

ỨNG DỤNG AI THÚC ĐẨY VẬN HÀNH THÔNG MINH TRONG SẢN XUẤT

Ông KHỔNG ĐỨC DUY

*Chuyên gia Phát triển Trung tâm Đổi mới sáng tạo AI
Tập đoàn FPT*



01

FPT

The Market Leader





FPT – The Market Leader



Founded

1988



Public Listed

Dec 2006 (HOSE: FPT)



Revenue
(FY2025)

USD 2.66 billion
(core business)



No. of
Employees

54,000+
(core business)

80,000+
(including affiliated companies)

KEY SECTORS

Technology Sector



FPT Software

FPT IS

FPT Smart Cloud

FPT Digital

FPT Automotive

FPT Semiconductor

Top 40 IT Services Companies in Asia (by Gartner)

#1 provider of IT services, software solutions, and system integration in Vietnam

2 of **FPT AI Factories** in Japan and Vietnam named TOP500 world's Fastest Supercomputers (#36, #38)

Secured an order of **70 million chips** and launched **10 chip models**

Telecommunications Sector



FPT Telecom

FPT Online

#1 Cloud and Data Center service provider

Top 3 Telecommunications provider in Vietnam

#1 Vietnam e-newspaper – VnExpress with over 40M frequent readers

FPT Play - Exclusive broadcasting rights in Vietnam for the FIFA Club World Cup 2025™ and English Premier League 2026-2031

Education Sector & More



FPT Education

FPT Invest

152,000+ students at all levels

FPT University: #80 worldwide in SDG8 (Decent Work & Economic Growth) (*)

FPT School of Business: ranked 'Excellent' business program in Vietnam — highest in EdUniversal's ranking system (**)

(*) *TIMES Higher Education*
(**) *EduUniversal*

OTHERS

Retail, Distribution Sector & More



FPT Shop

FPT Long Chau

Synnex FPT

Top **pharmacy chain** in Vietnam, operates nationwide across **34 provinces and cities**

Established **50 vaccination centers** within less than 1 year nationwide

Cisco Vietnam's **best distributor** for 8 consecutive years

Apple's Premium Reseller in Vietnam

Strategic Technology Steering Committee

Quantum AI and Cyber Security Institute (QACI)

FPT UAV (Unmanned Aerial Vehicles)

FPT Railway Mobility Technology (FMT)

FPT Cyber Security

Digital Conglomerate 5.0 (DC5)

Committed to accelerate focused investments across key technology domains, highlighted by a **USD 100 million** commitment to **QACI** — one of the first quantum research centers founded by a Vietnamese enterprise



90+ Offices **30+ Countries & Territories**

Americas

USA | Canada | Colombia
Costa Rica | Mexico

Europe & Middle East

United Kingdom | Germany | France | Romania
Czech Republic | Slovakia | Denmark | Sweden
United Arab Emirates | Saudi Arabia | Egypt | Israel

Asia

Japan | South Korea | China | Vietnam (HO) | Singapore
Australia | Malaysia | Indonesia | Philippines | Hong Kong
India | Thailand | Taiwan | Myanmar | Cambodia

FPT's Milestones through the Years

1988

FPT established with 13 members

1997

Became one of the first internet service providers in Vietnam

1999

Established business in Global IT Services (FPT Software)

2005

Established FPT Japan – the 1st Vietnam IT Company in Japan.

2006

- Established FPT University
- Listed on the Vietnam stock market.
- Became Microsoft's Gold Certified Partner

2010

Partnered with Microsoft to launch Global Notes Migration Factory in Hanoi

2014

- Reached \$1B in revenue.
- Acquired RWE IT, Slovakia.

2018

- Acquired Intellinet Consulting firm, USA.
- Became AWS Premier Consulting Partner

2020

- Reached 500 million USD in global IT services .
- Launched the largest data center in Vietnam.

2023

- Executed 4 M&A deals in the US and European market;
- Achieved 1 Billion USD in global IT services.
- Became SAP's Regional Strategic Services Partner in APAC region

2024

Established AI Factory in Vietnam & Japan and strategic partnership with NVIDIA

2025

- Became Principal Partner in Digital Transformation of Chelsea FC
- Achieved the AWS Generative AI Competency

Advancing through Global Alliance



- **2 AI Factories** in Vietnam and Japan, leveraging NVIDIA's advanced GPU technology.
- Joined **NVIDIA Partner Network** as a Service Delivery Partner and aims to become a Global System Integrator.
- Established a tech ecosystem to provide AI Factory Development, alongside SCSK, ASUS, HP, and more.
- Over **10,000 NVIDIA certificates** in FPT (as of 2025).



- Over **25 years of global collaboration**.
- Partnership's key aspects: Cloud Deployment, Digital Transformation, Teamwork Deployment and Advanced Specializations (Low Code App Development, Cloud Security...)
- Over **3,000 Microsoft Certified Engineers** and 2 Microsoft MVPs in FPT (as of 2025).
- Became **SEA's first Microsoft Enterprise System Integrator** to achieve Frontier Partner status.



- Partner since 2003 across various domains.
- **SAP Regional Strategic Services Partner (RSSP)** in 2023 in APAC & Japan.
- SAP APJ Partner Excellence Award 2025 for Regional Strategic Services Partner in 2025.
- Over **1,600 SAP consultants** and **1,250 SAP certificates** in FPT (as of 2025).



Over 10 years of partnership and 750+ AWS certifications, FPT achieved **AWS Generative AI Competency**, underscoring its technical depth and proven customer success.



In 2025, FPT became Vietnam's **first ServiceNow Partner**, accelerating AI-powered low-code adoption across Asia-Pacific.



Advancing through Global Alliance

kyndryl



- Aimed to **accelerate enterprise digital transformation** across North America, Europe, the United Kingdom, and Japan; And provide unified, end-to-end solutions to customers in high-demand sectors like BFSI and retail.
- Together the partnership will provide and support application-infrastructure solutions including AI & Data, application services, cloud migration, IT consulting and Infrastructure operations.

SCSK



- The partnership started in 2018 for IT services in Asia Pacific region.
- Established **COBOL PARK** to secure talent pipeline and support legacy system modernization and maintenance.
- Aimed to address the “2025 Digital Cliff” and targeted Japan’s 500-billion-yen financial sector.



- FPT became **Chelsea Football Club’s Principal Partner and an official partner in Digital Transformation** in 2025.
- The partnership leverages FPT’s tech expertise and digital transformation roadmap to elevate Chelsea FC’s fan engagement, business operations and performance on and off the pitch.

Qualcomm



- Signed a **Technical Assistance and Development Agreement** to accelerate AI-driven automotive solutions in 2026, positioning FPT as **the first partner in Vietnam** and **the second in Southeast Asia**.
- FPT joined Qualcomm-led coalition to **accelerate AI-native 6G networks**.
- Aimed to support Qualcomm’s R&D expansion in Vietnam and across the wider APAC region.



02

FPT Software

Technology Enabler of Complex Business Challenges & Opportunities



Our Purpose

To **create next possibilities for people** by embracing **technologies** and cultivating **future-ready talents** to progress a sustainable future for all.

Together, we Accompany the Future.

Our Commitments



Client Values: We are obsessed and driven by the values to our customers' success.



Learn & Grow: We continuously invest in technologies and people to serve our customers.



Challenging Mission: We thrive on challenging missions and are passionate about the innovations to solve them.



Happy Workforce: We evolve and relentlessly build an inclusive, future-ready and happy workforce.



System & Integrity: We take pride in a systematic and integrity-driven approach to all stakeholders.

Our Values

Speed

Scalability

Quality

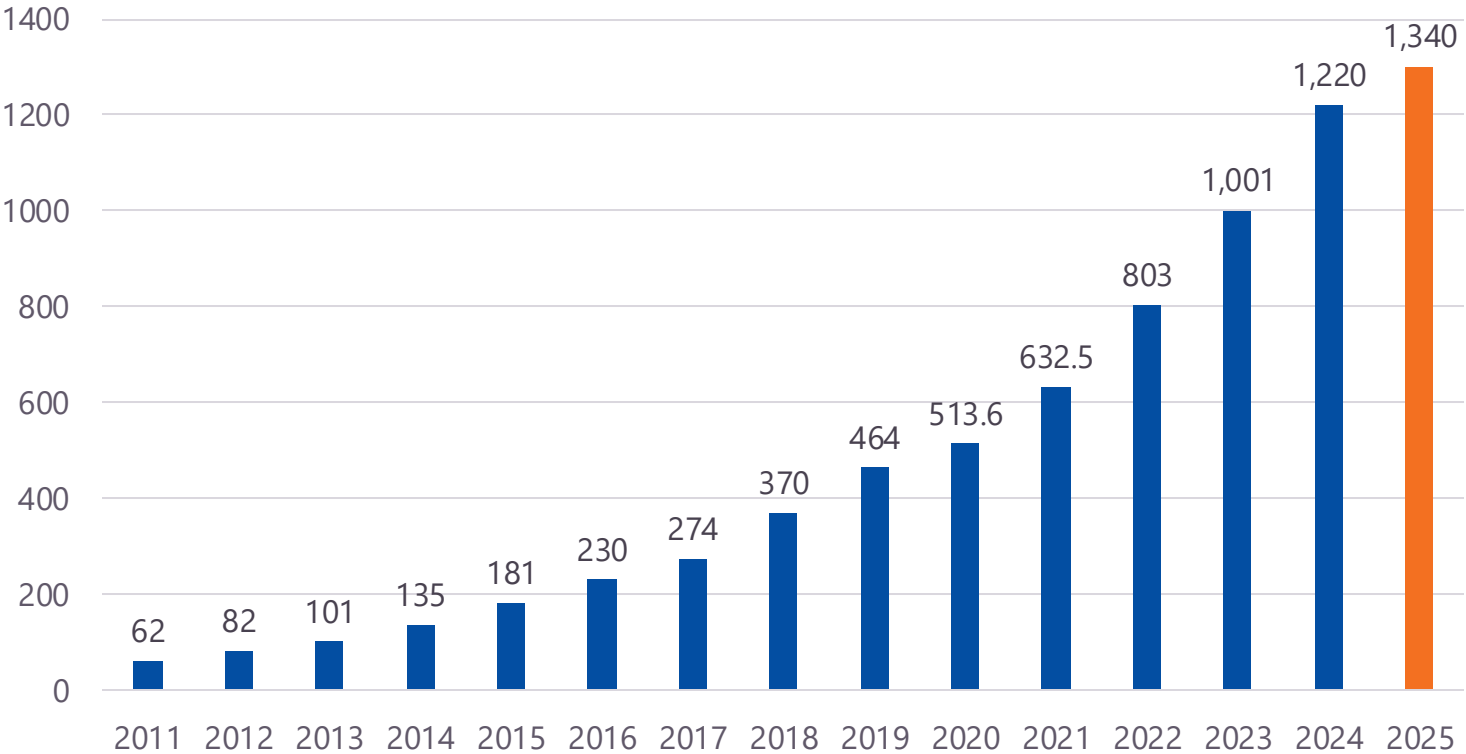
Compliance

Global Presence

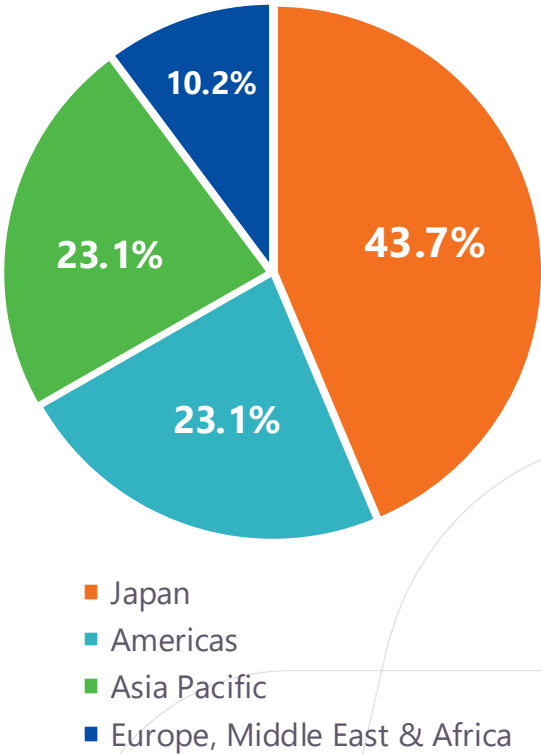


Highlights

**FPT’s Revenue in Global IT Services
(Million USD)**



By Regions



International Recognitions (*)

AI & Data

 IDC MarketScape: Asia/Pacific AI- Enabled Front-Office Conversational AI Software Vendor Assessment, 2025	 AI-driven ADM Services ISG Provider Lens SM Study – APAC, 2025	 IDC MarketScape: Worldwide Front- Office Conversational AI Software Vendor Assessment, 2024	 Everest's Data and Analytics (D&A) - PEAK Matrix for Services Assessment, 2023
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DX & Automation

 Gartner Market Share: Services, Worldwide, 2025	 Forrester Landscape: The Digital Transformation Services, 2025	 Forrester Landscape: The Connected Product Engineering Services, Q2 2025	 The Forrester Wave SM : Connected Product Engineering Services, Q4 2025
 Application Development and Transformation Services for Applications PEAK Matrix, 2025	 Digital Transformation Services for Mid- market Enterprises PEAK Matrix [®] Assessment, 2025	 Gartner's Market Share: Services, Worldwide, 2024	 Gartner's Peer Insights SM 'Voice of the Customer': Robotic Process Automation, 2024
 Forrester Landscape: The Modern Application Development Services Landscape, 2024	 Forrester Landscape: The Continuous Automation and Testing Services, 2024		

Industry Solutions

 Automotive and Mobility Services and Solutions ISG Provider Lens SM Study, APAC, 2025	 Banking IT Services PEAK Matrix [®] Assessment, 2025	 HFS Horizons: Manufacturing Intelligent Operations Services, 2024	 IDC's MarketScape: Asia/Pacific Manufacturing Execution Systems Vendor Assessment, 2023	 Everest's ACES Automotive Engineering Services PEAK Matrix Assessment, 2023
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Cloud, Security & Managed Services

 Asia/Pacific Context: Magic Quadrant for Public Cloud IT Transformation Services, 2025	 Gartner's Market Share Analysis: Infrastructure Implementation and Managed Services, Worldwide, 2025	 IDC MarketScape: Asia/Pacific (Excluding Japan) MDR Services, 2025	 AWS Ecosystem Partners ISG Provider Lens SM Study – APAC, 2025	 Gartner's Market Guide For Public Cloud Managed And Professional Services, Asia/Pacific, 2024
 IDC MarketScape: Asia/Pacific Professional Security Services (PSS) & Managed Security Services (MSS) Vendor Assessment, 2024	 ISG AWS Ecosystem Partners Provider Lens SM Study, 2024	 Forrester Landscape: The Application Modernization and Multi Managed Services, 2024	 Asia/Pacific Cloud Security Services Vendor Assessment, 2023	

Enterprise Solutions

 Gartner's Market Guide for Microsoft 365 Implementation and Support Services, 2026	 The Forrester Wave SM : Microsoft Business Applications Services, Q1 2026	 SAP Ecosystem Partners ISG Provider Lens SM Study – APAC, 2025	 ISG Next-Gen ADM Services Provider Lens SM Study, 2024	 SAP Business Application Services for Mid-market Enterprises PEAK Matrix [®] Assessment, 2024
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*Non-exhaustive list

Serving Global Industries



Manufacturing



**Banking, Finance
Services &
Insurance (BFSI)**



**Energy
& Utilities**



Automotive



Healthcare



**Logistics &
Transportation**



Retail

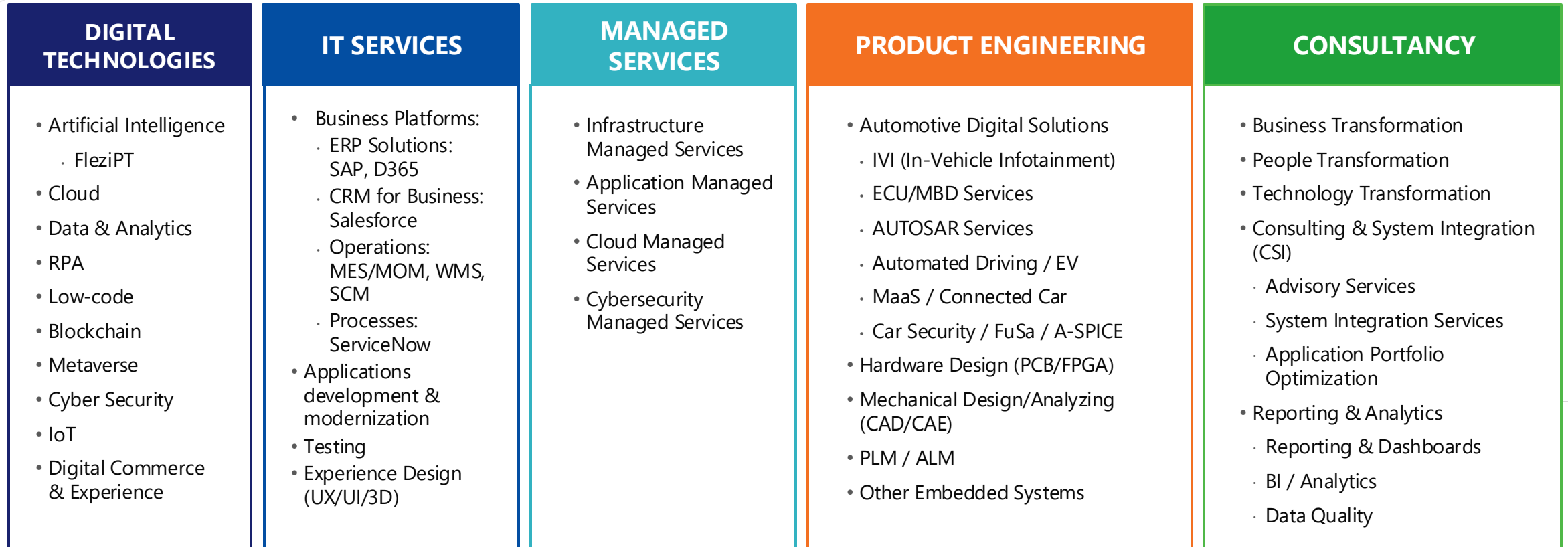


**Media &
Entertainment**



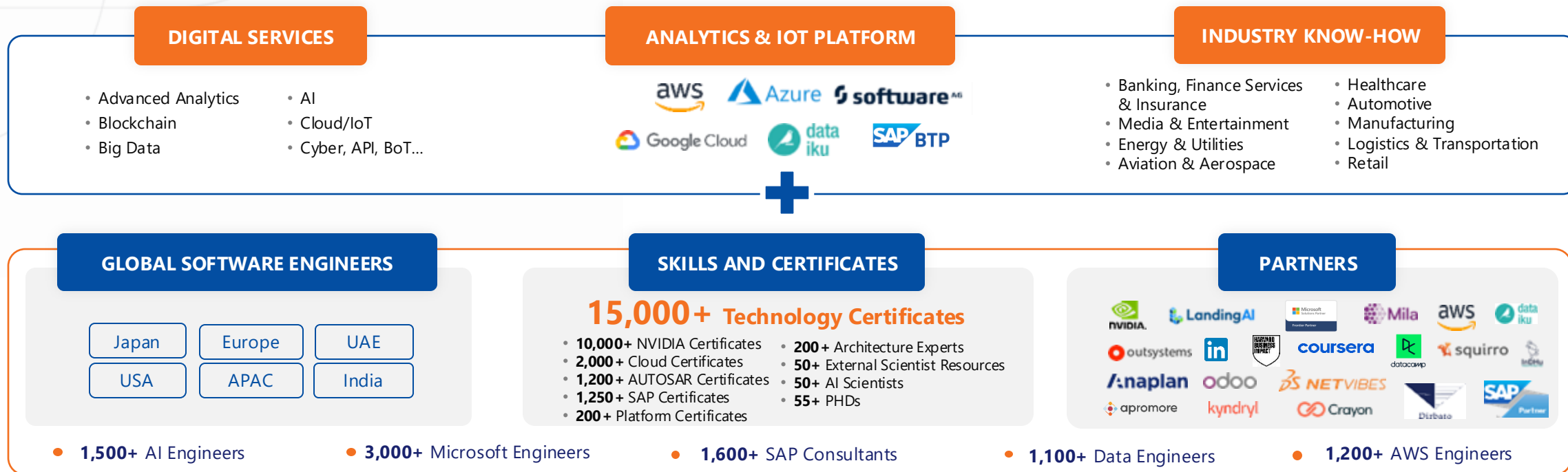
**Aviation
& Aerospace**

Complete IT Solutions Provider

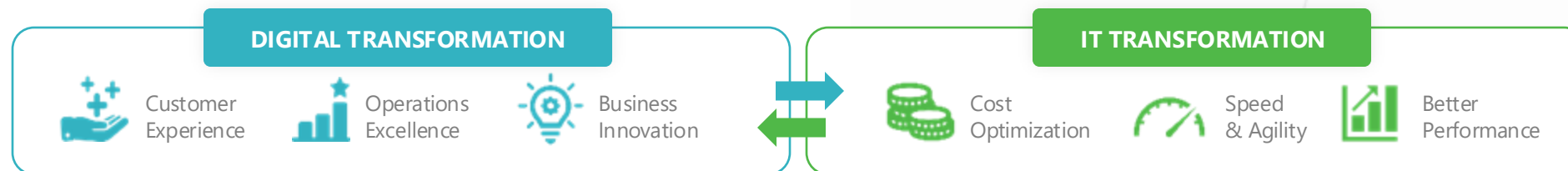


END-TO-END COMPLETE SOLUTION

Skills and Technologies



Aligning Business and Digital



Quality and Compliance

We uphold our products and service offerings to the highest level of global standards and models.

Artificial Intelligence



FPT becomes Vietnam's first company to achieve **ISO/IEC 42001:2023** AI management system accredited certification

Software Management System



Capability Maturity Model
Integration Development



Test Maturity
Model Integration



Quality Management



Automotive



A-SPICE level 3



Healthcare



HITRUST Risked-based,
2-year (r2) Certification



QMS for Medical Device





03

FPT SOFTWARE

AI Capabilities



Trusted by 1,100+ Customers

including 130+ Fortune 500

*"We are extremely happy working with FPT that embodies **Trust, Commitment and Friendship**."*

NEC
NEC Solution Innovators, Ltd.

Masahiko Ishii
Executive VP and Member
of the Board

*"Our partnership with FPT allows us to **accelerate** the adoption of **AI-driven solutions** that improve hospital operations, enhance patient care, and optimize medical workflows."*


GE Healthcare

Mark Stoesz
President, Enterprise Solutions and
Partnerships for International Market

*"The relationship between Zuellig Pharma and FPT has become more than just vendor or partner, it has become a very interesting, **well-oiled machine** in which we understand each other"*

 **ZUELLIG PHARMA**
making healthcare more accessible

Luiz Enriquez
Group Chief Technology Officer,
CTO, CIO

*"The FPT team is going to bring something that we don't even have in the US, and to drive us to **even better heights**."*

COX
AUTOMOTIVE™

David Rice
Senior VP,
Product & Engineering

*"We want to be a data-first company, driven by insights from AI models. We are fortunate to be working with **FPT– an AI-first company**, to support us mapping data and drive tangible insights"*



Daniel McEwan
Director of Partnerships

*"We strongly recognize FPT's **technical expertise and maturity**, and Airbus' **continued confidence** in the company as a trusted and capable partner."*

AIRBUS

Wouter Van Wersch
Executive Vice President
International



SCSK



 **LG CNS**

comfortdelgro

HONDA

ANA

RWE

SCHAEFFLER

e-on

kyndryl

FPT AI Vision – AI-first Corporation



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*FPT Software is an AI-First company, with **FleziPT** at the core—embedding AI into every engineer and service to drive productivity, scale AI-augmented engineers, co-innovate industry AI with hyperscalers, and build an AI-First portfolio targeting one-third of total revenue.*

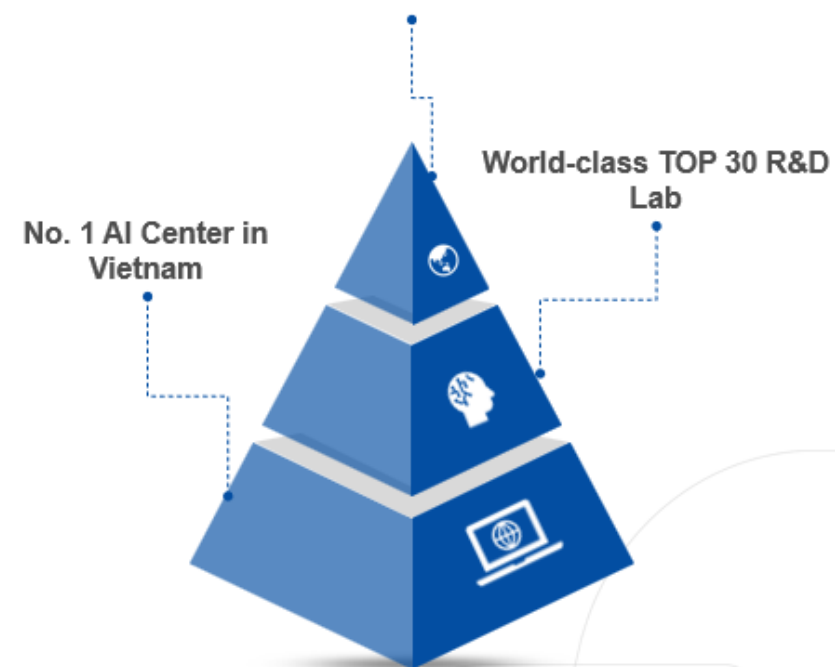
Dr. Truong Gia Binh

Founder and Chairman of FPT Corporation.

FPT is accelerating toward an **AI-First Corporation** embedding it across solutions and re-skilling our talent pipeline as AI-augmented software engineers.

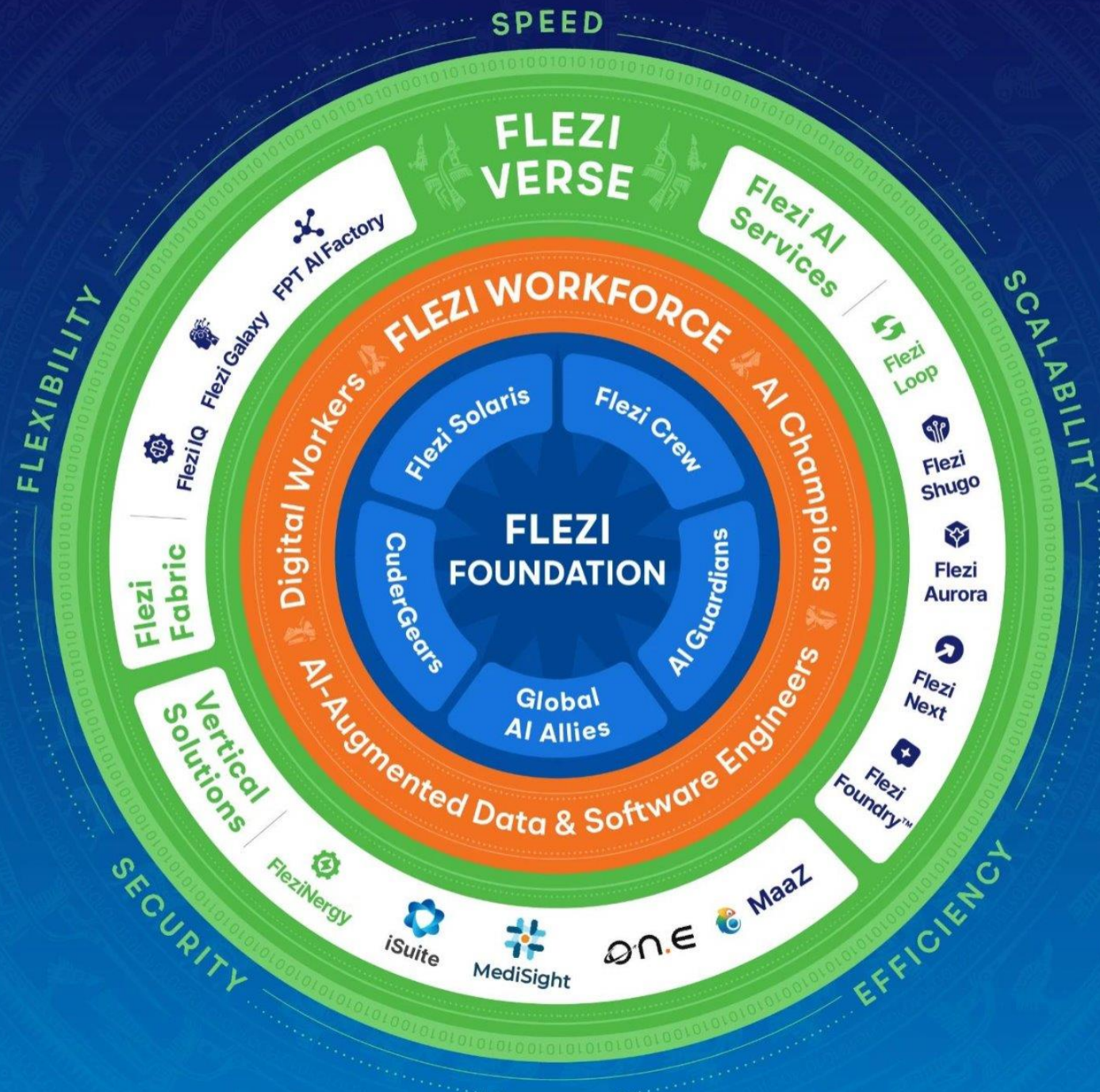
We aim to **drive transformation faster and unlock new levels of excellence** with **comprehensive AI-powered tools and solutions**, while ensuring trust and collaboration remain central.

Global AI DX Solution Provider





AI-FIRST
EVOLUTIONARY
PLATFORM



AI-First for Next-Level Transformation

Global AI Allies



Services and Solutions



FLEZI VERSE - AI That Delivers Business Outcomes

- A suite of ready-to-scale solutions that modernize business operations
- Embeds AI into core IT services such as Cloud, Data, and Application Modernization
- Proven platforms like IQ Data Platform and Flezi Agents to accelerate time-to-value
- Drives measurable transformation across key industries, not just pilots

FLEZI WORKFORCE – Faster, More Flexible Delivery at Scale

- Provides flexible access to AI-augmented delivery teams that work faster and smarter
- Uses Digital Workers to automate repetitive tasks, reducing cost and turnaround time
- Enables rapid scale up or down through FPT's AI-enabled Global Delivery Model
- Ensures consistent quality, speed, and flexibility to meet changing business demands

FLEZI FOUNDATION – Secure, Future-Ready AI at Enterprise Scale

- Ensures secure, reliable AI adoption built into day-to-day delivery
- Uses advanced tooling and automation to improve speed, quality, and consistency
- Applies Responsible AI and security-by-design, trusted by global enterprises
- Future-proofed through co-innovation with leading partners like NVIDIA, Microsoft, SAP, and Landing AI

60%

optimized development time

50%

reduction in rework

30%

Boost in developers' productivity

30,000+

AI-augmented, globally certified engineers

2,000+

AI & Data engineering students graduating annually

2

FPT AI Factory powered by NVIDIA HGX GPUs (H100, H200, B300)

Our Services



	Agentic AI	ADLC	Physical AI	Vision AI	Customization			
Products	FLEZi Galaxy		FLEZi Metis	 Intelligent Inspection	 SoundAI	 VisionAI	 SenseAI	
Solutions	RAG/Knowledge-Based Agent	Knowledge Base Code Graph	Omniverse/ Issac Sim Issac Lab	Defect detection	Demand Trend Forecast			
	Autonomous Agent/APA	AMS	VLA/VLM	Video analysis	Prediction			
	Agent Platform	On-premises Coding agent	Data generation	Tracking	Optimization			
Services	Consulting	Agent Development	AgentOps	Context Engineering	AI Model Customization/Tuning	AI model deployment		
Infrastructure & Hardware	FPT Data Center	 GPU container	Managed GPU Cluster	Metal Cloud	Cloud	 Amazon Machine Learning	 Google Cloud	 Microsoft Cognitive Services



04

FPT SOFTWARE

AI in Manufacturing





Intelligent Inspection (I2)



SHAPING THE FUTURE OF AI: OUR KEY INITIATIVES

FPT

- AI TALENTS
- 1.000 + AI Professionals
 - 50 + AI Scientists
 - 500 + AI Engineers
 - 200 + Data Analysts
 - 500 + Content Domain Experts
 - 1.700 + AI Major

55+ Ph.D.

144+ Accepted Papers

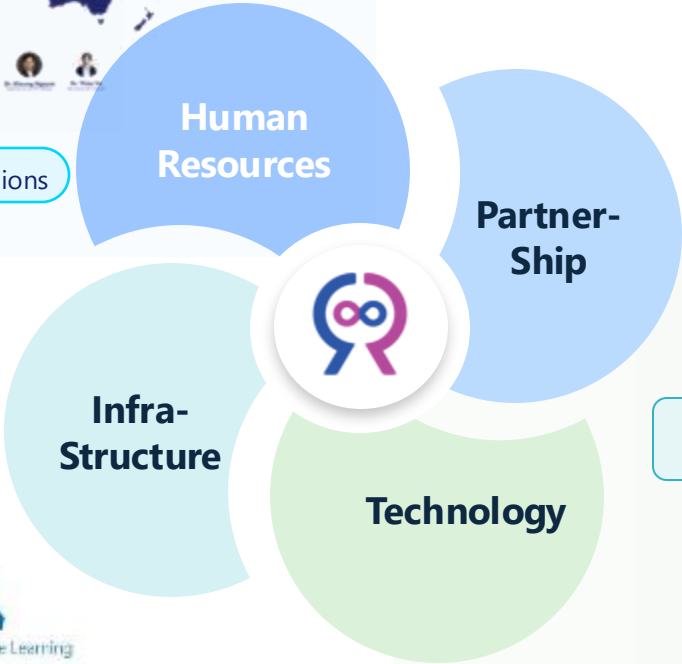
108+ Leading Publications

INFRASTRUCTURE
DATA CENTER & CLOUD SERVICE

NVIDIA DGX H100, H200
Full-scale cloud based on AI services
Future-proof cloud solutions securely created on-premises, hybrid, multi-cloud, and edge



\$400 million investment
NVIDIA Hopper GPU Accelerate performance to 400 teraflops
Established 2 AI Factories in Vietnam and Japan in 2024, leveraging NVIDIA's advanced GPU technology



STRATEGIC PARTNERS

DeepLearning.AI

LandingAI

AITOMATIC

APPLICATION OF CUTTING EDGE AI TECHNOLOGIES

Large Language Model

Large Vision Model

Large Code Model

Edge AI

American Patent AI in Software Development

American Patent 3D point cloud

Japanese Patents Vision Transformer

Patent

Patent

Patent

Code Summary

Microsoft Benchmark No. 1

<https://microsoft.github.io/CodeXGLUE/>

Task	Model	Organization	Date	AI 1	AI 2	AI 3	AI 4	AI 5	AI 6	AI 7	AI 8	AI 9	AI 10
1	CodeXGLUE	FPT AI Lab	2024-01-01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	CodeXGLUE	AI Lab	2024-01-01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	CodeXGLUE	CodeXGLUE	2024-01-01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

I2 – INTELLIGENT INSPECTION



I2 is the comprehensive AI Solutions for smart factory, combining **VISION**, **SENSE** and **SOUND** modules to automate **QUALITY CONTROL** and **PREDICTIVE MAINTENANCE**



PRODUCT



MACHINERY

OBJECTS

QUALITY CONTROL & MACHINE PREDICTIVE MAINTENANCE

APPLICATIONS



VISION



SENSE



SOUND

AI MODULES



2D
CAMERA



3D
CAMERA



VIBRATION



TEMPERATURE



OTHER
SENSORS



SOUND

SENSORS



Use Cases in Manufacturing

Component Inspection



PCB inspection



Assembly Parts Inspection



Specifications Inspection



Serial Information Inspection

Defects Detection



Manufacturing Defect Inspection



Corrosion Inspection



Damaged Packaging Inspection



Damaged Part Inspection

Surface Inspection



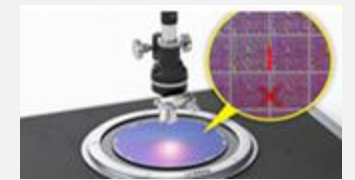
Infrastructure Inspection



Paint Surface Inspection



Steel Surface Inspection



Semiconductor Test

Pick And Place



Pallet Picking

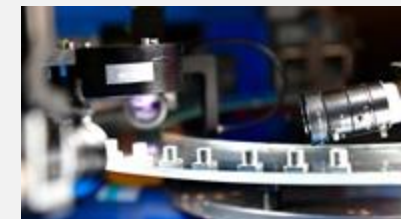


Pallet Picking



Box Picking

Form Error and Dimension Inspection



Benefits of I2

Improving product quality with I2 brings **significant benefits** to factories, such as **reduced manufacturing costs and increased brand power**



Deployable/
No Proof of Concept required



High-speed processing



Scalable
to various products
and industries



Automatic
Reporting



12~15%

Reduced
production costs

60%

Reduced
recall costs

>85%

Average Accuracy
of Defect Detection and
Classification



FleziDocX



Overview – DocIntelligent at the Central of Digital Transformation

DocIntelligent empowers engineers to **unlock actionable data** from raw documents - transforming productivity across industries

Turn messy, multi-format documents into structured, visually grounded data for your systems. Built for production at enterprise scale

DocIntelligent delivers

80%

Average time reduction in model deployment

98%

Visual traceability for audit and compliance

50x

Faster time-to-value than legacy OCR or LLM stacks

All-in-one Extraction

- Captures **text, tables, diagrams, figures, workflows, titles, headers, and logos** from diverse sources — including scanned images, PDFs, and handwritten files.

AI-Driven Intelligence

- Suggests optimal fields, segments layouts, and enables live document chat for instant insight.

Performance & Scalability

- Delivers **top-tier extraction accuracy (>98.68%)**, lightning-fast processing, and robust enterprise scalability.

Data Security & Compliance

- Complies with **global privacy laws (GDPR, HIPAA, Hiroshima)**, features secure resource management, and strong AI guardrails.



Traditional OCR vs. FleziDocX

OCR **reads documents**. FleziDocX **understands them and turns them into decisions**.

Traditional OCR

Output

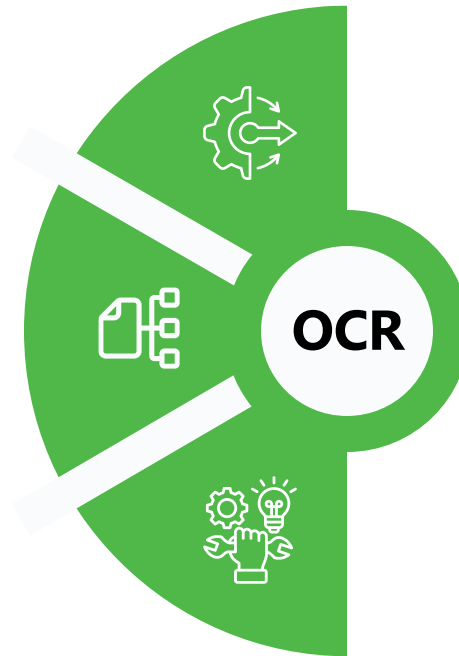
Answers: "What characters are on this page?"
-> No understanding of **tables, sections, diagrams, drawings**

Extraction Method

Converts pixels → text.

Capability

Mostly blind to meaning, structure, and intent.



Next-gen Agentic Document Extraction

Output

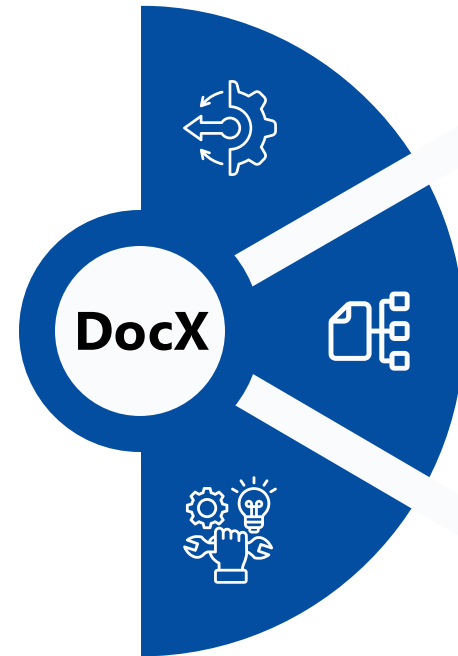
Answers: "What does this document mean, and what should I do with it?"

Extraction Method

Combines vision + language reasoning + autonomous agents.

Capability

Understands structure, domain logic, and context.



Overview of FPT Docintelligent's Features

Instantly converts unstructured documents of various formats into clean Text or JSON.

Automatically **categorizes data into editable segments** (Vehicles, Circumstances, etc.) for easy navigation.

Your assistant for **resolving ambiguities** and optimizing your workflow with contextual **insights**.

Deep-dives into **technical drawings** to pull dimensions, section details, and technical notes. Help with extract data to **Excel output**

Extract



Fields



Split



Breaks complex documents into **logical, bite-sized categories** for targeted review.

Assistant



Mindmap



Turns data into **interactive, expandable maps** for intuitive exploration of document relationships.

CAD



Validation



Cross-references files against spreadsheets or references to provide **accuracy scores and compliance feedback**.

FleziDocX

ESG VÀ SẢN XUẤT BỀN VỮNG: TỪ TUÂN THỦ ĐẾN TẠO LỢI THẾ CẠNH TRANH

Ông PHẠM TUÂN

*Giám đốc sản phẩm kiêm Đồng sáng lập giải pháp VertZéro
Tập đoàn FPT*

ẢNH HƯỞNG CỦA NET ZERO 2050 TỚI DOANH NGHIỆP



Tại COP 28, Thủ tướng Phạm Minh Chính khẳng định cam kết của Việt Nam với thế giới:

Việt Nam hướng tới mục tiêu Net Zero vào năm 2050



Quyết định số 13/2024/QĐ-TTg yêu cầu hơn 2,000 doanh nghiệp thực hiện báo cáo kiểm kê khí nhà kính

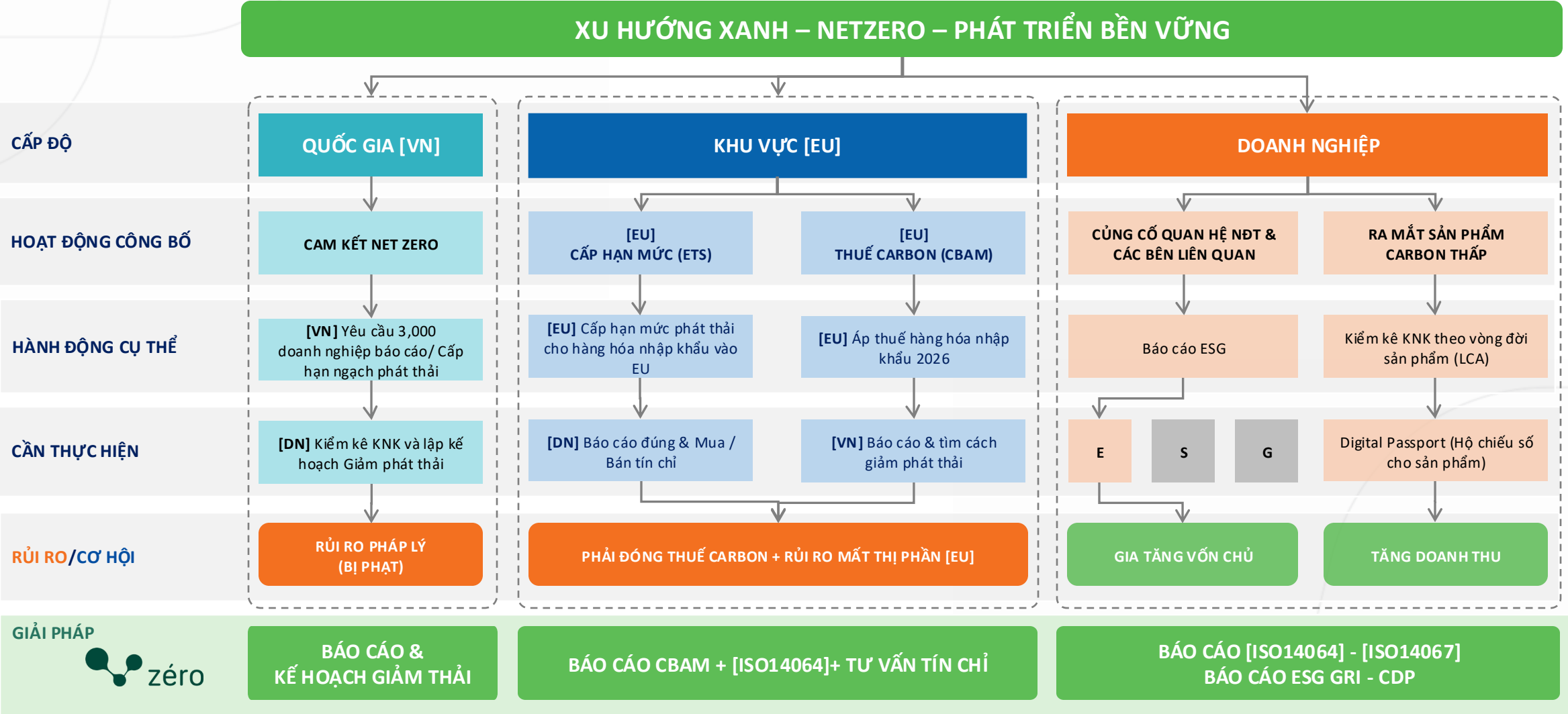
YÊU CẦU

- Thực hiện kiểm kê khí nhà kính (GHG) 2 năm một lần.
- Triển khai kế hoạch cắt giảm phát thải khí nhà kính hằng năm.
- Tổng hợp báo cáo giảm phát thải khí nhà kính trước ngày 31 tháng 12 của mỗi chu kỳ

LỘ TRÌNH

- 31/03/2025: Cung cấp dữ liệu kiểm toán; xây dựng và triển khai kế hoạch giảm phát thải.
- Từ năm 2026: Thực hiện kiểm toán phát thải; xây dựng, cập nhật, triển khai và báo cáo kế hoạch giảm phát thải.

ÁP LỰC | ĐỘNG LỰC CHUYỂN ĐỔI XANH



LỘ TRÌNH CBAM | THUẾ CARBON KHI XUẤT KHẨU EU

10/2023

Trong giai đoạn bắt đầu của CBAM, các nhà nhập khẩu được yêu cầu tuân thủ các nghĩa vụ báo cáo và chưa phải chịu phí CBAM

01/2026

CBAM sẽ được giới thiệu dần dần, trong khi mức trợ cấp miễn phí ETS bắt đầu giảm bớt

2034++

CBAM chính thức vận hành toàn bộ

ÁP DỤNG TOÀN NGÀNH

Bắt đầu

Hiện tại

Giai đoạn chuyển tiếp

Giai đoạn vận hành

Giai đoạn vận hành toàn bộ

Tỷ lệ nộp chứng chỉ CBAM (%)

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	...
0	0	0	2.5	5	10	22.5	48.5	61	73.5	86	100	100	100

- Chỉ báo cáo lượng phát thải theo mẫu và nộp hàng Quý
- Không phải nộp chứng chỉ CBAM
- Nếu sai/chậm: Nhắc nhở/hướng dẫn

- Nộp báo cáo theo quý, và phải **thẩm định bên thứ ba** đáp ứng tiêu chuẩn EU
- Phải nộp chứng chỉ CBAM theo EU ETS**
- Nếu vi phạm: **Phạt tài chính** (theo tấn CO₂e kê khai sai hoặc thiếu) và **có thể bị đình chỉ nhập khẩu CBAM** nếu vi phạm nghiêm trọng hoặc lặp lại

Ví dụ: Xuất khẩu thép EU năm 2026
Sản lượng xuất: 1000 tấn
Phát thải trên mỗi tấn thép: 2.6 tCO₂e
Benchmark EU: 1.2 tCO₂e
Đơn giá trên EU ETS: 80 €/tCO₂e

Tổng lượng chứng chỉ CBAM phải nộp:
 $1000 * (2,6 - 1,2) * 80 * 2,5\% = 2.800 \text{ (€)}$

Đối chiếu năm 2034 khi áp dụng **100%** tỷ lệ chứng chỉ CBAM:

112.000 € ~ 112 €/1 tấn sp

*Giá trung bình EU ETS cập nhật thay đổi hàng tuần

DOANH NGHIỆP CẦN:

CHUẨN HÓA DỮ LIỆU & HỆ THỐNG ĐO LƯỜNG PHÁT THẢI

CẢI THIỆN HIỆU SUẤT CARBON SẢN PHẨM

LẬP KẾ HOẠCH TÀI CHÍNH CHO CBAM

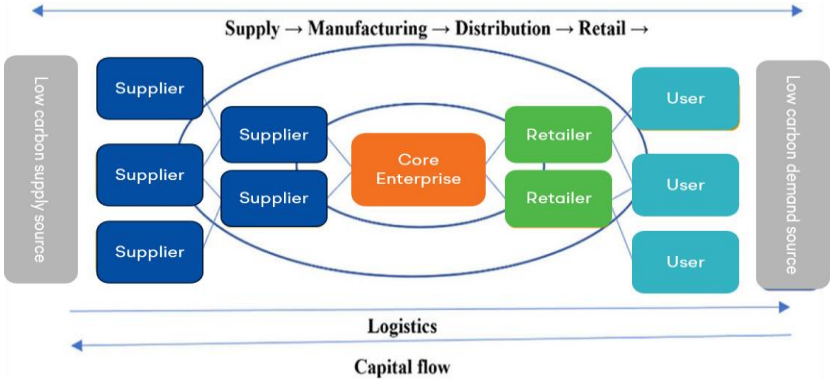
NÂNG CAO NĂNG LỰC TUÂN THỦ & HỒ SƠ PHÁP LÝ CBAM

MINH BẠCH TRONG BÁO CÁO

YÊU CẦU NHÀ CUNG CẤP | CHUỖI CUNG ỨNG XANH

Trong chuỗi cung ứng xanh hiện nay, kiểm kê và giảm phát thải khí nhà kính **không còn là lựa chọn – mà là điều kiện bắt buộc**:

Không đáp ứng các điều kiện kiểm kê KNK, không giảm phát thải – đồng nghĩa **bị loại khỏi danh sách nhà cung cấp**.



CASE STUDY:

Đơn vị	Chương trình	Mục tiêu	Yêu cầu nhà cung cấp	Thực tiễn
	Apple Supplier Clean Energy Program	Cắt 75% GHG so với mức của năm 2015 vào năm 2030	2020 yêu cầu các nhà cung cấp ký cam kết giảm phát thải và gửi dữ liệu định kỳ 2022 - Bắt buộc: - Sử dụng 100% năng lượng tái tạo cho sản xuất liên quan đến Apple - Báo cáo dữ liệu phát thải khí nhà kính ở cấp cơ sở sản xuất (facility-level), đồng thời lưu giữ bằng chứng như chứng chỉ năng lượng sạch, giấy phép phát thải, tài liệu chứng minh giảm GHG	Trong 2024, các supplier đã giảm được gần 24 triệu tấn CO₂ nhờ năng lượng tái tạo và tiết kiệm năng lượng
	Project Gigaton	Giảm hoặc tránh 1 tỷ tấn CO₂ tới năm 2030	- Supplier phải báo cáo lượng GHG Scope 1 & 2 liên quan đến sản phẩm/biz với Walmart, theo 6 chủ đề như: năng lượng, package, waste, transport, v.v. - Walmart chấp nhận dữ liệu CDP nếu được yêu cầu – supplier cần báo cáo qua CDP để tham gia Project Gigaton	Hoàn thành mục tiêu trước 2030 <i>*Một công ty cung cấp rau quả cho Walmart phải hoàn thành kiểm kê GHG trong 6 tuần để kịp hạn báo cáo</i>
	IKEA – Climate Clause	Giảm 50% lượng khí nhà kính vào năm 2030. Tiến tới đạt Net-Zero (phát thải ròng bằng không) vào năm 2050	- Hoàn thiện báo cáo GHG Scopes 1, 2 và 3 (toàn bộ chuỗi giá trị), theo tiêu chuẩn như ISO, SBTi, CSRD. Kê khai phát thải GHG và trình kế hoạch hành động giảm phát thải. - Thực hiện hoặc mua PPA, triển khai năng lượng tái tạo thông qua các cấu trúc PPAs hoặc quỹ hỗ trợ do IKEA tạo ra.	- FY24, IKEA đã giảm 28% phát thải so với FY16 (tương đương 21.3 triệu tấn CO₂) - Thành tựu: 41% giao hàng tận nhà bằng xe không phát thải, nhắm tới 90% vào 2028

THAY ĐỔI CÁCH THỨC CẠNH TRANH

Từ mô hình cạnh tranh



Giá thành



Năng lực sản xuất



Chất lượng

Dịch chuyển
chuẩn cạnh
tranh

Sang mô hình mới



Có báo cáo ESG



Có báo cáo phát thải KNK



Truy xuất nguồn gốc



Minh bạch chuỗi cung ứng



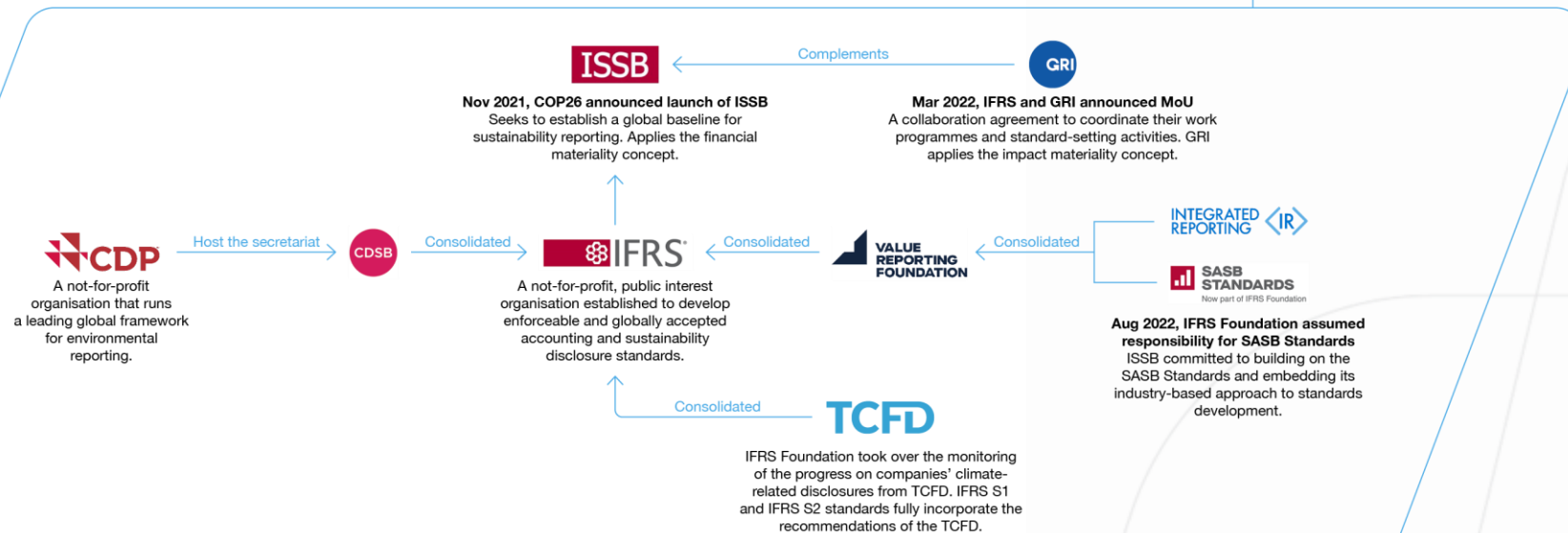
- ★ Processor
- ★ Farm
- ★ Hatchery
- ★ Feed

CERT # P12345

bapcertification.org



PATHWAY TO ESG DISCLOSURE GOING MAINSTREAM



DEMO ỨNG DỤNG AI CHO ESG

Luồng vận hành AI-ESG: đọc dữ liệu, tính toán phát thải và trình bày dashboard phục vụ Nghị định 06/2022/NĐ-CP cùng ISO 14064-1:2018.

01 · INTAKE & VALIDATION

OCR / đọc dữ liệu / cross-check đúng sai

95%	88%	82%	18%
OCR	Field map	Cross-check	Manual fix

AI OCR trích xuất dữ liệu từ hóa đơn và tài liệu scan, chuẩn hóa field, gán confidence score và đẩy ngoại lệ sang bước review – giảm sai số nhập tay.

☒ Tự động
 ☐ Cần kiểm tra tay

02 · CALCULATION ENGINE

Đưa vào tính toán, xuất ra báo cáo



ISO 14064-1:2018 định lượng và báo cáo KNK cấp tổ chức. Dữ liệu sau làm sạch được map vào công thức, lưu audit trail và xuất báo cáo theo quy trình thống nhất.

Scope 1

Nhiên liệu, gas lạnh

Scope 2

Điện mua ngoài

Audit trail

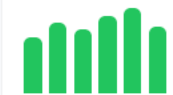
Traceable logic

03 · MONITORING & COMPLIANCE

Dashboard HTML / Nghị định 06 / ISO 14064

Module	Status	Scope
Fuel	Ready	S1
Electricity	Ready	S2
Compliance	Track	VN

Monthly trend



Nghị định 06/2022/NĐ-CP quy định giảm nhẹ phát thải KNK & bảo vệ tầng ozone. Dashboard HTML theo dõi dữ liệu, tình trạng hồ sơ và xu hướng phát thải theo tháng – phục vụ quản trị lần compliance.

☒ Ready
 ☒ Tracked trend
 ☒ B2B compliance view

Nguồn tham chiếu: ISO 14064-1:2018 | GHG Protocol | IPCC 2006 Vol.2 Eq.2.1 | QĐ2626/QĐ-BTNMT 2022

SUBTOTAL — 1.1 Stationary Combustion