



CONFIDENCE MOVES THE WORLD

# SYSTRA

The Signature Team for Systems & Infrastructure Solutions

SYDNEY | MELBOURNE | BRISBANE | CANBERRA | PERTH | ADELAIDE

# The Signature Team

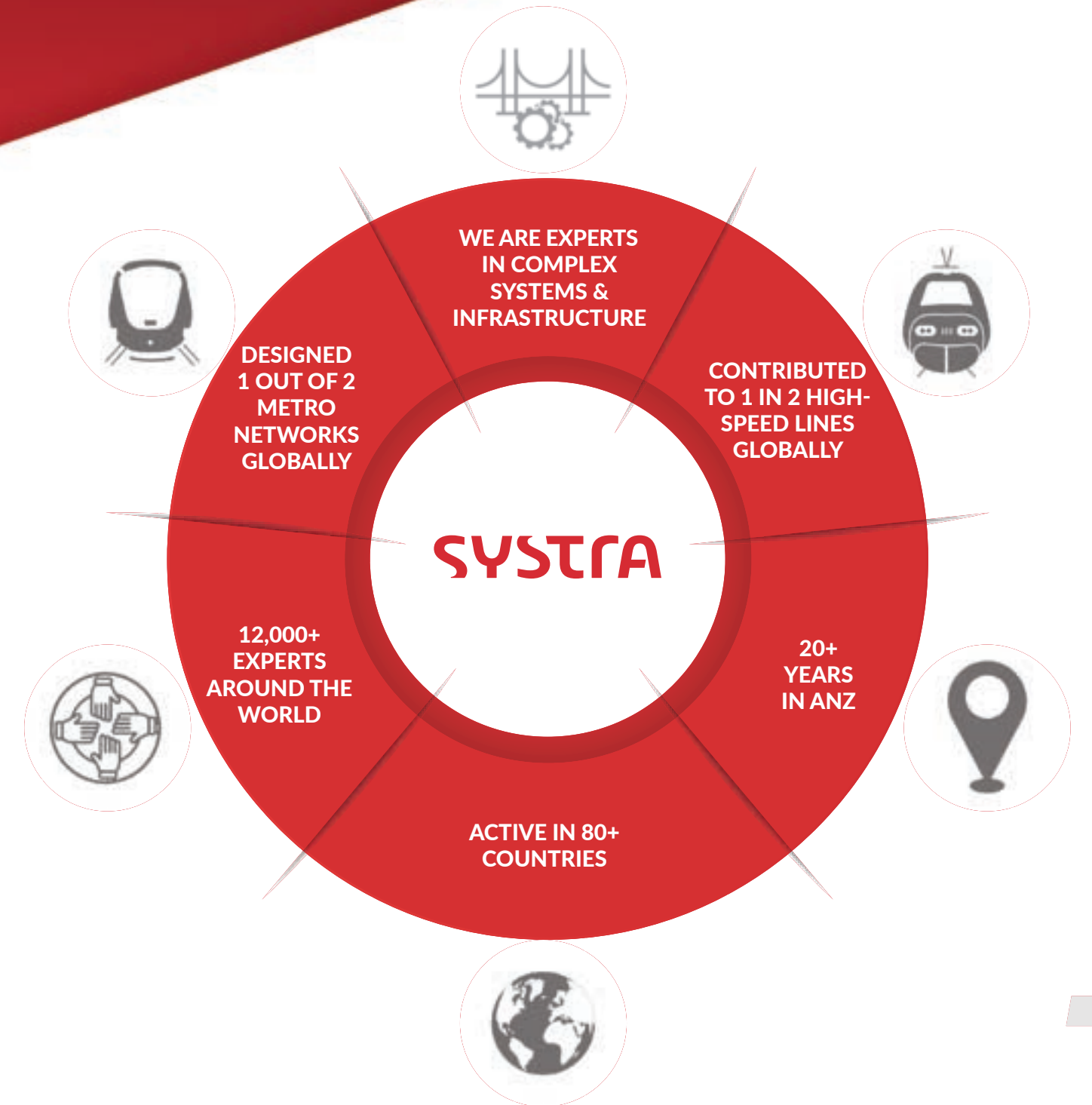
SYSTRA is one of the world's leading engineering and consulting groups. We are globally recognised leaders in mass transit, bridges and structures and transport.



#2	Mass transit & Rail
#3	Bridges
#6	Transportation



With over 65 years global experience and specialist hard to find engineering skills, we provide local teams unparalleled access to world-class infrastructure solutions. With confidence, we help the world move forward.



# Our Values

## EXCELLENCE

Rooted in our engineering culture, excellence is an objective and a way of doing things. Our clients and projects are ambitious and demanding. Our commitment to design and deliver the best solutions is our promise drawn from trust, performance, and sustainability.

## CONNECTED TEAMS

We connect our experts throughout the entire Group and coordinate them to respond to the most complex issues. By going beyond cultural and technical challenges, we create teams united around the same objective, in which the talent of each individual contributes to the success of all.

## BOLD LEADERSHIP

The projects we accompany profoundly transform mobility. Through our capacity for innovation and project management know-how, we provide fresh answers for our clients and the bold leadership necessary for change. Our task is to consider, design, and imagine today the mobility solutions of tomorrow.

**OUR STRENGTH LIES IN OUR PEOPLE.** We bring together unrivalled technical expertise, deep local insight, and a clear understanding of each project's unique environment. It's this combination that sets us apart and ensures we deliver tailored, practical solutions that make a real difference.

Our teams' flexibility, dedication and focus on outcomes are key to helping our clients achieve success — for today, and for the future of the communities they serve.





# **SYSTRA** in Australia and New Zealand

## Our Signature Difference



### **WE SPECIALISE IN SOLVING THE MOST COMPLEX, TECHNICAL CHALLENGES IN INFRASTRUCTURE**

We have delivered some of the world's most demanding and transformative projects. Our expertise lies in applying deep technical knowledge and proven experience to create solutions that are robust, resilient and built to last.



### **LOCAL PRESENCE BACKED BY GLOBAL EXPERTISE**

We provide local experts with a deep understanding of the environment in which you operate backed by subject matter experts from across the globe.



### **WE SPECIALISE IN INTEGRATING COMPLEX SYSTEMS ACROSS CRITICAL INFRASTRUCTURE**

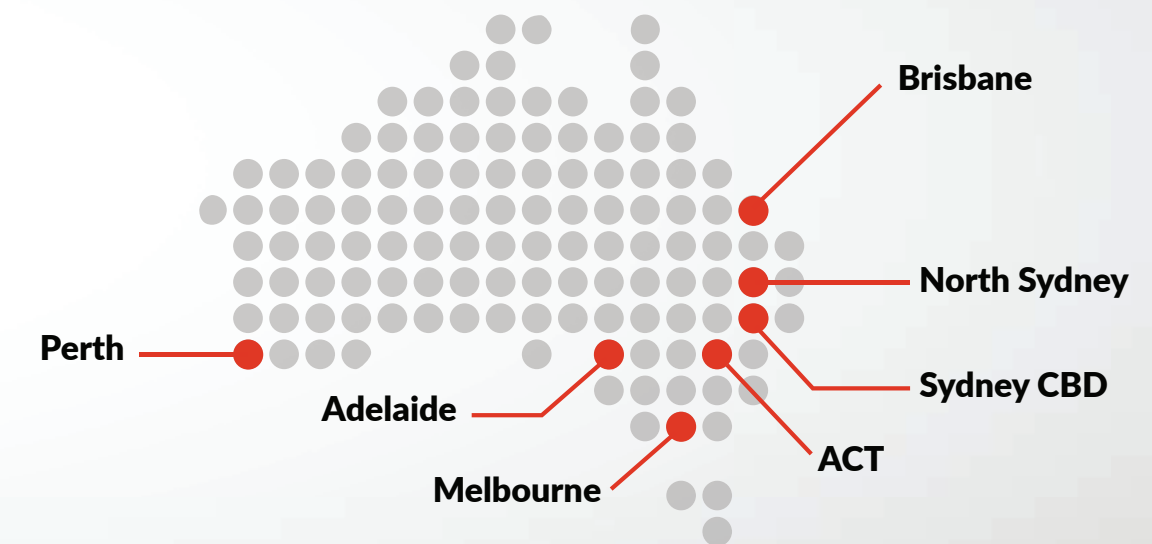
With deep expertise in managing interconnected systems, we ensure seamless alignment of people, processes, and technology throughout the project lifecycle. Our holistic approach delivers robust, practical, and future-ready solutions that make complex projects work efficiently and effectively.

# What we do

Our rapidly growing team **over 350 across Australia** provide solutions for our clients building, operating and maintaining critical infrastructure in transport, government services, water, energy and power.



# Our Offices



# Supporting our clients and partners

We provide integrated solutions across the full lifecycle of all infrastructure types. Drawing on our roots in the French railway, we place the end-user and long-term sustainable outcomes at the heart of everything we do.



## PLANNING & CONSULTING

We help guide public and private infrastructure owners, planners, regulators and policy makers through all stages of the project lifecycle. From business cases to project delivery, operating and managing assets.



## FEASIBILITY

We assess the technical, economic and operational viability of projects to inform confident decision-making. From early options analysis and cost-benefit assessments to risk evaluation and recommendations for next steps.



## DESIGN

We deliver world-leading, innovative, sustainable, and constructible designs. Using digital solutions, we create smarter infrastructure while meeting client and regulatory requirements through integrated systems engineering, safety, human factors, and cybersecurity expertise.



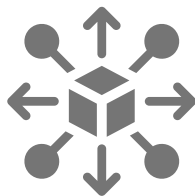
## PROJECT MANAGEMENT & CONSTRUCTION SUPERVISION

Our teams of project, commercial, testing, construction management and surveillance engineers manage and supervise activities at all stages of a project.



## TESTING & COMMISSION

We ensure systems are safe, fully integrated, and ready to perform. From initial migration strategies, testing and commission plans to on-site testing and handover, we deliver seamless transitions to operation.



## ASSET MANAGEMENT

We manage the full asset lifecycle ensuring your infrastructure delivers long-term value and reliability. Our approach benefits clients by combining planning, training and day-to-day maintenance to maximise reliability, extend asset life and ensure seamless operations.



# Capabilities

- Signaling and digital train control
- Telecommunications & operational technology
- High Speed Rail
- System Integration
- Systems Engineering & Safety Assurance
- Network Modelling & Optimization
- Human Factors
- Rollingstock
- Transmission Lines
- Energy Transition
- Independent Certification & Construction Surveillance
- Tunnels and Underground Structures
- Trenchless
- Bridges & Elevated Structures
- PumpedHydro
- Major temporary works
- Digital Engineering
- Project and Commercial Management
- Constructability Reviews
- Mechanical & Electrical
- Environment & Sustainability

# Our Signature Projects

A quick glimpse into some of our key projects from Australia and around the world.







# Systems References



## CROSS RIVER RAIL

Cross River Rail is a 10.2km rail line in Brisbane, including 5.9km of twin tunnels and four new underground stations. SYSTRA has been a long-term supplier to the Alliance delivering the European Train Control System, partnering with Hitachi Rail and Queensland Rail to provide systems integration, human factors, technical advice, and assurance services. As part of our role, SYSTRA has mobilised an international team of technical specialists experienced in delivering similar projects across the world, to ensure operational readiness. Additionally, SYSTRA have also provided constructability advice during concept design and tender, including construction methods, options analysis, cost planning and engineering reviews.



## SURBURBAN RAIL LOOP

Suburban Rail Loop will deliver a 90km rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport, better connecting Victorians to jobs, retail, education, health services and each other. SYSTRA have been engaged by EIC Activities (the lead consultant for Tunnels South) on behalf of Suburban Connect (CPB Contractors/ Acciona/Ghella Joint Venture). Systra will support

the design of the mainline tunnels segmental lining (16km of twin bored tunnels from Cheltenham to Glen Waverley), and the cross passage permanent support and low point sumps. This engagement continues our successful partnership with EIC activities from the bid phase, into the detailed design phase of the project. The design is being delivered utilising a core team of in country experts located with the SCJV office in Melbourne, supported by additional expertise and resources at our tunnels centre of excellence in Italy. Under a separate commission with Suburban Connect, SYSTRA are also providing System Engineering and System Assurance for the full scope of Work Package C.



## METRONET MORLEY ELLENBROOK

SYSTRA is supporting Perth's METRONET Morley-Ellenbrook Line by providing design, supply, and commissioning services for communications subsystems and operational technology. The 21km rail extension includes five new stations, improving connectivity for Perth's northeast suburbs. SYSTRA's expertise ensures seamless integration of critical rail systems, enhancing safety, efficiency, and reliability. As a key contributor to this major infrastructure project, SYSTRA is helping to deliver a modern, well-connected transport network that supports Perth's growing population and long-term mobility needs.



## GRAND PARIS FRANCE

SYSTRA is present in all phases of the Grand Paris Express, the largest infrastructure project in Europe. Many of SYSTRA's areas of expertise are mobilised in the service of this project, designed to transform the mobility offer in Île-de-France. SYSTRA takes a systems integration approach, supporting Société du Grand Paris (SGP), the government agency responsible for the Grand Paris Express, at all phases of the project: from study and design phases commencing 2011 until completion of the network, expected by 2030.



## HIGH SPEED 2 (HS2) UNITED KINGDOM

HS2 will create a new high-speed railway linking up London, the Midlands and the North, serving eight of Britain's 10 largest cities. After working on HS1, the first high speed line in the United Kingdom, SYSTRA is a key player in HS2. In 2017, the Balfour-Beatty-VINCI JV appointed SYSTRA/Mott MacDonald 50:50 JV, the civil engineering designer, for the 90km long 'N1 and N2' section. In 2019, as part of the Balfour Beatty and VINCI (BBVS) JV, SYSTRA was appointed Construction Delivery Partner for the new Old Oak Common, the largest rail station to be built in London for a century. In 2023 SYSTRA was also appointed the client-side System Integrator. SYSTRA in ANZ provided digital engineering support for the HS2 slab track.



## SOUTH ATLANTIC HIGH-SPEED RAIL FRANCE

The Tours-Bordeaux route is one of Europe's largest rail projects. The route links the cities of the Atlantic coast to the Paris region and Eastern France and improves high speed connection to Spanish trading markets. Journey time between Paris and Bordeaux has been cut by 50 minutes to just 2 hours 5 minutes. SYSTRA played a central role on this project for over a decade, working as design project manager as well as setting up joint ventures to manage signalling, telecommunications, energy and superstructure. SYSTRA design expertise included scheme design, design of civil engineering structures and railway equipment, management of administrative issues, planning management and production of operating plans.



■ HIGH SPEED 2 (HS2) UNITED KINGDOM





# Infrastructure References



## SYDNEY TO NEWCASTLE HIGH SPEED RAIL

SYSTRA, in partnership with Arup, is contributing to the Sydney–Newcastle High-Speed Rail project by focusing on the planning of network operations. Commissioned by the High-Speed Rail Authority, SYSTRA's responsibilities include analyzing operational and maintenance requirements for the initial segment between Sydney and Newcastle. This corridor, currently the busiest regional route with nearly 15 million passengers annually, is poised to become the backbone of Australia's high-speed rail network. SYSTRA's global expertise in high-speed rail ensures the development of an efficient, reliable, and sustainable transportation solution that will significantly enhance connectivity along Australia's east coast.



## SYDNEY METRO

Sydney Metro is Australia's largest public transport project, delivering four metro lines, 46 stations, and 113km of new rail. SYSTRA ANZ has played a key role across all project phases, contributing to every

major package in various capacities. This includes independent certifier roles on three lines, system integration support for the Martin Place and Victoria Cross station precincts, and the development of the project's digital engineering framework. We've also provided engineering and constructability advice on tunnelling methods, fit-out strategies, and construction approaches.



## BORUMBA PUMPED HYDRO

SYSTRA is supporting Queensland Hydro's Borumba Pumped Hydro Project by providing specialist engineering and advisory services. Located near Imbil, northwest of the Sunshine Coast, the project will deliver 2,000 MW of dispatchable power and 24 hours of energy storage, supplying electricity to approximately 2.3 million Queensland homes. SYSTRA's expertise ensures efficient design, risk management, and integration of complex systems, contributing to the development of a reliable, sustainable energy solution for Queensland's future power needs.



## GREATER CAIRO METRO EGYPT

The Cairo Metro was the first of the three full-fledged metro systems in Africa and the first in the Middle East to be constructed. Since the first line opened in 1987, it had to grow to support 23 million passengers by 2022. The Egyptian government took stock of this challenge 40 years ago and entrusted the design of the Greater Cairo Transportation plan to SYSTRA in 1970. Since then, 3 lines have been built, all involving SYSTRA, from the original design to the supervision of construction, commissioning and maintenance.



## CHEVES HYDROELECTRIC PLANT PERU

The CHEVES Hydroelectric Plant produces energy by directing the water of the Huaura and Checras rivers through turbines. It is a significant project in that it takes advantage of the regions natural surroundings to provide a sustainable energy supply. In operation since 2015, it produces 825GWh of energy annually. On behalf of our client HOCHTIEF, SYSTRA was responsible for the detailed design of the underground structures and technical assistance and oversight during construction including around 20km of drill & blast tunnels (transfer, headrace, surge, access, and tailrace) and powerhouse complex with 2 large caverns.



## SHEIKH JABER AL-AHMAD AL-SABAH CAUSEWAY, KUWAIT

The Sheikh Jaber Al-Ahmad Al-Sabah bridge will transform travel in Kuwait Bay, holding the world record for the longest offshore section, with 34.1 km of road built above the sea. This unique bridge transforms road travel for Kuwaitis, with a crossing of the bay reduced from 70 minutes to just 20 minutes and will contribute to the development of the new city of Madinat Al-Hareer. From 2013 to 2019, SYSTRA worked in a design-build partnership with the construction consortium formed by the South Korean Hyundai E&C and the Kuwaiti CGCC. SYSTRA was responsible for the full design and all activities from the tender to detailed design stages. SYSTRA also pioneered a world first, completing the precasting of prestressed spans of 40 and 60 meters using a pre-tension system in a dedicated casting yard, significantly reducing impacts on marine ecosystems and construction risks and costs associated with offshore works.

■ SHEIKH JABER AL-AHMAD  
AL-SABAH CAUSEWAY



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# SYSTRA

SYSTRA is one of the world's leading engineering consultancy firms.

Present in over 80 countries, it is our mission to be there where it matters; on the complex projects with the greatest impact, providing innovative solutions that will shape the future of our communities. With confidence we help the world move forward.

For more information about SYSTRA ANZ

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