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Lancang-Mekong  
Cooperation Special Fund



สำนักงาน  
เศรษฐกิจอุตสาหกรรม  
OFFICE  
OF INDUSTRIAL ECONOMICS



THAILAND  
AUTOMOTIVE  
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สถาบันยานยนต์

# Capacity Building for Auto Parts Suppliers with Sustainable Development toward Transportation and Smart Mobility:

ADAS system, New Energy Vehicles, Rail systems, Aircraft parts,  
Electronic parts, Vehicles for Ageing People

*Project Timeline: January 2024 – June 2025 (18 months)*  
*Funded by the Lancang-Mekong Cooperation Special Fund*



# Background & Problems



**Current Situation:** The automotive technological transitioning from the traditional platform to the next generation automotive or NEVs

**Challenges:** The development of the supply chain to support the Next Generation Automotive Industry

**To address the Challenges:** It need the strong collaboration and industrial network to build up of capability in many dimensions including:

- Technology Development.
- Supply Chain Development.
- Human Resources Skill Improvement
- Government Policy to Encourage the Supply Chain Transformation Including Market Demand Stimulation



# Objectives & Expected Outcome



## Objectives:

To point the readiness, limitations, gaps of industrial transformation along subregion.

To find the readiness, Status and challenges of Target Industries

To approach collaboration to address the challenges & strengthen supply chain across the subregion.

## Expected Outcome:

Mekong-Lancang Subregion has a strong **regional supply chain** to support efficiently for industrial transformation



# Target Transportation and Smart Mobility Industries under the Scope of Project



01

## The Next Gen. Automotive:

- New Energy Vehicles
- ADAS system
- Vehicle for Aging People
- Electronic Part

## Rail System Industry Development

02

03

## Smart Aviation Industry Manufacturing – Technology Integrated of Smart Aviation

# Activities: Qualitative Data Collection [1/4]



Places	Company / Organization
<p><b>Shanghai</b></p> <p>27 May 2024 - 1 June 2024</p>	<ul style="list-style-type: none"> <li>• <b>Battery Manufacturers:</b> SVOLT, CATL, Qing Tao Energy Development.</li> <li>• <b>Chinese OEMs:</b> SAIC Motor, SAIC AI Lab, UTO PILOT (Autonomous Truck Developer).</li> </ul>
<p><b>Beijing-Baoding-Tianjin</b></p> <p>8-14 December 2024</p>	<ul style="list-style-type: none"> <li>• <b>Government Agency:</b> The Equipment Industry Development Center (EIDC), Ministry of Industry and Information Technology Equipment Industry Development Center (MIIT)</li> <li>• <b>Chinese OEMs:</b> <ul style="list-style-type: none"> <li>• Great Wall Motor Company Limited: <b>GWM</b></li> <li>• Beiqi <b>Foton Motor Co., Ltd.</b></li> <li>• Li Auto Inc.</li> <li>• Xiaomi Automobile Technology Co., Ltd.</li> <li>• China Automotive Enterprises Internationalization and Development Innovation Alliance: <b>CAIA</b></li> </ul> </li> <li>• <b>Automotive Research &amp; Testing</b> <ul style="list-style-type: none"> <li>• The China Automotive Technology &amp; Research Center: <b>CATARC</b></li> </ul> </li> </ul>

# Activities: Qualitative Data Collection [2/4]



Places	Company / Organization
<p><b>Hanoi, Vietnam</b></p> <p>5-8 August 2024</p>	<ul style="list-style-type: none"> <li><b>Automotive Manufacturer:</b> <ul style="list-style-type: none"> <li>Vietnam Automobile Manufacturers' Association: VAMA</li> <li>HONDA Vietnam</li> </ul> </li> <li><b>Automotive Technology &amp; Software Development:</b> <ul style="list-style-type: none"> <li>FPT Software</li> <li>Phenikaa-X</li> <li>Bosch (Vietnam)</li> <li>VinAI</li> </ul> </li> </ul>
<p><b>Ho Chi Minh City</b></p> <p>18-20 September 2024</p>	<ul style="list-style-type: none"> <li><b>Automotive Market Research:</b> <ul style="list-style-type: none"> <li>KPMG (Market Research Consultancy)</li> <li>Thai Chamber of Commerce (Ho Chi Minh City Office)</li> </ul> </li> <li><b>Automotive and Auto Parts Manufacturer:</b> <ul style="list-style-type: none"> <li>Thanh Cong Group</li> <li>Saigon Auto Supporting Industry JSC: SASI</li> </ul> </li> </ul>

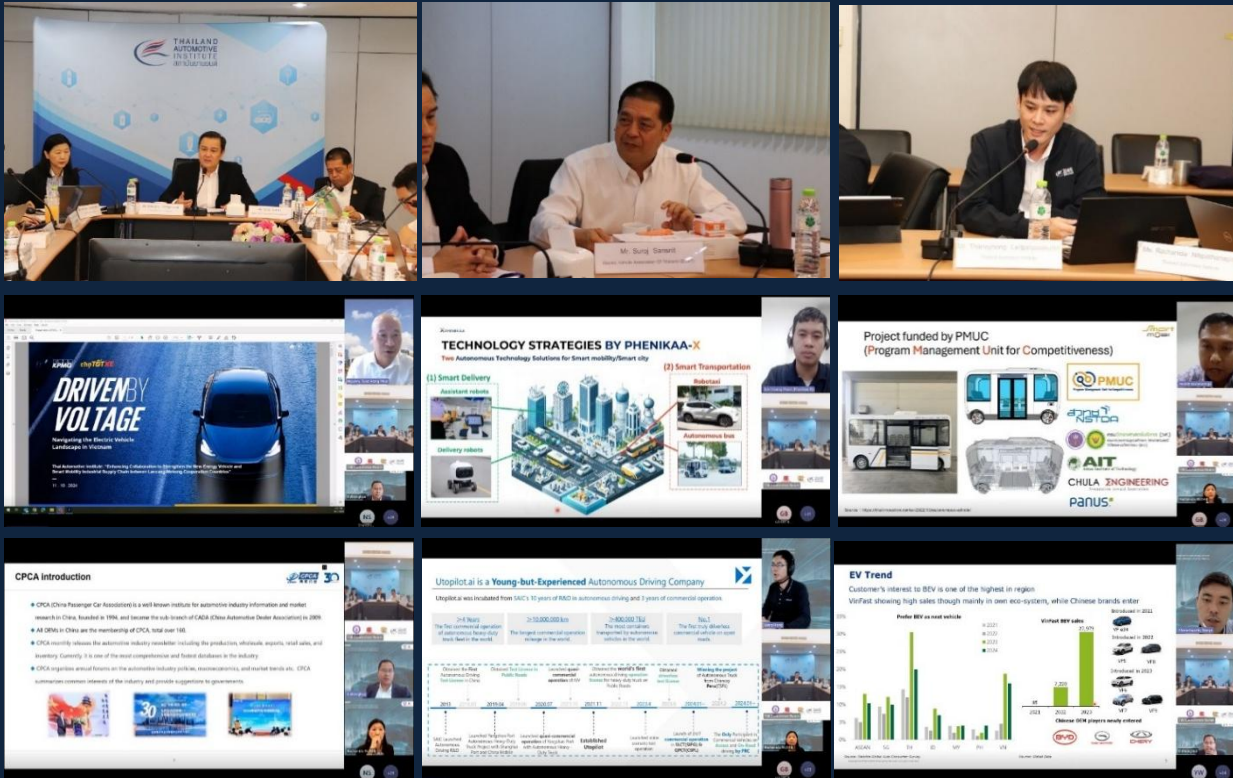




## Focus Group (1)

*The Enhancing Collaboration to Strengthen the New Energy Vehicle and Smart Mobility Industrial Supply Chain between Lancang Mekong Cooperation Countries*

*Friday 11<sup>th</sup> October 2024, from 13.00-16.30 hrs*



## Section 1: Automotive Industrial Situation and Government Policy for Development of the New Energy Vehicle and Smart Mobility Industry

Shared by



## Section 2: NEVs and Smart Mobility Industry Development in Thailand with Collaboration Strategy for Capability Improvement

Shared by



## Section 3: Automotive Innovation and Technology Development to Support the Transitioning to the Next Gen. Automotive & Smart Mobility Industry

Shared by



## Focus Group (2)

*The Enhancing Collaboration to Strengthen the Rail System Industry and Smart Aviation Technology Development among Lancang-Mekong Cooperation Countries*

**Tuesday 11<sup>th</sup> March 2025, Time: 13.00 - 16.15 hrs.**



### Session 1: Rails Industry Development



### Session 2: Smart Aviation Technology: Unmanned Aerial Vehicles (UAVs)





# China

## “NEV” Manufacturing Industry Competitiveness



**Integrated Supply Chain**

China has a complete NEV ecosystem - from raw material sourcing to battery manufacturing and vehicle assembly - enabling efficient and cost-effective production.

**Global Battery Leader**

Produces over 60% of the world’s EV batteries, with industry leaders like CATL and BYD ensuring stable and affordable supply.

**Strong Government Policies**

National strategies, subsidies, and tax incentives have accelerated NEV growth and innovation.

**Large & Growing NEV Domestic Market**

With nearly 65% of global NEV sales in 2023, China’s consumer market provides strong support for industry expansion.

**Advanced Technology Integration**

Chinese automakers are pioneers in smart technologies such as autonomous driving, connected systems, and intelligent cockpits.

**Rapid Production Expansion**

China’s ability to quickly scale up manufacturing resulted in over + 35% YoY in NEV production and sales in 2023.

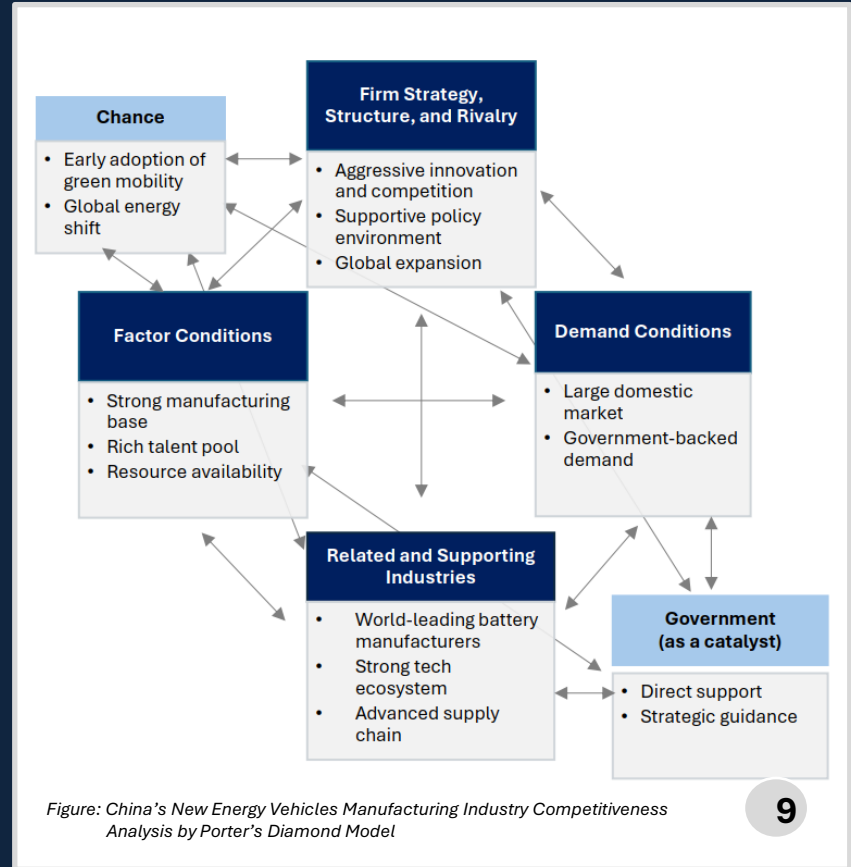


Figure: China's New Energy Vehicles Manufacturing Industry Competitiveness Analysis by Porter's Diamond Model



### Policy Guideline from Chinese OEMs for NEV Industry Capacity Building:

**Accelerate the development of the regional supply chain**

Particularly in the production of components for the NEV industry, to position the Mekong-Lancang subregion as a NEVs manufacturing hub in Asia.

**Upskilling /Reskilling worker**

**Upskilling the worker** in automotive industrial sector to support the expansion of the NEV industry.

**Infrastructure capabilities building**

Infrastructure capabilities building to accommodate the growing market demand.

**Provide appropriate financial support & continuously investment incentive**

For enterprises interested in investing in modern vehicle production, including various supporting factors.

### Potential Contribution of China in Mekong-Lancang Subregion for Industrial Capability Building :

**Joint Production Capacity Cooperation**

Lancang-Mekong countries, including China, have agreed to prioritize cooperation in sectors such as the automobile industry, aiming to enhance production capacity and industrial integration.

**Infrastructure and Industrial Clusters**

The cooperation emphasizes developing transportation linkages and industry cluster districts to facilitate efficient allocation of resources and integration of markets.

**Shared Development Goals**

The collaboration aims to strengthen economic ties, share & common prosperity among Lancang-Mekong countries. opportunities, address common challenges, and achieve sustainable development

**Financial Support Mechanisms**

Utilization of existing bilateral and multilateral financial resources, including the Asian Infrastructure Investment Bank (AIIB), is encouraged to support production capacity cooperation among member countries.





# Vietnam

## The Next Generation Automotive Industry Competitiveness



**Advanced Automotive Software Development:**

Vietnamese firms like FPT Software are leading in developing software for Software-Defined Vehicles (SDVs), including AUTOSAR-compliant solutions and ADAS.

**Pioneering Autonomous Vehicle Innovation**

Vietnam's Private Sectors like Phenikaa Group have developed Vietnam's first Level-4 autonomous vehicle, showcasing capabilities in AI, LIDAR, SLAM, and machine learning technologies.

**Robust AI Integration in Automotive Applications**

Companies like VinAI have introduced AI-driven features such as Driver Monitoring Systems (DMS) and Advanced Surround View Monitoring (ASVM), enhancing vehicle safety and user experience.

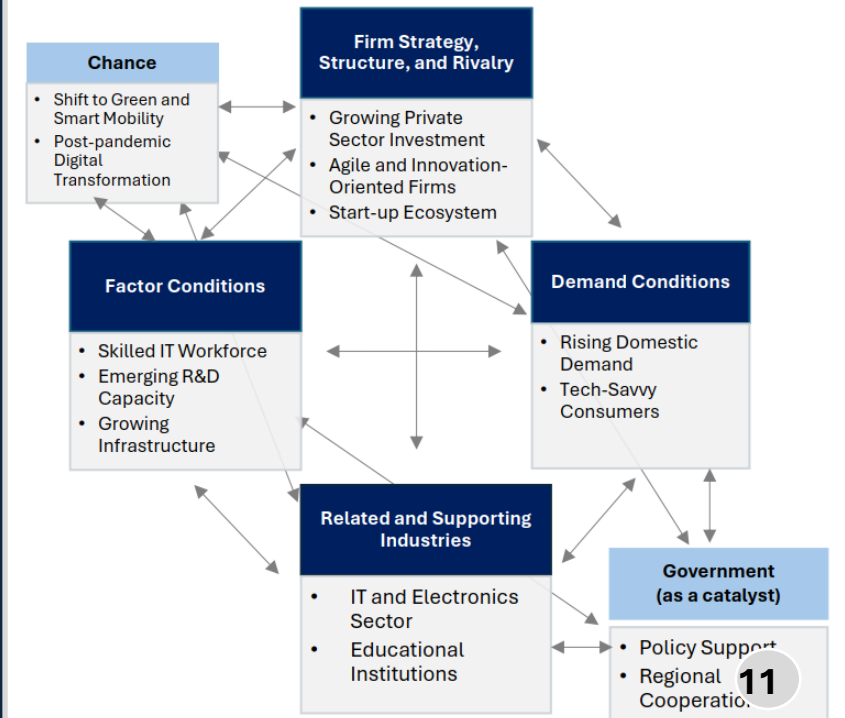
**Growing Talent Pool & Educational Initiatives**

With over 57,000 IT graduates annually and specialized programs like FPT University's Automotive Software Engineering department, Vietnam is cultivating a skilled workforce for the automotive sector.

**Strategic International Partnerships**

Collaborations with global entities like DENSO are propelling Vietnam's position in the global automotive software landscape.

### Vietnam's The Next Generation Automotive Industry Competitiveness Analysis by Porter's Diamond Model



## **Policy Guideline** for “The Next Generation Automotive” Industry Capacity Building:

### Investment Promotion in HRD

Enhance training programs in automotive software engineering and AI to build a competent workforce.

### Foster Regional Collaboration

Encourage partnerships among Mekong-Lancang countries to share best practices and technologies in the automotive sector.

### Promote Smart Transportation Solutions R&D

Support R&D initiatives focusing on autonomous vehicles, electric mobility and other smart mobility technology

### Enhance Infrastructure & Digital Ecosystems

Develop technological infrastructure, including data centers and high-speed internet, to support automotive innovation.

## **Potential Contribution** of Vietnam and Mekong-Lancang Subregion in Industrial Capacity Building :

### Joint R&D Centers

Establish collaborative research centers focusing on automotive software, AI applications, and autonomous vehicle technologies.

### Shared Training Programs

Develop regional training initiatives to upskill workers in automotive engineering, software development, and AI.

### Standardisation Efforts

Work towards harmonizing automotive standards and certifications across the region to facilitate smoother collaboration.

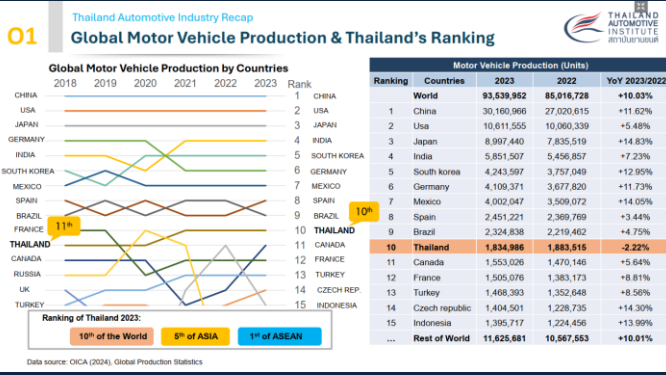
### Set up Innovation Hubs

Create innovation hubs or tech parks to incubate startups and foster innovation in automotive technologies.

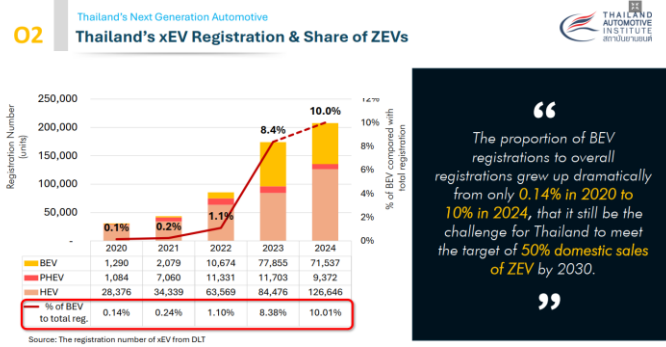
### Policy Alignment

Align policies and regulations to support cross-border investments and collaborations in the automotive sector.





# Thailand The Next Generation Automotive Industry Competitiveness



### Government Measures to Promote ZEVs According to 30@30 Policy

#### 01 SUPPLY SIDE:

- Investment promotion of ZEV Platforms, including BEV / FCEV
- Production of Important Parts for BEV Assembly

#### 02 DEMAND SIDE:

Measures [EV 3/3.5] to provide an incentive for BEV purchase includes Cash Subsidy, Reduction/Exemption of Customs duty and Excise Tax etc.

#### 03 INFRASTRUCTURE:

- Promote EV Charging Station Investment
- Promote EV Battery Swapping Station Investment
- Promote EV Charger Standard Development
- Automotive Parts/Battery Testing Facility: ATTRIC

**Strong Government Support**

Offers generous EV subsidies, tax reductions, and production-linked incentives to boost local EV manufacturing.

**Strategic Location**

EEC provides a high-tech hub with export advantages via regional Free Trade Agreements (FTAs).

**Established Strong Supply Chain**

Extensive network of auto parts suppliers and skilled workforce supports manufacturing efficiency.

**Growing EV Investment**

Major global automakers, especially from China and Japan, are investing heavily in Thailand's EV sector.

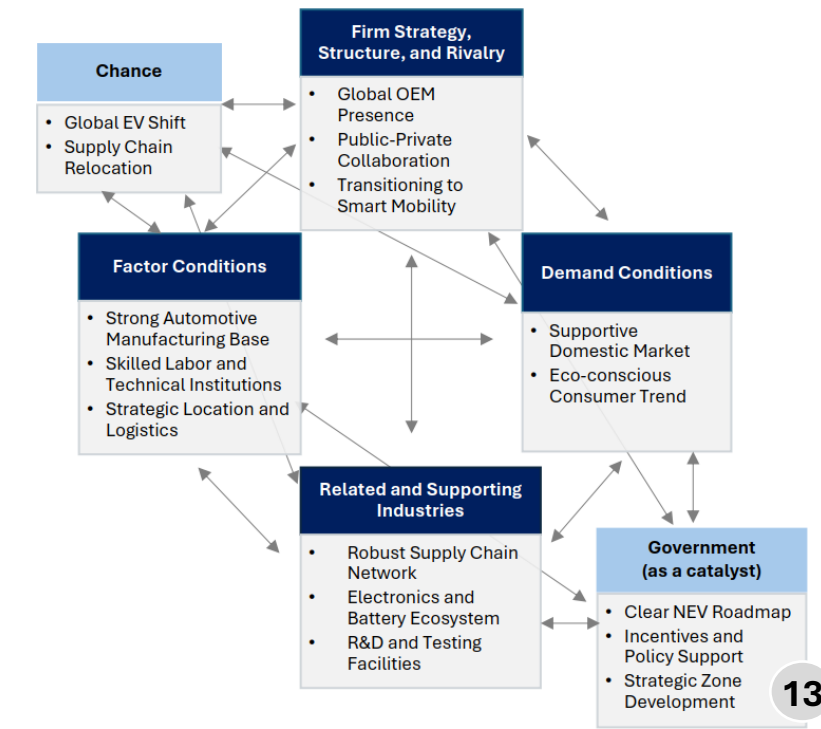
**Focus on Innovation & Sustainability**

Emphasis on green materials, Industry 4.0 technologies, and automation.

**Rapid Market Growth**

Domestic EV sales are projected to rise significantly, driven by policy incentives and consumer interest.

### Thailand's The Next Generation Automotive Industry Competitiveness Analysis by Porter's Diamond Model





## Challenge - Opportunity of Thailand to Facilitate the NEVs Supply Chain in MLC Subregion

### Manufacture and Supply Chain:

- International Partnerships
- Local Supply Chain Development
- EV Production Hub for Export

### Education & Workforce Development:

- Workforce Transition
- Industry-Relevant Education
- Provide Safety education to high-risk groups
- Expanding EV Repair Services to local garage

### Charging Infrastructure:

- Centralized Charging Hubs
- Charging Consortia to unified Charging Network

### Batteries Management:

- EV battery cell production facilities
- Alternative Battery Materials
- Sustainable Battery Management
- Support initiatives for battery repacking
- International Testing Standards

## Policy Guideline for “The Next Gen. Automotive” Industry Capacity Building of Mekong-Lancang Subregion

### Enhance Regional Collaboration

- Establish a Mekong-Lancang Automotive Alliance
- Develop Joint Research & Development Centers

### Strengthen Supply Chain Resilience

- Diversify and Localize Supply Chains
- Coordinate EV Supply Chain Development
- Harmonize EV Standards & Regulations

### Enhance Skills and Capacity Building

- Create a Mekong-Lancang Automotive Training Network
- Promote Knowledge Transfer

### Improve Sustainability Practices

- Implement Green Manufacturing Initiatives
- Develop a Regional Circular Economy Model

# Information Sharing Platform



## 2023 Mekong - Lancang Cooperation Special Fund



Capacity Building on Food Security in Agro-Processing Industry among Mekong Countries and People's Republic of China organized by Office of Industrial Economics and National Food Institute



Circular Economy Capacity Building in the Lancang-Mekong Region: Product Verification of Plastics Packaging in Supply Chains



Capacity Building for Auto Parts Suppliers with Sustainable Development toward Transportation and Smart Mobility: ADAS system, New Energy Vehicles, Rail systems, Aircraft parts, Electronic parts, Vehicles for Ageing People

Find more information at:  
[mlcindustry.com/](http://mlcindustry.com/)



PREVIOUS PROJECT :  
2022 MEKONG LANCANG COOPERATION SPECIAL FUND

# Thank You to Our Partners :





# Special Thanks ...



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ขอบคุณครับ  
谢谢您!  
Xin Cảm Ơn



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