

RED

THE WORLD'S LEADING DESIGNER
OF COMPLEX BUILDINGS

ASIA PACIFIC

CAPABILITY STATEMENT

Leading experts in the APAC market, our Engineering Design consultancy **specialises in the Built Environment, Data Centres, ICT and Sustainability.**

A company of **TRACTEBEL**


ABOUT RED

As a global powerhouse of engineering design, RED has spearheaded the drive toward achieving the zero-carbon objective for two decades. Our unwavering commitment to sustainable innovation is the cornerstone of delivering transformative, commercially viable, low-carbon solutions, positioning us as industry leaders dedicated to a sustainable future.



Award Winning and International



Market Leading Technical Expertise



Trusted Advisor



Sustainable Engineering Solutions for the Built Environment



Founded in 2004



Specialist Engineering and ICT Solutions

46

Industry Awards

850+

Employees

16

Offices in Key International Cities

31

Countries with RED Projects

49

Languages



WHY CHOOSE RED?

RED's reputation is built on a foundation of unparalleled technical expertise. We're proud to boast a team of specialists at the forefront of innovative solutions. Our international presence ensures a global perspective, allowing us to address complex challenges with a diverse and inclusive approach. Client trust is paramount, earned through a track record of delivering exceptional results and maintaining an unwavering commitment to our clients' success. Moreover, our dedication to sustainability is embedded in every aspect of our work, reflecting a conscientious effort to create environmentally responsible solutions for a brighter future.



Our People
A talented team and staff retention rate of 90%+.



Repeat Business
We have long standing partnerships with our clients and a repeat business rate of 84%.



Global Delivery Strategy
Global offices provide a 24 hour working day.



Technical Ability
Digital services and in-house technologies to transform vast amounts of information into digital tools.



Growth
We have sustained year-on-year growth since 2004.



Global Network
Our offering is further complemented by our parent company, Tractebel.



OUR CORE VALUES

Our people are our greatest asset. Recognised for our dedication to workplace well-being, RED proudly attains "Gold" in Mind's Workplace Wellbeing Index and recently won MEP Middle East's "Wellbeing Initiative of the Year" award for our RED Wellness program. Our success hinges on the exceptional work our team delivers daily, and we place physical and mental wellness at the centre of our strategy to drive employee performance, happiness, and engagement.



We Are Bold
We dare to try.



We Are Open
We work together with collective strength.



We Are Demanding
We are always willing to go the extra mile.



We Are Caring
An environment based on trust and respect.

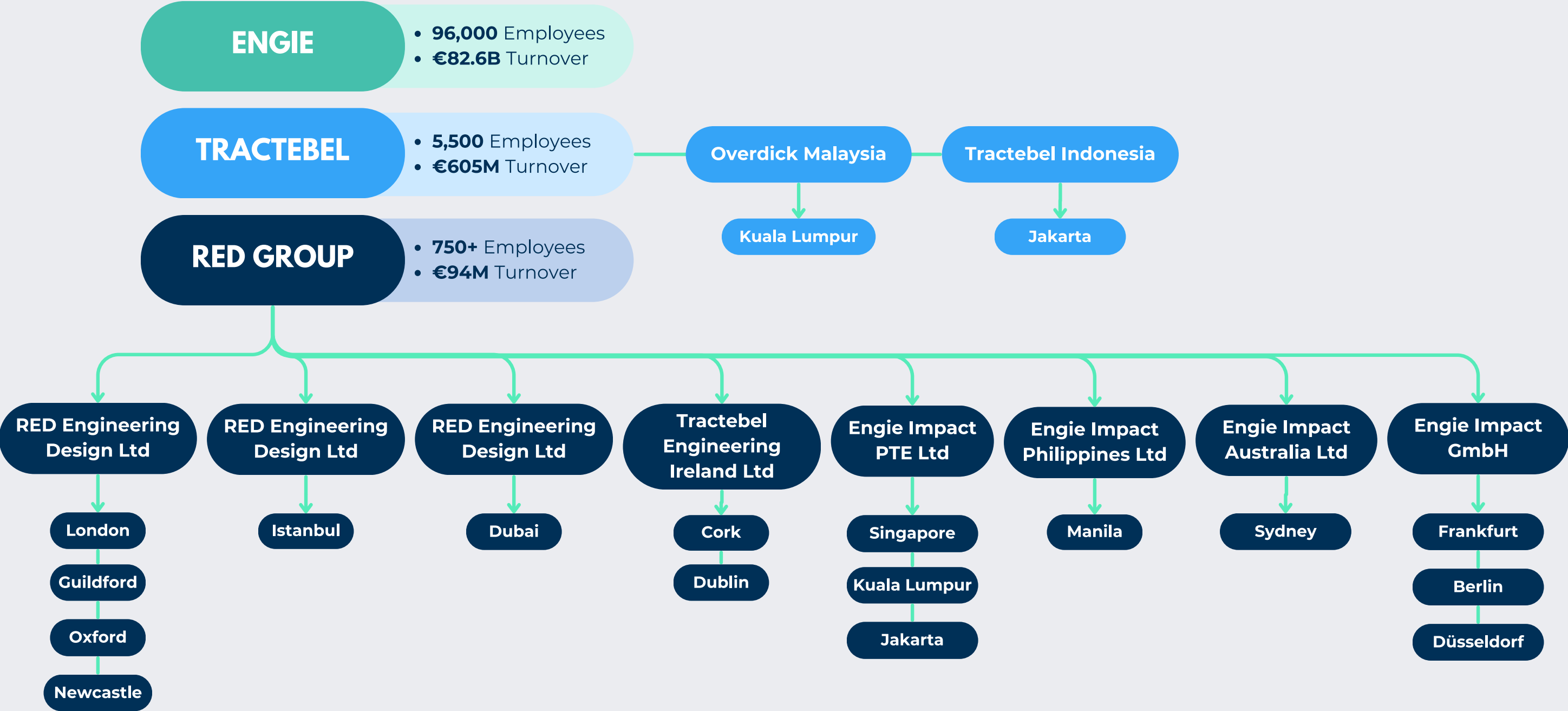


WORKPLACE WELLBEING

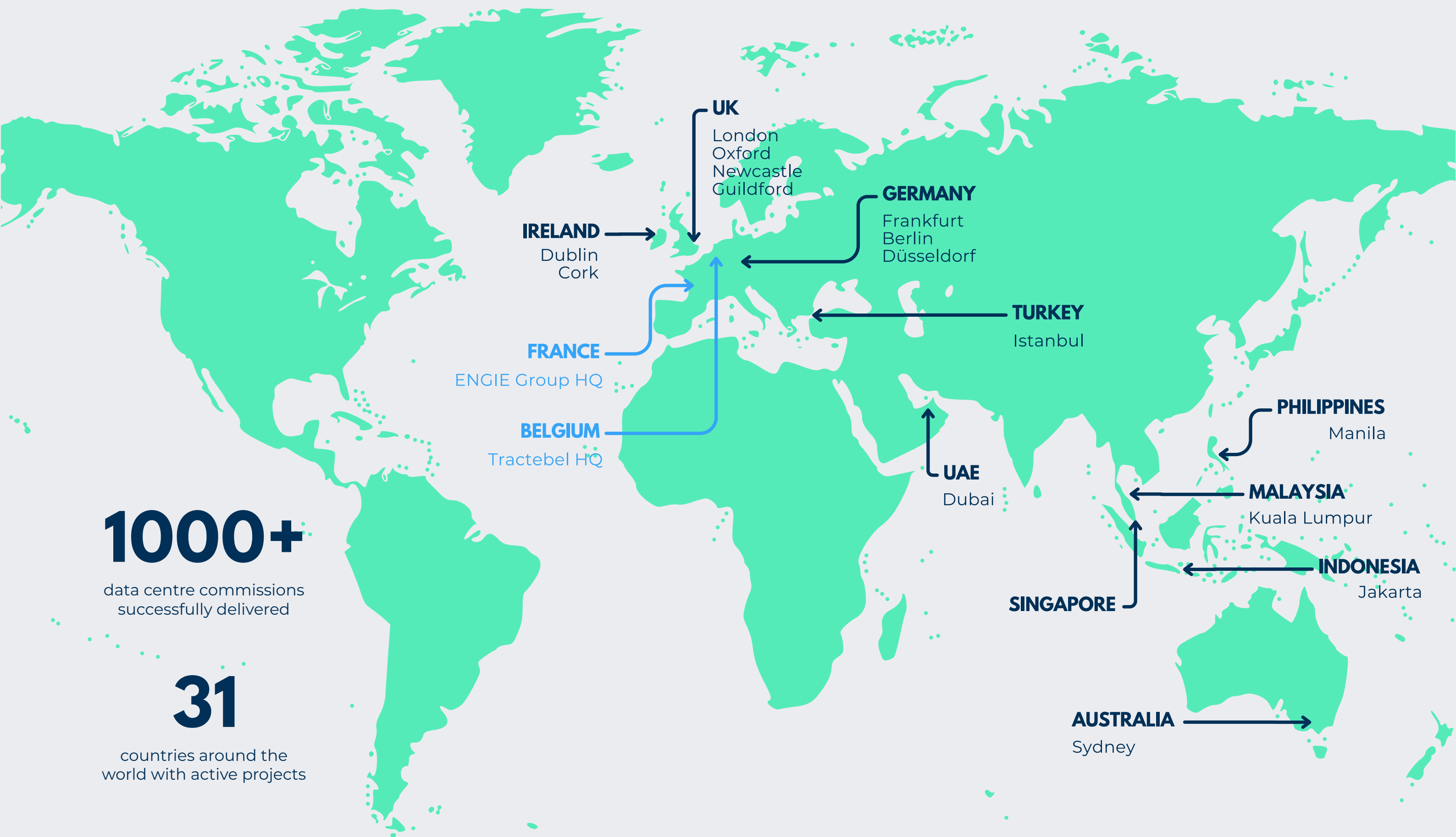
RED has been recognised for its commitment to workplace wellbeing and is proud to have achieved "Gold" in Mind's Workplace Wellbeing Index.



HOW WE OPERATE



RED'S GLOBAL PRESENCE



1000+
data centre commissions
successfully delivered

31
countries around the
world with active projects

TRACTEBEL

RED Engineering Design is a company of Tractebel, a global leader in sustainable innovation. Backed by more than 150 years of experience, Tractebel is a community of over 5,500 passionate experts across the globe, committed to ethical business and leading the fight against climate change. Tractebel is part of the ENGIE Group, a global reference in low-carbon energy and services.



Energy

- Power & Heat
- Renewable Energy
- Power Transmission & Distribution
- Gas



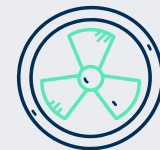
Water

- Water Resources
- Hydraulic Infrastructures
- Hydropower
- Coasts, Ports & Use of Water Resources
- Digital Services



Infrastructures

- Urban, Design & Development
- Environment & Climate Change
- Transport & Mobility
- Buildings & Complex Structures
- Geo-Engineering



Nuclear

- New Build
- Advanced Technologies
- Plant Operation Support
- Radwaste, Decontamination & Decommissioning

As RED's parent company, Tractebel offers an additional range of expert engineering services to clients by leveraging its global presence and vast experience in sustainable design practices.

Tractebel's expertise are trusted worldwide across multiple markets like nuclear, renewables, power & gas, electrical grids, hydropower & dams, water resources & supply, desalination, complex & high-tech buildings, transport infrastructures, and ports & waterways. This enables Tractebel to provide comprehensive solutions tailored to the specific needs of clients.

By connecting strategy, design, engineering, social & environmental studies, project management and in-house digital applications, we partner with companies and public authorities to create a positive impact on people and planet. This holistic approach ensures that engineering solutions are not only technically sound but also environmentally sustainable and socially responsible.

Backed by more than 150 years of experience, today Tractebel is a community of over 5,500 passionate experts across the globe, committed to ethical business and the fight against climate change. Tractebel is part of the ENGIE Group, a global reference in low-carbon energy and services.



RED IN ASIA PACIFIC

RED has been in Asia Pacific for more than 17 years and our head-quarters is based in Singapore as the key hub of our operations and to serve the wider region in the Pacific.

We are providing services that cover the Data Centre and the wider Built Environment sectors, focusing on complex buildings. We have a strong and knowledgeable local resource who are experienced in delivering Data Centre projects across the globe.

In Asia, we have designed and delivered over 1.5GW, master planned more than 6.5GW of IT facilities, undertaken site due diligence studies, and managed fit-out and upgrade works across seven countries in APAC in just the last few years. We are regularly employed as the lead consultant, providing the Architect/Engineer services via a single appointment, and have a dedicated Design Project Management team to manage these projects through feasibility to handover.

For the past few years, RED has expanded its presence in the Asia Pacific region where we have permanent staff located in Malaysia, Indonesia, the Philippines and Australia to serve the region, our growing clients, and project portfolio.

APAC REGIONAL HIGHLIGHTS

RED as part of its expertise is continuously delivering data centres from sprawling, vertical and underground facilities across the region where our scope covers due diligence, technical advisory, multi-disciplinary design services, construction support and commissioning advisory services.



13
Uptime Institute - Accredited
Tier designers & professional
across Asia Pacific region.



548,000m²
BIM projects designed over the
last five years for Asia Pacific
region.



100+
Data Centres delivered in
Asia Pacific region for multi-
technology, telecommunications,
colocation and financial
investment corporations.



300+
Staffs in Asia Pacific region
and 85+ of them are located in
Singapore.



300kW - 1.5GW
Data Centre campus designs.



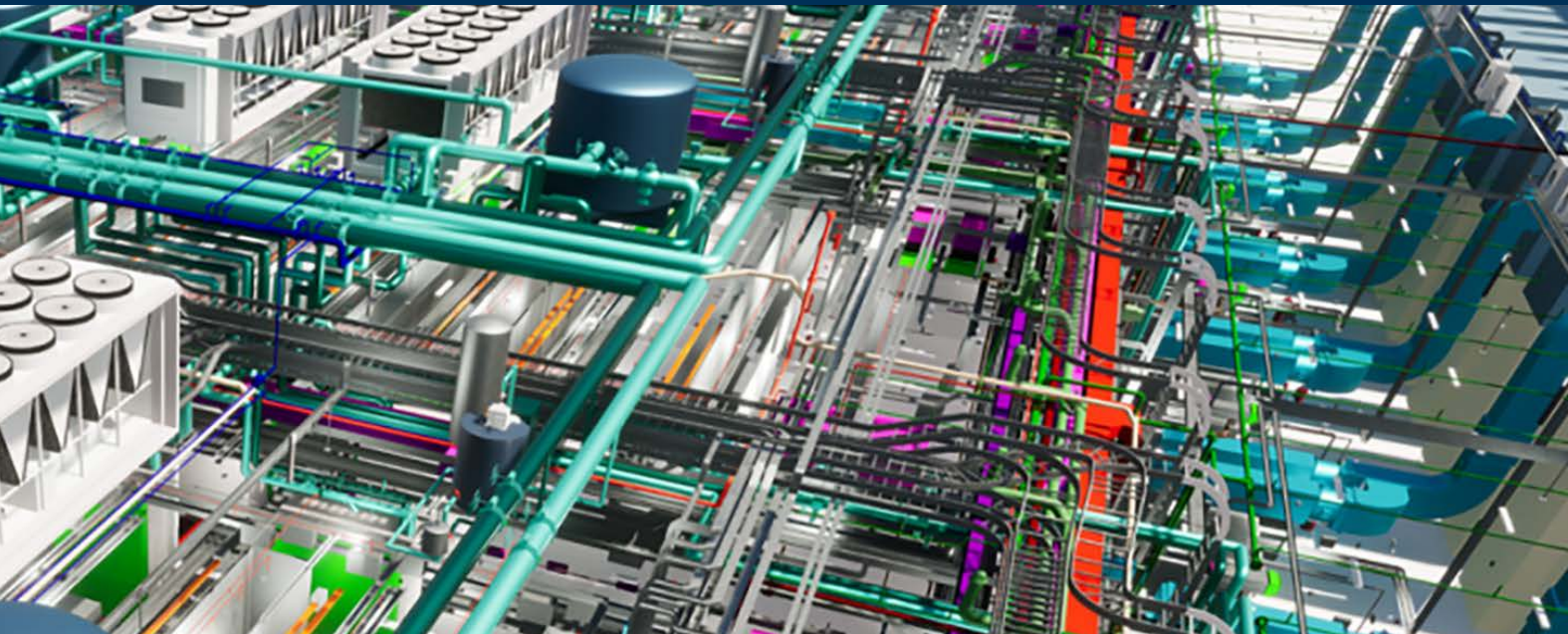
6.5GW
Masterplanned of IT facilities in
Asia Pacific region



30MW DATA CENTRE

Thailand

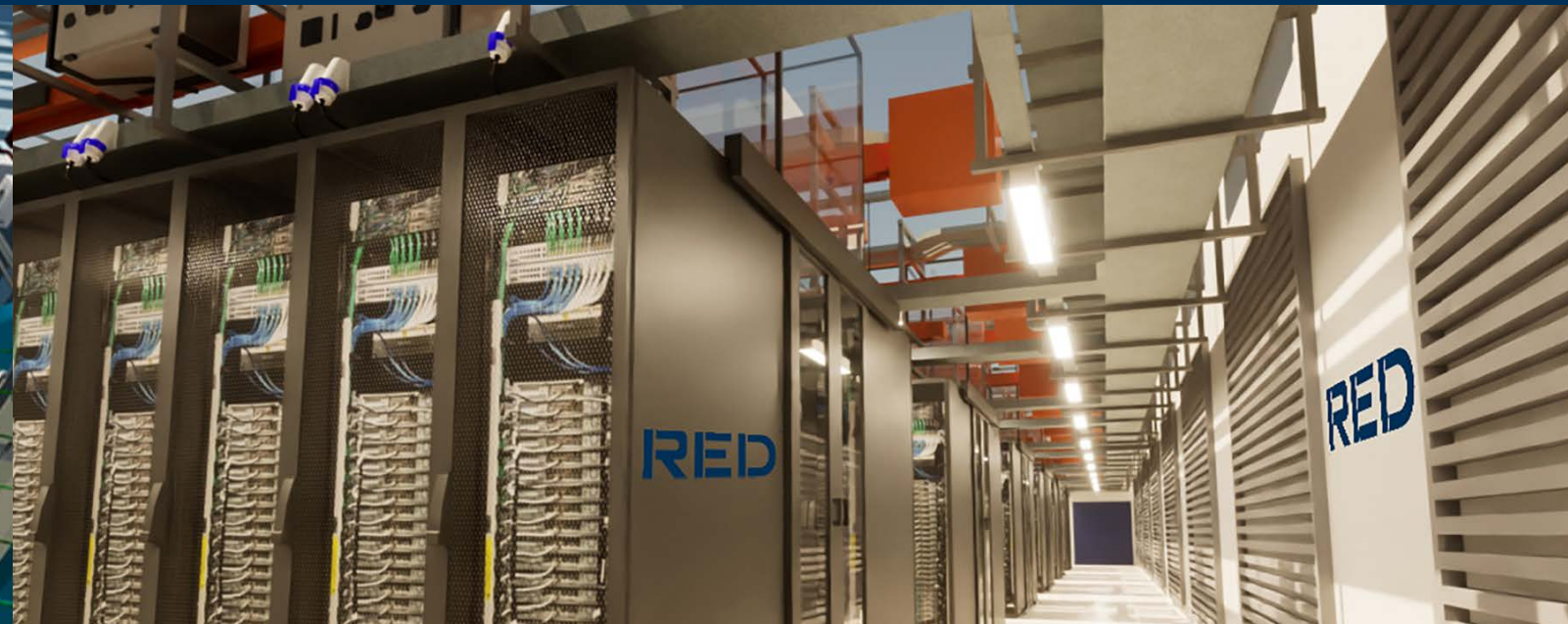
RED has been awarded to provide a full lead design consultancy services to review, localise and develop a master plan design to realistically maximise the IT yield for completeness and system operability ethos of the proposed site for a data centre located in the metropolis of Bangkok.



56MW DATA CENTRE

South Korea

Concept design of a hyperscale campus facility compose of two buildings with a scale of 9-storey plus 2 common basements used for 154kV substation. Day 1 will be fed directly from the high voltage with 2N feeders and 154/22.9kV primary transformers. The target PUE of the facility is 1.4 and with a cooling system of Air Cool Chiller.



28.8MW DATA CENTRE

Taiwan

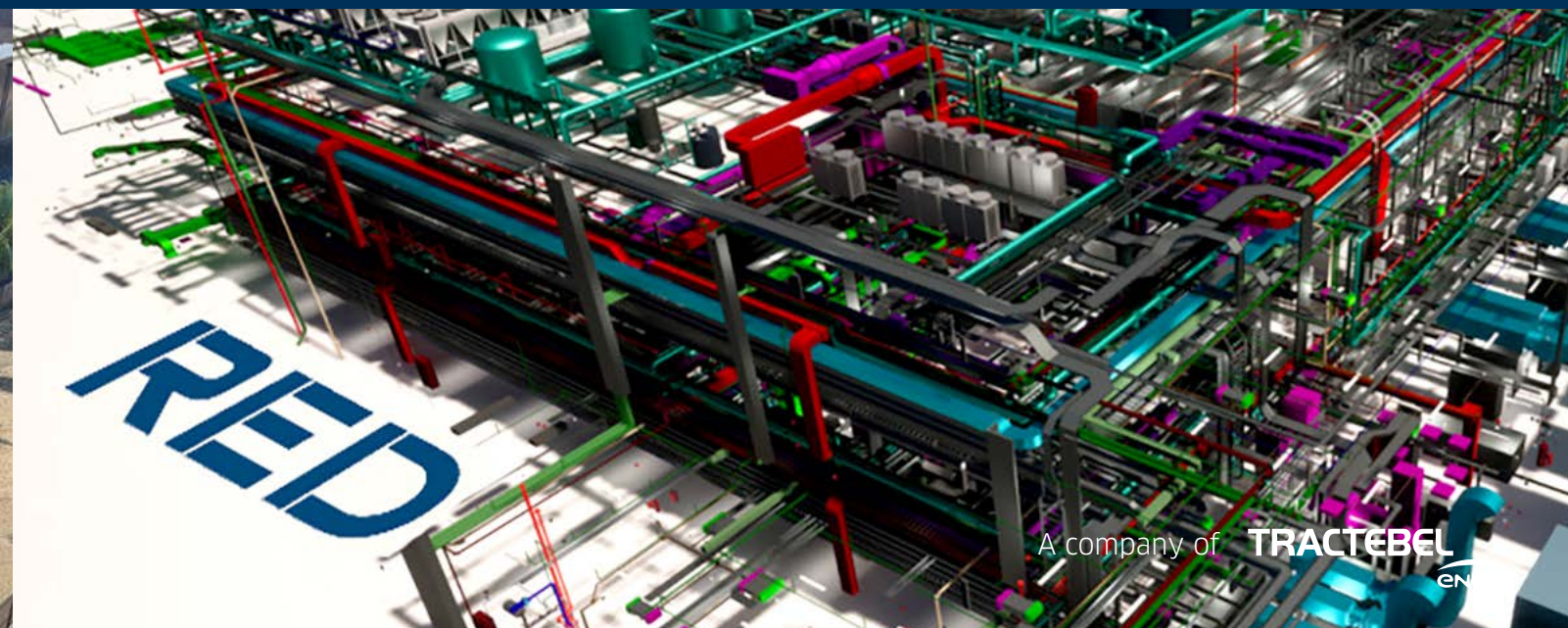
Appointed by a D&B contractor to provide design management services on engineering design elements such as HVAC, Plumbing & Sanitation, Fire Protection & Life Safety, HV, MV, LV electrical systems, PMS, BMS and ICT as part of our design services.



48MW SIN(W)

Singapore

MEP Consultant for the new flagship 5-storey greenfield facility designed to peak of PUE of 1.47. Part of our scope is to review the design and implementation of the contractors D&B approach.



A company of **TRACTEBEL** EN

APAC DATA CENTRE REACH

Indonesia

- Naragong:** 200MW Master Planned

MM2100: 60MW Master Planned

GIIC: 542MW Master Planned | 120MW Designed | 273 MW Detail Design

KIIC: 90MW Master Planned | 16MW Designed

Metrolink: 20MW Master Planned | 20MW Designed, Detail Design

Suryacipta: 60MW Master Planned
- Jababeka:** 60MW Master Planned

South Jakarta: 90 MW masterplanned | Basic Design, Detail Design

Central Jakarta: As-Built & Optimisation

South Jakarta: As-Built & Optimisation

Tangerang Selatan: As-Built & Optimisation

Jatiluhur, Purwakarta: As-Built & Optimisation

Malaysia

- Completed Projects**

 - 2.4MW UpTime TCCF review (Cyberjaya)
 - 240MW SDD (Cyberjaya)
 - 60MW SDD (Johor)

In-construction

 - 45MW full multi-disp design (Johor)
 - 16MW full multi-disp design (Cyberjaya)
- In-design**

 - 22MW MEP design (Johor)
 - 3MW MEP design (Cyberjaya)
 - 40MW MEP + lead consultant (Selayang)

Philippines

- South of Manila:** 36MW Hyperscale DC, Lead Consultant
- Manila:** 90MW Hyperscale Data Centre, MEP Consultant
- Batangas:** 1.1MW Cable Landing Station, Due Diligence Study
- South of Manila:** 22MW Data Centre, Technical Due Diligence Study
- General Trias Cavite:** 69MW Data Centre, Lead Consultant

Australia

- Total live MW IT capacity**

 - Australia: 1050MW
 - Sydney: 650MW
 - Melbourne: 200MW
 - Canberra: 100MW
 - Perth: 50MW
 - Brisbane, Adelaide, & Darwin: 50MW
- Sydney**

 - 650MW Capacity
 - 64MW Vacancy (11%)
 - 82% Colocation
 - 18% Self-Build



COMPREHENSIVE SERVICES

Adapting to client needs and the evolving environmental landscape, RED's services cover the entire life cycle of any building project. Our broad capabilities save clients time, money, and effort, addressing challenges from high-performance buildings to multi-use land developments for a more sustainable world.



MEP Services

- MEP Design
- Lead Designer
- Site Services
- Client Representative
- Life Cycle Works
- Commissioning Management



ICT

- Strategic Consultancy
- Technical Migration and Project Management
- Critical Facilities, Infrastructure Design, Procurement and Site Services
- In-Service ICT Consultancy



Sustainability

- Whole life Carbon assessment & reporting
- Carbon/Energy – Auditing, Modelling, Part L
- Certification - LEED, BREEAM, WELL+, NABERS, Greenmark
- Corporate Sustainability



Health & Safety

- CDM Principal Designer
- CDM Advisor
- Design in Safety
- Hazard and Operability Studies



Process Engineering

- Specialist Consultancy Services
- Specialist Expertise
- ATEX, HAZOP, Arc Flash, HV



Lifecycle Solutions

- Identifying and implementing plant replacement works
- Carrying out Technical Due Diligence Surveys & Reports on MEP Services

DIGITAL & VIRTUAL ENGINEERING TOOLS

RED's in-house team of industry specialists excels in modelling and R&D, transforming vast information into digital tools. Our digital services and in-house technologies pave the way for sustainable, data-driven businesses.

Digital Engineering & BIM

Integrated team of engineers, designers and BIM co-ordinators bringing true digitalisation of the design process together for project delivery.

Energy & Water Efficiency

RED's bespoke web-based app that provides climate and efficiency metrics for data centres across different locations and design configurations.

Carbon Reduction Analysis & Building Modelling

Dynamic thermal simulation tools to use real weather data and occupancy and internal heat gain profiles to predict thermal loads, energy and daylight performance.

CFD Modelling

Complex airflow, temperature and pressure distribution, modelled using leading CFD software in the data centre industry, 6SigmaDCX, in line with industry best practice.

BRIZA

RED's generic modelling tool for the flow of energy and water in complex process dominated building systems, including data centres.

Embodied Carbon and Whole life Carbon Analysis

RED utilises in-house tools to calculate, analyse, and consult on the whole-life carbon of building designs and refurbishments. This supports GLA, LEED, BREEAM approvals and wider carbon reporting for our clients.

Digital Twinning & Augmented Intelligence

Digital Twin and AI tools to uncover new resilient strategies, that not only help to shape the built environment but also reduce project environmental footprint.

Twinmotion

Digital Visualisation and rendering platform that allows us to bring to life in imagery and VR a variety of complex infrastructure designs.

Point Cloud

Point Cloud surveys are used to establish the exact dimensions of existing architecture, structure and services.

ACCREDITED & CERTIFIED

RED's professional accreditations and certifications demonstrate our industry expertise and commitment to excellence.

Global accreditation and qualifications. Our designs and people often achieved "first in class"

- Accredited Tier Designers
- Certified Data Centre Sustainability
- Professional
- Certified Data Centre Design Professional
- BREEAM Accredited - Professionals & Assessors
- ESOS Lead Energy Assessor
- LEED / WELL Build Assessor
- Low Carbon Consultants and Energy Assessors

RED's work is accurate and certified benefiting both cost and programme management

- ISO 9001 | ISO 14001 | ISO 45001 | ISO 50001 | ISO 27001 Pending
- CSCS Platinum Certified
- SSIP Accredited
- PAS 91 Compliant (Constructionline)
- Approved Safe Contractor
- BS7858 Security Cleared Personnel
- SBTi Certification Pending

HEALTH & SAFETY

RED's team of specialist engineers provides exceptional site-related services, offering unparalleled health and safety guidance during projects. With extensive expertise, we ensure a safe and secure working environment, mitigating risks and ensuring compliance with health and safety regulations for successful project execution.

We advise and assist our clients through their construction projects to ensure that they are compliant with local Health & Safety regulations.

CDM Advisor

We provide CDM advisory services, guiding clients through the construction phase of their projects. With expertise in Construction Design and Management (CDM) regulations, we offer valuable support to ensure compliance and manage health and safety risks. Our dedicated team assists clients in navigating the complexities of construction while prioritising the well-being of their workforce. By leveraging our services, clients can confidently achieve regulatory compliance and successfully complete their projects.

CDM Principal Designer

Principal Designer services within RED are led by individuals that have extensive Project/Design Management experience and offer a hands-on approach to CDM Management.

Design in Safety

We offer comprehensive Design for Safety (DfS) assessments, which aim to proactively identify and mitigate safety and health risks associated with a project. Our assessments focus on integrating good design practices during the conceptual and planning stages, ensuring optimal risk reduction.

HAZOP Review

We provide Hazard And Operability Study (HAZOP) assessments to identify potential process controls, HSE and operational problems associated with the design, construction, maintenance or operation of a project.



PROCESS ENGINEERING

RED designs for Safety, Sustainability, and Customer Satisfaction. With 30 years of experience, RED delivers safe, sustainable, and customer-centric designs that prioritize safety, flexibility, and ergonomics, from start to finish.

Health & Safety Services

RED offer a wide range of professional services, including principle consultant roles, PSDP/ PSCS (Project Supervisor Design Process/ Project Supervisor Construction Stage), and comprehensive site support throughout the construction process. With a strong focus on health and safety, our dedicated team ensures the highest standards are met, providing excellent guidance and support to ensure a secure and compliant working environment for all stakeholders involved in the project.

Consultancy Services

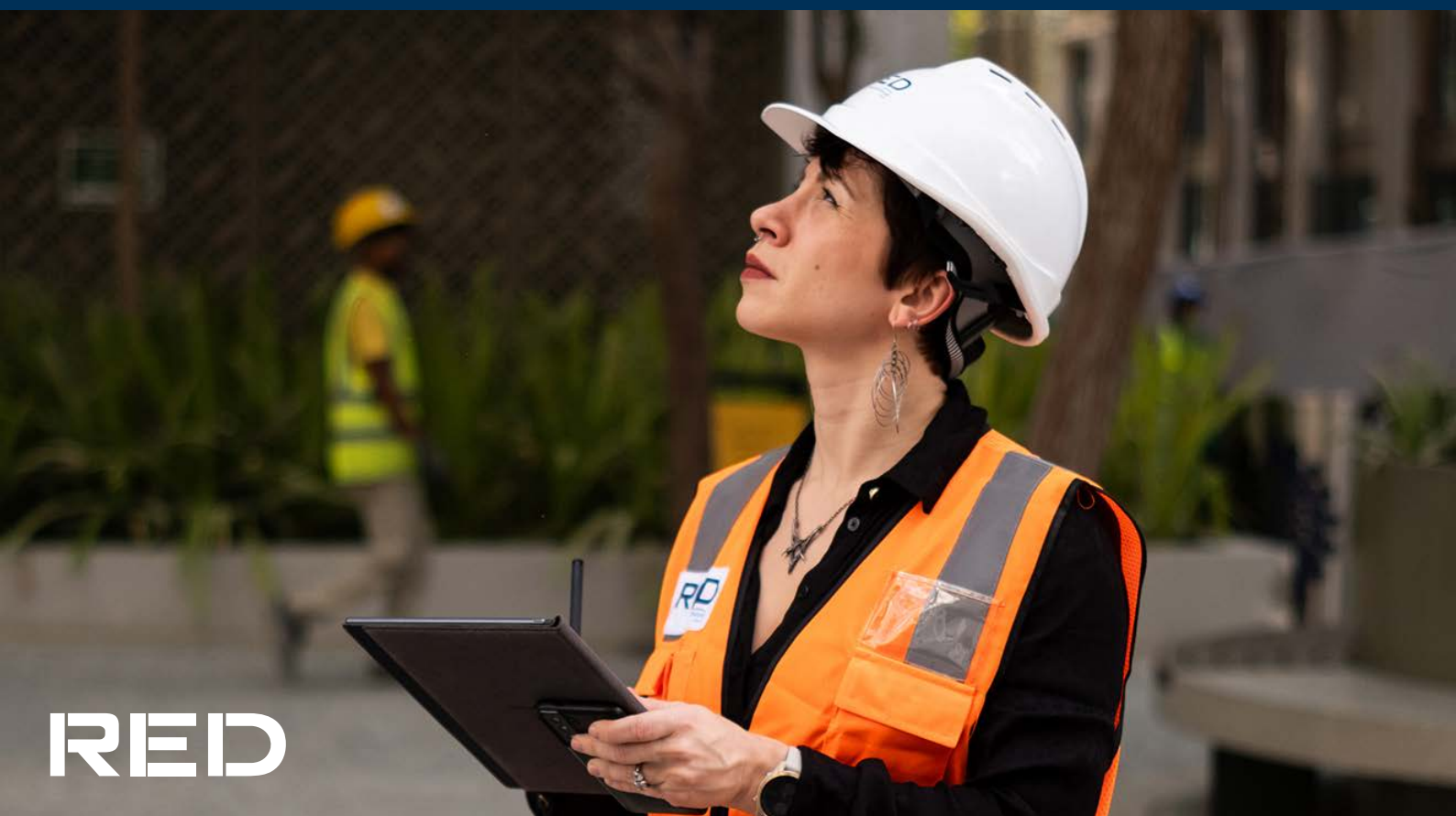
Our comprehensive range of professional services includes front-end studies, utility studies, detailed process and piping design, control instrument and electrical design, as well as mechanical design. With a team of experts, we deliver meticulous and precise engineering solutions tailored to meet the specific needs of our clients, ensuring efficient and effective project execution from inception to completion.

Specialist Consultancy Services

We provide Hazard And Operability Study (HAZOP) studies, Safety assessment, Explosion protection, ATEX Studies, Commissioning and validation to handover, Planning, project lifecycle, piping stress analyses and environmental.

Specialist Expertise

We possess extensive expertise in various areas, including pressure relief devices, process utilities, and parenteral manufacturing. Their proficiency extends to the design of critical pharmaceutical components such as vials, lyospheres, cartridges, oral solid dosage forms, and API containment systems. Additionally, they excel in the intricacies of clean room design, ensuring the creation of controlled environments that adhere to stringent industry standards.



MEP SERVICES

Mechanical, Electrical, and Plumbing services (MEP) are vital in complex buildings, ensuring functionality, safety, and comfort.

Integrating MEP services efficiently is crucial in complex structures for building functionality, occupant comfort, and safety. From high-performance buildings to multiple land use developments, RED applies leading-edge tools to provide innovative MEP solutions.

Building Services

Core engineering design consultancy with specific expertise from advisory, through the various stages of design, construction support and commissioning. We collaborate with clients, design teams developers and main contractors to deliver high- performance and sustainable buildings.

Lead Designer

We engage with our trusted specialist providers to provide full design duties for all disciplines including civil, structural and architectural services along with telecoms, security and local consultants. All in addition to our core MEP services.

Commissioning Management

Structured and comprehensive pre-commissioning and formal commissioning effort to ensure quality throughout the project.

Client Representative

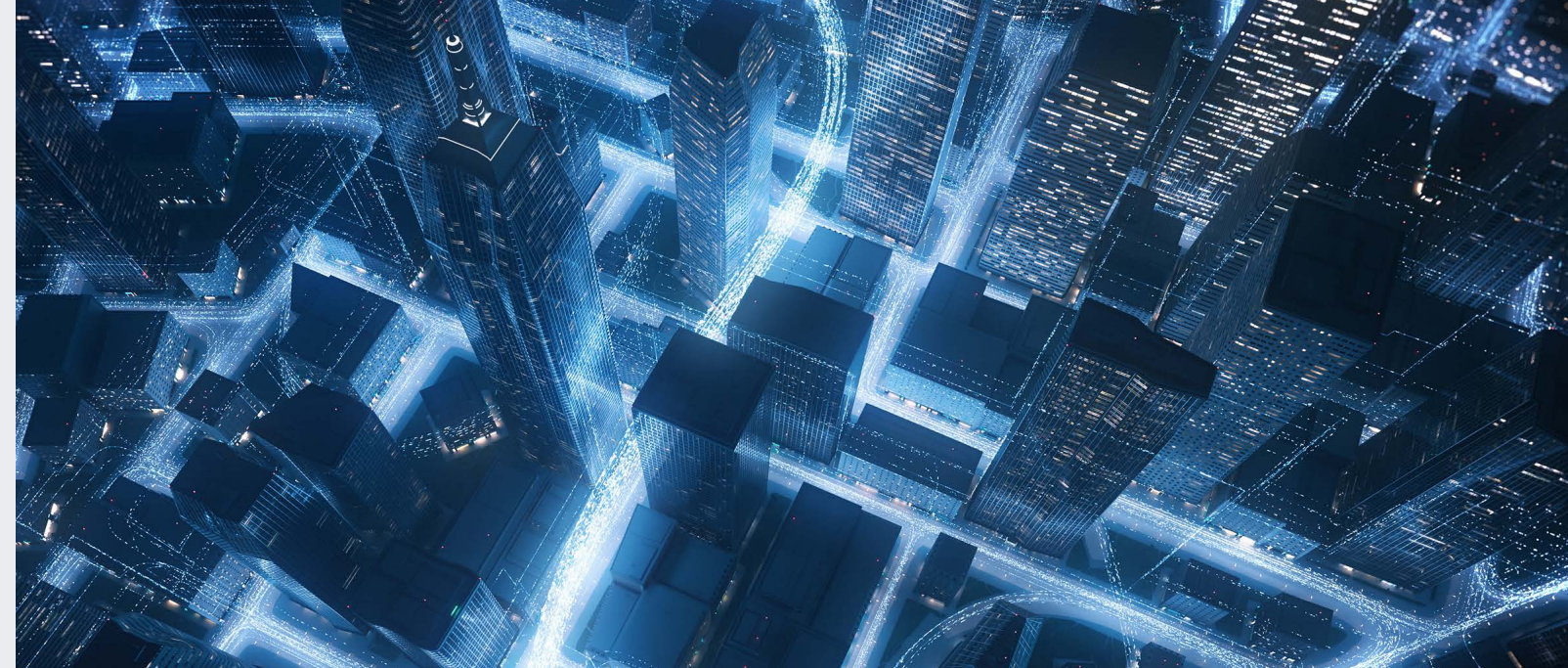
Technical project management services from concept stage to handover. Supporting clients with Technical reviews, programme advice, procurement advice, progress monitoring, quality control and witness testing.

Life Cycle Works

Undertaking the site surveys, condition reports, MEP design, construction support and commissioning of plant upgrades within live facilities.

Site Services

Site services within mission critical buildings and data centre facilities. This includes due diligence audits, site investigations, SPOF analysis, condition reports and Net Zero intervention works.



ICT

RED delivers excellent ICT services by integrating enterprise technology architecture, ensuring seamless connectivity and optimised systems for today's digital landscape.

Our design standards meet growing user expectations, maintaining high service levels and information availability. We create operational networks that cater to diverse needs, from public to corporate domains. Our designs support cloud, social networking, and mobile collaboration in the digital economy.

Strategic Consultancy

Whether a building scheme or a large campus capital development project; the RED ICT consultancy team engage with the key project stakeholders to ensure that the technical architecture strategy is future-proofed to reflect the demands of today's connected economy, to delivery mobility and continuous connectivity with on-line information resources.

Critical Facilities, Infrastructure Design, Procurement and Site Services

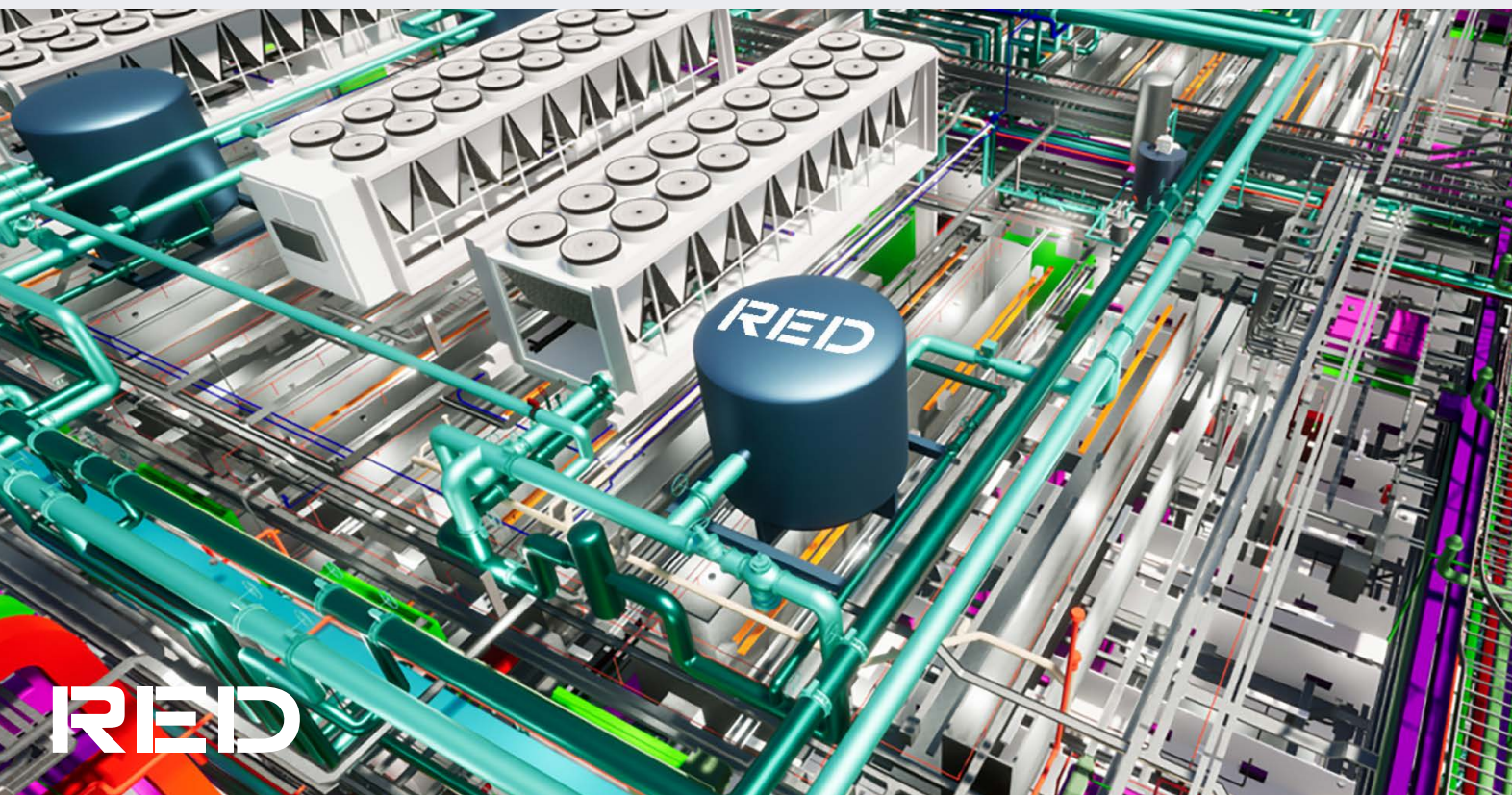
We deliver technical excellence often in demanding project conditions. Centred upon ICT and telecommunication infrastructure; we provide a complete range of project lifecycle consultancy services from initial requirements brief through detailed 2D/3D drawings and technical design specifications to supply chain consultancy and commissioning management services.

Technical Migration & Project Management

We partner with client ICT service management teams to plan and execute the seamless migration of ICT resources to support system upgrade and premises relocation. Our professional services include project budgeting, procurement consultancy and employers representative in resident engineering and commissioning management.

In Service ICT Consultancy

Operators and investors are increasingly focussed upon continuous improvement in operational efficiency. We provide a range of resident engineering technical review services associated with converged IP data network operational performance. Project examples include technology asset audits, ICT equipment performance review, DC facilities audit, risk & resilience review, network security assessment, SLA alignment.



RED



LIFECYCLE SOLUTIONS

The specialist services team within RED has a team of individuals that specialise in identifying and implementing plant replacement works within existing building.

Key Facts

Subject Matter Experts: Extensive design resource and R&D team with experts in key systems/ equipment.

Practical approach to design: Hands-on approach to design and implementation with engineers that have practical site experience.

Safety by Design expertise: CDM experts undertake safety in design reviews as part of internal QA Technical review process.

Commissioning expertise: Commissioning experts undertake commissioning reviews on designs as part of QA Technical review process.

Dynamic implementation: Use of digital & virtual engineering tools alongside our design office in Manila ensures an efficient delivery model.

Typical scope of services includes:

- MEP design packages
- Feasibility reports
- Condition reports
- Site validations
- Life-cycle costing studies
- Low carbon technology studies
- Plant replacement strategies
- Buildability / phasing methodology advice
- Planning / programmes
- Energy and carbon assessments
- Project risk analysis

FOCUS ON SUSTAINABILITY

RED's Sustainability Solutions & Climate Change team delivers comprehensive sustainability analysis, compliance, certification, reporting, and strategy services. Aligned with IPCC's 1.5C global temperature increase target (2032), we guide clients in adjusting project parameters for environmental resilience, flexibility, and compliance with evolving legislation.



Sustainability Audits

The first step in any client's ambitions to reduce energy & carbon. Our audits vary in scope and are tailored to provide outputs to match clients reporting needs with GRESB, CRREM, UKGBC, ISO 50001, TCFD etc formatting.



Green Energy

RED's mission is to accelerate sustainable transformation with outcomes such as zero carbon, and we have extensive experience in Green Hydrogen, Wind, Solar, Geothermal & Biomass/ Bio Fuel.



impACT Consultancy

Aligned with the RIBA Plan of work Green Overlay & BSRIA BG6, our services are tailored to provide clients with a clear understanding of their projects' environmental impact and the actions they can take to make that impact as positive as possible.



Certifications

RED offers BREEAM Advisory Professional and consultancy services and works with clients to develop cost-effective strategies to meet planning requirements, providing support through to final certification. We also offer NABERS, LEED and WELL building standard consultancy.



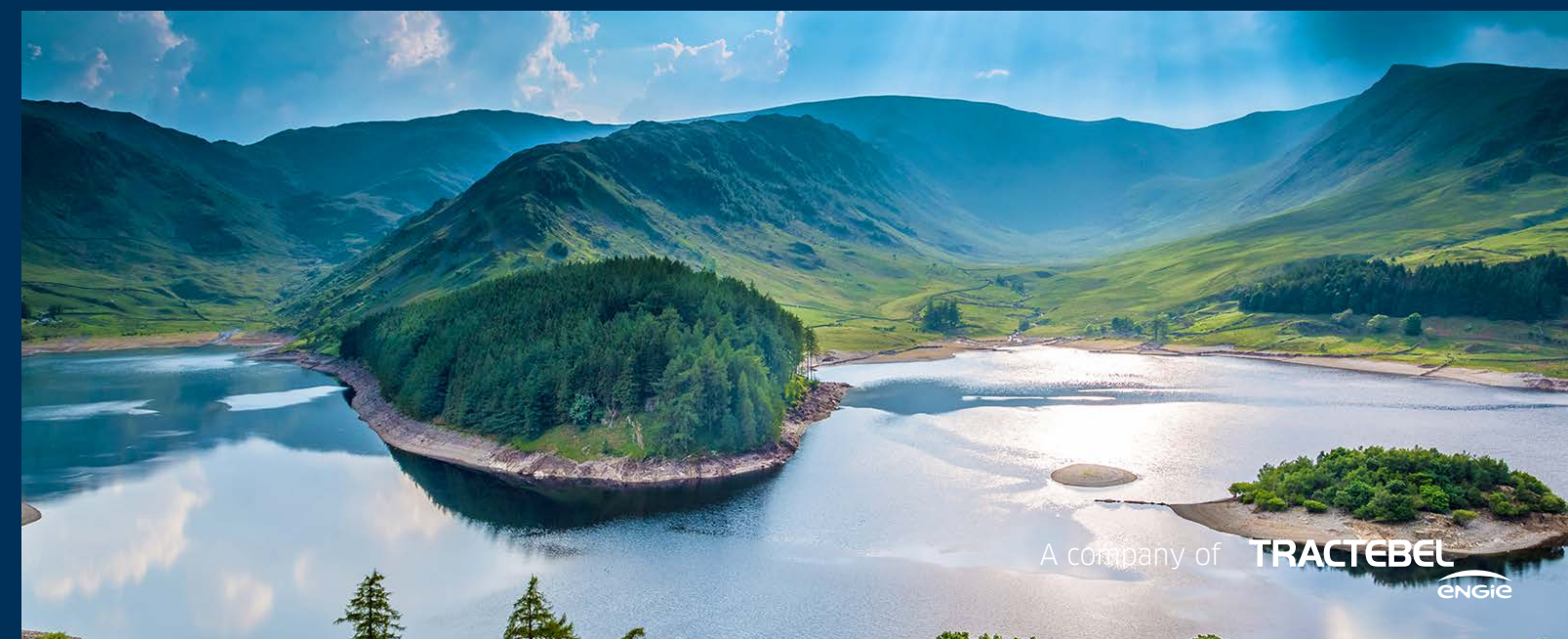
Embodied Carbon – Life Cycle Assessments

Material & Equipment Embodied carbon studies including quantification and improvement studies to feed into project life cycle assessments.



Sustainability Regulation Compliance

Part L compliance. EPC assessments. ISO 50001 Planning Assessments. Planning Energy Statements. IES Modelling.



EXPLORING SECTORS

RED's operations are divided into several sectors to cover the cutting-edge services that we provide across the Built Environment and Data Centre markets. By seamlessly navigating various sectors, we position ourselves as a go-to partner for innovative, efficient, and sustainable engineering solutions.



Data Centres

Cloud
Colocation
End User
Managed Services
Modular



Commercial

Commercial Office
/ Mixed Use
Workplace fitout
Retail



Lifestyle

Hotels
Venues
Residential
Heritage



Life Sciences

Pharma & Biotech
Medical Devices



Transport & Aviation

Bus depots
Airport terminals
Manufacturing



Warehouse Logistics

Warehouses /
Distribution Centres
EV Infrastructure
Utility Due Diligence &
Negotiations



Public Sector

Healthcare
Government
Education
Aviation
Defence
Court Buildings



Industrial

Industrial Food &
Beverage
General Chemical
Process Plant



DATA CENTRES

In an increasingly interconnected world, Data Centres have become vital hubs for businesses, housing vast amounts of data. RED stands at the forefront of innovative design, offering energy-efficient data centres and mission-critical facilities.

Cloud Services

RED has significant experience of hyperscale facility design and has positioned itself as the go-to engineering practice in EMEA for cloud providers and hyperscale operators. Our masterplan designs have improved operational efficiency across 100s of MW and allowed our clients to scale out their sites more effectively.

Managed Services

Some of the world's leading managed service providers rely on RED to provide engineering expertise to design and support their operations so that they can provide comprehensive services to their clients. Our experience across the other sub-sectors uniquely positions RED to provide a 360-degree view on resilient engineering principles. Our understanding of customer SLAs allows us to benchmark facility design and align this to the tenant's requirements.

Colocation

RED's hands on approach and flexible design solutions have allowed operators to manage growth more effectively with scalable system designs better matching the demand curve for space and load.

End User

Many of our commissions continue to come from end-users. They often have one-off and very bespoke requirements. RED's approach to these is to bring design simplicity, flexibility and efficiency to support effective operations, and look forward to continuing this trend going forward.

Modular

RED has been a leader in the design of modular data centres for the last ten years. We designed the world's first Uptime Institute Tier III certified modular data centre and since then, have continued to develop our expertise in modular data centre design and innovation.

Report & Advisory

Due Diligence and Acquisition Support: RED carries out due diligence surveys, supporting investors and operators. Resilience and SPOF Reviews: Frequently RED is asked to get under the skin of a data centre and advise exactly what is there and if it falls short on the customer's requirements. Operational and FM Reviews: RED review and appraise systems, processes and teams delivering operational support and facilities management across all data centre types.



Hotels

Services design of upscale hotels, luxury resorts and boutique hotel projects



Venues

From education sports halls to Olympic stadia, RED understands that all types of sports venues should inspire those people surrounding them.



Residential

Full range of residential developments including high-end, private sale / private rental schemes, student and affordable housing.



Heritage

Engineering services consultancy for the refurbishment and re-purposing of historic buildings across all sectors.



LIFESTYLE

We meticulously attend to a diverse range of projects, including hotels, sporting venues, and mixed-use developments. Our expertise involves crafting pragmatic design solutions tailored to individual clients, meeting specific criteria or brand standards for experienced developers. Our approach maximises value and promotes sustainable design principles.

From hotels, venues to residential developments and religious and heritage buildings, we approach each project with the attention to detail and care that our clients expect and deserve.

We are equally skilled in developing bespoke designs for one-off clients and working to detailed criteria or brand standards for experienced developers. In all cases we aim to maximise value for our clients to create truly sustainable development.

COMMERCIAL

We prioritise human health and quality of life in commercial developments, aiming to optimise productivity, sustainability, and circularity. RED specialises in designing new buildings and upgrading existing ones, collaborating with developers, architects, consultants, and contractors in various contract arrangements. We understand the importance of meeting industry standards and compliance for successful project delivery, including environmental, water, and energy objectives.

Commercial developments have a major impact on human health and quality of life. From office environments to retail developments, we strive to create the very best user experience to optimise productivity and enhance long-term sustainability.

Skilled in the design of both new buildings and the upgrade and refurbishment of existing buildings, RED works for developers, architects, consultants and contractors in all forms of contract arrangements. We understand the key drivers for delivery of successful projects to the latest industry standards and energy targets.

Retail

High street retail, prestigious shopping centres, retail stores, food and beverage, distribution centres and mixed-use developments.



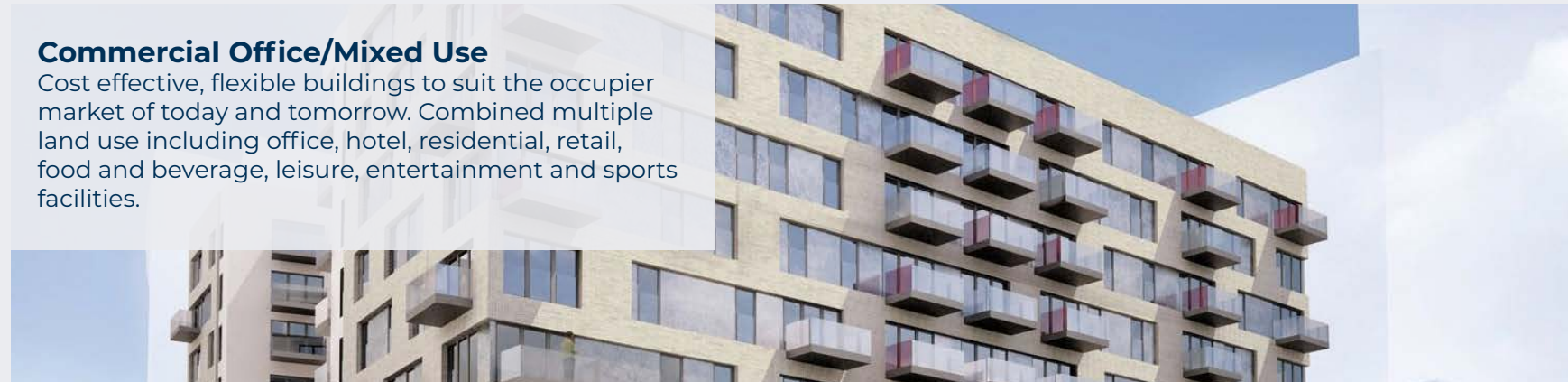
Workplace fitout

Contemporary world-class corporate workplaces for leading occupiers.



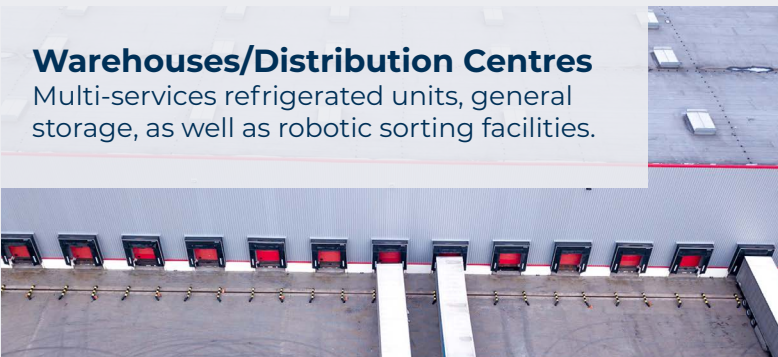
Commercial Office/Mixed Use

Cost effective, flexible buildings to suit the occupier market of today and tomorrow. Combined multiple land use including office, hotel, residential, retail, food and beverage, leisure, entertainment and sports facilities.



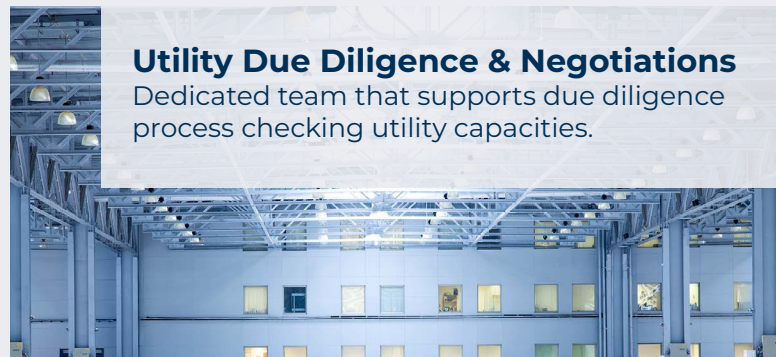
Warehouses/Distribution Centres

Multi-services refrigerated units, general storage, as well as robotic sorting facilities.



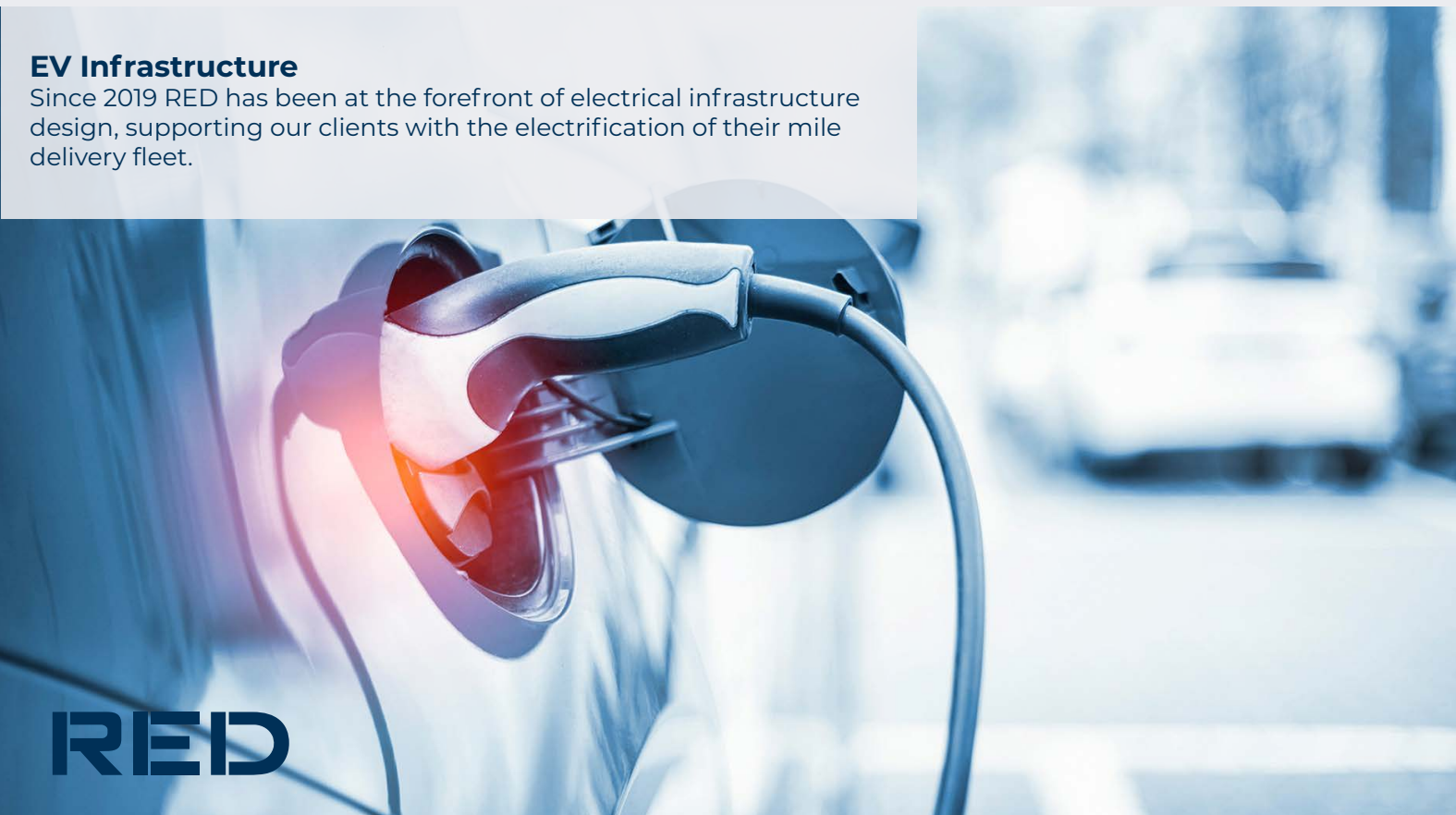
Utility Due Diligence & Negotiations

Dedicated team that supports due diligence process checking utility capacities.



EV Infrastructure

Since 2019 RED has been at the forefront of electrical infrastructure design, supporting our clients with the electrification of their mile delivery fleet.



WAREHOUSE LOGISTICS

We bring a unique and diverse approach to warehouse and logistics buildings globally, drawing on our extensive knowledge in this sector and a pool of trusted clients. As a key design partner, we have worked with many retailers, developers, and tenants, contributing to projects ranging from fully automated to refrigerated warehouses. Additionally, we possess extensive expertise in the infrastructure for the electrification of delivery fleet vehicles.

Typical appointments for a warehouse logistics project would cover:

- Co-ordination of incoming utility services
- Mechanical & electrical design
- Above ground drainage design
- Sprinkler design (where required)
- Quality control of the building services installation
- Witnessing of all testing
- Commissioning management
- Management & review of all handover documentation
- BREEAM/LEED/WELL/NABERS Consultancy
- ECA (Embodied Carbon Assessments)
- Energy statements & audits
- Sustainability

Our design stage works can be undertaken in BIM 3D Modelling where required. CDM Principal Designer & CDM Advisory role can also form part of our appointment.

LIFE SCIENCES

As global life expectancy rises, the life sciences sector's pursuit of innovative solutions and new treatments becomes increasingly vital. We provide our clients with access to subject matter experts and a skilled, experienced team dedicated to life sciences projects. Our reputation is built on designing complex projects that guarantee successful outcomes for our clients.

Key Facts

Roles: Lead consultant and management of design team from concept through basic and detailed design through construction management to handover.

Experience: Design, PM and Consultancy service across every sector of the Life Sciences industry, including inter alia, Pharma, Biotech and medical devices.

Capabilities: Front end studies, utility studies, detailed process & piping design, instrumentation & control system design, mechanical and electrical design commissioning and validation to handover, planning, project lifecycle, piping stress analyses, environmental consultancy.

Carbon Aghena: Access to global class; hydrogen design, circular economy design and sustainable design.

Safety: Designs for Safety and Uptime: HAZOP studies, safety assessments, Explosion Protection Document (EPD) preparation, ATEX studies, Arc-flash calculations.

Medical Devices

RED has extensive experience in the design, construction and qualification of Medical Devices projects. Similar experiences as noted above with the additional expertise of design of ETO sterilization facilities and nitrogen distribution systems. Please refer to our case studies for further information.



Pharma & Biotech

RED has extensive experience in the design, construction and qualification of Pharmaceutical and Biotechnology projects. This covers the API, Oral Solid Dosage (OSD) and Biotechnology Sectors. Specific expertise is available in containment, cGMP techniques, clean room design, multipurpose flexibility, filling, high purity water systems, environmental and hazard control and incorporation of single use technology.



Aviation

The exceptional strength of the RED aviation team is founded on our experience delivering over 100 aviation projects in the UK and internationally. We are experienced leading MEP and multi-discipline commissions to airports, operators and aviation architects.



Healthcare

Our Healthcare capability, founded upon over a decade of practice places your team in safe and competent hands. Our guiding principles ensure everything we deliver, permanent or temporary works, is suitably designed and considered for its life critical application.



Education

The RED team has extensive experience delivering to multiple higher education establishments. Our engineers have worked across multiple spaces including laboratories, performing arts, auditoriums and tech-labs.



PUBLIC SECTOR

With expertise in public buildings, we prioritise meticulous attention and care for each project. Our versatility shines through in creating custom designs for unique clients and adhering to strict criteria or brand standards for seasoned developers. Our goal is to maximise value and foster sustainable development.

Government & Court Buildings

Our team has worked with central and local government providing holistic refurbishment to central facilities as well as regional delivery to local councils including offices, training facilities, boiler houses and major plantroom refurbishments.



Defense

The defence sector demands the highest levels of resilience and security, drawing on RED's founding principles of robust and energy efficient engineering. Our team has worked with multiple defence agencies and contractors across an impressive portfolio of defence projects.



RED

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INDUSTRIAL

We have vast experience in industrial sectors like food & beverage, chemical, and process plants. Our expertise includes minimising carbon footprint, designing cleanrooms, wastewater systems, high purity water solutions, process control, utilities specification, and more. We leverage advanced engineering techniques for effective coordination and equipment integration, such as BIM, CFD modeling, Arc Flash calculations, and ATEX studies.

RED has experience in a wide range of industrial experience in the industrial food & beverage, general chemical and process plant sectors and can offer advice and solutions to reduce site operations carbon footprint.

Our expertise spans the design of, inter alia: Cleanrooms, Wastewater systems, High Purity Water solutions, Water processing systems, Process control solutions, Process Utilities specification, Food & Beverage processes, Distillery processes, Vendor coordination and equipment integration. Modelled and coordinated in BIM, with advanced engineering, inter alia, CFD modelling, Arc Flash calculations, ATEX studies and assessments.

Process Plant

To preserve best in class service delivery, our long experience of working on process plants has reaffirmed the need for meticulous record-keeping, together with preparation before meetings and clear understanding of Client's objectives. All of which informs our approach to projects. The bespoke nature of many process plants, requires that concepts are clearly laid down and that assumptions be challenged and verified. The attention to detail, which is the bedrock of our approach is one of the foundations of this Industry, where high standards prevail, and our services are trusted.



Industrial Food & Beverage

From distillery operations, food beverages production to general industrial development, our designs recognise the value of flexibility in process and utility piping design and in the ergonomics of the solution. In particular, our approach delivers increased safety through Ventilation solutions, ATEX assessments, ARC flash calculations and EPD.



General Chemical

Our experience includes buildings catering for the manufacture of generic drug product, inhalation product and fertility verification. We take time to understand what is important for clients and their processes. We remain mindful throughout the project life cycle of these imperatives, and they are fundamental to our design approach.



AVIATION

RED's adept aviation team, with extensive experience globally, excels in understanding key safety, operational, and sustainability drivers within the aviation sector. Our design strategies align with these drivers, and our leadership in sustainability contributes to supporting airports in their journey to net-zero through decarbonisation.

RED is an experienced airport designer having delivered facilities in the UK, Europe, Middle East and Asia.

The RED team has been engaged by airport operators, airlines, contractors and architects for over a decade delivering aviation projects.

With our understanding of the challenges and pressures being faced in the industry, we can design, plan, advise or manage airport development projects anywhere around the world.

Our engineers have developed particularly strong relationships with leading UK airports and have a thorough understanding of airport operations, standards and protocols having delivered a project types including F&B, WC's, retail, baggage, security, engineering, offices, terminals and piers.

In the last year we have used the downturn in aviation to consider what this sector will look like as it emerges from the pandemic and the strong sustainability agenda required to make it a sustainable sector moving forward.

RECOGNISED BY THE INDUSTRY

RED's success can be measured by the repeat business from blue chip organisations and having won awards for our sustainable engineering and innovation, often beating off long-established competitors in the process.

IN 2024

- GOLD AWARD RECOGNITION:** WORKPLACE WELLBEING, MIND Index 2023/24
 - WINNER:** YOUNG CONSULTING ENGINEER OF THE YEAR (MECHANICAL), Syeh Hafiz, ACES Awards 2024
 - WINNER:** TOP 50 WOMEN IN ENGINEERING, Maira Bana, WE50 Awards 2024
 - HIGHLY COMMENDED:** ELECTRICAL ENGINEER OF THE YEAR, Sarah Hussain Zahidi, Middle East MEP Awards 2024
 - WINNER:** SIR AWARD FOR OUTSTANDING CONTRIBUTION TO STEM EDUCATION NE, Diana Kenny, STEM Hub 2024
 - WINNER:** MOST INSPIRATIONAL NORTH EAST ENGINEERING EMPLOYER, RED Engineering Design, STEM Hub 2024
 - WINNER:** MEP YOUNG ENGINEER OF THE YEAR, Takwa Dawdi, CIBSE UAE 2024
 - WINNER:** MANUFACTURING ENGINEERING PROJECT OF THE YEAR, RED Ireland, Engineering Excellence Awards 2024
 - WINNER:** MECHANICAL ENGINEER OF THE YEAR, Esteban Castro, **CIBSE UAE Awards 2023**
 - WINNER:** ELECTRICAL ENGINEER OF THE YEAR, Sarah Hussain Zahidi, **CIBSE Awards 2023**
 - WINNER:** HIGHLY RECOMMENDED AWARD, Roshan Patel, **CIBSE Awards 2023**
 - WINNER:** YOUNG MISSION CRITICAL ENGINEER OF THE YEAR, Alex Doey, **DCD Awards 2023**
 - WINNER:** EMPLOYEE WELLNESS INITIATIVE OF THE YEAR, Middle East **MEP Awards 2023**
 - WINNER:** YOUNG ENGINEER OF THE YEAR, Takwa Dawdi, Middle East **MEP Awards 2023**
 - WINNER:** RISING STAR AWARD, Taya Williams, **Women into Construction CIC 2023**
- And more!





KEEP IN TOUCH


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Market-leading Engineering Design consultancy
**specialising in the Built Environment, Data Centres,
ICT and Sustainability.**