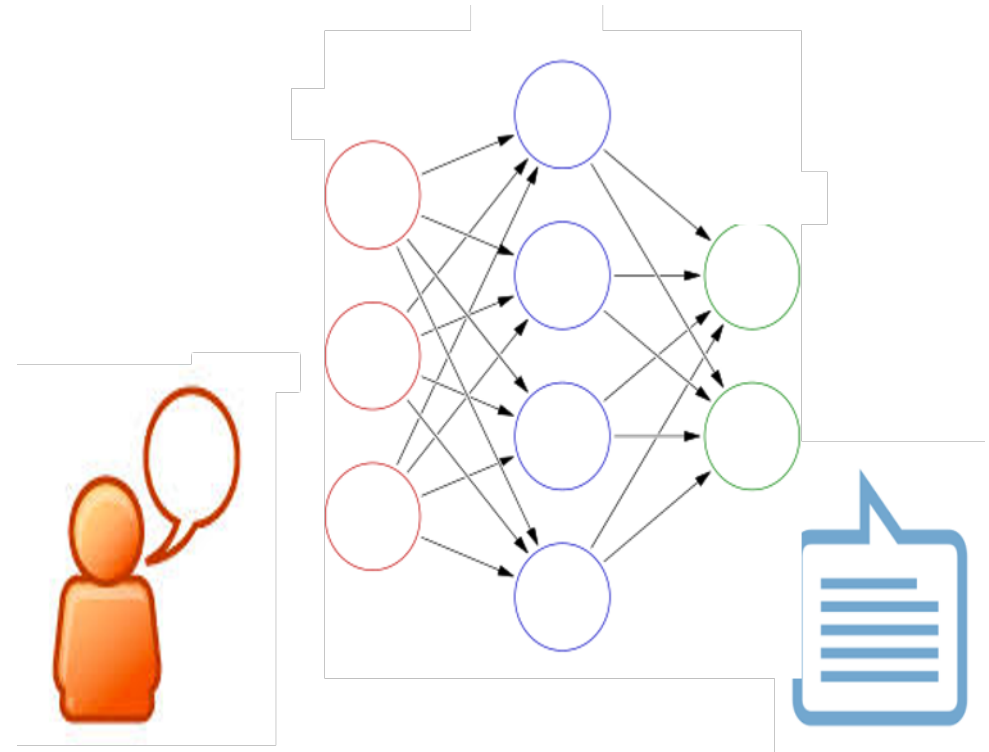
Proposed Trial Phase Two

The system would be extended to all WIPO meetings from October 2020 excluding the WIPO Assemblies and extraordinary sessions of Treaty organizations.

- Total additional savings estimated in 2021 = approx. **CHF 736,956**.
- Potential for widespread adoption of WIPO's AI Speech-to-Text application by other international organizations, with consequent cost reductions across the UN system.
- Such arrangements also help enlarge the pool of data from which the AI learns, so continuously improving accuracy and quality of the outputs.

S2T: Future Work

- Possible development of Speech-to-Text for **other languages**;
 - Risk: insufficient availability of training data; insufficient testing of learning to ensure quality.
- Further development of **WIPO Translate** (similar risk);
- Improve **accuracy**: enlarge the training data, explore new models, improve the interface(s);
- **Domain adaptation**: tailor a WIPO model that makes full use of other Organizations' data.



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Demonstration of the New Applications

1. Digitally indexed video & webcasting

- to navigate/search by agenda items and speakers;
- directly access documents;
- share clips by email or social media.



2. AI-based Speech to Text

- synchronized video and transcript;
- for fully searchable video recording of the meeting;
- with a complete searchable, editable text transcript.

The screenshot shows the WIPO webcasting interface. At the top, there is a navigation bar with 'HOME' and 'PBC/28: DAY 3 (PM - PART 1)'. Below this is a video player showing a meeting in progress. To the right of the video player is a 'TIMELINE' section with a search bar and a list of agenda items. The first item is 'CHAIR...' at 00:00:20. The second item is '8. Progress Report on the Implementation of the Joint Inspection Unit (JIU) Recommendations - WO/PBC/28/6' at 00:01:13. The third item is '16. Methodology for Allocation of Income and Expenditure by Union - WO/PBC/25/16 WO/PBC/28/13' at 00:02:22. The video player has a progress bar at the bottom showing 00:20 out of 04:10. There are also 'Share', 'Download', and 'Meta/Audio language' options at the bottom.

The screenshot shows the WIPO S2T (speech to text) interface. At the top, there is a navigation bar with 'WIPO S2T (speech to text)' and 'Data' and 'S2T'. Below this is a video player showing a meeting in progress. Below the video player is a text area containing a transcript. The transcript is synchronized with the video and includes the following text: 'Well, it very very good meeting everyone welcome back the Program and Budget Committee. I have a pleasant evening.' Below this is a larger text area containing the following text: 'I am ready for another busy day. We will start today with the one remaining outstanding substantive item on our agenda. Agenda item 6, which is the draft proposed program and budget for the 2020, 2021 Biennium and the relevant document is WO/PBC/29/3. The draft program and budget for the next biennium is submitted to the present session of the PBC 4, and I quote, discussion, comments and recommendations, including possible amendments, close quote, in accordance with the financial regulation 2.6 of WIPO's financial regulations'.