

# RED

**WE DESIGN THE BUILDINGS  
THAT CONNECT THE WORLD**

## ICT DESIGN

**CAPABILITY STATEMENT**

**RED ICT: Leading designers of innovative  
technology** for the digital economy.

A company of **TRACTEBEL**  


# INTRODUCTION

## Sustainability Innovation without Compromise

Today's connected society demands an integrated approach to the enterprise technology architecture.

As user expectations continue to grow, our design standards ensure the highest possible service levels are maintained at all times. In response to growing dependency on technology, we design enterprise networks that ensure our clients can meet the demands of every individual, whether in the public domain or across the corporate enterprise. Our sustainable design solutions support the cloud, social networking and collaboration in the mobile economy.

By adopting a strategic approach, RED ICT helps customers realise the strategic potential of a fully converged network environment.

**SMART  
CAMPUS**



**CONNECTED  
BUILDINGS**



**CONVERGED  
NETWORK  
ENVIRONMENT**



**INTELLIGENT  
BUILDINGS**





# ABOUT US

RED ICT is an independent technology consultancy practice. They partner with clients to challenge convention and innovate market-leading solutions.

RED ICT is a division of RED Engineering, a global company of specialist building services, process and ICT engineers. RED uses its market leading technical expertise to create a more sustainable and connected world.

As technology consultants, RED ICT specialises in the design and implementation of connected infrastructure, intelligent buildings and smart campuses.

Since 2018, RED ICT has been at the cutting edge of successful project delivery.

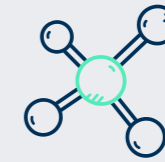
Take a look at some of our key achievements in ICT design:



**76**  
Cloud and Colocation Hyperscale projects completed



**10 to 650 MW**  
Core and Edge Colocation and Hyperscale Data Centre campuses



**19**  
Concurrently maintainable Data Centre campus locations globally



**17.5m sqft**  
Supporting 2.5m server rack positions



**Top Ranking**  
RED ICT undertakes continuous work for the world's top ranking technology firms and leading cloud providers



**ICT Migration**  
Enterprise-grade ICT asset transformation for several leading international technology clients



**£3.2bn**  
Actively contributed to capital projects



**£125m+**  
ICT infrastructure and networking product investment procured

# SMART BUILDINGS

RED ICT are leading specialists in the design and deployment of technology solutions in the built environment. As technology architects for the digital economy, RED ICT's infrastructure solutions align with three levels of application.

## SMART CAMPUS

SMART is the ability to make a space truly special for its users, to learn from them, to be constantly attentive to their needs, and to provide the means for constant improvements. These spaces perform more effectively, both iteratively and exponentially.

## CONNECTED BUILDINGS

Data cabling solutions, campus fibre optic cabling and containment systems, ICT equipment rooms, telecommunication services, AV solutions, and converged facility networking.

## INTELLIGENT BUILDINGS

Active ICT networking packages, BMS/PMS monitoring, building services and plant communications, security network, operational monitoring, and integrated management of the environment.





# AI-READY DATA CENTRE DESIGN

RED ICT are working with the data centre industry and operational community to understand and react to the impact of AI technology. We are focusing upon the potential implications upon the building technical infrastructure and operational technology environment.

## ENGINEERING THE AI INFRASTRUCTURE

We are leading the way in the technical specification and design detail of data hall facilities to support the new generation of AI technology. The corresponding power consumption and cooling demand require a radical rethink about precision cooling, physical containment and the underlying fibre optic, electrical and mechanical infrastructure.

## TECHNICAL ARCHITECTURE FOR AI

Traditional design assumptions may fail to meet the impending engineering demands arising from a new generation of computational and data communication technology. Our approach challenges conventional practices and we develop industry-leading conceptual design models with AI intensive power and cooling solutions.

## AI - STRATEGIC CONSIDERATIONS

In a professional advisory capacity, we place an emphasis on issues that need to be considered when future-proofing data centre investment, development and operation. Anticipated data processing transaction volumes to support continuous AI and machine learning applications represent an exponential increase in processing capacity.



# IT-READY DATA HALL

In response to growing demand from data centre service providers and their occupiers, RED ICT has launched a range of technical and professional services to ensure data hall occupiers achieve efficient and effective relocation of their assets.

## Location selection & due diligence

We undertake site selection advisory services, performing due diligence assessments of potential data centre colocation facilities. Key considerations include geographic location, facility management and maintenance, data communication latency, and travel time.

The scope would typically include; ISP connectivity capacity, network resilience, monitoring, access, on-site support, and health & safety welfare facilities.

Additionally, a document is produced entitled "Location Selection Statement of Requirements", which reviews space, power, density and telecommunication on-ramps.

IaaS pricing policy: pay-as-you-consume.

## Fit-out technical design

- Technical architecture, hybrid infrastructure
- Space optimisation design including CFD heat mapping
- Containment systems and tray distribution
- Cabling distribution, termination and testing
- Cabinet aisle specification and rack elevations
- Network zoning, distribution and patching schedules

## Fit-out service procurement

- Statement of Requirement technical services
- ICT infrastructure specification
- Commissioning standards

## Technical project management

- Technical migration planning
- Hybrid WAN transition
- On-site engineering support
- Pre staging supervision/Server relocation
- Contractor move management
- Witness testing and certification
- Commissioning management quality assurance





# SERVICES & SPECIALISMS

## The problems we solve

Integrated building solutions; one of the biggest challenges facing commercial building development is the delivery of a truly converged communications network. RED ICT works in close collaboration with building services engineering consultants to produce a seamless integration of technology into the building fabric.

Organisations require their premises to support the ICT service levels required by their business. Owners, operators and investors must be confident that their assets will meet the commercial needs of the occupier.

RED ICT ensures that the building technology architecture reflects the functional requirement and is fully integrated with the building engineering systems. As part of the global RED Engineering organisation, RED ICT offers a multi-disciplinary approach to provide converged building network design solutions.

## Why is this relevant?

Without careful engineering design coordination, gaps emerge between ICT service delivery and constraints in the built environment. RED ICT acts on behalf of all relevant project stakeholders to ensure the necessary level of network convergence is delivered. Not only does this approach mean that day one expectations are met, it safeguards the long term security of capital investment.



| SERVICES   | CUSTOMERS   | TECHNOLOGIES                             | PROJECTS                        |
|--|---|--|---------------------------------|
| Independent ICT infrastructure consultancy for the built environment | Technology Industry, Cloud and Hyperscale Operators | ICT Infrastructure                       | Critical Facilities             |
| Strategy   | Commercial Building Environments                    | Active Networking and Passive Networking | Hyperscale Data Centres         |
| Planning   | Enterprise Network Corporate End-users              | Wi-Fi Communications                     | Computational Data Halls        |
| Design   | Technology Service Providers                        | 5G Cellular Networking                   | Digital Campuses                |
| Procurement  | Landlords and Tenants                               | Radio/Bluetooth and RFID Communications  | Offices and the Workplace       |
| Project Management   | Investors and Developers                            | AV Solutions                             | Hotels, Hospitality and Leisure |
| Commissioning Management   |   | Physical IT Security                     | Transport and Aviation          |
|  |   | Telecommunication Services               |                                 |
|  |   | Intelligent Buildings                    |                                 |
|  |   | AI Technical Infrastructure              |                                 |

# FULL LIFECYCLE

## Sustainable Lifecycle Consultancy

RED ICT provides a full project lifecycle service. Typically, this begins with key stakeholder engagement and follows traditional, well-established project stages methodology.

We support the development, design and construction process, from strategic planning through to site commissioning and systems development.





# SUSTAINABLE QUALITY

## Global Organisation

Our global consultancy takes pride in pioneering sustainable solutions and is committed to addressing the intricate challenges of the digital landscape, delivering cutting-edge ICT services that not only meet the demands of today but also cultivate a greener tomorrow, redefining the possibilities of ICT on a global scale.

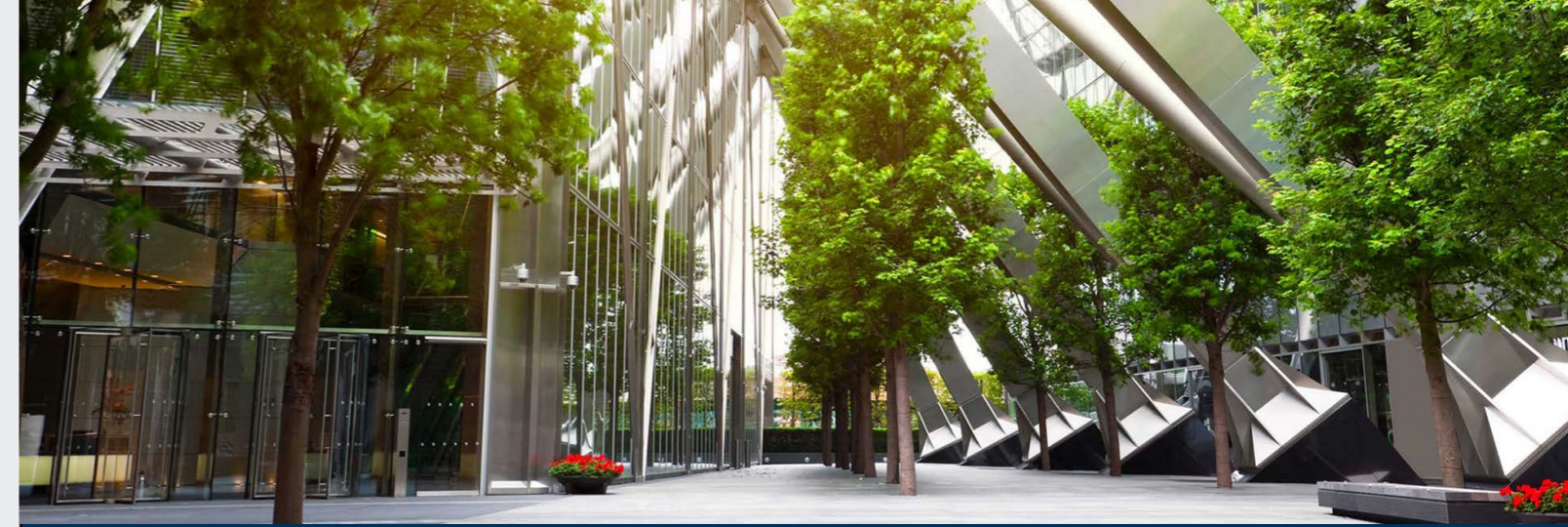


## The Team

Our design team leaders and project delivery staff bring many years' experience in International consulting engineering and the provision of professional ICT services.

RED ICT invests heavily in continuing professional development of all grades of staff, supported by training, leadership coaching and mentoring. We attract the world's most talented young engineers through our graduate programme.

Our Project Managers ensure effective design coordination, and the construction staff provide on-site resident engineering duties typically involving the Commissioning Management role. This combination of skills and experience results in an unparalleled level of professional service delivery.



## Technical Excellence and Quality Standards

The determination of the leadership team has resulted in RED ICT's record of consistently meeting optimum levels of technical excellence. The development of trusted relationships with some of the world's largest technology organisations has required RED ICT to perform to the highest possible standards, backed by a rigorous quality methodology.

## Our Quality Commitments

- We will work with our clients to understand their needs to ensure we deliver on all aspects
- We will be efficient in everything we do
- We will make quality central to all our designs and projects
- We develop creative solutions to enhance return on investment
- We make sustainability happen today



**Optimise your ICT energy consumption  
using RED ICT's Embodied Carbon  
Calculator tool**

## Climate Change Charter

We believe we can engineer our way out of the climate crisis.

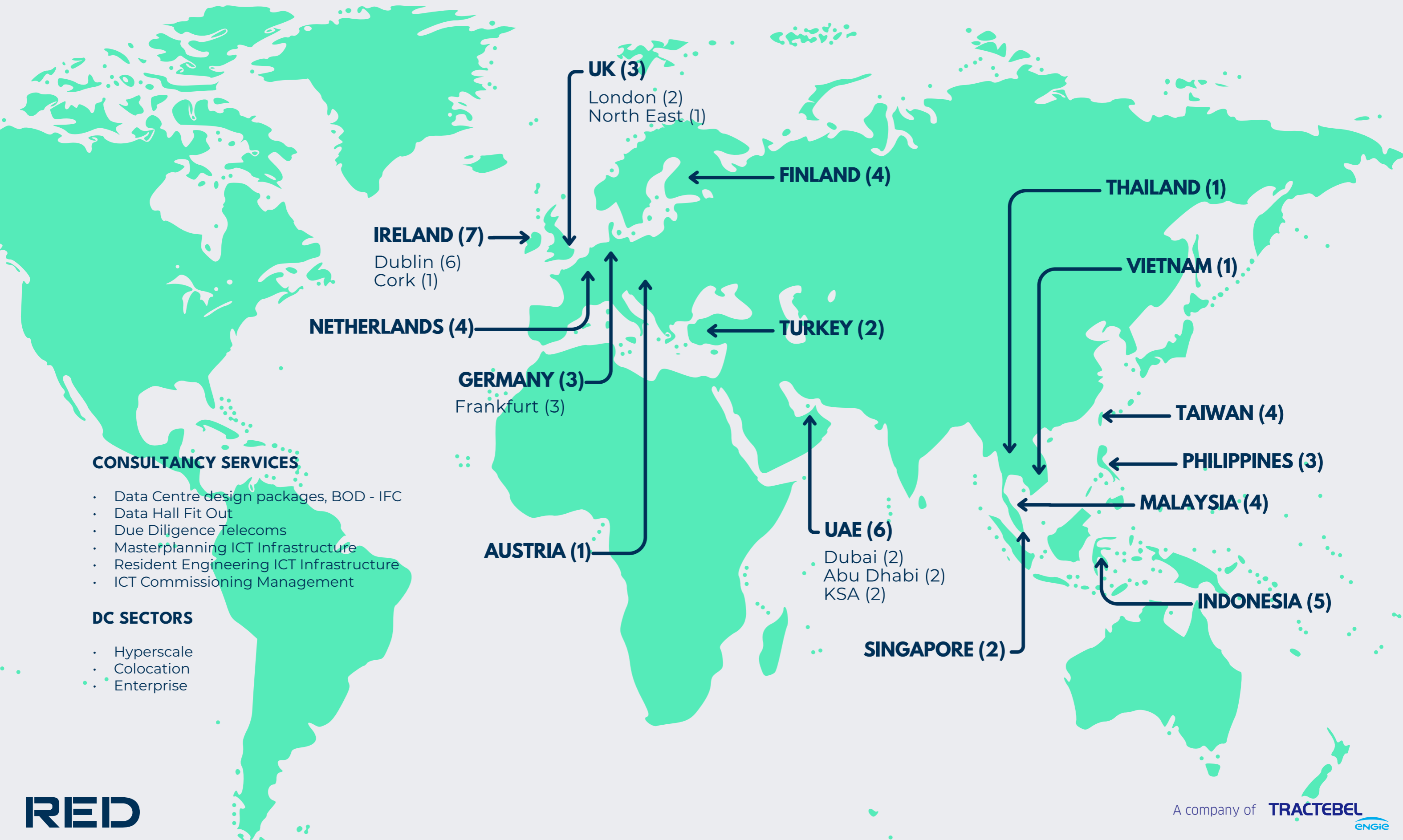
As part of the global technology community, we are committed to ensuring technology makes a positive impact on global warming.

Working in partnership with our clients, industry leaders and delivery stakeholders, we shall question, challenge and innovate in our designs to reduce harm to the planet.

We shall remain mindful that design influences operational behaviour and it can be used to mitigate carbon emissions.

# DATA CENTRE PROJECTS

RED ICT Global Data Centre Projects, Q4 2023



## CONSULTANCY SERVICES

- Data Centre design packages, BOD - IFC
- Data Hall Fit Out
- Due Diligence Telecoms
- Masterplanning ICT Infrastructure
- Resident Engineering ICT Infrastructure
- ICT Commissioning Management

## DC SECTORS

- Hyperscale
- Colocation
- Enterprise

# CONTACT US

You will find us easy to work with. Our friendly and professional staff will listen carefully to your requirements and help shape a project delivery plan that meets your specific expectations.

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