



ISM-HK Training Workshop III

Digital transformation of logistics services

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Agenda

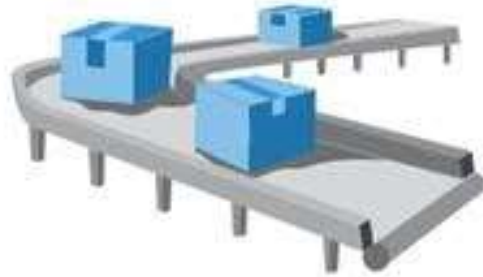
- Industry 4.0 and growth of industrial ecosystems
- The emergency of Logistics 4.0
- Digitalized business model
- Top smart logistics trends
- Government support for technology adoption
- Some successful cases

END OF THE 18TH
CENTURY

START OF THE 20TH
CENTURY

START OF THE
1970S

PRESENT



INDUSTRY 1.0 Mechanization

Introduced mechanization of production by using water and steam to increase production capacity and productivity, versus manual craft work

1784 First mechanical loom

INDUSTRY 2.0 Electrification

Introduced labor-based mass production (assembly lines) powered by electrical energy

1870 First production line, Cincinnati slaughterhouses

INDUSTRY 3.0 Automatization

Introduced electronics and computers to replace manual work by stand-alone robotic systems

1969 First programmable logic controller (PLC), Modicon 084

INDUSTRY 4.0 Cyber-Physical Systems

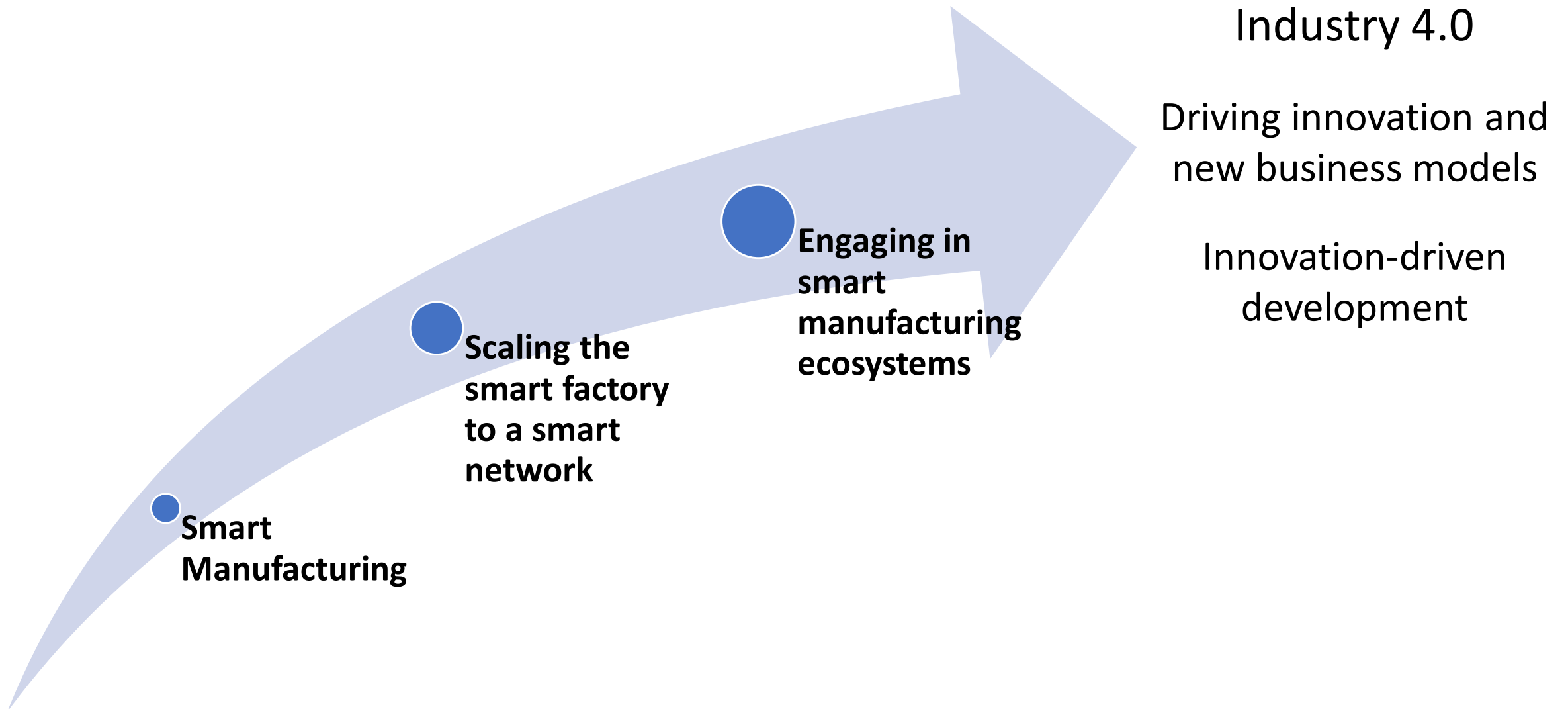
The convergence of physical, digital, and virtual environments through **Cyber-Physical Systems (CPS)** and the **Internet of Things (IoT)**



Smart manufacturing

The **digitization** of manufacturing at all levels:
product design, supply chain, production,
distribution, and sales

Digital transformation path



Five typical characteristics of a fully developed ecosystem for smart manufacturing

Holistic decision-making

Connected information across all functional silos allow for better decision-making across the ecosystem, including for product development, innovation, and services

Connected everything

Real-time, secure, and multimodal communication among ecosystem participants enable improved collaboration that benefits the entire ecosystem

Accelerated time to value

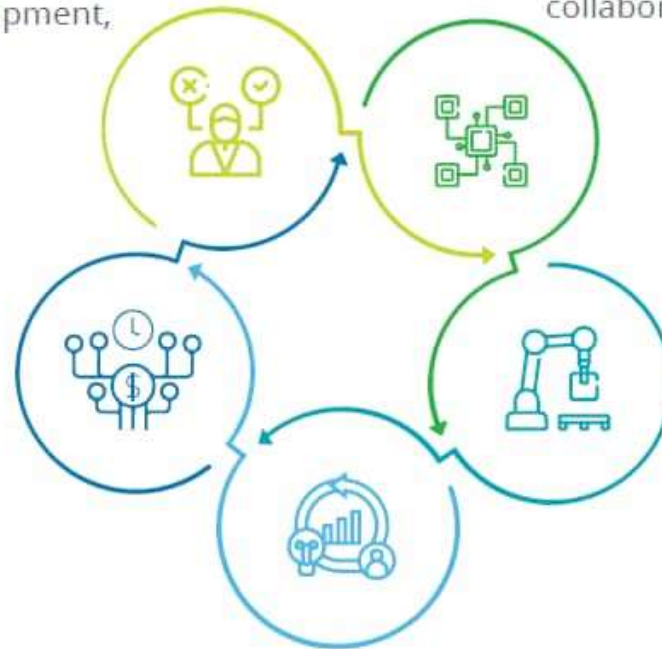
Complementary capabilities help manufacturing organizations compress strategic sourcing cycles, enhance the value of products, and reduce time to market

Turnkey solutions

Multiple partners with varying competencies and capabilities help manufacturing organizations gain a competitive advantage in terms of developing end-to-end service offerings

"Always on" agility

The ecosystem approach affords manufacturers the ability to quickly pivot to changing market needs and situations and leverage new opportunities



Shenzhen Promotes Transformation and Upgrading of Manufacturing Industry

Raising energy levels in the development of manufacturing

- Foster advanced industrial clusters
- Actively attract major manufacturing projects

Promoting transformation and upgrading in manufacturing

- Improve manufacturing innovation systems
- Enhance basic industrial capabilities
- Use technological transformation to lead smart transformation
- Use the industrial internet to lead digital transformation

Building supply chains with international competitiveness

- Enhance enterprises' professional capabilities
- Build an industrial ecosystem for integrative development

Huawei's Kunpeng Computing Industry Ecosystems

Technical ecosystem

The Kunpeng computing platform is an open technological ecosystem that is compatible with mainstream operating systems, databases, and middleware.



Collaboration with universities

Talent for the computing industry is continuously developed through the university-enterprise collaboration in various forms:

- University-enterprise joint courses
- University-enterprise joint publication
- Training centers in universities
- Huawei ICT Job Fair

Developer ecosystem

The Kunpeng computing platform encourages developers to develop and innovate services based on the platform:

- Kunpeng Developer Contest
- Kunpeng online courses/cloud lab
- Kunpeng career certification

Community building

The Kunpeng community provides customers, partners, and developers with abundant resources, and an open and equal space for technological exchange.



QR code of Kunpeng Forum

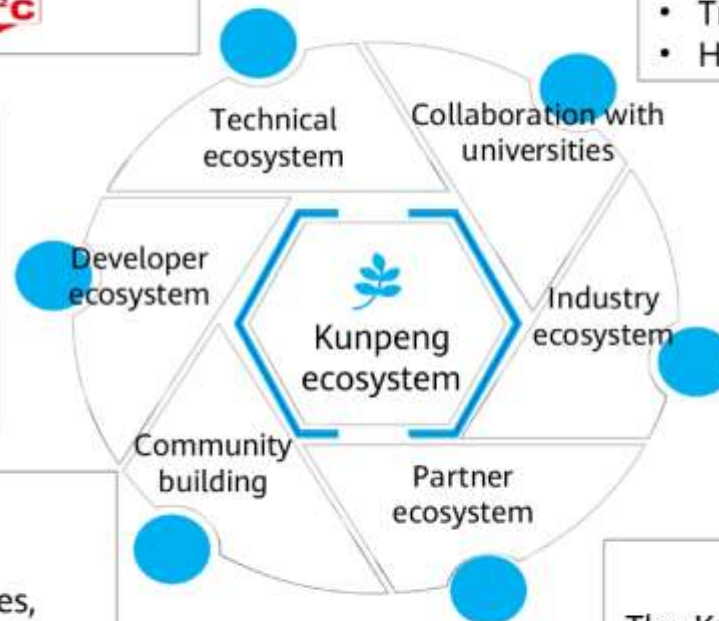
Industry ecosystem

Huawei collaborates with partners and customers for industry solutions:



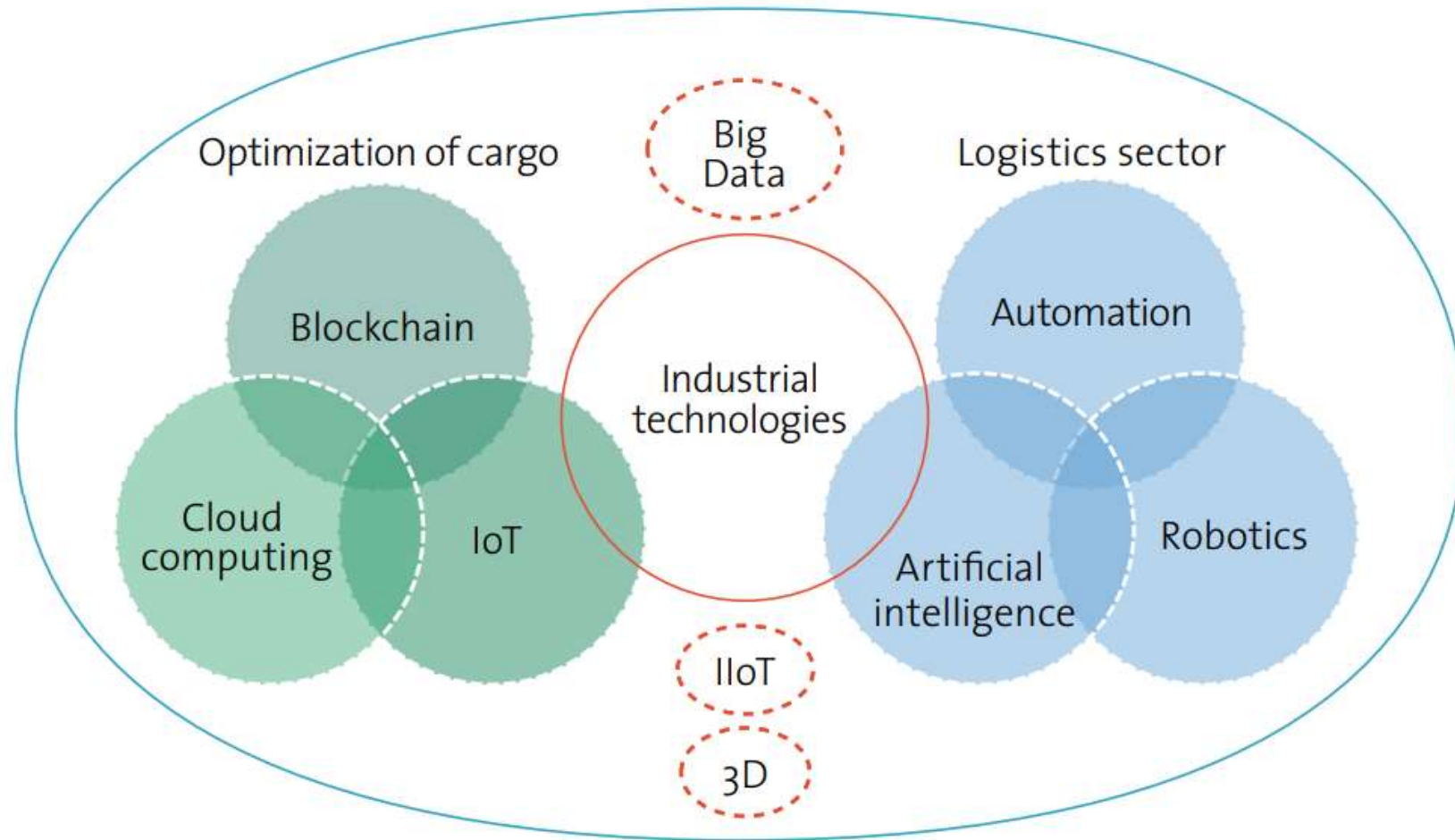
Partner ecosystem

The Kunpeng Partner Program provides partners with comprehensive support in training, technology, and marketing.



The emergence of Logistics 4.0

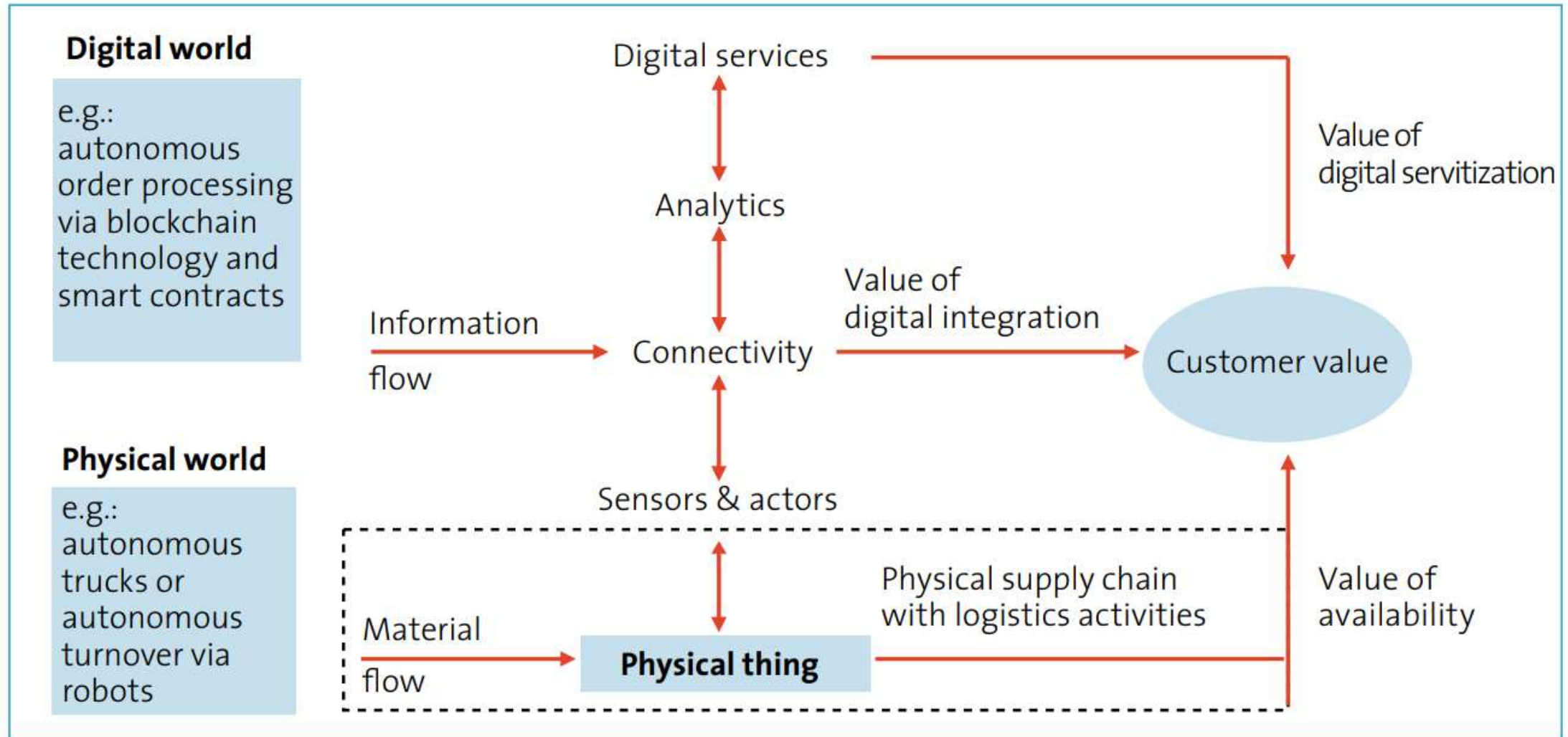
The technological ecosystem linked to logistics



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

https://repositorio.cepal.org/bitstream/handle/11362/45455/1/S2000008_en.pdf

Digitalized business model



Source: Prepared by the authors on the basis of E. Hofmann and M. Rüsçh, "Industry 4.0 and the current status as well as future prospects on logistics", *Elsevier*, 2017.

TOP 10 Smart Logistics Trends 2022



RFID Technology - Large-scale Commercial Applications



Autonomous Vehicles - The Next Trillion Dollar Logistics Business



Greater Online Collaboration



Supply Chain Digitization



XR Technology to Enhance Operation Efficiency and Safety



Greater Digital Penetration and Automation



Hydrogen Energy to Transform Line Haul Trucking



LPWAN Communication Technology for IoT Application



Green Logistics - Entering the Era of Green Packaging



AI Technology Use Cases in Logistics Industry

The Logistics Trend Radar



Government support: Pilot Subsidy Scheme for Third-party Logistics Service Providers

- With a view to maintaining competitiveness of Hong Kong's logistics sector, the Government of the Hong Kong Special Administrative Region (the Government) launched the “Pilot Subsidy Scheme for Third-party Logistics Service Providers” (the Pilot Scheme) on 12 October 2020 to encourage the adoption of technology by the logistics sector for enhancing efficiency and productivity.
- The Pilot Scheme also covers the purchase of screening equipment including X-ray machines and Explosive Trace Detection (ETD) equipment under the Regulated Air Cargo Screening Facilities (RACSFs) Scheme accepted by the Civil Aviation Department.
- The Transport and Logistics Bureau (TLB) has engaged the Hong Kong Productivity Council (HKPC) as the Implementation Partner to serve as the Secretariat for the Pilot Scheme.

Introductory Video



Pilot Subsidy Scheme for Third-party Logistics Service Providers (TPLSP)

Time duration: 1m24s



TPLSP - Success Cases

Time duration: 4m48s



TPLSP Webinar – Smart Warehouse Solutions and 5G IoT Technologies for Logistics

Time duration: 52m05s

The Innovation and Technology Fund (ITF), administered by the [Innovation and Technology Commission](#), aims to increase the added value, productivity and competitiveness of our economic activities. The Government hopes that, through the ITF, Hong Kong companies could be encouraged and assisted to upgrade their technological level and introduce innovative ideas to their businesses.

There are different programmes under the ITF, providing funding support aiming at:

 [Expand All](#)  [Collapse All](#)

Supporting Research & Development



Facilitating Technology Adoption



Nurturing Technology Talent



Supporting Technology Start-ups



Fostering an I&T Culture



Logistics technology adoption to accelerate SME digitalization

- On-demand delivery services are crucial to business development and SMEs must ensure that the goods can be delivered to customers quickly, safely, and at a minimum cost, according to on-demand delivery platform Lalamove, which has assisted 170 SMEs in Hong Kong by offering a free-of-charge promotion through the “Support Our SMEs” platform.
- Lalamove forms alliances with e-commerce platforms and infrastructure such as Shopify and Boutir to create one-stop e-commerce services, offering small businesses peer-to-peer selling capabilities online and on mobile.

Procurement of logistics services for SMEs

- SMEs should focus on whether the logistics service partner can offer decentralization technology that enables customers to bolster their transport capacity to satisfy season orders in peak time and obtain smart logistics services such as batching and clustering.
- SMEs should also look at whether there is any information feedback by logistics service providers, and whether they can offer a quick and efficient shared logistics network for micro fulfillment, cross docking and inventory prediction in the delivery process.

Looking for an efficient delivery partner to grow with you? We're here to help!

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Our Mission

Here at Pickupp, we believe that the future of logistics is data-driven. Our purpose is to redefine logistics and empower businesses to scale with transparent customer-centric service and technology.

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Growth Milestones



2016

Crystal Pang, CEO of Pickupp, founded the company in Hong Kong with a vision to redefine logistics through technology.



2017

Pickupp expanded to Singapore and Kuala Lumpur, Malaysia



2018

In December 2018, Pickupp secured Pre-Series A Funding, which was used to deepen expansion plans in existing cities and markets within Asia.



2020 - 2021

Pickupp secured Series A and A+ Funding from investors such as PChome, Cornerstone Ventures, Swire Properties, Cathay Venture Inc, DRIVE Catalyst (the corporate venture arm of Far Eastern Group), the Jardine Matheson Group and Zipx.



2021

Pickupp expanded to Taipei, Taiwan

Pickupp

- Pickupp has launched “Logistics Network as a Service” to build an ecosystem of over 500 pickup and drop-off points in Hong Kong by partnering with convenience stores and smart-locker company Alfred24.
- It is also setting up more than 60 satellite warehouses as Pickupp service points, providing full-service coverage at all points of the supply value chain, including warehouses, fulfillment partners and international logistics providers.
- Looking forward, the logistics-technology solution provider is investing in research and development of the machine learning algorithm logistics technology and decentralized network with different optimization level to provide cost-effective and customized solutions to customers.