Digital Park for SMEs

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President of NSTDA

Digital Thailand 2016
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Economic Growth of Thailand

We recognize an urgent need to raise productivity and innovation

Our Two Golden Decades
7-12 % growth per year

Out Lost Decade
- Sensitive to global crises
- Natural and Man-made disasters
- Lack of innovation, research & development

Automotive Industry in Thailand

Pushing for the growth is not simple.

Source: https://en.wikipedia.org/wiki/Automotive_industry_in_Thailand#/media/
File:Thailand_Automotive_Sales_2008-2020.jpg
By Ulikaiser - Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=44492240
Global Trends in Automotive Industry

Fewer internal-combustion engine vehicles

More Hybrid and Electric vehicles

Source: Modern Electric Vehicle Technology, C.C. Chan and K.T. Chau
Global Trends in AgroTechnology

Grow organic vegetables using aeroponic with computer controlled climate.

Food computer developed at MIT Media lab.

Source:

http://openag.media.mit.edu/the-move-towards-manufacturing/
Future Sustainable Urban Living

Vertical organic farming with small amount of water.

Safe and smart city with clean environment.
Industry 4.0

End to end Digital Engineering

IOT Enabled Manufacturing

IOT Service Implementation

IOT Service Operation

Product Usage Data Customer Relationship Management

De-Coupling, Product memory

Batch-Size One

3D Printing

Next-Gen Robots

Intelligent Powertools

App store/Digital Services

Connected Products

Remote monitoring

Predictive Maintenance

Mass Customization of production

Servitization

Sales/Marketing & Business Models

Work Environment

Adaptive Logistics

Aftermarket Service

3D Printing

Batch-Size One

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App store/Digital Services

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Servitization

Sales/Marketing & Business Models

Work Environment

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Aftermarket Service
End to end Digital Engineering Platforms

Data Driven Economy

App store/Digital Services
Connected Products
Remote monitoring
Predictive Maintenance

Mass Customization

Internet of Things and Artificial Intelligence as Nervous System of Industry and Customer experience

All made possible by Connectedness
Thailand 4.0: New Growth Industry

Driven by Industry 4.0

Food Tech
- Smart Farm
- Functional Food

Health Tech
- Smart Health
- Medical/Wellness Devices
- Digital Dentistry
- Silver Economy

Auto Tech
- Smart Logistic
- Smart Devices
- Smart Energy
- Smart Building
- Smart Car

Digital Tech
- FinTech
- eCommerce
- E-service
- Education Technology

Culture Tech
- Design Tech
- Movie Industry
- Smart Tourism
- Life Style Biz

Source: NSTDA
Thailand 4.0: Transformation

New Industry

• Food, Agriculture and Bio Technology
• Health, Wellness and Biomedical Technology
• Smart Devices, Robotics and Mechatronics
• Digital, IOT and Embedded Technology
• Creative, Culture and High-Value Services

StartUps

• AgriTech
• HealthTech
• RobotTech
• FinTech
• EdTech
• eMarketplace
• eCommerce
• Service enhancement
• DesignTech
• Lifestyle Business
• TravelTech

Fall within scope of
Digital Manufacturing Platform
and
Smart City Platform

Source: NSTDA, adapted from “Thailand 4.0”, by Dr. Suvit Maesincee
Digital Park For SMEs

**Guiding Principles**
- Supporting transformation of Thai SMEs for Industry 4.0
- Unified government supports
- Global players engagement
- Financial institutions participation
- Full Integration from ideas to production and services

**Unified Government Supports**
- NSTDA, Ministry of Science and Technology
- CAT, Ministry of ICT
- BSID, Ministry of Industry
- The Board of Investment (BOI)

**Financial Institutions Participation**
- Investors and VCs
- Commercial Banks
- Accelerators

**Global Players Engagement**
- Incentives for investment
- Vast regional market and supply chain
- Areas: Design, Simulation, Engineering, Internet of Things, Big Data Analytics, Cyber Security and Artificial Intelligence

**Missions of Digital Park**
- A portal for all supports on Digital Manufacturing Platform and Smart City Platform
- Training and Retraining services in new technology for design and engineering in manufacturing
- Hub of high-level co-development space for startups and designers
- Network of Tech Incubator and accelerators
- One-stop services for getting government incentives

Source: NSTDA
All-Digital Enabled Value Chain in Private Sector

R&D → Design → Prototype → Production → Logistics → Marketing → Services

MOST  Digital Manufacturing Platform

MOI

Smart City Platform

Source: NSTDA
MOU signing among three ministries to collaborate the projects in a unified government support for Thailand Industry 4.0, May 26, 2016.
Launched Initiatives

Global Players Engagement

Thailand 4.0
Platforms for Industrial Players

Digital Park for SMEs

Digital Manufacturing Platform

Smart City Platform
Services from Bureau of Supporting Industries Development

BSC at Kluaynamthai and branches all over Thailand

- Engineering and Production Expert Services
- Product Design and Development Services
- Industrial Information Services
- Business Consultancy
- Business Matching Services
CAT Telecom Building at Bang Rak is designated as the location for Digital Park for SME.
Digitally Enhanced Business example from NSTDA: Digital Dentistry
Digitally Enhanced Business example from NSTDA: Digital Footwear

Hospital Unit
- Information Data
- Scan Data
- Picture for Scan

Smart Factory

Cloud

Delivered to Hospital Unit
Student Innovation Challenge (International)
i-CREATe Startup Program (Wellness Startup)
Thank You!

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(Edited version)