

The Digital Economy in a Post-COVID-19 World

The 35th Pacific Economic Community Seminar

Stephen Ezell
Vice President, Global Innovation Policy, ITIF

Taipei, Taiwan
October 27, 2020

About ITIF

- The world's leading science and technology policy think tank.
- Supports policies driving global, innovation-based economic growth.
- Focuses on a host of issues at the intersection of technology innovation and public policy across several sectors:
 - Innovation and competitiveness
 - IT and data
 - Telecommunications
 - Trade and globalization
 - Manufacturing, life sciences, agricultural biotech, and energy



Today's Presentation

- 1 Digitalization Driving Global and Pacific Economic Growth
- 2 Digitalization and the Coronavirus Pandemic
- 3 Digitalization Recommendations for Policymakers

Increasingly Digitalized Global Economy

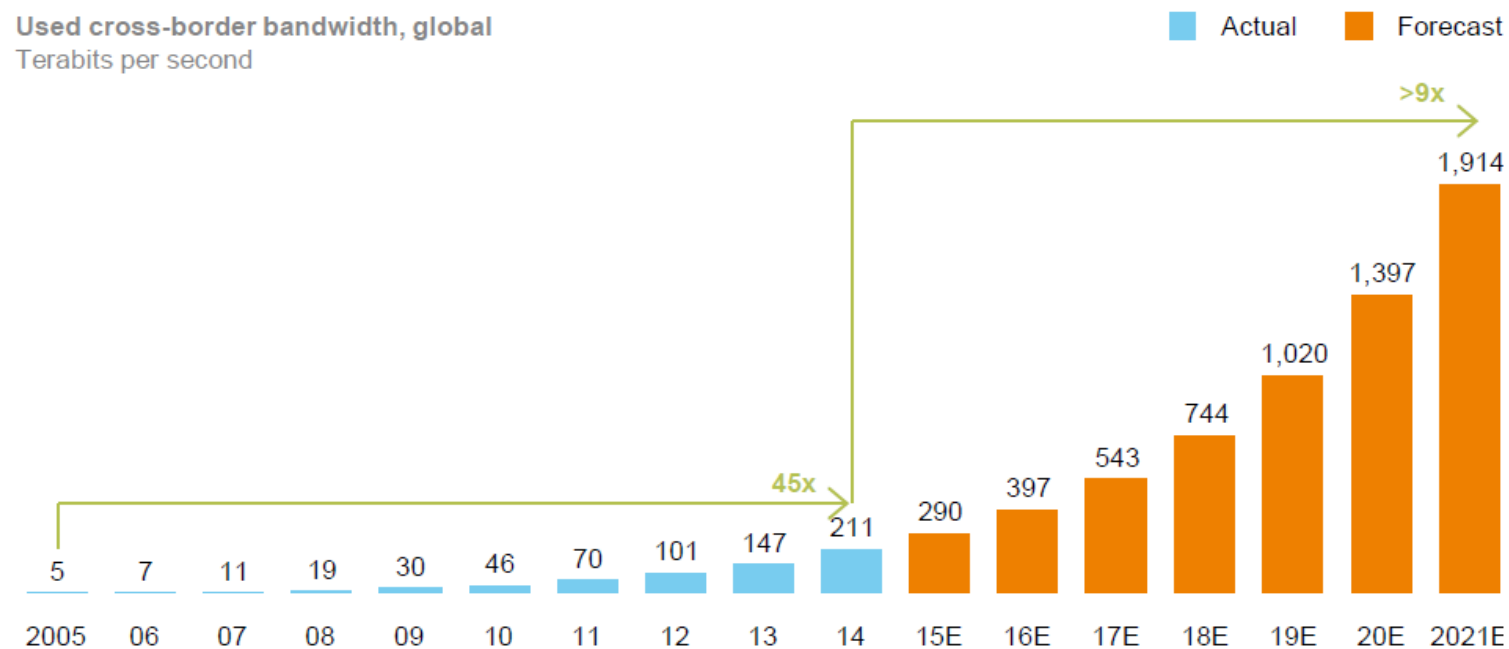
- Digital economy now accounts for 25% of global GDP.
- 75% of the value added by data flows over the Internet accrues to traditional industries.
- “Half of all value created in the global economy over the next decade will be created digitally.” – Tekes



Sources: Accenture, “Digital Disruption: The Growth Multiplier”; McKinsey Global Institute, “Digital Globalization: The New Era of Global Flows”; IDC, “IDC FutureScape: Latin America IT Industry 2019 Predictions”

Increased Cross-Border Data Flows Driving Global GDP Growth

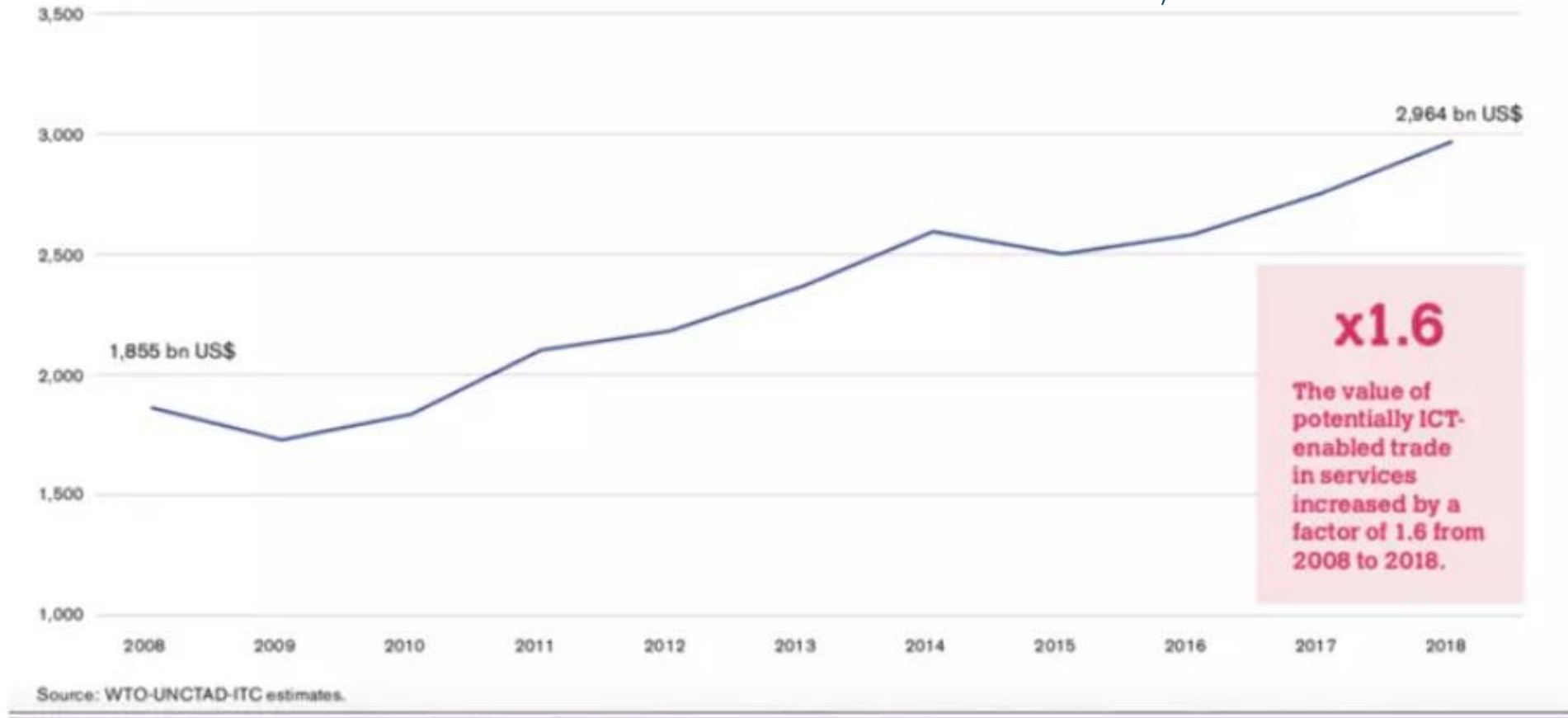
- From 2005-2015, cross-border data flows grew 45x; 9x more to 2021.
- Asia accounts for 16% of global data flows; in 2017, Asia's cross-border data flows were 97 times greater than their value a decade earlier.



Source: McKinsey Global Institute, "Digital Globalization: The New Era of Global Flows"

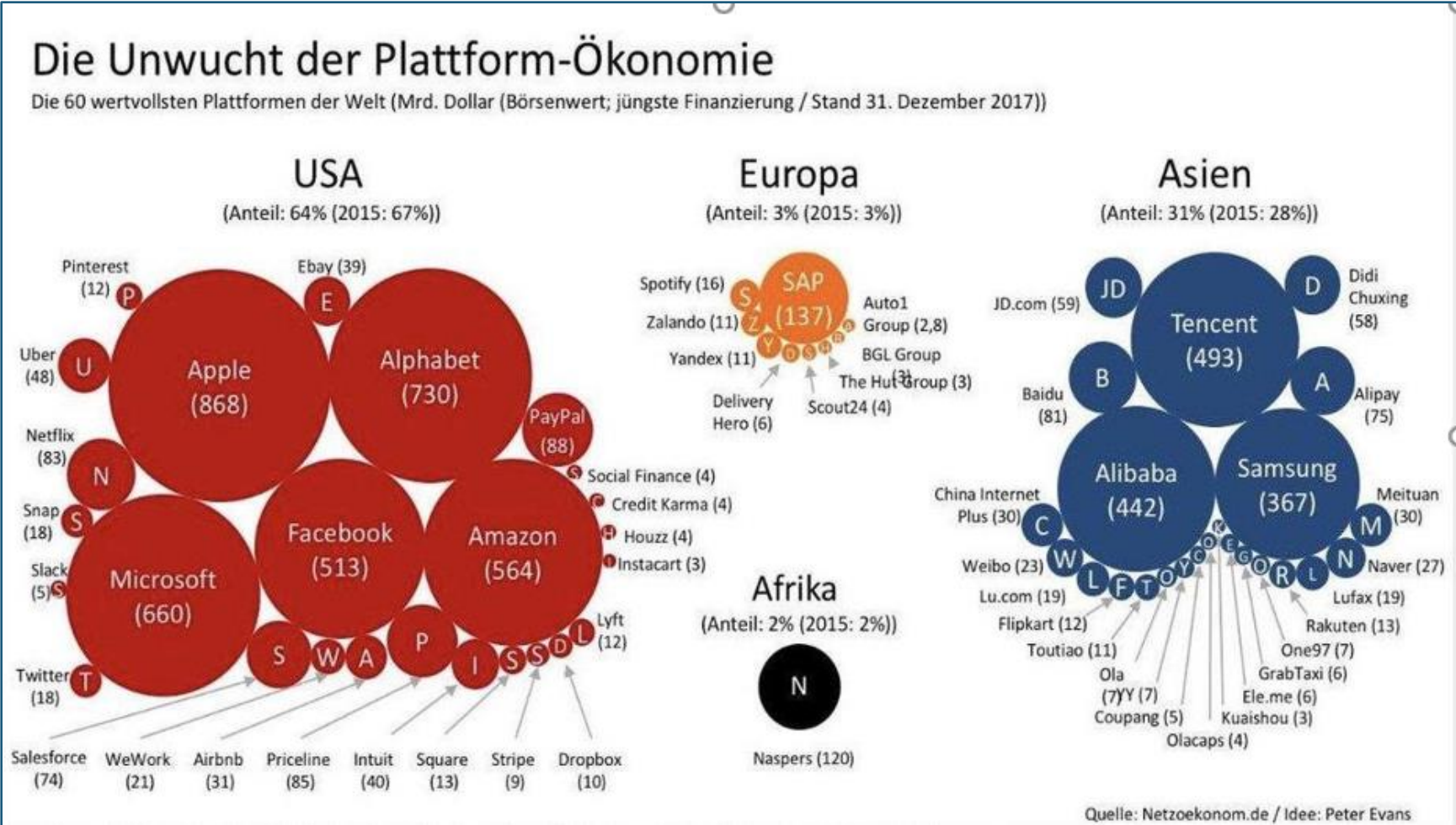
ICT-Enabled Services Share of Global Trade Growing

Growth in ICT-Enabled Services as Share World Trade, 2008-2018



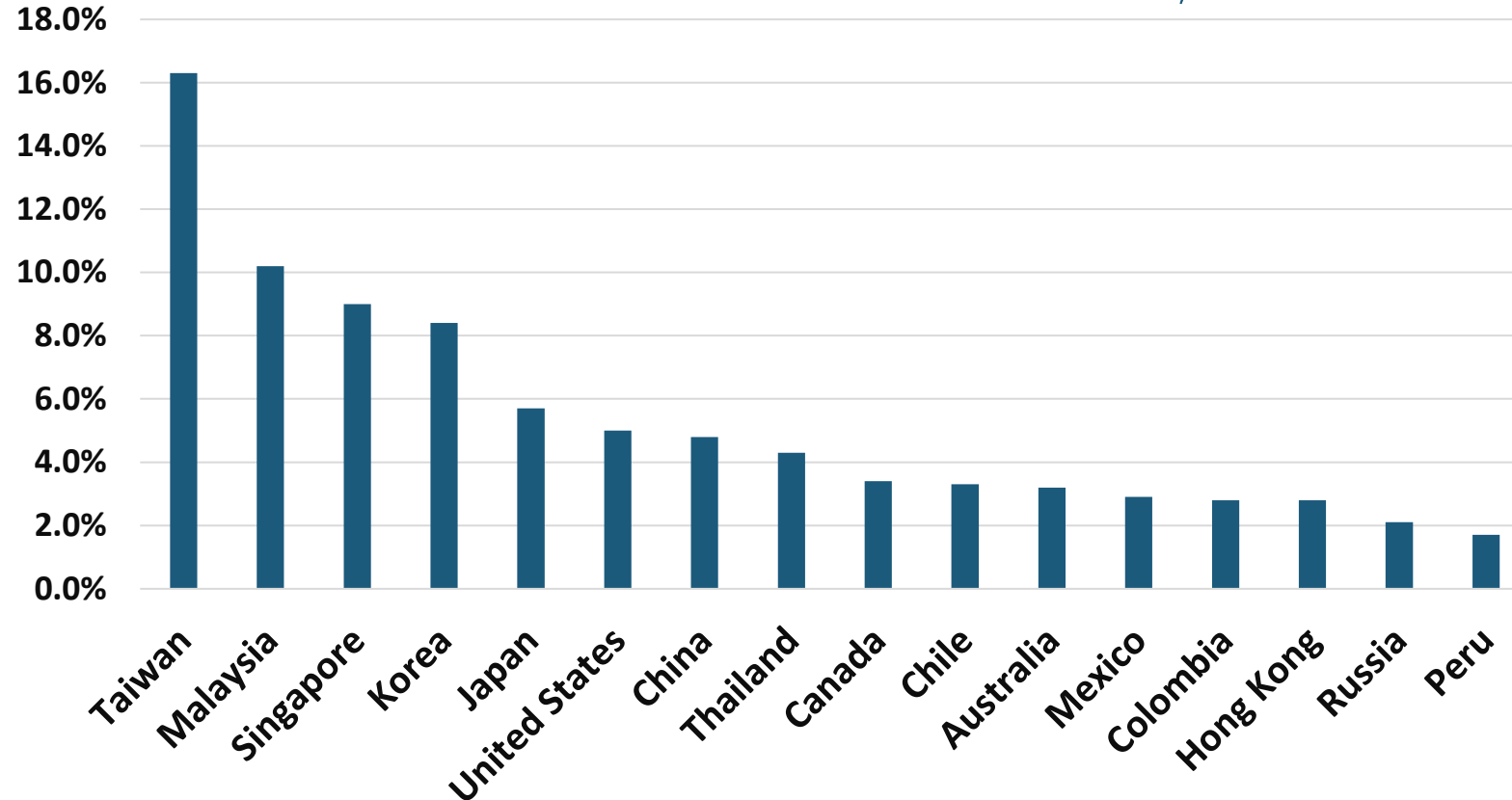
Source: "2019 WTO Statistical Review"

Asia and America Dominate the Digital Platform Economy



ICT Sector's Contributions to APEC Nations' GDPs

ICT Sector Value Added as a Share of GDP, 2017



The digital economy accounted for 30% of China's GDP in 2018 and 18% of Malaysia's.



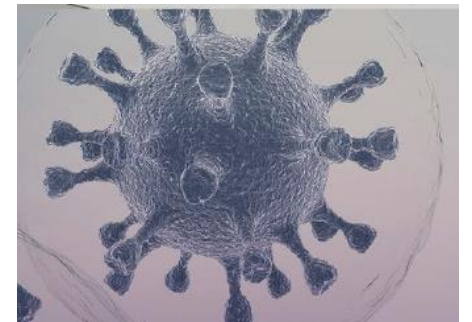
Source: UNCTAD, "2019 Digital Economy Report" Note: All APEC economies shown for which data is available.

Today's Presentation

- 1 Digitalization Driving Global and Pacific Economic Growth
- 2 Digitalization and the Coronavirus Pandemic
- 3 Digitalization Recommendations for Policymakers

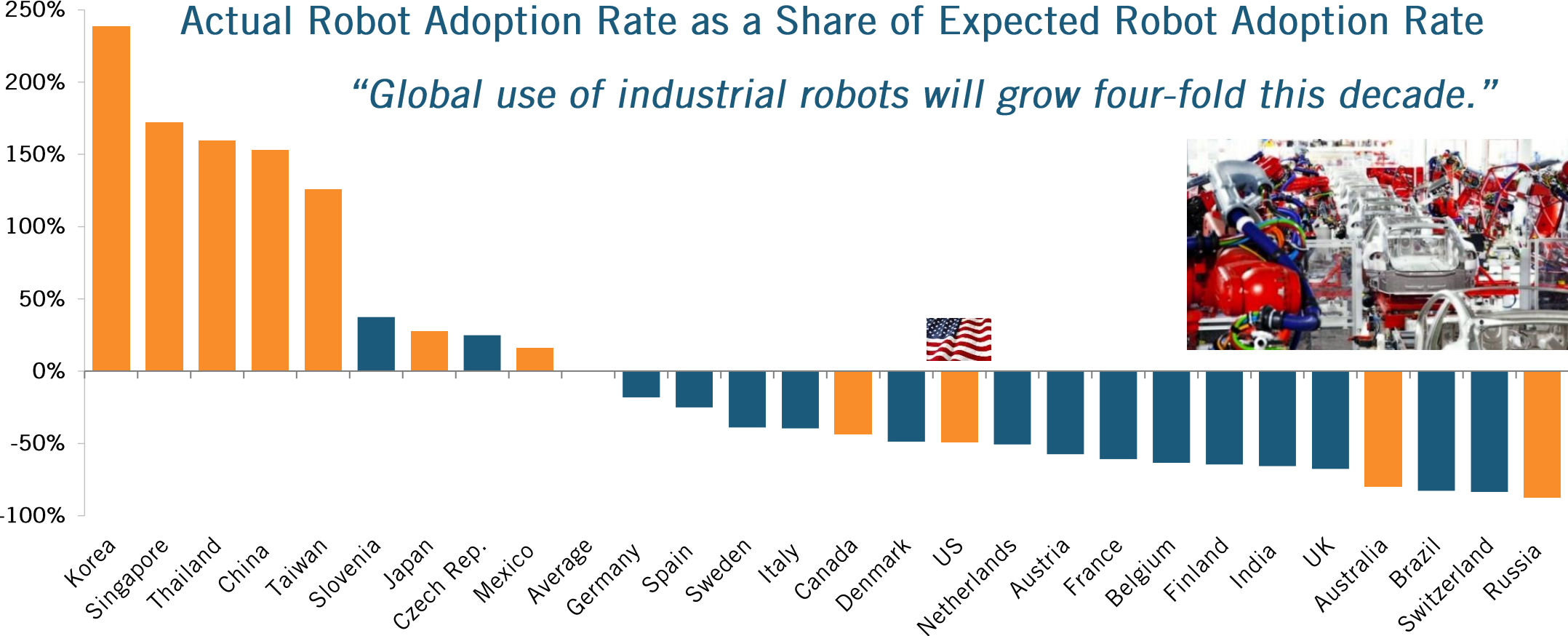
COVID-19 and the Global Digital Economy

- Two-thirds of U.S. GDP in May was produced from peoples' homes.
- Half of OECD nations' goods consumption will originate online by 2030.
- As the pandemic accelerates digitalization of production, a digitalized global labor market will emerge as digital services trade grows.
- Digital trade may be increasingly concentrated within regional regulatory blocks and integrated within hemispheric time zones.



Source: *The Economist*, "Peril and Promise," October 8, 2020; HSBC, "Pandemic Hastens Digital Economy," September 14, 2020

Robot Adoption



Sources: ITIF, “Which Nations Really Lead in Industrial Robot Adoption?”; HSBC, “Pandemic Hastens Digital Economy,” September 14, 2020

■ Denotes APEC Nation ■ Denotes Non-APEC Nation

Trade Impact of New Digital Production Systems



Source: Image Courtesy Magnus Rentzhog, Swedish National Board of Trade, "Trade, Digitalization, and the Future of Trade Policy"

Digital Policy for Physical Distancing in Pandemic Crisis

- Policymakers must sweep away regulations that limit remote, automated digital functions across a wide array of industries.
- Support foundational technology platforms: 5G, universal broadband, electronic IDs, EHRs, AI, mobile payments, etc.
- Drive digital transformation for remote activity in key sectors: education, government, healthcare, manufacturing, and transportation.

ITIF | INFORMATION TECHNOLOGY
& INNOVATION FOUNDATION

Digital Policy for Physical Distancing: 28 Stimulus Proposals That Will Pay Long-Term Dividends

ROBERT D. ATKINSON, DOUG BRAKE, DANIEL CASTRO
AND STEPHEN EZELL | APRIL 2020

The COVID-19 pandemic has revealed gaps in society's digital readiness for social distancing. If policymakers seize the opportunity to address these gaps, they can make it easier to manage the next pandemic while providing significant long-term social and economic benefits.

KEY TAKEAWAYS

- The continuing progress of digital technology makes social distancing mandates more feasible and less costly. But there are still major gaps that policymakers should address to make the process even easier.
- To maximize society's digital readiness, policymakers need to sweep away the regulatory underbrush that limits remote and automated digital functions in a wide array of industries, from health and retail to education and transportation.
- Governments should support the development of foundational digital platforms, including universal broadband, 5G, digital IDs, electronic health records, big data systems, and mobile payments.
- Governments should increase funding to spur development and adoption of key technologies to enable more efficient and flexible production, including robotics, autonomous vehicles, 3D printing, AI, blockchain, IOT, and facial recognition.
- Governments should support digital transformation for remote activity in key sectors, including education, government, healthcare, transportation, retail, and manufacturing.
- Congress and the administration should ensure a fourth stimulus package includes a major push to increase digital resiliency to better prepare for future pandemics.

INFORMATION TECHNOLOGY & INNOVATION FOUNDATION | APRIL 2020

Source: ITIF, "Digital Policy for Physical Distancing: 28 Stimulus Policy Proposals That Will Pay Long-Term Dividends"

<https://itif.org/sites/default/files/2020-digital-policy-physical-distancing-proposals.pdf>

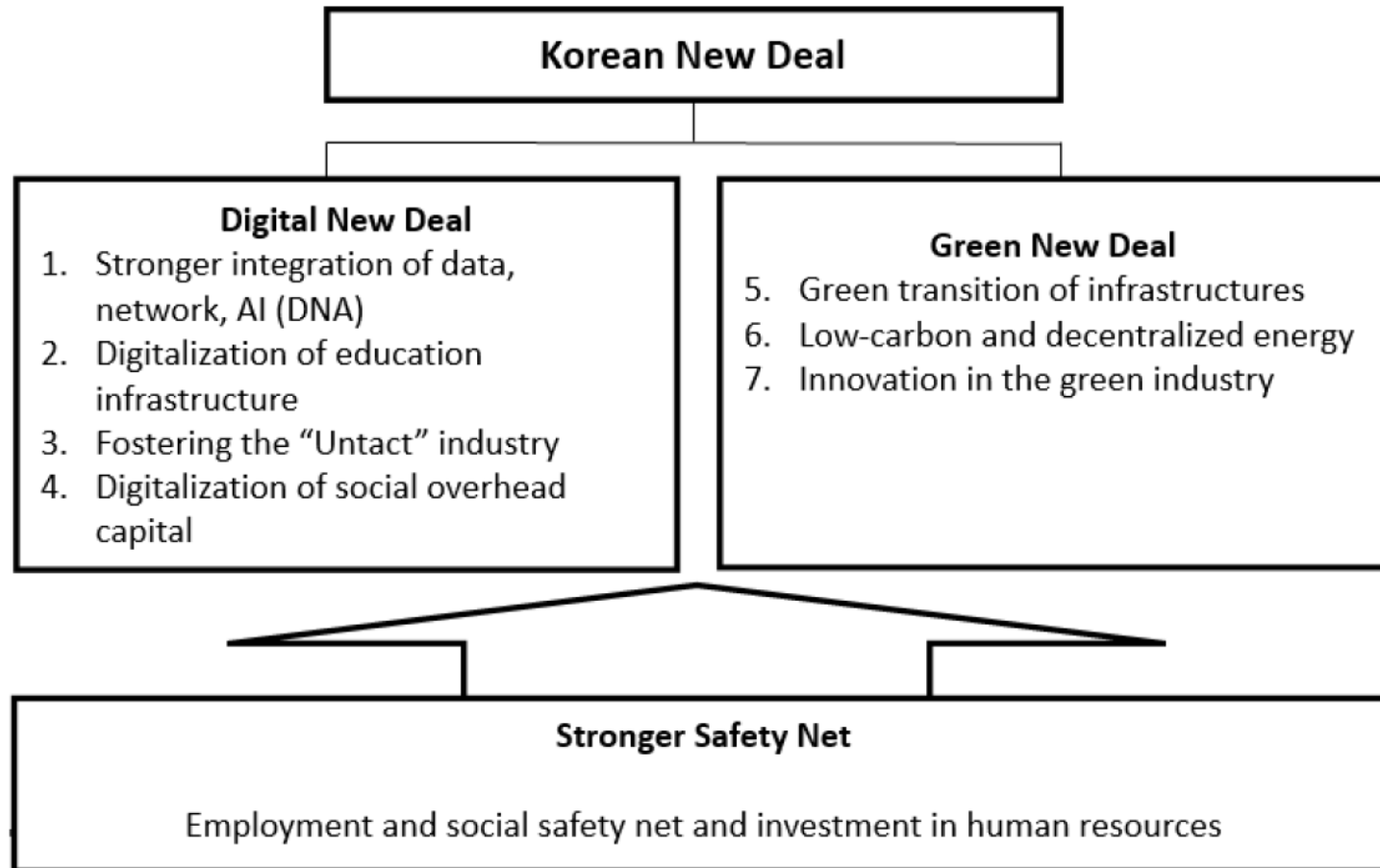
Remove Barriers to Digital Transformation

- New York legislators proposed banning self-driving cars for 50 years.
- San Francisco banned sidewalk delivery robots in 2017.
- Push back against resistance to self-service options like grocery self-checkouts, cashless stores, etc.
- Governments should ensure they have the technology systems and organizational procedures in place to enable widespread telework.



Source: ITIF, "Digital Policy for Physical Distancing: 28 Stimulus Policy Proposals That Will Pay Long-Term Dividends"

Digitalization an Essential Aspect of COVID-19 Recovery



GTIPA PERSPECTIVES:

COVID-19 IMPACTS ON PUBLIC HEALTH
AND THE ECONOMY OF GTIPA
MEMBER NATIONS

OCTOBER 2020



Source: GTIPA, “COVID-19 Impacts on Public Health and Economy of GTIPA Member Nations,”
<https://www.gtipa.org/publications/2020/10/26/gtipa-perspectives-covid-19-impacts-public-health-and-economy-gtipa-member>

Collaboration, Open Trade, and Innovation to Fight COVID

- Viruses cross borders seamlessly; so too must needed epidemiological and health data (with privacy protections).
- Yet China requires that genomic data must be “stored and processed locally by Chinese firms.”
- Policymakers should develop a “global digital health framework” that promotes data interoperability and assists developing nations with skills and ICT infrastructure.

Sources: ITIF and Geneva Network, “Building a Global Framework for Digital Health Services in the Era of COVID-19”; GTIPA, “A Joint Declaration on the Importance of Collaboration, Open Trade, and Innovation in Tackling COVID-19”

Building a Global Framework for Digital Health Services in the Era of COVID-19

NIGEL CORY AND PHILIP STEVENS | MAY 2020

Health data and digital technologies will be essential for improving global health outcomes beyond the COVID-19 pandemic. Low- and middle-income nations, with fledgling digital health strategies and many barriers to overcome, stand to benefit the most.

KEY TAKEAWAYS

- Information and communications technologies can improve the quality and delivery of health care services around the world—particularly in low- and middle-income countries that face staffing and other physical resource constraints.
- ICT-driven “digital health” products and services leverage technologies such as electronic health records, mobile computing, AI, big data, and genomics to deliver more personalized and coordinated care, and better, faster treatments at lower cost.
- Many digital health products are already proven, available, and adaptable to all countries, yet a global framework that marshals resources, expertise, and strategies to realize the true potential of digital health is only at a nascent stage.
- Policymakers are struggling to adapt technology to their domestic health systems, while international bodies are only just starting to develop the principles, practices, and tools to help late adapters and developing nations catch up.
- Domestic technology standards and data protections risk fragmenting away from global interoperability, preventing health companies and researchers from leveraging health data and technologies to provide new and better services internationally.
- A global digital health framework requires low- and middle-income countries to work with international partners on key foundations: national strategies, skills, ICT infrastructure, and governance that balances innovation and data protection.

INFORMATION TECHNOLOGY & INNOVATION FOUNDATION | MAY 2020

Today's Presentation

- 1 Digitalization Driving Global and Pacific Economic Growth
- 2 Digitalization and the Coronavirus Pandemic
- 3 Digitalization Recommendations for Policymakers

Digitalization Recommendations for Policymakers

- ✓ Develop a comprehensive digitalization strategy/agenda.
- ✓ Develop a manufacturing digitalization (and skills) strategy.
- ✓ Join the Information Technology Agreement (ITA).
- ✓ Eschew data localization/barriers to cross-border data flows.
- ✓ Maintain the WTO E-commerce Customs Duty Moratorium.

Components of a Digital Trade Agenda



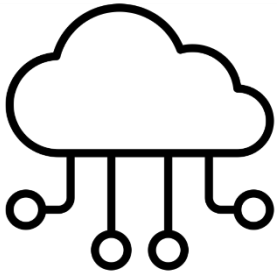
Improve trade facilitation for small packages



Address broader trade facilitation issues



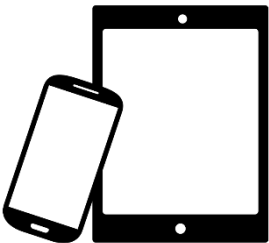
Establish intermediary liability protections



Enable the free flow of data



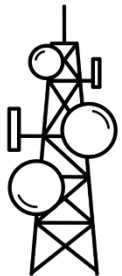
Centralize spectrum management



Eliminate tariffs on ICT products

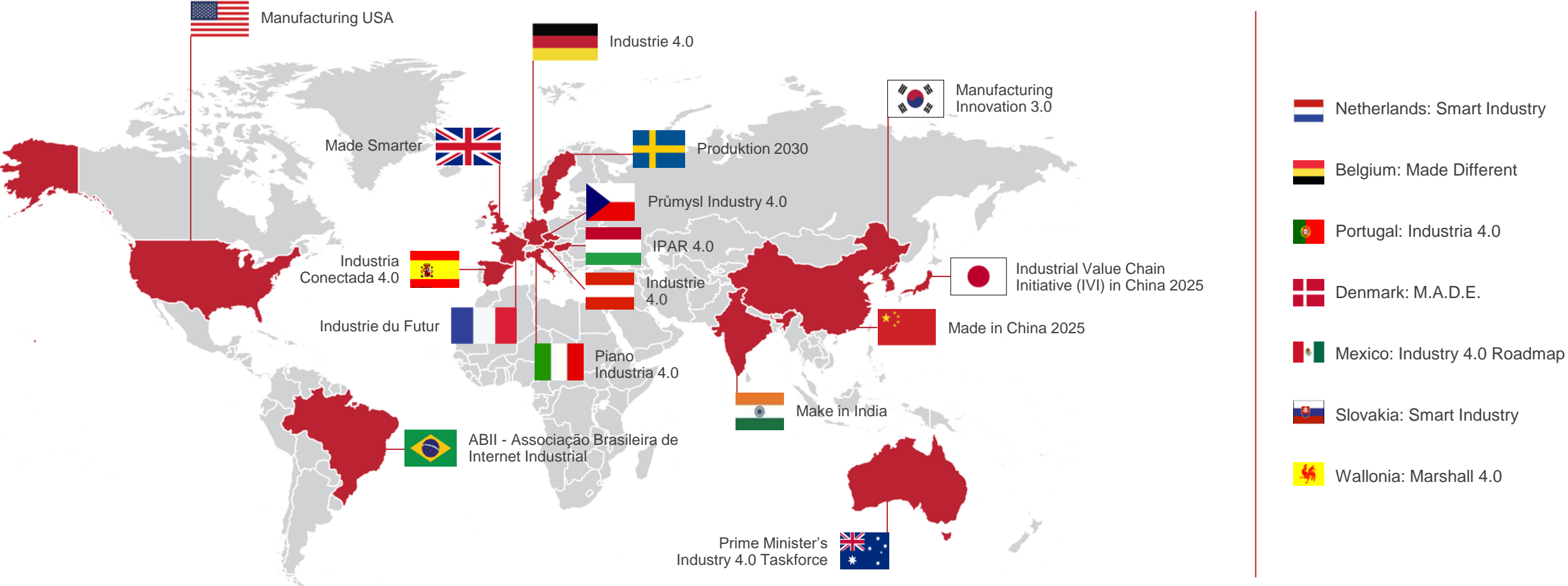


Provide more open access to service markets



Avoid regulating platforms and OTT as telecom providers

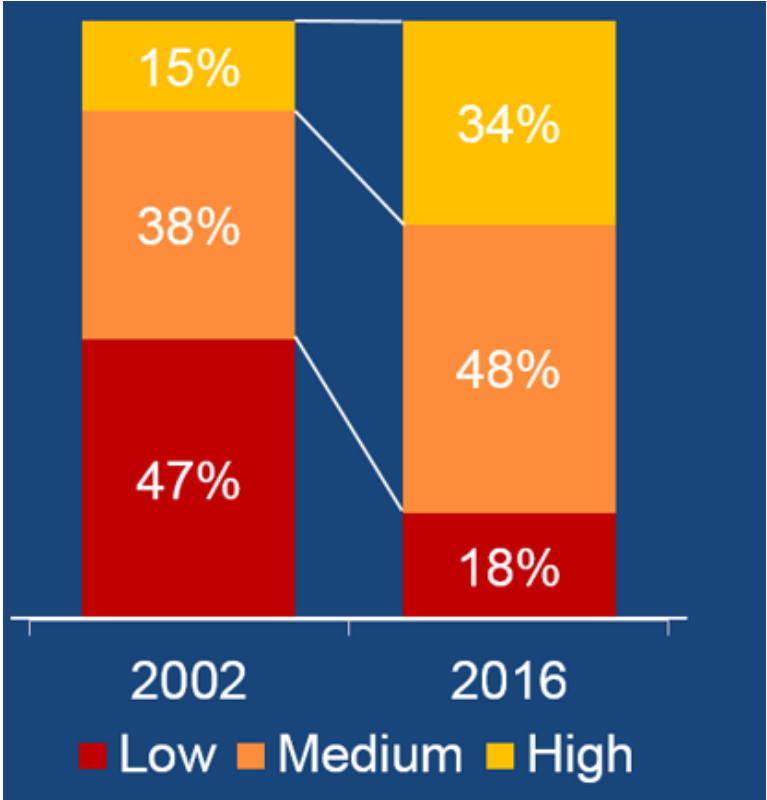
Develop a Manufacturing Digitalization Strategy



Courtesy: Dave Vasko, Rockwell Automation

Manufacturing Jobs Increasingly Require Digital Skills

Employment in Advanced Manufacturing by Digital Skill Level



“82% of U.S. manufacturing jobs require a medium to high digital skill level today.”



Source: Mark Muro, Sifan Liu, Jacob Whiton, and Siddharth Kulkarni, Brookings Metropolitan Policy Program, “Digitalization and the American Workforce”

Join the Information Technology Agreement (ITA)

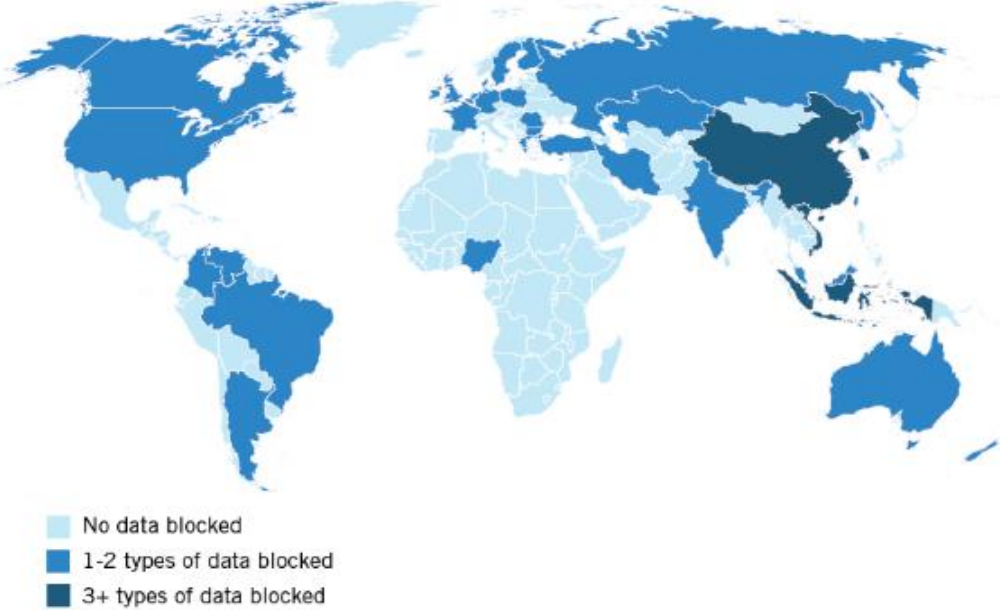


Source: ITIF, "Assessing the Benefits of Full ITA Participation for Indonesia, Laos, Sri Lanka, and Vietnam"

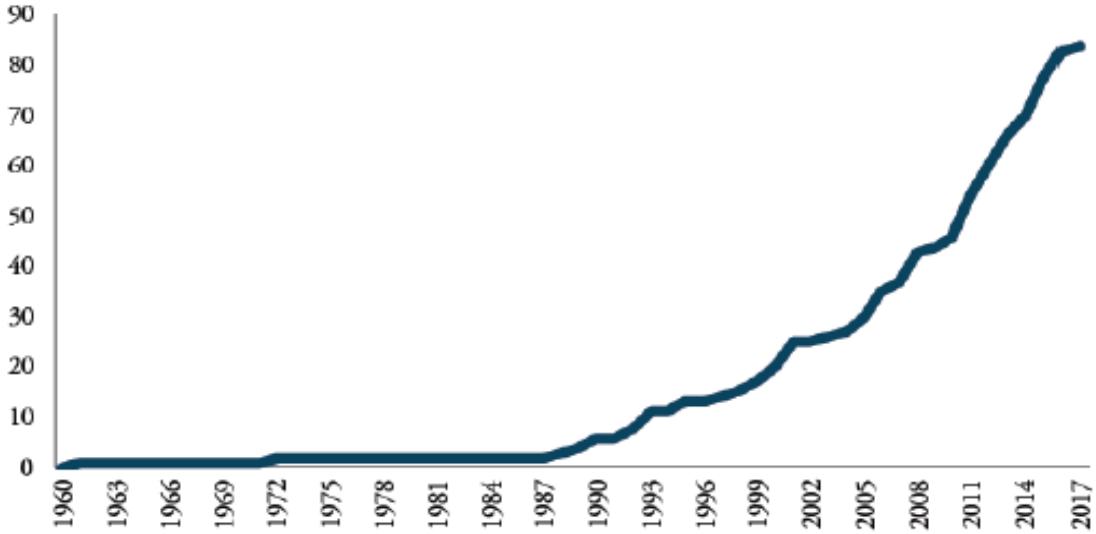
Eschew Data Localization Requirements

Eschew digitalization barriers to trade, including local data storage and local ICT facilities provisioning requirements.

Which Countries Block Data Flows?*



Cumulative Number of Restrictions on Cross-border Data Flow (1960-2017)



Sources: Nigel Cory, ITIF, "Cross-Border Data Flows: Where Are the Barriers, and What Do They Cost?"
M.F. Ferracane, ECIPE, "Restrictions on Cross-Border Data Flows: A Taxonomy"

Maintain the WTO E-Commerce Customs Duty Moratorium

- WTO E-commerce customs duty moratorium has played pivotal role in enabling global digital trade.
- E-commerce sales reached \$25.7 trillion in 2018.
- Eliminating the moratorium would result in annual global GDP losses of \$10.6 billion.



GTIPA PERSPECTIVES:

THE IMPORTANCE OF E-COMMERCE,
DIGITAL TRADE, AND MAINTAINING THE WTO
E-COMMERCE CUSTOMS DUTY MORATORIUM

OCTOBER 2020



Source: GTIPA, "The Importance of E-Commerce, Digital Trade, and Maintaining the WTO E-Commerce Customs Duty Moratorium"; <https://www.gtipa.org/publications/2020/10/26/gtipa-perspectives-importance-e-commerce-digital-trade-and-maintaining-wto-e>

Join the Global Trade and Innovation Policy Alliance

<https://hopin.to/events/2020-global-trade-and-innovation-policy-alliance-virtual-summit>



2020 Global Trade and Innovation Policy Alliance Virtual Summit

Oct 29, 8:30AM to Oct 29, 12:30PM EDT

192 people attending



Description	Schedule	Speakers
The Global Trade and Innovation Policy Alliance (GTIPA) represents a network of over 40 leading global think tanks dedicated to advancing a positive view of trade, globalization, and innovation for the benefit of the world's citizens. Our GTIPA Annual Summits bring together Alliance members with world-leading experts to explore creative solutions to difficult economic, trade, and innovation challenges facing the international community. This year's Virtual summit will feature distinguished keynoters alongside panels addressing: the future of trade and globalization; lessons for policymakers on managing COVID-19 economic and public health impacts drawn from a series of original country-level case studies; and getting global trade rules right to facilitate digital trade and cross-border data flows.		

Thank You!

Stephen Ezell | sezell@itif.org | 202.465.2984