

The Case for a Pan-American Manufacturing Ecosystem

Presented by

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Recent Bipartisan Policy – Reduce Reliance on China



Administration | Priorities | COVID Plan

BRIEFING ROOM

FACT SHEET: Biden-Harris Administration Delivers on Made in America Commitments

MARCH 04, 2022 • STATEMENTS AND RELEASES



U.S. Department of Defense

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Release

IMMEDIATE RELEASE

DoD Announces \$117 Million Defense Production Act Title III Agreement With GlobalFoundries to Strengthen the Domestic Microelectronics Industrial Base

Biden Administration Increases Domestic Content Requirements under Buy American Act, Enhances Price Preferences for Domestic “Critical” Goods

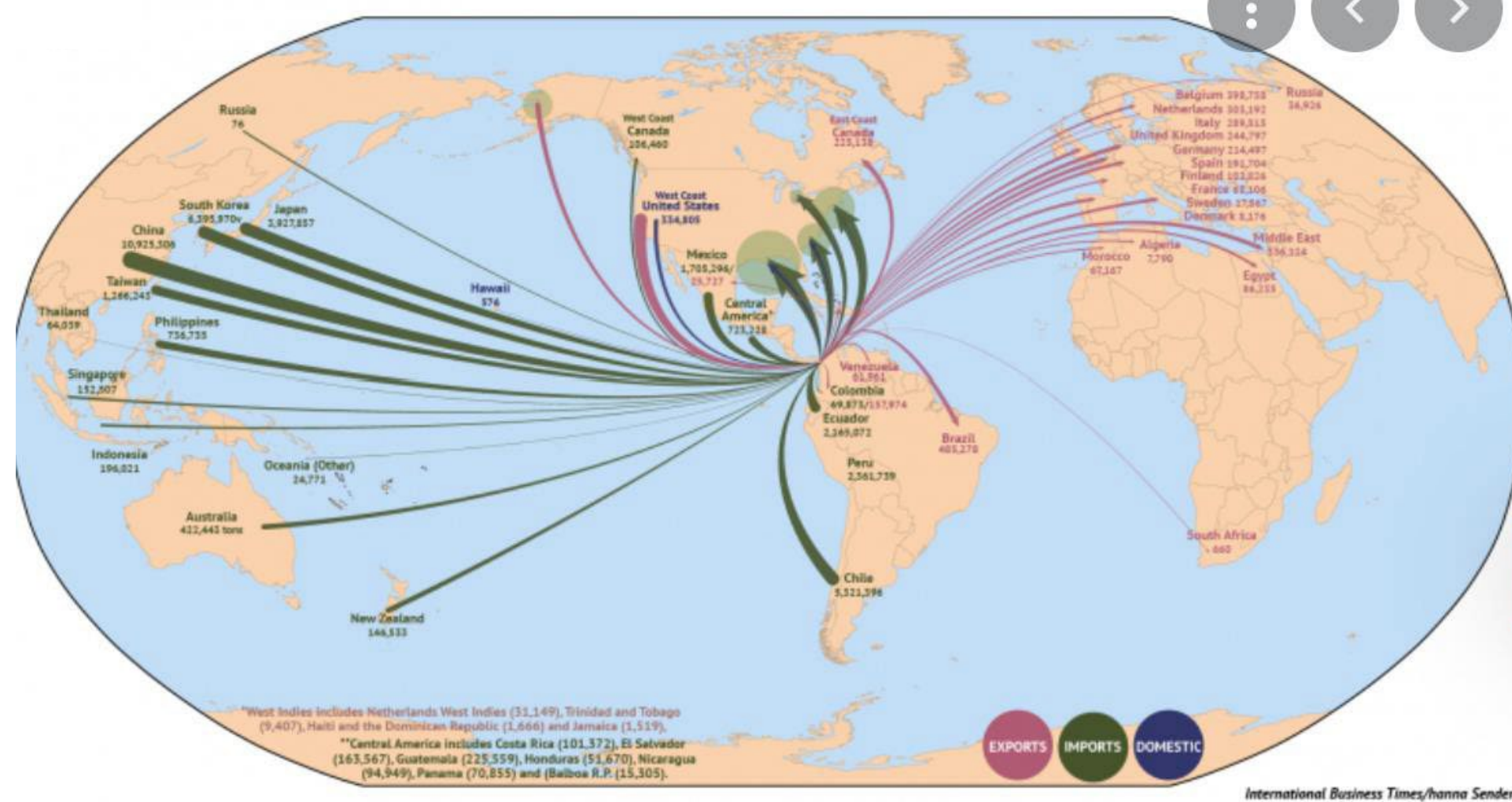
2020 US-China Trade

- Exports were \$164.9 billion
- Imports were \$450.4 billion

STRATEGIC IMPERATIVES

- Replace Lost Trade
- Maintain the Comparative Advantages of Globalization

U.S. TRADE ROUTED THROUGH THE PANAMA CANAL



- Single points of failure
- Long transit times
- Carbon footprint of ocean

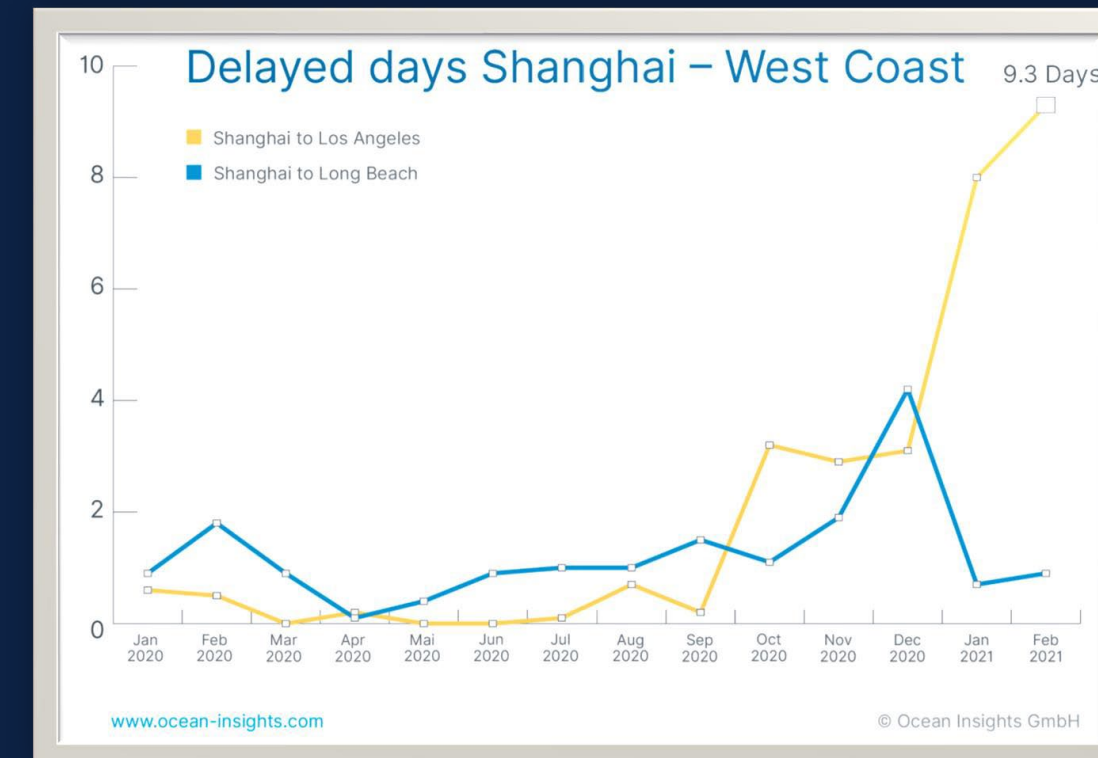
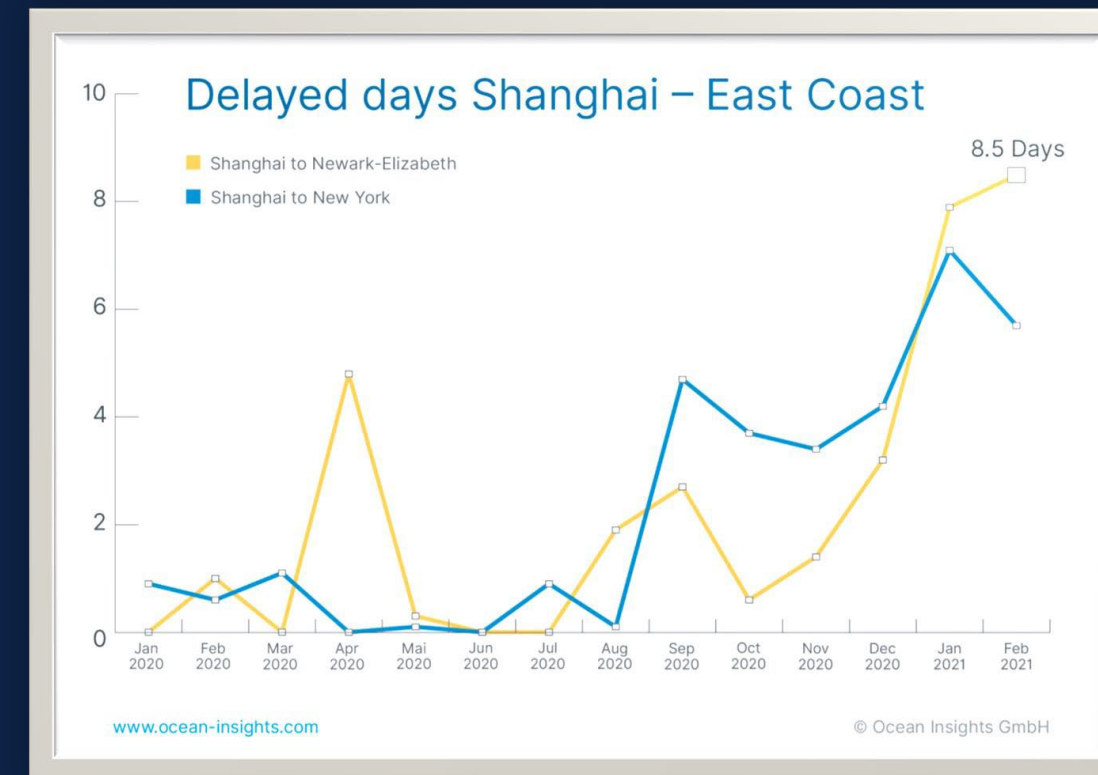
GLOBAL SHIPPING ROUTES



- Transit times of weeks
- Long port delays
- Cash tied up in inventory

The supply chain imperative

- Resilience
- Sustainability
- Flexibility and Agility
- Cost savings
- Labor availability
- Climate Readiness (water)
- Cash and Inventory reduction



The Pan-American Land Transportation Network

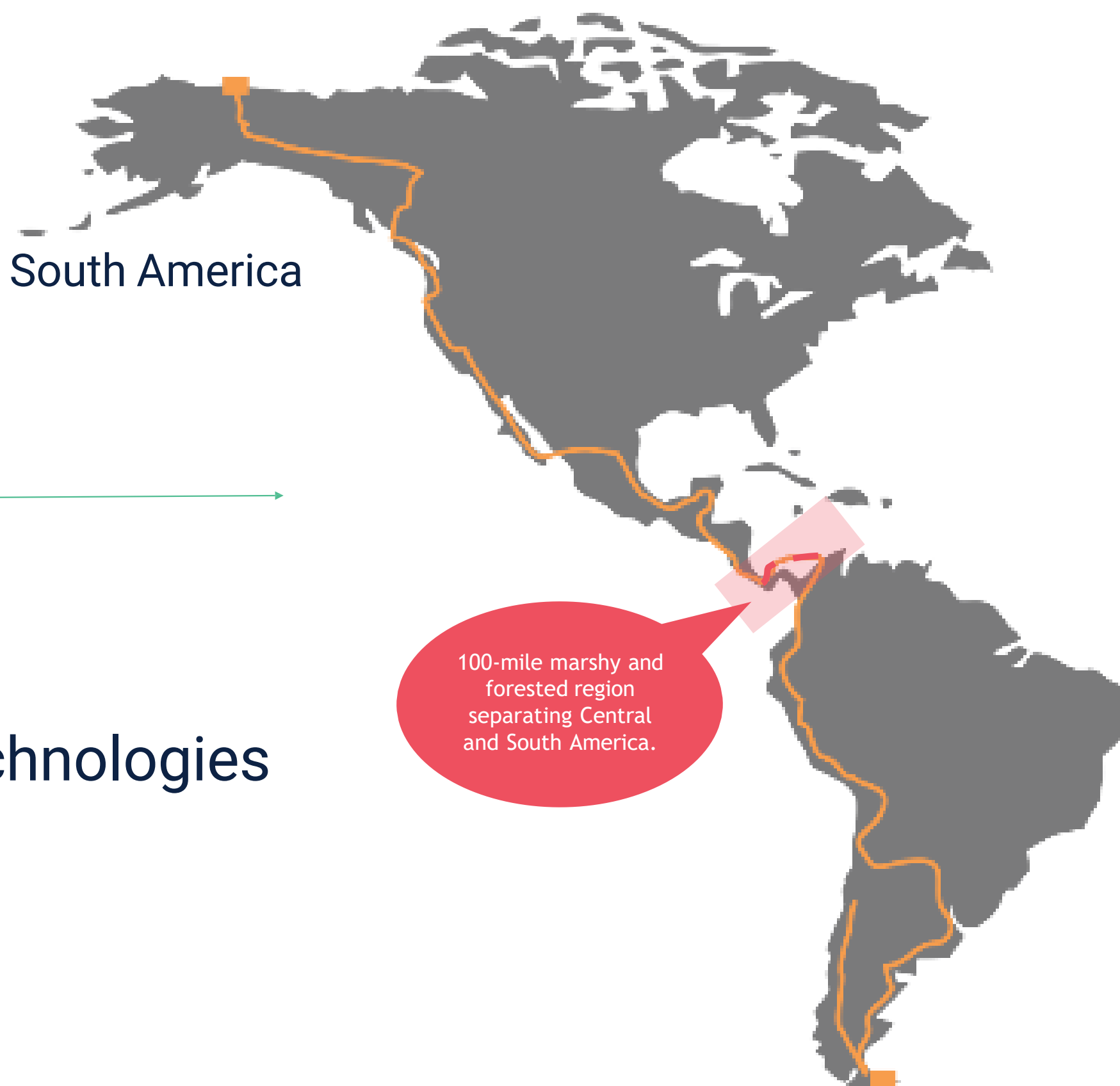
- Starts in Prudhoe Bay, Alaska
- Ends in Ushuaia (Tierra de Fuego), Argentina
- 19,000-mile network of roads throughout North, Central and South America
- Only major break is the Darién Gap

- **Near term:**

- Expand and upgrade current roads
- Bridge Darién Gap > latest tunnelling technologies

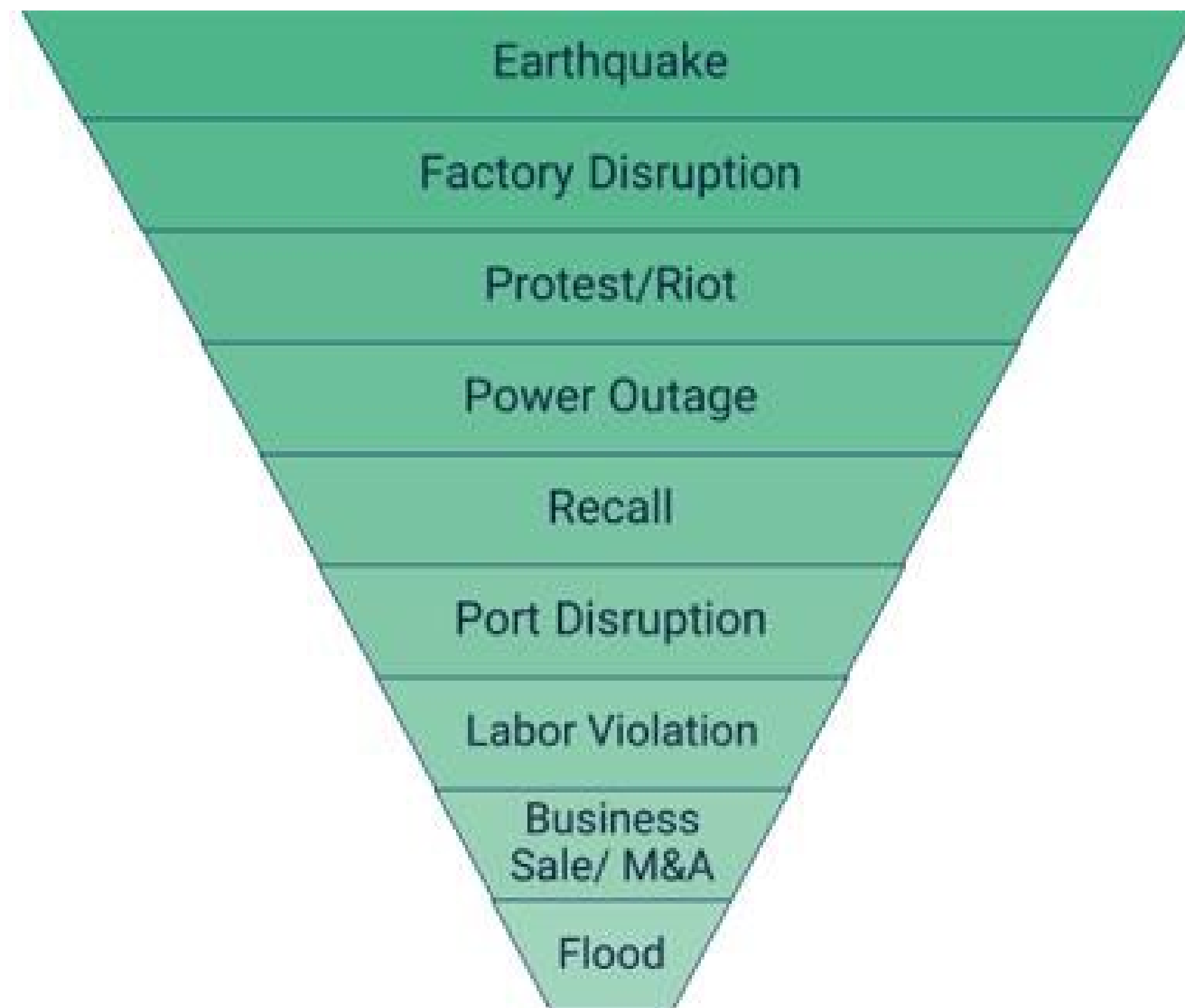
- **Medium to long term:**

- Modern rail transportation network



Disruptions in South and Central America

Source: Resilinc EventWatch^{AI}



The supply chain imperative

- Resilience
- Sustainability
- Flexibility and Agility
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- Cash and Inventory reduction

The strategic imperative

- National security
- Immigration
- Geopolitical value
- Reduced dependence on China
- Improved relations with neighbors
- Alignment of interests
- Counter narcotics trade

A thriving ecosystem of suppliers critical to key industries

Auto, steel, chemicals, electronics, pharmaceuticals, apparel and footwear, and appliances

Lithium, copper, iron, silver, zinc, tin, lead, manganese, bauxite

Drugs & Pharmaceuticals Manufacturing

Acids, Organic: Hydroxyacetic, Oleic, Stearic

Mineral Oil, Petrolatum

Chemical Raw Materials and intermediates

Various Compounds

Sheeting, Plastics (Reinforced)

Fastening, Packaging, Strapping, Equipment

Computers, Batteries And Electronics Hardware

Electronic Components, Replacement Parts, And Accessories

Adapters, Clips, Connectors

Spectrophotometers, Atomic Absorption

Power Supplies, Surge Protectors, Uninterruptible Power Supp

Switching, Networking, electronic equipment

Direct Access Storage Devices & Controllers

Amplifiers And Preamplifiers (Not For Sound Systems Or Tv An

Memory, Processors

Transformers, Circuit Breakers, Power & thermal parts, coil, chokes

Passives: Caps, Resistors

Cables, Computer, Pre-made: Printer, Terminal, Disk

Apparel, Footwear, Sub-contractors

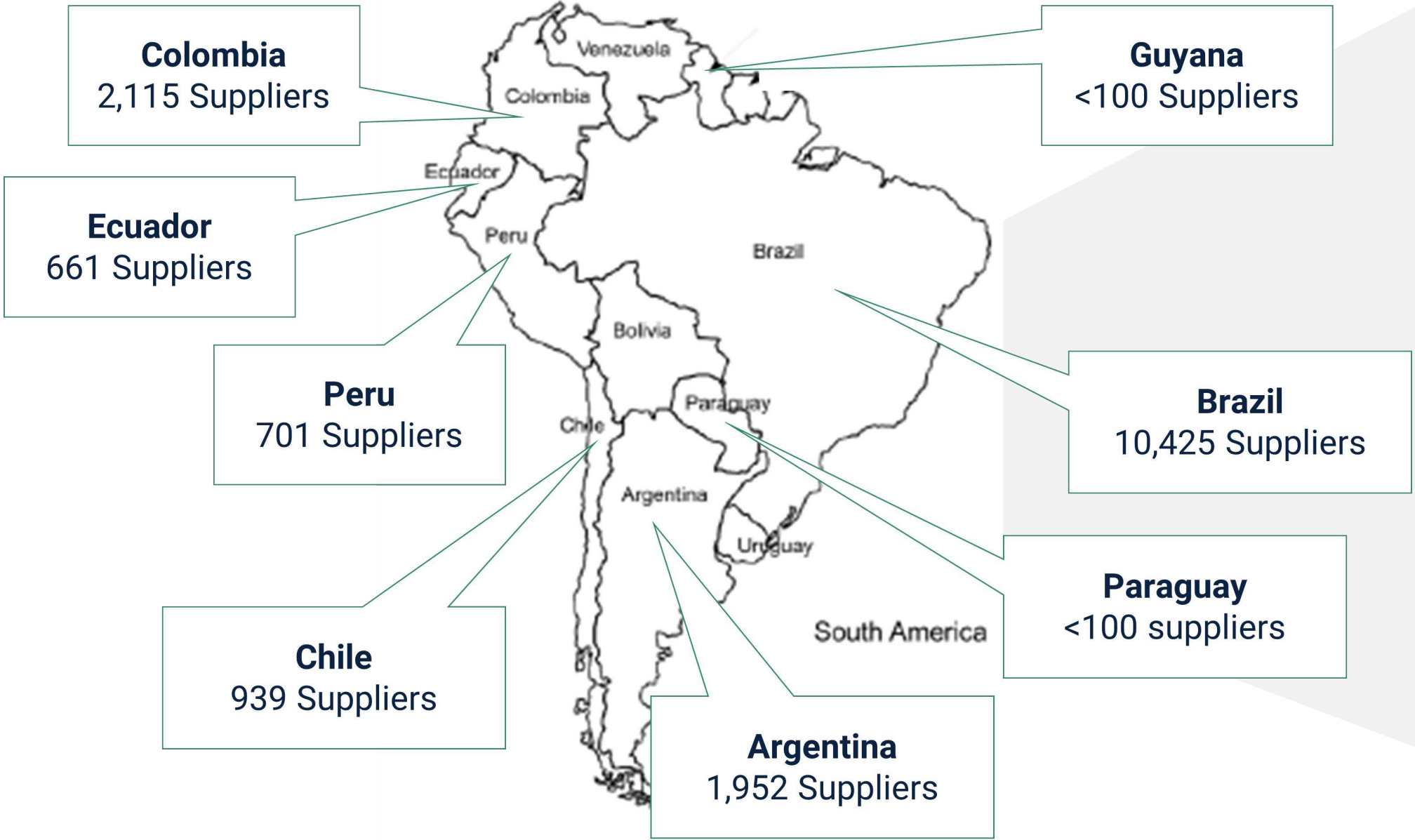
Stoppers, Rubber And Synthetic products

Short Wheelbase, Automotive assembly

Tires And Tubes, Industrial products

Food, food packaging, ingredients, processing

>17,000 suppliers with sites in South America



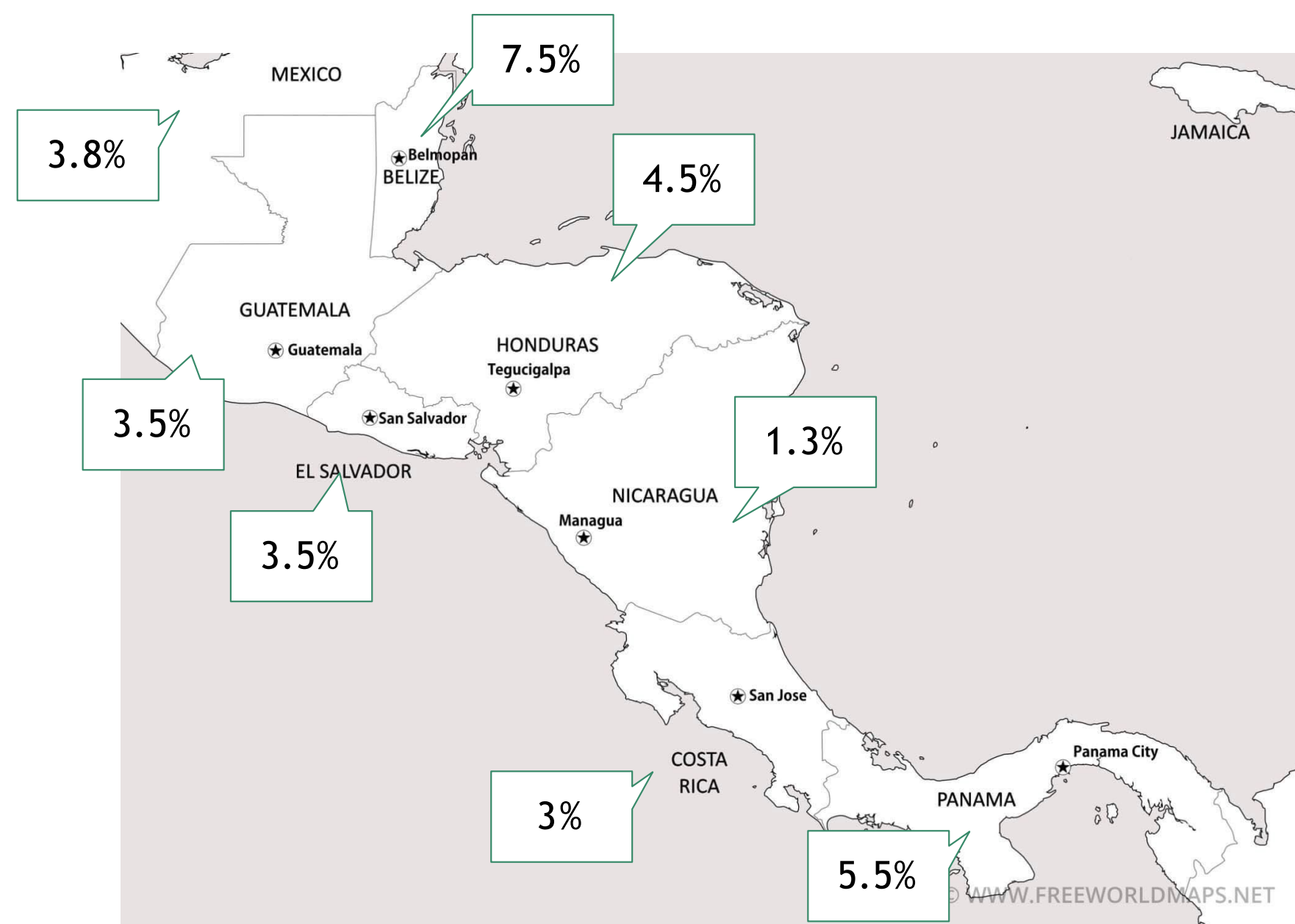
Top part & product categories mapped to S. America

Source: Resilinc Supply Chain Mapping Network



Central American Countries

GDP Growth Rates



Top Exports: Bananas, coffee, cotton, sugar

Advanced Manufacturing: Medical devices in Costa Rica

General manufacturing: Apparel, food and related

Median age: 26-28 years

Unemployment: 4%-8%

Poverty Rate: 7-66% (Honduras)

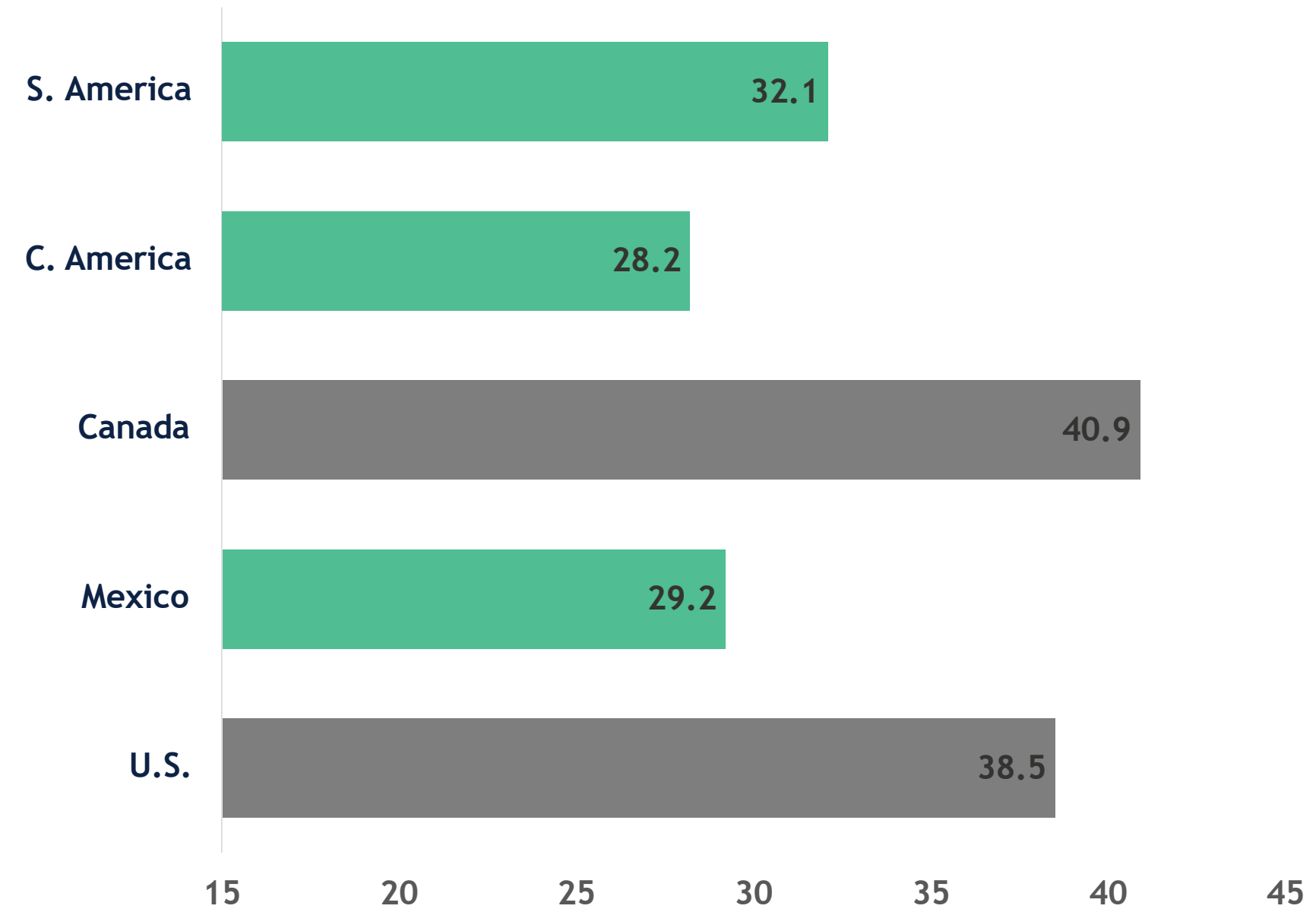
Resources:

Nickel, iron ore, fish, timber, oil, water

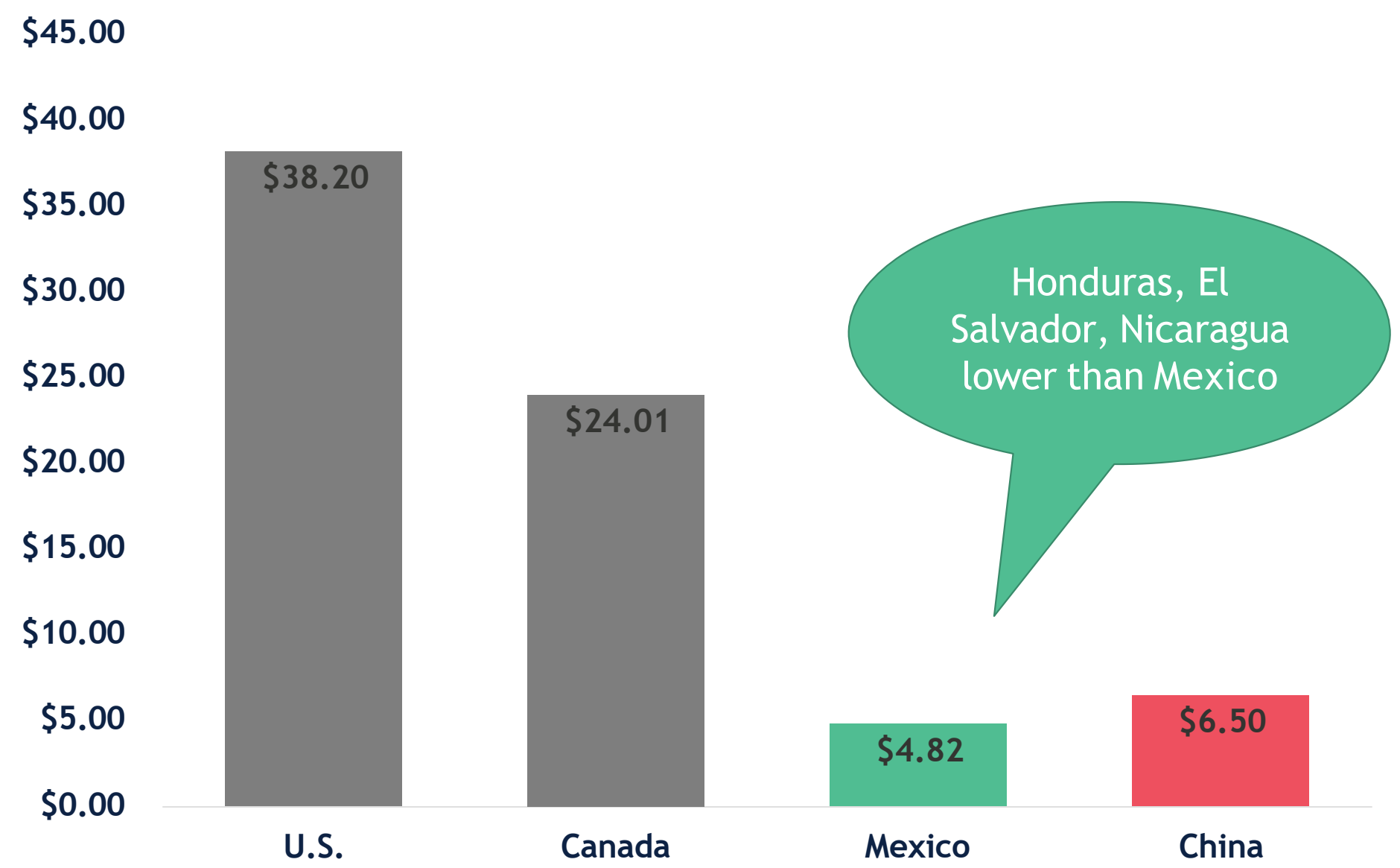
Percent of GDP on Infrastructure: ~2%

Demographics and Socioeconomic characteristics

Median Age



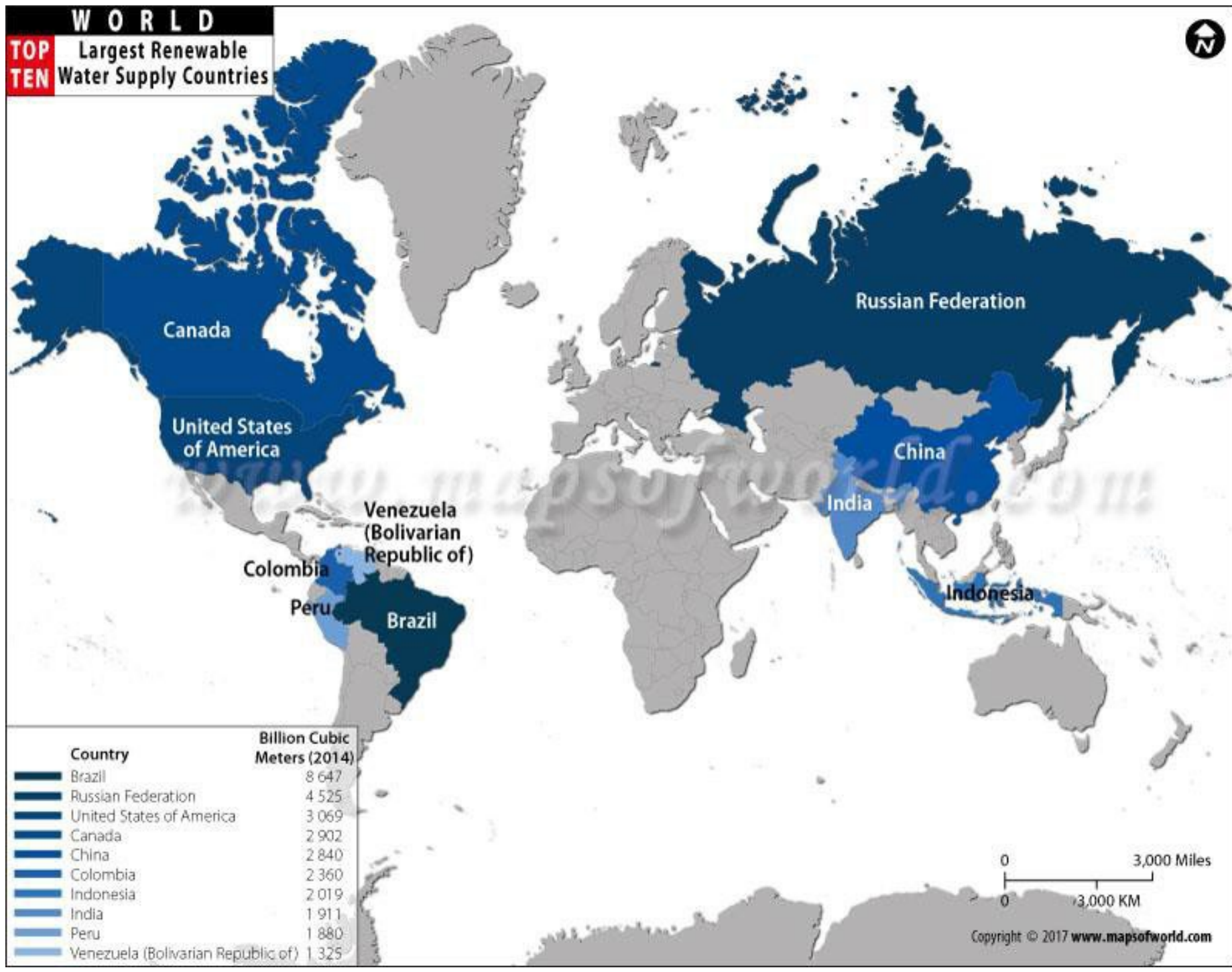
Manufacturing Labor Costs Per Hour



Renewable Water: Critical resource for manufacturing

5 of the top 10 countries with freshwater resources

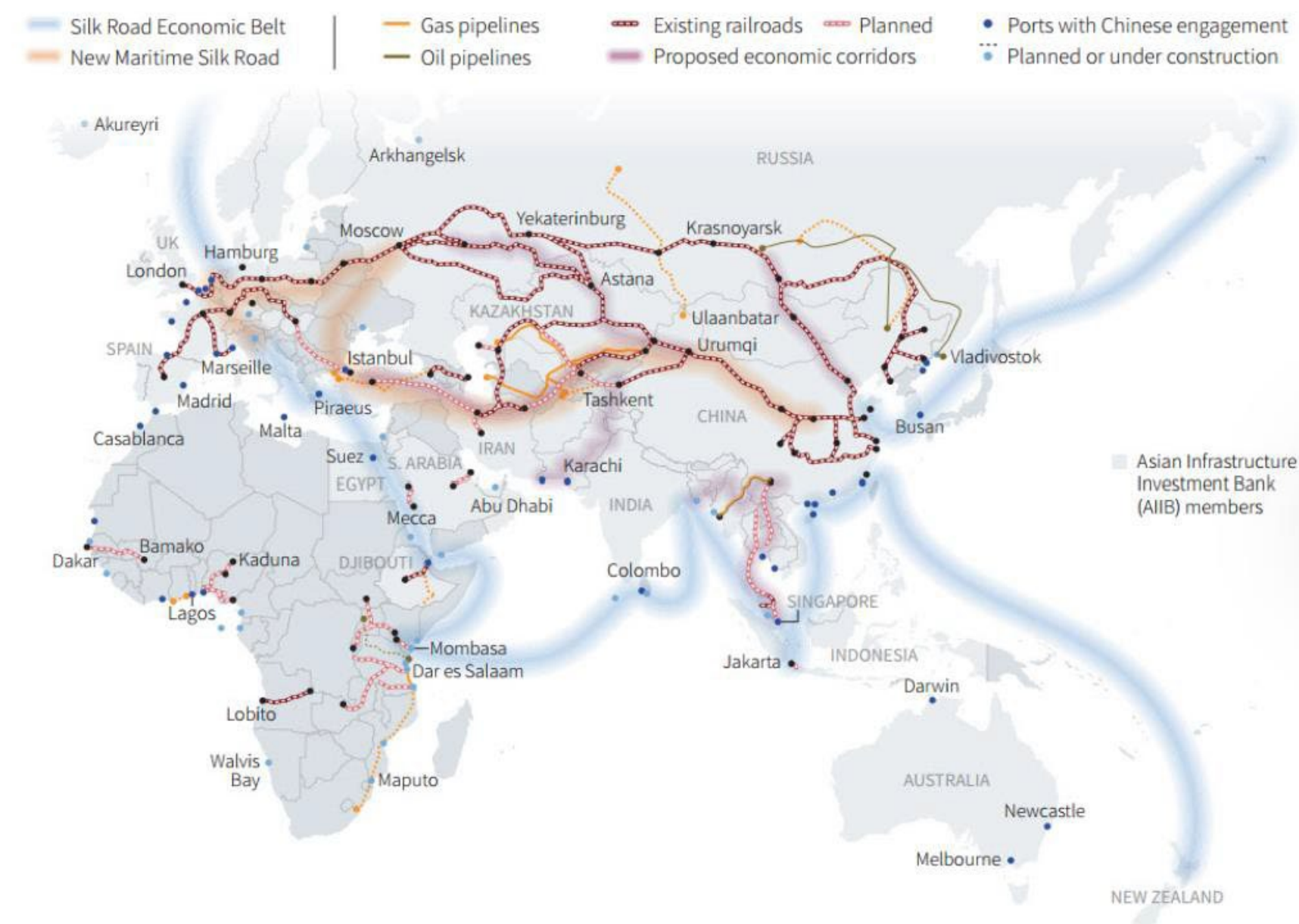
Country	Fresh Water (Cubic Kilometers)
Brazil <small>62% of power generated is hydroelectric</small>	8,233
Russia	4,508
United States	3,069
Canada <small>60% of power generated is hydroelectric</small>	2,902
China	2,840
Colombia <small>70% of power generated is hydroelectric</small>	2,132
European Union	2,057
Indonesia	2,019
Peru <small>70% of power generated is hydroelectric</small>	1,913



Final Thoughts

- Challenges to overcome
- How to monetize
- Working together across nations and industries
- Public - private collaboration
- Learning from incumbents (food, apparel)
- Outcompeting China - Beyond Pan-American

Projects under China's Belt and Road Initiative



Source: Mercator Institute for China Studies.

C. Inton, 23/04/2018

REUTERS

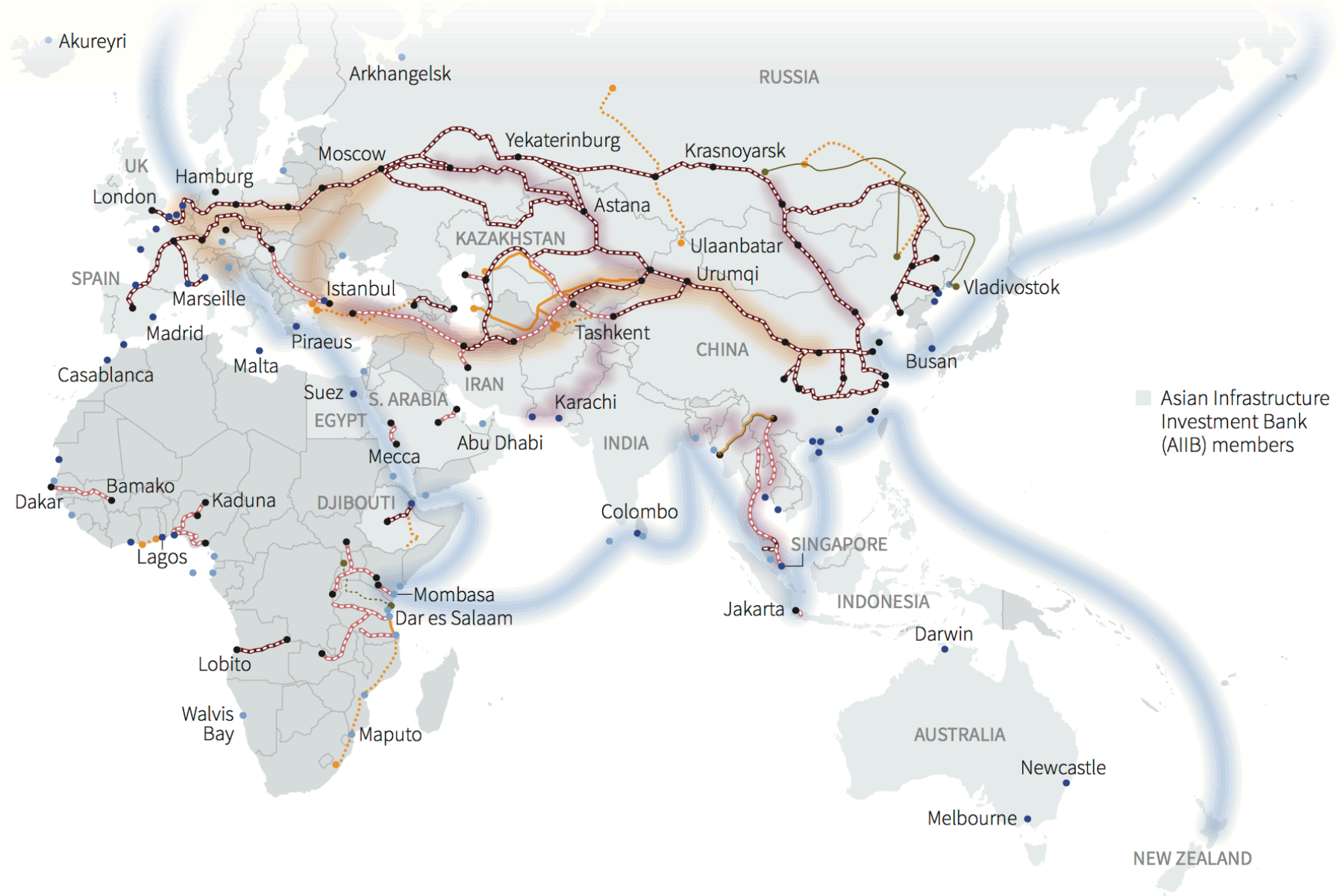
The Belt and Road Initiative and Beyond

Reviving the Silk Road

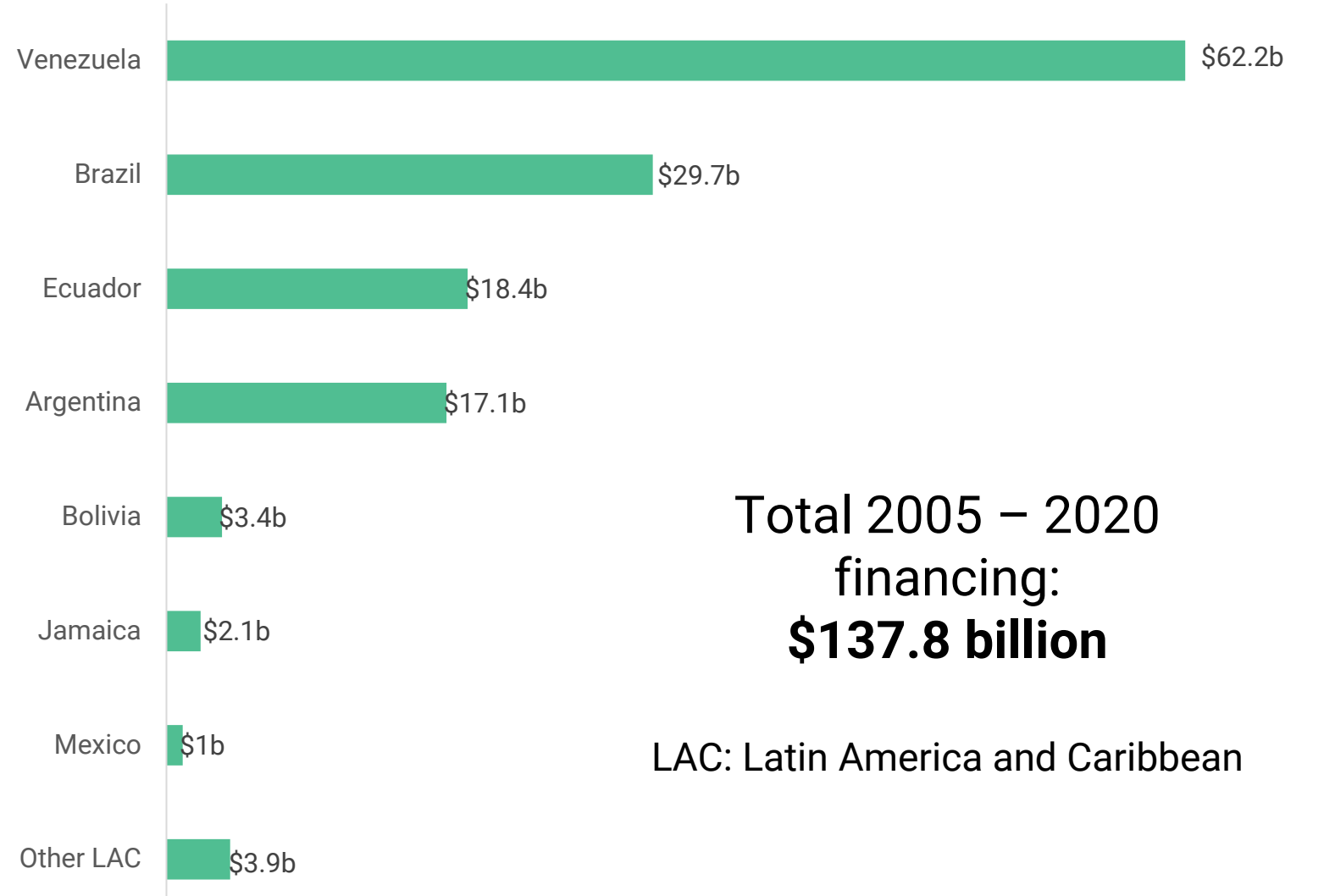
Announced by Chinese President Xi Jinping in 2013, the Silk Road initiative, also known as China's Belt and Road initiative, aims to invest in infrastructure projects, including railways and power grids, in central, west and southern Asia, as well as Africa and Europe.

Key

- Silk Road Economic Belt
- New Maritime Silk Road
- Gas pipelines
- Oil pipelines
- Existing railroads
- Planned
- Proposed economic corridors
- Ports with Chinese engagement
- Planned or under construction



China: Financing in LAC, 2005 - 2020



Total 2005 – 2020 financing: **\$137.8 billion**

LAC: Latin America and Caribbean

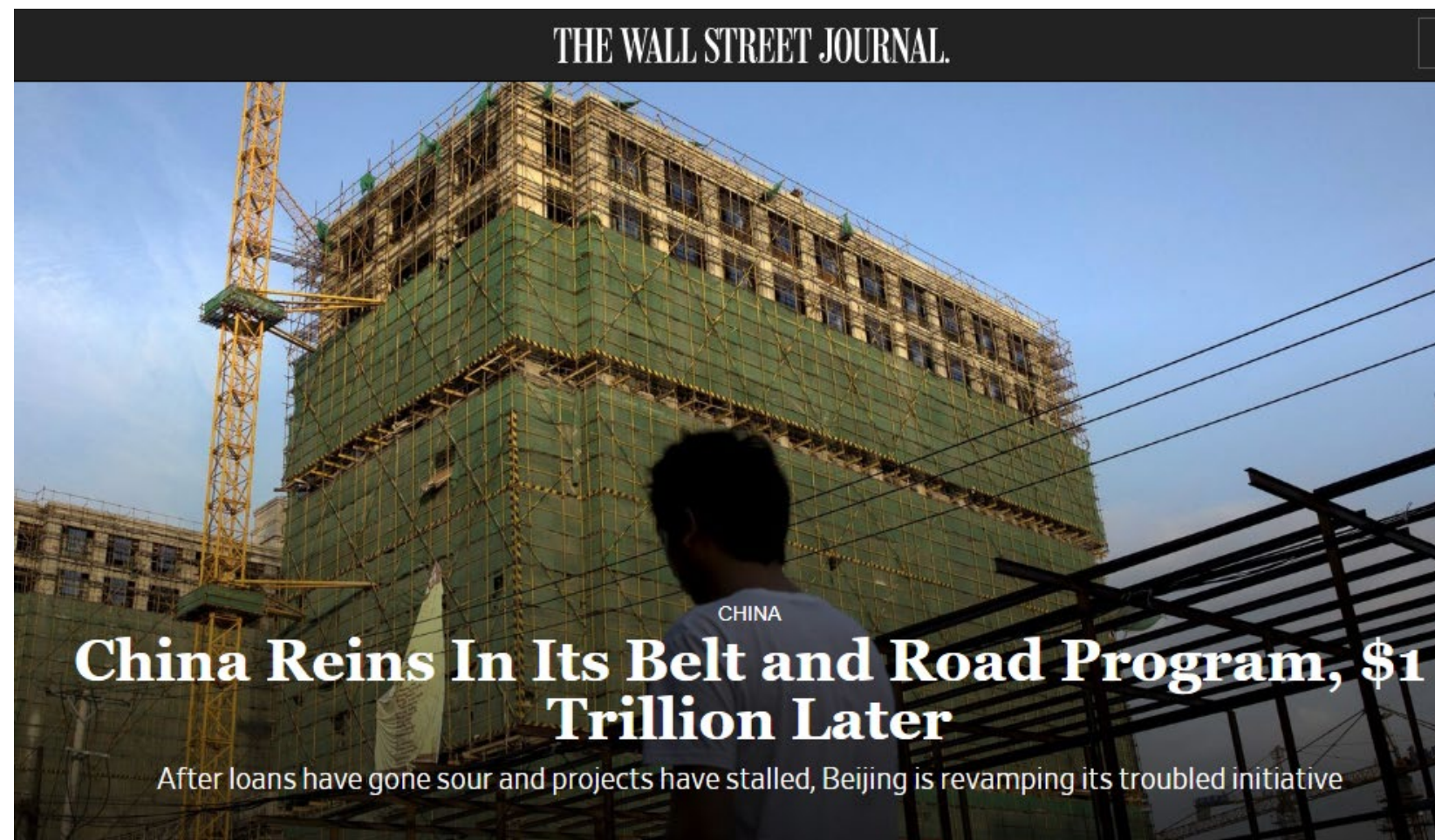
Source: Created by CRS with data from Kevin P. Gallagher and Margaret Myers, "China-Latin America Finance Databases," Inter-American Dialogue, 2021, at https://www.thedialogue.org/map_list/

Source: Mercator Institute for China Studies.

C. Inton, 23/04/2018



The Belt and Road 2.0



Bloomberg

US Edition ▾

Sigr

• Live Now Markets Industries Technology **Politics** Wealth Pursuits Opinion Businessweek Equality Green CityLa

Politics

China to Waive Some Africa Loans, Offer \$10 Billion in IMF Funds

- Beijing to forgive 23 interest-free loans to 17 nations
- Pledges to rechannel SDRs through two IMF trusts to Africa

- China has prioritized a "more focused" Belt and Road
- Stated aim is to reduce the volume of lending and focusing on areas of strategic importance

- Recent Chinese policy makes one aim clear - Dominate Africa

Why Africa? - Resources and Economic Growth

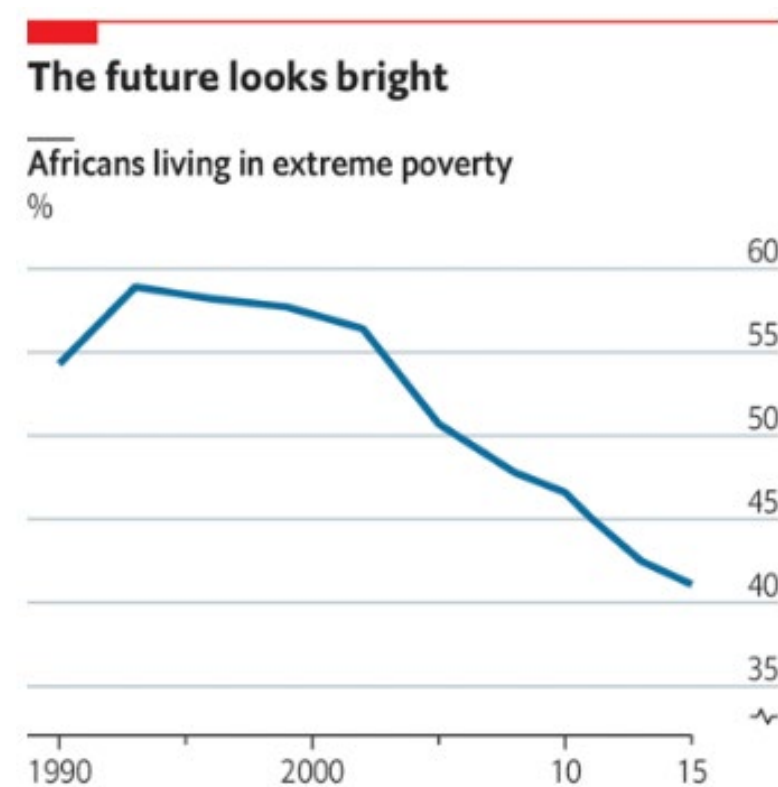
The Economist

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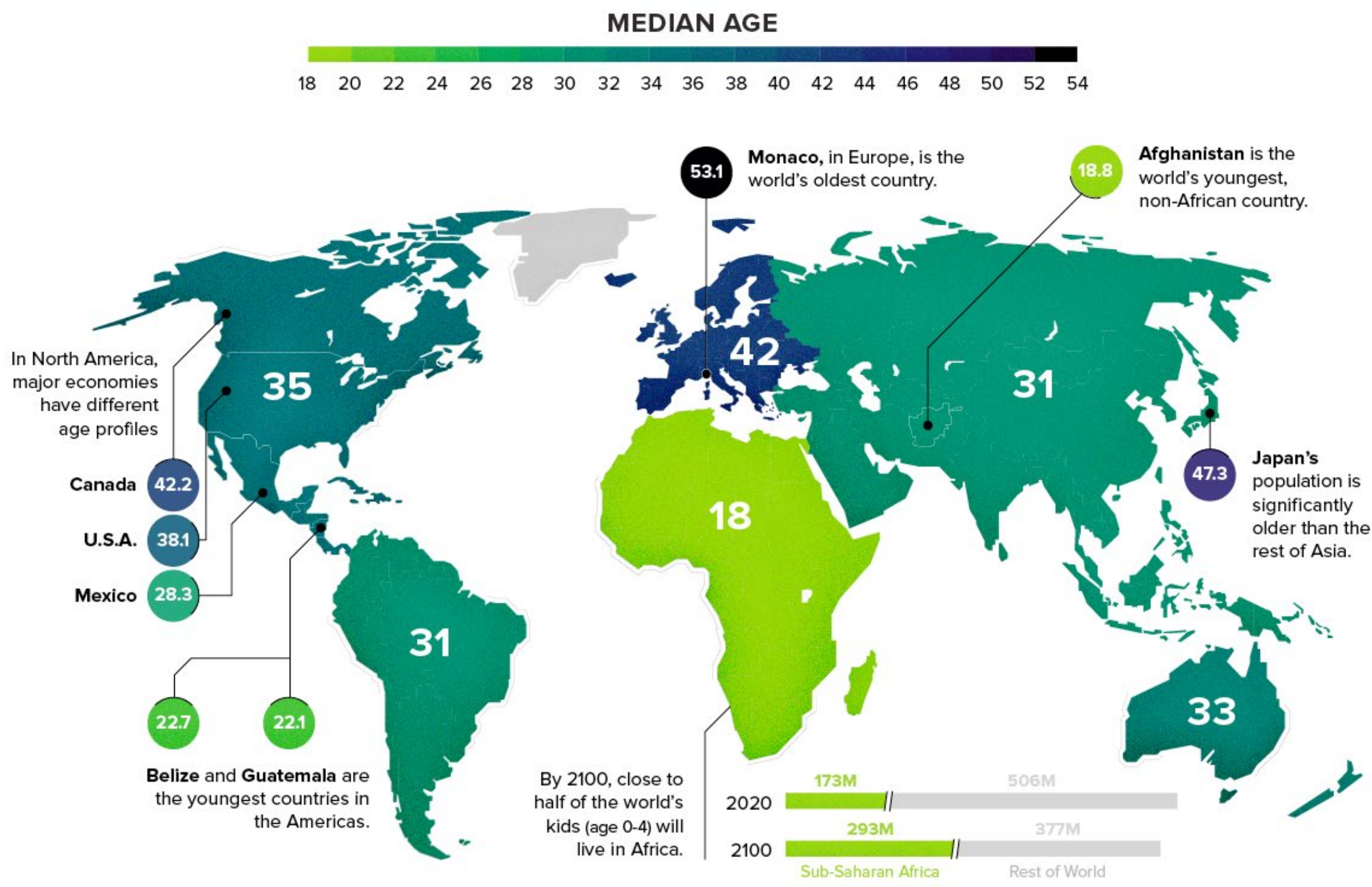
Many of Africa's economies are doing well

But there are questions about the best road to long-term growth



"Africa is home to some 30 percent of the world's mineral reserves, eight per cent of the world's natural Gas and 12 per cent of the world's oil reserves. The continent has 40 percent of the world's gold and up to 90 percent of its chromium and platinum. The largest reserves of cobalt, diamonds, platinum and uranium in the world are in Africa. It holds 65 per cent of the world's arable land and ten percent of the planet's internal renewable fresh water source."

Why Africa? - Labor Force



"Sub-Saharan Africa's population is growing at 2.7% a year, which is more than twice as fast as South Asia (1.2%) and Latin America (0.9%). That means Africa is adding the population of France (or Thailand) every two years."