

Arup in Beijing CBD

Revitalising the city skyline



ARUP

Driving the new heart of an ancient city

Arup is the driving force behind the transformation of Beijing's Central Business District (CBD), shaping attractive and sustainable urban settings for people to work, live and enjoy themselves.

Beijing's CBD is the city's largest and most international centre of finance, media and business services. Located in Chaoyang District on the east side of the city, the CBD includes the 30ha existing area and an eastward expansion Core Area of around 305ha which is currently under large-scale development.

More than 100 Fortune 500 businesses and over 60% of the overseas-funded companies in Beijing have their offices in the CBD. It is also home to a majority of foreign embassies in the city.

Over the past decade, the CBD has grown from an industrial premises into a forest of modern towers, and Arup is playing an active role in shaping the urban fabric. From the world-famous CCTV New Headquarters tower to China Zun, the city's future tallest building currently under construction, we are helping redefine Beijing's skyline and the quality of urban living and working environment.

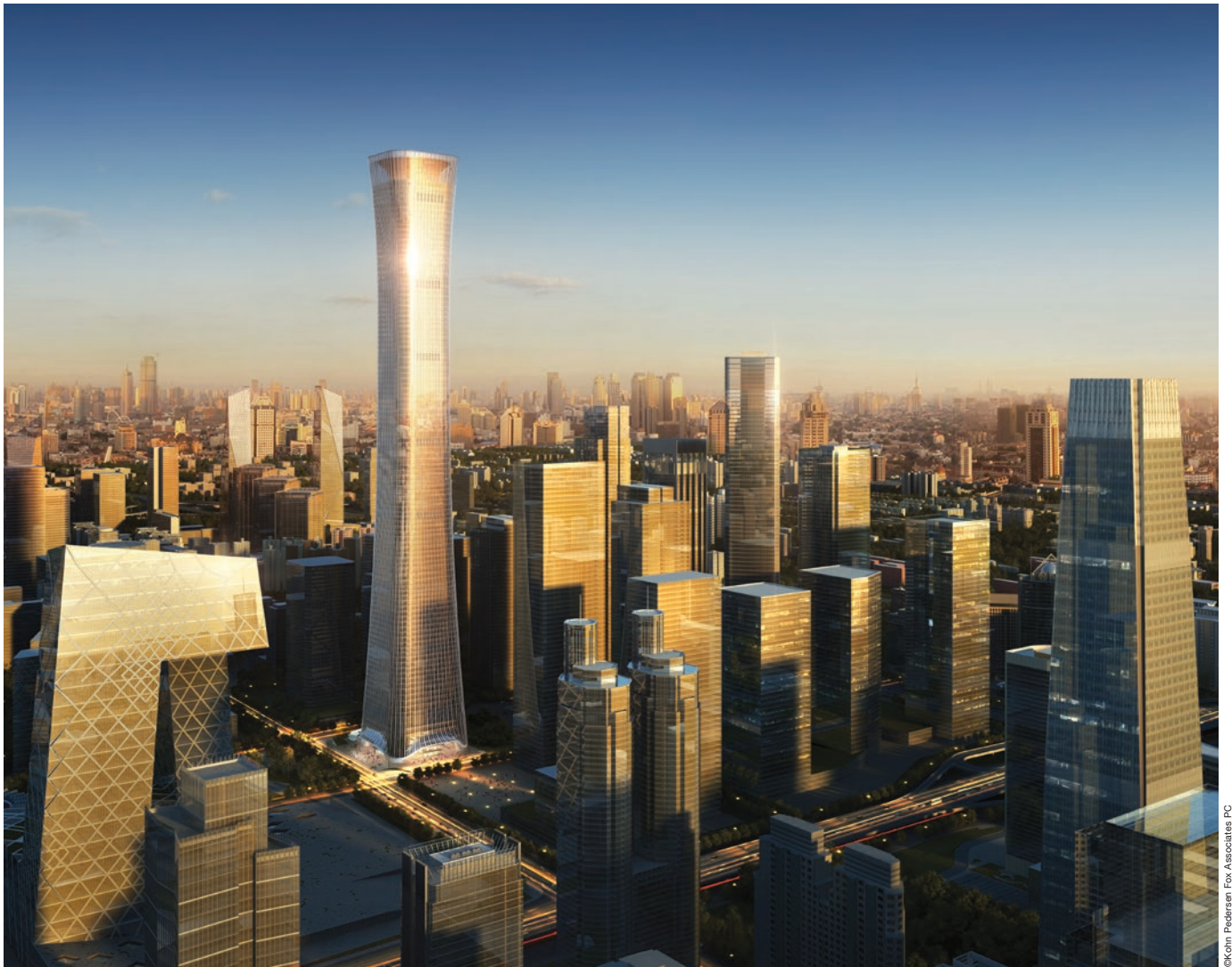
Marrying our technical excellence with urban design and planning, we are delivering local landmarks imbued with a set of new concepts - to create a vibrant community that attracts people to stay and play, bringing the CBD with a 24-hour urban life. In Beijing's CBD, we are shaping urban lifestyles as well as the city's skyline.



CCTV Headquarters & China World Trade Centre



Luneng Sihui Project



©Kohn Pedersen Fox Associates PC

China Zun



©Foster + Partners

CBD Z6 Tower



©Emperor Group Center

Beijing Emperor Group Center

Shaping the new CBD Core

The emerging CBD Core Area is no doubt the most featured hotspot in the capital city, where Arup is contributing to 8 of the 16 Z series projects currently under construction.



©Kohn Pedersen Fox Associates PC

1 Z15 (China Zun)

Structural, fire and security engineering for the tallest building in Beijing at 528m tall. Inspired by the Chinese ritual vessel 'Zun', the tower's smooth vertical curve will assist in maximising the floor area at the top and provide structural stability at the base.



©Foster + Partners

2 Z6

The second tallest building in Beijing at 405m tall. The curvilinear form is very distinctive and each elevation comprises a fully façade integrated diagrid with curving mega-braces that evoke organic and floral images like 'a blossoming flower'. Arup provided structural and fire engineering.



©SAMOC Architects & Engineers

3 Z2b

Geotechnical engineering for Samsung's new Beijing headquarters. The 260m tall building has 57 storeys of office space with a 5-storey podium sharing a 7-level basement as deep as 30m.



©Talking Property Investment Co. Ltd

4 Z12

MEP, façade, fire safety and transport consulting services have been provided for the high-rise office tower with office and retail podium. An integrated solution has been proposed to result a highly flexible design scheme to suit the client need for their headquarter use.



©Kohn Pedersen Fox Associates PC Architects & Planning Consultants

5 Z3

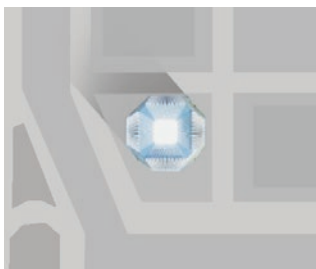
Structural engineering for the 200m tall grade-A office tower with a total GFA of 120,000m².



©Gensler

6 Z14

Structural peer review for the 220m twin towers with a podium and six levels of basement.



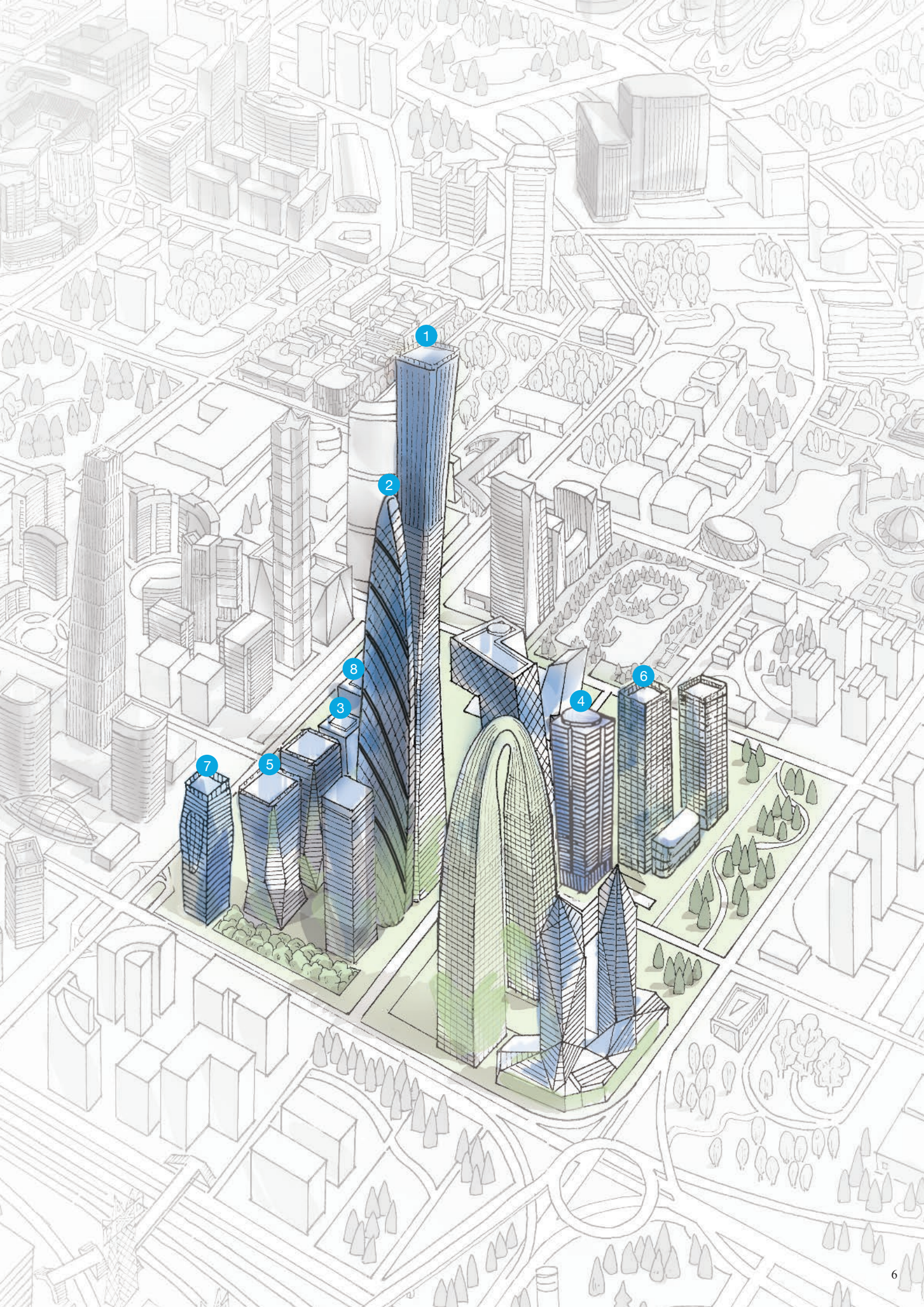
7 Z5

Structural and MEP engineering services for the 200m high tower with a 5-level basement yielding a total GFA of 120,000m².



8 Z1a

Structural and MEP engineering for 99,000m² financial services building located directly adjacent to the CCTV New Headquarters.



A decade in the making

Over the past decade, Arup has designed and delivered a wide array of iconic structures in Beijing's current CBD, helping to realise one of the most fast growing business hubs in the world.



© Zhou Ruogu Architecture Photography



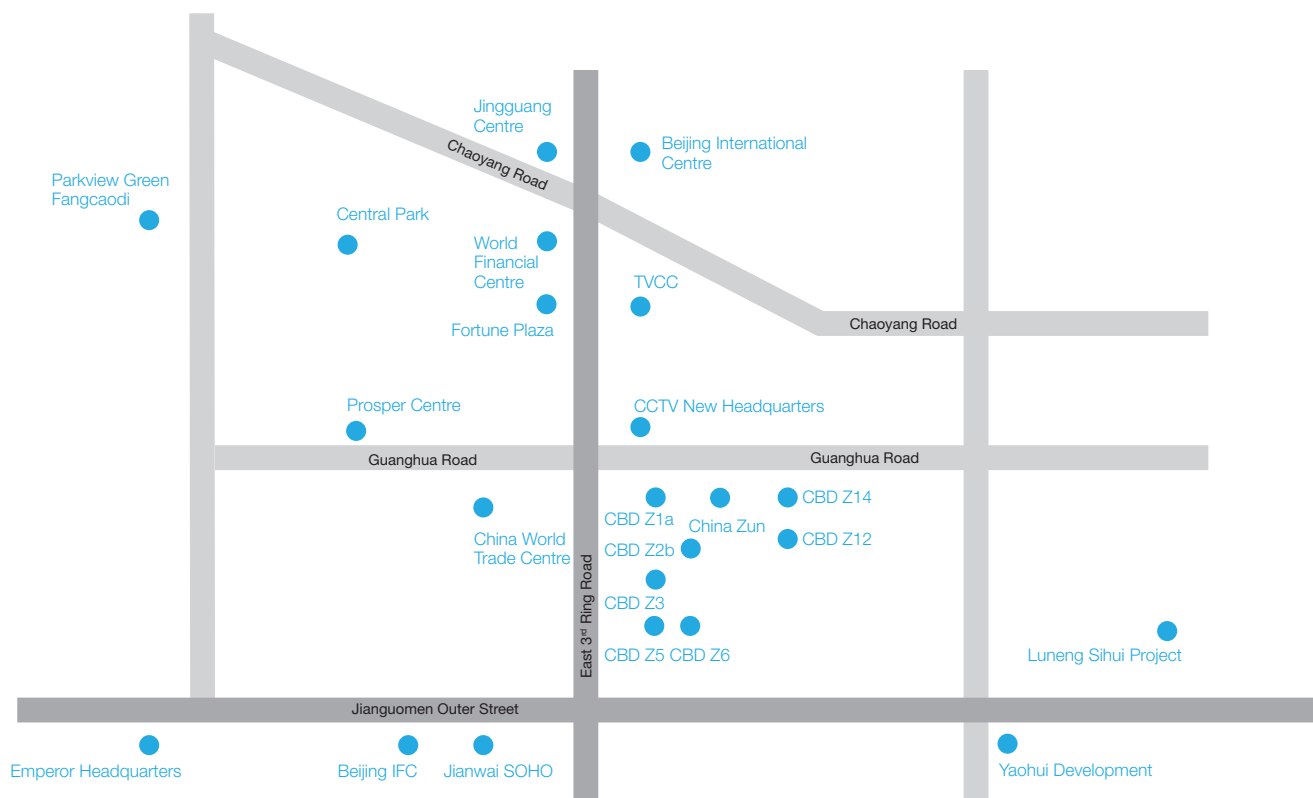
© Integrated Design Associates Architects & Designers

Beijing IFC

The mixed-use development comprises two blocks of 90m high and two blocks of 150m high, offering office and retail spaces. Arup engineers helped realise the unitised curtain wall systems with dark, high performance glazing.

Parkview Green Fangcaodi

The LEED®-CS platinum registered mixed-use plaza houses grade-A office space, a six-star hotel and retail facilities, all encased in a glass and ETFE plastic glazed 'envelope'. The envelope creates a microclimate with various zones that are relatively uniform and easily controlled, thanks to an Arup-designed air 'buffer zone'.





CCTV New Headquarters

The award-winning structure comprises two leaning towers 234m and 194m tall, bent 90° at the top and bottom to form a continuous tube. Arup's team determined that the only way to deliver the challenging architectural form and resist extreme seismic and wind events was to place the structure in the building's skin, creating an external continuous braced tube system.



©Zhou Ruigu Architecture Photography

Fortune Plaza

The 800,000m² complex includes office space, a hotel, luxury apartments and retail space. Arup worked on the structural and mechanical design for Phase 1 and structural design for Phase 2 and 3.



©Frank P. Palmer

China World Tower

We introduced a new structural system to Beijing's current tallest building at 330m - a 'composite steel plate shear wall' at the base of the tower.



©Martin Saunders Photography

Central Park

The 440,000m² development has become the centerpiece of the CBD's residential community, providing luxury living and leisure spaces. Arup adopted an integrated approach to realise some unique design features including the curved building envelope and the long spanning roof for the clubhouse.

Arup is the creative force at the heart of many of the world's most prominent projects in the built environment and across industry.

We offer a broad range of professional services that combine to make a real difference to our clients and the communities in which we work.

We are truly global. From 92 offices in 40 countries, our 12,000 designers, engineers, planners and consultants deliver innovative projects across the world with creativity and passion.

Founded in 1946 with an enduring set of values, our unique trust ownership fosters a distinctive culture and an intellectual independence that encourage collaborative working. This is reflected in everything we do, allowing us to develop meaningful ideas, help shape agendas and deliver results that frequently surpass the expectations of our clients.

The people at Arup are driven to find a better way and to deliver better solutions for our clients.



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