

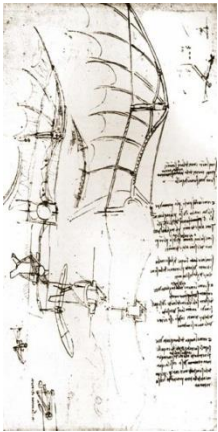
โลกกำลังเปลี่ยนแปลงอย่างรวดเร็ว จากเทคโนโลยีสมัยใหม่⁰

- เปิดโอกาส
- สร้างความท้าทาย ความเสี่ยง

Timeline: famous inventors



Leonardo da Vinci
1452 - 1519



Drawing of Flying Machine
leading artist and intellectual of the Italian Renaissance



Benjamin Franklin
1706 - 1790



Lightning Rod, Electricity
Drafted the Declaration of Independence and the Constitution of the United States.



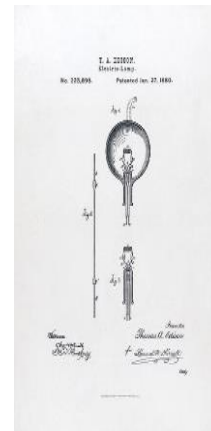
Alexander Graham Bell
1844 - 1922



Father of telephone
Held > 18 patents



Thomas Edison
1847 - 1931



Electric Light Bulb and Photograph
> 1,000 patents



Steve Jobs
1955 - 2011



iPhone & iPad
170 Million iPads sold (Oct'13)
> 400 Million iPhone sold



Larry Page



Over 40,000 search queries every second

3.5 billion searches daily

1.2 trillion searches per year

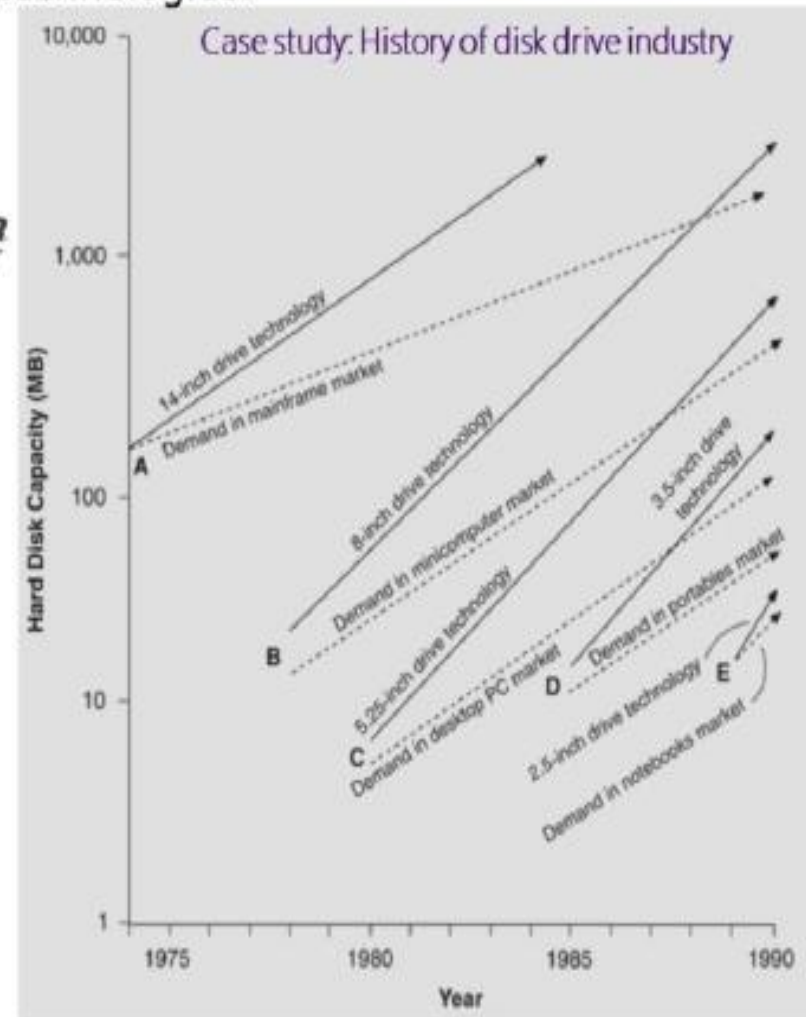
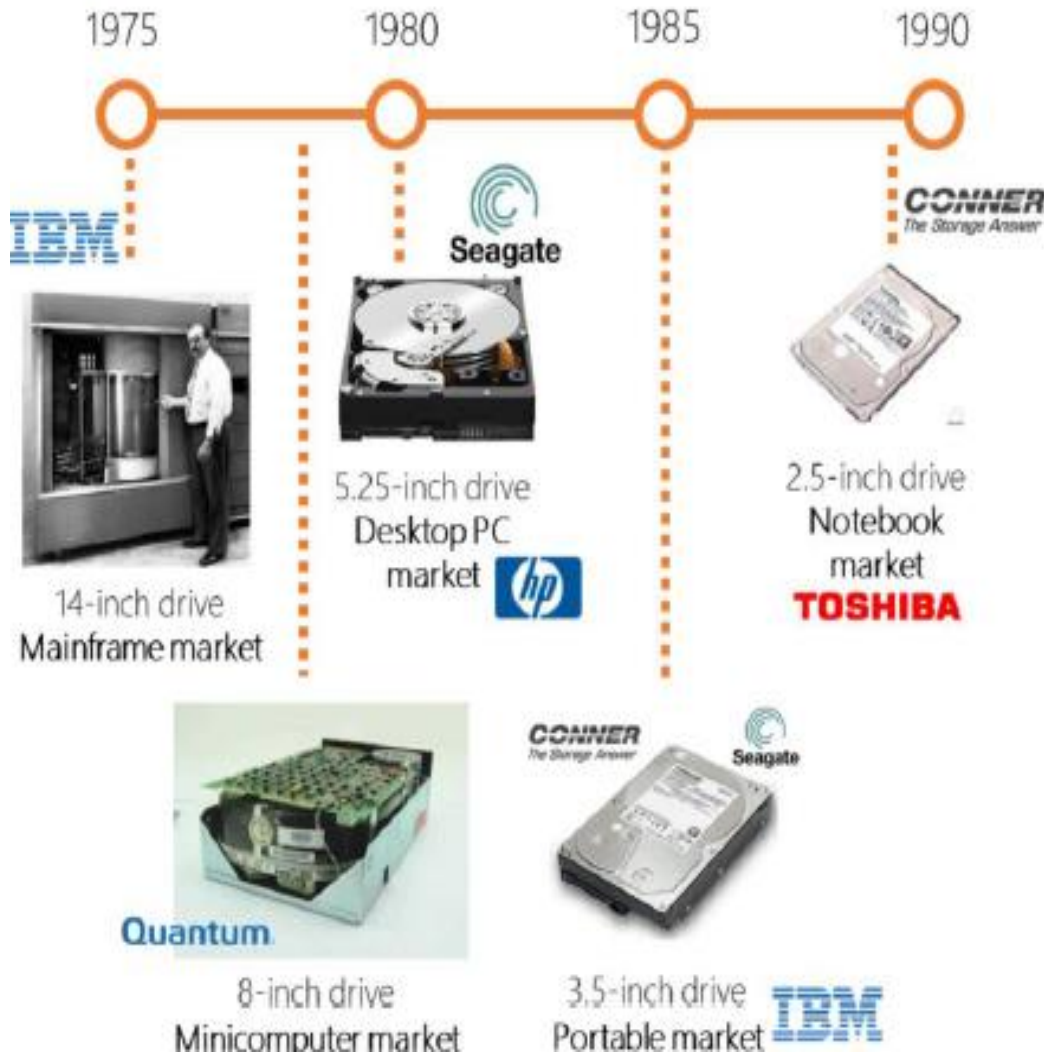
PageRank algorithm

Google CEO, computer scientist

Source: <http://www.biography.com/people>

Hard Disk Drive Industry

The fear of cannibalizing sales of existing products is often cited as a reason why established firms delay the introduction of new technologies.

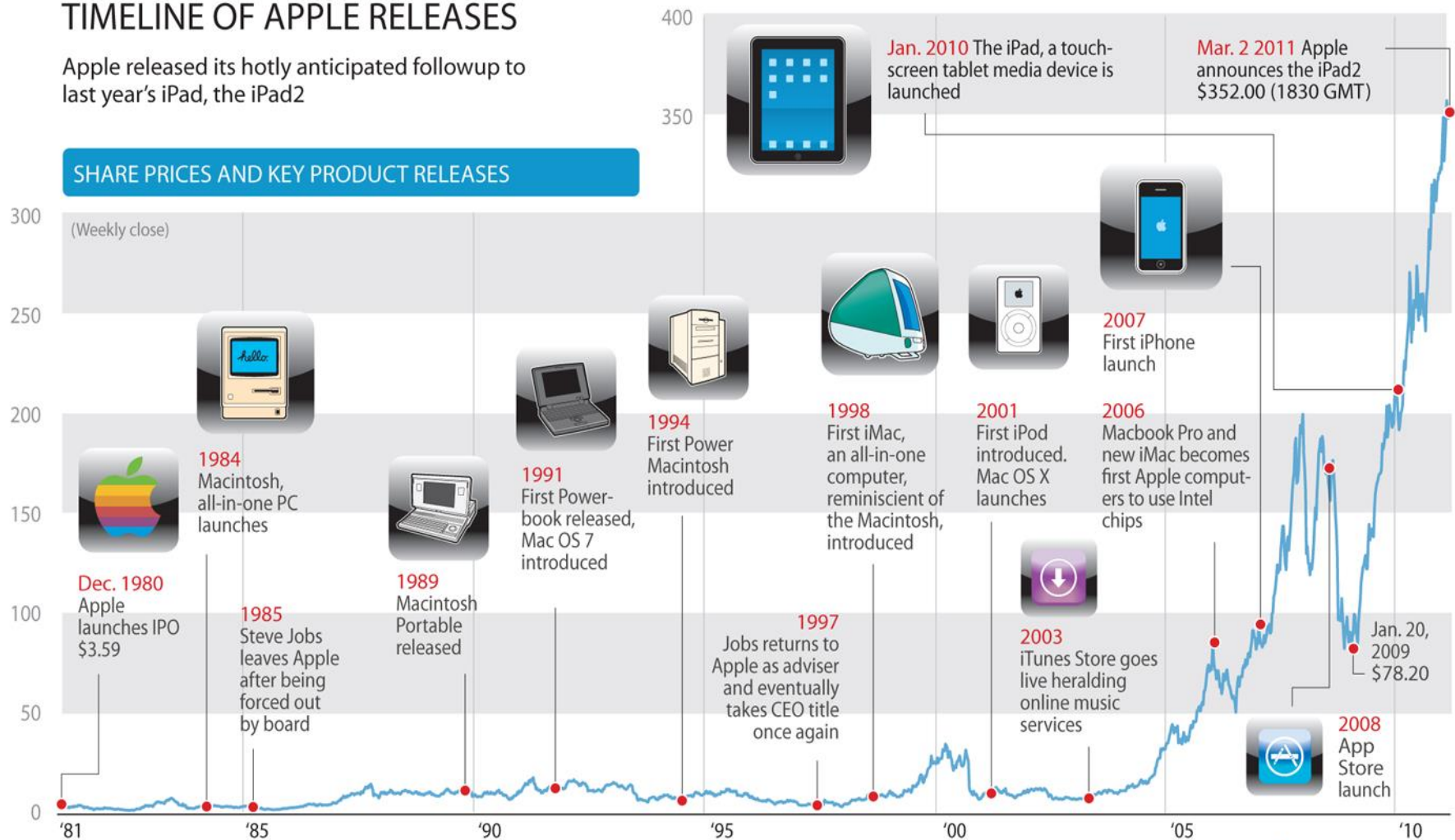


Apple

TIMELINE OF APPLE RELEASES

Apple released its hotly anticipated followup to last year's iPad, the iPad2

SHARE PRICES AND KEY PRODUCT RELEASES



Source: Apple Inc.; Credit: Reuters

History of financial innovations

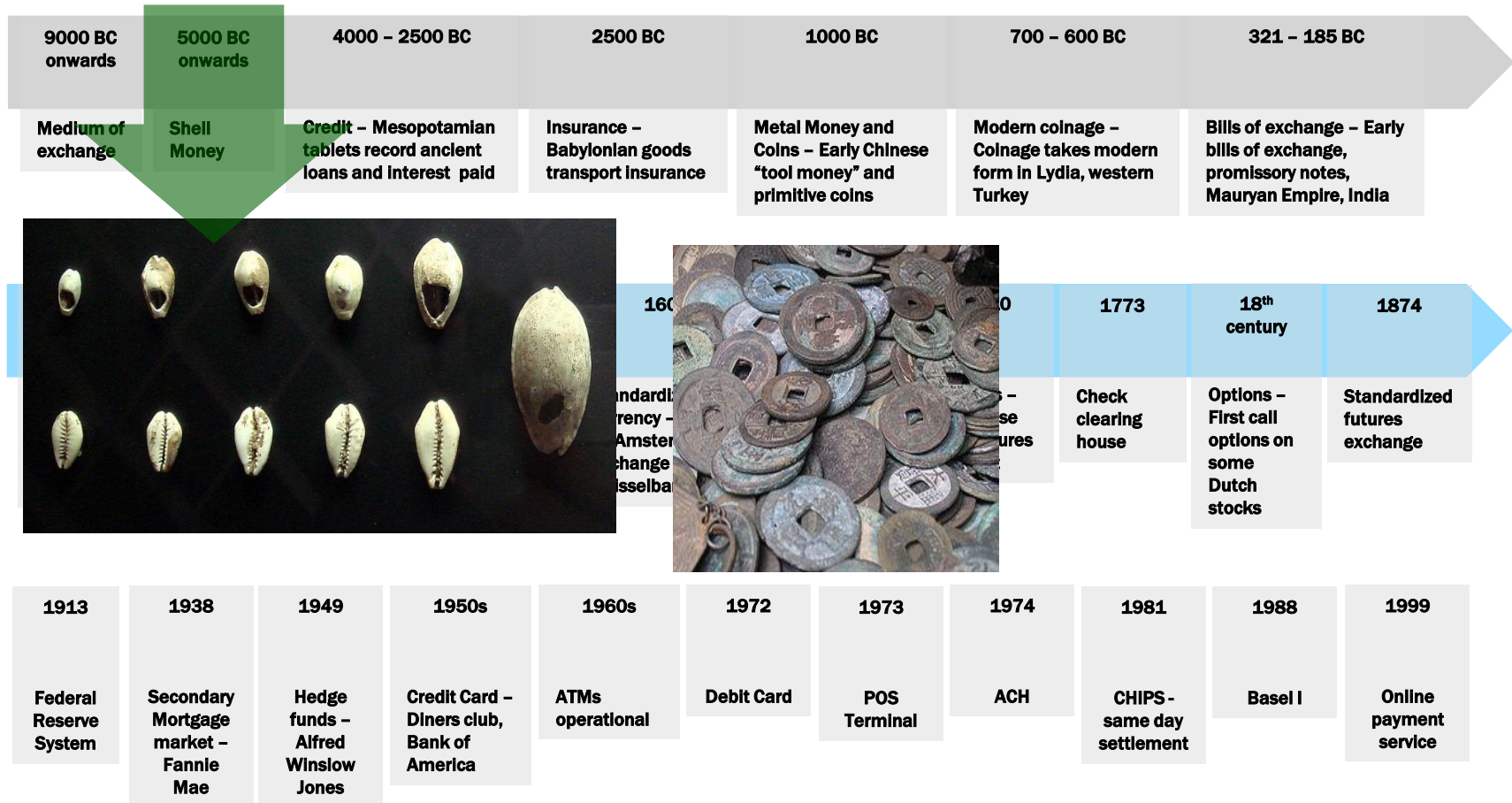
9000 BC onwards	5000 BC onwards	4000 – 2500 BC	2500 BC	1000 BC	700 – 600 BC	321 – 185 BC
Medium of exchange	Shell Money	Credit – Mesopotamian tablets record ancient loans and interest paid	Insurance – Babylonian goods transport insurance	Metal Money and Coins – Early Chinese “tool money” and primitive coins	Modern coinage – Coinage takes modern form in Lydia, western Turkey	Bills of exchange – Early bills of exchange, promissory notes, Mauryan Empire, India

806 - 1023	14 th – 15 th century	1602	1609	1688	1710	1773	18 th century	1874
Representative money – Banknotes and paper money appear in China	Bonds and Reinsurance	Publicly listed stock – Dutch East India Comp. on Amsterdam Stock Exchange	Standardized currency – Issued by Amsterdam Exchange (Wisselbank)	Insurance brokerage – Edward Lloyd's London coffee house	Futures – Japanese rice futures market	Check clearing house	Options – First call options on some Dutch stocks	Standardized futures exchange

1913	1938	1949	1950s	1960s	1972	1973	1974	1981	1988	1999
Federal Reserve System	Secondary Mortgage market – Fannie Mae	Hedge funds – Alfred Winslow Jones	Credit Card – Diners club, Bank of America	ATMs operational	Debit Card	POS Terminal	ACH	CHIPS – same day settlement	Basel I	Online payment service

Source: Rethinking Financial Innovation, World Economic Forum (p.16 – 23)

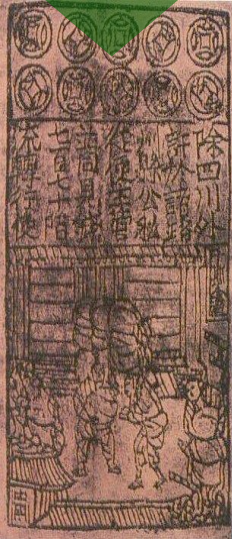
History of financial innovations

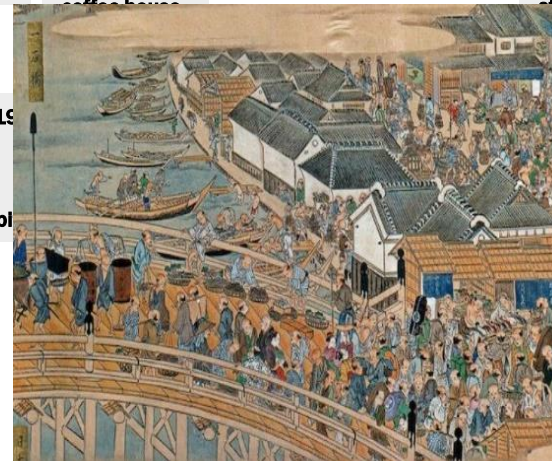


Source: Rethinking Financial Innovation, World Economic Forum

History of financial innovations

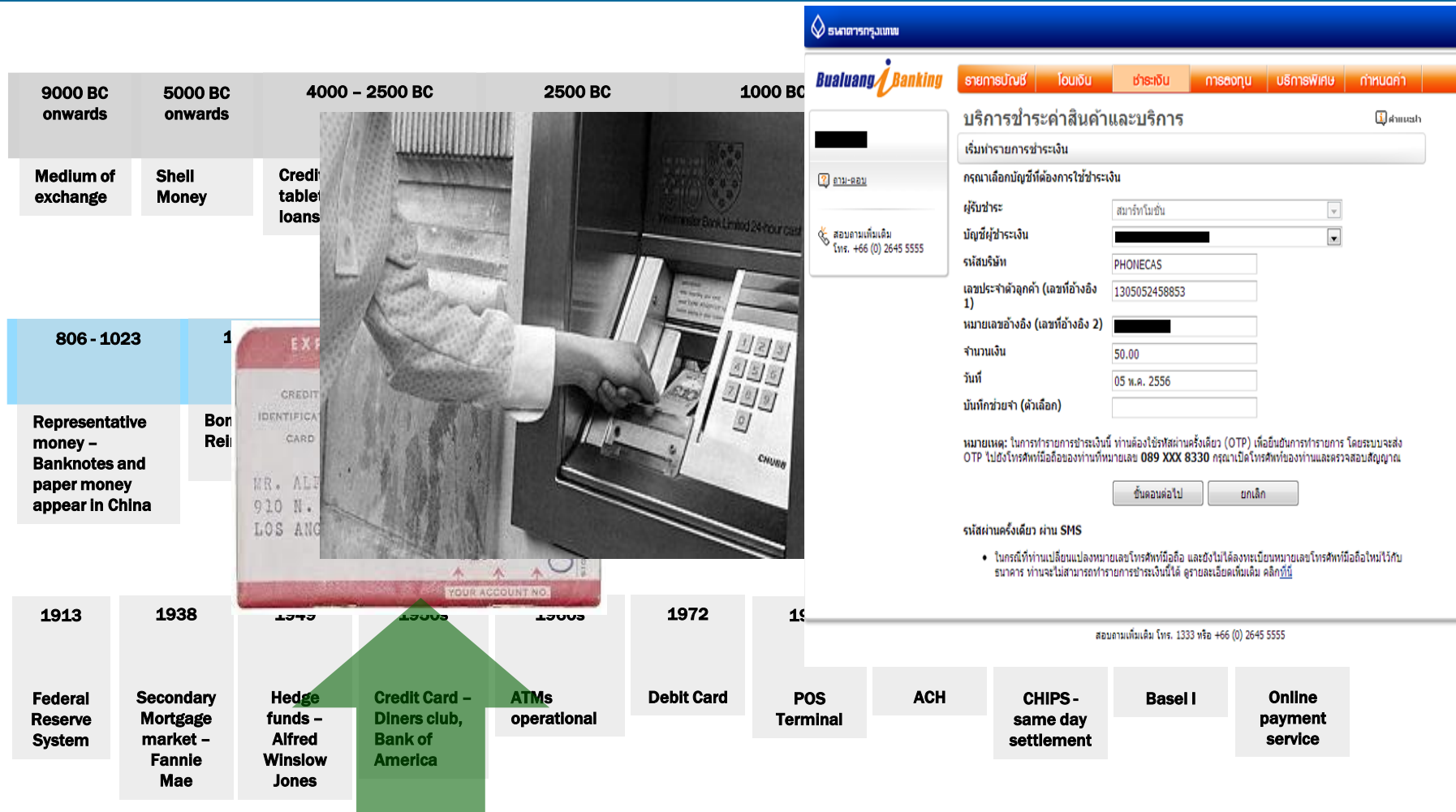
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	Hedge funds – Alfred Winslow Jones	Credit Card – Diners club, Bank of America	ATMs operational	Debt			Basel I	Online payment service



Financial Innovation, World Economic Forum

History of financial innovations



Source: Rethinking Financial Innovation, World Economic Forum

3. BitCoin



Alipay, Alibaba, Ali Credit



Alipay, Alibaba, Ali Credit



Alipay, Alibaba, Ali Credit



Alipay, Alibaba, Ali Credit



โลกใหม่ของ AI

Sesame Credit



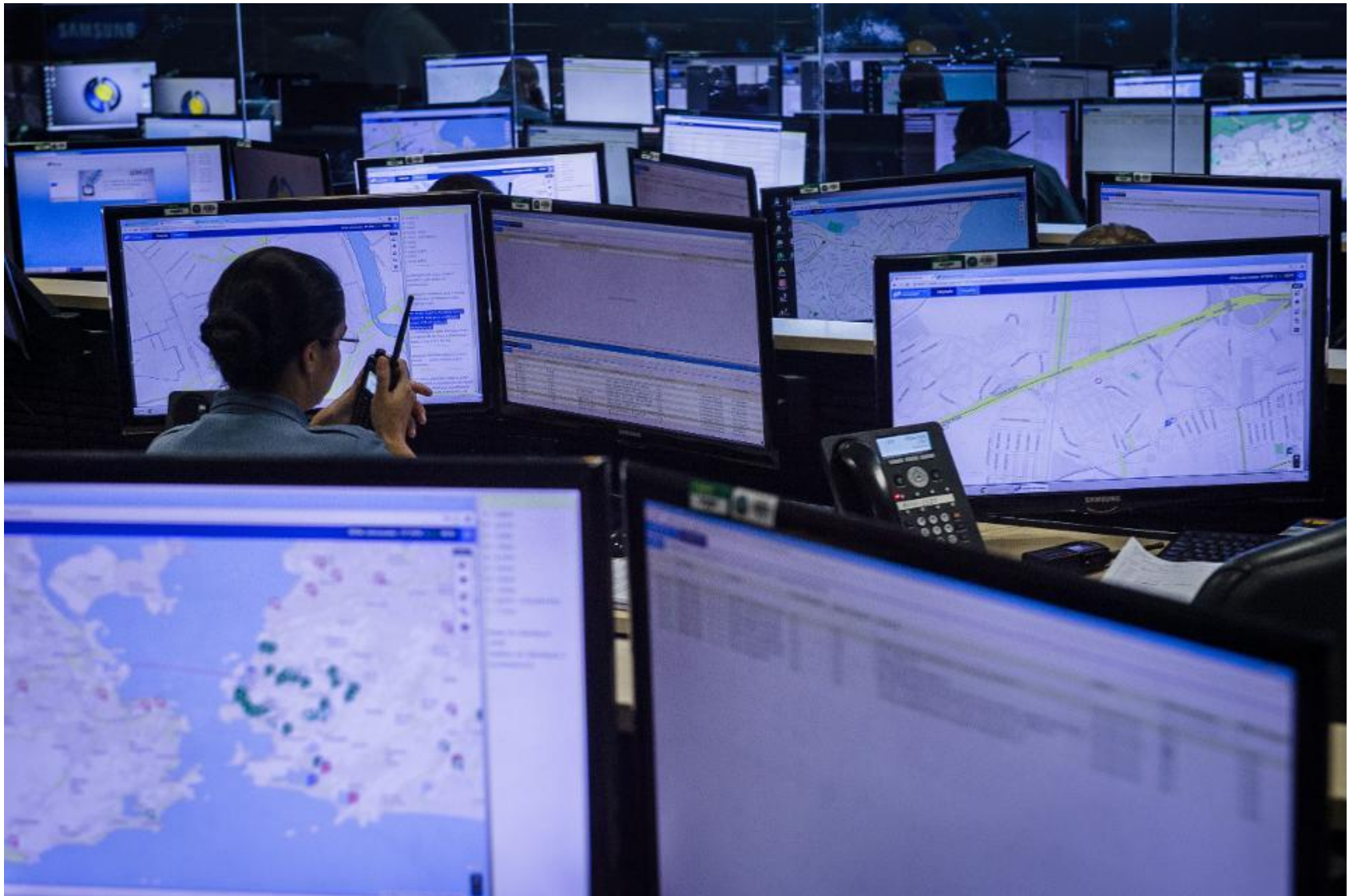
Alibaba's AI for Hangzhou Traffic Control



Alibaba's AI for Hangzhou Traffic Control



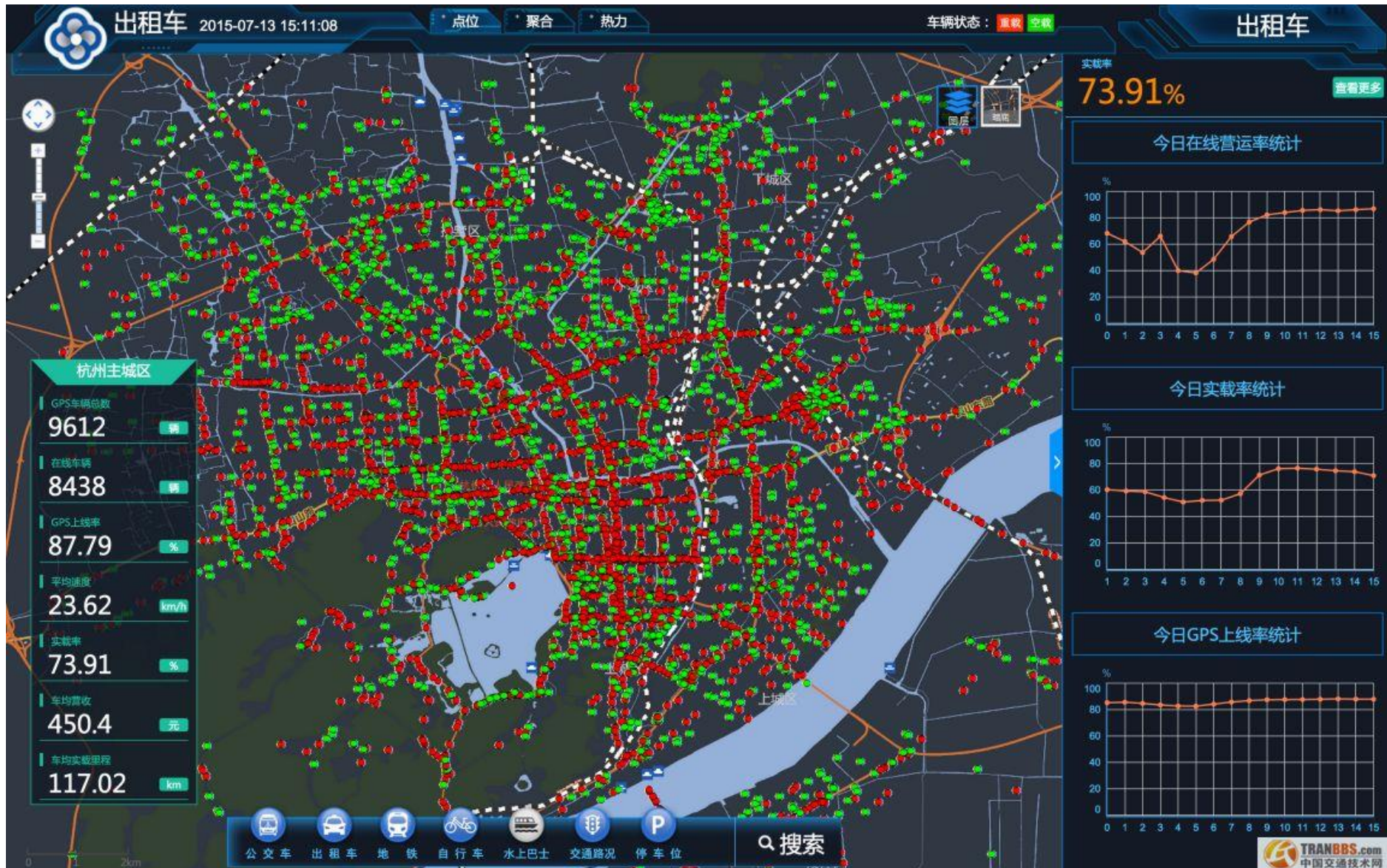
Social Surveillance



Alibaba's AI for Hangzhou Traffic Control



Alibaba's AI for Hangzhou Traffic Control

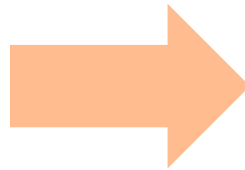


Alibaba's AI for Hangzhou Traffic Control



Alibaba's AI for Hangzhou Traffic Control

ความเร็ว
เฉลี่ย 37 km,
ติด 30 km,
ติดมาก 22 km



ความเร็ว
เฉลี่ย 43 km,
ติด 35 km,
ติดมาก 26 km

Hangzhou has about two million vehicles, of which nine thousand buses, covering a total of 600 lines, involving a lot of intersections, about 50,000 roads, 80,000 crossroads

Applications for Traffics



Smart City Solution for Public Safety



Smart City Solution for Public Safety



Smart City Solution for Public Safety



Smart City Solution for Public Safety



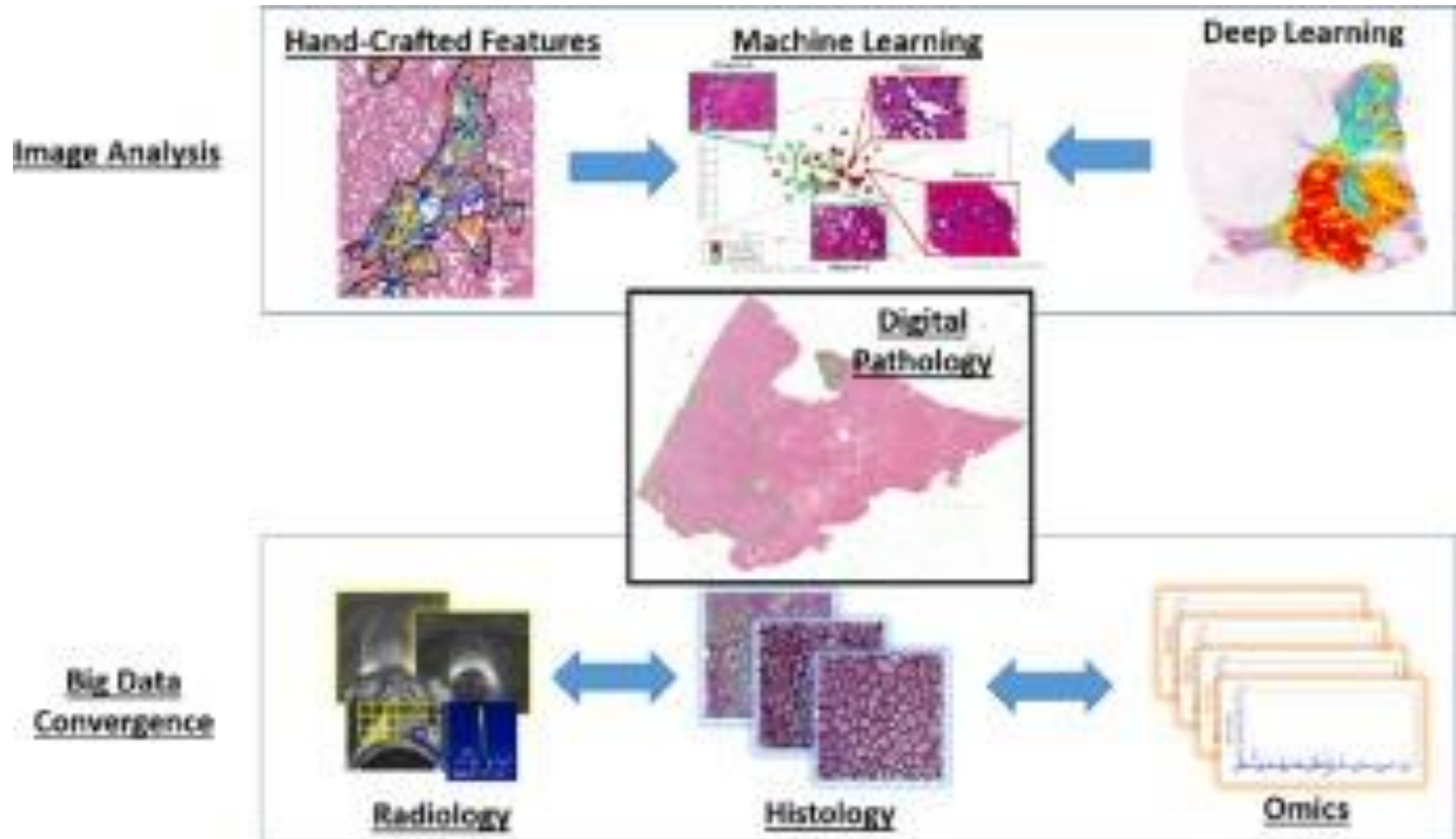
Minority Report

China seeks glimpse of citizens' future with crime-predicting AI

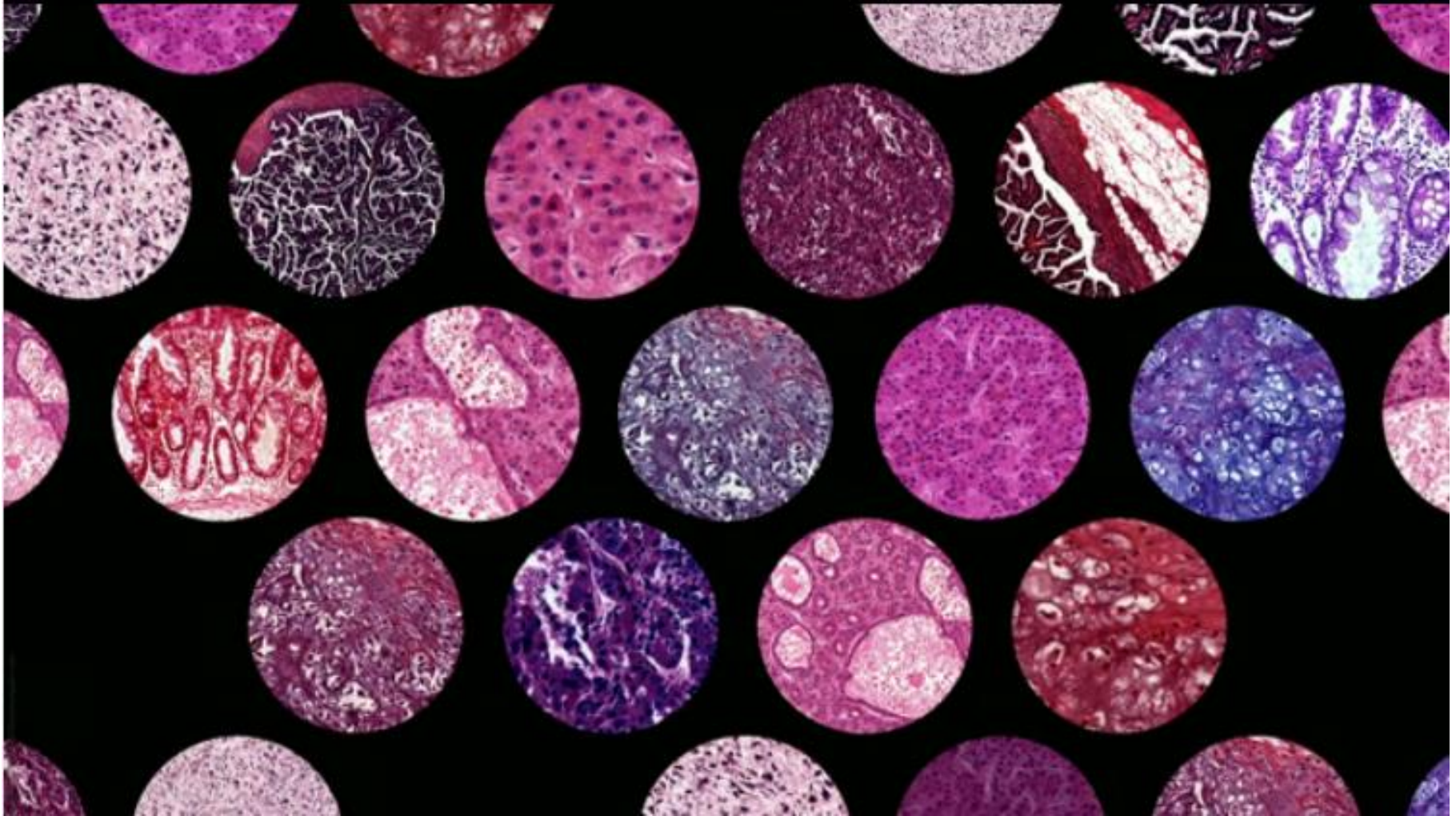
Companies and police develop technology to stop criminals before they act



AI Assisted Cancer Detection



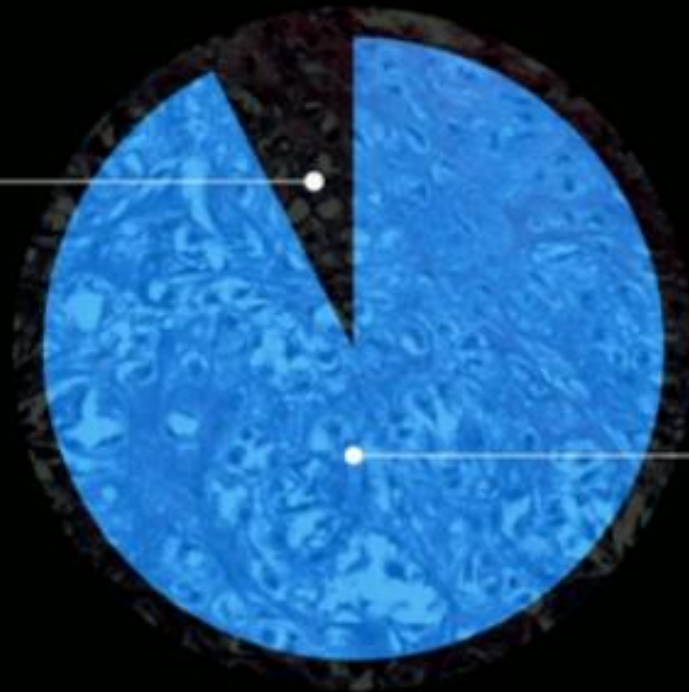
AI Assisted Cancer Detection



AI Assisted Cancer Detection

Diagnosis by AI

7.5%
incorrect

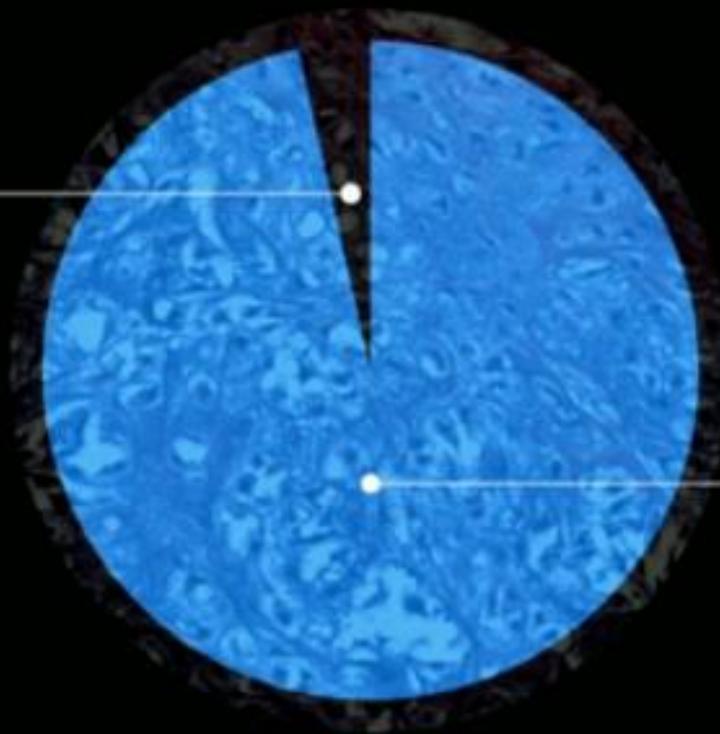


92.5%
correct

AI Assisted Cancer Detection

Diagnosis by **Human**

3.4%
incorrect

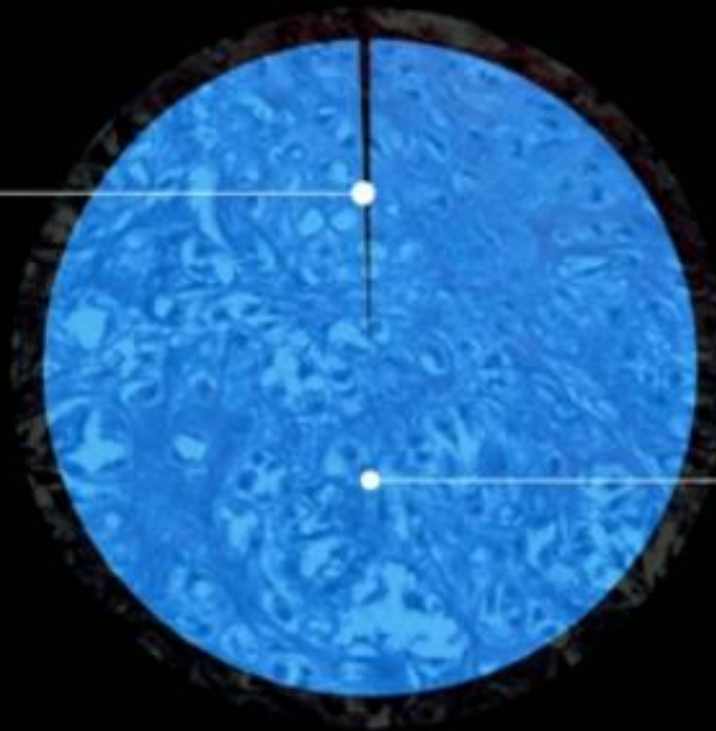


96.6%
correct

AI Assisted Cancer Detection

Diagnosis by **Human + AI**

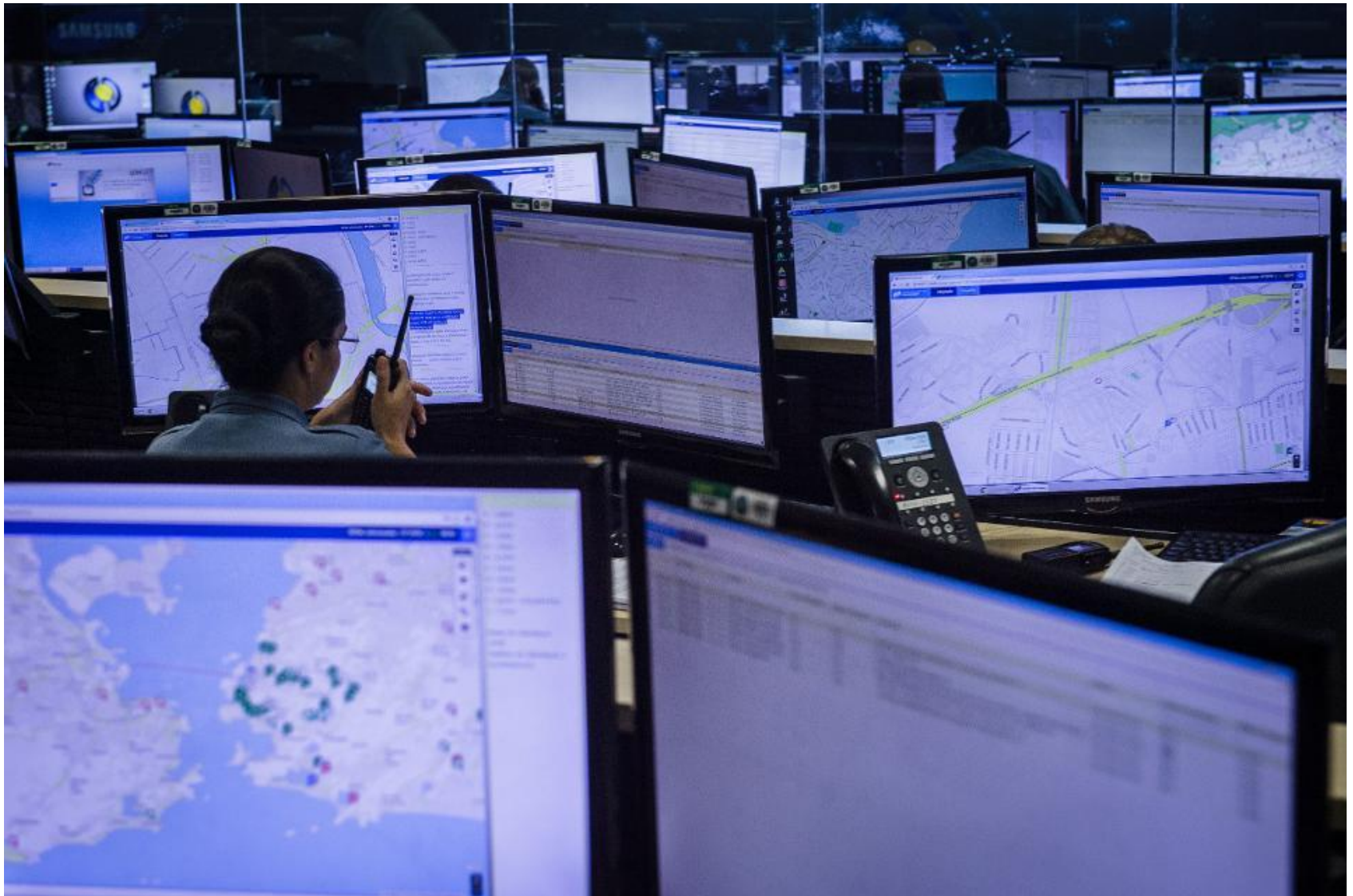
.5%
incorrect



99.5%
correct

Source: Wang, Khosla, Gargay, Ishida, Beck. arXiv:1606.05718v1 [q-bio.QM] 18 Jun 2016

Social Surveillance



Social Media Monitoring



โลกใหม่ของหุ่นยนต์

Disruption, 4.0 and the Digital Age



Yaskawa

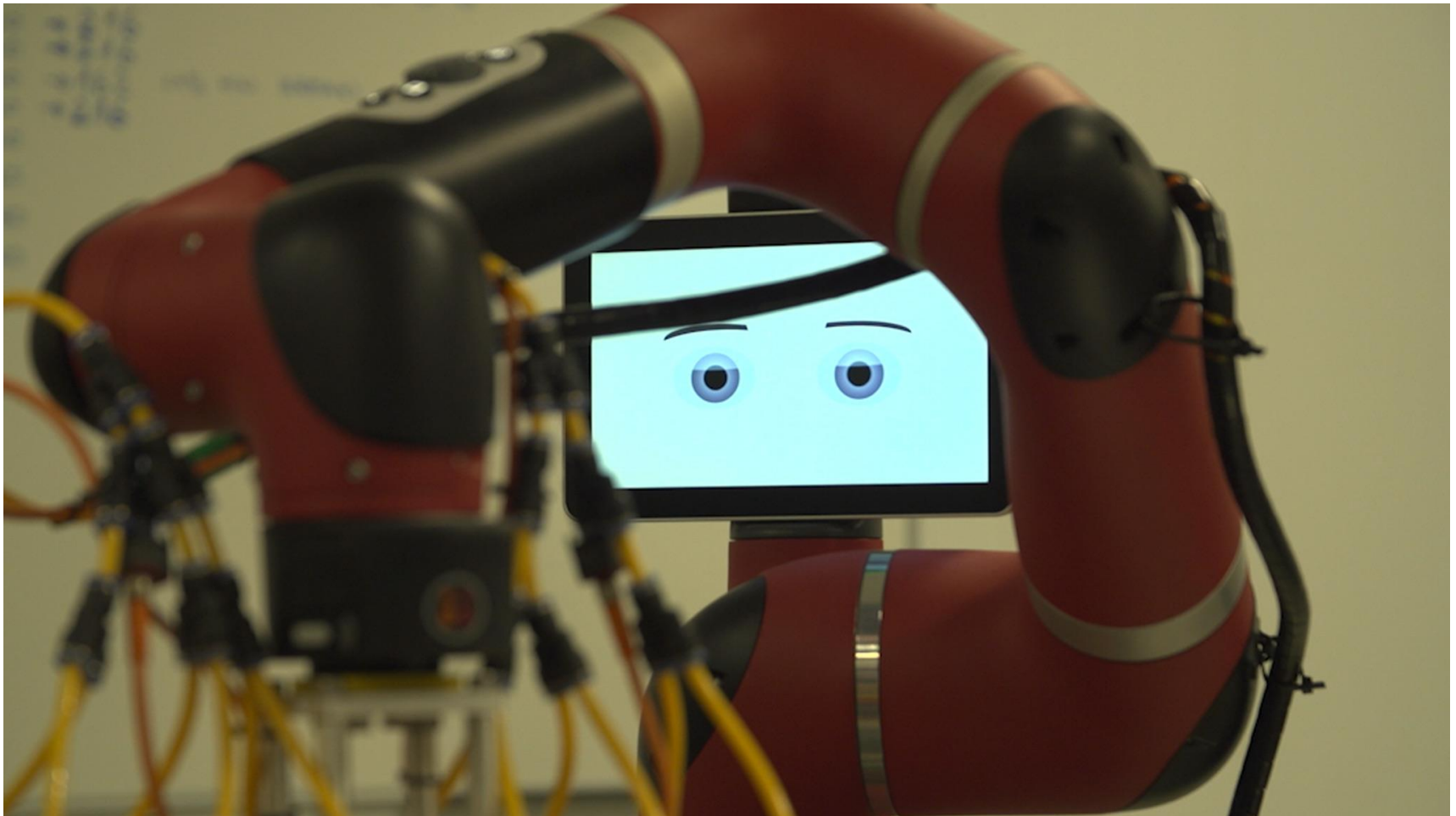


Yaskawa



<https://www.youtube.com/watch?v=xQB9AAZJluw>

Amazon Warehouse



<https://www.youtube.com/watch?v=hhGad3juAGg>

https://www.youtube.com/watch?v=urWtIOVhg_4

Amazon Warehouse



Amazon Warehouse



Medical Hub



Medical Hub

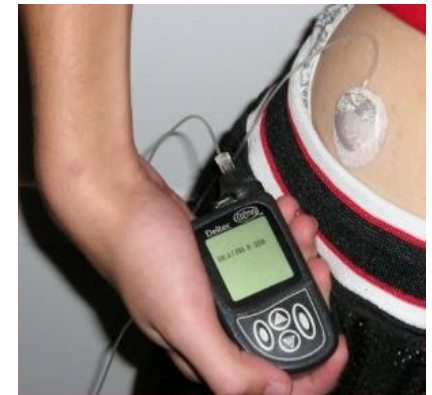


โลกใหม่ของ IOT

Smart Devices



Smart Devices



Telecare Clinic



Medical Hub



โลกใหม่ของ VR

Hold the World



Hold the World



Hold the World



Hold the World



<https://www.youtube.com/watch?v=MvENGM3mbkk>

New Applications of VR

WHAT'S ON:

VIRTUAL REALITY: CARRIBERRIE

An exhilarating journey of First Nations dance and song takes you to some of Australia's most breathtaking locations.



Dancer Francis Williams

Photographer: Joshua Flavell © Carriberrie PTY LTD

New Applications of VR



New Applications of VR



<http://www.mnhn.fr/en/visit/lieux/cabinet-realite-virtuelle-cabinet-virtual-reality>

New Applications of VR



New Applications of VR

The Kremer Collection VR Museum



<https://www.viveport.com/apps/d01d8992-a3af-4800-a1ee-5be383435f69>

โลกใหม่ของ Start up

นโยบายส่งเสริม New Start Up



New Start Up



New Start Up



New Start Up

Thailand Health Tech Startup Ecosystem



ERP / Unified Communication



Funding



Service Search



HIS/EMR/EHR



Personal Health & Fitness



Big Data & AI



TeleHealth



Clinic/Pharmacy Management System



Remote Monitoring



Insurance / Finance



Doctor Network



Communication Aid



Digital Transformation

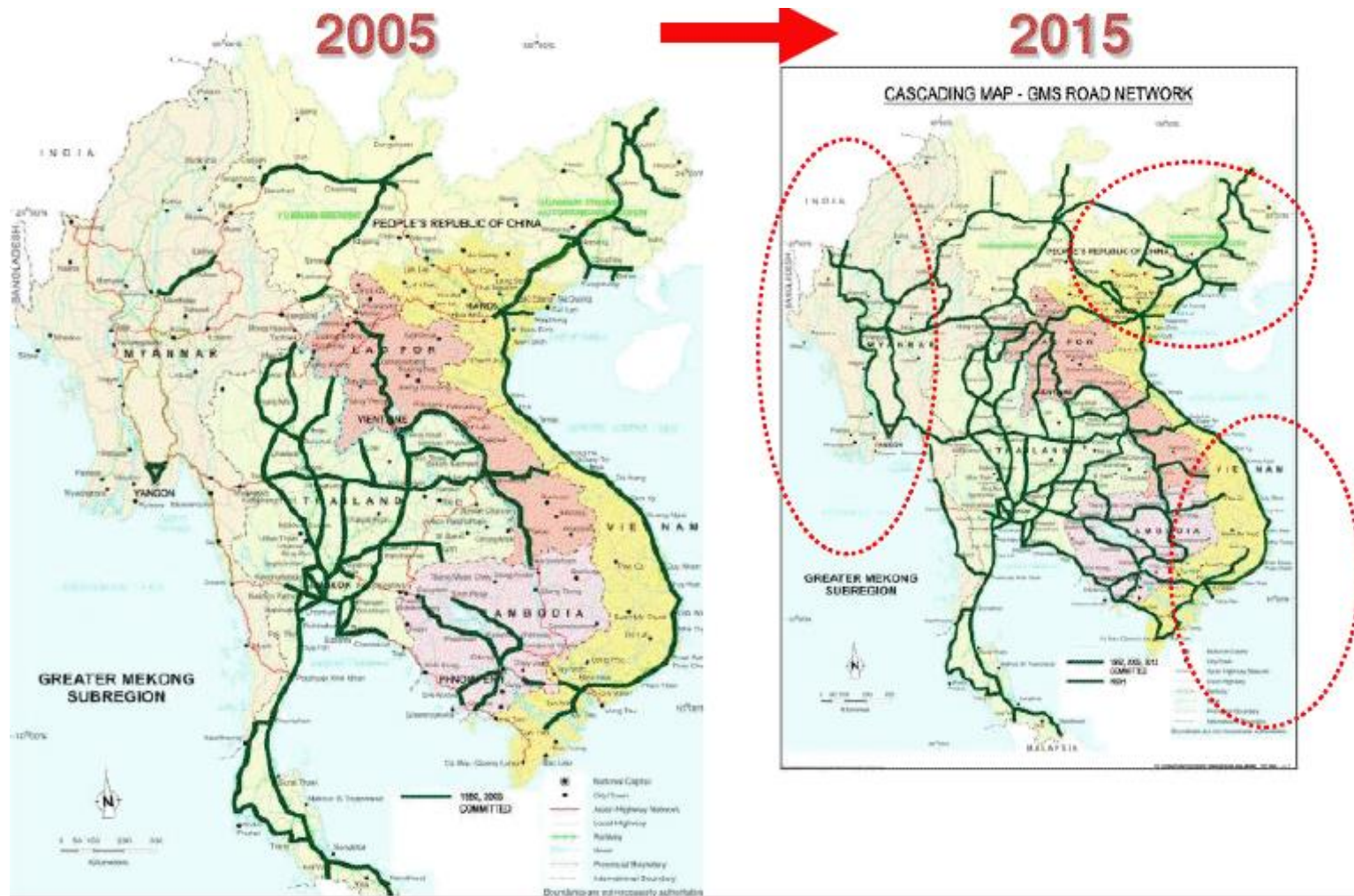


35 Health Tech Startups
\$10.5 M investment
Source : Health Tech Startup Thailand, July 2017
www.facebook.com/HealthTechThailand

การเปลี่ยนแปลงด้านโครงสร้างพื้นฐานและอุตสาหกรรม

China's One Belt, One Road





Center of a thriving market of 230-400 million people

Bangladesh
160 Mil People



Power Plant



Hydro Power in Laos



New Urbanization



New Railways

Double Track Construction 1st Phase

From - To	Distance (KM)	Amount (Mill. USD)
Chachoengsao – Kaeng Khoi	106	360
Lop Buri - Nakhonsawan	118	420
Map Kabao – Thanon Chira Junction	132	370
Thanon Chira Junction - Khonkaen	185	410
Nakhonpathom - Hauhin	165	530
Prachuap Khiri Khan - Chumphon	167	500
Total	873	2,590



New Dual Track



Alignment of high speed rail on dedicated standard gauge track

From BANGKOK to CHIANG MAI
and RAYONG Provinces

จาก กรุงเทพมหานคร มุ่งสู่ เชียงใหม่
จาก กรุงเทพมหานคร มุ่งสู่ ระยอง

1

2



REVOLUTIONIZING the National
Transportation Capability
for Improved Quality of Life
and Socio-economic Development

พลิกโฉมความเร็ว
ที่เพิ่มขีดความสามารถในการแข่งขัน
ยกระดับคุณภาพชีวิตของประชาชน



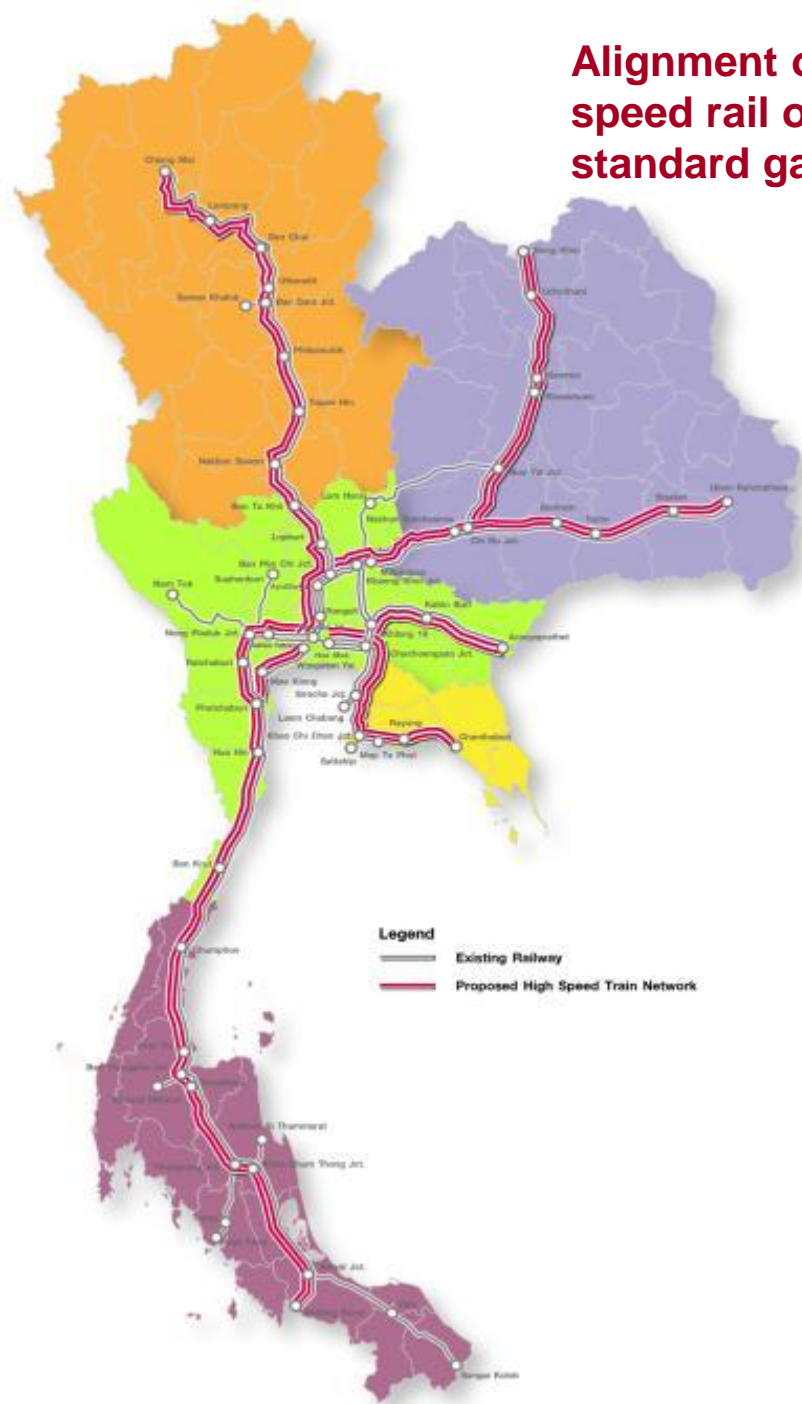
GEARING TOWARDS
THE REGION'S
MOBILITY AND
ECONOMIC DEVELOPMENT



เดินทางขับเคลื่อนประเทศ สู่...ศูนย์กลางการคมนาคม
ในภูมิภาค

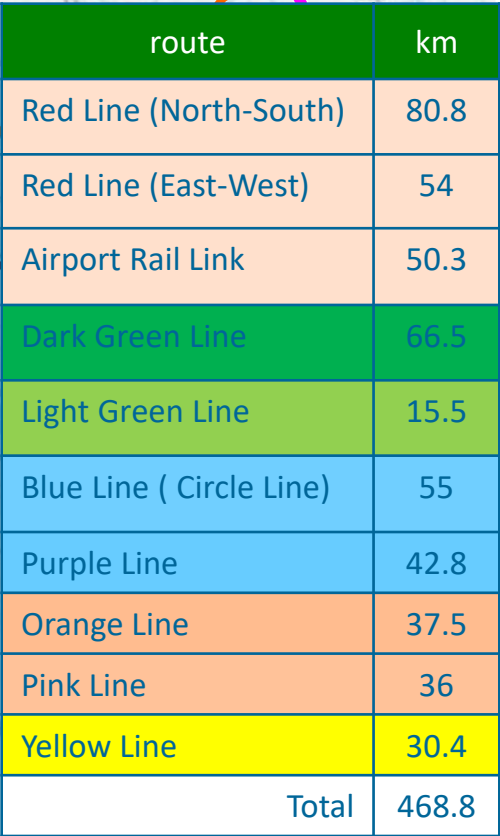
Legend

Existing Railway
Proposed High Speed Train Network



New Extension of Suvarnabhumi Airport





New Real Estate Projects in Bangkok – Icon Siam



New Observatory Deck



One Bangkok by TCC



Dusit Thani and Central Group



Bang Sue Grand Station



Makkasan

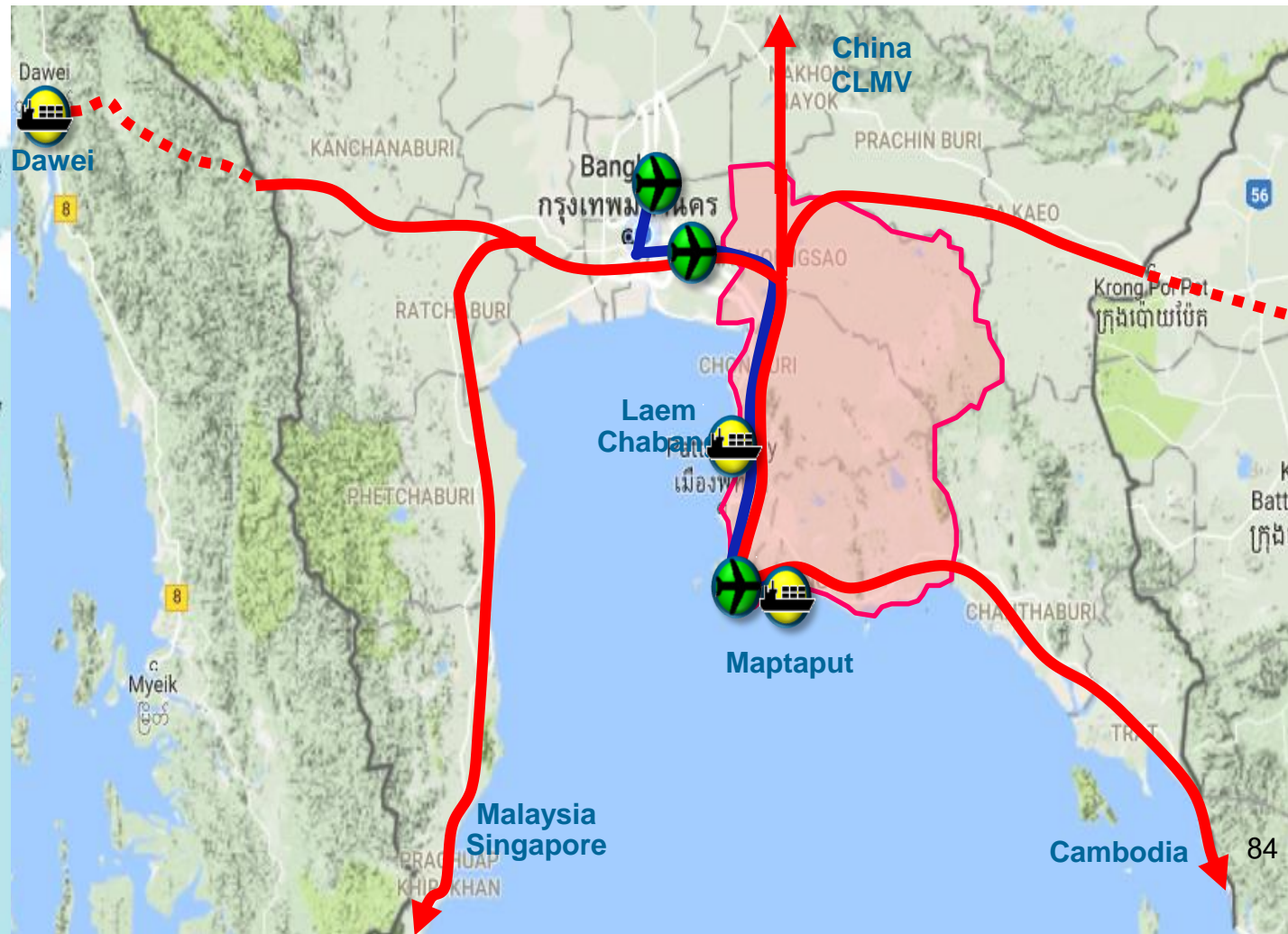


Asiatique New Phase



EEC as the Premier Gateway to ASIA

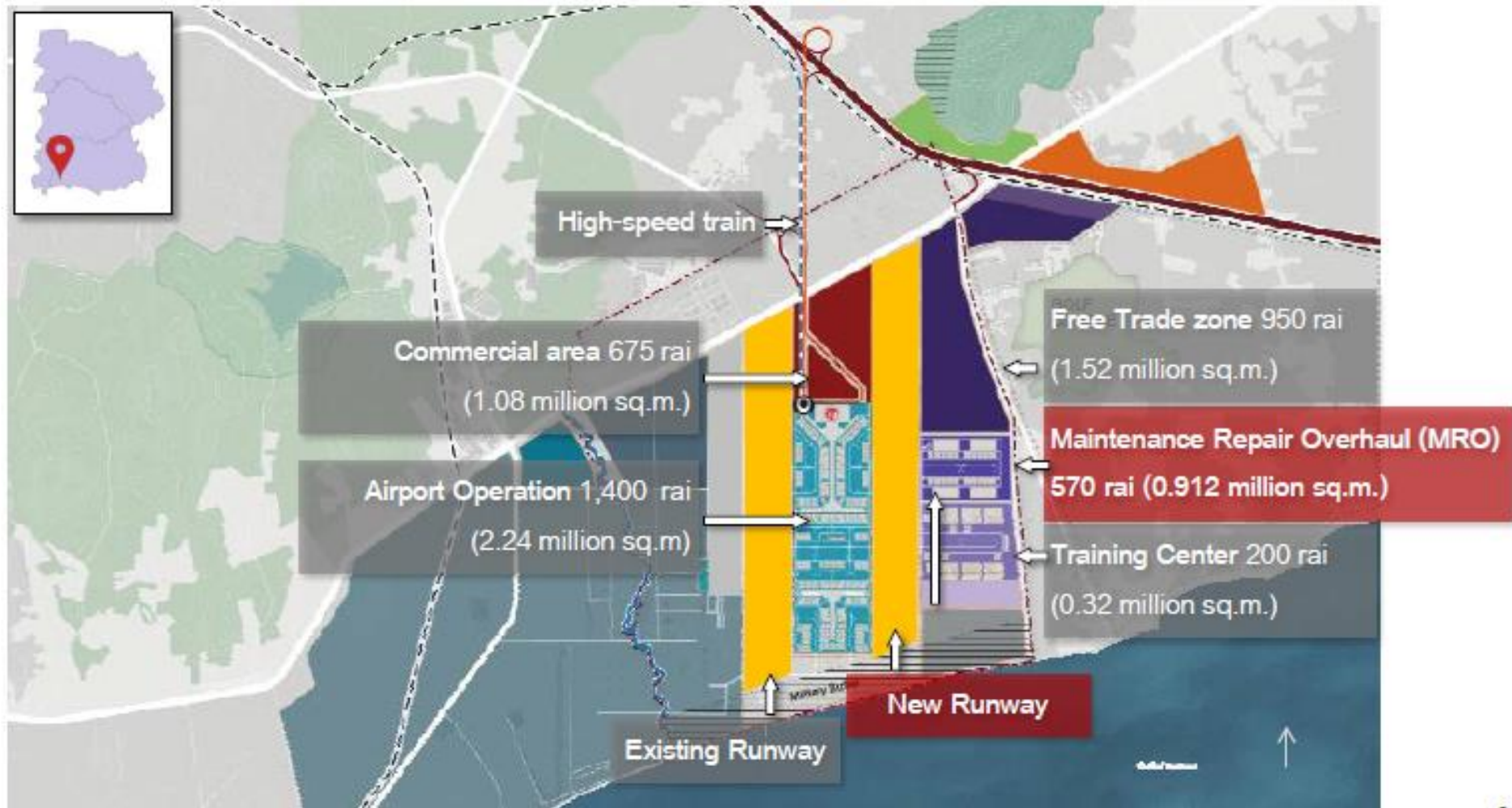
1. Eastern Economic Corridor (EEC) Project



EEC - A New Logistic Hub for Indo-Pacific Region



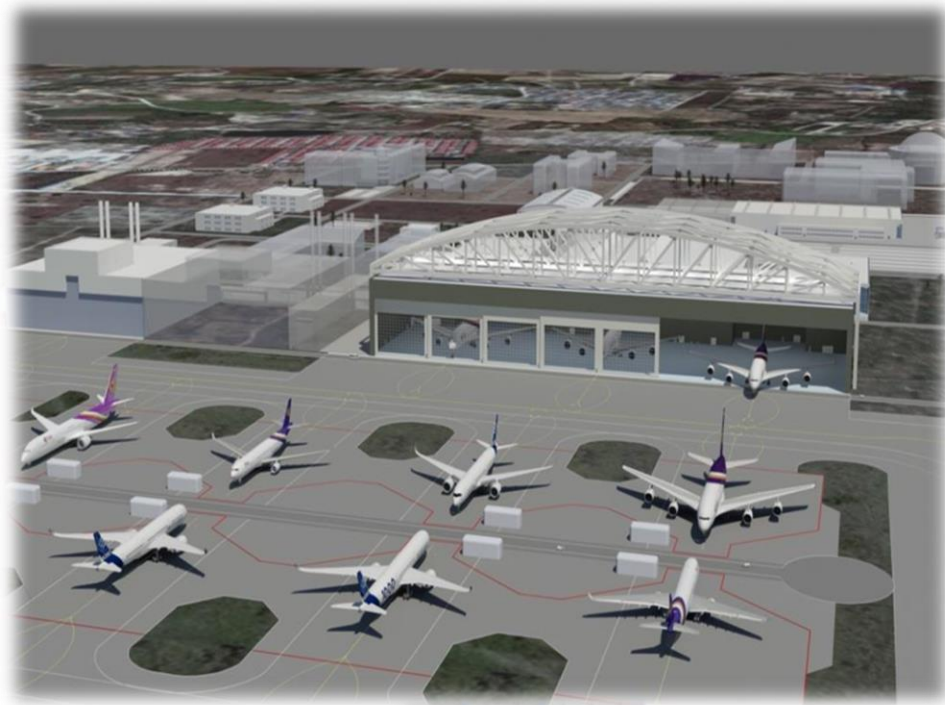
U-Tapao: Capital of Aviation & Aircraft Maintenance Industries



U-tapao Airport City



New MRO Center



Laem Chabang : Transshipment port for Indochina



- Expansion to support growth
 - Accommodate containers from 7 to **18 million TEU/year**
 - Accommodate car export from 1 to **3 million units/year**
- Gateway for Indo-China
- Create Thailand's Tran-shipment business
- Move up from number 22 to rank within the world's **Top 15** ports

New Smart Cities in EEC



Digital Park Thailand



SRIRACHA Creative District

