

SMART BORDERS:
**THE KEY TO MORE RESILIENT
INTERNATIONAL TRADE AND
CROSS-BORDER TRANSPORTATION**

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01 Smart Borders



02 LOGISTECHS



03 Customs Digital
Transformation



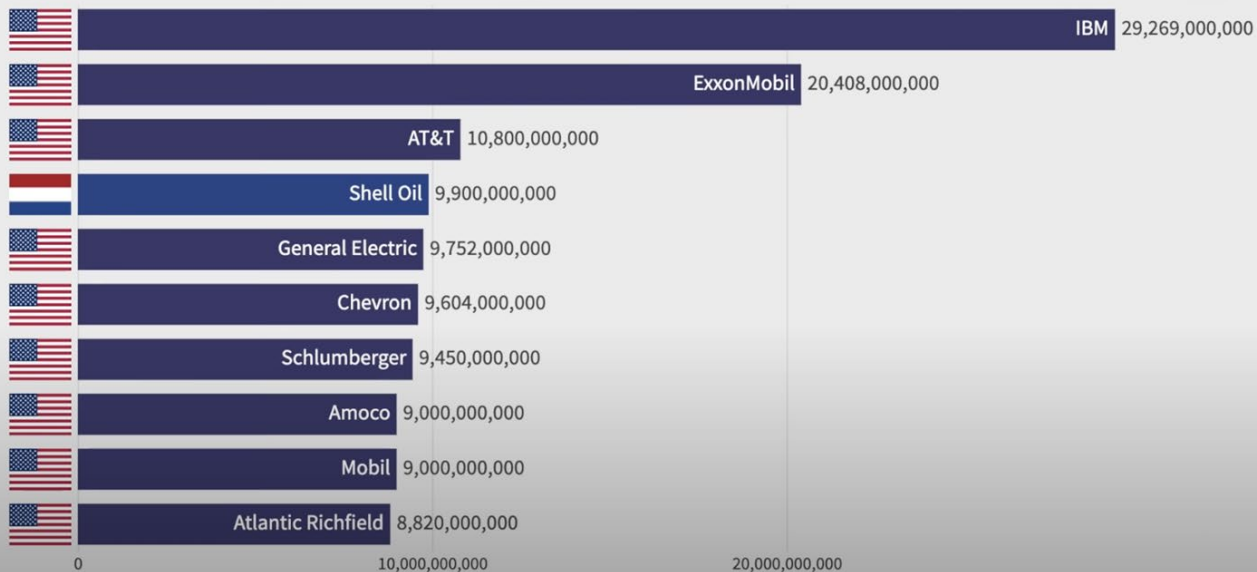
04 Artificial Intelligence



Largest Companies by Market Cap

In US Dollars

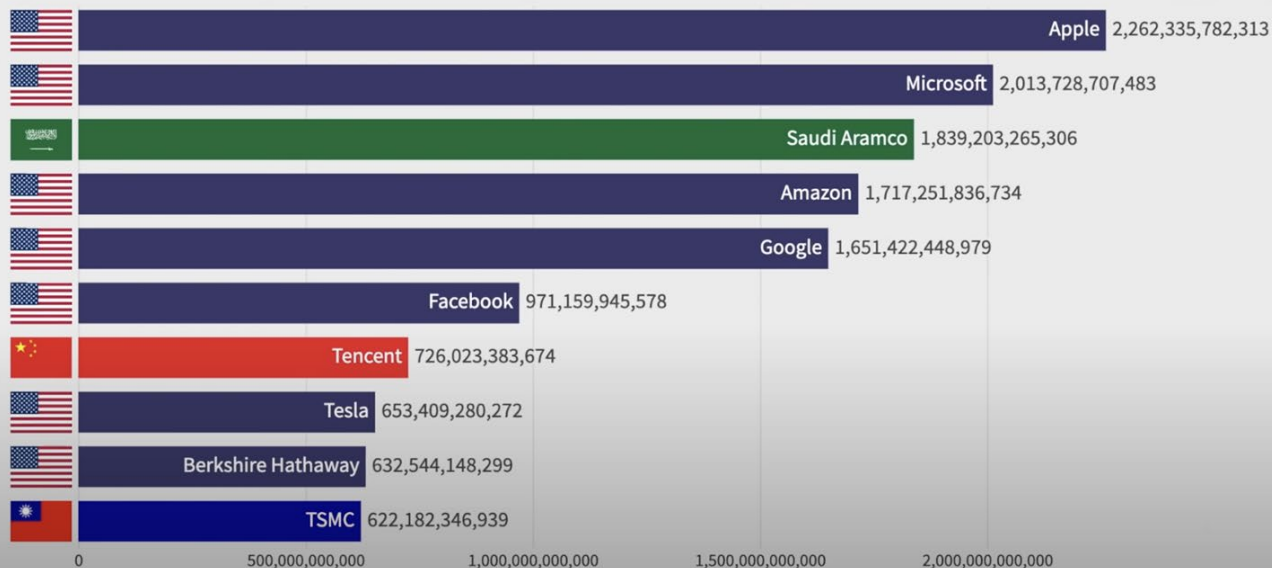
1979

































Largest Companies by Market Cap

In US Dollars

2021



Rank	Name	Market Cap	Price	Today	Price (30 days)	Country
☆ ^1 1	 Microsoft MSFT	\$3.009 T	\$404.87	▲ 0.57%		 USA
☆ v1 2	 Apple AAPL	\$3.002 T	\$194.17	▼ 0.17%		 USA
☆ 3	 Saudi Aramco 2222.SR	\$2.036 T	\$8.42	▼ 0.47%		 S. Arabia
☆ 4	 Alphabet (Google) GOOG	\$1.910 T	\$153.64	▲ 2.19%		 USA
☆ 5	 Amazon AMZN	\$1.630 T	\$157.75	▲ 0.56%		 USA
☆ 6	 NVIDIA NVDA	\$1.521 T	\$616.17	▲ 0.42%		 USA
☆ 7	 Meta Platforms (Facebook) META	\$1.010 T	\$393.18	▲ 0.63%		 USA
☆ 8	 Berkshire Hathaway BRK-B	\$827.74 B	\$380.85	▲ 1.13%		 USA
☆ ^1 9	 TSMC TSM	\$604.52 B	\$116.56	▲ 0.03%		 Taiwan
☆ ^1 10	 Eli Lilly LLY	\$595.80 B	\$627.62	▼ 0.96%		 USA



01

Smart Borders:
The Key to more Resilient
Cross-Border Trade



SMART BORDERS

- Smart borders refer to the use of technology and data to facilitate the movement of people and goods across borders while ensuring security.

- These initiatives include electronic customs systems, automated border control systems, and risk assessment tools (Svitek et al.:2019).

Benefits

1. Increase the efficiency of border crossings by reducing wait times and processing times.
2. They can improve security by effectively identifying and targeting high-risk individuals and goods.
3. Reduce costs by decreasing the need for manual processing and increasing automation.
4. Improve data collection and analysis, allowing for better decision-making and risk assessment.

SMART BORDERS

Challenges

1. Implementing smart border initiatives requires significant investment in technology and infrastructure.
2. Using technology and data raises concerns about privacy and data protection. Smart borders require collecting and analyzing significant amounts of personal data, raising privacy and data protection concerns.
3. Implementing smart borders requires international cooperation and coordination, which can take time and effort.

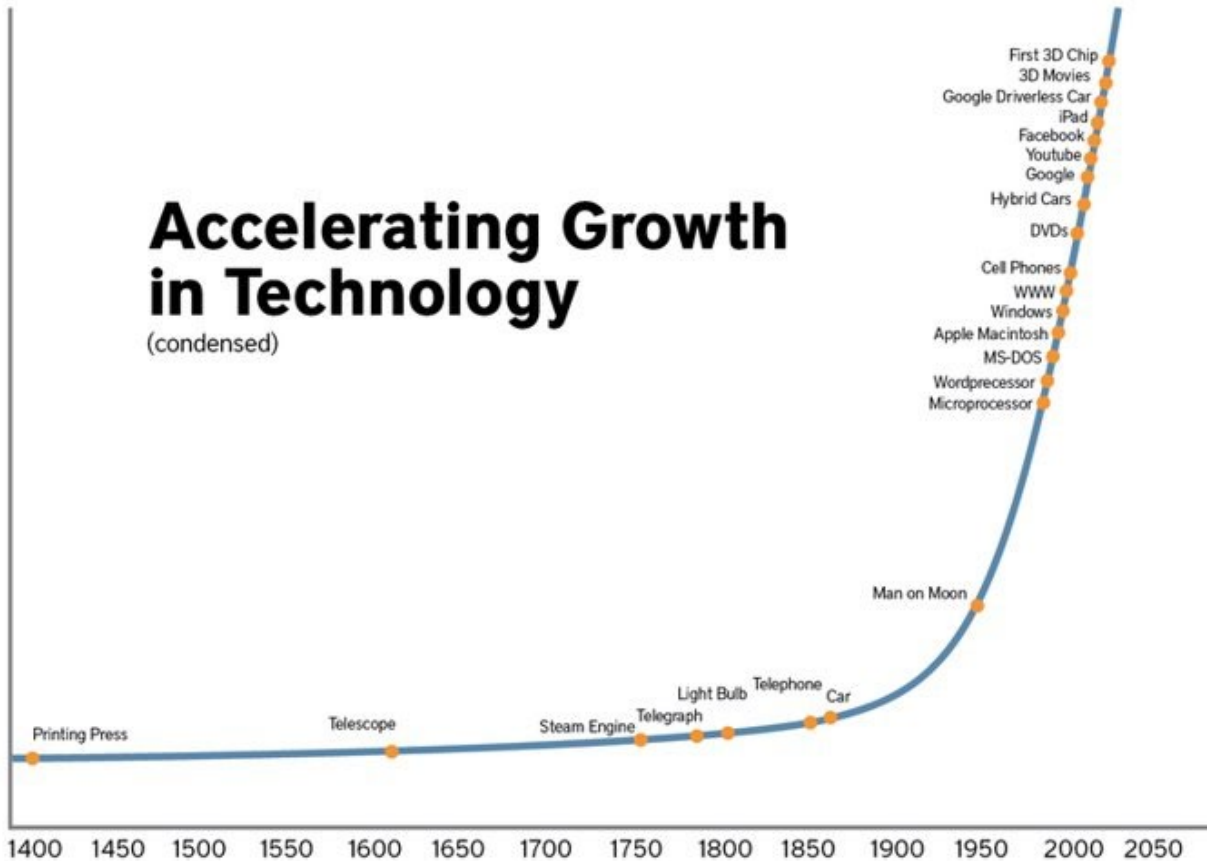


02

Logistechs: Taking Advantage of Exponential Opportunities

Accelerating Growth in Technology

(condensed)

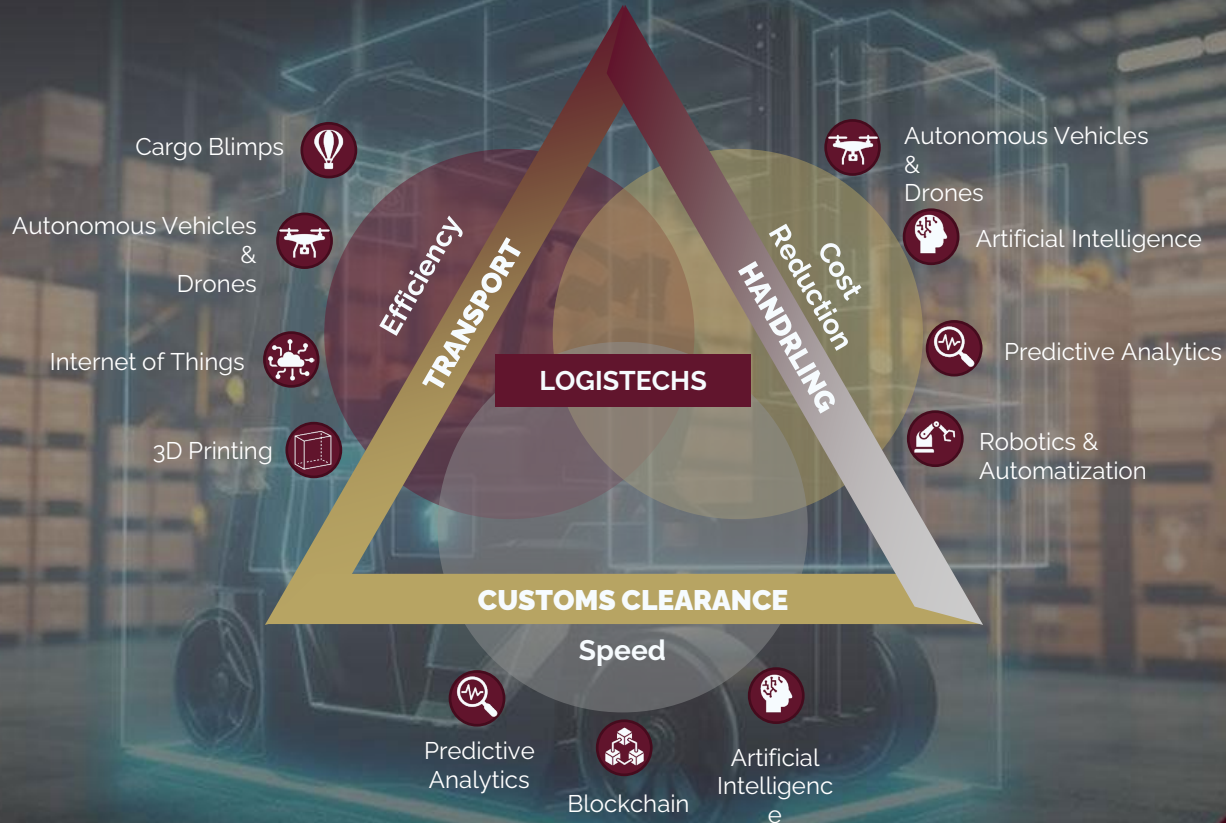


Source: Asgard
 Human Venture
 Capital for Artificial
 Intelligence

LO · GIS · TECHS

Represent the impact that exponential technologies have on logistics and can be classified as those that support the transportation of goods, those that improve their handling, and technologies that streamline their customs clearance.

LOGISTECHS



LOGISTECHS AND ITS IMPACT

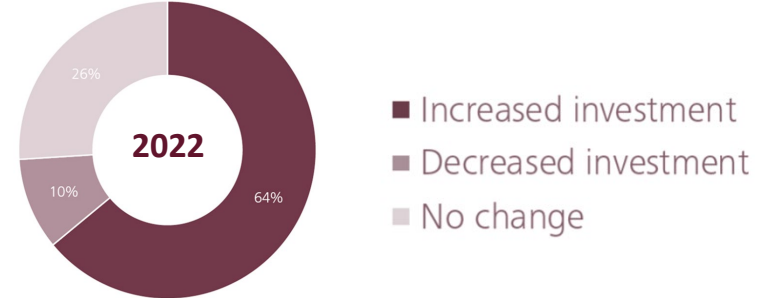
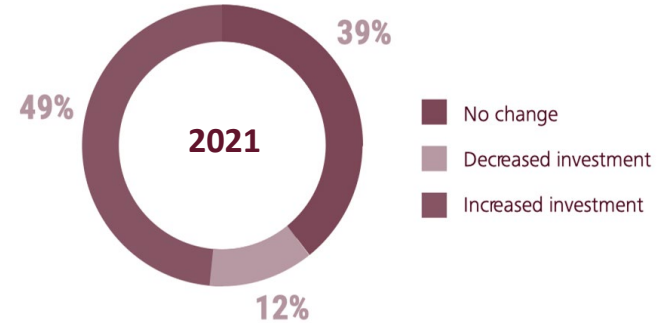
Investment in Supply Chain Innovation (1000 companies surveyed)



Answered that the pandemic increased the strategic importance of supply chain operations.



They answered that the digital transformation of supply chains has accelerated due to the pandemic.



74%

Of respondents are increasing their investment in supply chain technology and innovation.

2023

Source: MHI & Deloitte 2021, 2022

LOGISTECHS AND ITS IMPACT

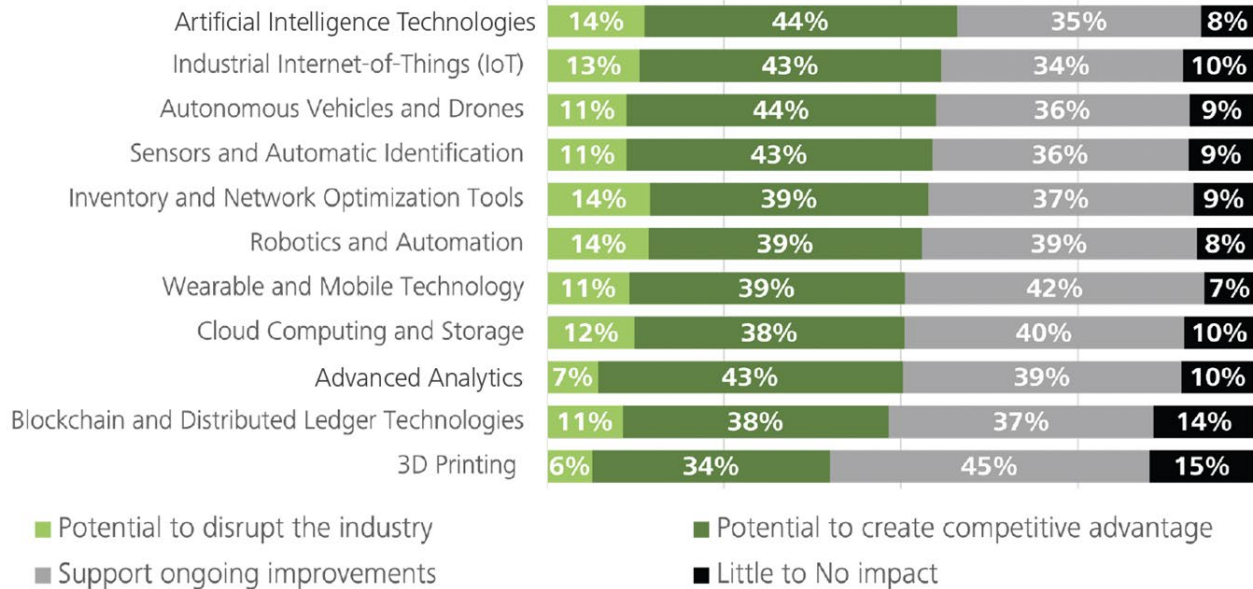


Figure 6: Impact of technologies on industry's supply chain

LOGISTECHS AND ITS IMPACT

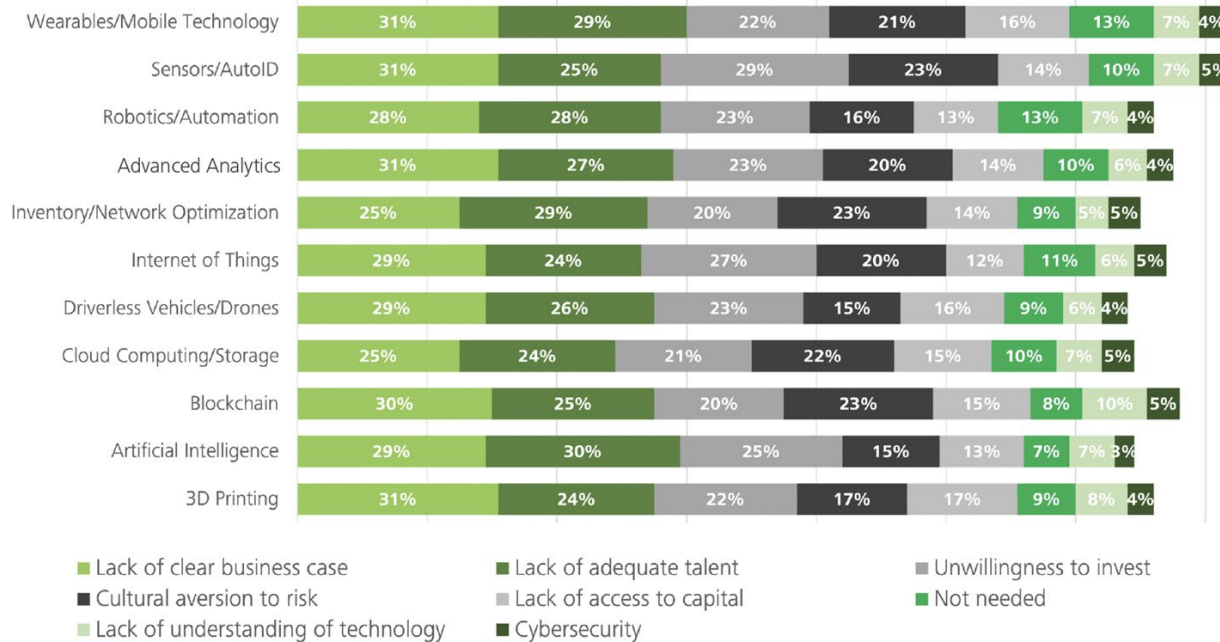


Figure 8: Primary barriers to adoption (select all that apply)

LOGISTECHS AND ITS IMPACT

The lack of a clear business case was the **number 1** reason in terms of the biggest barrier to the adoption of each technology for the last five years.

8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3

In 2023, the lack of adequate talent to implement and utilize these technologies was the **number 1** reason in terms of the biggest barrier to the adoption of each technology.

LOGISTECHS AND ITS IMPACT

The readiness gap for Harnessing technology



22%

My organization is very ready to use technology to improve work outcomes and team performance.

93%

Using technology to improve work outcomes and team performance is very important or important to my organization's success



03

Customs Digital Transformation

①

Digitization

②

Digitalization

③

**Digital
Transformation**



SMART BORDERS:

Customs Digital Transformation

1

Digitization

Conversion of physical documents to digital format, laying the foundation for more advanced transformations.

SMART BORDERS:

Customs Digital
Transformation

2 Digitalization

Use of digital technologies to optimize organizational processes, such as automation to improve productivity.

SMART BORDERS:

Customs Digital Transformation

3 Digital Transformation

A complete review of business models, leveraging technology to create new ways of generating value.

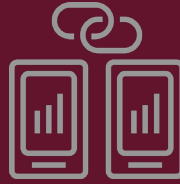
CBP 21st Century Customs Framework



Enhance
Facilitation
and
Security
through
21st century
processes



Define
Customs and
trade
Responsibilities
for emerging
and traditional



Ensure
seamless
data
sharing and
access



Employ
Intelligent
enforcement



Protect and
enhance
customs
infrastructure
through
secure
funding

Non-Intrusive Inspection System (NII)

CBP Installation of non-intrusive inspection modules in pre-primary inspections

- NII Multi Energy Portals
- It will scan products arriving from Mexico. CBP officers will adjudicate the images and, in turn, quickly detect contraband and similar security threats.

TRANSMUTE Verifiable Data Platform (VDP)

CBP Steel Supply Chain Pilot

- 4 years
- Partners
 - CANACERO
 - Customs Brokers
 - TRANSMUTE
 - CBP
- A pilot test with an innovative verifiable data platform (VDP) from Transmute, built on open standard technologies.
- It was tested in a real-world scenario to issue, manage, and present critical commercial documents using the innovative verifiable credentials data format.



TRANSMUTE



U.S. Customs and
Border Protection



CANACERO

ACE 2.0 - Automated Commercial Environment

- It aims to be a new system based on a rethinking of how current and future technologies help CBP fulfill its mission more effectively.
- It will allow CBP to receive much better-quality data much earlier in the supply chain, often nearly in real-time, from traditional and non-traditional actors.
- This will greatly increase supply chain visibility as products arrive in the U.S., resulting in faster government responses with earlier determinations on cargo.

ANAM'S PITA PROJECT

- PITA (Proyecto de Integración Tecnológica Aduanera) launched in March 2016 . Key part of Mexico's "Aduana Digital" (Digital Customs) initiative
- It aims to automate, facilitate, and streamline the entry/exit of goods at customs ports. It enables paperless processing of trucks crossing the border using technology. RFID readers scan QR codes on drivers' Consolidated ID Badges.
- The monitoring center oversees the automated customs clearance process.



The Emerging "Digital Wall" at the U.S.-Mexico Border

Both Mexico and the U.S. are investing heavily in "smart border" technologies.

- US – CBP 21st Century Framework (ACE 2.0)
- Mexico – ANAM PITA

However, a lack of integration between the two countries' systems is creating a virtual barrier.

- Insufficient work on communication protocols and connection interfaces
- Resulting in a "Digital Wall" that hinders the seamless flow of goods and data

Potential consequences of this Digital Wall:

- Reduced efficiency gains from smart border tech investments.
- Missed opportunities for enhanced bilateral cooperation and information sharing
- Fragmented data ecosystems vulnerable to cyber threats



04

Artificial Intelligence:
The future is here

Artificial Intelligence

Optimizing Processes and Decisions in Cross-Border Trade

Artificial Intelligence (AI) refers to the ability of machines and computer systems to imitate human intelligence processes, learn from experience, adapt to new inputs, and perform tasks that normally require human intelligence. This includes learning, reasoning, problem-solving, perceiving, and understanding language.

IMPACT

AI is revolutionizing cross-border trade by improving predictability, streamlining processes, optimizing routes, reducing costs, and enhancing decision-making.

AI CENTRIC WORKFORCE



AI Producers



AI Utilizers



AI-Aware

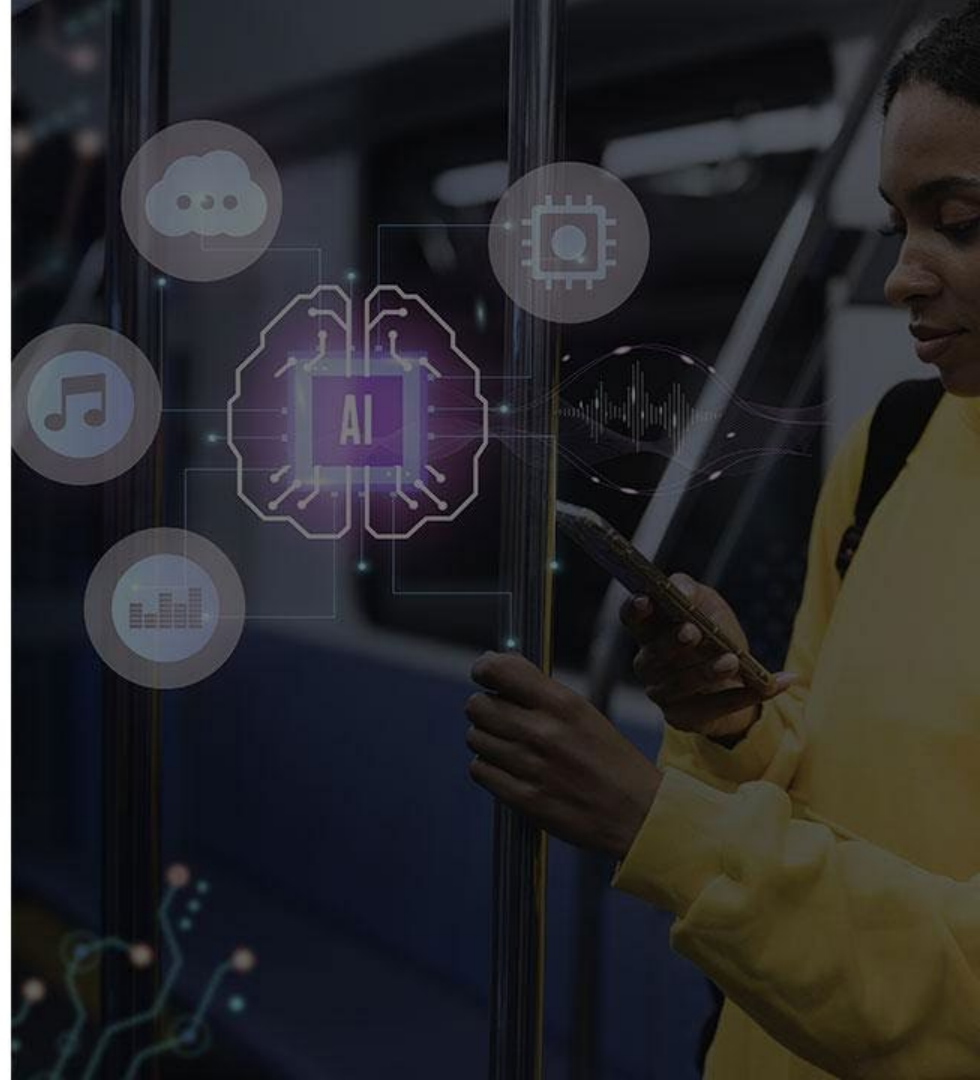


The A.I. Producers: Building Blocks of an A.I.-Driven Future

A.I. Producers will be primarily responsible for conceptualizing, designing, building, and seamlessly integrating A.I. applications into existing workflows and operations.

The A.I. Practitioners: Leveraging A.I. to Drive Efficiency

These professionals will be at the forefront of implementing A.I. into practical workflows. They will be the ones translating the theoretical potentials of A.I. into tangible efficiencies and strategic advantages.





The A.I.- Aware Individuals: The Informed Spectators

A.I.-Aware Individuals are informed people who understand the importance and relevance of A.I. While not directly involved in the development or utilization of A.I., they need to be mindful of the existence and application of A.I. in the real world.

5

KEYS TO IMPLEMENT AI

- 1 **Begin Small**
- 2 **Choose the Proper Partners**
- 3 **Invest in Data**
- 4 **Identify the specific business issues**
- 5 **Prioritize data security and privacy**

Harnessing the Future of Logistics: Exploring the Role of Logistechs



INSTITUTO MEXICANO DEL TRANSPORTE



TEXAS A&M
INTERNATIONAL
UNIVERSITY



TEXAS CENTER
35th
TEXAS A&M INTERNATIONAL UNIVERSITY



Asociación Mexicana de Logística & Cadena de Suministro



A portrait of a middle-aged man with a grey beard and mustache, smiling. He is wearing a dark blue suit jacket, a white shirt, and a red patterned tie. The background is a blurred office interior with grey chairs and a desk. A dark red horizontal band is overlaid on the image, containing contact information.

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