



KnowDee Intelligence

Vision and Mission



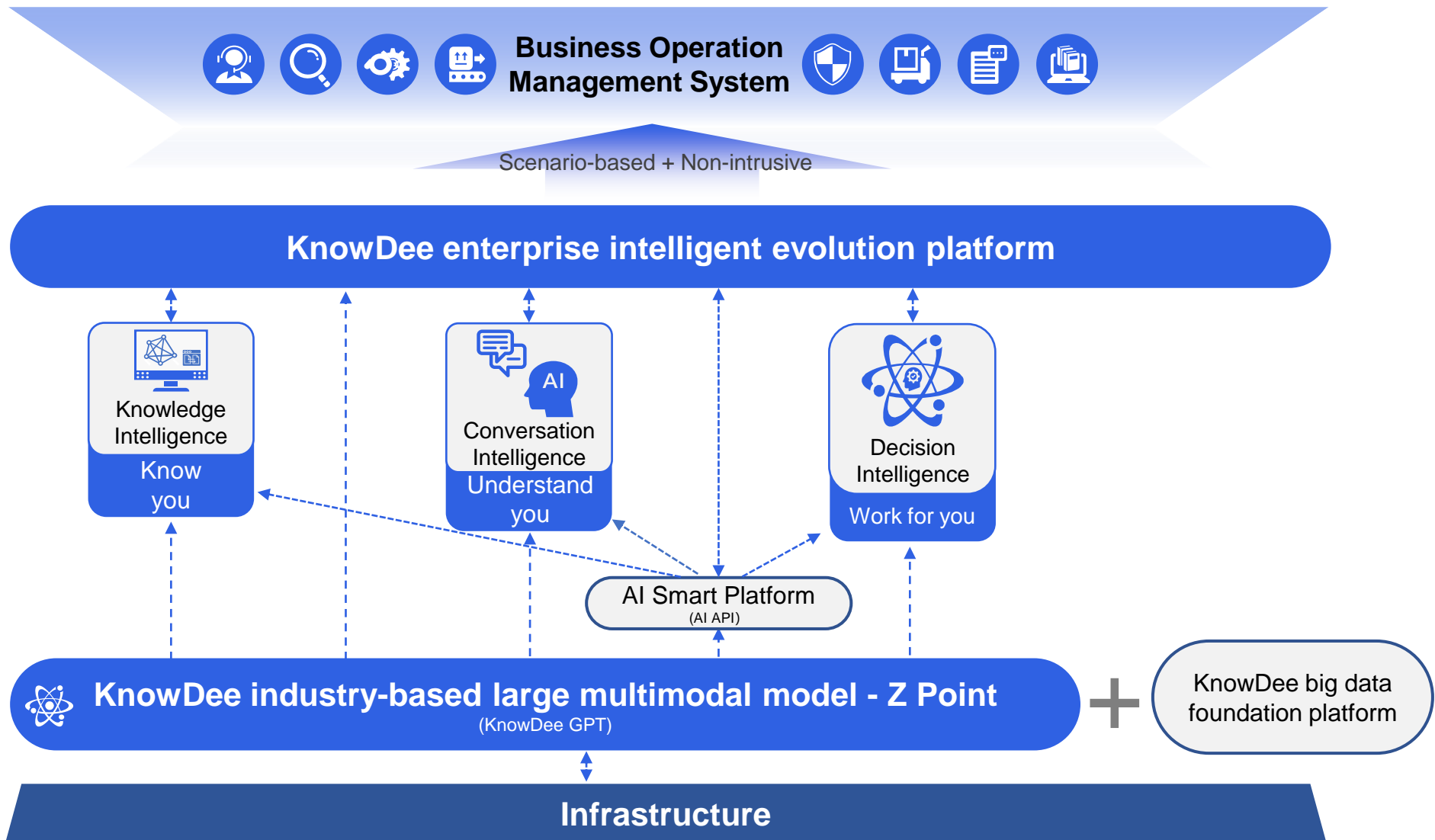
Vision

Becoming the world's leading enterprise-grade AI provider by **performance-based billing(PB)**.

Mission

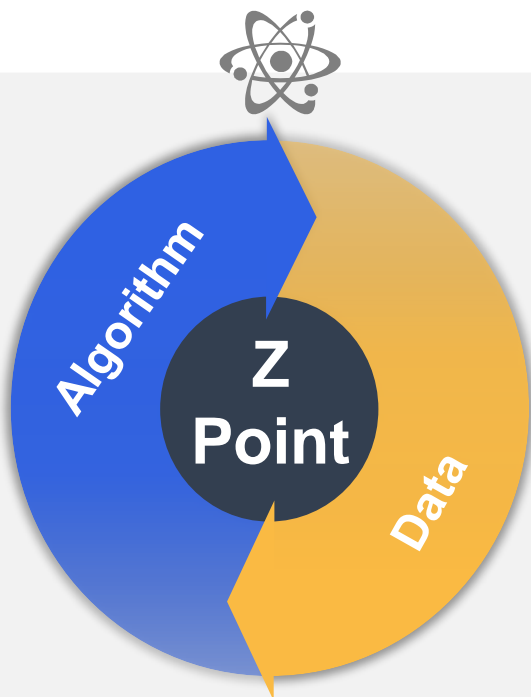
Provide top-quality, efficient, and cost-effective enterprise-grade AI solutions to empower intelligent evolution and adaptability of enterprise partners

Core products and solutions



KnowDee enterprise intelligent evolution platform comprises
AI (industry foundation LLM/GPT + industry optimization + scenario finetune) + product + solution

Competitive edge – Technology



Hundreds of millions of dollar
Lenovo investment

Open to **ALL** business scenarios

EB level industry data trained

6 years continuous refining

模型	测试方案	CMMLU	CEVAL(Val/Test)
Zpoint		68.42	67.85/64.0
Qwen-1.8B	Official	45.32*	56.1/56.2
Qwen1.5-1.8B	Official	57.8	59.7
MiniCPM-2B	Official	51.07	51.13/-
Zpoint	0-shot	61.47	63.05/-
Qwen1.5-1.8B	0-shot	50.62	52.99/-
MiniCPM-2B	0-shot	42.85	31.29
Zpoint	1-shot	68.42	67.85/-
Qwen1.5-1.8B	1-shot	63.95	63.09
MiniCPM-2B	1-shot	47.01	48.92
Zpoint	UltraEval	59.03	60.74/-
Qwen1.5-1.8B	UltraEval	53.83	48.68/-
MiniCPM-2B	UltraEval	51.07	51.13/-

CMMLU, C-Eval
World number 1
(Same size category on the ranking list)

Archer		
Model	Execution Accuracy	
	英文	中文
GPT-4o + zpoint-embedding KnowDee	42.18	42.94
GPT-4o + Deepseek-Coder-33b Harbin Institute of Technology	39.12	39.89
GPT-4o HITSZ-GDDW Tech	39.12	37.79
GPT-4o + deepseek IDMG (Beijing University of Posts and Telecommunications)	31.87	29.39
deepseek-chat JD	31.11	25.00
GPT-4o Mi&Tlab (Harbin Institute of Technology)	30.73	28.63
GPT-4o + ali-MiniLM-L6-v2 NUDT	30.73	27.10
GPT-4o Foshan university	25.62	22.90

2024 CCKS Archer Text-to-SQL
Competition – Number 1

Overall MTEB Chinese leaderboard (C-MTEB) 🇨🇳

- Metric: Various, refer to task tabs
- Languages: Chinese
- Credits: [FlagEmbedding](#)

Rank	Model
1	zpoint_large_embedding_zh
2	piccolo-large-zh-v2
3	AGE_Hybrid
4	Yinka
5	IYun-large-zh
6	gte-Qwen1.5-7B-instruct
7	acge_text_embedding
8	OpenSearch-text-hybrid
9	stella-mrl-large-zh-v3.5-1792
10	stella-large-zh-v3-1792d

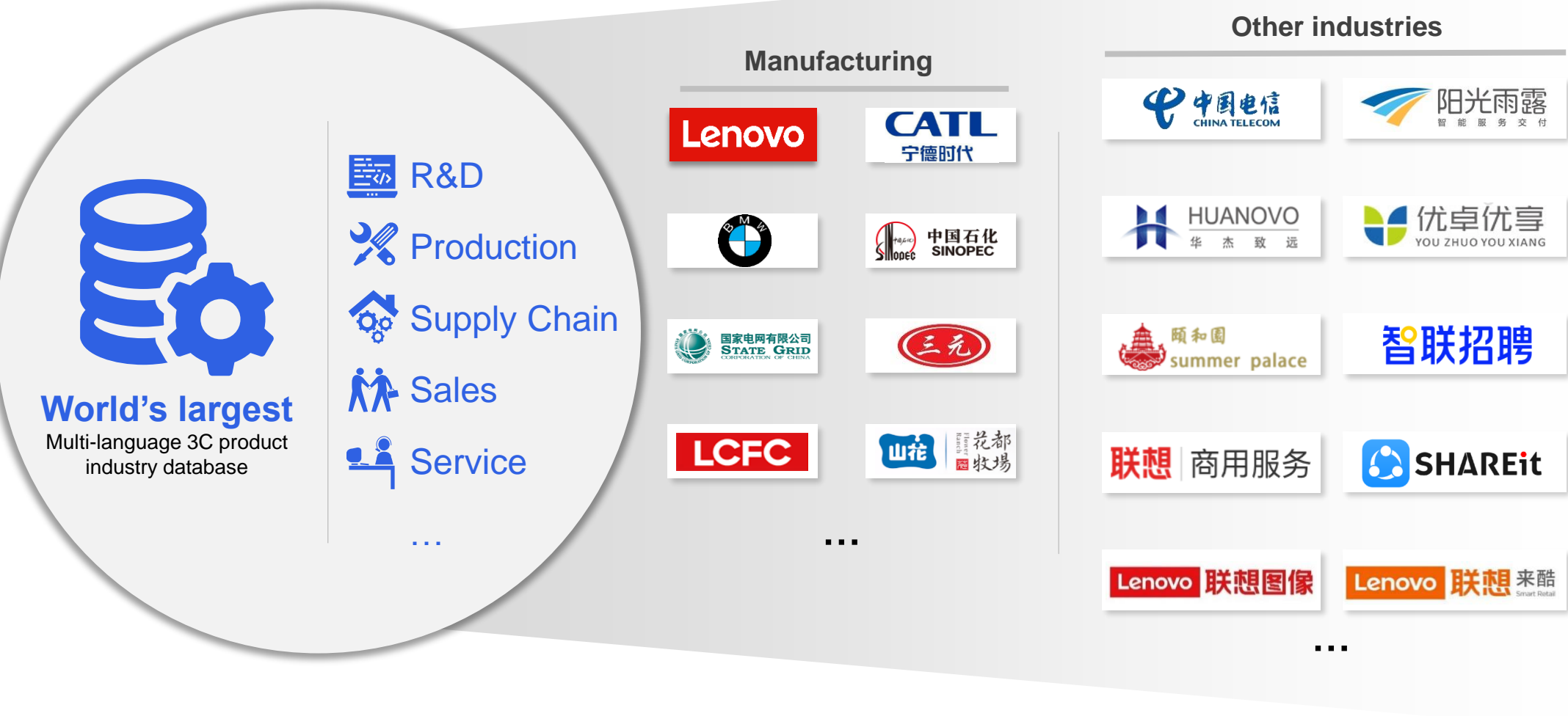
C-MTEB
World Number 1

**Small,
medium,
large**
specialized language and
multimodal models

80%+
R&D
personnel

65%+
Master Degree

Competitive edge – Industry Know-How

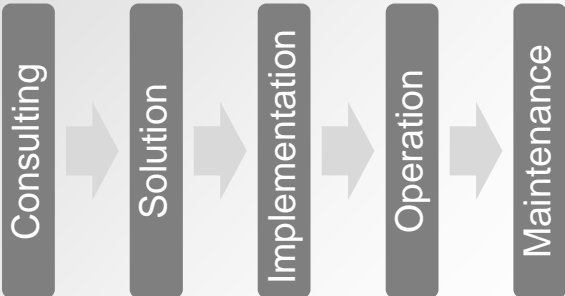


Hundreds millions
Cumulative serviced end users
180
Serviced countries and regions

Competitive edge – Delivery



Robust Delivery System



Well-rounded Delivery Team

Fully integrated AI organization with end-to-end specialization across Business, R&D, Product, Delivery and Operation



Closed-loop Operation Service



Active monitoring mechanism

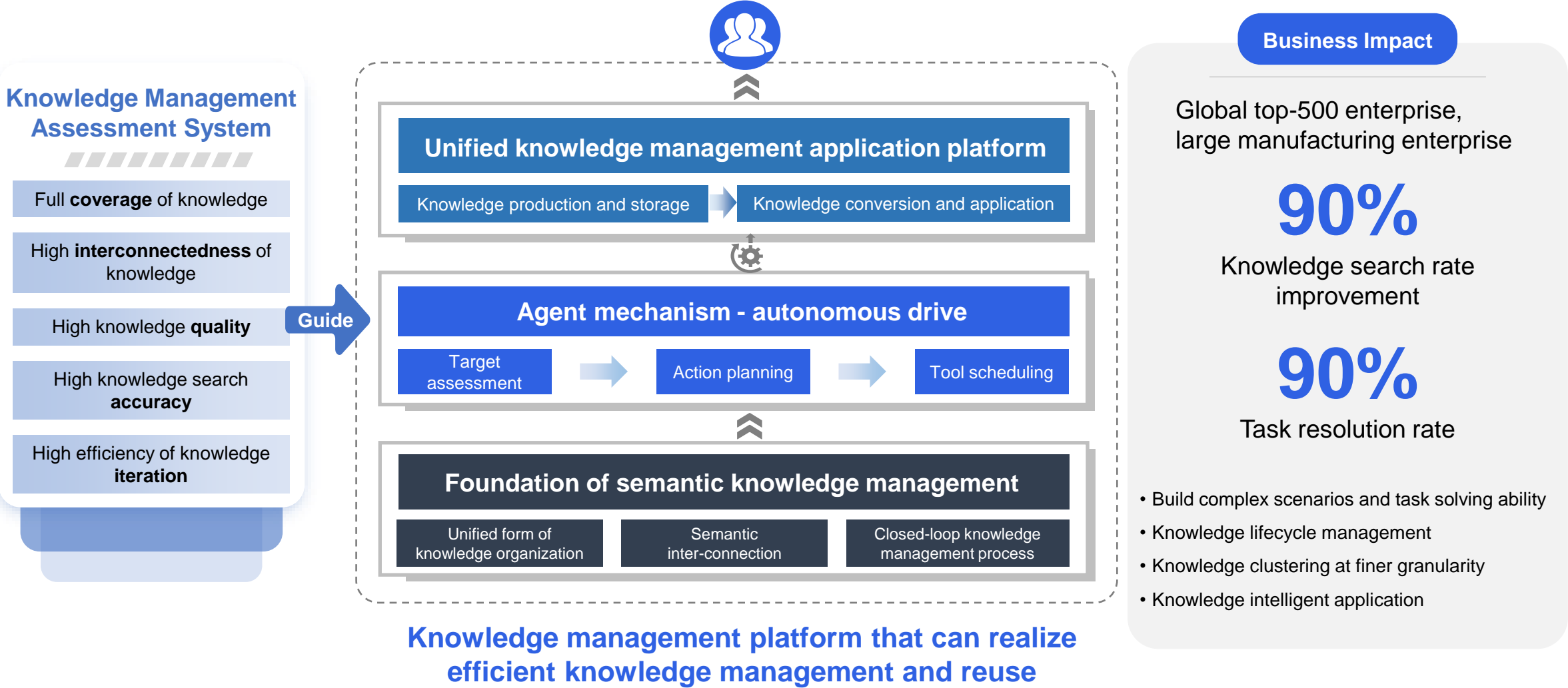


Regular Reporting

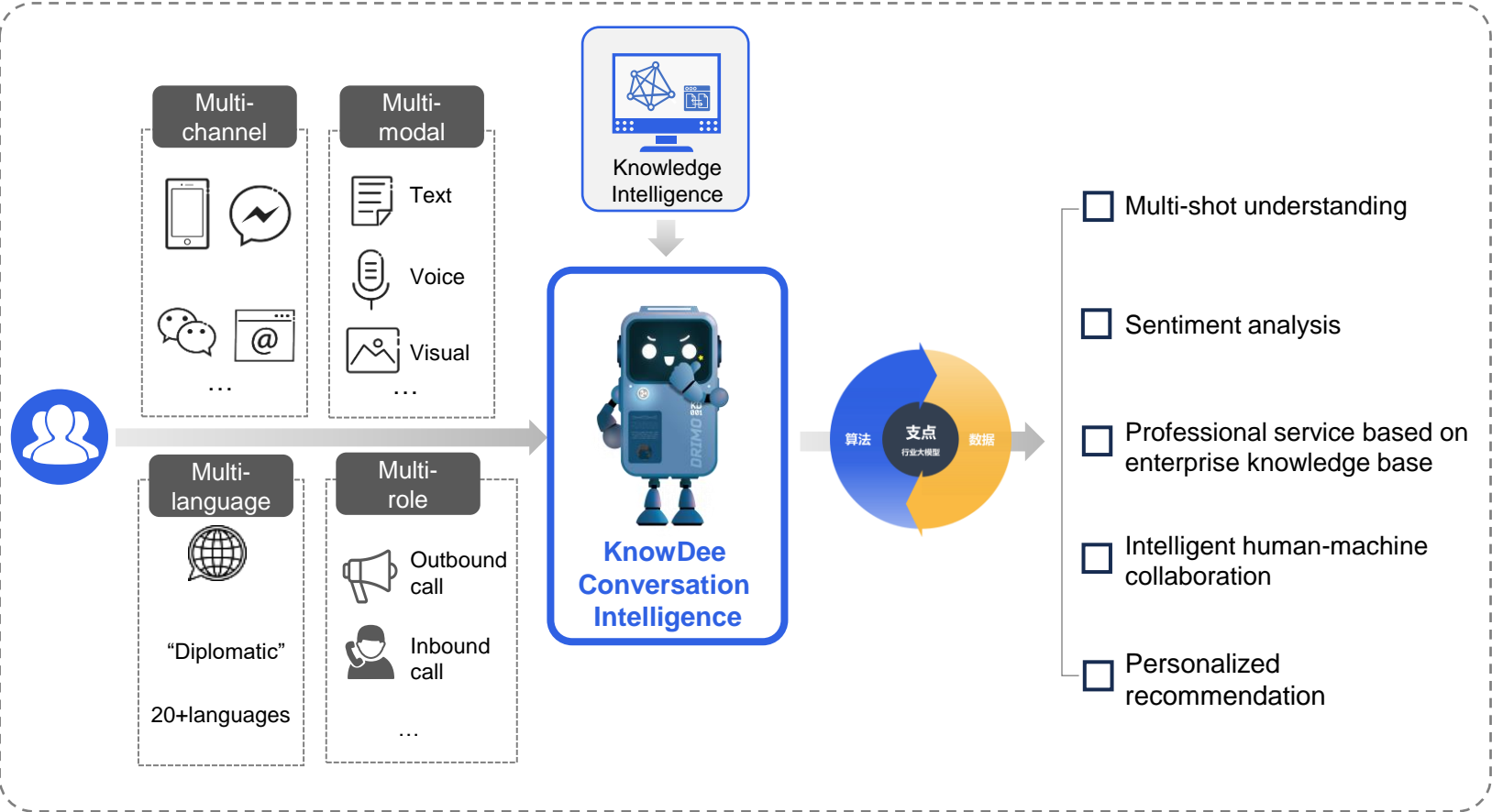


Continuous collaboration

Use case – Knowledge Intelligence



Use case – Conversation Intelligence



Multimodal, multilingual, multimedia empathetic conversation AI platform based on Z Point LLM

Business Impact

Global top-500 enterprise, 3C manufacturer

~USD 6M

Average annual savings for enterprise customer service operation

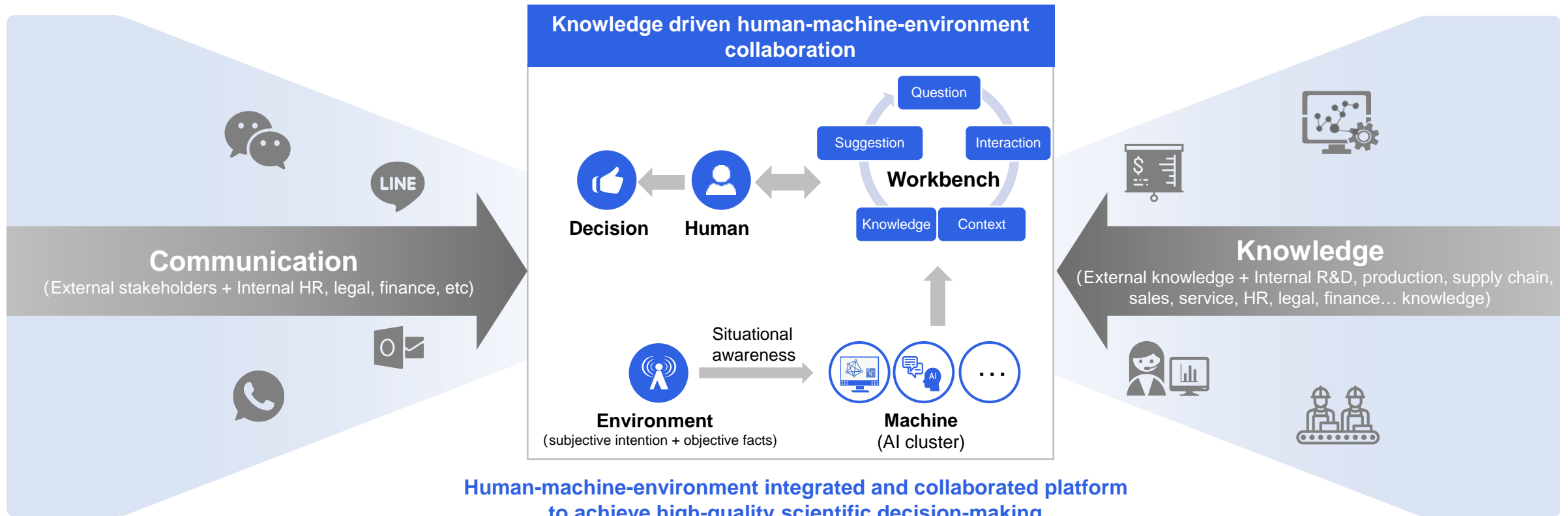
95%+

Intent recognition accuracy rate

70%+

Task resolution rate

Use case – Decision Intelligence



**Human-machine-environment integrated and collaborated platform
to achieve high-quality scientific decision-making**

Seamless integration of human value judgment and machine logic calculation |
Scenario driven | 10x+ efficiency improvement

Stay Connected

THANKS

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Problem Diagnosis Assistant for Call Center



Challenge

- Remote diagnosis with no device available, could only rely on experience, tools or knowledge base
- Not every customer could describe their issues correctly
- Low diagnosis accuracy results to high service cost

Solution

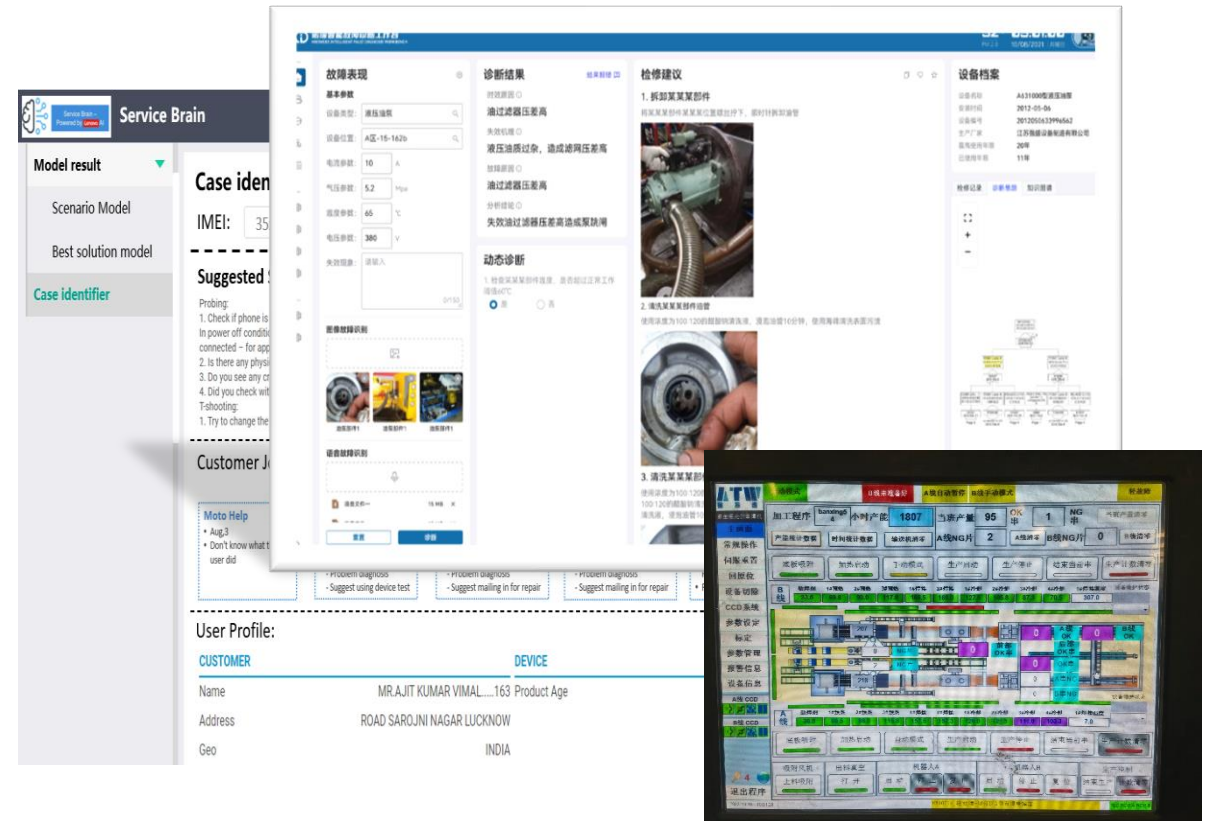
- Import expert experience into knowledge graph to provide diagnosis based on domain knowledge
- Learning from experience and KB to provide diagnosis analysis
- Conversational interaction and provide step by step instructions

Result

90%+
Diagnosis Accuracy

30%-
Repeat Repair Rate

Improve case handling efficiency
Reduce operation cost



Unified Knowledge Platform for Car Manufactory



Introduction

Establish a customer care knowledge platform for one of the world's leading car manufacturers. Utilizing NLP technology and knowledge graph, we construct an AI-driven knowledge lifecycle management platform. This empowers the client with capabilities for knowledge sharing, application, and reuse.



Highlight

Accurate Search

Empowered by AI technology, we offer precise search results through entity extraction, embedding calculations, and ordering optimization.

Knowledge Relationship

Leveraging knowledge graph technology, establish relationships and knowledge that can be applied across all application scenarios.

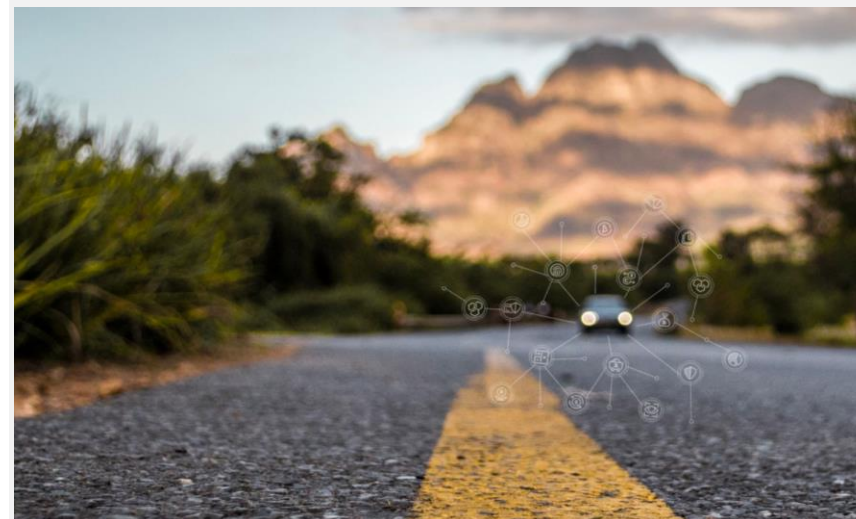
Auto-Knowledge Generation

Extract key elements from documents and generate question-and-answer pairs.



Achievement

- Build-up the knowledge graph foundation
- Product comparison at the specification level.
- Visualization of the distributors
- Data source synchronization and knowledge service provision.



Supply Chain Risk Analysis and Management



Challenge

- Managing the complexity of extensive manufacturing supply chains.
- Various factors, including politics, economy, climate, and environment, can impact the stability of the supply chain.
- Relying solely on human effort is insufficient for timely monitoring; risks can result in substantial losses for the company.

Solution

- Collect and process raw data from websites.
- Develop a risk analysis knowledge graph for automated information classification.
- Establish risk alert models to notify managers and close the loop with supplier feedback.



Results

99%

Accuracy on Info-collection and risk sensing

10x

Efficiency Improvement

Billions\$+

Cost saving

Customer Success | Lenovo Global Intelligence Service Moli/Lena



Introduction

To deliver online customer service for Lenovo 3C customers globally, customer service staff collaborates with AI robots. This approach enables 24/7, full-life-cycle, high-quality service that is accessible anytime, anywhere, in a manner and language that our customers prefer.



Highlight

Multi-language

Supports 20+ languages, including Chinese, English, French, German, Spanish, Portuguese, Japanese, Italian, Hindi, Polish, Turkish, and traditional Chinese

Multi-channel

Supports the connection of Lenovo internal and external 16 channels, including WeChat, DingDing, Teams, Facebook, Lync, PC, Google, Moto Help and other channels

KG support

Knowledge Operations and Management can accurately pinpoint user inquiries within complex semantic environments and deliver knowledgeable responses.



Achievement

- Serve **20+** language users
- Serve **160+** countries and regions users
- **16+** channels for customer reach
- Service order **2000W+**
- Service user **1800W+**



Customer Success | National Park Tourist Service Platform



Introduction

The integrated machine offers intelligent voice customer service and online call center services for 5A-class parks. Visitors can directly interact with remote customer service staff within the park using the all-in-one computer. Additionally, they can make park reservations and inquire about the park's operating hours through the online customer service platform.



Highlight

7*24 Intelligent customer service

Multi-channel access, improve customer service efficiency, save costs

Intelligent Agent platform

ASR Real-time translation, intelligent assistance, intelligent search, emotional monitoring, work order assisted management

Intelligent routing

Intelligent queue with one number



Achievement

- Service efficiency increased by **50%**
- Response time **< 1s**
- **Data visualization** of park services



Customer Success | E-commerce Intelligent Customer Support Platform



Introduction

To provide global intelligent call center services for an overseas e-commerce enterprise, KnowDee offers customers impeccable and robust third-party interface capabilities, enabling the customization of cloud call centers by swiftly and securely integrating with the customers' business system data.



Achievement

- Work order processing efficiency increased by **70%**
- Serve customers in **20+** languages
- Customer satisfaction increased by **80%**



Highlight

Smart work order

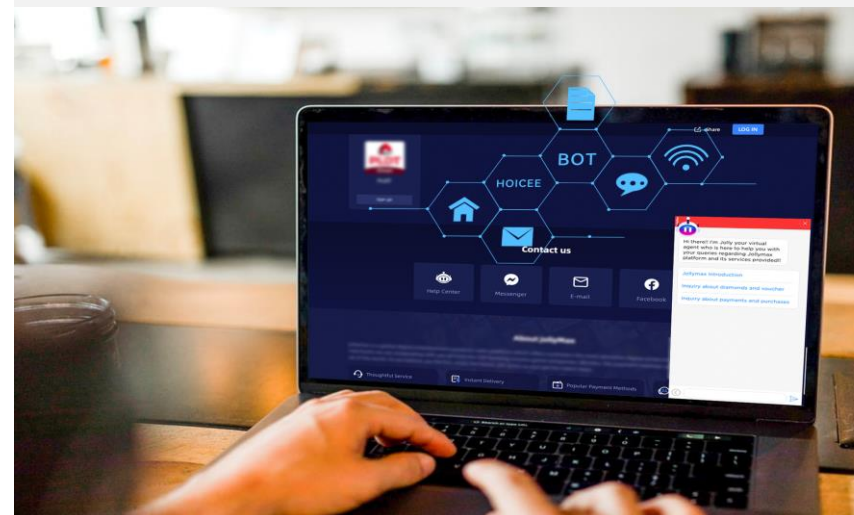
Leveraging customer email content, we utilize NLP technology to perform information extraction and summarization. This process intelligently generates work orders, merges information based on email communication, reduces repetitive work orders, and provides an efficient operational mode.

Intelligence process management

Based on an intelligent process engine, we achieve comprehensive intelligent matching of audit personnel and maintain a record of the audit process.

Monitoring

The server employs a load balancing mode to ensure the system's high availability. Furthermore, the cloud storage system and cloud server can be scaled up based on monitored traffic, thereby providing highly scalable services.



Lenovo Product Marketing AI Analysis



Challenges

- The rapidly changing external environment demands a high level of industry information in manufacturing.
- Limited information channels and staff constraints impede industry analysis, thereby hindering the comprehensive insights required for decision-making in product development, service, and sales.

Solution

- Collect and process raw data from websites.
- Construct a product analysis knowledge graph for automated information classification.
- Integrate competitor analysis to derive key insights.
- Synthesize industry research, financials, and feedback into a comprehensive competitor analysis platform.

Results

300+

Analysis Dimensions and
Source Websites

**LLM Based
Conversational
Analysis**

Market Analysis
Portfolio Analysis
Product Competitive Analysis
Industry Dynamic Analysis

**AI Triggered
Analysis and Actions**



华硕超薄型笔记本在 2023 年第一季度的季度同比增长率是多少?

View the build process

- 1. Determine the language of the user's question
- 2. Summarize the user's current intent based on the overall context
- 3. Determine the question type
- 4. Determine if the user's question meets the query conditions
- 5. Based on the current query logic, combine business knowledge to write query statements and execute data queries
- 6. Answer the user's question based on the data query results

华硕超薄型笔记本2023年第一季度季度同比增长率 - sell_in

季度	当前销量/Mu	过去销量/Mu	同比增长率/%
2023Q1	1.56	1.99	-21.4

Total 1 items < 1 >

根据数据, 华硕超薄型笔记本在2023年第一季度的销量为1.56百万单位, 相较于去年同期的1.99百万单位, 销量有所下降。具体而言, 销量下降了21.4%。这表明在2023年第一季度, 华硕超薄型笔记本的市场表现不如前一年同期, 出现了较为明显的销量下滑。

PC market trend

Please Enter to message; Press enter key to send...

Fraud Work Order Detection For Service Repair



Challenge

- Manufacturing businesses, which operate across diverse areas and regions, face challenges in providing one-on-one services.
- The daily high volume of service tickets cannot be promptly reviewed or authenticated by staff, leading to increased operational and parts costs.

Solution

- Construct business data models utilizing big data and knowledge graphs, encompassing work order information, spare parts application information, customer information, supplier information, audit rules, and so on.
- Employ graph mining algorithms for anomaly detection and risk level assessment.
- Implement a human-machine collaborative operation management system to assist operational personnel in decision-making, highlighting relevant risks and providing a basis for judgment.



Results

~100

abnormal risk identification
models

95%+

abnormal risk cases
identified

\$5M / Year

reduced business losses