

Working Group on the Legal Development of the Hague System for the International Registration of Industrial Designs

Fifteenth Session
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POSSIBLE OPTIONS FOR REDUCING TRANSLATION COSTS WHILE MAINTAINING QUALITY

Document prepared by the International Bureau

BACKGROUND

1. At its fourteenth session, held from October 6 to 8, 2025, the Working Group on the Legal Development of the Hague System for the International Registration of Industrial Designs (hereinafter referred to as the “Working Group”) discussed the possible introduction of new languages¹.
2. The Working Group requested that the International Bureau prepare, for its following session, documents providing:
 - (i) possible options for reducing the cost in translation while maintaining quality as well as optimizing the translation practice, including for the possible introduction of new languages, and updating the study in document [H/LD/WG/11/4](#), taking into account newly available and applicable AI machine translation tools and technologies; and
 - (ii) an updated financial analysis of the possible introduction of new languages, including, but not limited to, the reduction of costs under the circumstances of differentiated translation practice, and an assessment on outsourced translation costs based on different options and practices².

¹ See document [H/LD/WG/14/1 Prov.2](#) (Draft Agenda).

² See document [H/LD/WG/14/10 Rev.](#) (Summary by the Chair).

3. The International Bureau has prepared two documents to fulfil the Working Group's requests³. This document contains possible options for reducing translation costs while maintaining quality. It also provides an update of the study on the availability and usability of translation technologies contained in document H/LD/WG/11/4, taking into account developments in translation practices and translation technology that have become available since that study was prepared in 2022.

4. This document is structured as follows:

- Current translation practice in the Hague System
- Option I: Enhancement of tools and technologies
- Option II: Differentiated translation practice
- Option III: Outsourcing of translations
- Option IV: Indirect translation practice
- Implications for the possible introduction of new languages
- Summary
- Possible way forward

CURRENT TRANSLATION PRACTICE IN THE HAGUE SYSTEM

5. International registrations under the Hague System are effected in English, French and Spanish, for which the International Bureau provides the necessary translations⁴. The translation of international applications is performed in-house by the Translation and Terminology (T&T) Section of the Madrid Registry, using a direct translation practice, whereby text is translated from the source language in parallel into the other two languages⁵.

6. As outlined in document H/LD/WG/11/4, the T&T Section uses WorldServer – a computer-assisted translation management system – to manage the translation workflow. The process relies on translation memories, which are repositories of previously translated text segments, and WIPO Translate – the WIPO in-house neural machine translation (NMT) tool – to generate translations⁶.

7. In this process, the text to be translated is first matched against the entries in the applicable translation memory. If no match is found, an in-house translator post-edits the machine translation proposals generated by WIPO Translate⁷. A percentage of post-edited translations is further subject to quality control by an in-house reviser (Figure 1).

³ Document [H/LD/WG/15/7](#) provides an updated financial analysis of the possible introduction of new languages.

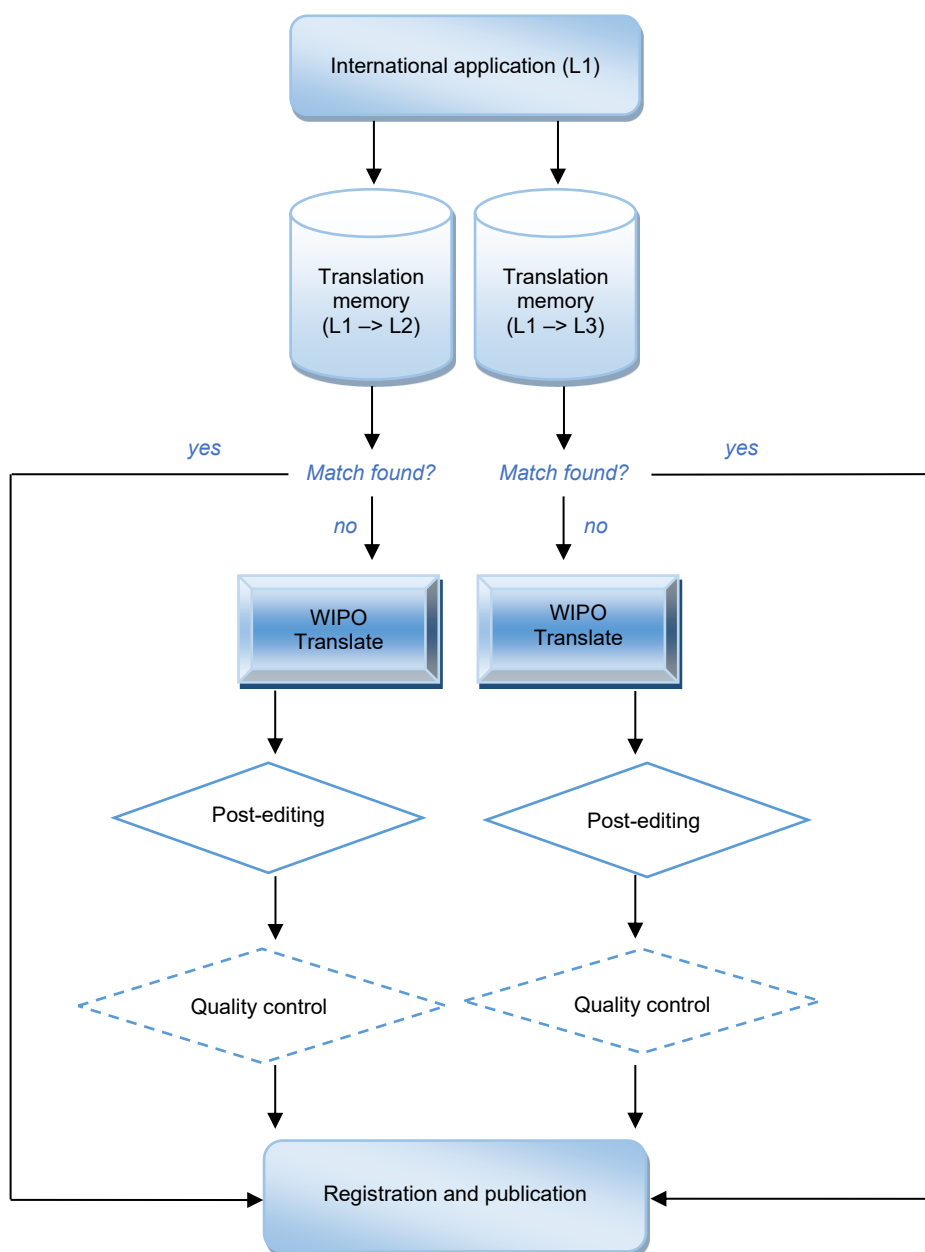
⁴ See Rule 6(2) of the Regulations Under the Geneva Act (1999) of the Hague Agreement Concerning the International Registration of Industrial Designs ("Regulations").

⁵ See document H/LD/WG/11/4, paragraph 12.

⁶ See document H/LD/WG/11/4, paragraphs 4 to 7.

⁷ These post-edited translations are then used to enrich the translation memories. For more details, see document H/LD/WG/11/4, paragraphs 3 and 11 to 13.

Figure 1. Current Translation Practice⁸



8. The T&T Section relies on six translation memories for the three working languages of the Hague System. They are kept separate for each domain⁹ and language combination and currently contain approximately 435,900 entries. The volume of entries in a given translation memory varies depending on the amount of previously translated text.

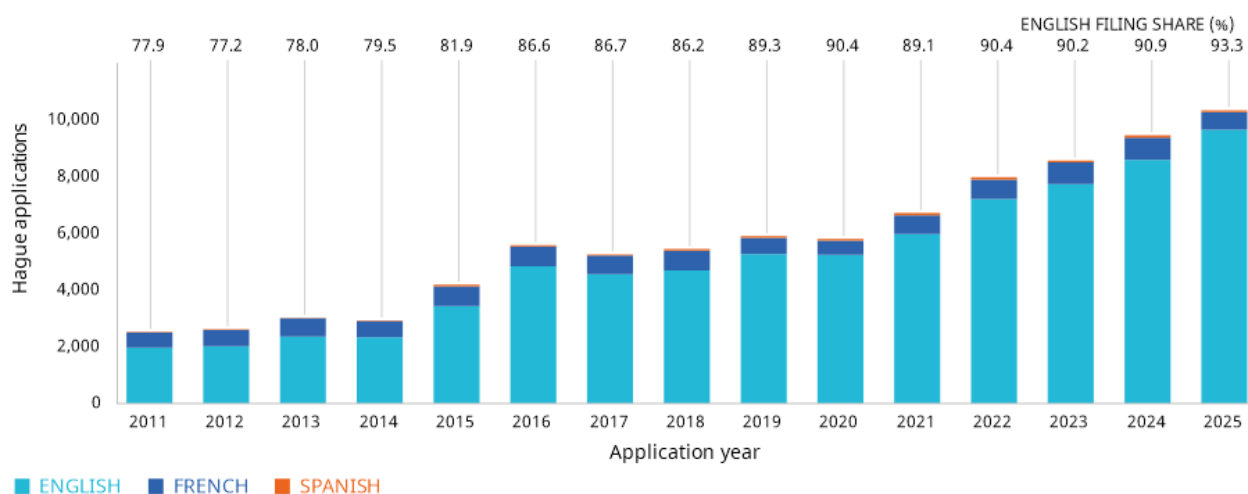
9. Since 2016, the share of international applications filed in English has steadily increased to more than 93 per cent in 2025, with the share in French and Spanish dropping to 6 per cent and less than 1 per cent, respectively (Figure 2)¹⁰.

⁸ L1, L2 and L3 refer to the current three languages.

⁹ The domains for which translation memories are maintained at WIPO are the Hague System, the Madrid System, the PCT System and the Language Division.

¹⁰ [Hague Yearly Review 2026](#).

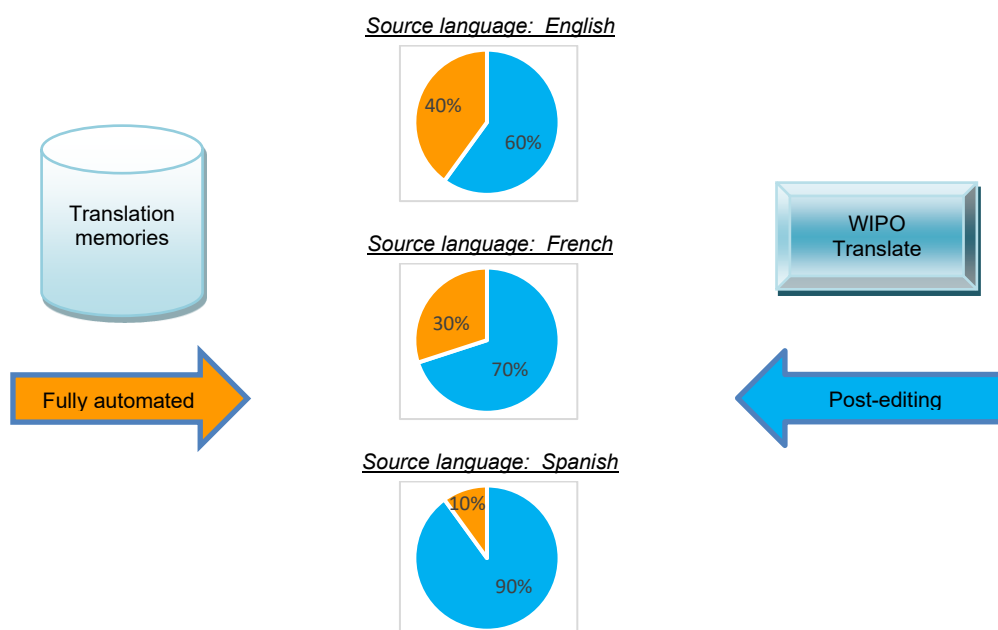
Figure 2. Distribution of International Applications by Language of Filing, 2011–2025



10. As a result, the translation memories where English is the source language contain significantly more entries than those where French is the source language, while those where Spanish is the source language have very few entries¹¹.

11. The International Bureau estimates that, on average in 2025, a match was found in the translation memories for around 40 per cent of text segments in translations where English was the source language, while the remaining 60 per cent required post-editing of the translation proposals generated by WIPO Translate. In comparison, match rates were lower for translations where French and Spanish were the source languages: around 30 per cent and 10 per cent, respectively. Thus, in 2025, between 10 and 40 per cent of translations, depending on the source language, were fully automated, while the remaining 60 to 90 per cent required post-editing (Figure 3).

Figure 3. Translation Memory Matches and Post-Editing



¹¹ The English to Spanish translation memory, which is the largest dataset, contained 200,176 entries in April 2025. The Spanish to French translation memory, the smallest dataset, contained 2,396 entries.

12. Text covered by the translation memories incurs no translation costs, as it is processed automatically without human intervention. Translation costs arise solely in respect of text that requires post-editing by an in-house translator of the machine translation output generated by WIPO Translate, together with the subsequent quality control of a portion of those post-edited translations by an in-house reviser. Overall translation costs could thus be reduced by increasing the proportion of fully automated translations, thereby reducing the volume of text subject to post-editing and quality control, and/or by decreasing the costs associated with post-editing and quality control. Options are outlined below.

OPTION I: ENHANCEMENT OF TOOLS AND TECHNOLOGIES

TRANSLATION TECHNOLOGIES USED AT WIPO

Newly Available WIPO Tools and Technologies Leveraging AI

Large language models

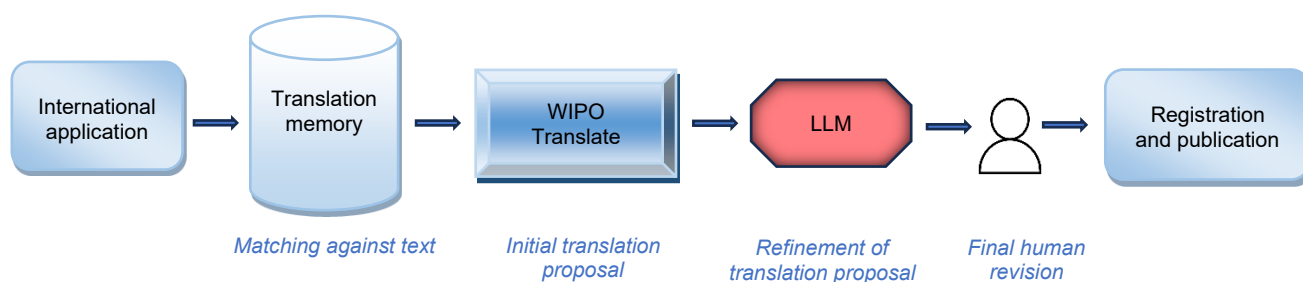
13. In 2025, the PCT Translation Division started to use large language models (LLMs) to perform translation and automatic post-editing for some translations in certain language combinations and for specific categories of documents. LLMs can be used to automatically make post-editing suggestions for documents that have already been translated by other methods such as machine translation. If the LLM works effectively, this can improve accuracy and reduce the extent of manual intervention required. LLMs are advanced AI systems trained on vast amounts of multilingual text data, capable of understanding and generating human-like text across multiple languages. Through the use of technology such as retrieval augmented generation and other ways of appending context, LLMs should be able to capture context, idiomatic expressions and domain-specific nuances, resulting in higher-quality translation output. These tools will eventually be integrated into WorldServer workflows.

14. The tools are in the early stages of deployment in the PCT. The International Bureau is assessing their potential application to the Hague translation process. One option could be to deploy LLMs to refine raw machine translation output generated by WIPO Translate prior to human review. That could reduce the volume and complexity of corrections required from in-house translators and revisers, and thereby decrease the time and resources devoted to post-editing while maintaining translation quality.

15. A second option would be to use LLMs to generate translations as an alternative or complement to WIPO Translate output. Due to their ability to process broader contextual information and handle domain-specific language more effectively than traditional NMT tools, LLMs could produce higher-quality initial translations, thereby reducing the extent of post-editing required.

16. Under a third option, LLMs would be used as an automated quality control layer. An LLM could review the translation output and flag potential errors, inconsistencies or deviations from established Hague-specific terminology before the text is submitted to an in-house reviser. This would enable human revisers to prioritize segments that are most likely to require correction, thereby improving the efficiency and consistency of the translation process. By using these tools alongside WIPO Translate (Figure 4), the International Bureau could reduce manual post-editing, resulting in lower translation costs, without compromising quality.

Figure 4. Translation Process with LLMs



Development and implementation

17. The technical work required to introduce LLMs into the Hague translation workflow would be undertaken by the internal WIPO development team, drawing on the expertise and experience gained through their use in the PCT Translation Division. Given that those tools are being integrated into WorldServer in that Division, the work required for Hague translations would largely consist of configuring existing systems for Hague-specific terminology and workflows, rather than undertaking entirely new development.

Enhancement of WIPO Translate

18. As outlined in paragraph 6, above, the International Bureau relies on WIPO Translate for the machine translation of Hague text matter that is not covered by the translation memories. A version customized for the translation of Hague matter has been developed and is continuously trained using the corpus of the Hague translation memories¹².

19. Further enhancing WIPO Translate could help to reduce translation costs in the Hague System by improving the accuracy and quality of machine-generated translations. Higher quality output through continuous training on domain-specific content and terminology should require less human post-editing, reducing the time and resources devoted to the translation process.

20. The continued development of WIPO Translate could be supported by Intellectual Property (IP) Offices sharing their terminology and language resources – such as product indications, legends, claims and descriptions – in relevant language combinations. Those resources would enrich the training data and enhance the tool's accuracy and performance.

21. In parallel, the International Bureau is developing a solution to assess the accuracy of the machine translation output generated by WIPO Translate for Hague translations, based on the approach used in the Madrid System¹³. The solution will measure the percentage of words from the machine translation output that are amended during post-editing. This will provide an objective indicator of translation quality and help identify further opportunities for improvement.

¹² See document H/LD/WG/11/4, paragraphs 6 and 7.

¹³ A similar analysis was carried out by the International Bureau for the translation of text matter in the Madrid System (see documents [MM/LD/WG/23/10](#), paragraphs 19 to 22 and [MM/LD/WG/24/5](#), paragraphs 12 to 15).

EXTERNAL TOOLS AND TECHNOLOGIES

22. The possibility of using machine translation services from external providers, instead of WIPO Translate, has been considered¹⁴. Using external machine translation services would entail higher costs than relying on WIPO Translate or other in-house technologies. Moreover, given the confidential nature of international applications, the use of external providers would require a thorough assessment of confidentiality, security, and data protection measures.

OPTION II: DIFFERENTIATED TRANSLATION PRACTICE

23. Under the current practice, the International Bureau provides full translations of international applications in all three Hague System languages, irrespective of the Contracting Parties designated. As described in paragraph 7, above, this means that, for each of the two target languages, any text not covered by the translation memories is post-edited by an in-house translator on the basis of the machine translation proposals generated by WIPO Translate, with a percentage of those post-edited translations further subject to quality control by an in-house reviser. This post-editing and quality control is carried out for both target languages regardless of whether they serve as a communication language of any designated Contracting Party. For example, an international application filed in English is translated, post-edited and quality controlled into both French and Spanish, even if only Contracting Parties that receive communications in English are designated¹⁵.

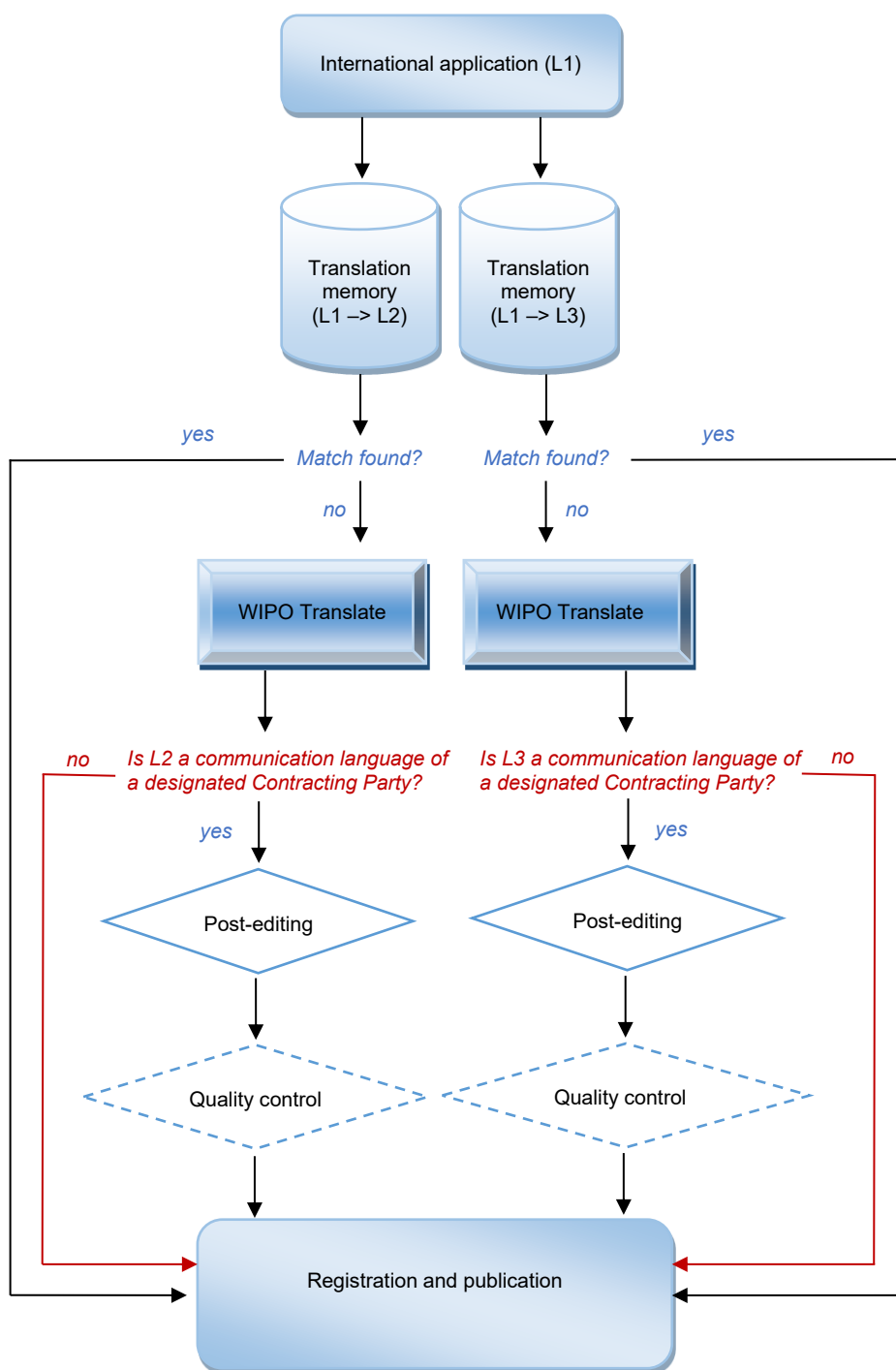
24. One possible option to reduce translation costs would be to introduce a differentiated translation practice, under which the International Bureau would provide translations using the existing translation memories and WIPO Translate, without undertaking post-editing and quality control of the machine translation output generated by WIPO Translate for languages that do not serve as communication language by the Office of any designated Contracting Party ("communication language") (Figure 5)¹⁶.

¹⁴ See document H/LD/WG/11/4, paragraph 29.

¹⁵ Pursuant to Rule 6(3)(ii) of the Regulations, the International Bureau communicates with the Offices of Contracting Parties either in the language notified by an Office as communication language, or in the language of the international application.

¹⁶ See document [H/LD/WG/14/7](#).

Figure 5. Workflow Under a Differentiated Translation Practice



25. The International Bureau carried out an analysis of the impact of the possible introduction of the differentiated translation practice on the translation workload, based on the number of filings and designations therein in 2025. For this analysis, the allocated language was based on either the language notified by an Office as a communication language under Rule 6(3)(ii) of the Regulations, or the language in which an Office sends communications to the International

Bureau, or the language of the international application if an Office sends communications to the International Bureau in the language of the international application¹⁷.

26. Based on an analysis, the International Bureau estimates that a differentiated translation practice could potentially have reduced the translation workload by up to 80 per cent that year, given that more than 93 per cent of all international applications were filed in English in 2025¹⁸ and English is the communication language of most Offices of designated Contracting Parties.

27. The Madrid System, which operates a trilingual language regime identical to that of the Hague System, started to deploy a differentiated translation practice several years ago.

28. Following a proposal by the Working Group on the Legal Development of the Madrid System for the International Registration of Marks (hereinafter referred to as the “Madrid Working Group”) at its thirteenth session, held from November 2 to 6, 2015, a differentiated translation practice was first introduced for statements of partial grant of protection following a notification of provisional refusal¹⁹. At its twenty-second session, held from October 7 to 11, 2024, the Madrid Working Group agreed to extend the differentiated translation practice to the translation of international registrations and recordings. That process was gradually introduced in 2025²⁰.

29. According to a report prepared for the twenty-fourth session of the Madrid Working Group, scheduled for October 5 to 9, 2026, post-editing costs decreased by approximately 29 per cent in 2025 compared with the previous year²¹. As the differentiated translation practice was introduced progressively throughout 2025, that figure does not reflect the full extent of potential savings, which are expected to be realized in 2026, the first full year of implementation for all transaction types²².

OPTION III: OUTSOURCING OF TRANSLATIONS

30. As outlined in paragraph 5, above, translation output generated by WIPO Translate is post-edited in-house by the T&T Section. To determine whether outsourcing this post-editing work could reduce translation costs while maintaining quality, the International Bureau conducted an assessment based on a Request for Information (RFI) process²³. The findings indicated that, for the current volume of text requiring translation, outsourcing would not fully achieve the objective of reducing costs while maintaining quality, for the reasons set out below.

31. First, the rates provided by the service providers cover only one component of the overall translation process, namely the post-editing of translation output. A significant portion of the

¹⁷ For example, the EUIPO sends its communications in the language of the international application, hence for the analysis of the differentiated translation practice, the language of the international application was considered as the communication language for the EU. Canada sends its communications in the language of the international application if the international application was filed in English or French, and in English if the international application was filed in Spanish, hence the analysis of the differentiated translation practice was based on this practice for Canada.

¹⁸ *Hague Yearly Review 2026*.

¹⁹ See document [MM/LD/WG/22/9](#), paragraph 11. The International Bureau translates those statements using the translation memories and WIPO Translate, without undertaking post-editing or quality control.

²⁰ See document [MM/LD/WG/22/15](#), paragraph 18(iii). Under that practice, the International Bureau continues to translate the text using the translation memories and WIPO Translate, but the machine translation output generated by WIPO Translate is only subject to post-editing and quality control if a designated Contracting Party opted to be notified in that language or a holder chose to receive notifications in that language. See also documents [MM/LD/WG/23/10](#), paragraphs 13 to 16, and [MM/LD/WG/24/5](#), paragraph 5. The new translation practice was introduced sequentially, a few transactions at a time. The process started with limitations and invalidations (March 2025), followed by subsequent designation (July 2025) and new applications and partial cancellations requested by holders or resulting from the ceasing of effect of the basic mark (August 2025).

²¹ See document [MM/LD/WG/24/5](#), paragraph 9.

²² See document [MM/LD/WG/24/5](#), paragraph 11.

²³ For details on the RFI process, see document [H/LD/WG/15/7](#), paragraphs 4 to 11.

work would still need to be performed in-house, including workflow management, coordination with providers, and quality control of the outsourced work. Consequently, any potential savings from outsourcing would be substantially reduced once the residual in-house workload is taken into account.

32. Second, outsourcing would likely increase processing times. The additional steps associated with transferring the work to external companies could delay the processing of international applications and adversely affect overall pendency. These delays could particularly affect international registrations for which the applicant requested immediate publication²⁴.

33. Third, this option could affect quality, as external providers would not have the same level of expertise and familiarity with Hague-specific terminology and requirements as in-house translators, who have built up significant experience over time. In-house translators also provide an important additional layer of quality assurance following examination of international applications, a function that external providers could not easily replicate. Outsourcing would therefore require ongoing monitoring of external providers and enhanced quality control measures.

34. Finally, outsourcing would require modifications to WorldServer to set up separate workflows and access rights for external providers, ensuring that the confidentiality and security of international applications are maintained throughout the process.

OPTION IV: INDIRECT TRANSLATION PRACTICE

35. As set out in paragraph 5, above, WIPO applies a direct translation practice to international registrations under the Hague System whereby text is translated from the source language in parallel into the two other languages²⁵. Under an indirect translation practice, text would first be translated from the source language into one target language serving as a relay language, and then from the relay language into the other target language²⁶. The International Bureau carried out an assessment to determine whether an indirect translation practice could reduce translation costs while maintaining quality. The results of the assessment suggested that this option would not fully meet the objective of reducing translation costs while maintaining the required level of quality, for the following reasons.

36. As a preliminary matter, it is important to highlight that the most suitable relay language is one that combines three qualities: it is the language in which most international applications are received (thereby minimizing the overall need for relay translation), it offers high-quality translation resources at reasonable cost, and it has high translation-memory match rates (so that less text requires post-editing). English meets all of these criteria²⁷.

37. On this basis, indirect translation would potentially be of benefit only for international applications filed in French or Spanish. Such applications would first be translated into English as the relay language, and then from English into the third working language (that is, French into English and then Spanish, or Spanish into English and then French). This would allow the International Bureau to leverage the higher match-rates of the English-source translation memories, reducing the proportion of text requiring post-editing. An indirect translation practice is illustrated in Figure 6.

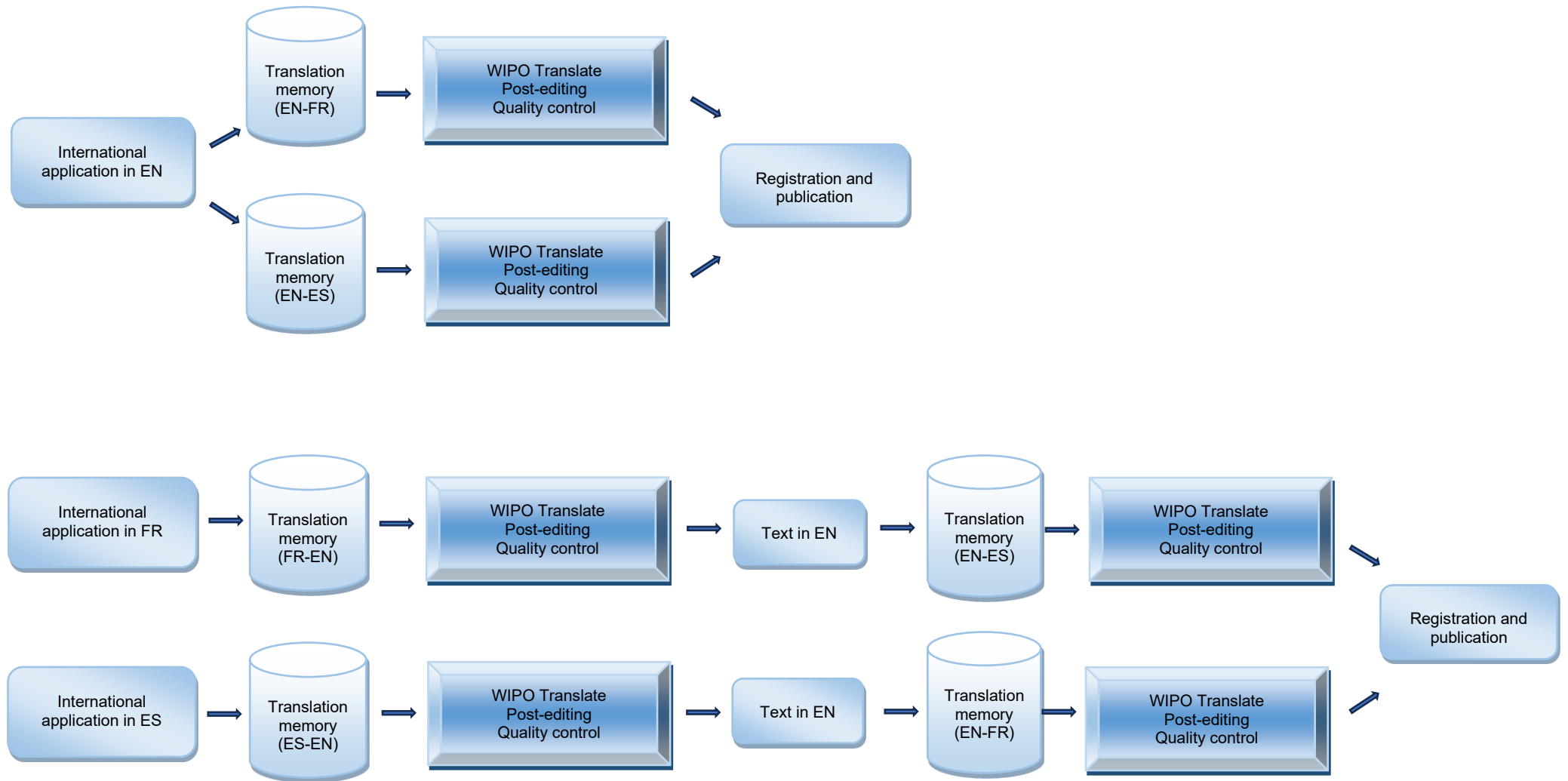
²⁴ According to the *Hague Yearly Review 2026*, immediate publication of international registrations was requested by almost 61 per cent of the applicants in 2025.

²⁵ See paragraph 5, above.

²⁶ See document [H/LD/WG/8/5](#), paragraph 25.

²⁷ As noted in paragraph 10, above, translation memory match rates are highest for translations from English (around 40 per cent), compared with French (around 30 per cent) and Spanish (around 10 per cent). See also paragraph 7, above, regarding the translation practice.

Figure 6. Workflow Under an Indirect Translation Practice



38. Under these circumstances, the scale of the benefit of indirect translation would be very modest because only a small number of applications are filed in French or Spanish.

39. From the point of view of the impact on quality, indirect translation would add a translation step from the source to the relay language, potentially increasing processing times. This could have an impact on international registrations for which the applicant requested immediate publication²⁸. Furthermore, errors introduced at the relay language stage could affect the quality of the subsequent translation into the third language, a risk that does not arise under the current direct translation practice, where each target language is processed independently²⁹.

40. Finally, the introduction of an indirect translation practice would require technical changes to WorldServer, including amendments to the data extraction process and the creation of separate workflows for specific language combinations.

IMPLICATIONS FOR THE POSSIBLE INTRODUCTION OF NEW LANGUAGES

41. As set out in paragraph 2, above, the Working Group also requested that the International Bureau examine options for reducing translation costs in the context of the possible introduction of new languages. This section therefore considers how those options would apply in that context. The detailed updated financial analysis is addressed in document H/LD/WG/15/7.

42. As outlined in document H/LD/WG/11/4, the International Bureau does not have translation memories for language combinations beyond the current three working languages, and WIPO Translate has not been trained for Hague-specific terminology in any additional language. Translation memories would therefore contain no entries at the outset for any new language, and the full volume of text would require machine translation and post-editing until a sufficient corpus had accumulated, resulting in higher initial translation costs.

43. Option I: The enhancement of WIPO Translate and the deployment of LLMs would be of particular importance for new languages, where the absence of established translation memories makes high-quality machine translation output essential. LLMs, having been trained on broad multilingual datasets, could partially compensate for the initial absence of translation memories, while the sharing of terminology and language resources by relevant IP Offices should support the training of WIPO Translate for new language combinations.

44. Option II: As outlined in document H/LD/WG/15/7, a differentiated translation practice would be especially relevant for new languages and constitute an important mechanism for containing the associated costs³⁰.

45. Option III: Outsourcing would be necessary for any new language, as the T&T Section does not have in-house translation capacity to perform Hague-specific translations in new languages³¹.

46. Option IV: An indirect translation practice with English as the relay language would be the most practical solution for new languages³².

²⁸ See paragraph 32, above.

²⁹ See also document [MM/LD/WG/17/7 Rev.](#), paragraphs 35 to 42.

³⁰ See document H/LD/WG/15/7, paragraphs 41 to 45.

³¹ See document [H/LD/WG/14/8](#), paragraph 23.

³² For further information on the introduction of an indirect translation practice with English as the relay language, see document H/LD/WG/8/5, paragraphs 24 to 29.

SUMMARY

47. In this document, several options are examined for reducing translation costs in the Hague System while maintaining quality.

48. The measures outlined under Option I (enhancement of tools and technologies) would collectively contribute to a progressive reduction in translation costs. Continuously training WIPO Translate on domain-specific content and integrating LLMs into existing workflows could reduce manual post-editing. Moreover, the International Bureau is currently developing a solution to assess the accuracy of the machine translation output generated by WIPO Translate, following the approach used in the Madrid System.

49. Option II (differentiated translation practice) could substantially reduce the translation workload, based on 2025 data. The experience of the Madrid System confirms its feasibility.

50. Under Option III (outsourcing), the rates quoted by service providers cover only part of the translation process, while a share of the work would remain with the T&T Section. This option would have processing implications and could affect quality.

51. Option IV (indirect translation practice) could marginally reduce the proportion of text requiring post-editing. This marginal gain would not justify the associated technical development work to modify WorldServer, potential increases in processing times, and the risk of reduced translation quality.

POSSIBLE WAY FORWARD

52. In light of the options examined in this document, the Working Group may wish to:

- request that the International Bureau develop a proposal to deploy LLMs in the Hague translation workflow, drawing on the experience gained through their implementation in the PCT Translation Division; and
- request that the International Bureau develop a proposal for the introduction of a differentiated translation practice, taking into account the experience of the Madrid System.

53. *The Working Group is invited to:*

(i) consider the contents of this document; and

(ii) provide further instructions to the International Bureau, including whether it wishes the International Bureau to develop any of the proposals outlined in paragraph 52, for consideration at its next session.

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