USF Lecture
Belt and Road Infrastructure
MBA 6799

June 26, 2017

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Schiller Institute Bay Area

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415-377-4737


The World
Land-Bridge
(New Silk Road)
Peace
Through
Development
newparadigm.schillerinstitute.com

The Science of Infrastructure

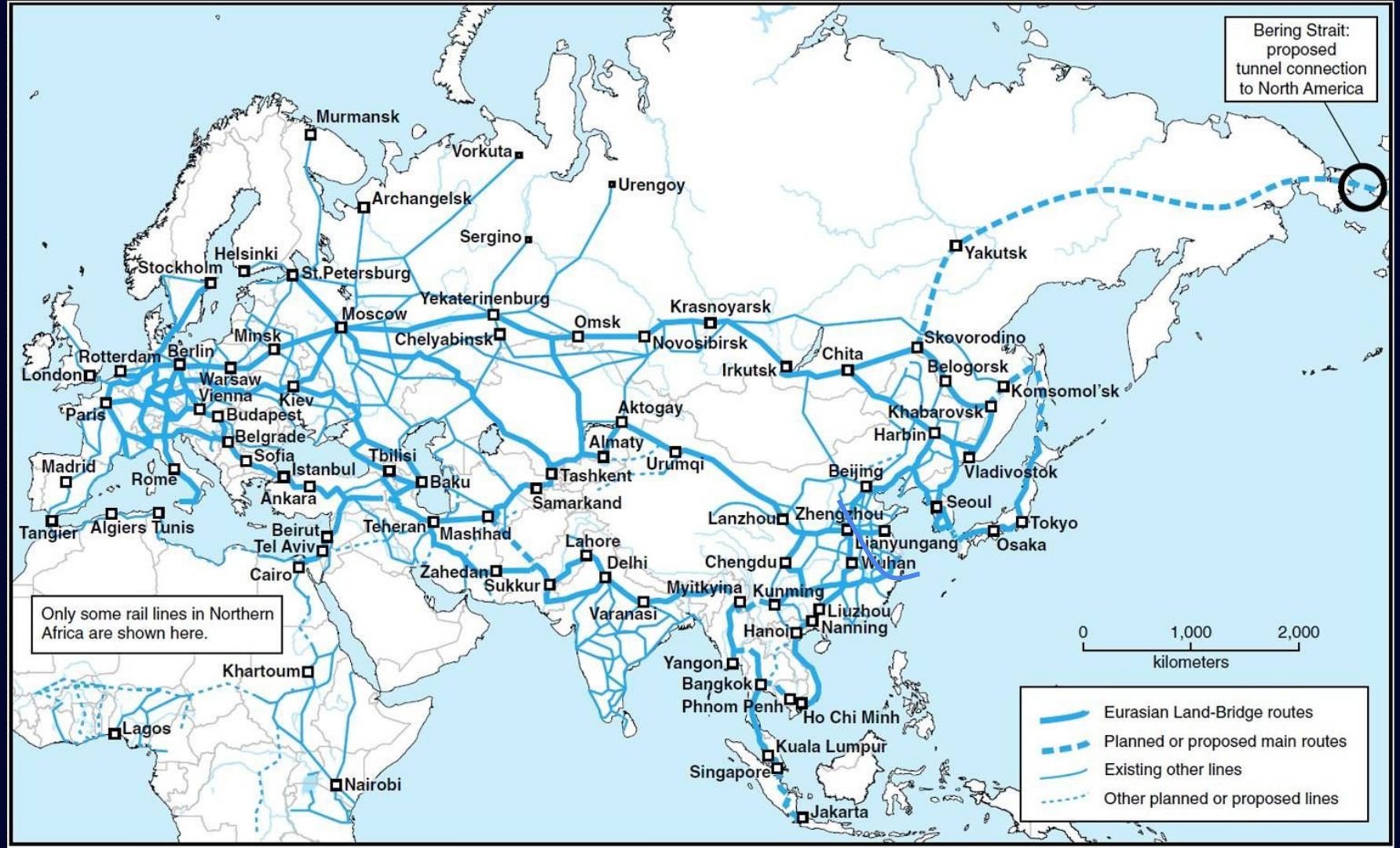
China's New Silk Road and a New Paradigm of Economic and Scientific Advancement

China's Motives for OBOR

- Parity between coastal and inland cities

- Develop western China to deal with terrorism, drugs, and dangers of war

- Provide market for massive construction potential after rapid National development


Bering Strait: proposed tunnel connection to North America
Murmansk
Vorkuta
Urengoy
Archangelsk
Sergino
Yakutsk
Helsinki
Stockholm
St.Petersburg
Yekaterinenburg
Moscow
Krasnoyarsk
Omsk
Minsk
Chelyabinsk
Novosibirsk
Skovorodino
Rotterdam
Berlin
Chita
Irkutsk
Belogorsk
London
Warsaw
Komsomol'sk
Vienna
Kiev
Aktogay
Khabarovsk
Paris
Budapest
Harbin
Belgrade
Almaty
Sofia
Urumqi
Vladivostok
Madrid
Tbilisi
Istanbul
Tashkent
Beijing
Rome
Baku
Ankara
Samarkand
Seoul
Lanzhou
Zhengzhou
Tokyo
Tangier
Algiers
Tunis
Teheran
Mashhad
Lianyungang
Osaka
Beirut
Tel Aviv
Lahore
Chengdu
Wuhan
Cairo
Zahedan
Delhi
Sukkur
Myitkyina
Kunming
Varanasi
Liuzhou
Nanning
Hanoi
Only some rail lines in Northern Africa are shown here.
0
1,000
2,000
kilometers
Yangon
Khartoum
Bangkok
Phnom Penh
Ho Chi Minh
Lagos
Kuala Lumpur
Singapore
Nairobi
Jakarta
Eurasian Land-Bridge routes
Planned or proposed main routes
Existing other lines
Other planned or proposed lines

Belt, Road &...

...Circle!

China's New Shipping Frontier

How the new Northern Sea route compares to the traditional Suez Canal route

NORTHERN SEA ROUTE

Travel time
35 days

Dangers
Icebergs

Travel window
July to November

Container-carrying vessels
One this year

SUEZ CANAL ROUTE

Travel time
48 days

Dangers
Access to Suez Canal under question with upheaval in Egypt

Travel window
Year-round

Container-carrying vessels
17,000 last year

Sources: Northern Sea Route Information Office; National Snow and Ice Data Center; Cosco; Lloyd's List

The Wall Street Journal

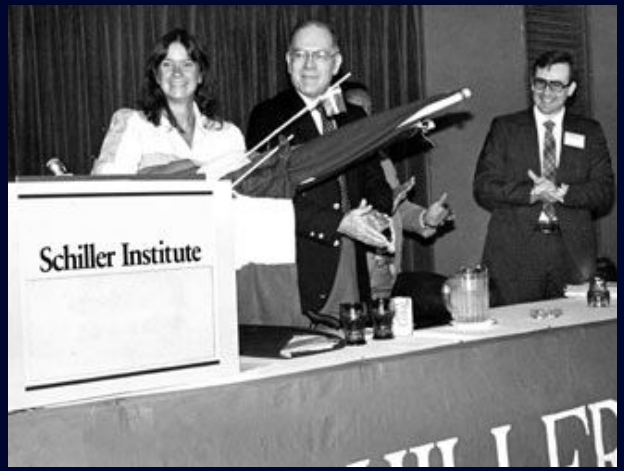
The Role of the Schiller Institute

- Created by Lyndon and Helga LaRouche

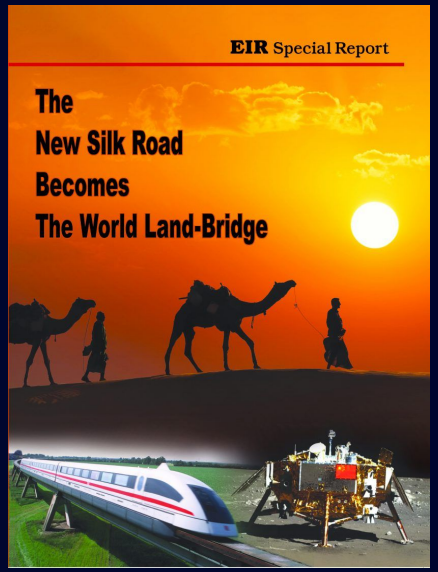
- A Vision for the Future at the end of the Cold War

- A program of global development

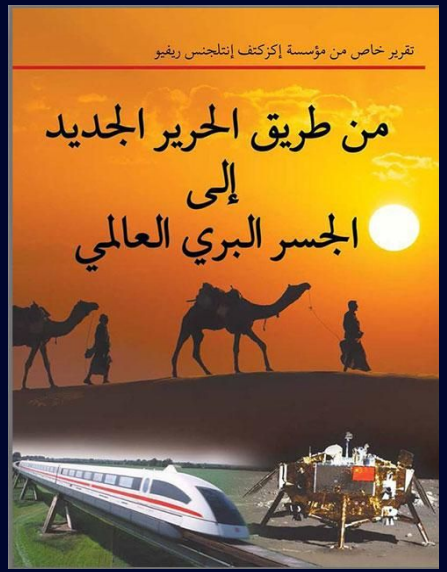
- To end the era of geopolitics between east and west for a policy of “Win-Win”



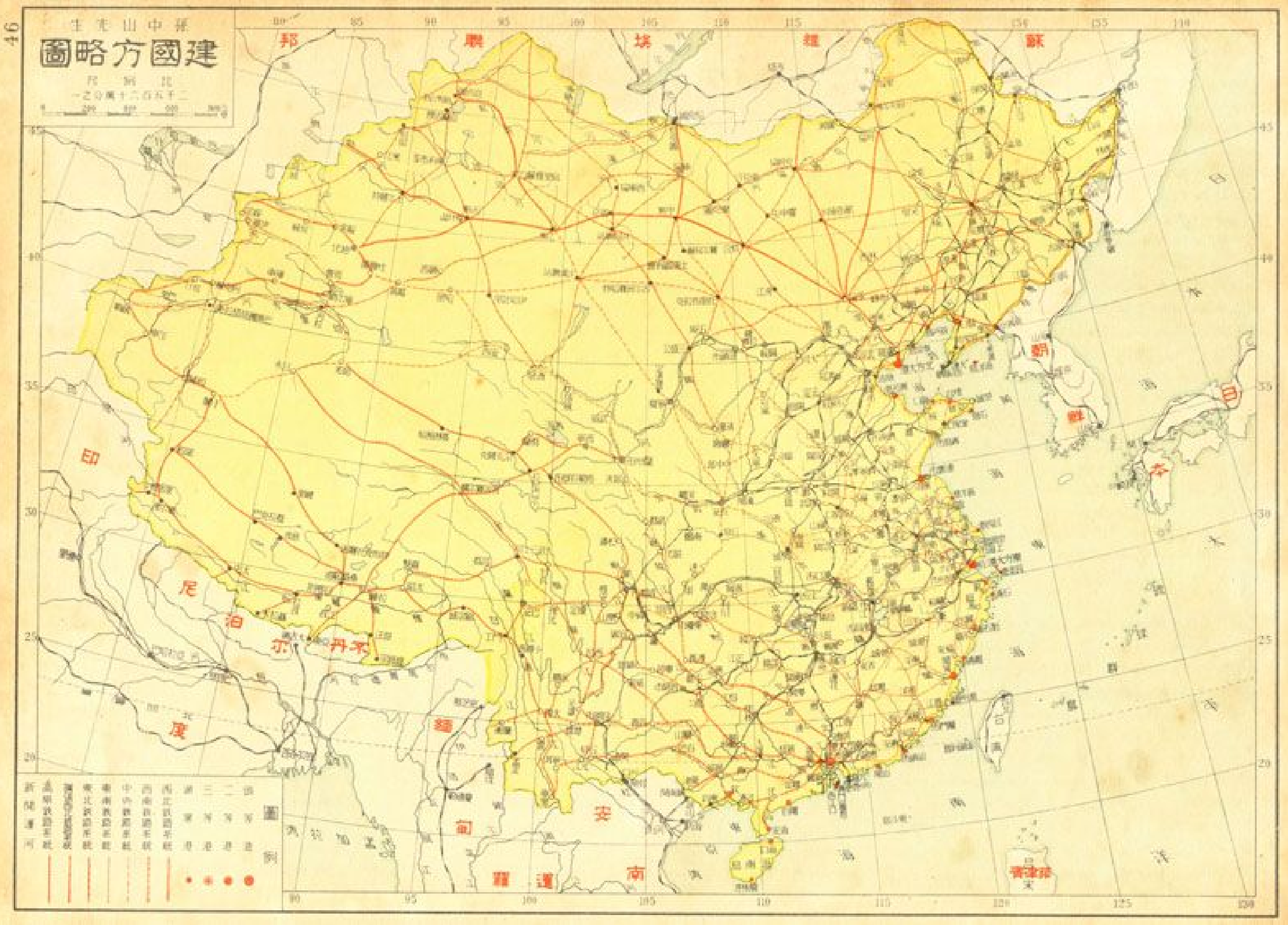

EIR
SPECIAL
REPORT
The Eurasian
Land-Bridge
The 'New Silk Road'
—locomotive for worldwide
economic development
January 1997


EIR Special Report
The
New Silk Road
Becomes
The World Land-Bridge

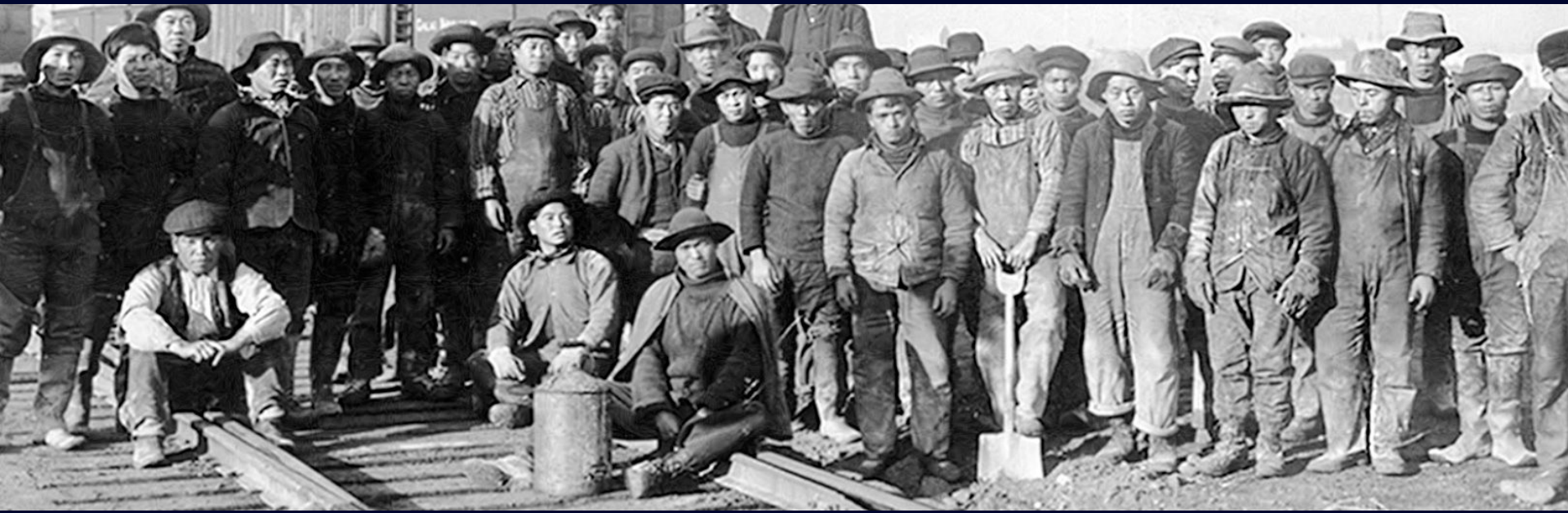

EIR Special Report
从丝绸之路到世界大陆桥
FROM THE SILK ROAD TO A WORLD LANDBRIDGE
江苏人民出版社


تقرير خاص من مؤسسة إكزكتف إنتلجنس ريفيو
من طريق الحرير الجديد
إلى
الجسر البري العالمي


European Productive Triangle
Proposed High Speed Rail Grid


孫中山先生
建國方略圖

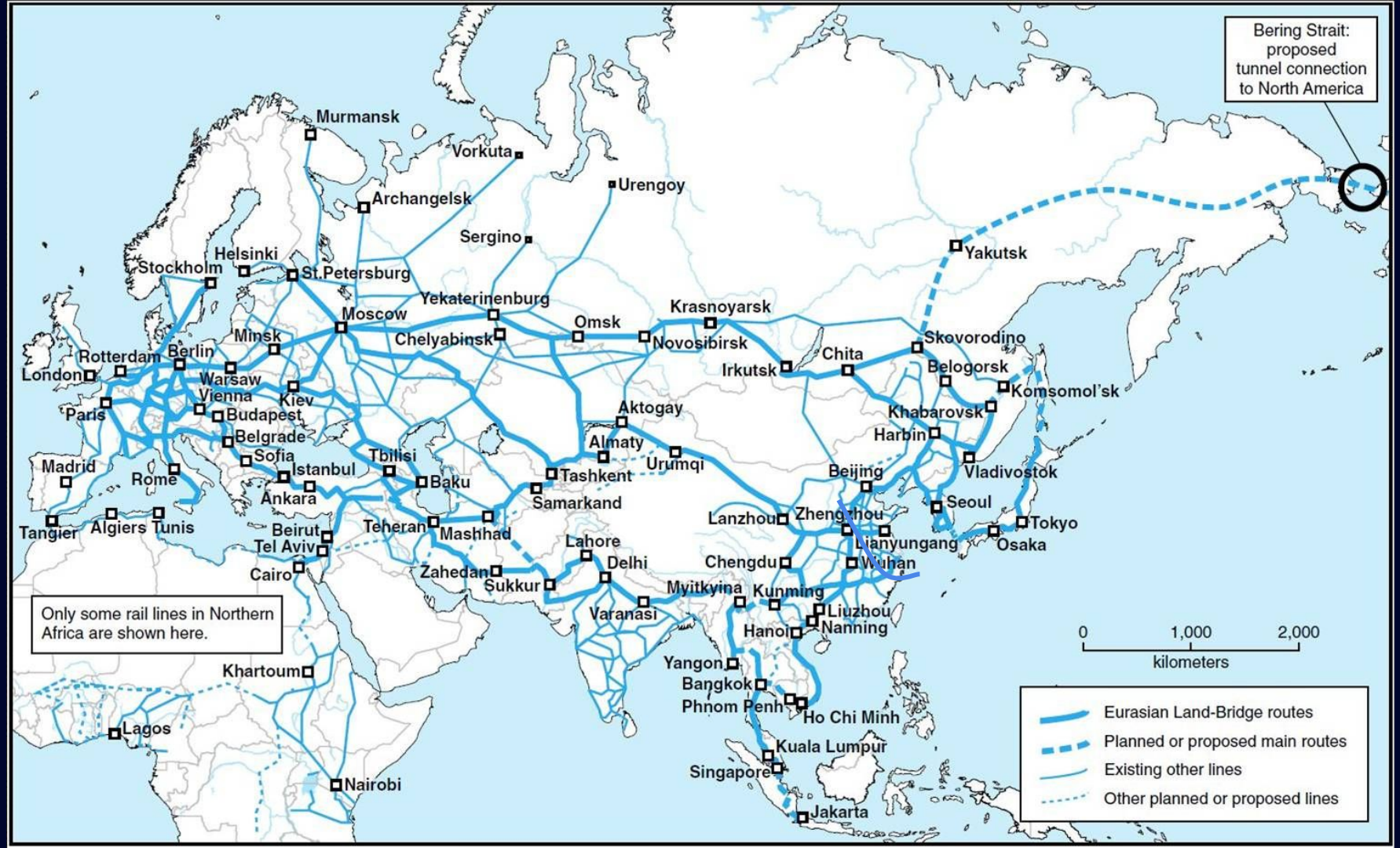

CHINA
JULY 7 1937
JULY 7 1942
"OF THE PEOPLE
BY THE PEOPLE
FOR THE PEOPLE"
5¢ UNITED STATES POSTAGE




BRF
“一带一路”国际合作高峰论坛
BELT AND ROAD FORUM FOR INTERNATIONAL COOPERATION
2017年5月14-15日 中国·北京
14-15 MAY 2017 BEIJING, CHINA


热烈欢迎
黑尔佳·策普-拉鲁什女士一行
A Warm Welcome to
Madam Helga Zepp-LaRouche and Her Delegation


DIALOGU
WITH Yang Ru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Moscow
Krasnoyarsk
Omsk
Minsk
Chelyabinsk
Novosibirsk
Skovorodino
Rotterdam
Berlin
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Irkutsk
Belogorsk
London
Warsaw
Komsomol'sk
Vienna
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Paris
Budapest
Harbin
Belgrade
Almaty
Sofia
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Vladivostok
Madrid
Tbilisi
Istanbul
Tashkent
Beijing
Rome
Baku
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Seoul
Lanzhou
Zhengzhou
Tokyo
Tangier
Algiers
Tunis
Teheran
Mashhad
Lianyungang
Osaka
Beirut
Tel Aviv
Lahore
Chengdu
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Only some rail lines in Northern Africa are shown here.
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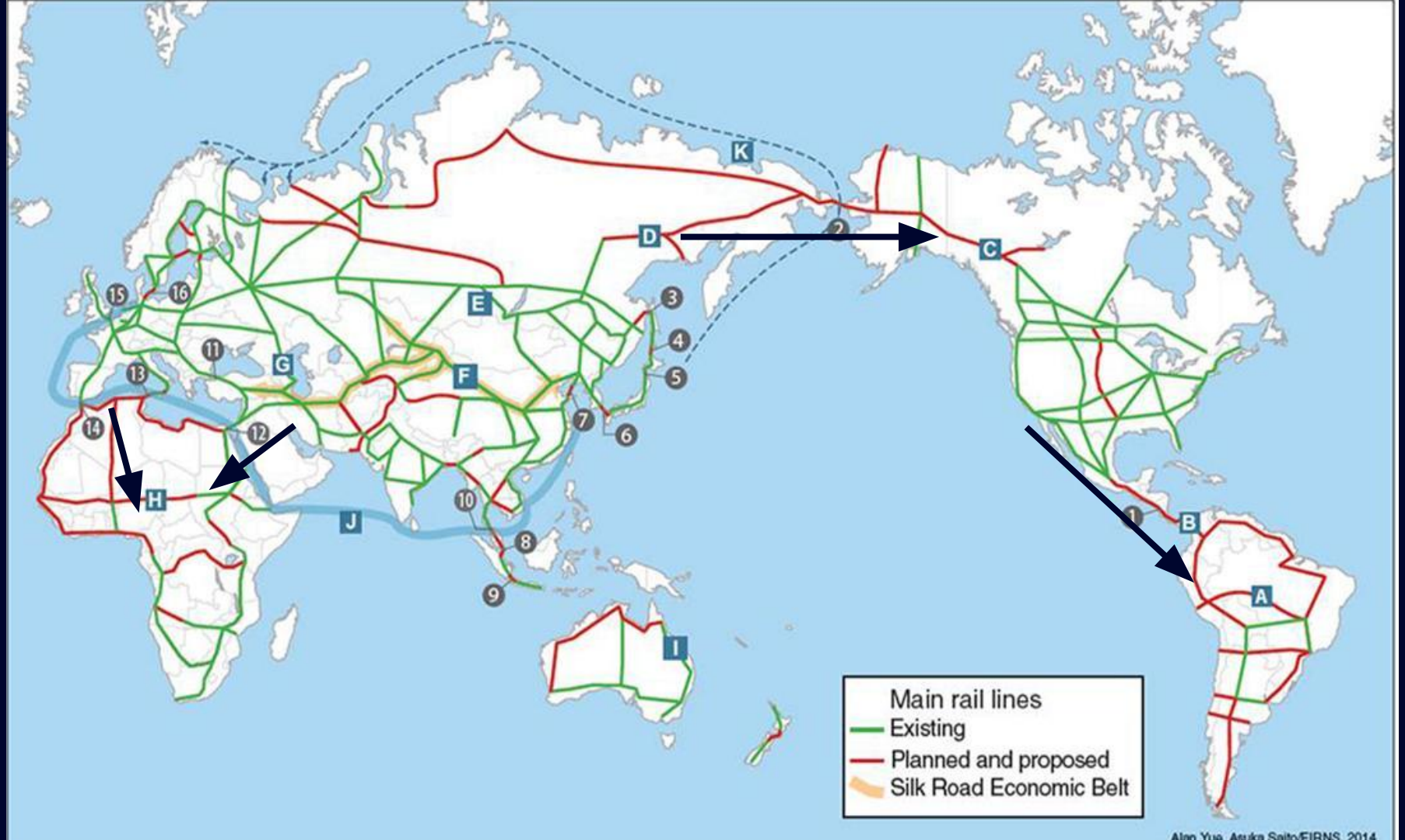
Eurasian Land-Bridge routes
Planned or proposed main routes
Existing other lines
Other planned or proposed lines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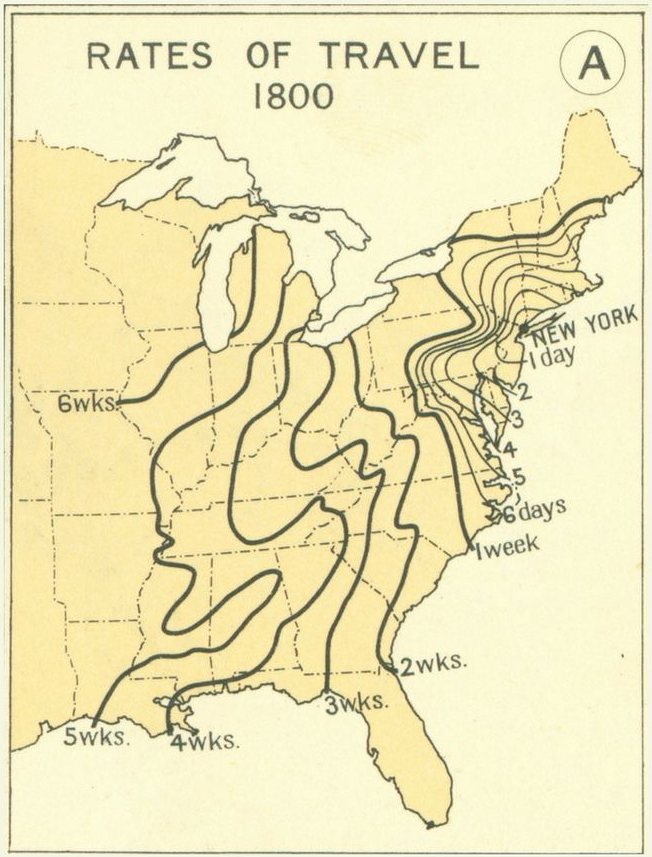
Main rail lines
Existing
Planned and proposed
Silk Road Economic Belt
Alan Yue, Asuka Saito/FIRNS, 2014

The Fundamentals of Development Projects


RATES OF TRAVEL
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3
4
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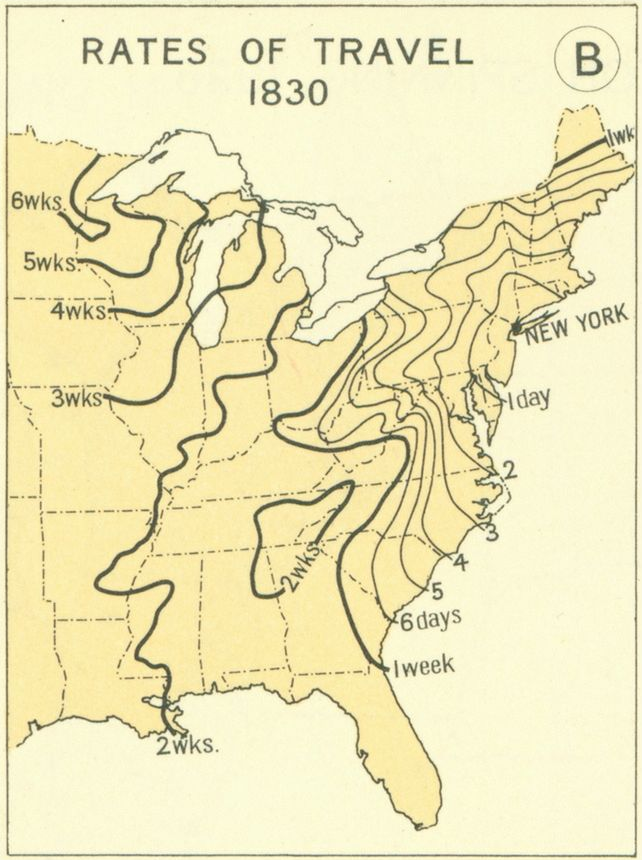
6 days
1 week
6wks.
2wks.
3wks.
4wks.
5wks.


RATES OF TRAVEL
1830
B
1wk
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5wks.
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3wks.
NEW YORK
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2
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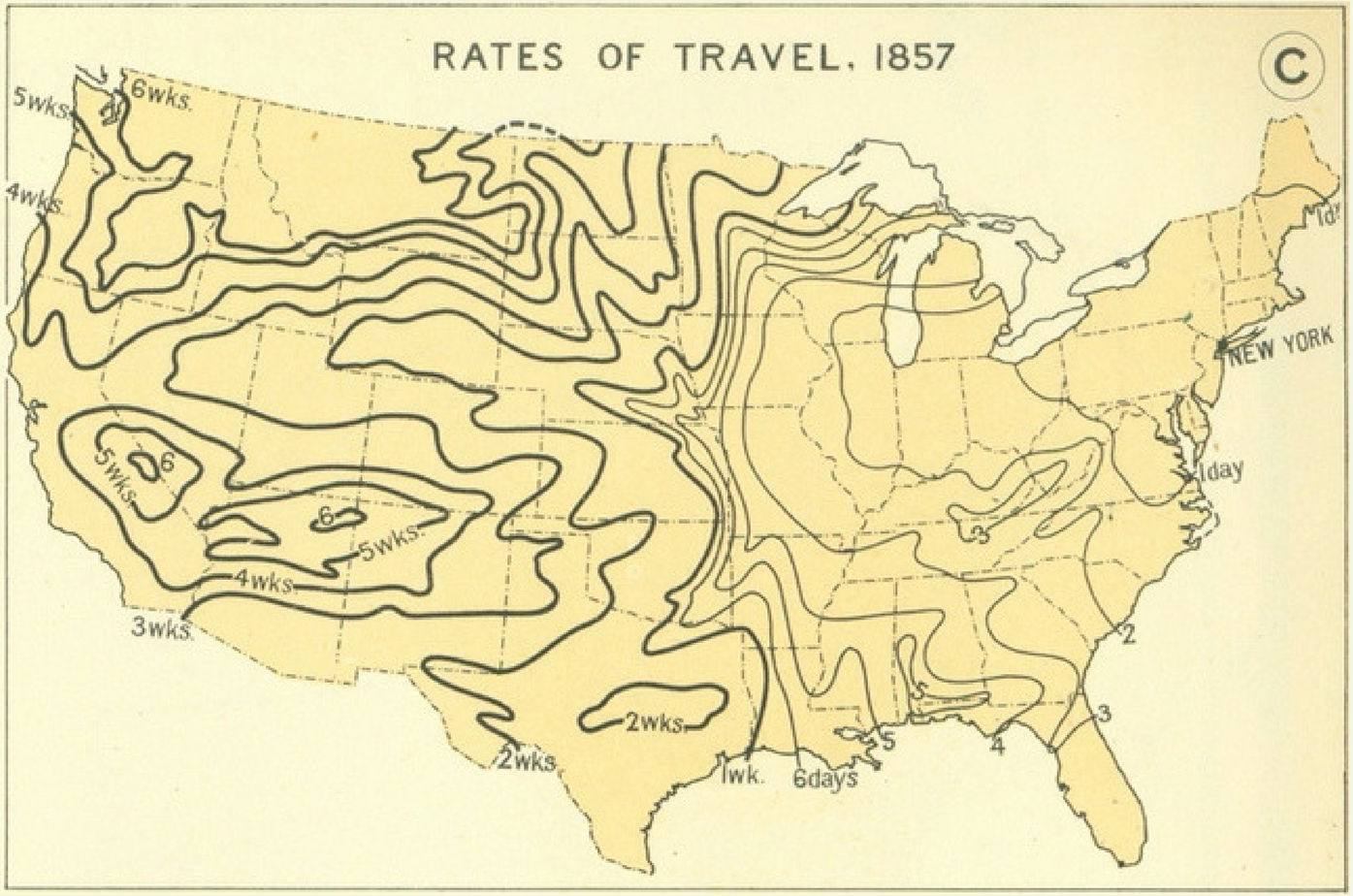
6 days
1 week
2wks.
2wks.


RATES OF TRAVEL. 1857
C
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NEW YORK
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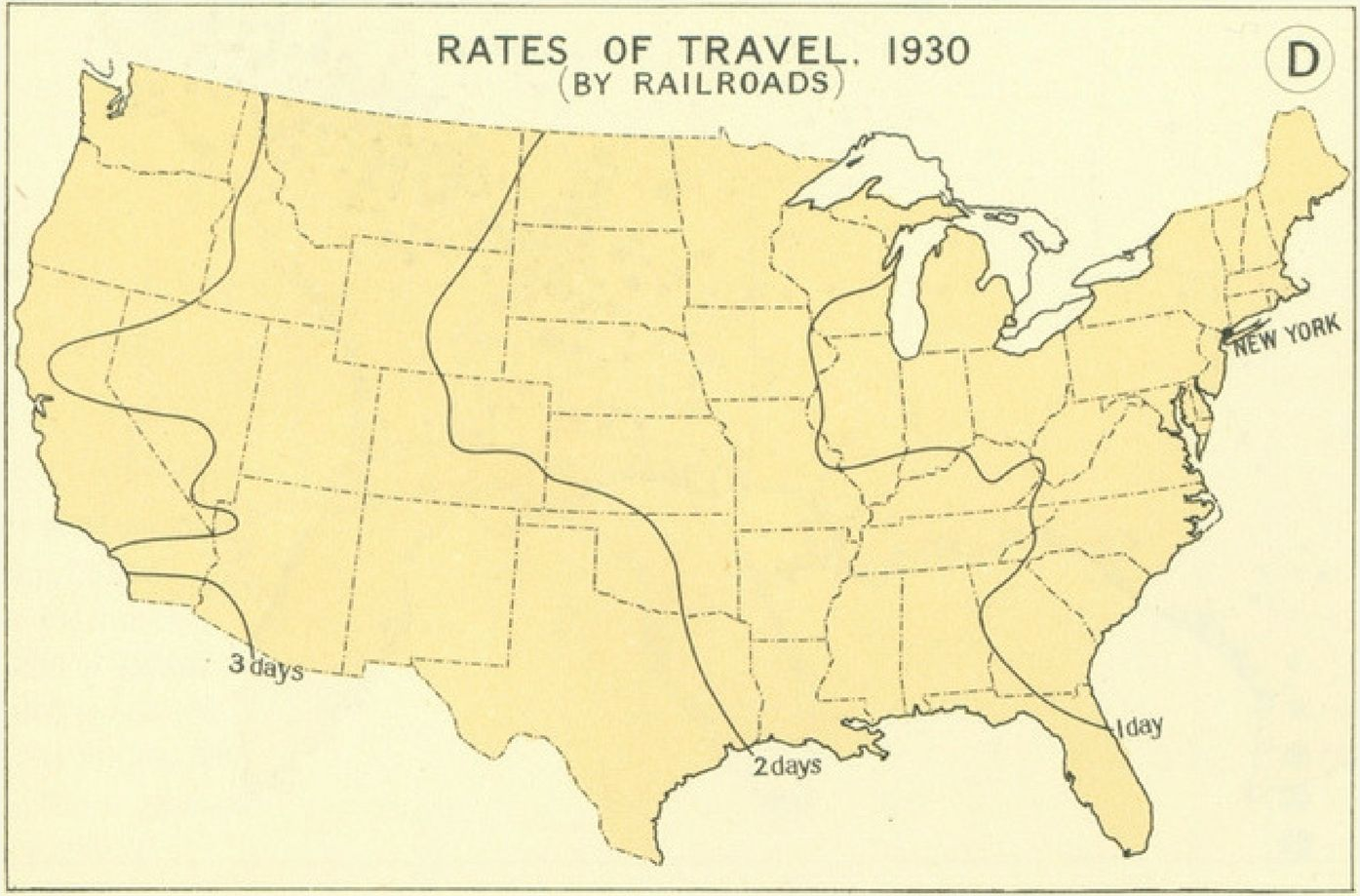

RATES OF TRAVEL. 1930
(BY RAILROADS)
D
NEW YORK
3 days
2 days
1 day

MAGLEV

The Shanghai-Hangzhou MAGLEV project will create the fastest inter-city train in the world at 450kmh.

Japan has one at 500 kmh, with a 600kmh test speed.

China is building 65mph MAGLEV for
subway and light rail.

Estimate of Energy Consumption for just the Rail Lines

- Beijing to Moscow is 5790 km at its shortest distance. Moscow to Paris is 2830 km. Beijing to Paris is 8620 km.

- With 1000 tons, traveling at 250kmh per 1000 km, energy consumption for one train is approximately 900 MW.

- From Beijing to Paris is then nearly 7 GW per train.

-This is happening 4 times/day through Kazakhstan to Europe now. That's 28 GW.

- It will increase to 30 times a day by 2025. That's 210 GW of power supply daily for the electric high speed rail!!!

Energy Cost

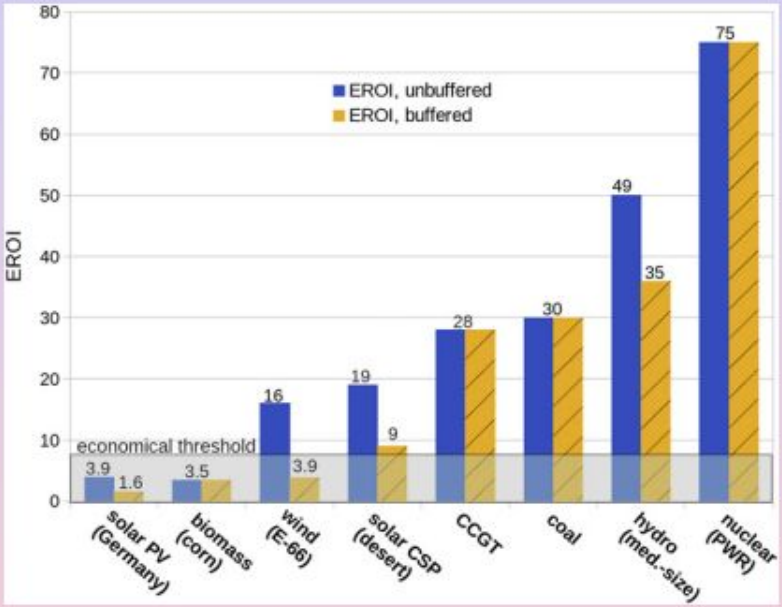


Fig. 3. EROIs of all energy techniques with economic "threshold". *Biomass*: Maize, 55 t/ha per year harvested (wet). *Wind*: Location is Northern Schleswig Holstein (2000 full-load hours). *Coal*: Transportation not included. *Nuclear*: Enrichment 83% centrifuge, 17% diffusion. *PV*: Roof installation. *Solar CSP*: Grid connection to Europe not included.

Source:
Energy intensities, EROIs (energy returned on invested), and energy payback times of electricity generating
D. Weibach, G. Ruprecht, A. Huke, K. Czerski , S. Gottlieb, A. Hussein
Energy 52(2013)210-221.

How Much Fuel of Different Types Provides the Same Amount of Energy as a Tank of Gas?

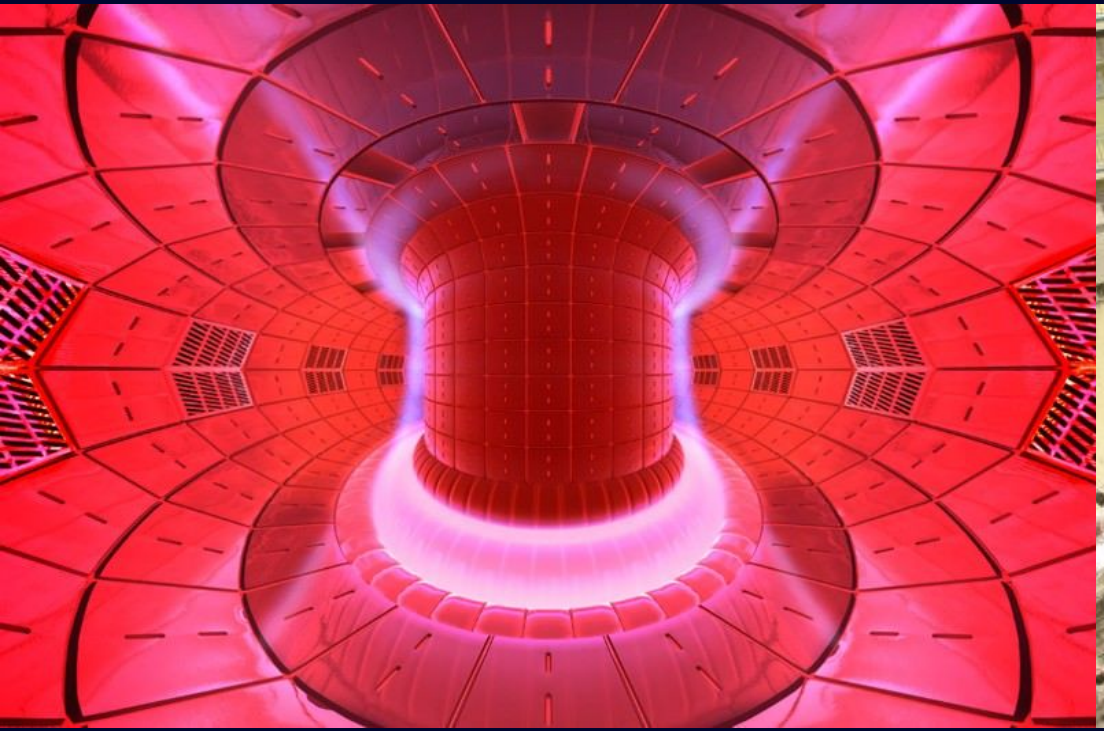
FUEL SOURCE	AMOUNT OF FUEL
Combustion of Wood	300 Pounds
Combustion of Coal	200 Pounds
Combustion of Gas	16 Gallons (Gas Tank)
Typical Nuclear Fuel	1 Paperclip*
Deuterium-Tritium Fusion	1 Grain of Rice*
Matter-Antimatter Reaction	1 Flea Egg*

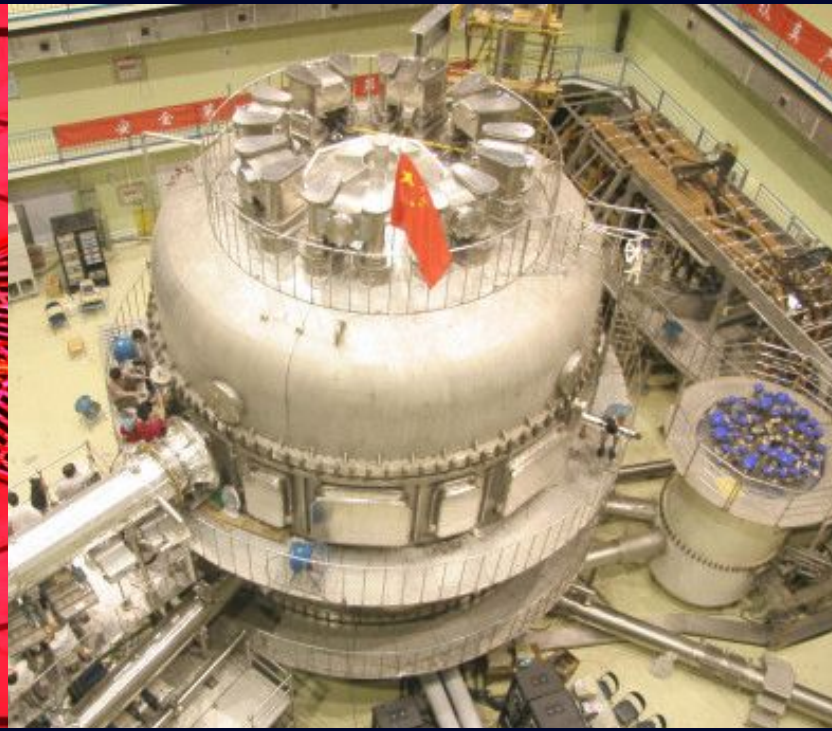
* *Equivalent amount of weight (To provide the same amount of energy as an average tank of gasoline, more or less weight of various different fuel types is required, because of their differing energy densities. The value for typical nuclear fuel would be significatly higher with the use of reprocessing and breeder reactors.)*

The Energy Density of Fuels

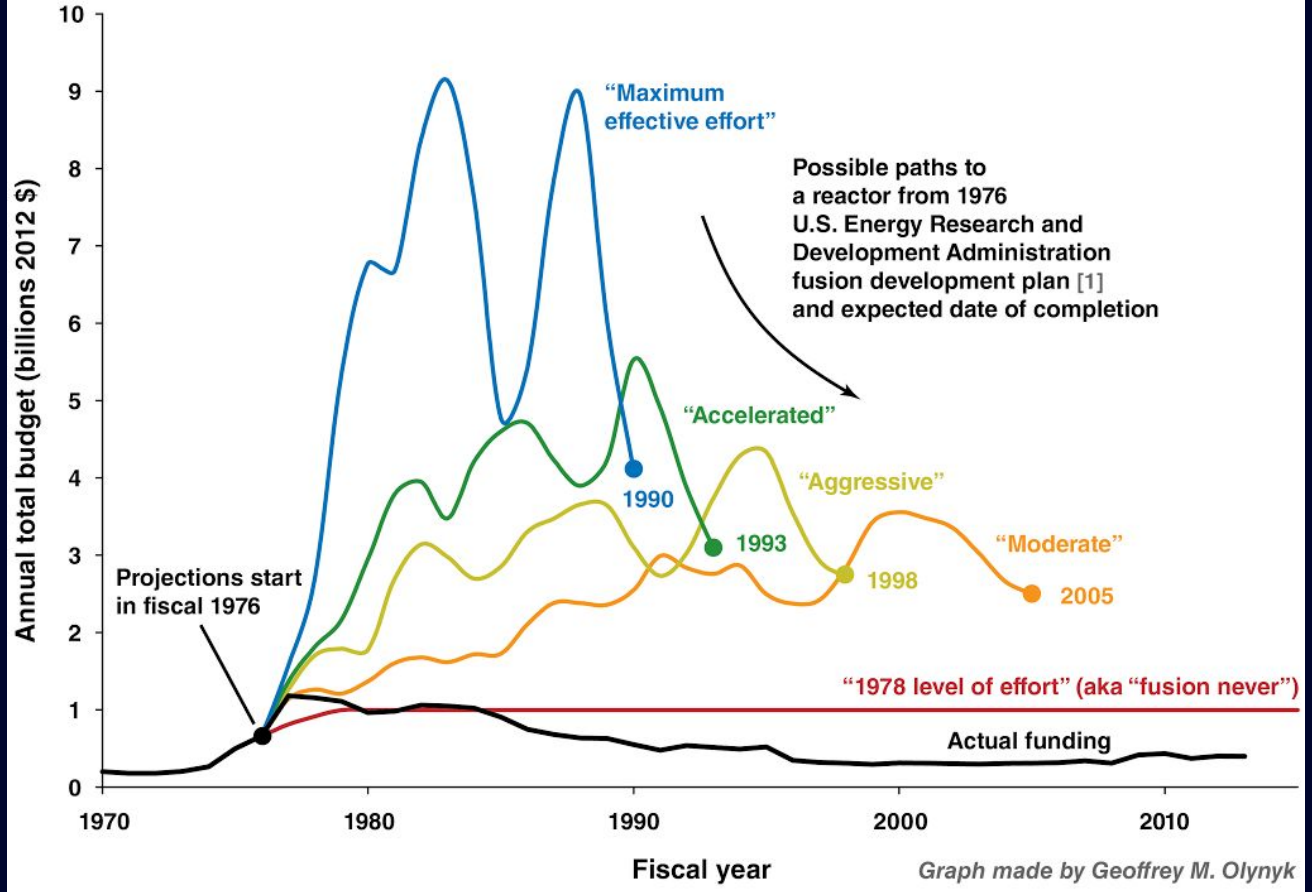
FUEL SOURCE	ENERGY DENSITY (J/g)
Combustion of Wood	1.8×10^4
Combustion of Coal (Bituminous)	2.7×10^4
Combustion of Petroleum (Diesel)	4.6×10^4
Combustion of H_2/O_2	1.3×10^4 (full mass considered)
Combustion of H_2/O_2	1.2×10^5 (only H_2 mass considered)
Typical Nuclear Fuel	3.7×10^9
Direct Fission Energy of U-235	8.2×10^{10}
Deuterium-Tritium Fusion	3.2×10^{11}
Annihilation of Antimatter	9.0×10^{13}

FUSION RESEARCH





Fusion is more than possible.



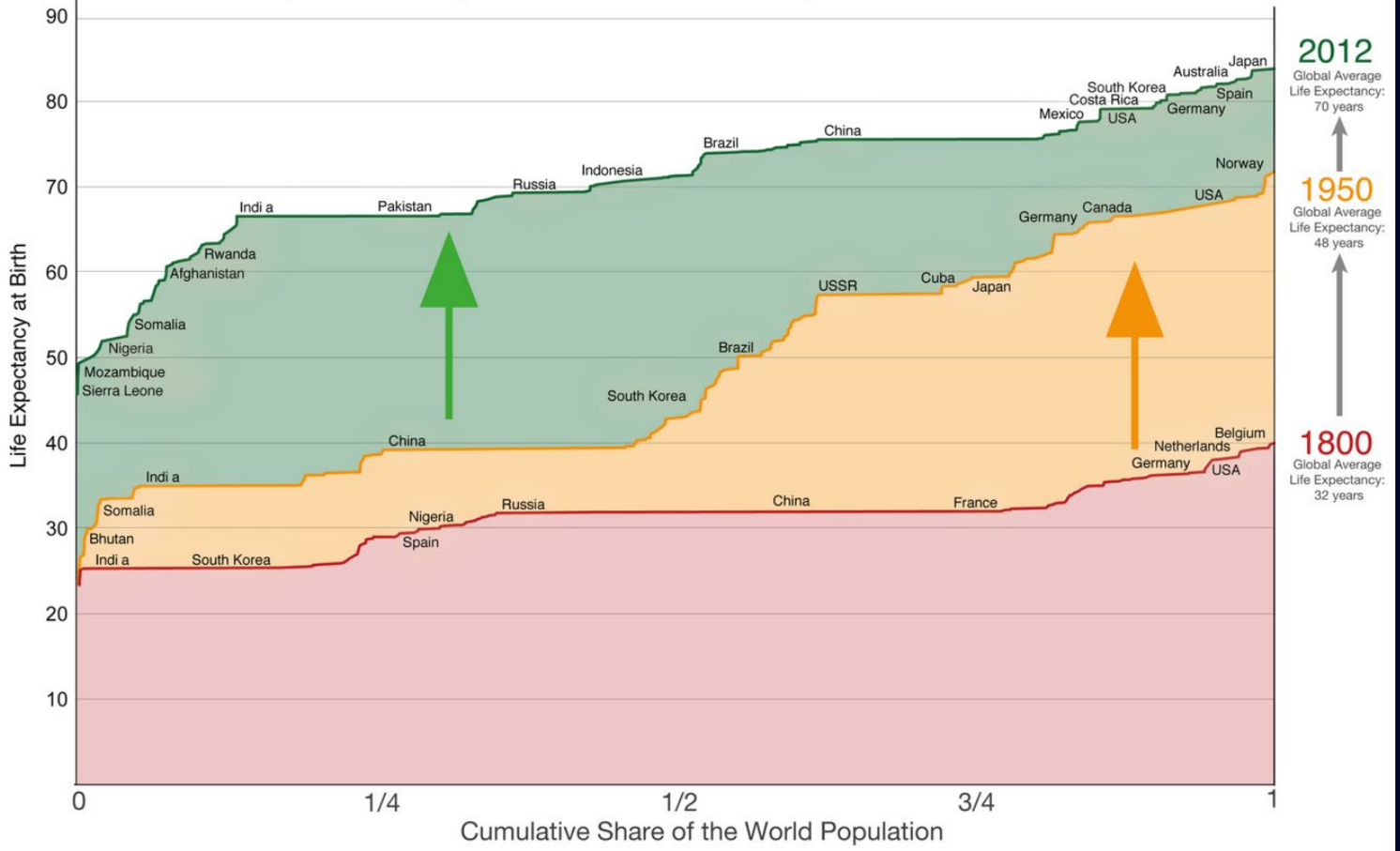
[1] U.S. Energy Research and Development Administration, 1976. "Fusion power by magnetic confinement: Program plan" ERDA report ERDA-76/110. Also published as S.O. Dean (1998), *J. Fus. Energy* **17**(4), 263–287, doi:10.1023/A:1021815909065

- China plans first mission to the far side of the moon (Chang'e 4)
- They plan to bring back lunar samples of Helium III (Chang'e 5)
- There are multiple plans for lunar bases (ESA)
- Radio Astronomy revolution available on the far side

Our World in Data

Life Expectancy of the World Population in 1800, 1950 and 2012

Countries are ordered along the x-axis ascending by the life expectancy of the population. Data for almost all countries is shown in this chart, but not all data points are labelled with the country name.

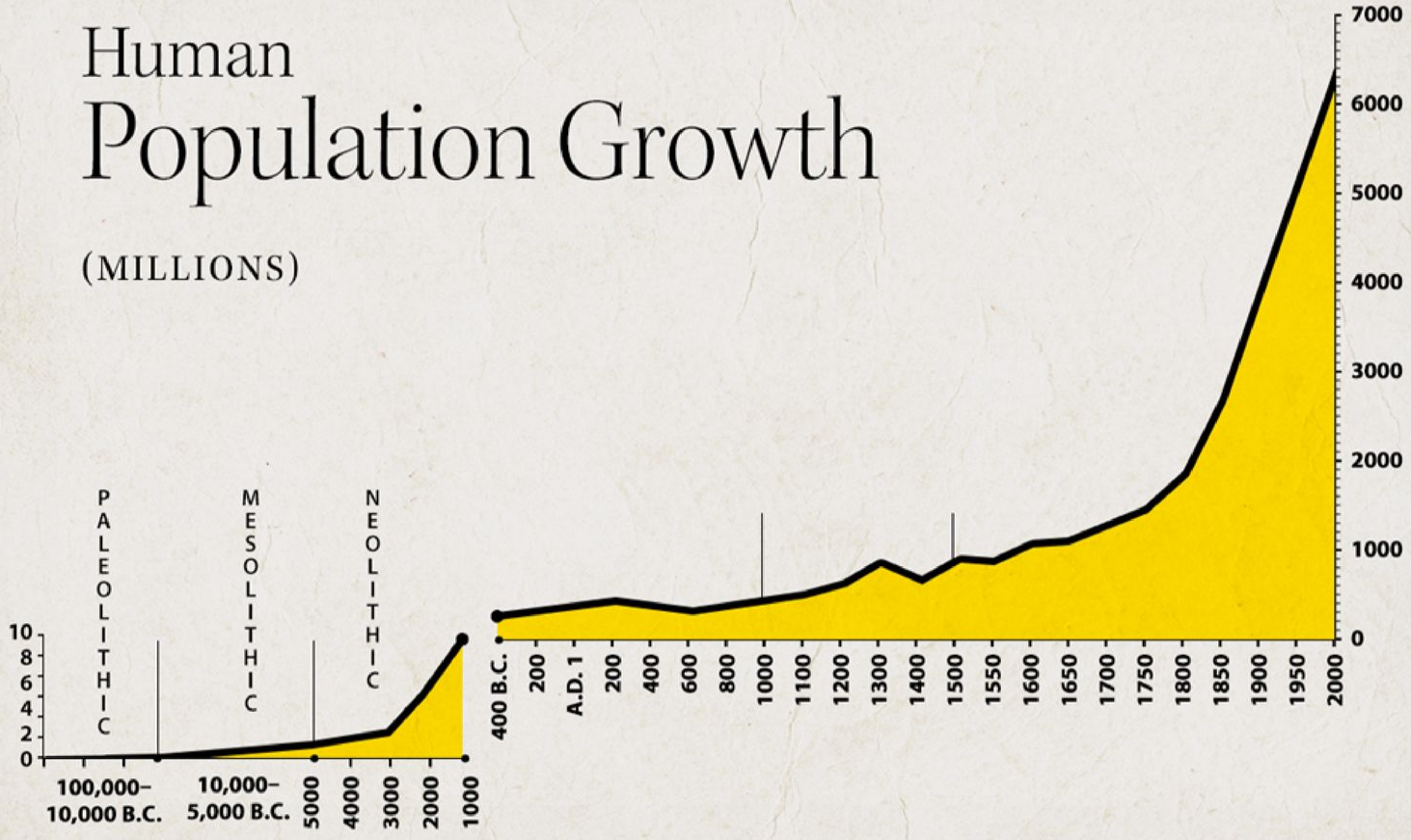


Data source: The data on life expectancy by country and population by country are taken from Gapminder.org.

The interactive data visualisation is available at OurWorldinData.org. There you find the raw data and more visualisations on this topic.

Human Population Growth

(MILLIONS)




SILK ROAD ECONOMIC BELT
MARITIME SILK ROAD
GREENLAND (DENMARK)
ALASKA (USA)
RUSSIA
ICELAND
SWEDEN
NORWAY
KAZAKHSTAN
MONGOLIA
JAPAN
FRANCE
SPAIN
ITALY
IRAQ
IRAN
ALGERIA
LIBYA
EGYPT
SAUDI ARABIA
INDIA
MALI
NIGER
CHAD
SUDAN
NIGERIA
ETHIOPIA
SOMALIA
KENYA
UGANDA
TANZANIA
ANGOLA
ZAMBIA
NAMIBIA
SOUTH AFRICA
THAILAND
INDONESIA
AUSTRALIA
VENEZUELA
COLOMBIA
PERU
BRAZIL
BOLIVIA
ARGENTINA

Platforms versus “Infrastructure”

Trunks vs. Branches

Platforms

Platforms are projects, conceived as an integrated whole, that facilitate new regional, national or international systems of development and growth.

Platforms require national credit and public lending. No one project, in and of itself, will be profitable, but as a whole, the platform will in the long term increase national productivity, and thereby “national profit” significantly.

“Infrastructure”

“Infrastructure” projects, such as a subway system or power plant, can be different. In many cases, they can be profitable in and of themselves, and available for BOTs, BOOTs, PPP’s for financing.

“Infrastructure” projects, however, depend on the national or regional platform. Without platform development, then the other projects are rarely built, as in NYC!

After infrastructure investments, you then see investments in real estate, manufacturing, consumer products, agriculture, tourism, housing, entertainment, etc.

These are the branches, leaves, and fruit of the initial trunk investments!!

China National Banking System

4 Commercial State-owned Banks

1. Bank of China
2. Industrial and Commerce BoC
3. China Construction Bank
4. Agricultural Bank of China

These take deposits, and make loans at provincial and local levels.

3 Investment State-owned Banks

1. China Development Bank
2. Ex-Im Bank of China
3. Agricultural Development BoC

These three took over state spending and lending in 1994, and take no deposits.

They play the largest role, by some estimates, nearly 90% of investments in the main initial corridors of the OBOR.

General Questions of Financing

Public lending, as for platforms, is between 1-2% traditionally.

Private lending for infrastructure, real estate, etc. is often between 8-12% today in developing countries.

Given a $10 Billion loan:

@ 1.6% borrowing, $18.86 billion is repaid over 40 years. (public financing as from Ex-Im Bank of China)

@ 12% over 10 years, $31.05 billion is repaid in ten years. (private financing)

Role of International Finance and Exchange Rates

Stability: Loans to national governments for infrastructure require stability of exchange rate, otherwise long term loans are rarely made.

Yuan: China has a floating value bandwidth for the exchange of the Yuan, as well state monetary interventions, to maintain exchange levels of the Yuan.

Post-War: The Bretton Woods System, prior to August 15, 1971, maintained what was known as a pegged rate currency system, based on the US Dollar and gold reserves for trade. This supported more international development loans from US banks.

BRI Integrations: ERs remain an important part of ongoing OBOR integration discussions, including with EAEU, ASEAN, BRICS, and potentially GCC, EU, TFTA, and the Americas over time.

CASE STUDY: CPEC

China-Pakistan Economic Corridor

- Strategic Aspects
- Challenges
- Financing
- Projects upon Projects

Economic Corridor

Roads, Rails, Ports, Energy, Special Economic Zones

-Khunjrab – Gwadar Highway (2400 Km)
-Karachi-Lahore Motorway (1060 Km)

National Highway Authority

Boundary

- Main Cities
- Towns
- Rivers

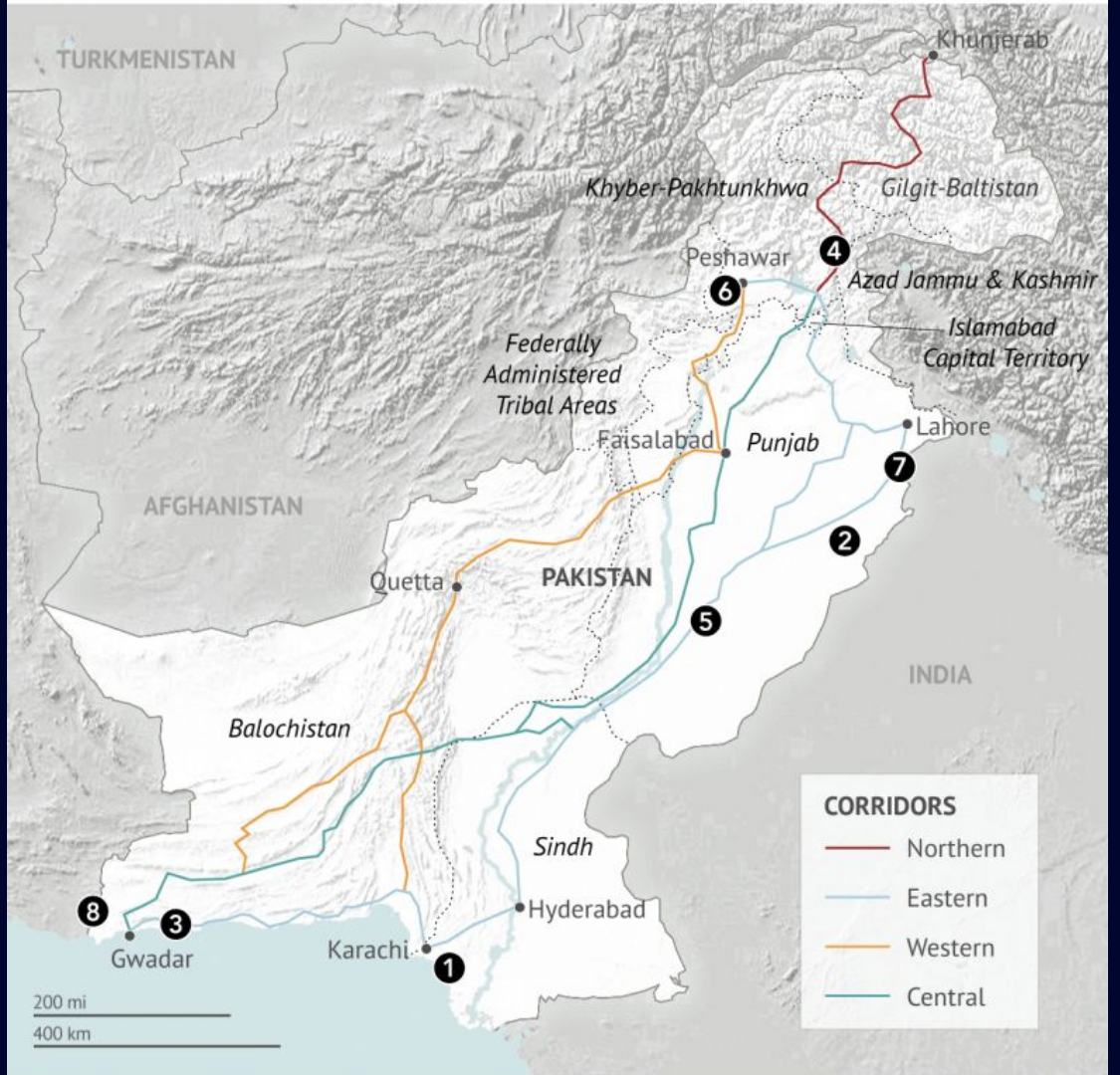
Existing

- Motorways
- Highways

Proposed Projects

- PCEC
- LKM
- MMM

The 4 Corridors of CPEC



Strategic Aspects of CPEC for China

Short Term:

Access to Gulf Oil supplies, of which China consumes ~50%

Avoid South China Sea geopolitical tensions

Develop central and south Asia as new Market

Long term:

Expand development potential in western China, Xinjiang Province

Improve relations with India by decreasing terrorism, “Win-Win”

Deal with geopolitical tensions in Central Asia, including Terrorism and Drugs, and threat of War

Challenges to CPEC – e.g. Balochistan Terror

http://www.tamilnet.com/pic.html?path=/img/publish/2012/02/

Regionalism - e.g. Punjab had greatest influence over Gwadar Port not Balochistan

Terrorism and Potential War - e.g. Balochistan is at the center of terrorist activity, including

Sanctions and Geopolitical tensions - **e.g.** Iran faces pressure from West, India has objections to POK development

Corruption and Political Instability - e.g. P.M. Sharif's base is in Punjab, pressure from the west.

Breaking point in 2012 with US intervention into Syria. Pakistan broke from the tradition of backing U.S. interventions in the area, and looked east to China and to the SCO. Starting in 2017, Pakistan is a full member of the SCO, and the SCO just reopened the SCO-Afghan dialogue.

Solve these issues, and there will be NO PROBLEMS paying back the DEBT!

Financing

1. Total committed is $50 billion, estimated to be $75 billion in full by 2030.

(This is just the main projects: Rail, Road, Energy, Ports, etc.)

2. $35 billion on energy alone, $15 billion on other projects, as a baseline.

3. Energy has both debt and equity, 60:40 ratio, with 80%+ from China St. Banks and the rest from private energy companies.

4. Debt at ~5% and Equity at ~17% return.

5. Infrastructure by concessional loans between 1-2% from Chinese State Banks. (Rates were cut from original 3% by request.)

6. Loans to either Power companies or Pakistan Government only.

7. Increased National debt service to be ~$910 million/yr. with total payments at ~$3.5 billion/yr. *

($3.5 bil. is 7% of ForEx earnings for 2016)

*Estimate by former Pakistan Bank Gov. Husain

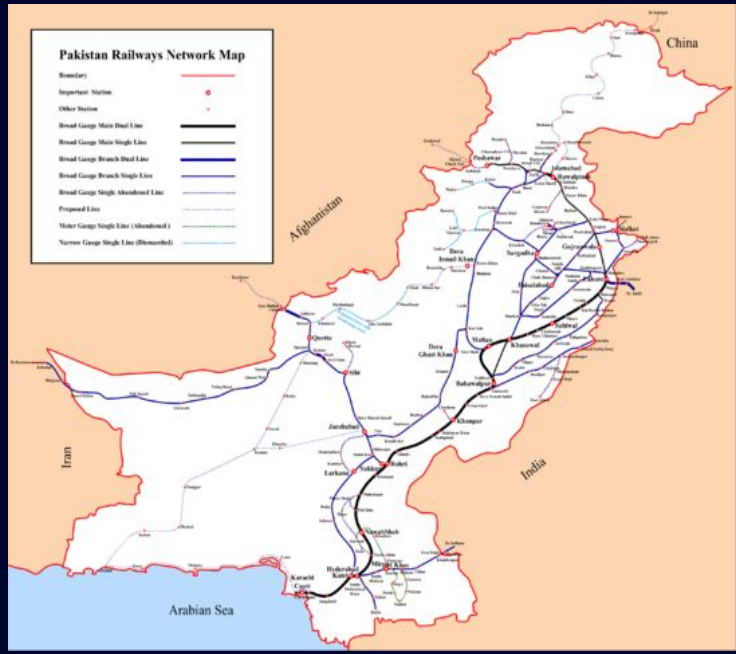
Steps Pakistan Can Take to Address Additional Costs

1. Increase Exports based on new investments, stability, and trade agreements.
2. Create more FDI in manufacturing and industry via industrial zones.
3. Accelerate training of skilled labor for higher productivity and more FDI.
4. Invest in science and space areas to advance these high-gain sectors.

(China and Pakistan agreed on joint space exploration and astronaut training in 2015. India is also investing, and China will have a major space station open to all nations in the coming years.)

Some of the Main Projects

- Gwadar Port Complex - Belt and Road Combo
- Huge Energy Development - potentially double!
- Completion of rail link over Khunjerab Pass *
- Upgrade Karakoram Highway to China *
- Potential Oil Pipeline from Gwadar to Urumqi *
- $1.5 billion Information, Commerce and Tech Park in Islamabad
- China-Pakistan Space collaboration



(*) Indicates a main corridor project

Gwadar Port Complex

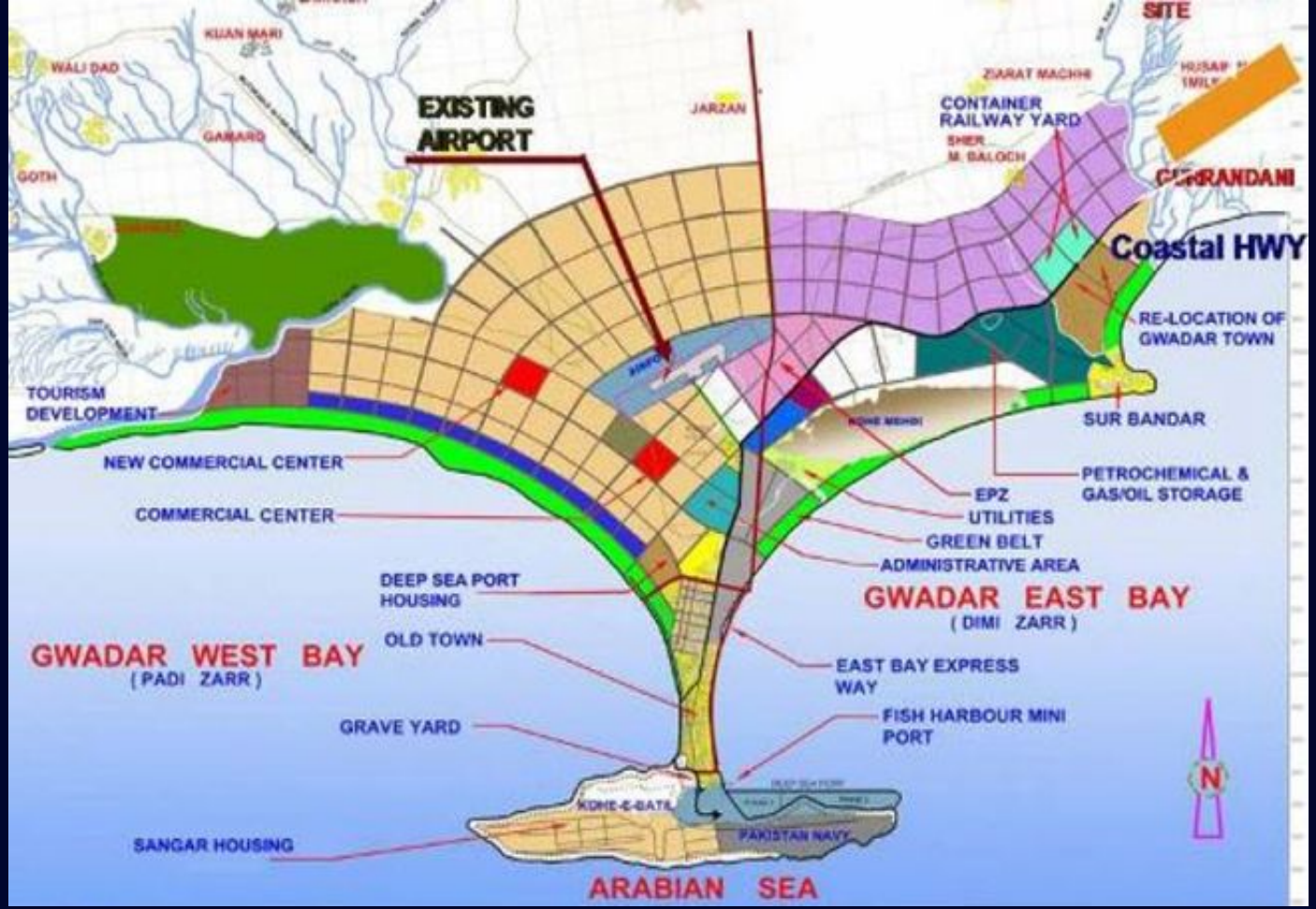
China Overseas Port Holding Company has a 43 year lease on the port and free trade zone. They're spending $4.5 billion on roads, power, hotels, and basic infrastructure.

Upgrading port for largest ships and floating LNG facility with 500 mil cubic feet capacity, could be part of Iranian pipeline. Secures LNG from Gulf for western China.

2,282 acre Free Trade Zone or Special Economic Zone, with manufacturing, logistics, warehouses, and display centers. Major tax break.

$230 million new airport, as a grant from China.

Pak-China Technical and Vocational Institute for local residents.


SITE
KUAN MARI
WALI DAD
GABARD
GOTH
EXISTING AIRPORT
JARZAN
ZIARAT MACHHI
CONTAINER RAILWAY YARD
SHER M. BALOCH
CHANDANI
Coastal HWY
RE-LOCATION OF GWADAR TOWN
TOURISM DEVELOPMENT
SUR BANDAR
NEW COMMERCIAL CENTER
PETROCHEMICAL & GAS/OIL STORAGE
EPZ
COMMERCIAL CENTER
UTILITIES
GREEN BELT
ADMINISTRATIVE AREA
DEEP SEA PORT HOUSING
GWADAR EAST BAY
(DIMI ZARR)
GWADAR WEST BAY
(PADI ZARR)
OLD TOWN
EAST BAY EXPRESS WAY
GRAVE YARD
FISH HARBOUR MINI PORT
N
KOHE-E-BATIL
PAKISTAN NAVY
SANGAR HOUSING
ARABIAN SEA

Massive Energy Upgrade for Pakistan

Potentially 21 projects for 16.4 GW - doubling Pakistan capacity

By March, 2018, through the "Early Harvest" program, 14 Chinese projects will generate 10.4 GW for the National grid.

Pakistan's 2015 shortfall was 4.5 GW, with frequent blackouts.

2002 Pakistan law requires that all energy plants are built on BOOT plan.

1. $10 billion for two Karachi Nuclear Power Plants. 1.1 GW total

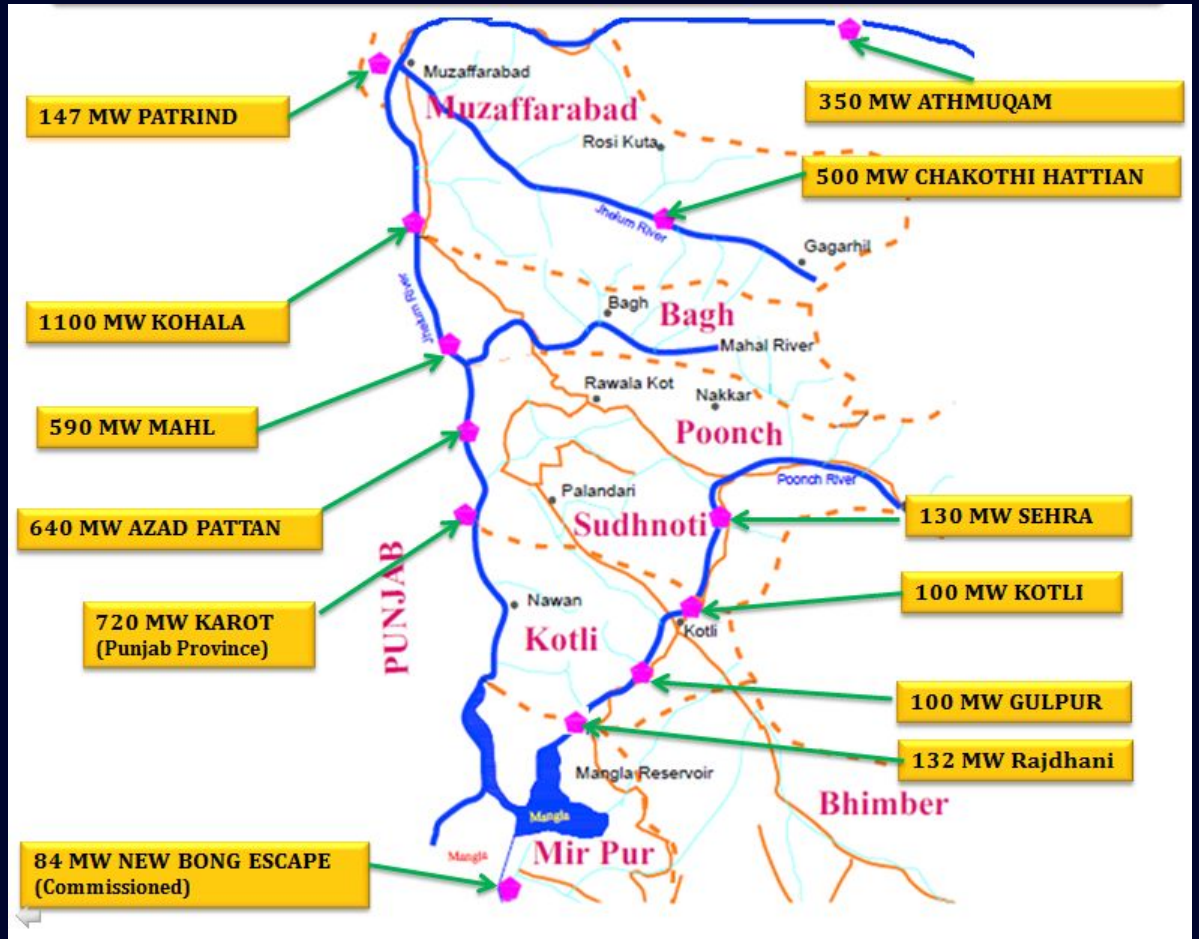
2. Karot Hydropower plant on Jhelum river in Punjab for $2 billion from China's Silk Road Fund, plus loans from ExIm and CDB on BOOT for 30 years for Karot Power company. 720 MW

3. World's Largest solar plant in Punjab Province constructed by Chinese firm Zonergy. 1 GW

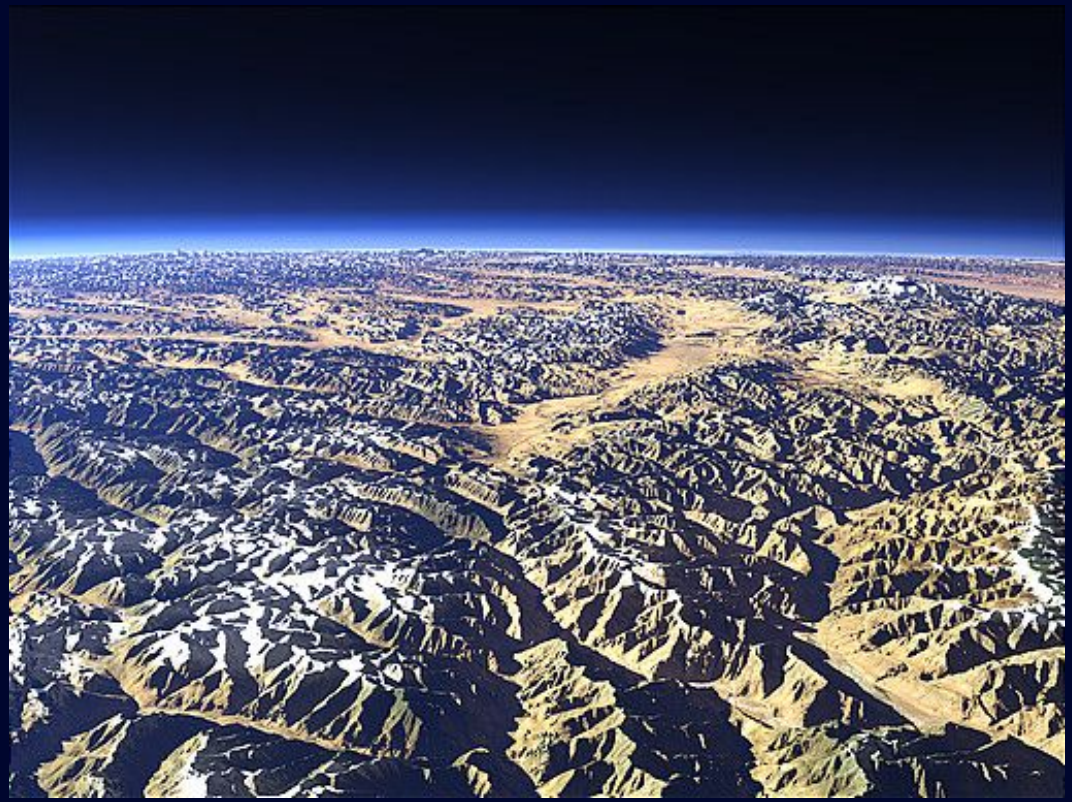
4. Coal plant in Port Qasim for $2 billion by PowerChina Resources Ltd. 1.3 GW

Karot Hydropower Plant

It’s like a Punjab Valley Authority - 12 Dams, 4.6 GW



The Corridor: Khunjerab Pass



Highest Paved Border Crossing in the world at 15,397ft

The Karakoram Highway!

The Corridor: Rail and Road Challenges of Khunjerab Pass

China's only land route to Pakistan, so it must remain open.

The highway is being upgraded for $2.18 billion by CDB and Ex-Im.

There is snow, ice, and horrible weather for the long winter, so the pass is closed from November 30 to May 1.

Any railway, which is planned for sometime over the next 5 years, could only be built by China, based on their experience in Tibet. It would have to be accessible during even the winter.

Earthquakes - In 2010, Lake Attabad, a 100 meter deep lake, was created by an earthquake, and took out 27 miles of the road. Fairies had to be used for years. A series of two bridges and 5 km of tunnels were constructed for $275 million in 2015. Similar events take down dams and power lines periodically as well.

The Corridor: Gwadar Pipeline to Kashgar, China

- Gwadar to Kashgar 3,000km pipeline would carry 1 million bpd to western China.
- China imports 6 million bpd by ship via 10,000km. This means 17% of daily requirements would be available by less than half the distance from the Persian Gulf to China.
- 5 year construction, to start this year, built by Frontier Works Organization, a military engineering command of the Pakistan Army who built Karakoram Hwy in 1966.
- Funded by Chinese State Banks, cost is still unknown. Gwadar to Nawabashah is already $1.4billion. Estimates would then be in the $50+ billion range, and will coincide with the new rail route and upgraded Karakoram highway.
- Could also connect to Iran's oil pipeline for $1.6 billion. This has been postponed for geopolitical reasons.

The Corridor: The India Factor

- Khunjerab pass is located in what India considers Pakistan Occupied Kashmir.

- China has said they are willing to identify it as such as a concession to India.

- Legacy of the British Empire, the division of India, and religious conflicts. (This also includes Shiites in the mountainous region of Pakistan.)

- POK has the Headwaters of the Indus River, so vital to Pakistan security

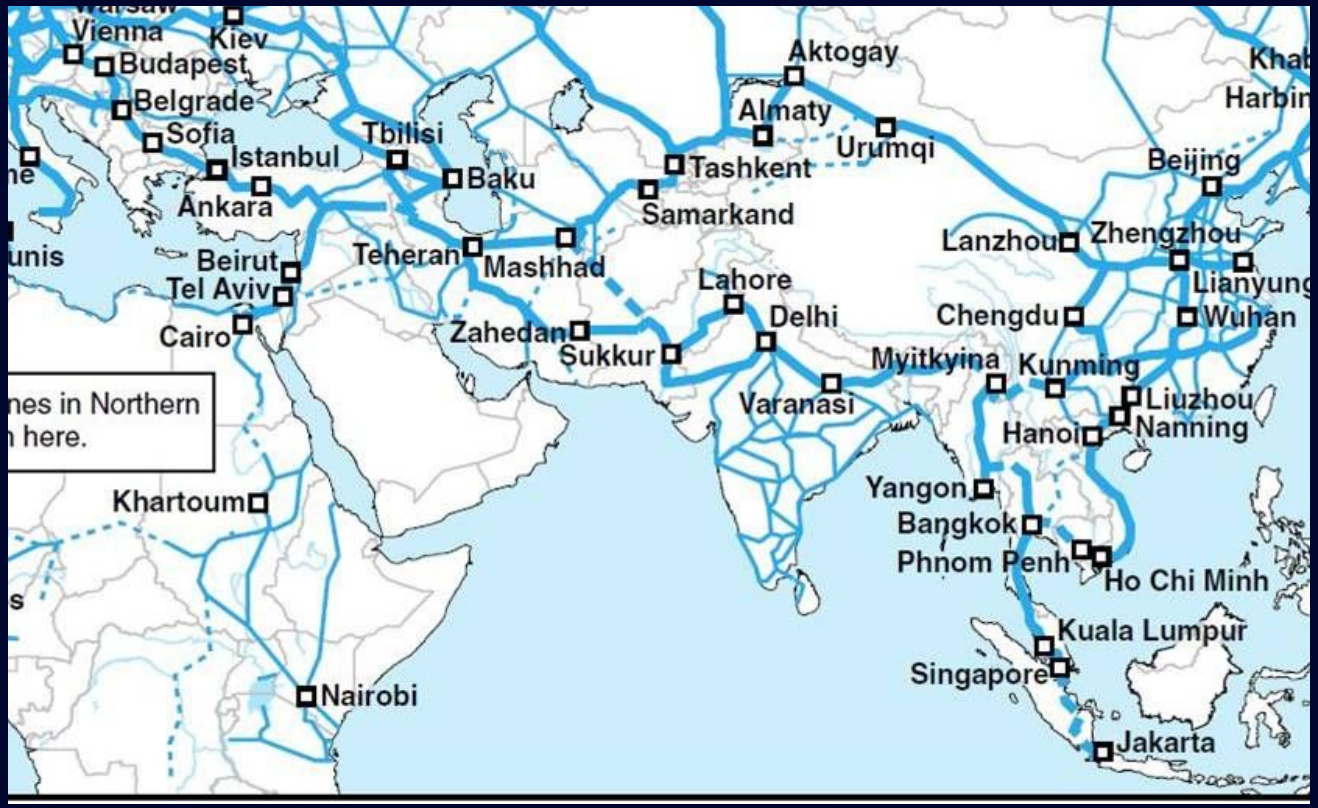
- India and China also contest over Aksai Chin Plateau just to the east.

- **Resolving the India, Pakistan, China disputes, a legacy of post-war geopolitics, is only possible through long-term development!**


Khunjerab Pass
Aksai Chin Plateau
Tajikistan
Pakistan
Kashgar
喀什地区
Dushanbe
Душанбе
Termez
Kunduz
کندز
Kabul
کابل
Peshawar
پشاور
Islamabad
اسلام آباد
JAMMU AND KASHMIR
Leh
HIMACHAL PRADESH
Lahore
لاہور
Amritsar
Jalandhar
CHANDIGARH
PUNJAB
UTTARAKHAND
HARYANA
Multan
ملتان
Quetta
کوئٹہ
Bahawalpur
بہاولپور
Bikaner
बीकानेर
New Delhi
नई दिल्ली
Bareilly
बरेली
Lakhimpur
लखीमपुर खीरी
UTTAR PRADESH
Agra
आगरा
Lucknow
लखनऊ
Gorakhpur
गोरखपुर
Nepal
Khairpur
خیرپور
Jaipur
जयपुर
RAJASTHAN
Nawabshah
Google

China-India disputes in the east will also be a factor in India's role in the BRI along the BCIM corridor from Kunming to Kolkata.

ASEAN - BCIM Southern Route to Europe via the Persian Gulf



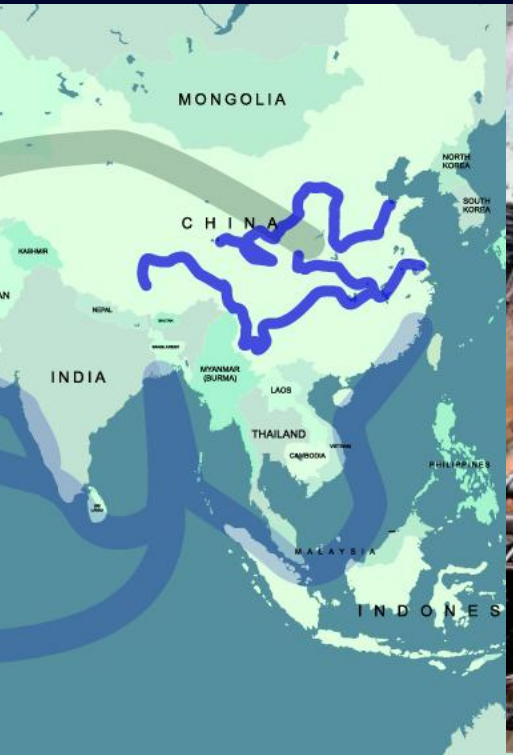
Other Major Corridors

Each of the following corridors will have many complexities, as did CPEC, and will require the utmost perseverance from all nations and companies, both construction and finance involved, to be successful.

China's South-North Water Diversion Project

44.8 billion cubic metres of water to the North River

Tunnels under the Yellow

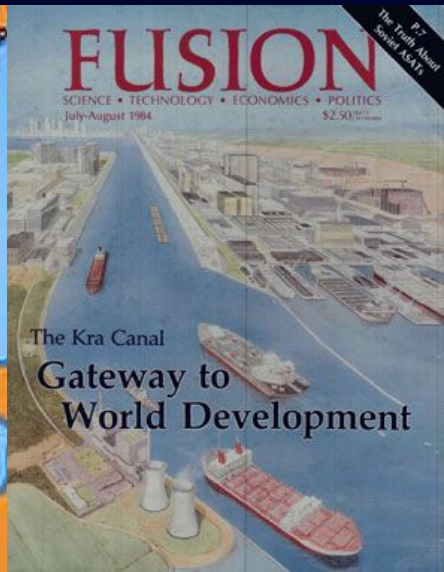


- Will be extended to SE Asia
- Managing the Mekong River
- India North-South diversion now in progress

NAWAPA

The Kra Canal – Changing the South China Sea

- Under discussion for over 100 years
- Japan was ready to build it in the 1980s.
- 40% of world shipping.
- Will save 1,200 km.
- Safer and more secure.
- PNE's can be used.



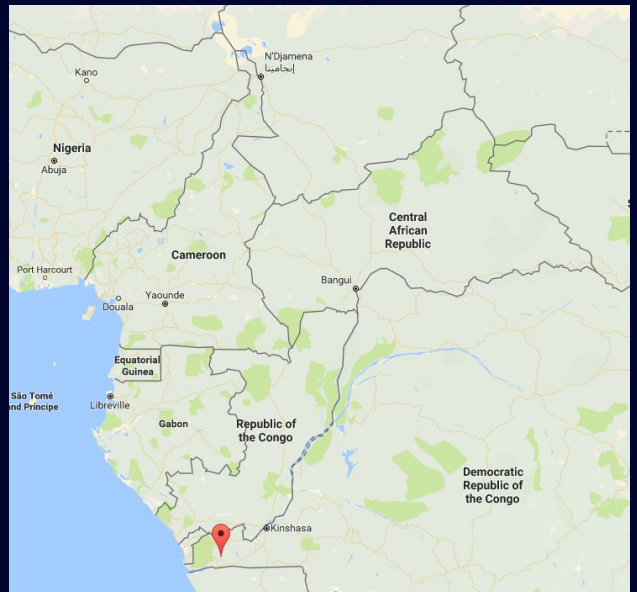
The Three Gorges Dam is the world's largest power station in terms of installed capacity (22,500 MW).

Congo Basin - Massive Hydropower and Lake Chad

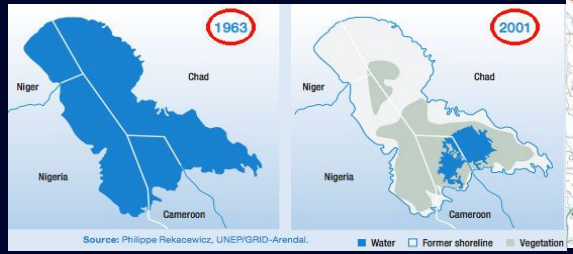
DRC's Inga III: Spanish and Chinese Consortium are the joint bidders for Inga 3 for 4.8 GW for $12 billion.

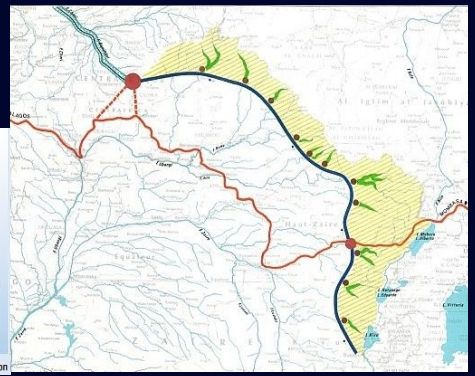
Grand Inga Plan: 40 GW in 7 phases. South Africa would purchase 2.5 GW.

(DRC's current power is 2 GW!! South Africa's is 50 GW for comparison.)

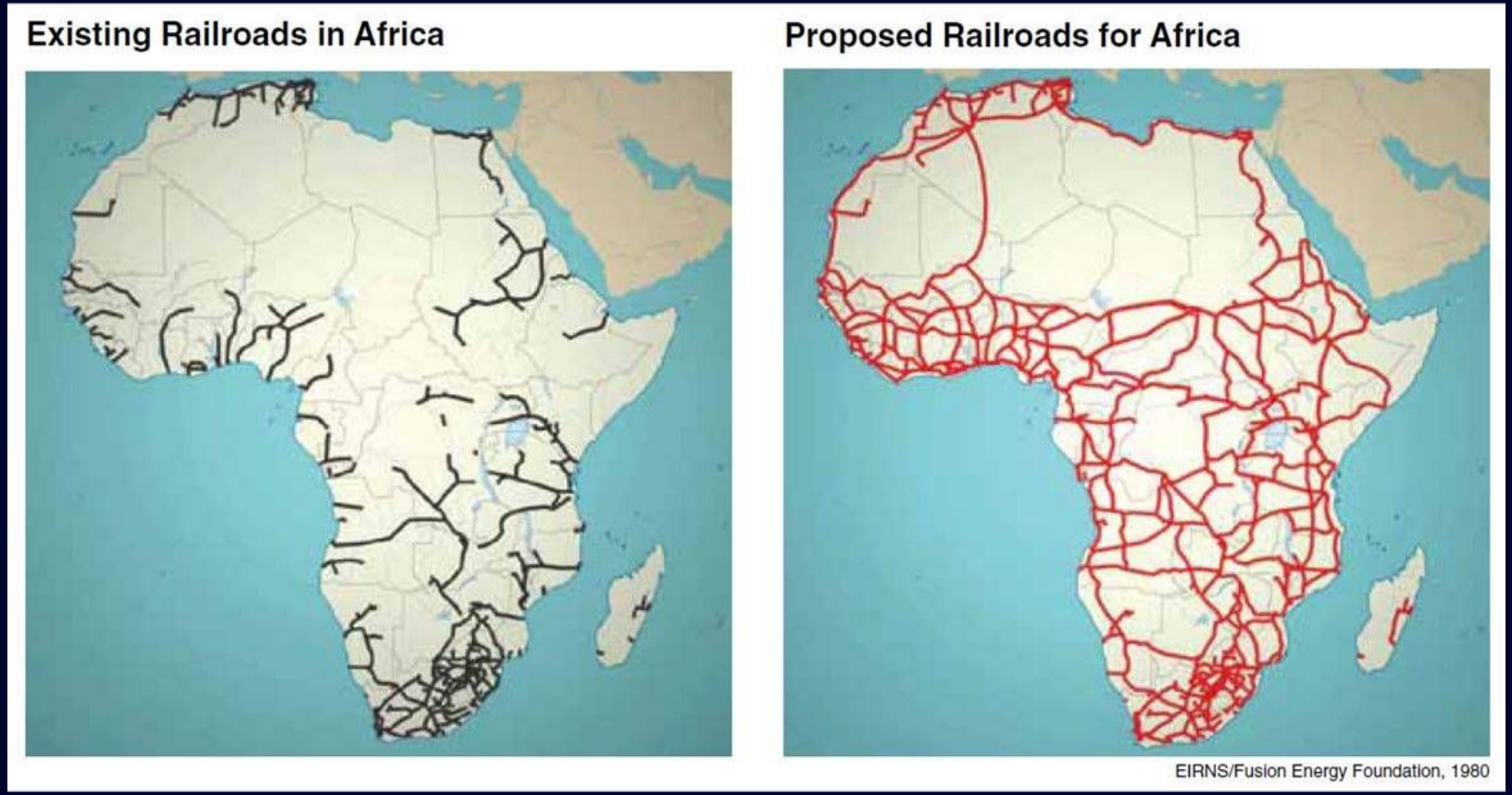


Lake Chad Project:





Africa Railroad – It's Happening!!!

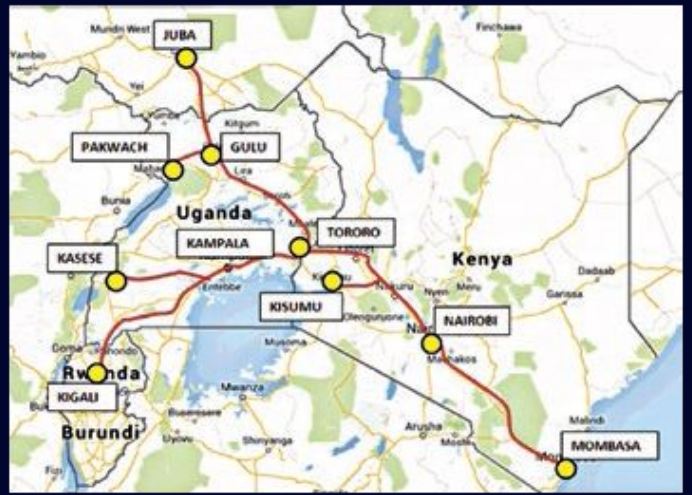


Kenya's SGR Rail Project

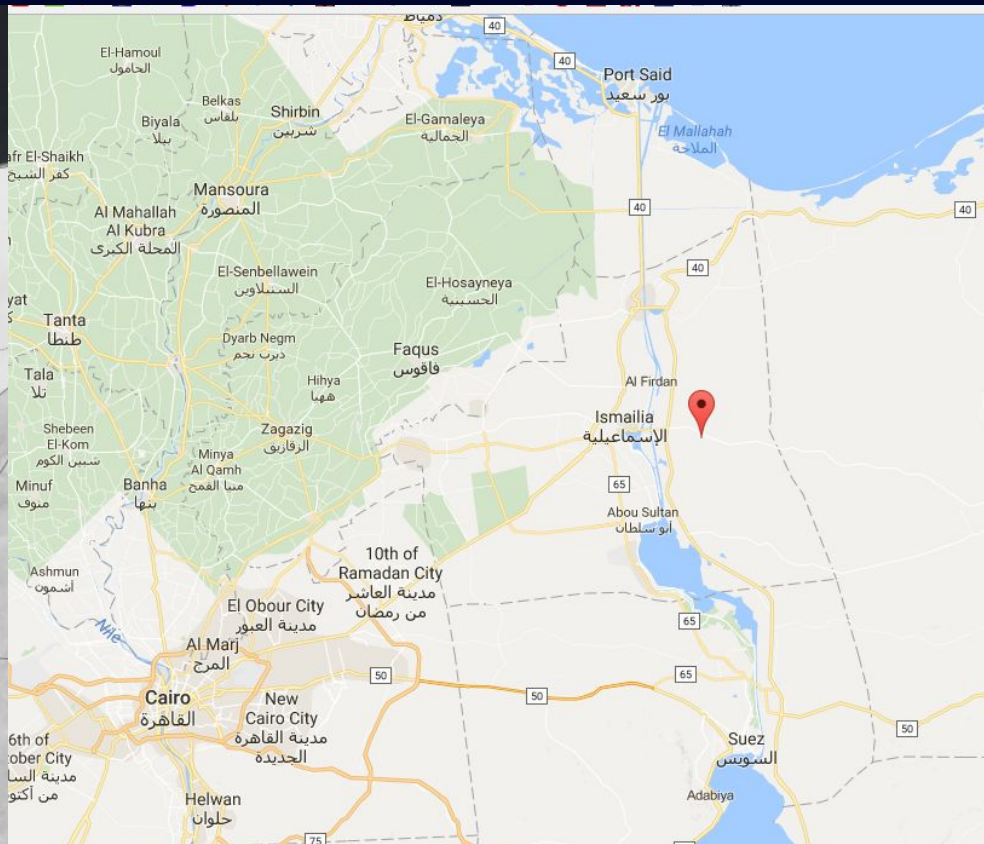
THESE VIDEOS ARE A MUST WATCH TO UNDERSTAND THE PROJECT:

Bridges: https://www.youtube.com/watch?v=p9Z0eYHWFCI

Stations: https://www.youtube.com/watch?v=O9_m20MCuGw



Suez Canal and Special Economic Zone



Persian Canal

The Phoenix Project - How to solve the Middle East Crisis

Piraeus and Eastern Europe

- In 2016 COSCO spent $532 Million total to Buy 67% share of Port, already profitable

- Gives Silk Road trade major access to Eastern Europe via new rail routes to Budapest

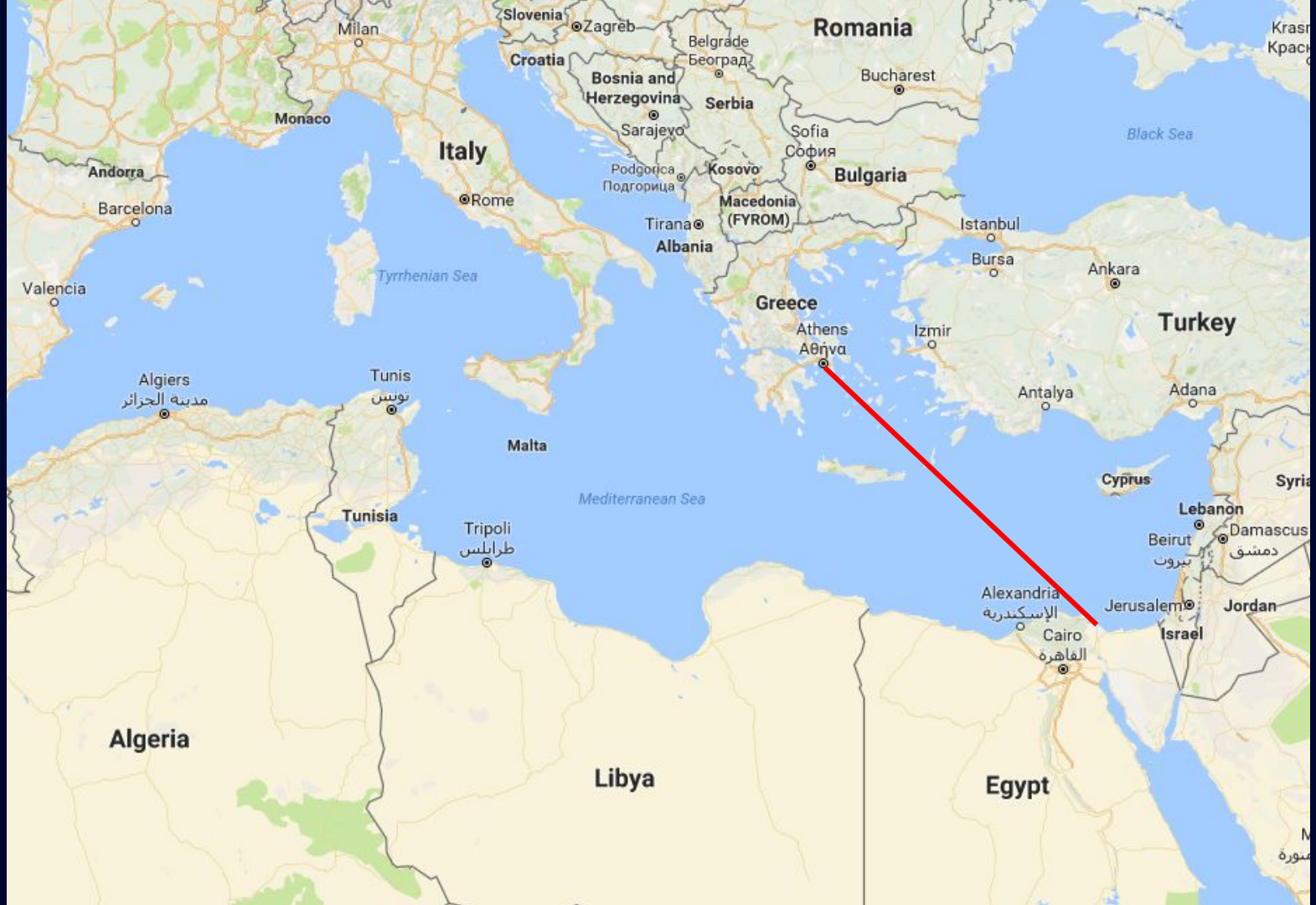
- Increased trade has already led to a 35% increase in traffic by 2018

- To be one of Top 30 Ports in the World from rank 93 in 2010

- Becoming key gateway for top Consumer Companies including Samsung and HP

- Huge Gain for Greece as a logistics center for Silk Road traffic via the Suez Canal

- Replaces dependence on Rotterdam and northern ports saving time


Milan
Slovenia
Zagreb
Belgrade
Београд
Croatia
Romania
Bucharest
Bosnia and Herzegovina
Serbia
Monaco
Sarajevo
Sofia
София
Black Sea
Italy
Andorra
Podgorica
Подгорица
Kosovo
Bulgaria
Barcelona
Rome
Macedonia (FYROM)
Tirana
Istanbul
Albania
Bursa
Ankara
Tyrrhenian Sea
Valencia
Greece
Turkey
Athens
Αθήνα
Izmir
Algiers
مدينة الجزائر
Tunis
تونس
Antalya
Adana
Malta
Cyprus
Syria
Mediterranean Sea
Lebanon
Damascus
دمشق
Tunisia
Beirut
بيروت
Tripoli
طرابلس
Alexandria
الإسكندرية
Jerusalem
Jordan
Israel
Cairo
القاهرة
Algeria
Libya
Egypt

Belgrade-Budapest HSR

Cost: $2.89 Billion for 370km.

Loans from ExIm Bank of China.

Major EU contention, but likely a hopeless protest.

Critical for Greece, Piraeus and the entire Balkan area.

Top priority for Hungary at the center of Europe.

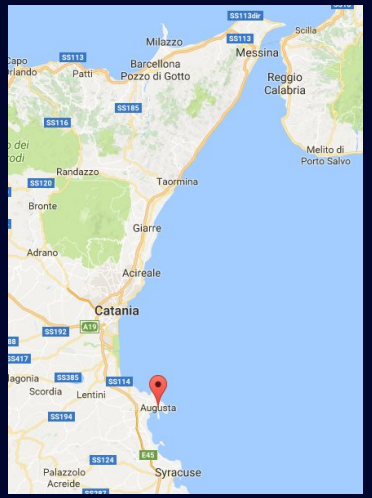
Logistics hubs in Lodz and Minsk, plus an airport in Lodz and a huge tech park in Minsk.

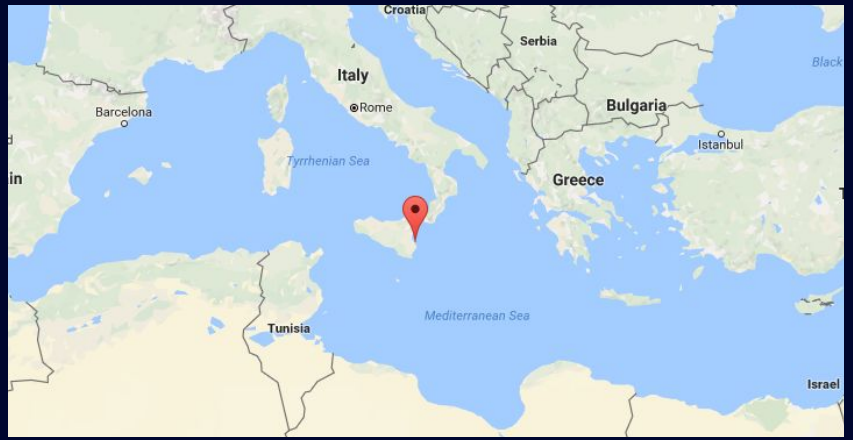
Connection for Istanbul HSR route coming from India and Pakistan into Europe in the coming decade.

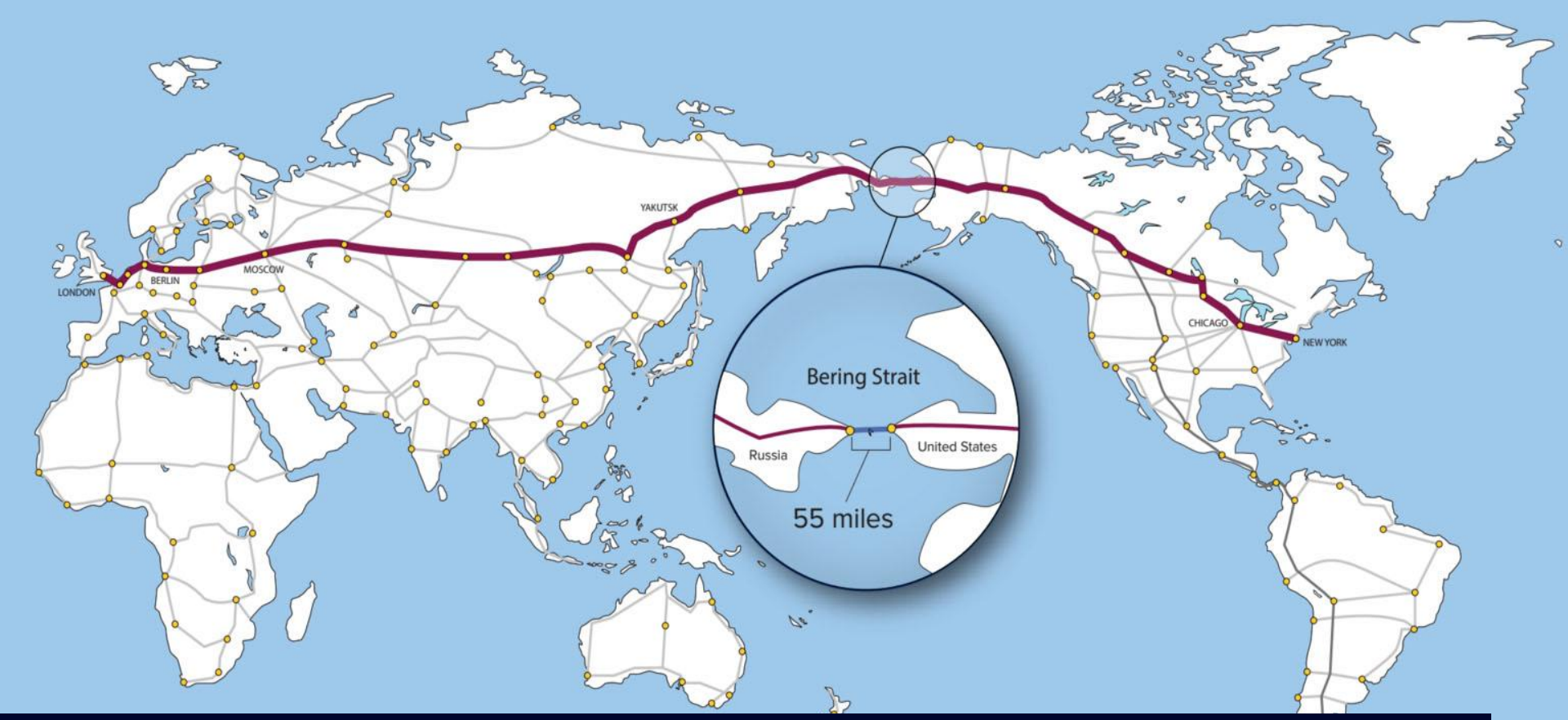
The Messina Bridge and Tunisia Tunnel

2010 China offered to help build the bridge from Messina, Sicily to San Giovanni, plus expand the highways and deepen the port south in Augusta, to be a main port in the center of the Mediterranean Sea.

The EU and technocratic government in Italy killed the investment package in 2012.







Bering Strait Tunnel

The World Landbridge