

The background of the slide features abstract, flowing, liquid-like shapes in shades of blue and white against a solid black background. These shapes are positioned in the top-left and bottom-right corners, creating a sense of movement and depth.

Mechanisms for Innovation Value Creation in Regional S-Curve Industries

Associate Prof. Dr. Pitiwat Wattanachai
Director of Science and Technology Park, Chiang Mai University



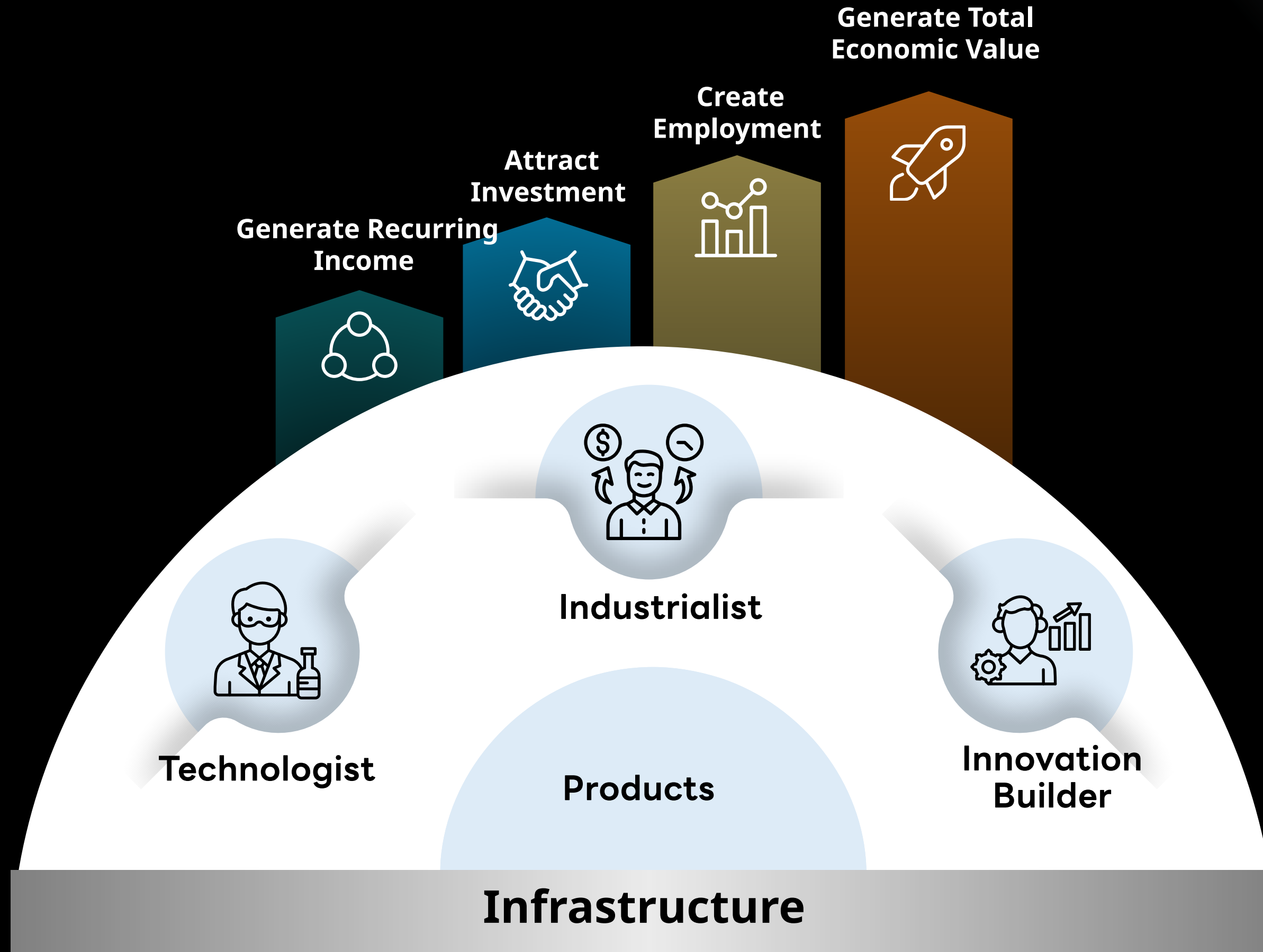
Outline

- 1 Towards National Innovation Mechanism
- 2 4 Economic Corridors, 1 Vision for Future Growth
- 3 Innovation Pathways for Thailand's Future
- 4 From Strategy to Innovation Outcomes



Towards National Innovation Mechanism

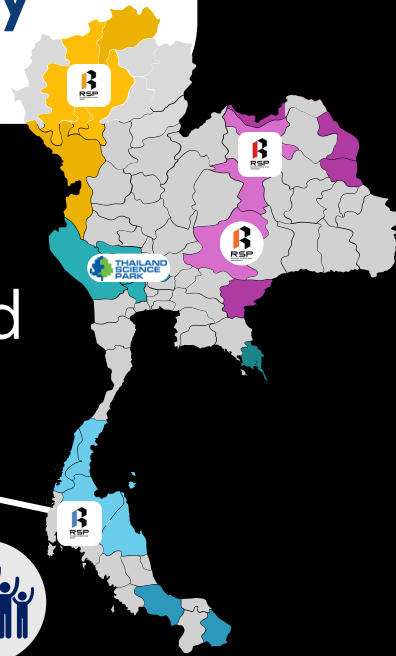
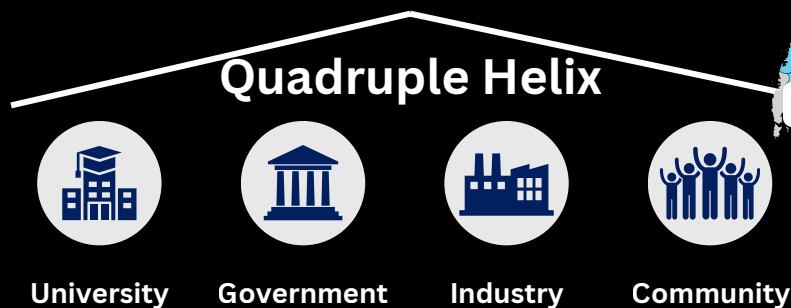
National Innovation Driving Mechanism



National Innovation Driving Mechanism

Regional Economic Corridor Systematic Strategy

- Check Stock
- Area-based Demand



Focused Industry

- Creative
- Digital
- Wellness and Tourism
- Agriculture and Food

- Biotechnology
- Agriculture and Food

- Agriculture and Food
- Electrical and Electronics

- Biotechnology
- Agriculture and Food
- Wellness and Tourism

Targeted Technology

- Creative Digital
- Extractions
- Plasma Technology

- Biorefinery
- Drone and Smart Electronics

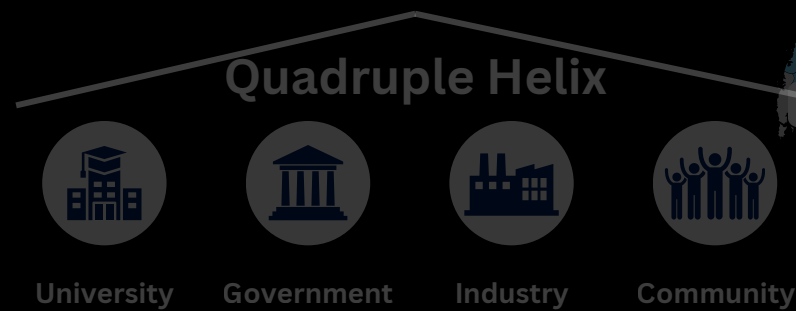
- Digital AI Sensor and Microelectronics

- Oleochemical

Regional Innovation Mechanism

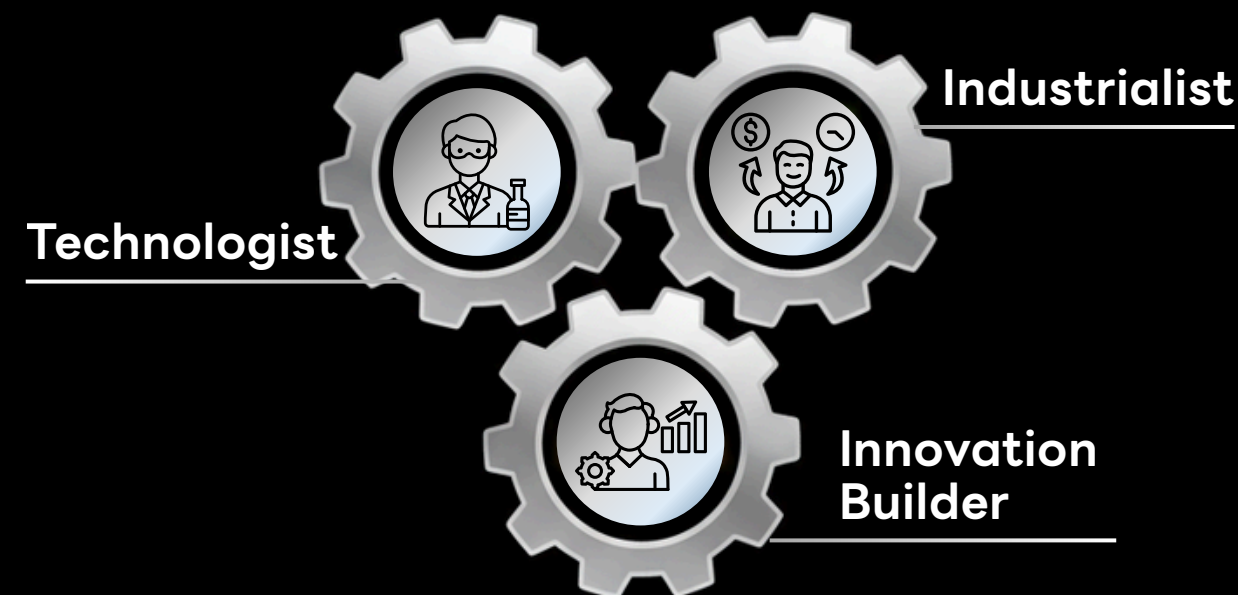
Regional Economic Corridor Systematic Strategy

- Check stock
- Area-based demand



High Potential People Development and Connecting Value chain

- Frontier Technology
- Collaboration
- Global Demand
- Future Industry



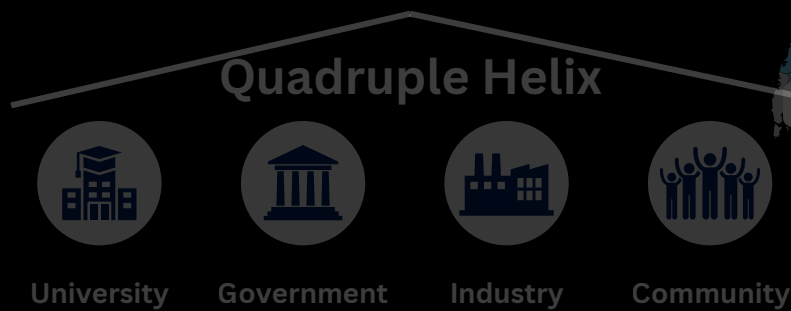
Targeted Technology

- Creative Digital
- Extractions
- Plasma Technology
- Biorefinery
- Drone and Smart Electronics
- Digital AI Sensor and Microelectronics
- Oleochemical

Regional Innovation Mechanism

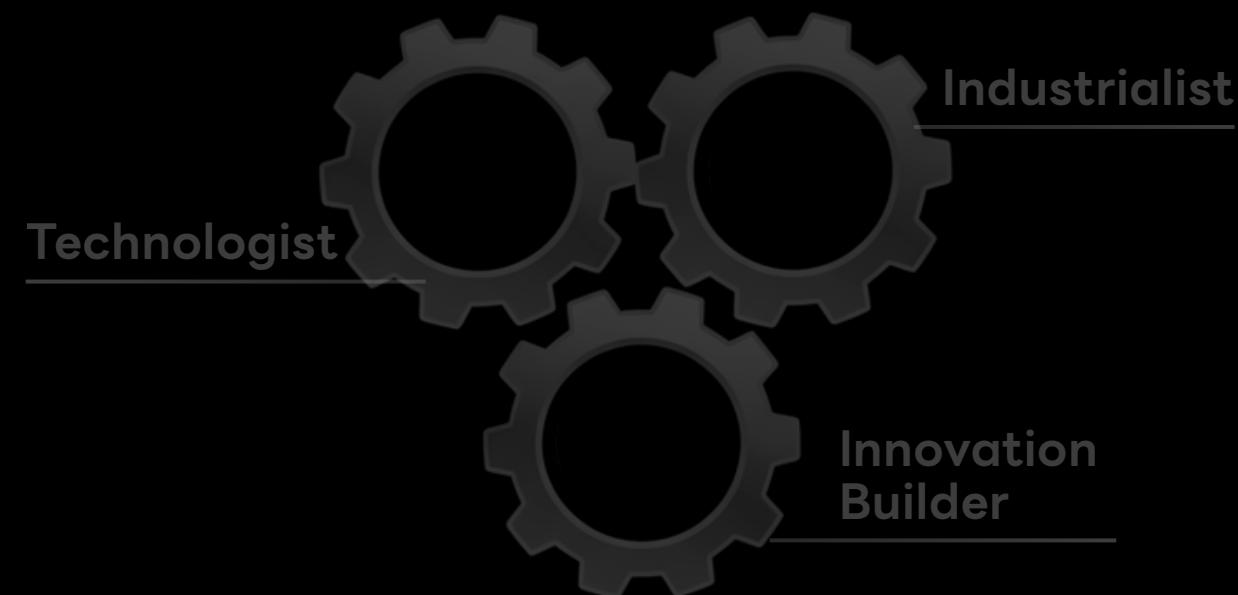
Regional Economic Corridor Systematic Strategy

- Check stock
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High Potential People Development and Connecting Value chain

- Frontier Technology
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- Global Demand
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Infrastructure Development and Utilization

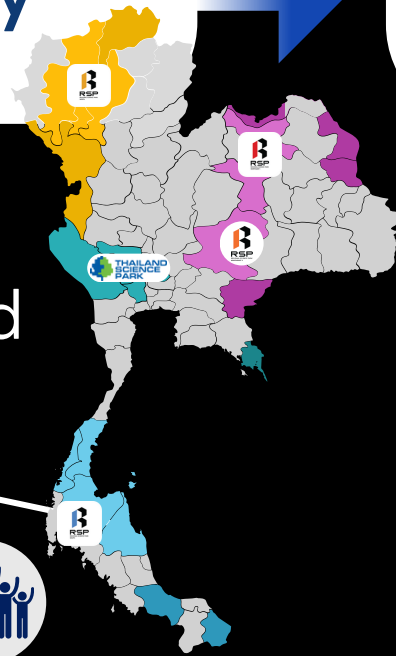
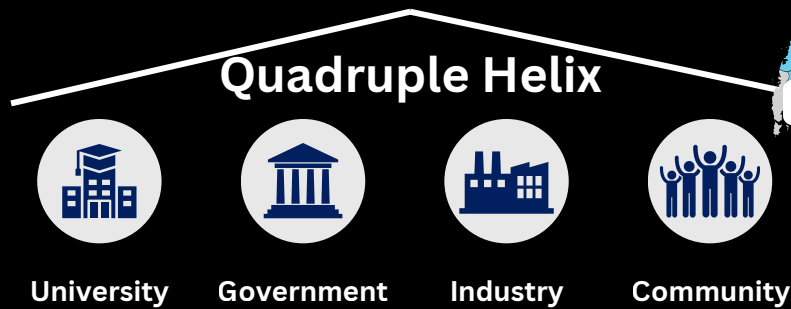
- Regulation Incentive
- Characterization
- Standard

The Thailand's National
Quality Infrastructure (NQI)

Regional Innovation Mechanism

Regional Economic Corridor Systematic Strategy

- Check Stock
- Area-based Demand



High Potential People Development and Connecting Value chain

- Frontier Technology
- Collaboration
- Global Demand
- Future Industry



Infrastructure Development and Utilization

- Regulation Incentive
- Characterization
- Standard

The Thailand's National
Quality Infrastructure (NQI)

The Core Engine

Technologist

- Frontier Technology
- Research Utilization



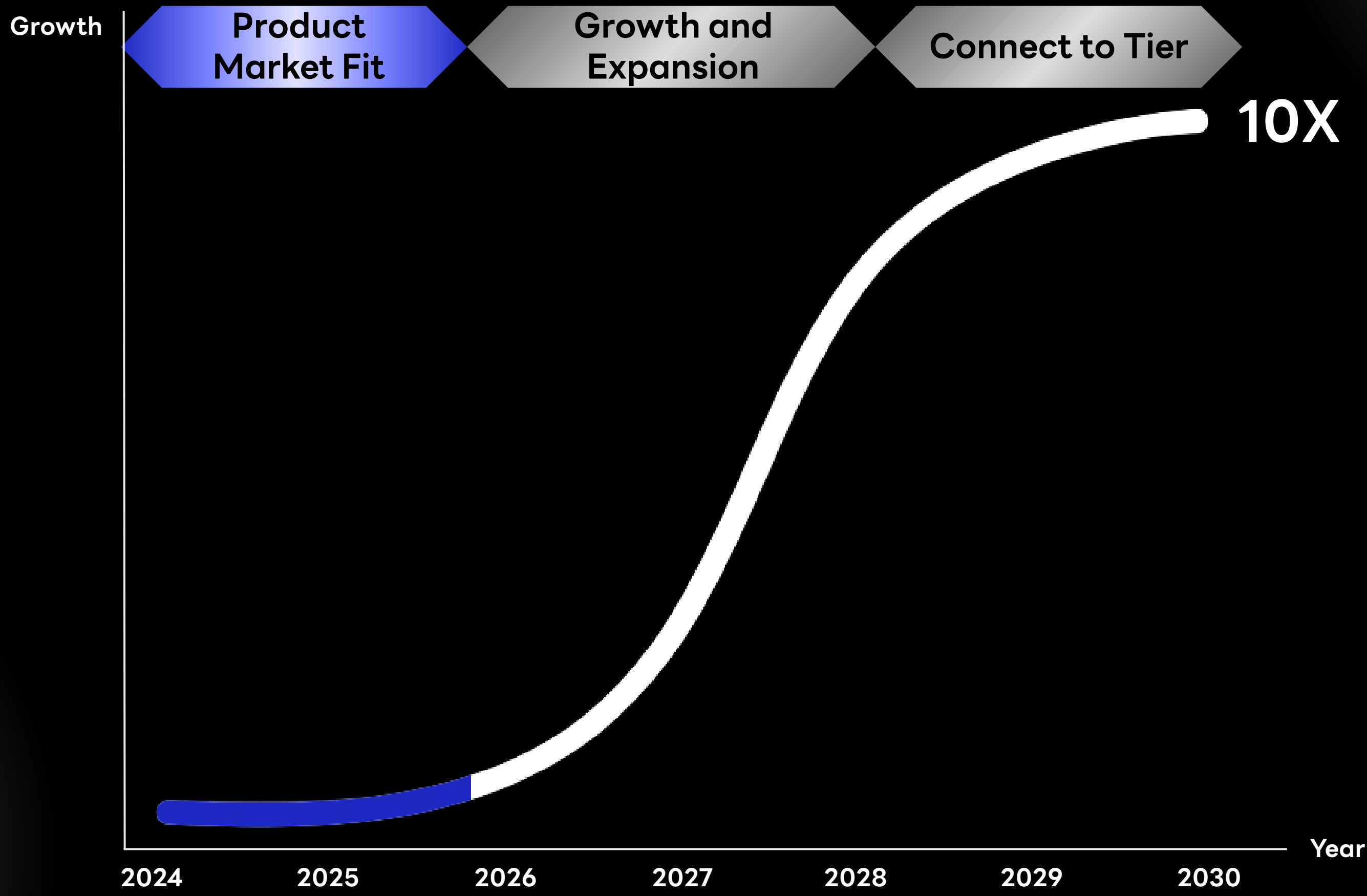
Industrialist

- Existing Infrastructure

Innovation Builder

- Value Creation
- Connection Linkage

The S-Curve Journey





4 Economic Corridors, 1 Vision for Future Growth

NORTHERN ECONOMIC CORRIDOR (NEC)

Chiang Mai / Chiang Rai/ Lamphun / Lampang

🎯 FOCUS INDUSTRY

- Creative
- Digital
- Wellness and Tourism
- Agriculture and Food

⚙️ TARGETED TECHNOLOGY

- Creative Digital
- Extractions
- Plasma Technology

CENTRAL-WESTERN ECONOMIC CORRIDOR (CWEC)

Ayutthaya/ Nakhon Pathom/ Suphan Buri/ Kanchanaburi

🎯 FOCUS INDUSTRY

- Agriculture and Food
- Electrical and Electronic

⚙️ TARGETED TECHNOLOGY

- Digital AI Sensor and Microelectronics

4 ECONOMIC CORRIDORS

NORTHEASTERN ECONOMIC CORRIDOR (NEEC)

Nakhon Ratchasima/ Khon Kaen/Udon Thani/ Nong Khai

🎯 FOCUS INDUSTRY

- Biotechnology
- Agriculture and Food

⚙️ TARGETED TECHNOLOGY

- Biorefinery
- Drone and Smart Electronics

SOUTHERN ECONOMIC CORRIDOR (SEC)

Chumphon/ Ranong/Surat Thani / Nakhon Si Thammarat

🎯 FOCUS INDUSTRY

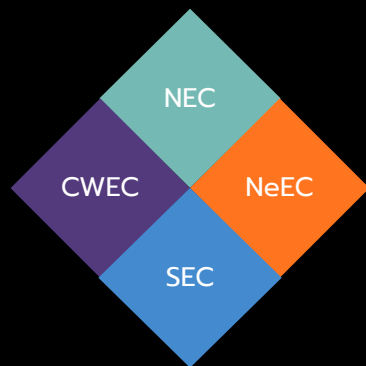
- Biotechnology
- Agriculture and Food
- Wellness and Tourism

⚙️ TARGETED TECHNOLOGY

- Oleochemical

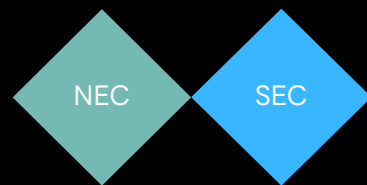
INTEGRATION OF FOCUS INDUSTRY

AGRICULTURE AND FOOD



"Nourishing the world not just as its Kitchen, but as its sustainable, smart, and innovative Future of Food."

WELLNESS AND TOURISM



"More than a destination; we are the 'National Wellness Hub,' blending world-class medical science with sustainable, authentic experiences."

BIO-INDUSTRY



"Powering the 'BCG Engine' as the 'Regional Hub for Integrated Bio-Industry'—transforming natural resources into sustainable, high-value reality."

CREATIVE



"As the 'Lanna Creative Economy Hub,' we transform the wisdom of the Mekong culture into innovation with global value."

DIGITAL



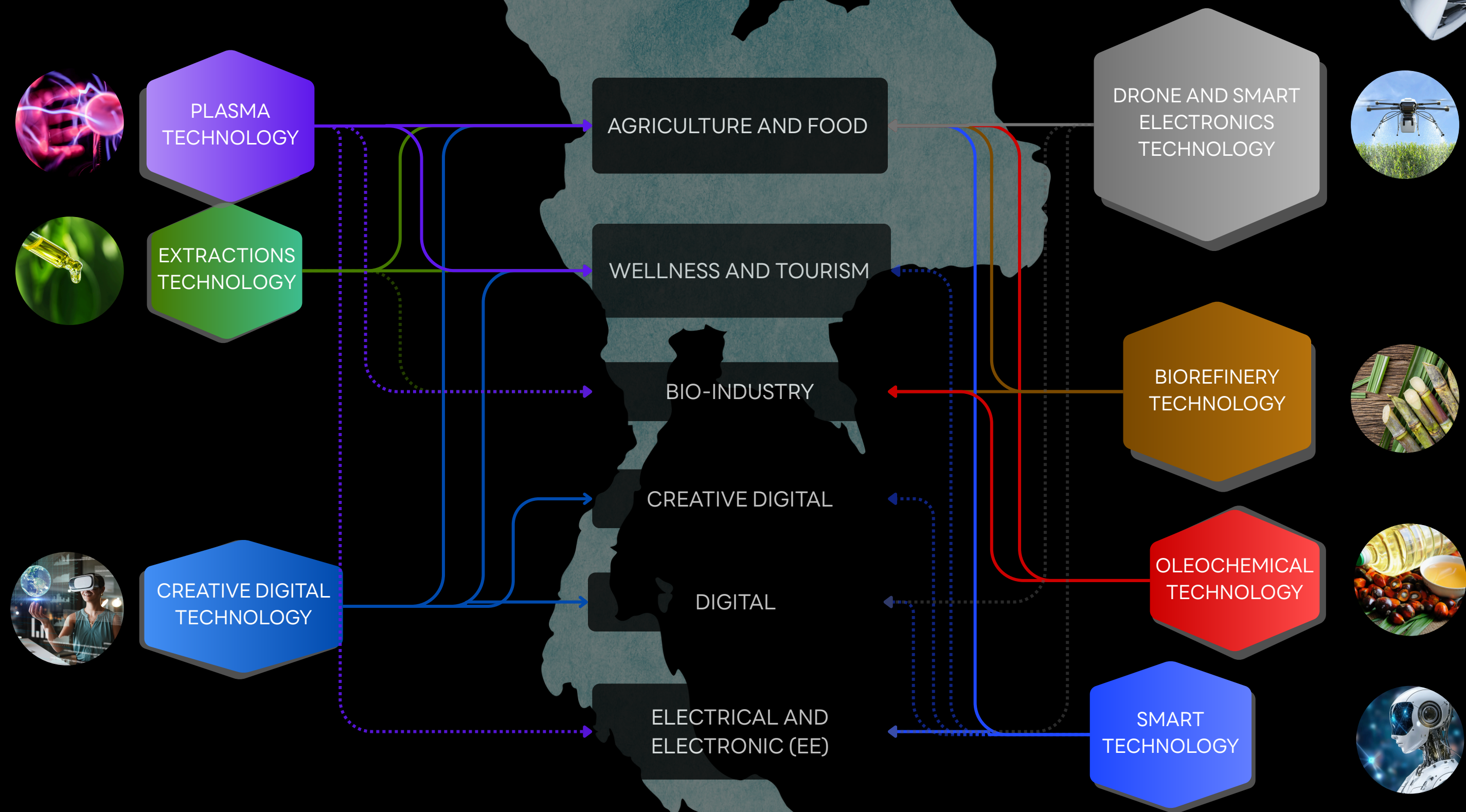
"Building the 'Digital Innovation Hub of Asia': Connecting global trade, empowering digital nomads, and driving the economy forward."

ELECTRICAL AND ELECTRONIC (EE)



"Forging the 'Regional Hub for IC Design & Embedded Systems' by uniting Smart, Green Manufacturing with the brilliance of AI and human talent."

FOCUS INDUSTRY INTEGRATION FOR UPGRADING TARGETED TECHNOLOGY

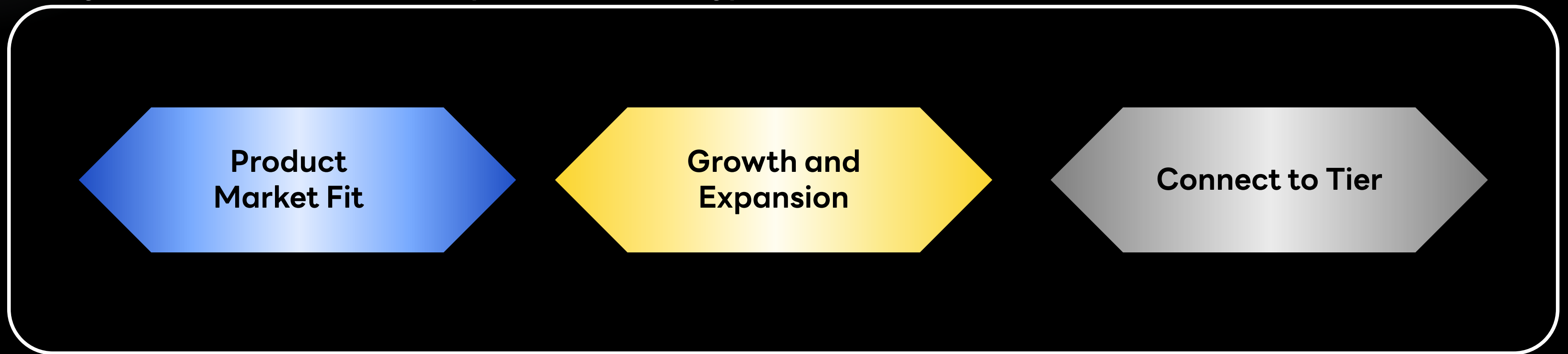


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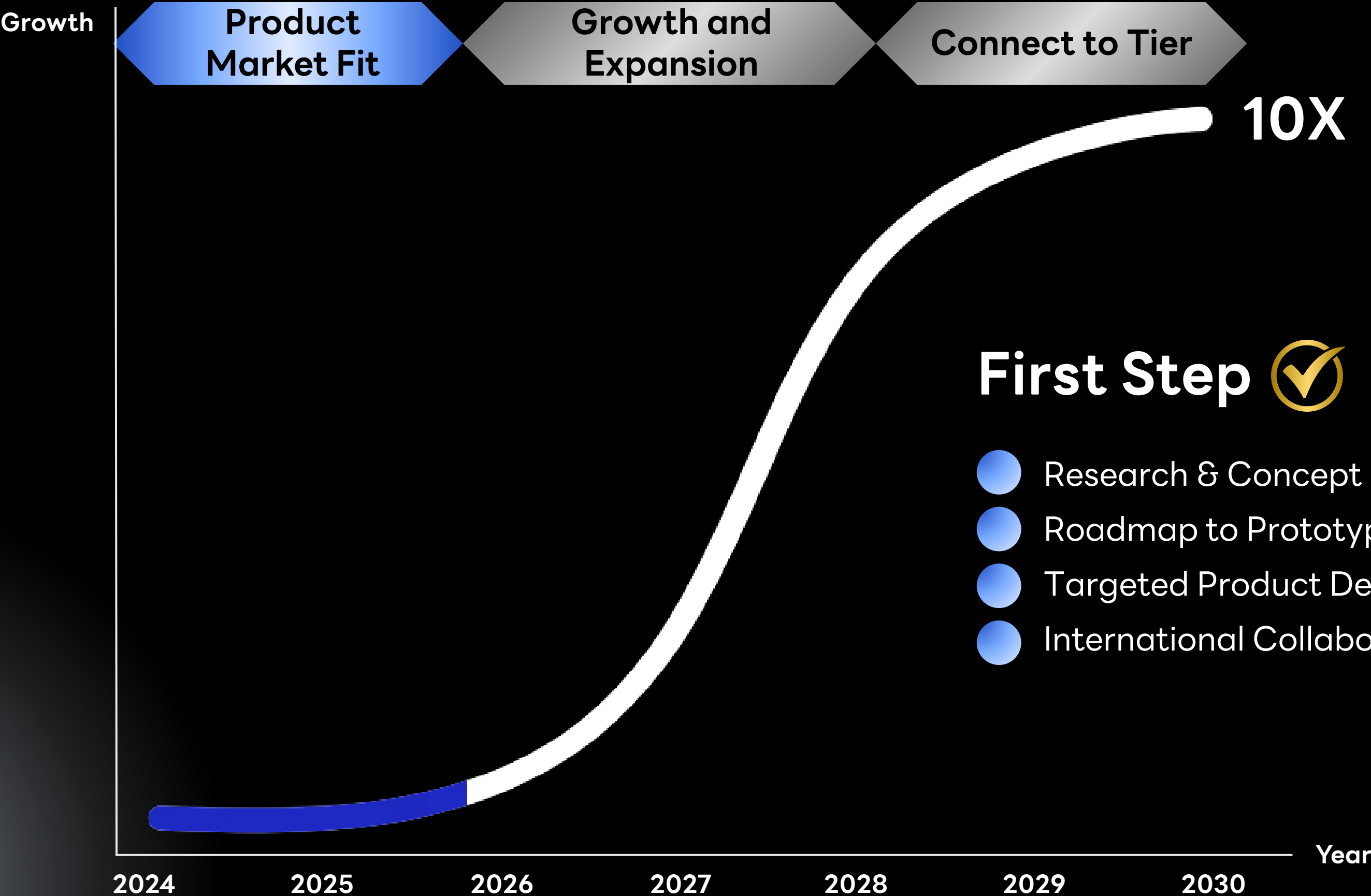
Innovation Pathways for Thailand's Future

The Pathway: From Research to Market

Regional Economic Corridor Systematic Strategy

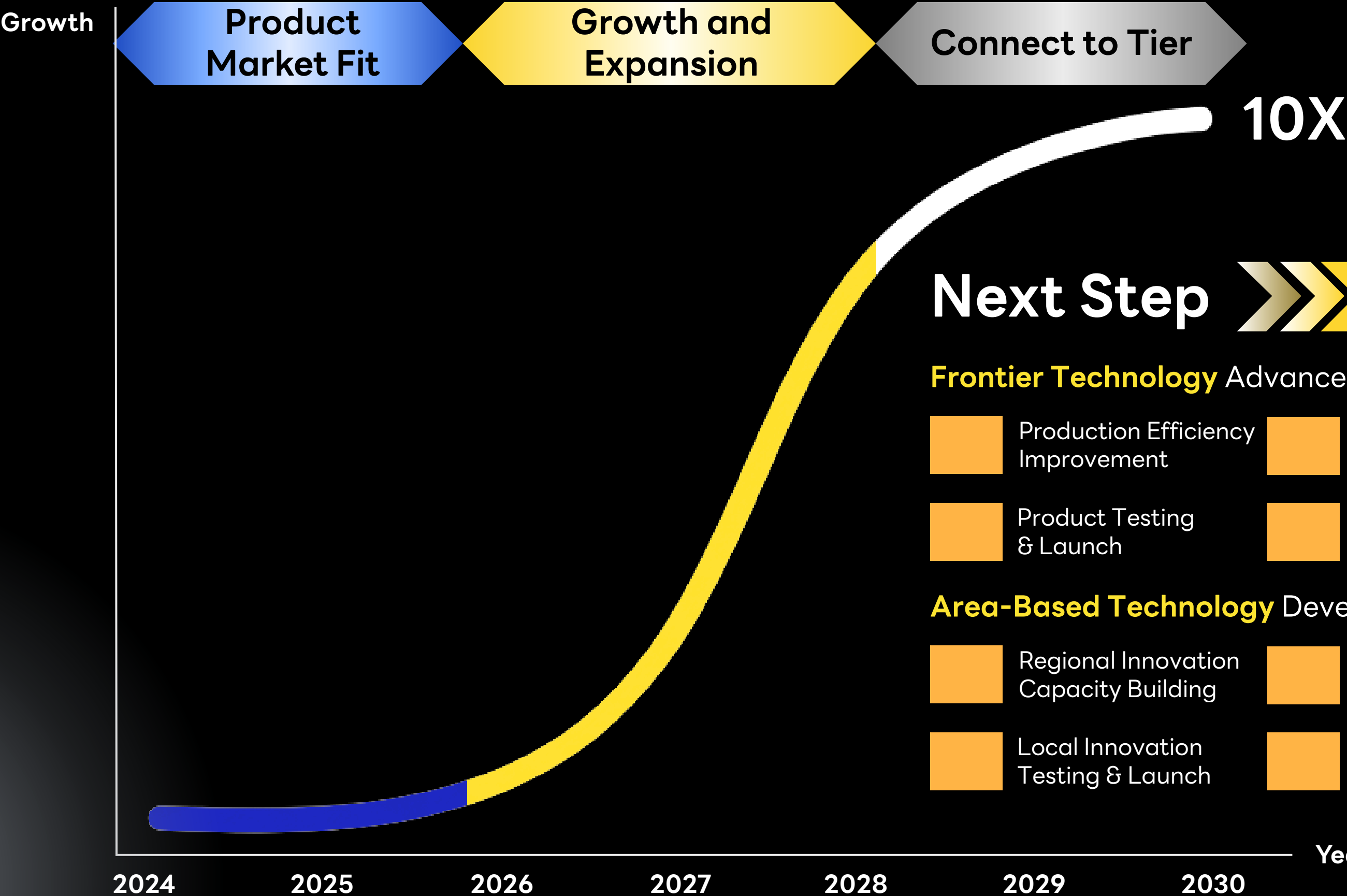


The S-Curve Journey



- First Step** ✓
- Research & Concept Development
 - Roadmap to Prototype
 - Targeted Product Design
 - International Collaboration

The S-Curve Journey



Next Step

Frontier Technology Advancements for International Growth

- Production Efficiency Improvement
- Market Expansion Launchpad
- Product Testing & Launch
- Capital Raising & Investment Partnerships

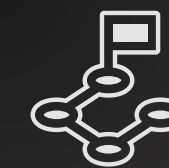
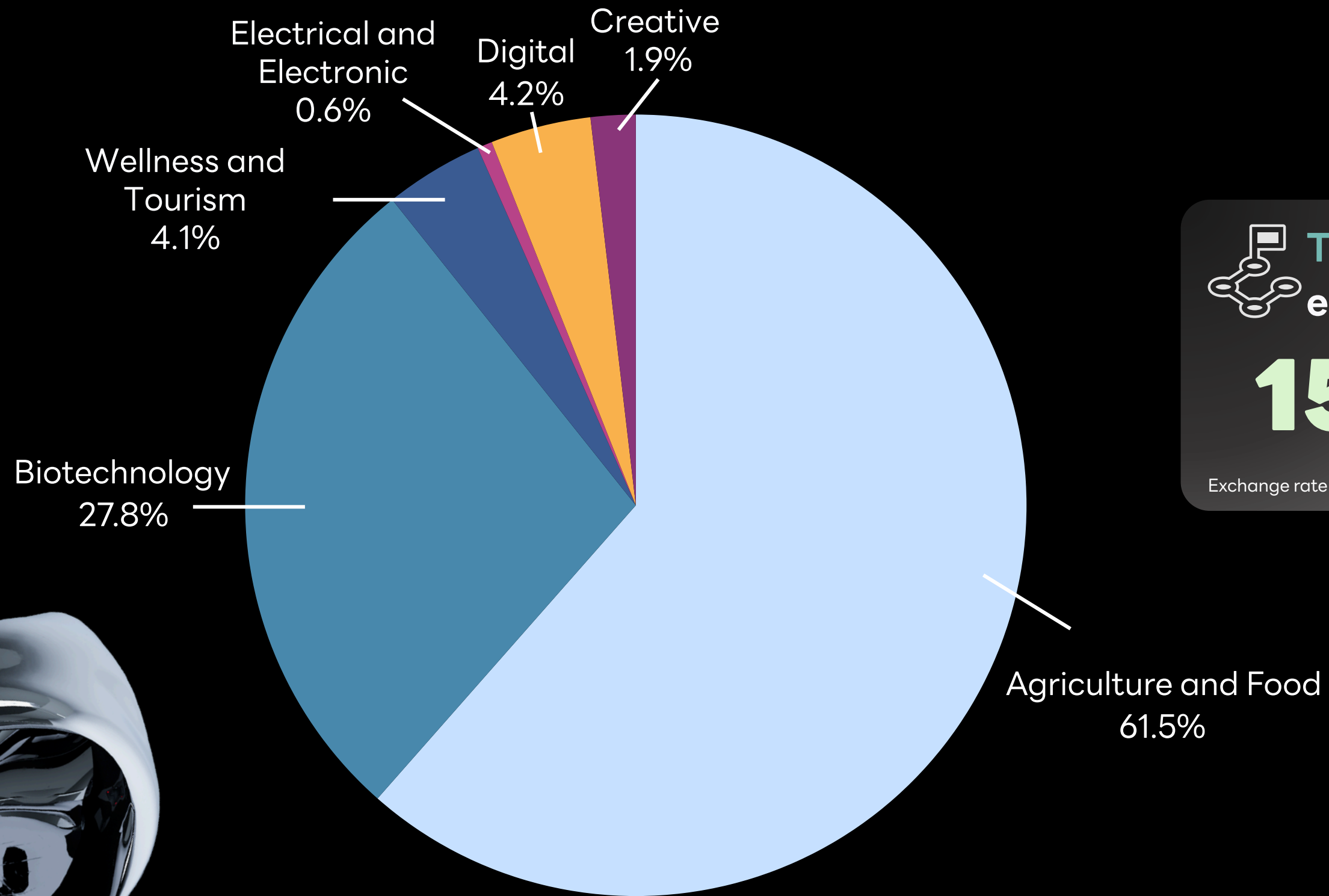
Area-Based Technology Development for Regional Innovation

- Regional Innovation Capacity Building
- Market Diversification
- Local Innovation Testing & Launch
- Partnerships for Regional Growth

4

From Strategy to Innovation Outcomes

FORECASTED IMPACT OF TECHNOLOGY DEVELOPMENT TO ELEVATE INDUSTRIES



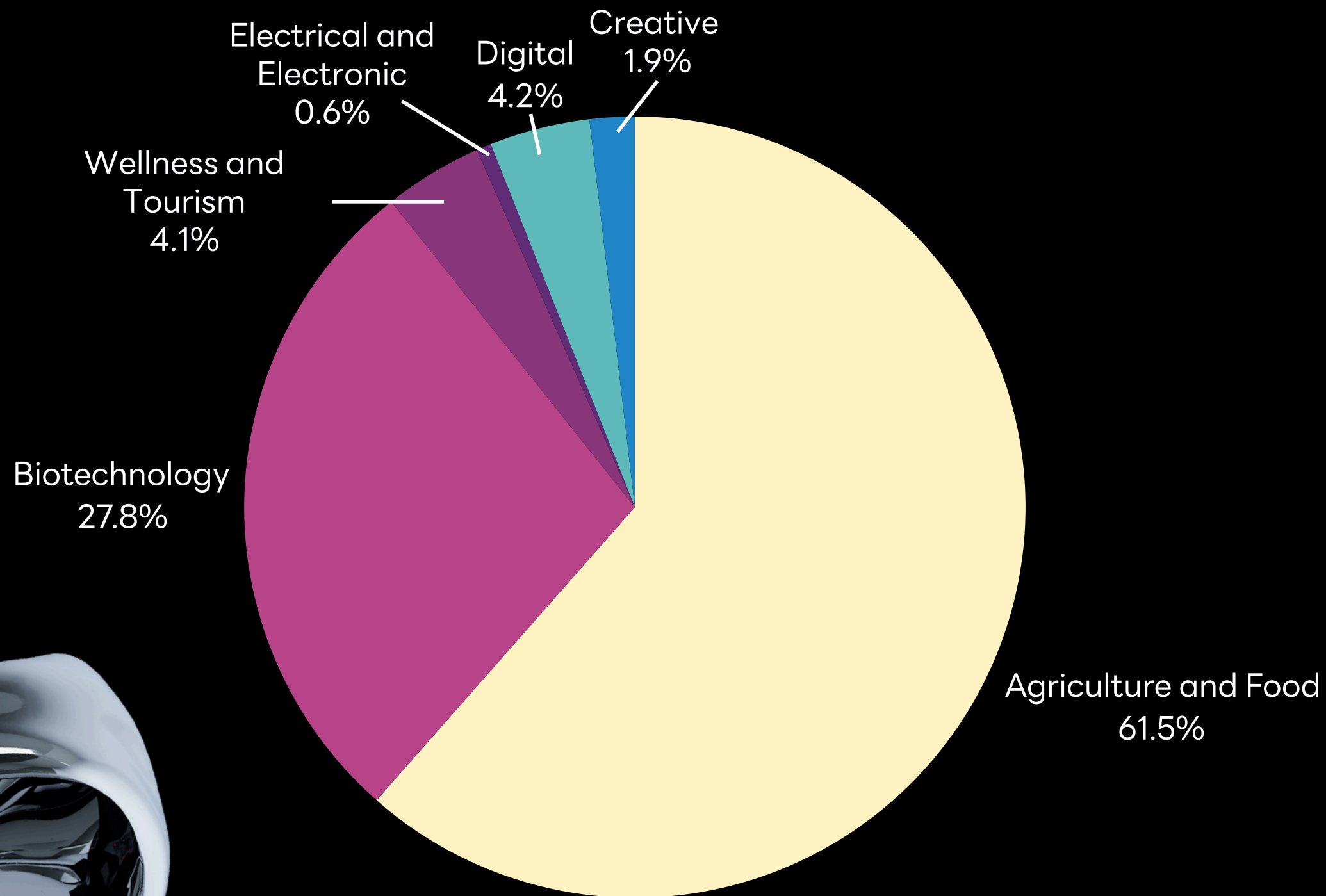
Technology Roadmap

estimated total economic value

15 billion USD

Exchange rate is an approximation as of Tuesday, November 4, 2025

FORECASTED IMPACT OF TECHNOLOGY DEVELOPMENT TO ELEVATE INDUSTRIES



HIGH-IMPACT TARGETED TECHNOLOGY FOR FOCUSED INDUSTRY

• AGRICULTURE AND FOOD

- ★★★ Drone and Smart Electronics
- ★★ Oleochemical
- ★ Creative Digital

• BIO-INDUSTRY

- ★★★ Oleochemical
- ★★ Biorefinery

• DIGITAL

- ★★★ Creative Digital

• WELLNESS AND TOURISM

- ★★★ Creative Digital
- ★★ Plasma
- ★ Extraction

• CREATIVE DIGITAL

- ★★★ Creative Digital

• ELECTRICAL AND ELECTRONIC (EE)

- ★★★ AI, Digital, Sensor and Microelectronics



THANK YOU