



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

Machine Translation at the EPO

Concept, Status and Future Plans

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European Patent Office

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Overview

- The European patent Office
- The European Patent Organisation : 36 Member States - 26 languages
- Patent Information: An Important aspect of the Patent System
- The Languages in the European Patent Convention
- Relevance of Machine Translation for the EPO
- European languages: Status and Plans
- Asian languages: Status and Plans

European Patent Office

- 6700 employees from 30 nations (3900 examiners)
- 5 sites in 4 countries



Headquarters Munich
Isar building



Munich
PschorrHöfe



The Hague



Vienna



Berlin

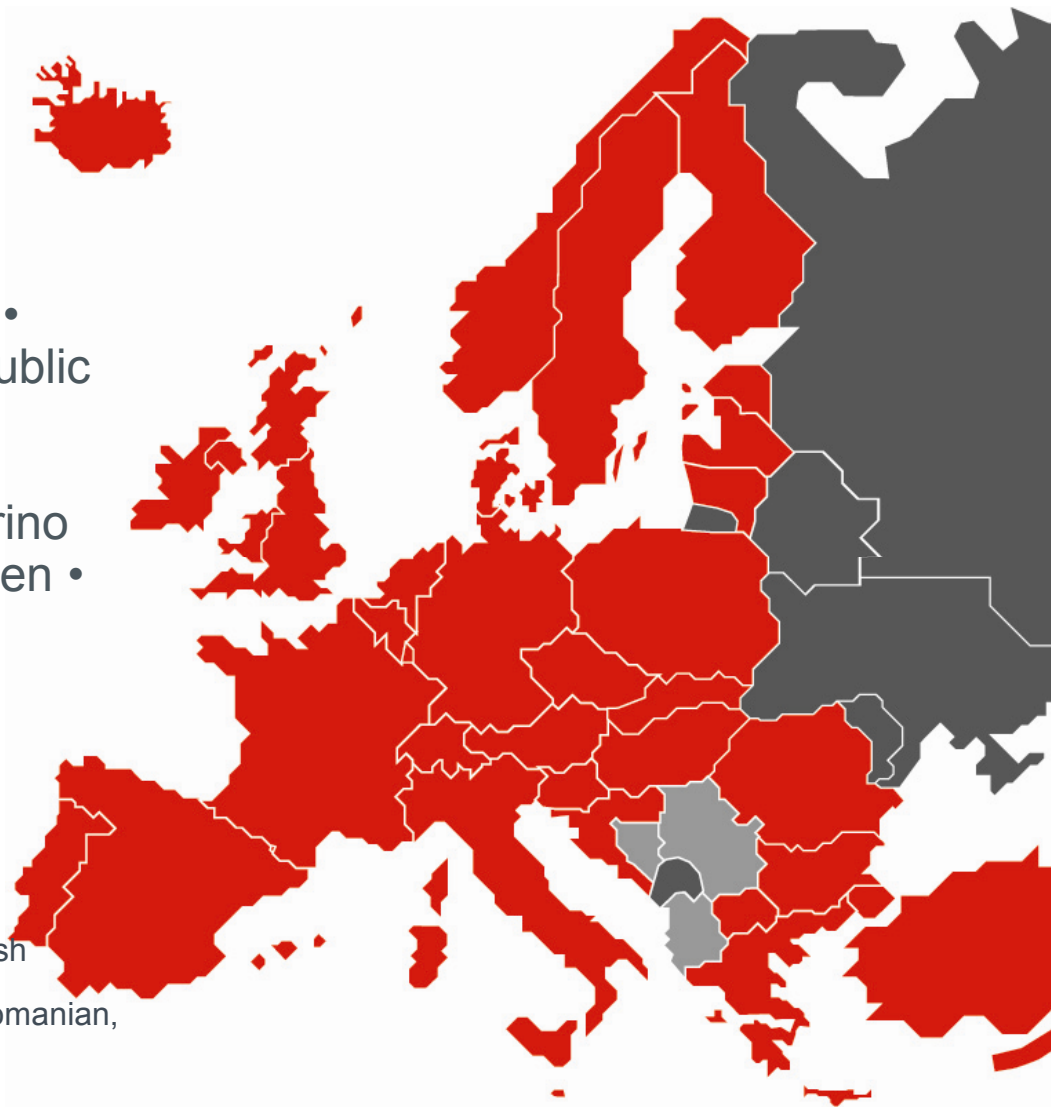


Brussels

36 member states

Austria • Belgium • Bulgaria • Croatia •
Cyprus • Czech Republic • Denmark •
Estonia • Finland • France • Germany •
Greece • Hungary • Iceland • Ireland •
Italy • Latvia • Liechtenstein • Lithuania •
Luxembourg • Former Yugoslav Republic
of Macedonia • Malta • Monaco •
Netherlands • Norway • Poland •
Portugal • Romania • San Marino
• Slovakia • Slovenia • Spain • Sweden •
Switzerland • Turkey • United
Kingdom

- 26 languages may be relevant for translation
 - French, German, English, Italian, Dutch, Swedish
 - Danish, Finnish, Greek, Portuguese, Spanish, Turkish
 - Polish, Hungarian, Estonian, Latvian, Lithuanian, Romanian,
Bulgarian, Czech, Slovakian, Slovenian, Icelandic
 - Norwegian, Croatian and Macedonian



Patent Information: An important aspect of the patent system

- In return for patent protection applicants must fully disclose their invention
- Patent applications and granted patents are published
- 64 million patent documents contained in the public EPO database

The languages in the European Patent Convention (EPC)

- Art. 14 EPC:
 - 3 Official languages EN, DE, FR
 - One language during proceedings before the EPO until grant
 - Mandatory translation of claims upon grant
- Art. 65 EPC:
 - Contracting States may prescribe translations for patent to be valid
 - London agreement: 15 countries have waived their right for a translation of the description in their official language
- Art. 88 EPC, R.53.3 EPC:
 - Priority documents shall be filed or translated into an EPO official language

Relevance of the Machine Translation Service

1. To enable access to patent information to enterprises, researchers and technically qualified users
2. To support the London agreement
3. To serve as a contribution to resolving the translation/language issue related to the Community Patent
4. To enable examiners to search prior art
5. To support work-sharing among the different offices

Machine Translation at the EPO

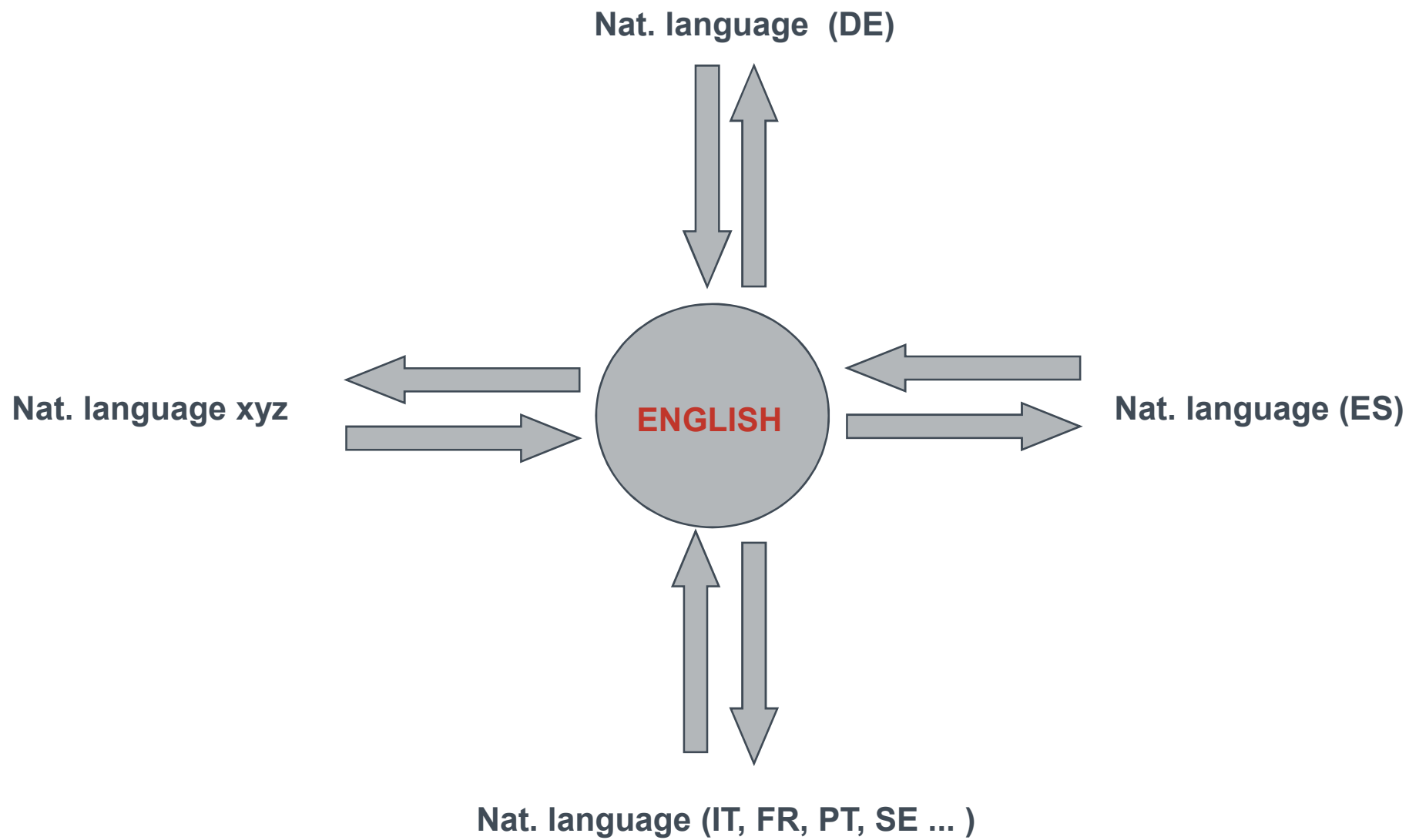
- European languages
- Asian languages

European Machine Translation: Concept

- Technical approach used:
 - Rule-based engine with a generic dictionary provided by an external company
 - Dictionaries built on IPC-based patent terminology together with European National Patent Offices and external service providers
 - Aligned document pairs are collected
 - Technical terms are extracted and exported as IPC dictionaries
 - Quality control done by the National Patent Offices

>> Patent Specific MT

What We Have Today for EMTP



EMTP Status

- Automatic, real-time (on the fly) translations can be obtained via:
 - esp@cenet
 - Internal tools for EPO examiners




The screenshot shows the esp@cenet website interface. At the top, there is a navigation bar with the EPO logo, the text 'European Patent Office', and the esp@cenet logo with '1998-2008'. Below this is a language selection bar with 'English', 'Deutsch', and 'Français', and a 'Help index' link. The main content area is divided into a left sidebar and a main search results area. The sidebar contains links for 'Quick Search', 'Advanced Search', 'Number Search', 'Last result list', 'My patents list' (with a '0' indicator), 'Classification Search', and 'Get assistance'. The main search results area shows a search bar with the text 'In my patents list | Print' and a 'Return to result list' link. Below the search bar is the title of the patent: 'IMPROVEMENTS TO AN 1xEVDO WIRELESS INTERFACE TO ENABLE COMMUNICATIONS VIA A SATELLITE RELAY'. Underneath the title are several tabs: 'Bibliographic data', 'Description' (which is selected), 'Claims', 'Mosaics', 'Original document', and 'INPADOC legal status'. The 'Description' tab is active, showing a disclaimer: 'The EPO does not accept any responsibility for the accuracy of data and information originating from other authorities than the EPO; in particular, the EPO does not guarantee that they are complete, up-to-date or fit for specific purposes.' Below the disclaimer is the patent number 'WO 2008014520 (A2)' and a 'Translate this text' button, which is circled in red. The main text of the description reads: 'IMPROVEMENTS TO AN 1xEVDO WIRELESS INTERFACE TO ENABLE COMMUNICATIONS VIA A SATELLITE RELAY'. Below this is the section 'BACKGROUND' and the text 'Claim of Priority under 35 U.S.C. [section]119'. The text continues: '[0001] The present Application for Patent claims priority to Provisional Application No. 60/820,775 entitled "Satellite Based Communication", filed July 28, 2006 and assigned to the assignee hereof and hereby expressly incorporated by reference herein.' The word 'Field' is visible at the bottom of the description area.



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Select target language for the translation of the description of document WO2008014520

| [French](#) | [German](#) | [Italian](#) | [Spanish](#) |



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WO2008014520 [Print](#) [Copy](#) [Contact Us](#) [Close](#)

Result Page

Notice: This translation is produced by an automated process; it is intended only to make the technical content of the original document sufficiently clear in the target language. This service is not a replacement for professional translation services.

AMÉLIORATIONS à une INTERFACE SANS FIL d'IxEVDO POUR PERMETTRE le RELAIS SATELLITE des COMMUNICATIONS VIAA

FOND

Réclamation de priorité au-dessous de 35 U.S.C. [tronçon] 119

[0001] L'application présente pour le brevet réclame la priorité au no. de demande provisoire. 60/820.775 a eu droit « la communication par satellite », a classé le 28 juillet 2006 et affecté au cessionnaire de ceci et par ceci expressément incorporé par la référence ci-dessus.

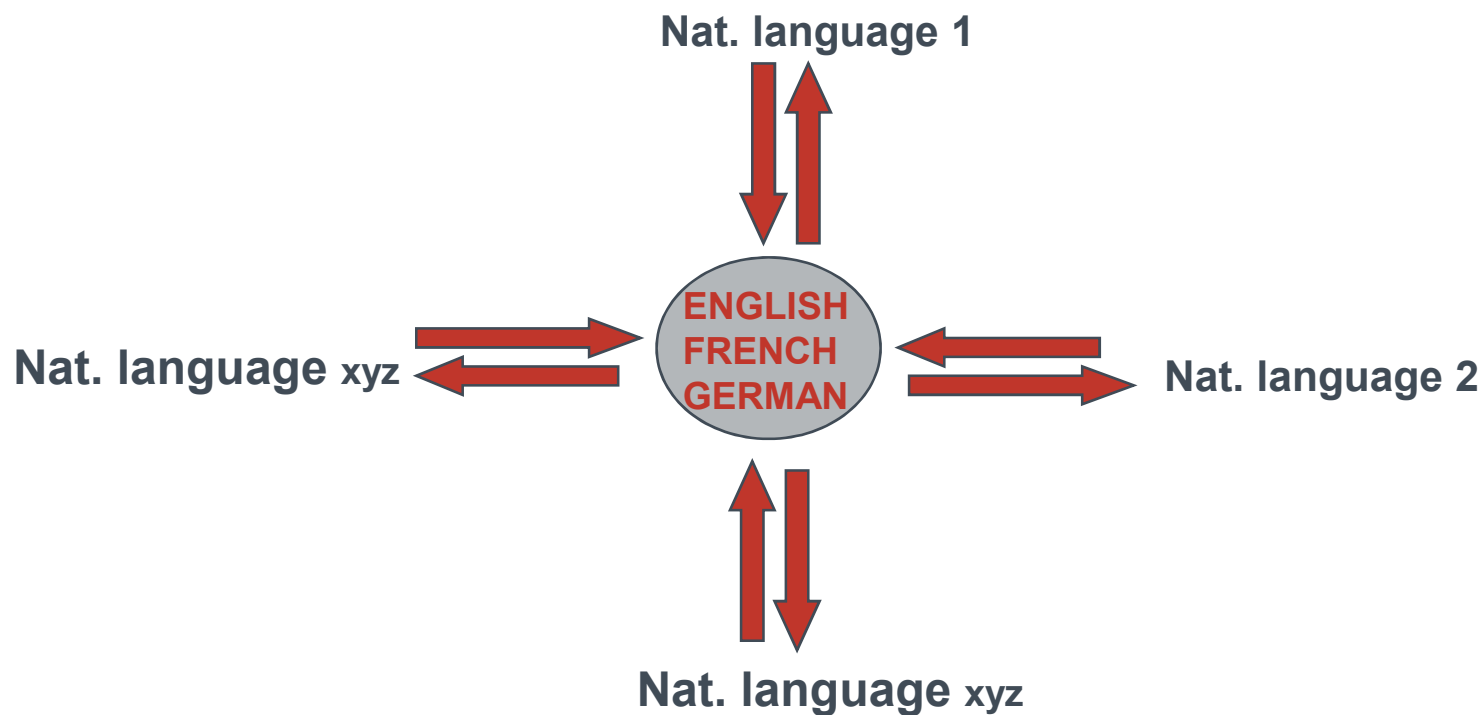
Champ

[0002] L'invention présente concerne aux communications sans fil et, en particulier, à une interface sans fil modifiée d'EVDO pour faciliter des communications d'une borne mobile par l'intermédiaire d'un relais satellite.

▲ top

What System will we need in the Future

- Scalable machine translation services from the three EPO official languages into all EPO languages



- No limitation to Rules based Machine Translation Engine

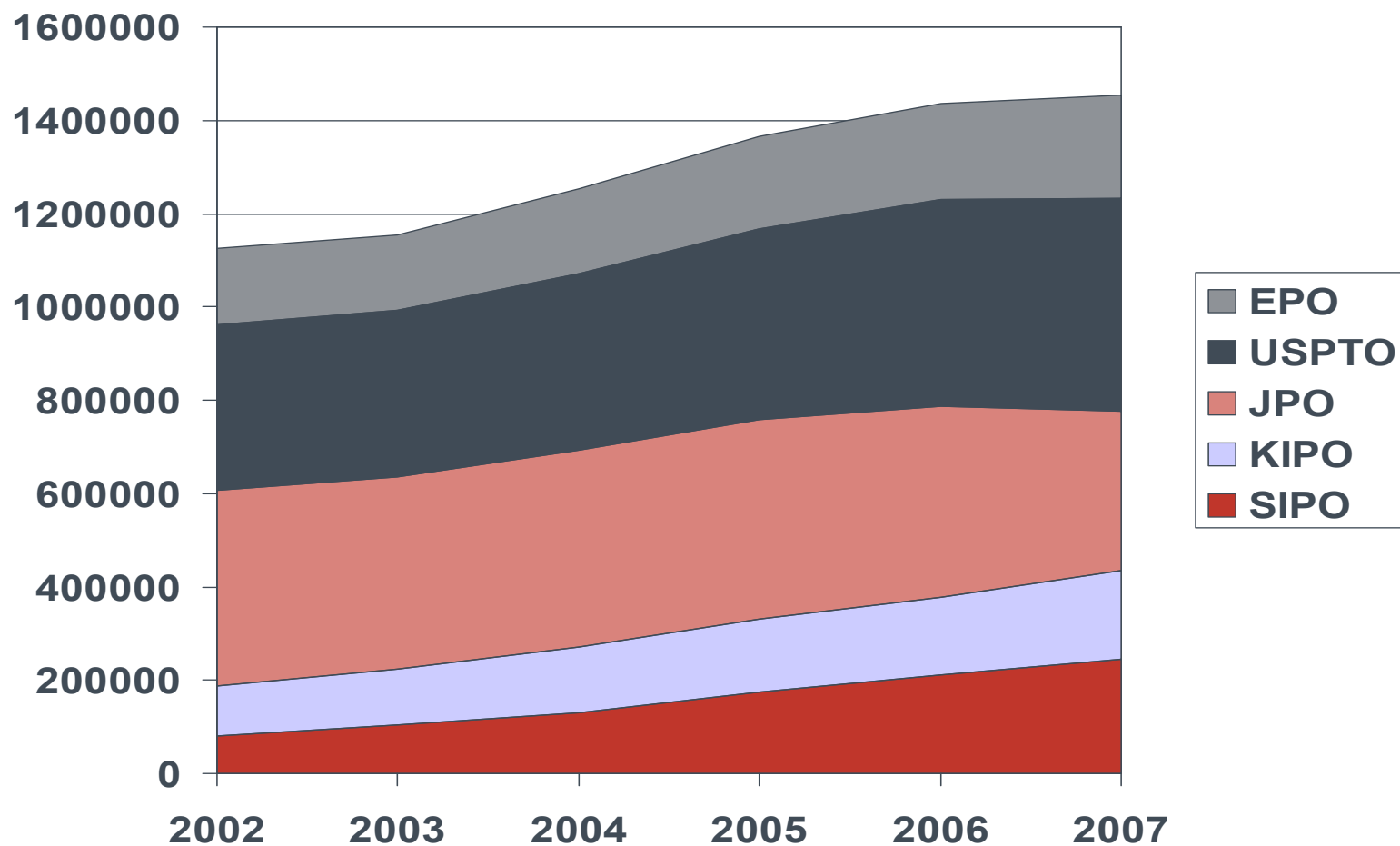
Machine Translation for the Asian Languages

Machine Translation for Asian languages: Background

- 2000: JP-EN Patent Translation
- 2005: KR-EN Patent Translation
- 2008: IP5 Co-operation

Mutual Machine Translation

Patent applications at the IP5 Offices and the increasing number of patent applications at SIPO and KIPO



The IP5 Co-operation

- Aiming at increasing work-sharing and the quality of the prior art search, foundation projects have been defined:
 - Common documentation database
 - Common hybrid classification
 - Sharing and documenting search strategies
 - Common search and examination support tools
 - Common access to search and examination results
 - Common training policy
 - **Mutual machine translation**
 - Common application format
 - Common rules for examination practice and quality control Common statistical parameter system for examination

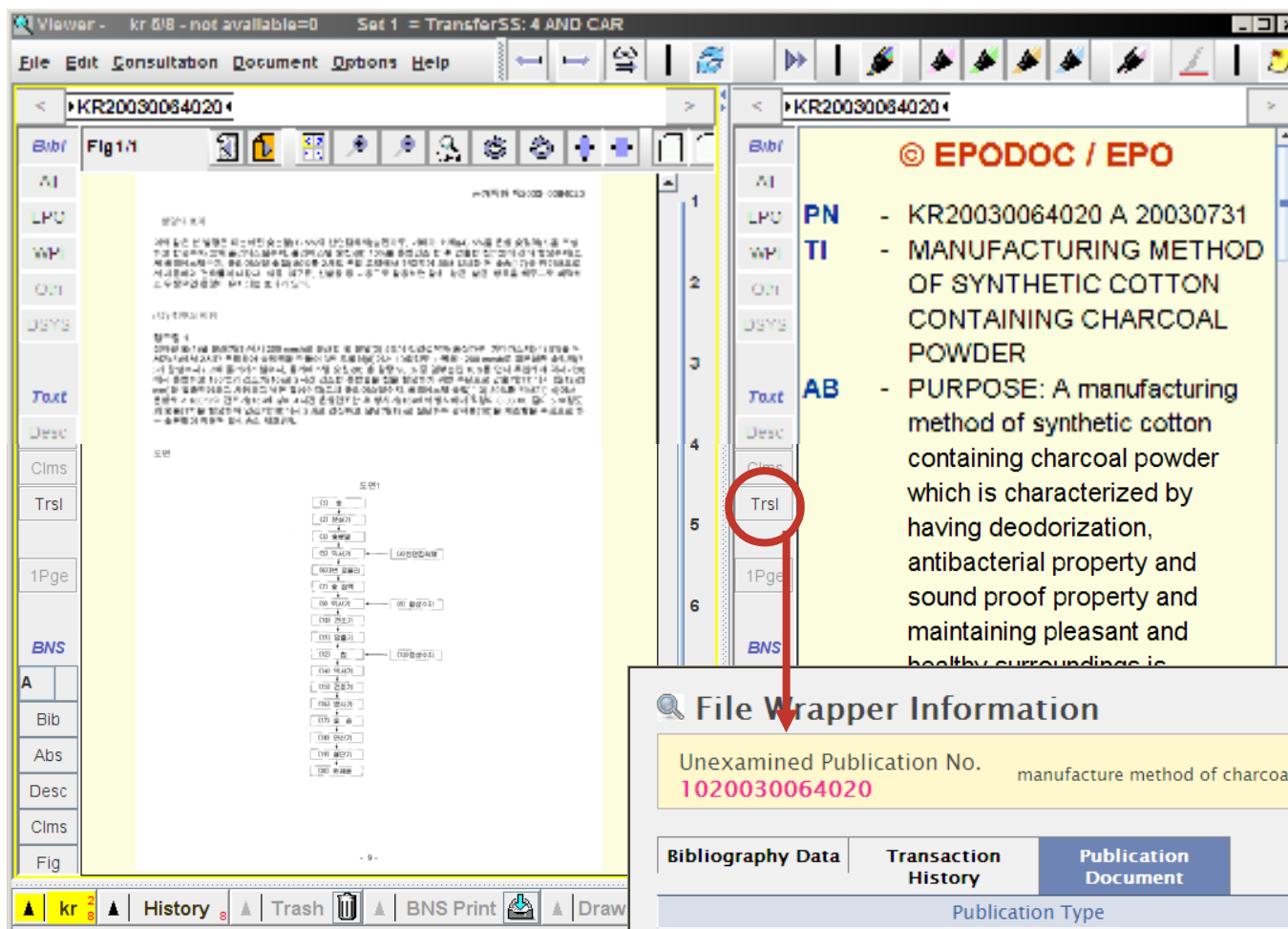
The Needs of our examiners

- To **Understand Prior Art** in an unknown language
- To **Search Prior Art**
- To **Understand Search and Communications** from other Offices

What we have today - Asian languages

- At present EPO examiners have access to the below tools embedded in their search/view tools:
 - Japanese Machine Translation for Japanese patent applications
 - 3 million Japanese Full-text applications searchable in English
 - Korean Machine Translation for Korean patent applications
 - Limited number of Chinese Full-text patent applications

English Translation of Korean Patent Applications



The screenshot shows a patent viewer interface with two main panes. The left pane displays the Korean text of a patent application for KR20030064020, including a table of contents and a list of claims. The right pane shows the English translation of the same document, starting with the title 'MANUFACTURING METHOD OF SYNTHETIC COTTON CONTAINING CHARCOAL POWDER'. A red circle highlights the 'Trsl' button in the left pane's sidebar, with a red arrow pointing to a 'File Wrapper Information' dialog box. This dialog box provides details about the unexamined publication, including the number 1020030064020 and the title 'manufacture method of charcoal powder be containcomposition cotton'. It also includes tabs for Bibliography Data, Transaction History, and Publication Document, along with options to view or download the document in Korean (KR) or English (EN).

K-PION Korean Patent Information Online Network  PDF Download

 BIBLIOGRAPHY
 ABSTRACT
 DESCRIPTION
 CLAIM
 KOREAN  KPA

The invention relates to the chemical processing, in other words, the artificial by the synthesis. And in case of it is formed so that the manufactured synthetic cotton be unitized and using as the bedclothes, the industrial, the construction interior decoration wallboard guitar etc. insulation , and use to the heat insulator are possible but in order to by manufacturing the charcoal synthetic cotton after the process of developing natural glue (the pine resin powder, and the other plasticizer) which the fusion unitizes after the long research and forming the charcoal mucus into affinity it multipurposes, it utilizes the charcoal powder and minute synthetic resin (the solid polyester resin, and the polyester charcoal chip) of 1,200mesh which eliminates and refines "tar" contained in the charcoal which is a kind of the activated charcoal in which the pores is abundant in order to solve the vice of the etc. damaging the human body as the clothes, the bedclothes, the wallboard of building and vehicle etc. and it maintains the deodorization, antibiotic, the sterilization, soundproof and it hygienics, it lives in the agreeable environment antibiotic , and "tar" which is contained in the charcoal while the charcoal powder pollutes surrounding since it is not in accord and the synthetic cotton and charcoal powder are separated from in case of it makes the powder from traditional while noted being sterilized and it had with benefit, unable to using in order to apply the charcoal in which there was many accessibility in the daily life to the synthetic cotton and mixing in the bedclothes invent.

Representative Drawing(s)



```

    graph TD
      A["(1) 솜"] --> B["(2) 분쇄기"]
      B --> C["(3) 혼합물"]
      C --> E["(5) 직사기"]
      D["(4) 천연합제재"] --> E
  
```

DRAWINGS




• Fig. 1

1) Are you satisfied with translation result of this document? very good good normal bad very bad
 2) Are you going to use(or cite) this document for your examination? Yes No

























※ If you check "bad" or "very bad", please submit

 KOREAN INTELLECTUAL PROPERTY OFFICE This document is performed by machine translation, and KIPO is not responsible for the result of translation

Access to communications in English

 **File Wrapper Information**

Unexamined Publication No. **1020030064020** manufacture method of charcoal powder be containcomposition cotton

Bibliography Data		Transaction History	Publication Document		
Date (DD/MM/YYYY)	English Doc Name	Korean Doc Name	Status	View	Download
24/09/2004	Notice of Final Rejection	거절결정서	DISP	 	 
25/11/2003	Written Opinion	의견서	ACPT	 	 
30/09/2003	Notice of Submission of Opinion	의견제출통지서	DISP	 	 
14/08/2003	Report of Prior Art Search	선행기술조사보고서	ACPT	 	 
30/03/2002	Amendment including Specification etc.	명세서등보정서	RGAA	 	 
25/01/2002	Patent Application	특허출원서	ACPT	 	 

[Close](#)

English Translation of Japanese Patent Applications

[JP,2008-039738,A]
Drawing selection Representative drawing

Japanese (PDF)
File Wrapper Information

[FULL CONTENTS](#)
[CLAIM + DETAILED DESCRIPTION](#)
[TECHNICAL FIELD](#)
[PRIOR ART](#)
[EFFECT OF THE INVENTION](#)
[TECHNICAL PROBLEM](#)
[MEANS DESCRIPTION](#)
[DRAWINGS](#)

Disclaimer:
 This English translation is produced by machine translation and may contain errors. The JPO, the INPIT, and those who drafted this document in the original language are not responsible for the result of the translation.

Notes:
 1. Untranslatable words are replaced with asterisks (****).
 2. Texts in the figures are not translated and shown as it is.

Translated: 22:31:47 JST 08/19/2009
 Dictionary: Last updated 08/17/2009 / Priority:

CLAIM + DETAILED DESCRIPTION

[Claim(s)]
 [Claim 1]
 A process to which a position transmits a radio signal for ranging from a known standard office,
 A process at which a base station of known [positions / two or more] measures receiving time of a radio signal for ranging by a clock of a self-office,
 A process of transmitting a response radio signal with which a moving terminal includes time delay information by a clock of a self-office from reception to a reply after receiving a radio signal for ranging,
 A process at which said standard office and a base station measure receiving time of a response radio signal by a clock of a self-office,

Report Mistranslation
Japanese (whole document in PDF)

[Translation done.]

File Wrapper



The screenshot shows a web-based interface for a patent application. At the top, there are four buttons: 'ENGLISH', 'JAPANESE', 'HELP', and 'REPORT'. Below these buttons is a red note: 'Note: Japanese environment is required to properly display Japanese characters. You must install and use a TIFF image plug-in on your system in order to view image files directly.' The main content area displays the patent application number '2006-218347' in large black text. Below this, there is a heading 'File Wrapper Document List - Click document title to display contents. The dates in the list are shown in the format of "dd.mm.yyyy"'. A bulleted list item is present: '■ [Application data and Transaction history](#)'. Below this, there is a numbered list of six items, each with a date and a document title, all underlined as links: 1. [10.08.2006: Request for a Patent](#), 2. [10.08.2006: Claim](#), 3. [10.08.2006: Description](#), 4. [10.08.2006: Drawings](#), 5. [10.08.2006: Abstract](#), 6. [19.03.2009: Request for Examination](#).

Improving the existing MT systems

- JP - EN
- KR - EN
- CN - EN

Quality checks and reporting

Thank you