



# Greening the Belt and Road

## A UK-China collaboration

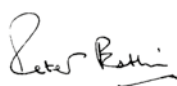


# Foreword



**Peter Estlin**

The Rt Hon The Lord Mayor  
of the City of London



**Catherine McGuinness**

Chair of Policy and Resources,  
City of London Corporation



Financing Belt and Road Initiative (BRI) infrastructure brings not just opportunity, but also a responsibility to ensure that new infrastructure projects in BRI countries meet high environmental standards.

Globally, 70% of greenhouse gas emissions come from the construction and operation of infrastructure. As BRI countries will host significant new infrastructure in coming decades, greening the BRI is critical to building the low carbon development paths of many emerging countries for decades to come.

China and the UK are working in close partnership to further the international collaboration needed to achieve the ambitious endeavour of greening the BRI. In 2018, the UK and China jointly published the Green Investment Principles for

the Belt and Road. These voluntary principles aim to harmonise green infrastructure standards along the BRI, to increase the use of green financial products, and ultimately to vastly reduce the emissions footprint of the BRI.

China, a key trade partner and investor in many BRI countries, is in a natural position to shape the green growth of BRI trade corridors. Between 2013 and 2018, trade between China and other BRI countries amounted to \$6.47tn, which is phenomenal considering that total global merchandise exports in 2018 reached \$19.5tn.

The UK, with its concentration of 250 foreign banks, provides a global platform for multilateral development banks and private sector players to co-finance major BRI projects. The UK's professional services,

insurance and maritime firms also provide critical support to BRI deals' robust financing structures and ensure that risks are well mitigated and diversified.

Alongside supporting climate commitments, investments which fulfil internationally recognised green standards are commercially savvy, so offer investors a pathway to long-term stable returns.

Greening the BRI is a long-term vision. Partnership between China and the UK provides a once in a generation opportunity to set industry standards and mobilise private sector capital to accelerate a global low carbon transition.

Sources: City of London, World Economic Forum, The Belt and Road Portal, UNCTAD

[www.theglobalcity.uk](http://www.theglobalcity.uk)  
[www.cityoflondon.gov.uk](http://www.cityoflondon.gov.uk)



# The Belt and Road Initiative

**65+**  
countries

**69%**  
of the  
world's  
population

**29%**  
of the  
world's  
economy

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SILK ROAD ECONOMIC BELT

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21ST CENTURY MARTIME SILK ROAD

## **ARGENTINA**

Located in the northern Argentine province of Jujuy, the Cauchari solar farm will generate up to 300 megawatts of electricity, enough to power 120,000 homes. As Argentina's largest solar farm, it will make a big contribution to Argentina's goal of having 20% of its energy supplied by renewables by 2025.

The project is majority owned by the Jujuy energy company Jemse SE, and built by China's Shanghai Electric Power Construction. Once the plant becomes operational in 2020, it will create 1,500 direct and indirect local jobs. The project's \$390m total cost is jointly financed by the Export-Import Bank of China and the Jujuy provincial government.\*

*"Large infrastructure projects like Benban often have complex funding models with many different parties. London's unique concentration of financial and professional services firms means we can easily gather the banking, legal, accounting and other experts together to most effectively structure the deal."*

**Harry Boyd-Carpenter,**  
Head of Power and Energy Utilities, European Bank for Reconstruction and Development

*"We bring to the table our unique perspective as a Chinese bank, and our wealth of expertise in infrastructure financing accumulated in China, and we learn valuable lessons from our international banking partners. Together we can help scale up the BRI's sustainable development."*

**Fei Chen,**  
General Manager of the ICBC Luxembourg Branch



## **CHINA AND LUXEMBOURG**

The 8,000 kilometers 'Silk Road in the Air' is a modern cargo air link between China's export hub Zhengzhou and Luxembourg, transporting 150,000 metric tons of cargo each year.

Operated by Cargolux since 2017, the new cargo route improved convenience and speed of ecommerce trade between China and Europe. This airborne trade route also complements growing maritime and railway connectivity across BRI countries.

Industrial and Commercial Bank of China provided financing for the deal through its Luxembourg branch. Its unique understanding of Zhengzhou as a transportation hub and established partnership with Cargolux gave it confidence for the financial viability of this BRI project.

## **EGYPT**

Benban Solar Farms, are situated in the Western Desert, some 650km south of Cairo. Upon completion, Benban will produce enough electricity to power 1m homes. This will significantly help Egypt reach its goal of having 20% of its energy needs met by renewables.

Benban will also directly avoid 2m metric tons of carbon dioxide emissions that would otherwise have been created by alternative power generation sources.

The European Bank for Reconstruction and Development is providing financing for 16 out of Benban's 30 powerplants.

## **PAKISTAN**

The Matiari to Lahore ±660kV High Voltage Direct Current Project is the first ever high voltage direct current power project, which will help Pakistan to significantly improve its energy reliability. It will also help upgrade Pakistan's domestic energy capability, technological advancement, power equipment supply chain and construction expertise and standards.

King & Wood Mallesons (KWM) provided legal advice to China Electric Power Equipment and Technology, which implemented the project. KWM utilised its in-depth understanding of both the Chinese and Pakistan legal and business environments. KWM's contribution kept the project's legal, political and operational risks to a minimum, which strengthened business certainty for its client, and helped Pakistan to access reliable electric energy sources.

*"Making this project a success translated into financial reward for us and the other financiers, and clean energy supply for the end users in Saudi Arabia."*

**Wenjian Fang,**  
General Manager of Bank of China  
London Branch

*"BRI is a critical opportunity to achieve sustainable and inclusive growth across major trade corridors, and guide many emerging economies into a low emissions development pathway. With a network in over 100 BRI countries, PwC strives to be a key contributor to greening the BRI."*

**Gabriel Wong,**  
Global BRI Lead Partner, PwC

*"Sustainability is a core value of ours and we ensure all projects we finance follow stringent and high standards. We see ourselves as not simply a service provider, but rather we aim to be a force for good along the BRI."*

**Carmen Ling,**  
Global Head of RMB Solutions  
and Belt and Road, Standard  
Chartered

## DUBAI

Noor Energy / Dubai Electricity and Water Authority Phase IV Solar IPP project will be the largest single concentrated solar power project in the world. It will contribute significantly towards the achievement of the Dubai Integrated Energy Strategy 2030, which seeks to secure a sustainable supply of energy by diversifying energy supply sources.

Standard Chartered financed the project alongside Chinese, international and regional lenders. It also acted as the documentation bank for the project. This required having bilateral discussions with each of the other lenders, helping them to understand the project risks and negotiating on their behalf with the project sponsors – the companies or government institutions that lead on the project.

## SAUDI ARABIA

The Sakaka solar plant will supply more than 75,000 households with green power while offsetting over 430,000 tonnes of CO2 emissions per year. The project will also create new employment opportunities in fields including construction, operations and maintenance.

Sakaka is the first utility scale photovoltaic plant in Saudi Arabia, and a core pillar to the Saudi 2030 vision, which looks to diversify the nation's reliance from oil to renewables.

Bank of China led the financing of Sakaka, committing \$100m out of the project's \$302m budget.

## VIETNAM

The Vietnam integrated solar manufacturing base will be constructed by a leading Chinese solar company, with the end goal of helping Vietnam achieve its target of generating 6% of the country's electricity from solar by 2030.

Vietnam traditionally relied on coal, hydropower and gas energy sources. This major new investment will significantly help Vietnam reduce its carbon intensity and directly offer over 1,700 jobs to Vietnam's labour market.

PwC acted as the project's leading financial and commercial advisor. It conducted feasibility analysis to ensure Vietnam's business environment can support the manufacturing base construction and operation, and that the solar market of Asia Pacific countries can provide adequate demand for the end output.

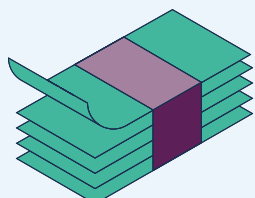
*"Our in-depth understanding of both Chinese and international markets means we can uniquely help to bridge cultural gaps, which is critical because most BRI projects involve participants from different countries."*

**Jianwen Huang,**  
Senior Partner of KWM and Director in Chief of KWM Belt & Road  
Center for International Cooperation and Facilitation

Sources: all stats within case studies are provided by the companies themselves.

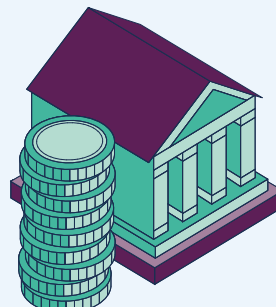
\*The Renewable Energy Hub, China Dialogue, China Daily

# Summary of opportunities

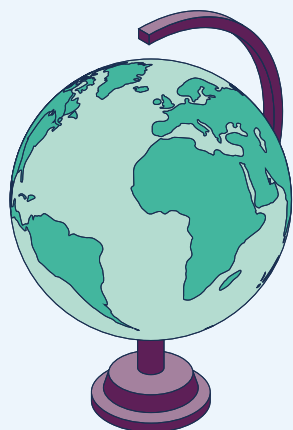


**\$8tn**

BRI investments are **expected by 2049**.



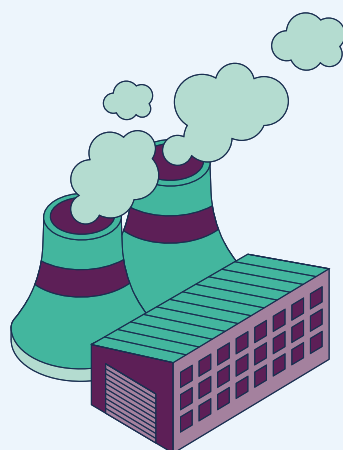
Multilateral development banks, private banks, investors and foreign governments are **expected to provide over half of all BRI funding by 2030**.



BRI is expected to **increase the GDP of East Asian and Pacific developing countries in the range of**

**2.6% – 3.9%**

on average.

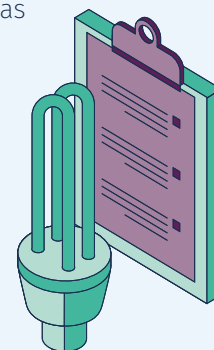


BRI countries currently account for

**20%**

**of global greenhouse gas emissions** but this ratio could rise to 2/3 by 2050.

Greening BRI is an opportunity to avoid such greenhouse gas emissions escalation.



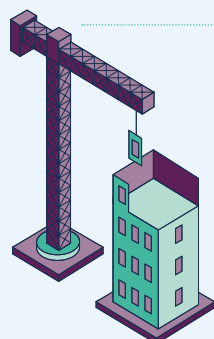
**25**

green BRI pilot projects

are designed under the **China led Belt and Road Ecological and Environmental Cooperation Plan**, with a goal to later share their successful green practices more widely.



Total trade between China and other BRI countries amounted \$6.47tn in 2013-2018. More than 80 economic and trade cooperation zones were built along BRI countries, creating over **244,000 local jobs**.



**70%**

**of global greenhouse gas emissions** come from construction and operation of infrastructure. As BRI countries will host most of the world's new infrastructure in coming decades, greening BRI is an imperative to meet the below 2 degree aspiration of the Paris Agreement.



# Sectors of opportunity

## BANKING

BRI financing presents a significant opportunity for China UK collaboration. Chinese banks are key financiers for BRI projects due to their strong relationships with Chinese firms constructing or operating BRI projects. Many Chinese banks choose to structure their BRI financing through London - a global financial hub with a presence of 250 foreign banks - so they may co-finance projects with international banks.

**\$8tn BRI investments are expected by 2049**

Financing BRI growth can help banks generate long term sustainable return. Current annual investments into BRI projects is around \$150bn, but total BRI investments are expected to reach \$8tn by 2049. Meeting this growing need offers a significant opportunity.

As well as financing, international banks are also well positioned to provide expertise on the structuring of projects, provide currency and interest rate hedging services, offer trade finance services, and assist clients in issuing bonds on international capital markets.

The UK and China also jointly published the Green Investment Principles for the Belt and Road, to encourage sustainable financing practices and ultimately to reduce emissions of the BRI.

## ASSET MANAGEMENT

Asset managers globally are searching for green investment opportunities, as environmentally friendly projects are more likely to continue generating good financial returns by appropriately accounting for climate risks.

The Global Sustainable Investment Association estimates 30% of investable assets globally include sustainability in their investment analysis. And HSBC found that 74% of investors consider financial returns a key factor in their decisions about sustainable investing.

**30%**

**of investable assets globally include sustainability in their investment analysis**

Meanwhile, wealth managers are also prompted by green conscious high-net-worth individual clients to increase sustainable investment. 38% of family offices globally are now engaged in sustainable

investing, and 45% plan to increase such investments in future years, according to UBS.

BRI countries will host the majority of the world's new energy and infrastructure projects over the coming decades. Green BRI projects, such as renewables and green buildings, will deliver attractive long term sustainable financial return.

They present substantial investment opportunities for green conscious asset and wealth managers.

## INSURANCE

Chinese and British insurance companies are well placed to collaborate on diversifying risks for BRI infrastructure projects. Such collaboration will make good use of Chinese insurers' deep knowledge of BRI projects and existing Chinese client base and British insurers' long-standing professional experiences.

BRI countries have geopolitical, economic and social differences, meaning risk management is very

**\$600bn of investments in BRI countries are insured by China Export & Credit Insurance Corp**

important, and insurance is a fundamental risk management tool.

China Export & Credit Insurance Corp, an active player in the BRI insurance market, has insured more than \$600bn of investments in BRI

countries by the end of 2018. Future opportunities for other insurers are abundant, considering that BRI investments are to reach an estimated \$8tn by 2049.

Lloyd's of London, the world's oldest insurance market, founded in 1686, reaffirmed its ability to provide unique risk transfer solutions for BRI projects, when it hosted a visit by Chinese Premier Hu Chunhua in 2019.



## MARITIME

Maritime trade is a key element of BRI connectivity, as 85% of world trade is carried by ships. Improved maritime infrastructure will reduce costs and increase efficiency and sustainability of BRI trade.

Significant opportunities exist for UK China green maritime collaboration. China is connected with 600 major international ports across 200 countries, a scale pointing to huge demand for maritime services.

The UK's maritime offer with respect to insurance, brokerage, law, accountancy and education is universally acknowledged as the best in the world.

The Lloyd's of London insurance market remains the preeminent maritime insurer and English law is used by most maritime contracts.

The UK is also pioneering green maritime research and development through the Maritime Research and

Innovation UK initiative, which brings together leading marine engineering companies and universities in the UK to find the latest maritime solutions, including green technology.

**200 countries and 600 major international ports** are connected with China, facilitating growing maritime trade flows

## FINTECH

Fintech firms can contribute to greening the BRI by conducting analysis of consumer behaviour and use this intelligence to design solutions that incentivise environmentally friendly practices. Chinese fintech firm, Ant Financial is one clear example of a company using fintech to encourage a greener world.

The firm, which is fast expanding into BRI countries, is known for its

**Ant Forest users collectively 'planted' 55.5m trees, reducing over 3m tons of CO2 emissions**

mobile payment platform Alipay. The Alipay payment platform has an app called "Ant Forest", that users can voluntarily engage with to reduce their carbon footprint and encourage their social networks to do the same. Users that perform carbon-reducing

activities, such as paying bills online or walking to work, relative to a predetermined benchmark, are rewarded "green energy" points. As users accumulate enough points virtually, a real tree is planted.

400m people or 5% of the world's total population have used Ant Forest and collectively they're responsible for planting more than 55.5m trees, reducing over 3m tons of CO2 emissions.

## PROFESSIONAL SERVICES

Legal, accounting and advisory services are critical to BRI projects' success. They help investors better mitigate risks and implement best industry practices, the combination of which work to secure better long-term sustainable returns.

Their advice is also critical in guiding clients to choose environmentally friendly BRI projects, and to keep project sustainability in check by enhancing corporate governance and sustainability disclosure measures.

Green BRI infrastructure projects provide abundant opportunities for professional services firms because their services are needed throughout a projects' entire life cycle. This includes initial project feasibility studies, legal documentations and advisory and financial reporting support during a project's construction and operation.

The Beijing-based law firm King & Wood Mallesons, for instance, has already participated in over 1,000 BRI projects across 34 BRI countries.

KWM's UK-based lawyers have contributed to many such projects, as English common law is widely used in many BRI countries.

**King & Wood Mallesons provided legal advices to over 1,000 BRI projects across 34 BRI countries**

### Sources:

**Banking sector:**  
HSBC, Baker McKenzie, FT

**Asset Management sector:**  
Euromoney, UBS, HSBC

**Insurance sector:**  
China Daily, Lloyd's

**Fintech sector:**  
United Nations Digital Finance Task Force, The Diplomat

**Maritime sector:**  
Maritime London

**Professional Services sector:**  
King & Wood Mallesons

