



CNIPA

China National Intellectual Property Administration

Leveraging AI to Empower Patent Examination and Search

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Automation Department, CNIPA

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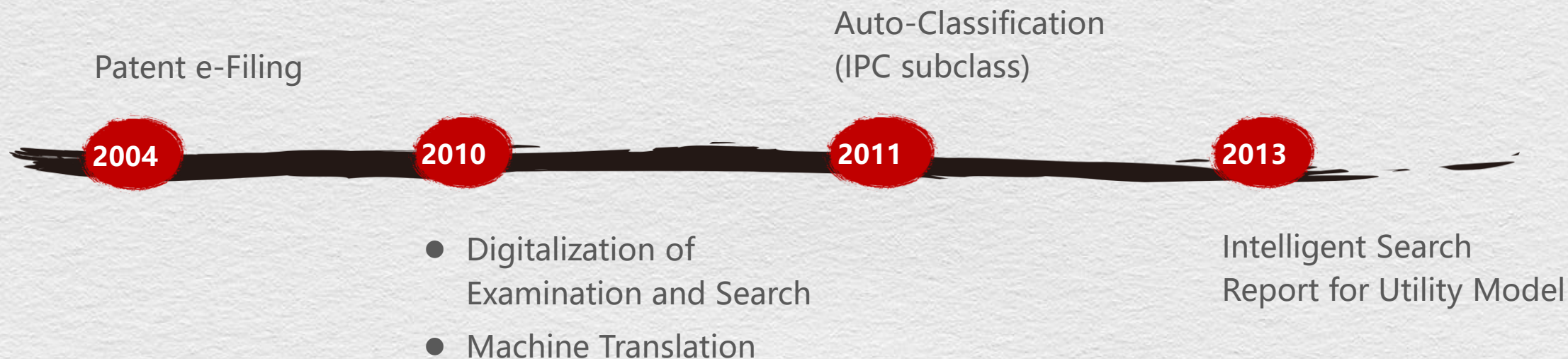
AI-Powered Patent
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CNIPA's Exploration of New Technologies



PART
01

CNIPA's Exploration of New Technologies



PART
01

CNIPA's Exploration of New Technologies

China Patent Intelligent Examination System (i System)

- Invention, Utility Model, Design, PCT, Hague, etc.
- Full patent lifecycle

2021

2023

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China Patent Intelligent Search System

- Semantic Search
- Combined Search
- Machine Translation

... ..

PART
01

CNIPA's Exploration of
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AI-Powered Patent
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Opportunities and
Challenges of
Generative AI

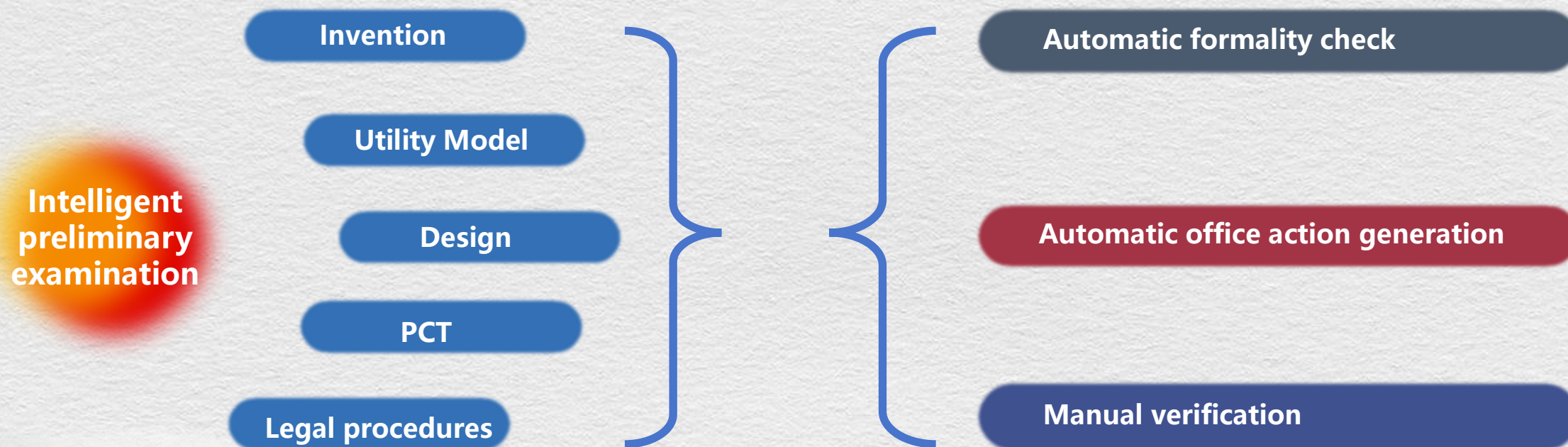
Applicants

- Bibliographic Data
- Description
- Drawings
- Claims
- Abstract
- Abstract Fig
-

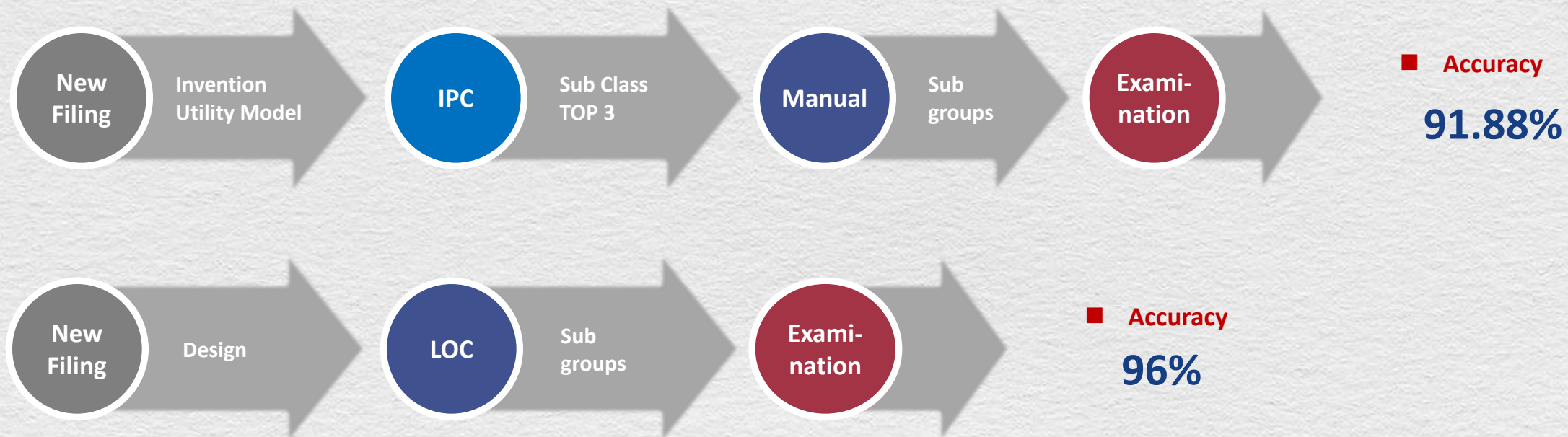
**Interactive
e-Filing
Platform**

Interactions

- Filling forms online
- Editing online
- Automated notification
- Automated verification

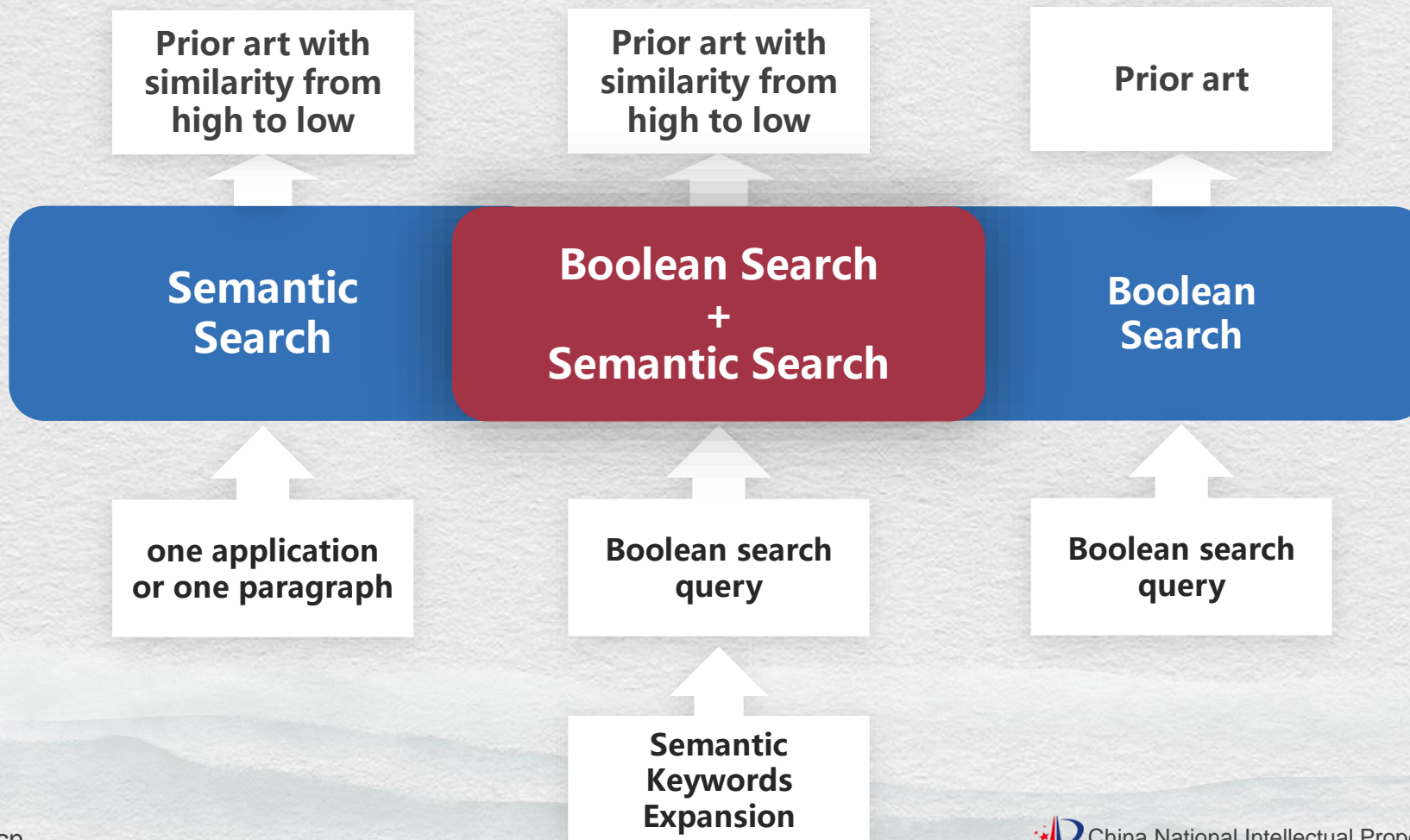


PART 02 | 2.3 Automatic Classification



PART 02 | 2.4 Intelligent Search





**In comparison to
the previous search system**

Omission Ratio

National filings: **31.6%↓**

PCT filings: **25%↓**

Performance

Searching: **50%↑**

Browsing: **90%↑**

Data

- Extensive coverage: countries, organizations & institutions
- Total volume:
about 13 million items

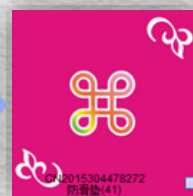
Features

- Multi-view search
- Partial search
- Line drawing search

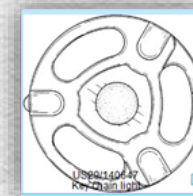
PART 02 | 2.5 Image Search



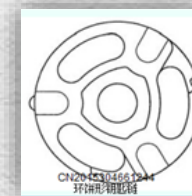
Background color modified



Partially similar



Shadow removed



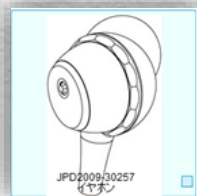
Resolution reduced



90% of the referenced prior art in the top 30 search results



Color drawing linearized



Marker added

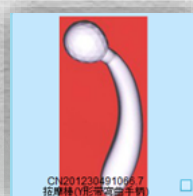
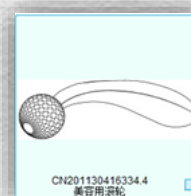
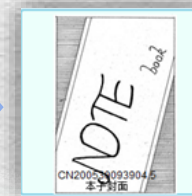


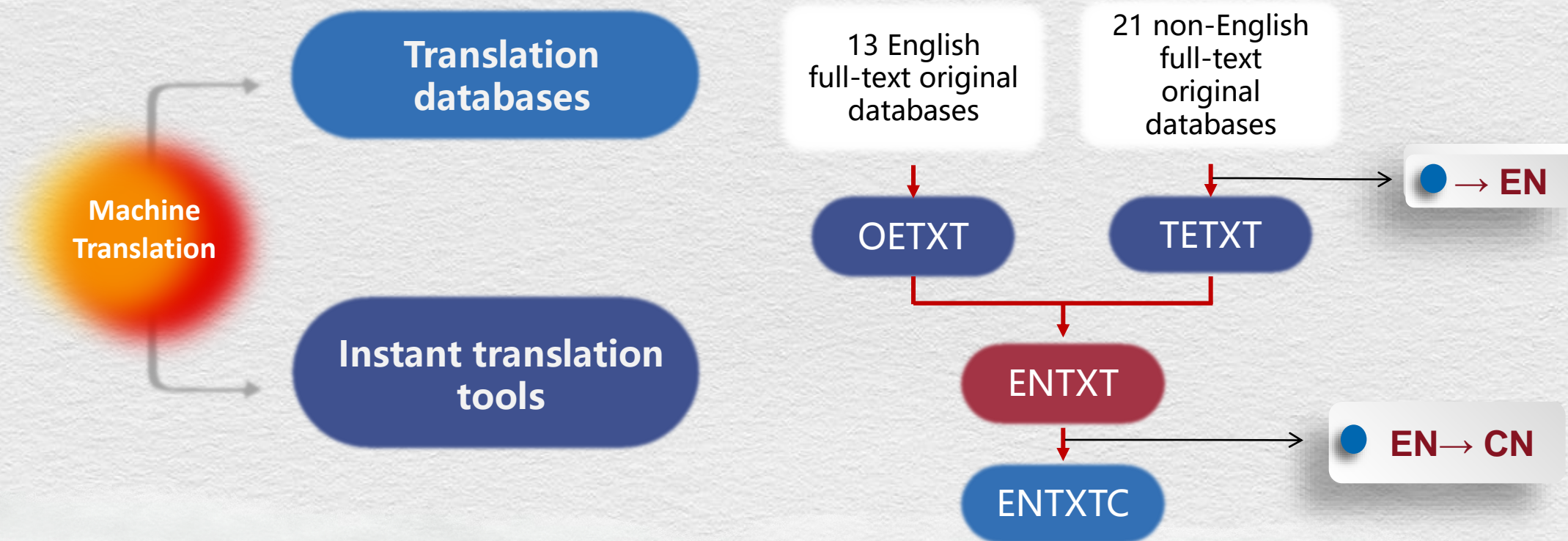
Image rotated



Structural similar application



PART 02 | 2.6 Machine Translation



Intelligent Auxiliary Substantial Examination

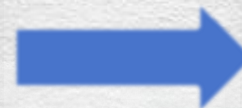
Intelligent Auxiliary Tools

- Internet evidence platform
- Feature comparison
- Notification validation
- Notification assisted writing
-

- Digitalized file browsing and editing
- Formality error detection
- Multi-language online translation
-



Reduce the routine
and repetitive work



Focus on the core work

PART 02 | 2.8 Measured effectiveness

1.045 million
inventions were authorized

67 thousand
patent reexamination and invalidation
cases were concluded

2024

Invention examination period was
reduced to **15.5 months**

Accuracy rate of case closure has
increased to **95.2%**

PART 01

CNIPA's Exploration of
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PART 02

AI-Powered Patent
Operations in
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PART 03

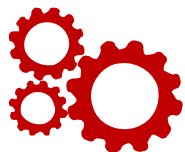
Opportunities and
Challenges of
Generative AI

Opportunities and Challenges of Generative AI

Research & Deployment

- Deepening semantic comprehension capabilities
 - Enhancing prior art search efficiency and accuracy
 - Assisting in inventive step assessment
 - Generating office actions and notifications
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-

Opportunities and Challenges of Generative AI



Challenges

- Strategic deployment
- Hallucination
- Value misalignment



Future Visions

- Decision-making
- Agent
-

Thank you!