



中华人民共和国海关总署

General Administration of Customs of the People's Republic of China



# Smart Document Review

## China 's Practice of Enhancing Customs Clearance Efficiency by Digital Technology

Department of General Operation  
GACC



Yi Zhao



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# Implementation Background



# Backgrounds

01

## Definition and Importance

- Overseas inspection and quarantine certificates are official documents issued by government agencies or notary institutions overseas.  
It is a proof that the goods have been inspected and meet the standards.

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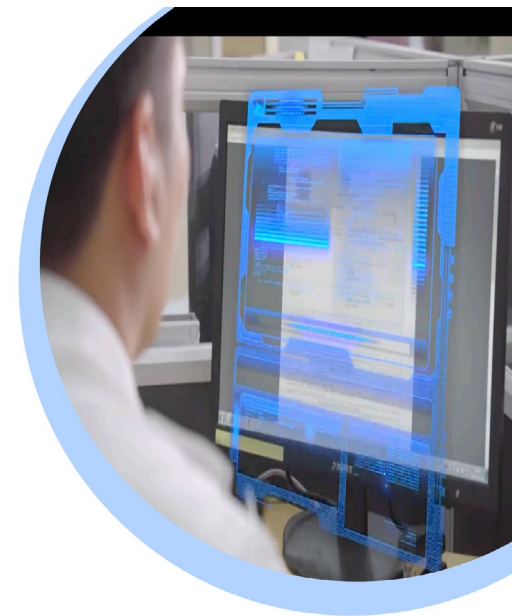
## Challenges in Document Review

- China Customs has fully implemented the Paperless Reform of Customs Clearance since 2012, but part of the overseas inspection and quarantine certificates are declared in the form of unstructured data such as PDF forms, which have not been digitally developed or utilized.

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## Need for Reform

- On-site Customs officers need to review multiple elements such as certificate format, signature handwriting, official seal, and certificate contents one by one when reviewing one veterinary (hygiene) certificate, which is time-consuming.



02

# Implementation Path



# Business Aspects



## Parameterization of Business Rules

Building a unified, standardized, and normative foundational parameter repository for "Smart Document Review", and transforming them into system parameter rules that can be used for implementing the "Smart Document Review" in the on-site document review processes.

01



## Integration of System Resources

Integrating different websites and system resources to summarize enterprise declaration information, electronic information verification, comparison of handwriting seals, verification of admission qualification, and other elements.

02



03



## Application of Advanced Technologies

Building a flexible and open model development environment, designing a certificate scenario text detection and recognition model, and using OCR recognition, AI, and machine learning technologies, achieve intelligent recognition and comparison functions for 30 types of foreign official certificates



# Technology Aspects



## Intelligent and Precise Recognition

A structured data processing database is created, combining simulated and real certificate data. This supports the digitization of documents, achieving a recognition success rate of over 95%.



## Intelligent One-Screen Display and Comparison

Unified access to certificate templates, website information, and signing officer details is achieved. Intelligent comparison results are displayed on one single screen, eliminating the need for multiple system operations.



## Intelligent and Rapid Warning

The efficiency of document comparison is improved, enabling fast and intelligent warning prompts. Comparison results are recognized with a single click, enhancing operational speed.



03

# Progress of Construction

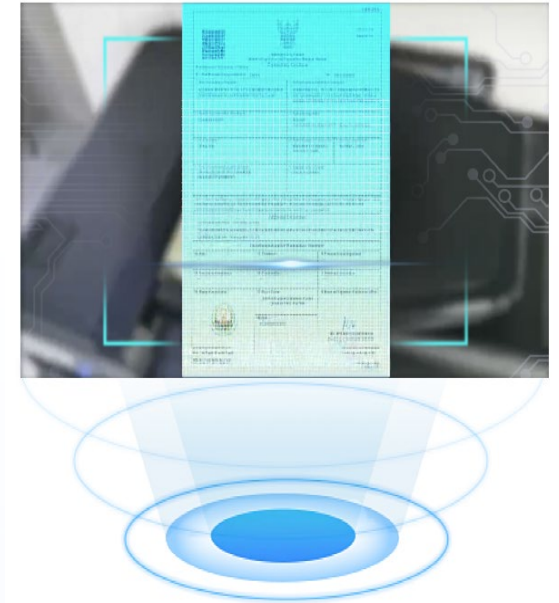




# Milestones Achieved

## 02 Expansion of Certificate Recognition

In 2024, the scope expanded to nearly 100 types of certificates, with 286,000 certificates reviewed intelligently.



## 01 Completion of Certification Construction

In October 2023, intelligent certification construction of 30 types of certificates for 19 countries or regions was completed.

By December 2023, the Smart Document Review project was widely promoted across China Customs.

## 03 Future Outlook

In 2025, explore the application of big data models to achieve batch training of artificial intelligence computing for more types of certificates, and accelerate the construction and promotion of "Smart Document Review" on a larger scale.

04

# Application Outcomes



# Achievements and Benefits



Compression of  
Operation Time

The complicated multi-system operation has been transformed into a single-screen comparison. The average time for automatic comparison is reduced to 109 seconds, 10 times more efficient than traditional manual comparison.



Saving Human  
Resources

Manual data retrieval and item-by-item comparison are now automated. Customs officers only need to review and confirm the results and prompt information.



Optimizing Processes

The previous multi-system operation mode is replaced by intensive display and intelligent comparison. Enables to intensively display and intelligently compare regulatory information.



Reducing Law  
Enforcement Risks

“Smart Document Review” reduces human intervention, avoiding inconsistent policy understanding, reviewing standards, and non-standard law enforcement among Customs officers.



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—• THANK YOU •—

