

# *Utilization of AI in JPO*

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February 2021

**Japan Patent Office**



# Purpose for making use of AI technology

## Change of JPO's work

Advancement of technologies  
Expanding search target  
Increase in trademark applications  
Retirement of experienced officials

## Progress of AI technology

Machine Learning  
Natural Language Processing  
Deep Learning

*Making use of AI technology*

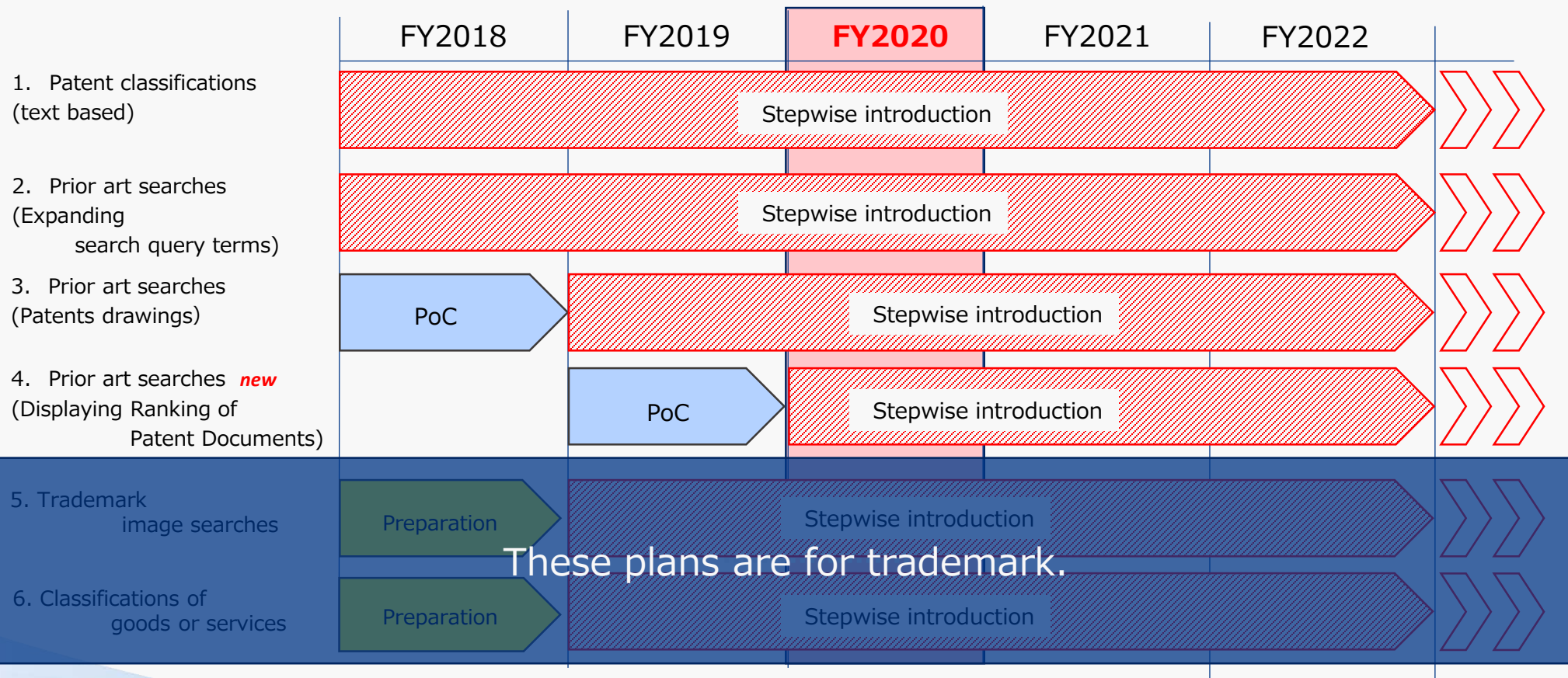
***Goal!***

**Sophisticated and efficient operations**

**➔ Improve user services**

# Action plan

- JPO has made activities for making use of AI technology based on **Action plan** since FY2017.
- Action plan was revised in FY2020 based on the result of activities in FY2019.



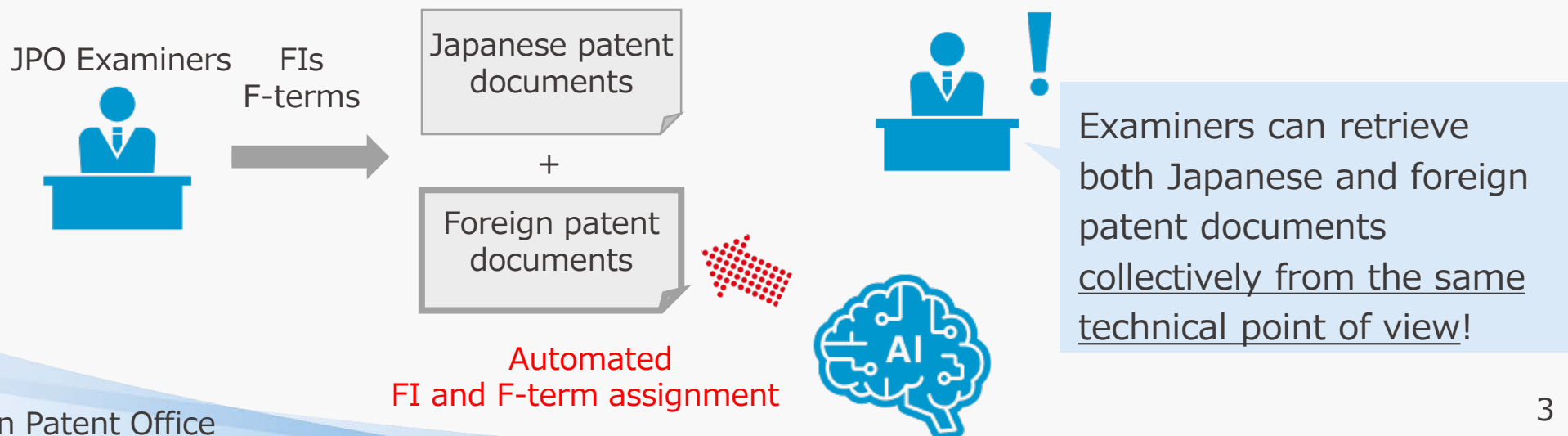
(\*) The above actions are based on rough estimates and progress may vary depending on the development of demonstrations, advancement of the relevant technologies and other circumstances.

# Patent classifications

## Main Points

**Issue:** JPO examiners couldn't use FIs and F-terms (JPO-specific search indexes) to retrieve foreign patent documents though they are useful to retrieve relevant documents to Japanese applications.

**Solution:** Assigning FIs and F-terms to foreign patent documents automatically, JPO examiners can conduct collective search on Japanese and foreign documents with the indexes.

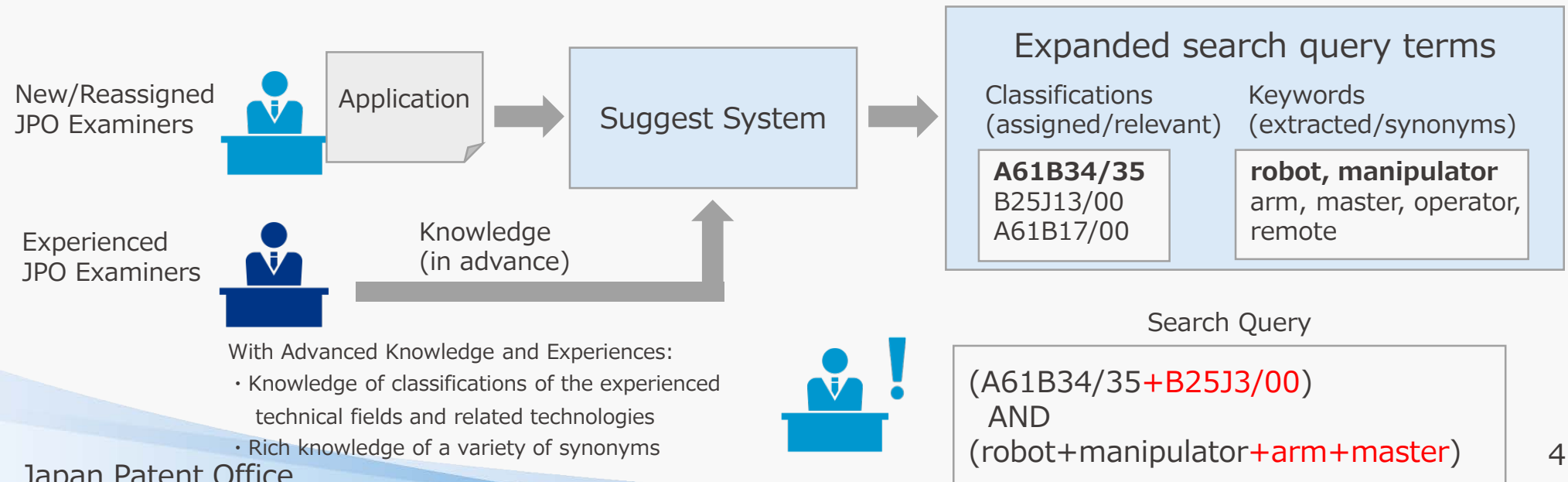


# Expanding search query terms

## Main Points

**Issue:** It's difficult for new/reassigned examiners to select effective search query terms.

**Solution:** Possible classifications, keywords and synonyms based on the accumulated knowledge and experiences of experienced examiners help new/reassigned examiners a lot.

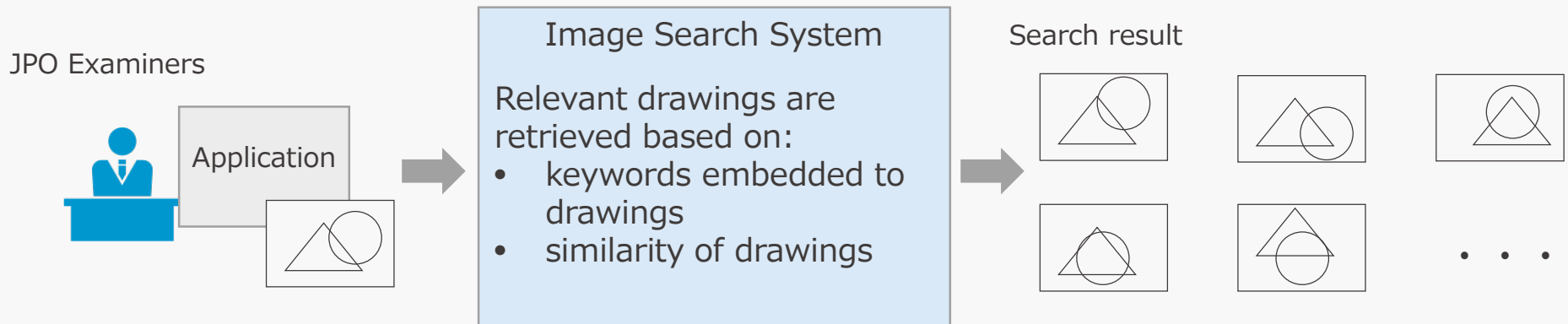


# Patent Image Searches

## Main Points

**Issue:** Sometimes drawings contain very important information especially regarding shapes or structures of things. But text search queries are not so effective to retrieve such useful drawings.

**Solution:** The information originated from drawings of the application is thought to be useful to obtain relevant drawings.

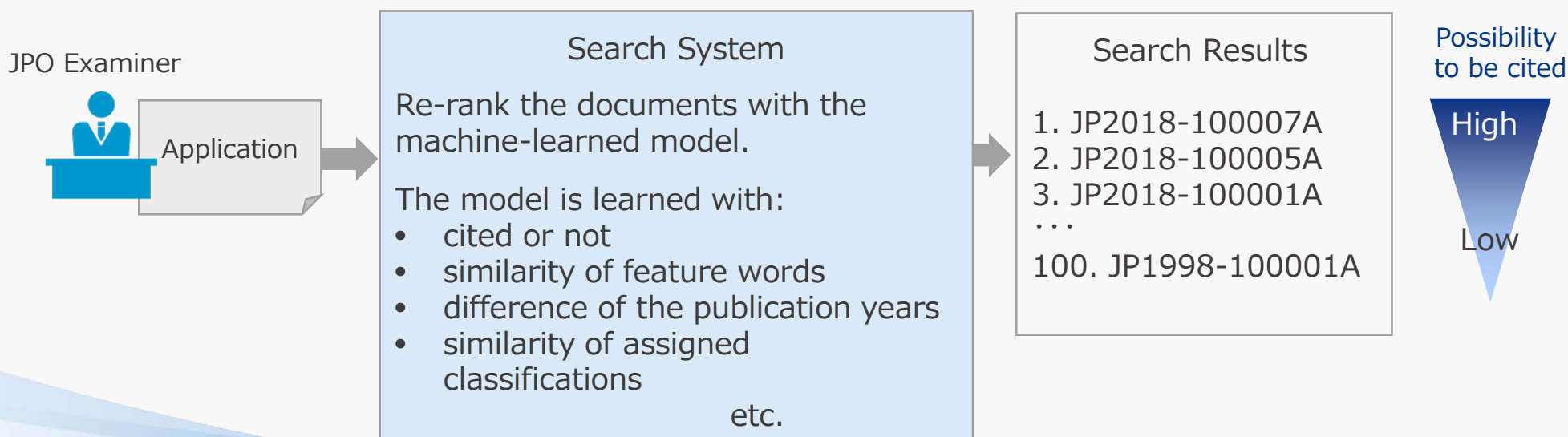


# Displaying Ranking of Patent Documents

## Main Points

**Issue:** Examiners had to read hundreds of documents to retrieve a relevant document.

**Solution:** Examiners can read the most important document first if the candidate documents are ordered by the possibility to be cited.



**Thank you!**

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