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Session: 1

Digital Trade and Cross-Border Data Flows

Submitted by: IBM



**Digital Trade Policy Dialogue
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Digital Trade & Cross Border Data Flows

APEC Digital Trade Policy Dialogue
May 17, 2021





What is digital trade?

“Digitally enabled transactions of trade in goods and services that can either be digitally or physically delivered”

- OECD

Data is the lifeblood of the global economy

Examples of Digital Trade



E-commerce for goods
ordered online and
delivered physically



Digital products and services ordered and delivered via the internet:

- Downloads: software, music, audio, video, games, and text
- Streaming: music, videos, and video games
- Other internet content: news, social media, searches, ads, email, etc.
- Software as a service
- Cloud computing
- Digitized services: financial, business, ICT, subscriptions, entertainment
- Emerging technologies including AI, Blockchain and Quantum computing (e.g. IBM Q Network)



Manage global business operations via data flows

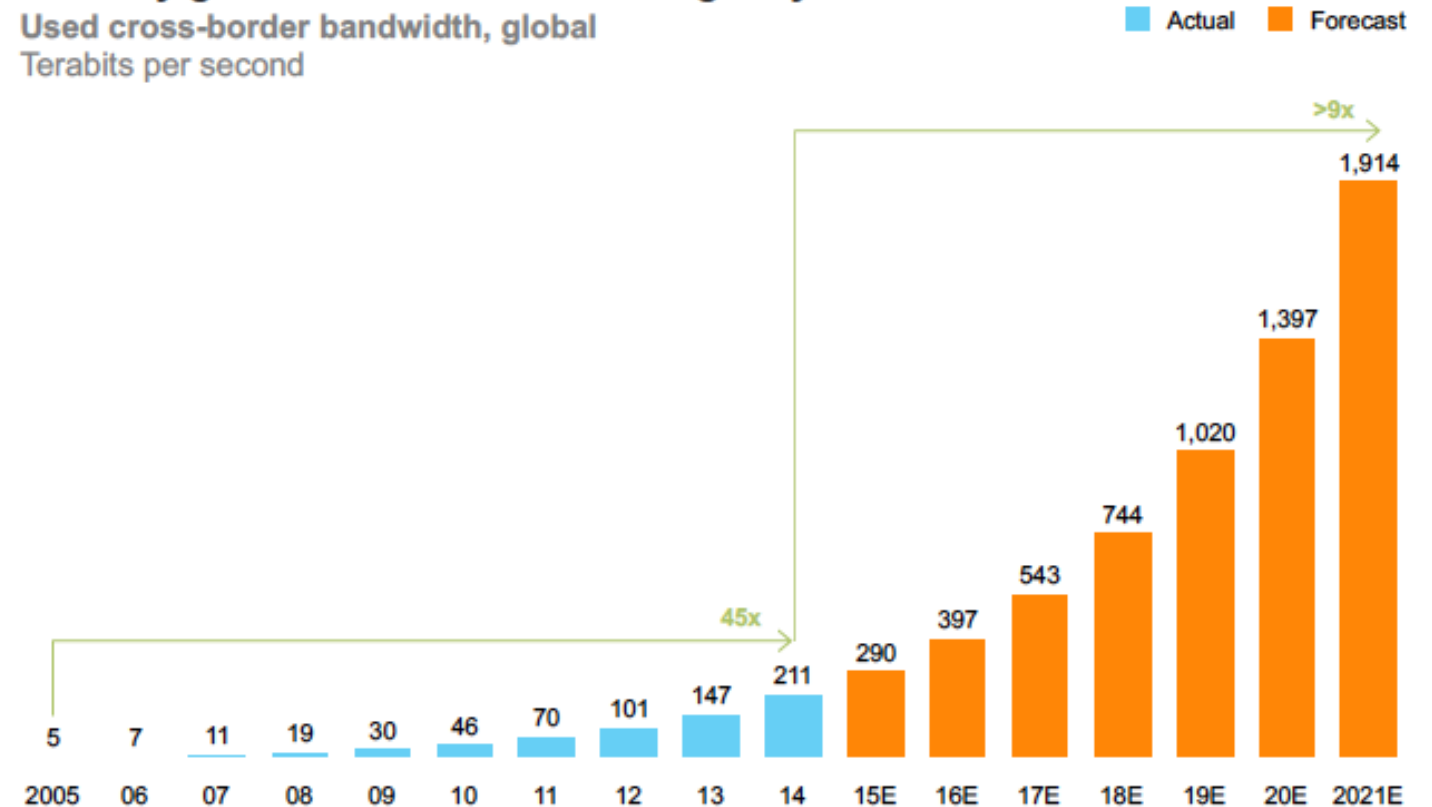
- All sectors of the economy rely on cross-border data flows – not just ICT sector
- Global supply chains and internal management (e.g., R&D, manufacturing)
- Marketing and customer support

Explosive growth of cross-border data flows

- Cross-border data flows *already* make a bigger contribution to global GDP than trade in manufactured goods.
- Every day, 2.5 billion gigabytes of data are generated, the equivalent of 250,000 Libraries of Congresses.
- 59% of the world is now online, up from just 20% a decade ago.
- From 2005 to 2017, the amount of cross-border bandwidth in use grew by 148 times.

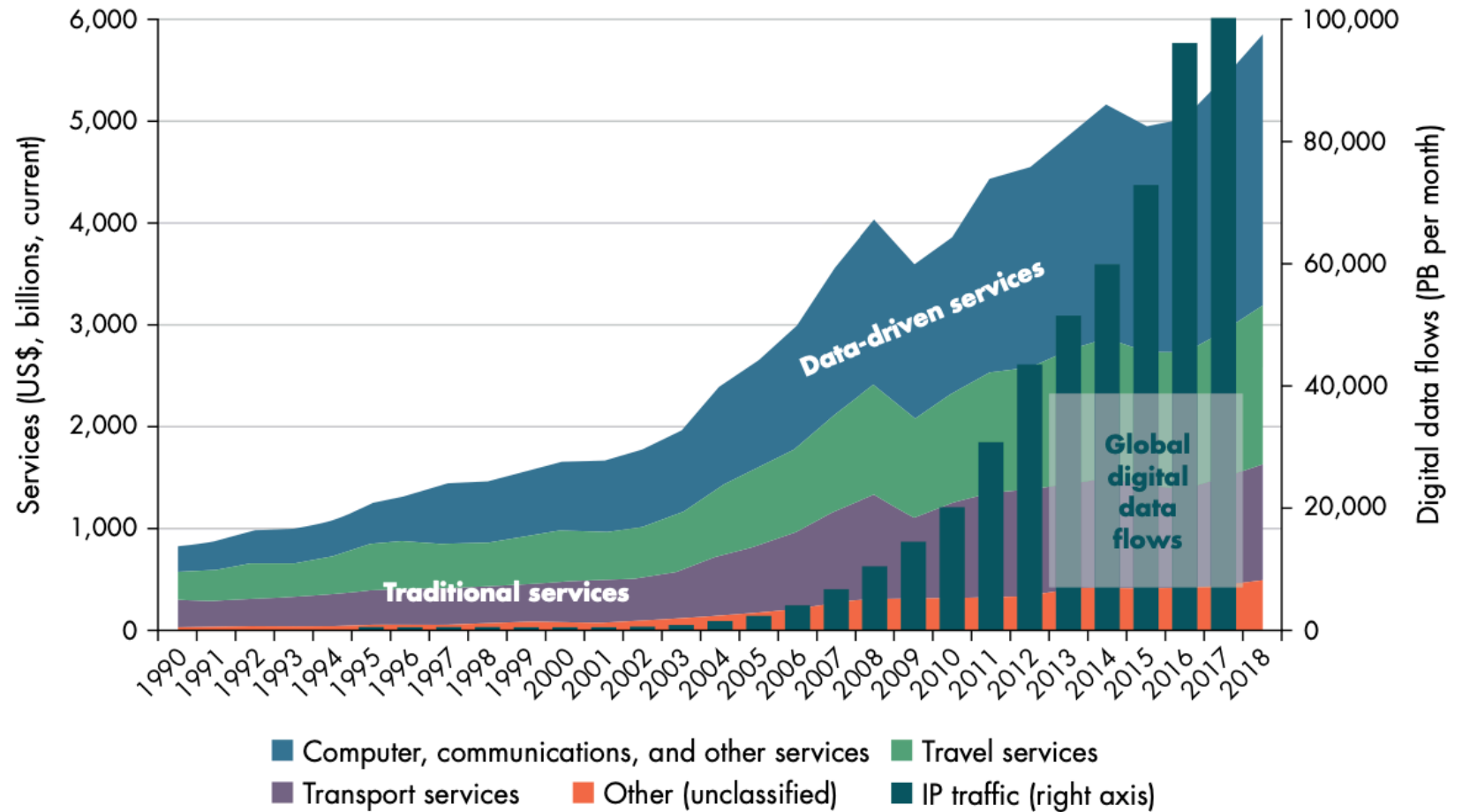
Cross-border bandwidth has grown 45 times larger over the past decade—and may grow another nine times larger by 2021

Used cross-border bandwidth, global
Terabits per second



Source: Telegeography; McKinsey Global Institute analysis

Since 1990, trade in data-driven services has grown exponentially...



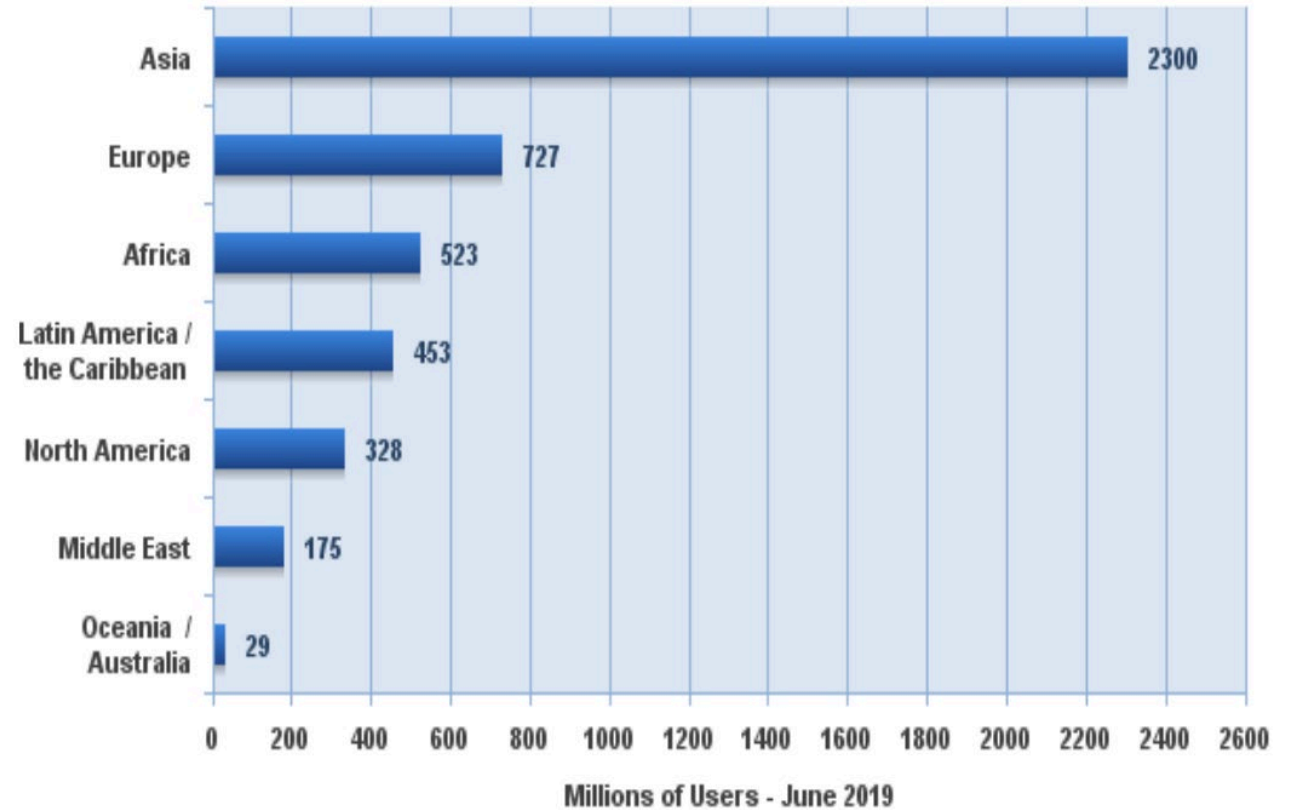
Source: WDR 2021 team calculations, based on World Bank, WITS (World Integrated Trade Solution) database, <http://wits.worldbank.org/WITS/>. Data at http://bit.do/WDR2021-Fig-O_5.

Note: IP = Internet Protocol; PB = petabytes.

...and the explosion in internet users globally.

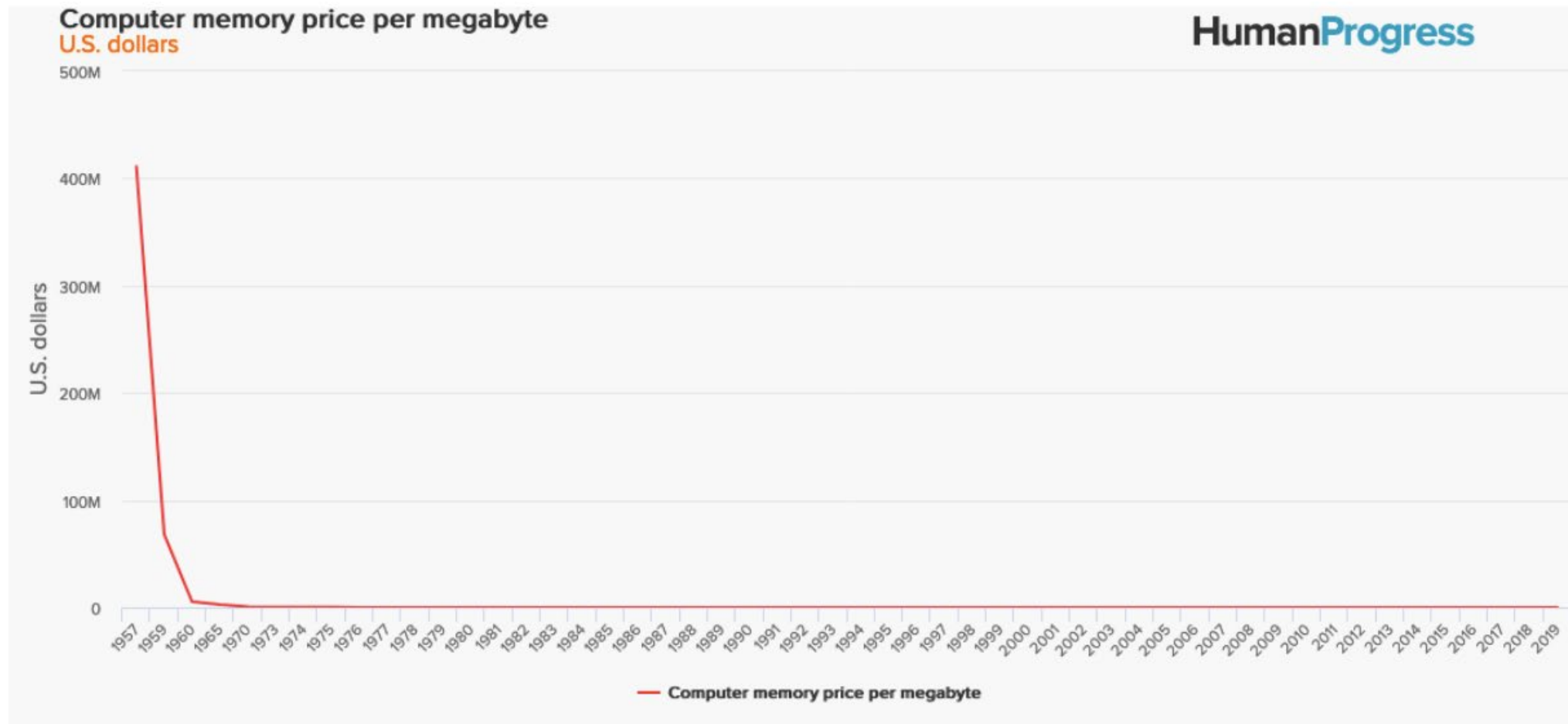


Internet Users in the World by Geographic Regions - Mid-Year 2019



Source: Internet World Stats - <https://www.internetworldstats.com/stats.htm>

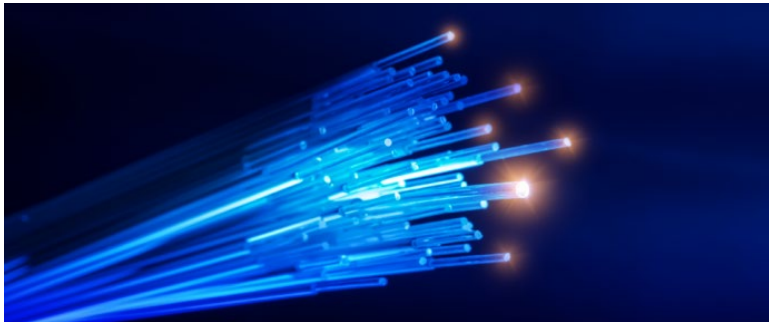
...who benefit from the unprecedented commoditization of computing power



Source: HumanProgress.org <https://www.humanprogress.org/statline?p=1228&yf=1957&yl=2019>

COVID has accelerated this trend

- Growth in broadband use has accelerated during COVID, with some network operators reporting a 60% increase in Internet traffic compared to before the crisis.



U.S. household daily broadband usage



Source: *OpenVault* and the *Wall Street Journal*

Note: Based on more than one million U.S. households. Calculated on a rolling seven-day average

Benefits of cross-border data flows & digital trade



Greater Innovation



Lower Prices



Expanded Access to Global Markets



Integration into Global Value Chains



Access to Advanced Services



Efficient Global Management



Enhanced Competitive



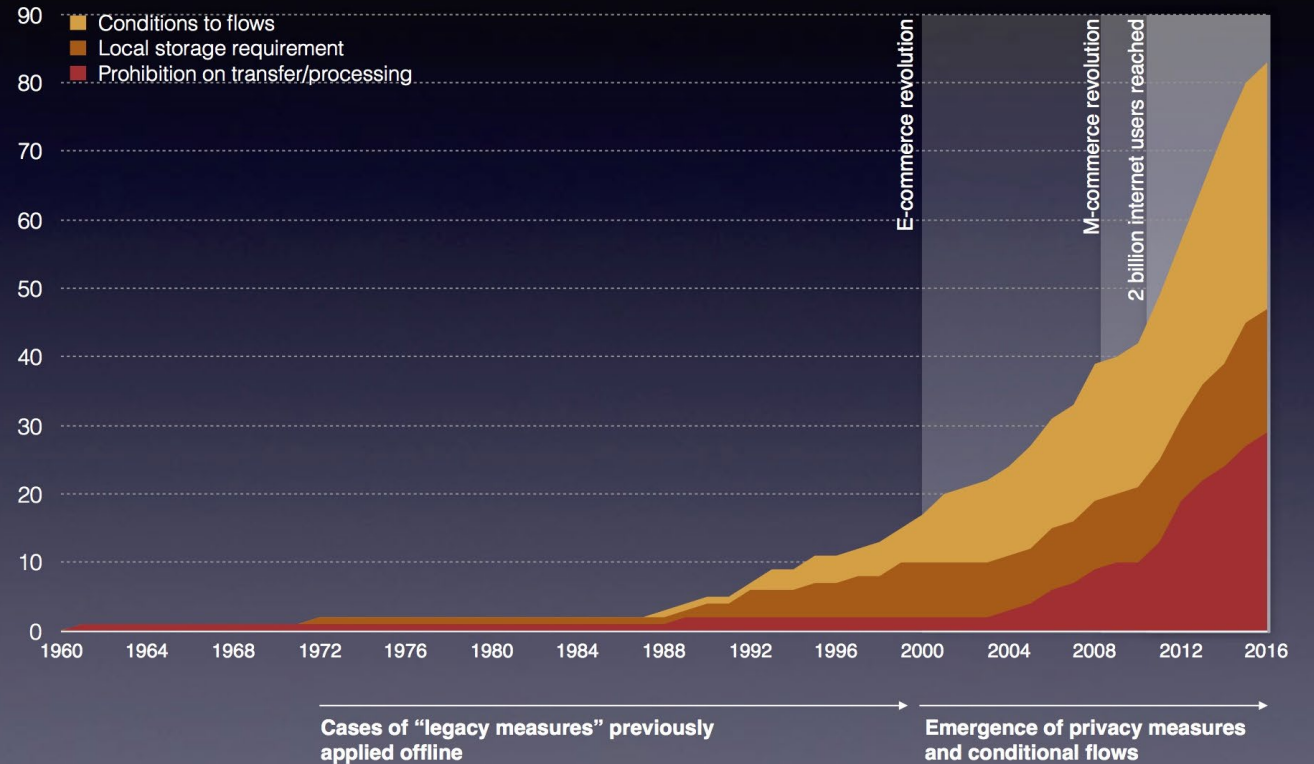
Increased Competition



But digital trade barriers are growing globally



Data localisation and data restriction measures in the world are increasing



Source: European Centre for International Political Economy

Potential barriers to digital trade

- Data localization
- Cross-border data flow restrictions
- High ICT tariffs
- Forced disclosure of source code or algorithms
- Customs duties on e-commerce and data flows
- Discriminatory, unique standards or burdensome testing
- Content filtering or blocking
- Restrictions on electronic payments or the use of encryption
- Cybertheft of trade secrets and other intellectual property
- Forced technology transfer



Data localization does **NOT** ensure security

Protecting data depends on how it is stored, not where it is stored.

Securing data requires:



Advanced cybersecurity technology, including AI



Encryption



Monitoring and intrusion detection



Access authorization



Security procedures and user education



Modernizing trade agreements for the post-COVID APEC economy

- There is an urgent need for APEC members to ensure the right policies are in place to build trust and confidence in the data economy.
- Digital trade must be a core policy priority if member economies, businesses and individuals are to meet the challenges and opportunities of the post-COVID global economy.
- APEC members can build upon existing bilateral and multilateral negotiations and agreements designed to strengthen digital trade, including:
 - + WTO e-Commerce Negotiations (Joint Statement Initiative)
 - + Digital Economy Partnership Agreements (Chile, Singapore, New Zealand)
 - + Australia-Singapore Digital Economy Agreement
 - + U.S.-Japan Digital Trade Agreement
 - + U.S.-Mexico-Canada Agreement (USMCA)
 - + Data Free Flows with Trust initiative (G-20, WEF)
 - + ASEAN Framework on Digital Governance
 - + APEC Cross Border Privacy Rules



"We are all richer if we are able to share the data, use it, analyse it and produce new products and services. But we are all poorer if we set up digital firewalls, fragment the digital space and can't optimise at the global level..."

*Former Singapore Minister for Trade & Industry
Chan Chun Sing*



"We must, on one hand, be able to put our personal data and data embodying intellectual property, national security intelligence, and so on, under careful protection, while on the other hand, we must enable the free flow of medical, industrial, traffic and other most useful, non-personal, anonymous data to see no borders, repeat, no borders."

*Former Japanese Prime Minister
Shinzo Abe*

Key elements to include in APEC digital trade agreements



1. *ENABLE THE FREE FLOW OF DATA*
2. *PROTECT SOURCE CODE AND ALGORITHMS & PROHIBIT FORCED TECHNOLOGY TRANSFERS*
3. *ENSURE TECHNOLOGY CHOICE AND ENCOURAGE OPEN DIGITAL ARCHITECTURES*
4. *FOSTER INNOVATIVE ENCRYPTION PRODUCTS*
5. *PROHIBIT DIGITAL CUSTOMS DUTIES*
6. *PROMOTE A “REASONABLE CARE” APPROACH TO PROMOTE SAFETY, SECURITY AND WELFARE ONLINE*
7. *PROMOTE TRUST IN ARTIFICIAL INTELLIGENCE AND EMERGING TECHNOLOGY*
8. *PROMOTE OPEN ACCESS TO GOVERNMENT-GENERATED PUBLIC DATA*
9. *ENGENDER GREATER CONSUMER TRUST IN THE DIGITAL ECONOMY BY ENHANCING PRIVACY AND CYBERSECURITY*



Thank You

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