



Pioneering Excellence in Mobility Engineering & Technology

## Corporate Deck

# Vietsol Company Overview

2021

Founded

Top 3 Development and Testing Vendor of the largest EV OEM in Southeast Asia

6

Countries Represented

Vietnam (Headquarter)  
United States, Germany, China, Malaysia, Japan

145

Employees Worldwide

5 PhDs  
Internationally educated PhDs

The Only

Technical Partner in SEA of IBM, Siemens



Advance engineering innovation in automotive and manufacturing, enabling scalable, high-performance systems through embedded engineering, system validation, and Edge AI expertise.

## MISSION

## & VISION

Dedication to global engineering standards, emphasizing the attainment of Outstanding Quality at an Appealing Cost.



# Pioneering in our chosen Verticals

We build, validate, and deploy mobility and industrial systems - powered by Engineering, Automotive Products, and Edge AI Solutions.



### Mobility / Automotive

Accelerating OEM and Tier-1 programs with automotive-grade delivery.

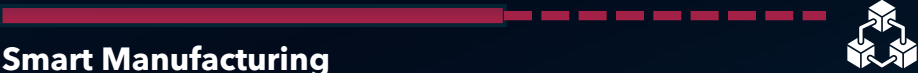
- Faster engineering cycles, validation-ready outputs
- Compliance-first quality (safety & security)



### Electronics & Electrical

Building reliable embedded systems—from integration to production readiness.

- Embedded development and system integration
- Verification workflows and performance optimization



### Smart Manufacturing

Deploying Industrial Edge AI to improve quality and productivity on the shopfloor.

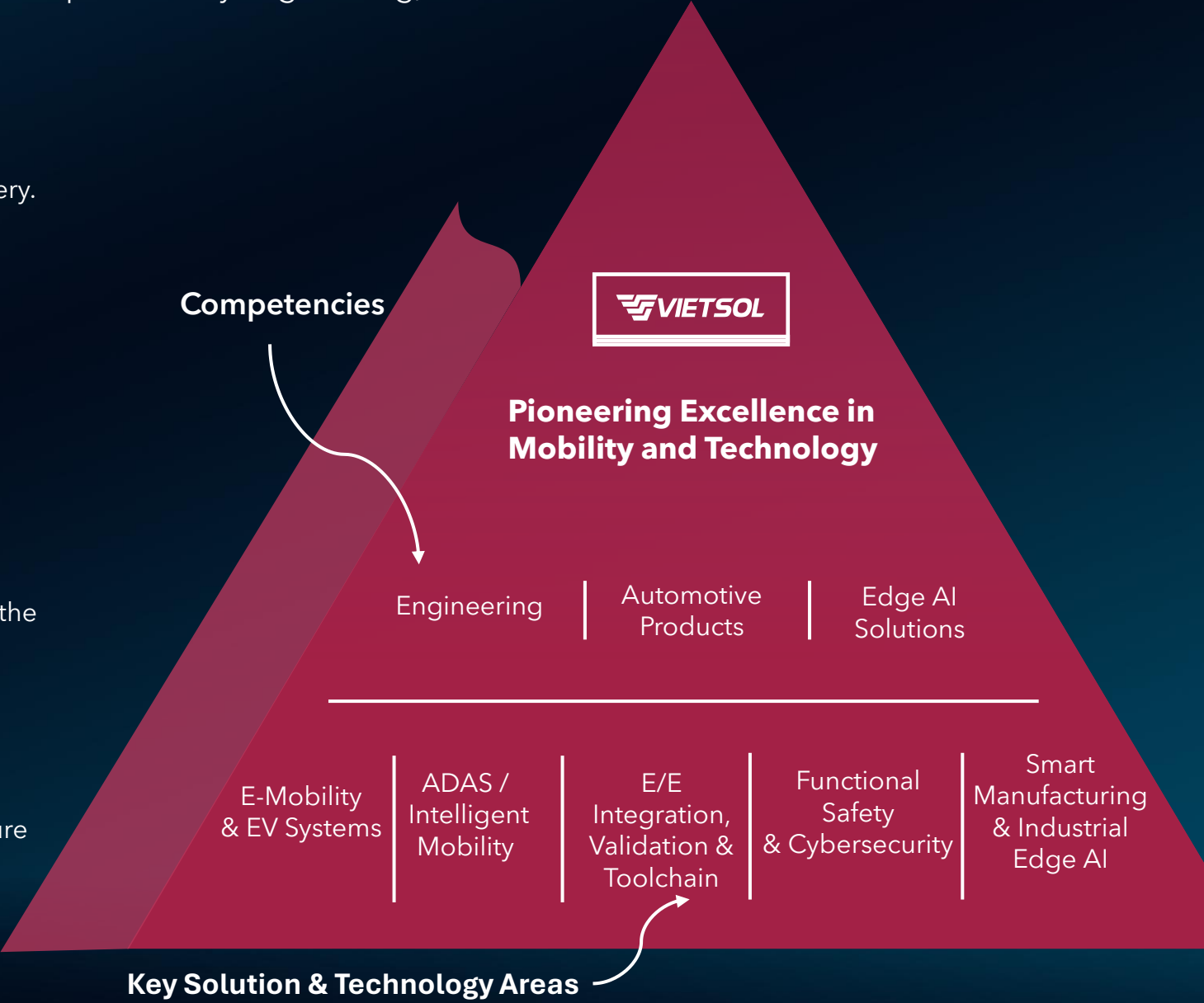
- Vision inspection and automation enablement
- Predictive insights to reduce downtime



### Public Sector

Enabling smarter public services through scalable digital infrastructure platforms.

- Monitoring and decision support systems
- Security-by-design, interoperable deployments




# World-class Leadership and Experts




**Didier Chenneveau**  
Chairman - Strategic Growth & Operations



- 35+ years in high-tech supply chain and operations;
- Former VP/Executive at HP, LG, and McKinsey.



**Nguyen Quoc Tuan, PhD**  
Founder and CEO




- 15+ years in Automotive R&D expert in AI and smart manufacturing.
- Former executive at Bosch, VinFast, FEV




**David Duncan**  
CEO, Vietsol USA LLC



- 30+ years of global leadership in US market entry & brand building for various Automotive OEMs
- Former executive at BMW, MINI, Nissan, VinFast



**Nghiem (Neil) Nguyen**  
Automotive CPO



- 12+ years in automotive electrical engineering, vehicle systems, and product development across global EV programs.
- Led cross-functional teams in vehicle commissioning, global field operations, and mission-critical issue resolution across multiple continents.



**Son Le**  
CCO



- 20+ years in Sales & Commercial leadership for Tech and AI;
- Former executive at FPT, Samsung, and Vingroup.



**Celine Dinh**  
CFO



- 20+ years in Finance and Strategic Transformation;
- Former leadership roles at Vingroup, VinFast, EY, and Caterpillar.



**Luna Nguyen, MBA, FCCA**  
CGO



- 20+ years in business transformation, digital transformation, risk management & investment analysis.
- Former executive at EY, FPT Securities



**Md Ridzuan Md Yusof**  
SEA Business Development Director



- 24+ years in automotive and e-mobility; technical evaluator for the Ministry of Higher Education
- Former EXCO of SAE International.



**Nguyen Thanh Huong**  
CMO



- 15+ years in Marketing, GTM strategy, and Branding; deep expertise in business development and financial analysis.
- Former executive at CafeF, Nguoiquansat

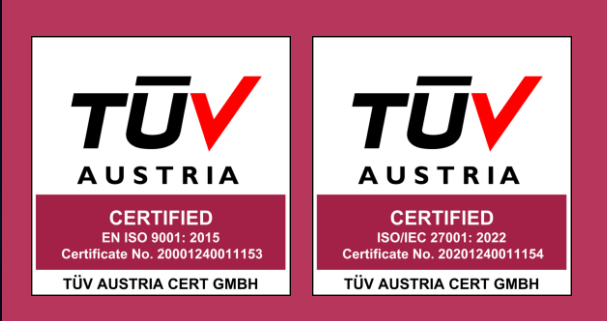
# Our Global Footprint

With a growing international presence and cross-border delivery capability, **Vietsol JSC** supports customers locally and globally—from early discovery to long-term engineering partnership.

- Global delivery model across time zones
- Local engineers, global standards
- End-to-end project execution and governance
- Scalable teams to support rapid growth
- Strong partner ecosystem to extend capabilities
- Secure, compliant collaboration for enterprise clients

## Our Certificates

Our top-notch expertise is proven by industry-leading certifications.



## Global Network

Vietnam, HQ | United States · Malaysia · China · Germany · Japan

- Headquarters: Vietnam
- Legal Entity: USA (Vietsol USA LLC)
- Business & Development Team: Germany, Japan, Malaysia
- R&D Team: China

# Trusted Partnerships & Global Collaboration

## Our Global Partners

Our global partners across automotive, manufacturing, and enterprise technology trust Vietsol as a strategic engineering and Edge AI partner. With deep expertise in MBSE, system integration, automotive software, and AI-driven solutions, Vietsol enables partners to build, deploy, and scale complex systems with speed, reliability, and performance.



## University Collaboration

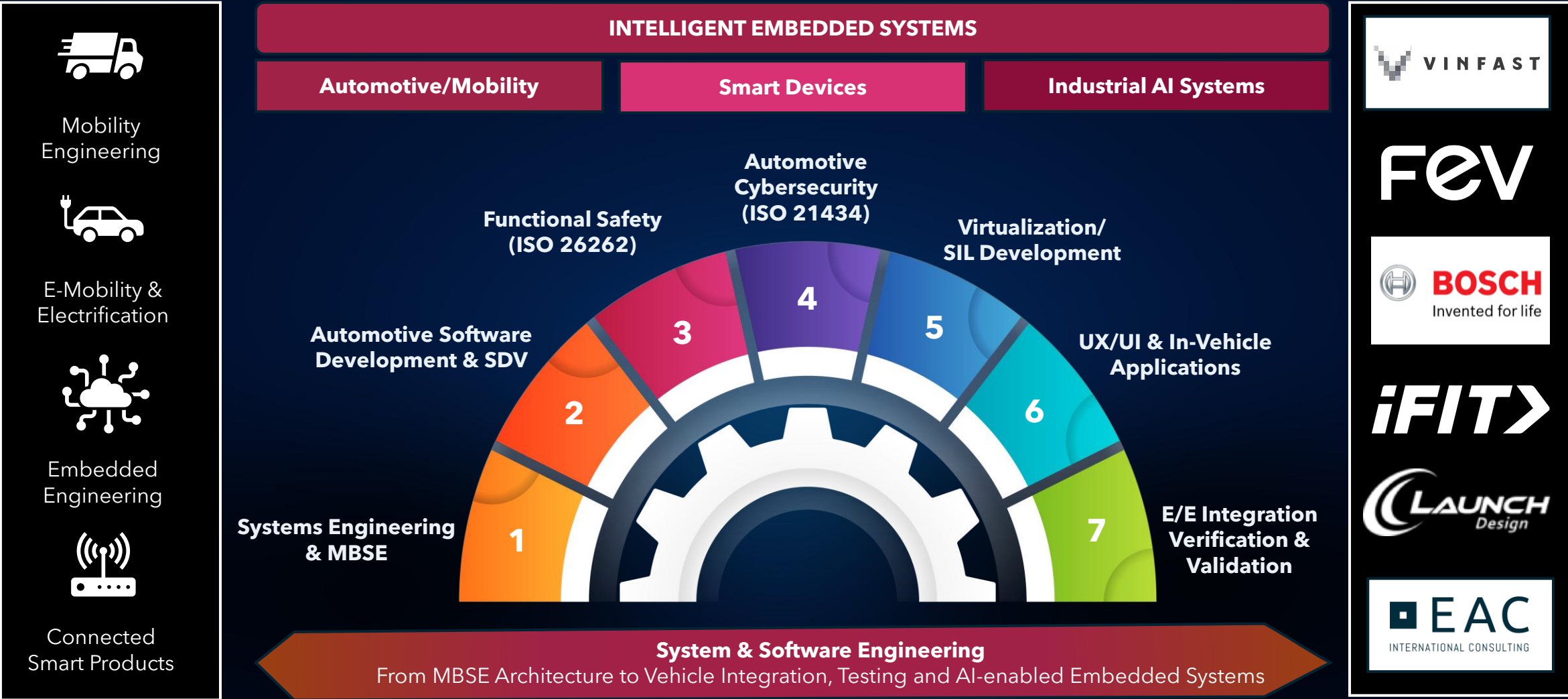
One of Vietsol's key strength is our partnerships with top engineering universities, giving us access to a strong, high-quality talent pool to build and scale effective teams.



# Engineering

From Mobility Engineering to Intelligent Embedded Systems.

Built on deep automotive engineering expertise, Vietsol extends its capabilities to intelligent embedded systems powering next-generation mobility, connected devices, and industrial AI solutions.



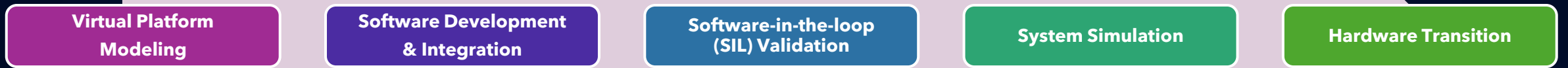
*\*Illustrative list of customers in each industry. Logos and trademarks are owned by the respective companies.*

# Engineering - Virtualization Platform

Enabling Early Software Development and System Validation.

Vietsol develops virtualization platforms that replicate embedded hardware environments, allowing engineers to build, integrate, and validate software before physical hardware is available. Supporting architectures such as RISC-V and other embedded processor models, these virtual platforms enable scalable simulation environments for system development, faster integration testing, and efficient deployment across intelligent embedded systems.

## Top Development Stages



### Virtual Platform Engineering Services

- Design and development of RISC-V virtual platforms
- Virtual platform development for embedded processor architectures
- Hardware abstraction for embedded systems
- Software-in-the-Loop (SiL) simulation environments
- System behavior modeling and simulation
- Integration testing and validation frameworks
- Embedded software debugging in virtual environments

### Supporting Tools & Technologies

- QEMU / RISC-V simulation frameworks
- Virtual platform modeling tools
- Embedded software toolchains
- Python-based automation frameworks

### Application Domains

#### Embedded Processor Platforms

- RISC-V architectures · ARM-based systems
- Custom embedded processors

#### System Development Domains

- Automotive embedded systems · Smart devices and IoT platforms · Industrial automation systems · AI-enabled edge devices

#### Virtual System Components

- CPU simulation · Peripheral models · Memory systems · Communication interfaces · Sensor and actuator simulation

## Development Workflow



# Engineering Strength Built Through Real Execution

From multidisciplinary talent and structured ways of working to real lab and testing environments.

## Engineering Experience

Built through hands-on work in complex product development environments.

Vietsol has built its engineering capability through real project execution across demanding development environments. We place strong emphasis on supporting quality, consistency, and continuity throughout the product development lifecycle – from requirements and design to implementation, integration, and validation.

## Engineering Specialists

Multidisciplinary teams with strong technical depth across engineering domains

Beyond individual technical expertise, Vietsol builds strong engineering capabilities through structured processes, cross functional collaboration, and continuous capability development. This allows us to establish teams that are not only technically capable, but also ready to contribute effectively across complex engineering programs.



**Vietsol Engineering Lab and Testing Equipment Environment**

# Automotive Products

Transforming Vehicle Intelligence with Innovative Solutions.



## Advanced Driving Assistance Systems (ADAS)

### OMS / DMS



- Driver Monitoring & Occupant Monitoring System
- Fleet management system

### APA (Auto Parking Assist)



- Autonomous parking solutions

### ADAS for Motorbike



- Enhanced safety for two-wheeled mobility



## Powertrain Systems

### VCU Development



### BMS (Low & high Voltage)



- Smart battery management

### Inverter, DC-DC, OBC, PDU



- Integrated power conversion & distribution



## Ecockpit & Smart Cabin

### HMI-Ecockpit



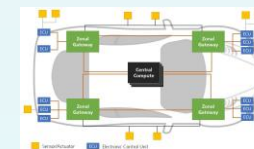
- Human-machine interface for modern vehicles

### Emotion Detection



- Real-time in-cabin AI for mood & behavior tracking

### Body Domain Controller & Zonal Control Module



# Automotive Products – DMS/OMS

AI-powered Fleet Management for Safer Vehicle Intelligence.

Vietsol's AI-enabled monitoring solutions help automotive players enhance in-cabin safety and intelligence through real-time detection of driver and occupant behaviors. With capabilities spanning distraction, drowsiness, posture, and occupant-related monitoring, the solution is positioned to support the growing importance of advanced in-cabin sensing and safety-driven vehicle functions.



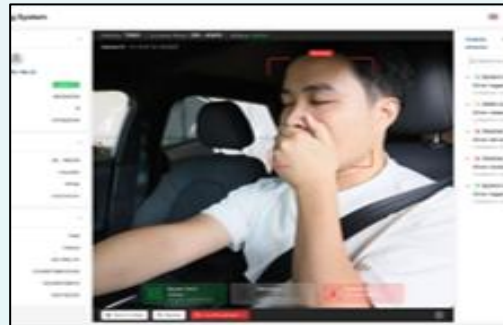
Driver Monitoring System



Advanced Driver Distraction Warning



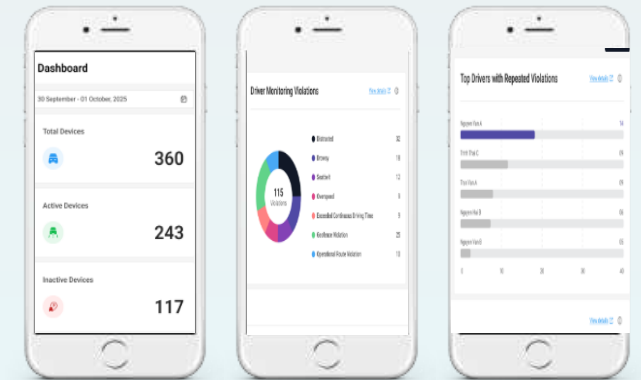
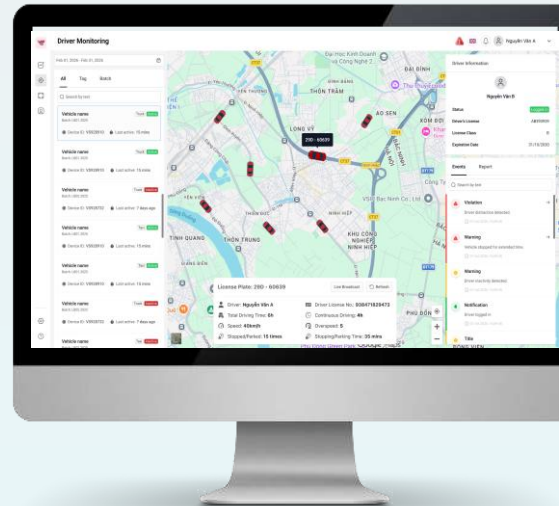
Occupant Monitoring System



Driver Drowsiness & Attention Warning

## Fleet Management System

A next-generation **AI-powered Fleet Management platform** designed to transform how fleets operate, monitor, and scale in real time. By combining **edge AI, vehicle telemetry (CAN/OBD), and intelligent data analytics**, the platform delivers end-to-end visibility—from driver behavior and vehicle health to cargo condition and route optimization—enabling safer operations, reduced downtime, and data-driven decision-making across the entire fleet lifecycle.



Web App/Mobile App for Fleet Management

### Key Features:

- Real-time Fleet Visibility
- AI-Driven Driver & Safety Monitoring
- Advanced Vehicle Diagnostics (CANBUS / OBD)
- Smart Dispatching & Route Optimization
- Driver Scoring & Performance Analytics
- Edge AI + Multi-Source Data Fusion
- Modular & Fast Deployment Architecture

# Edge AI Solutions - Production-Ready Intelligence at the Edge

Real-time AI deployed directly on devices. Ultra-low latency, low power, cost-efficient. Build for production, not prototypes.



**Edge AI Solutions for Real Deployment**

**Vietsol delivers Edge AI solutions designed for real-world industrial deployment, enabling intelligent analytics to run directly on edge devices.**

For quality inspection, Edge AI enables real-time defect detection directly on production lines, helping manufacturers reduce scrap, rework, and late-stage quality issues.

In predictive maintenance scenarios, edge-based analytics detect abnormal machine behavior early, allowing operators to minimize unplanned downtime and reduce overall maintenance costs through proactive intervention.



**Edge AI For Camera Surveillance**

**Local AI enables instant video processing directly on edge devices.**

With on-device video analytics, systems can detect safety risks and behavioral patterns in real time while maintaining a privacy-preserving design. Sensitive visual data remains processed locally, reducing data transmission and ensuring secure, low-latency monitoring.



**Model Optimization Engine**

**Vietsol develops model optimization techniques to make AI models ready for efficient execution on edge devices.**

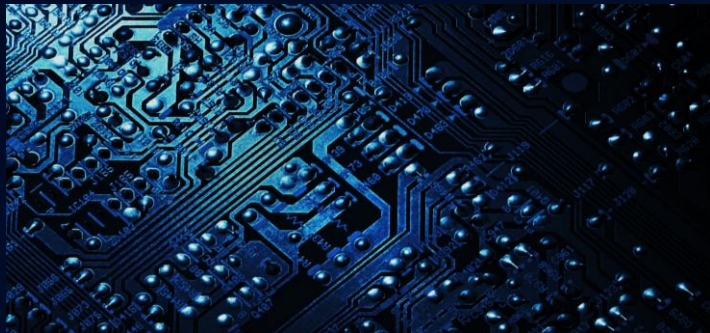
By optimizing AI models for native edge execution, the system significantly reduces computational latency—up to 60%—while lowering power consumption and hardware requirements. This enables faster deployment across diverse edge platforms, allowing intelligent applications to run efficiently on resource-constrained devices.



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# Edge AI Solutions - AI Model Optimization Platform

Driving Smarter Edge Intelligence.



## Technology Advantage

- The **Vietsol Model Optimization Engine** is an advanced software toolkit designed to optimize AI models and most efficiently leverage resource on edge devices
- It acts as a bridge between Python-based AI development (TensorFlow, ONNX, PyTorch) and efficient deployment on hardware by efficiently leveraging the intrinsic hardware advantages.

## Unique Architecture

Most tools offer one optimization layer. **VietSol integrates four layers in one engine**

### Graph Optimization

Automatic graph rewriting, operator fusion, memory layout optimization, constant folding, code transformation and rescheduling.

### Model Quantization

Float32 - Int16/Int8 conversion with minimal accuracy loss and validation on actual hardware targets.

### Memory Optimization

Fine grained operator memory allocation, internal/external memory exchanges, prefetching, and layer memory overlapping.

### Operator Optimization

Use of SOTA computation algorithms, removing redundant framework code, advanced multi branches scheduling.

The system supports both **MCU, MPU, and NPU platforms**, including Cortex-M, AURIX TriCore, Cortex-A, RISC-V, Ethos-U, NXP Kiara, Novatek DLA, TI C7XXX, ...



# Edge AI Solutions - AI Model Optimization Platform

Technology Differentiation

Capability	Current toolkits (e.g., NXP eIQ, Novatek)	Vietsol's toolkit
Model Training	Basic	Basic
Runtime	Multiple engines	<b>Unified engine</b>
Optimization	Semi-manual	<b>Automated, high-optimised</b>
Hardware support	Chipmaker's chips only	<b>Multi-chips</b>
Performance tuning	Limited	<b>Advanced</b>
Benchmark & Deployment	Basic	<b>Advanced</b>
Automation	Low	<b>Auto optimize</b>
UX	Developer-heavy	<b>Productized</b>

## Key metrics of Vietsol's toolkit

### Effectiveness

↓ **30-400%**  
in latency

↓ **40-400%**  
RAM for model  
/memory size

**No change**  
in accuracy

### Efficiency

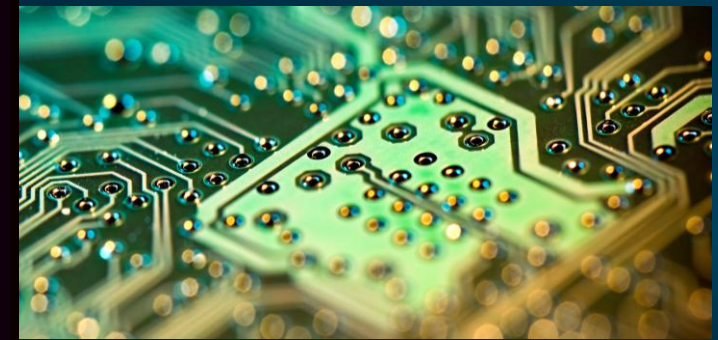
**High**  
Utilization (all  
layers on NPU)

**Minimum**  
in CPU fallback

↓ **30%**  
Power  
consumption

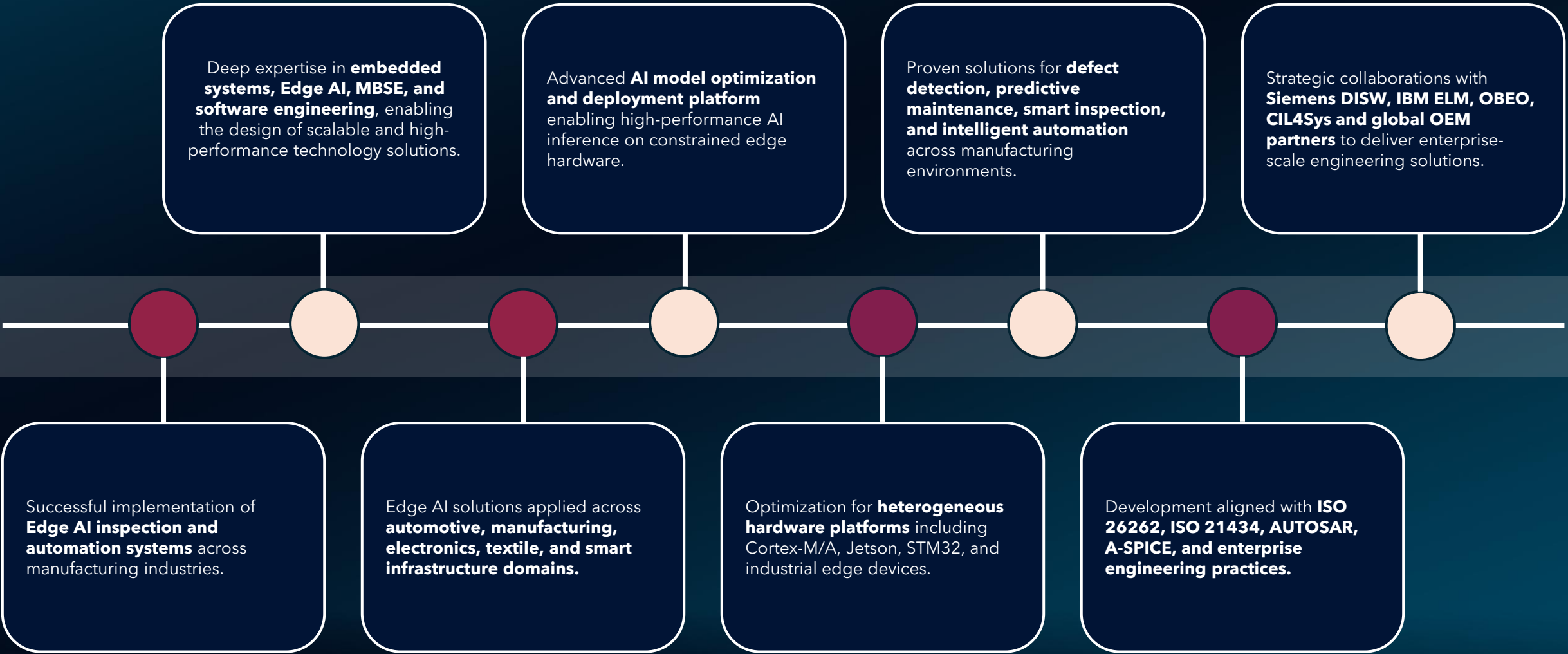
**24 hours**  
for deployment time  
(model → edge)

Vietsol delivers measurable advantages across technology performance, cost efficiency, and sustainable AI deployment.



# Why Customer Choose Us

Strategic Engineering Partner for Edge AI & Intelligent Industry Solutions.



# Thank You



[www.vietsol.com.vn](http://www.vietsol.com.vn)



Pioneering Excellence  
in Mobility Engineering  
& Technology

