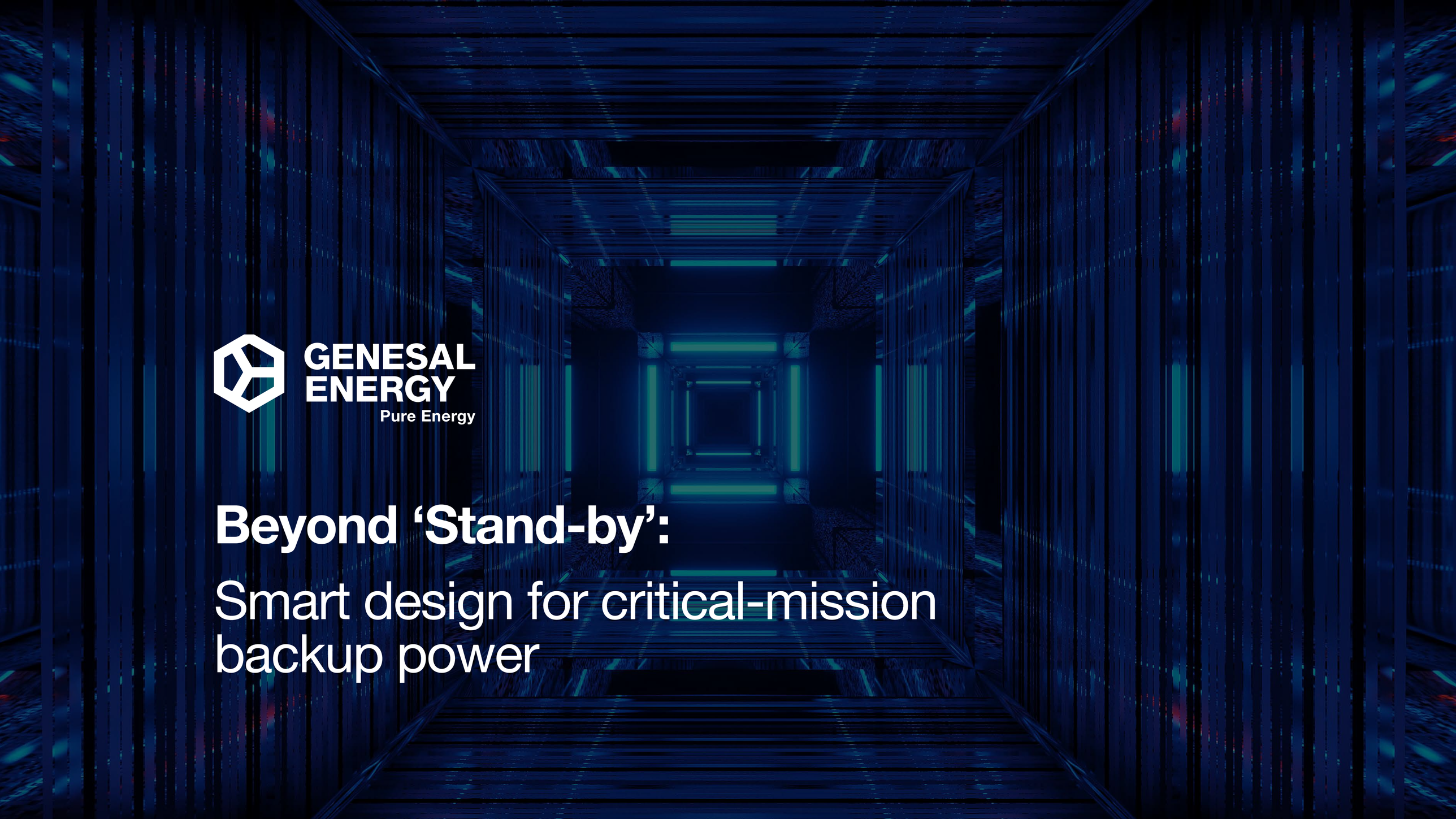
GENESAL
ENERGY
Pure Energy
Beyond ‘Stand-by’:
Smart design for critical-mission
backup power

GENESAL EXPLAINED

Who are we?
Energy engineering with a global vision

Genesal Energy designs and manufactures advanced, tailor-made energy solutions, created to ensure continuity in the most demanding environments.

Over 30 years of experience

Designing and manufacturing advanced, tailor-made energy solutions for the most demanding environments.

Over 70% of our turnover

Comes from bespoke and special projects, reflecting our strong focus on customisation.

Generlab

Our industrial and technological centre, the core of our innovation and the place where we develop new technologies and more sustainable energy models.

THE FUTURE OF DATA CENTRES

Genesal Energy's response to the challenges of Data Centres

Data Centres are the backbone of the digital economy. They host information of high strategic value, and any power outage can compromise both security and service continuity.

In a sector growing exponentially and demanding total reliability, efficiency, sustainability and technological integration, **Genesal Energy delivers tailor-made solutions designed** to meet the needs of today's and tomorrow's Data Centres.

Total customisation

–

We adapt to the specific acoustic, spatial and operational requirements of each facility.

Our engineering teams develop equipment that incorporates: advanced soundproofing, side-by-side assembly, radiators or air coolers depending on the project, power lock connections, fuel filtering & transfer systems, and internal or external tanks providing the requested autonomy.

Extreme reliability

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Uncompromising reliability is the foundation of our Data Centre solutions. To guarantee this level of security, all equipment undergoes a **rigorous and customised testing process**, both at our factory (FAT – Factory Acceptance Test) and at the client's site (SAT – Site Acceptance Test), Genesal Energy provides Data Centres with total peace of mind, via a power supply that leaves no room for error.

POWERING AI

The Backup Revolution
Scaling Resilience for the AI Era

—

- **AI is scaling fast: s**ervers from NVIDIA and others are boosting compute power by 10x to 100x.
- **Same space, more demand**: physical space stays the same, but energy needs to escalate rapidly.
- **Backup systems must evolve:** more generators in less space.
- **This is a critical challenge:** energy infrastructures must be scalable, smart, and resilient.

AI isn’t just data — it’s power.
Backup systems must scale with intelligence.

DATA SOVEREIGNTY

Control Where It Matters Data has a home and It's protected

- Data is bound by **local law** — it belongs where it resides.
- In regions like the Nordics, this is **a matter of sovereignty and security.**
- Genesal operates under strict **European legislation**, ensuring compliance.
- Empowering **privacy and territorial control** over digital assets.

In the world of data, where you store it is as important as what you store.

TECHNOLOGICAL SOVEREIGNTY

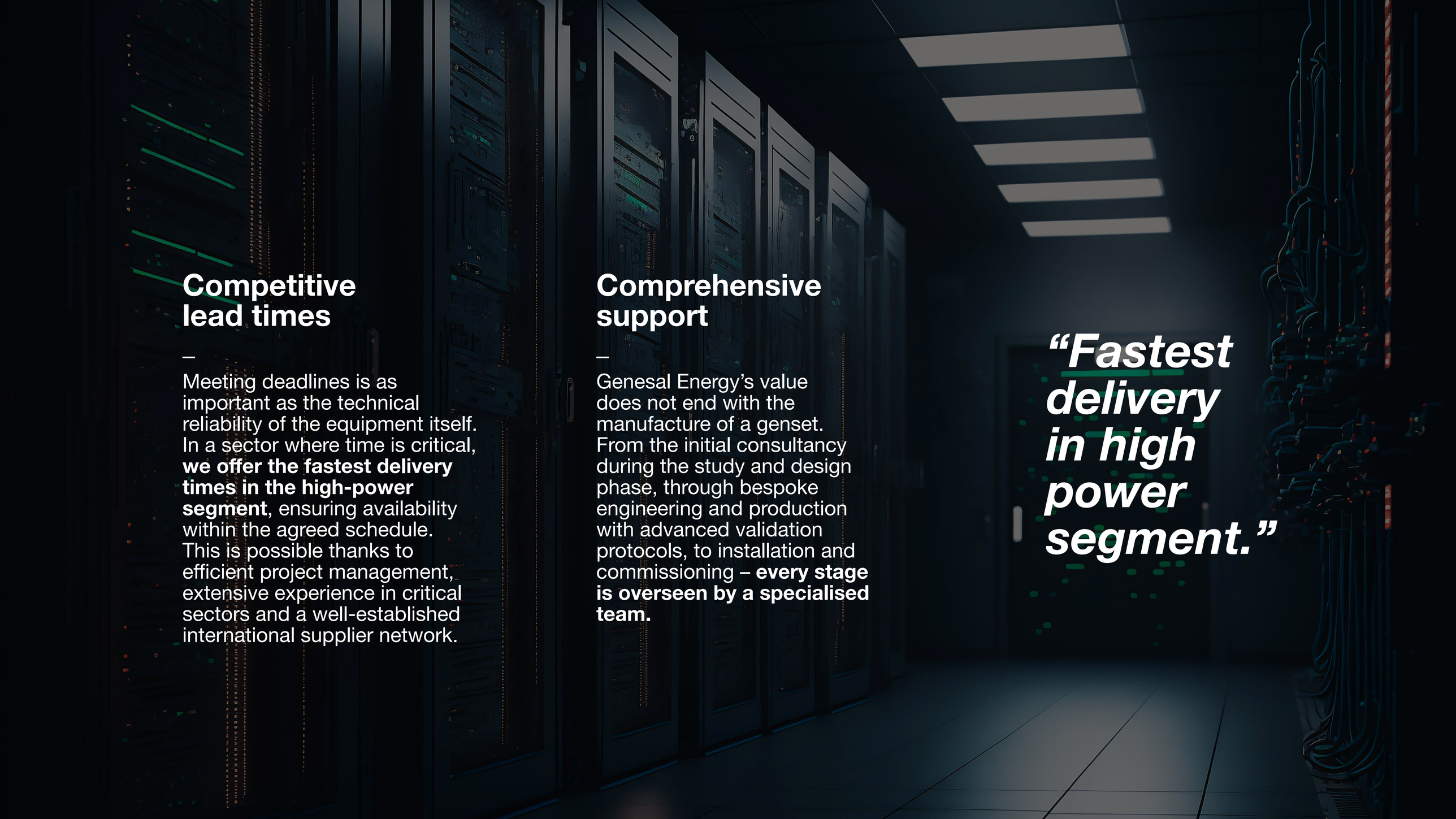
Designed in Europe, built for the world

—

Local Innovation, Global Strength.

- Build **autonomous solutions** with European-developed tech.
- Reduce reliance on global providers — **empower local ecosystems.**
- Strong partnerships bring customized, **high-value solutions.**
- Strengthen Europe’s technological identity in the data center sector to better serve European citizens.

Owning the tech means owning the future — sovereignty is strategic.



Competitive lead times

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Meeting deadlines is as important as the technical reliability of the equipment itself. In a sector where time is critical, **we offer the fastest delivery times in the high-power segment**, ensuring availability within the agreed schedule. This is possible thanks to efficient project management, extensive experience in critical sectors and a well-established international supplier network.

Comprehensive support

–

Genesal Energy's value does not end with the manufacture of a genset. From the initial consultancy during the study and design phase, through bespoke engineering and production with advanced validation protocols, to installation and commissioning – **every stage is overseen by a specialised team.**

"Fastest delivery in high power segment."

TRUSTED SOLUTIONS FOR DATA CENTRES

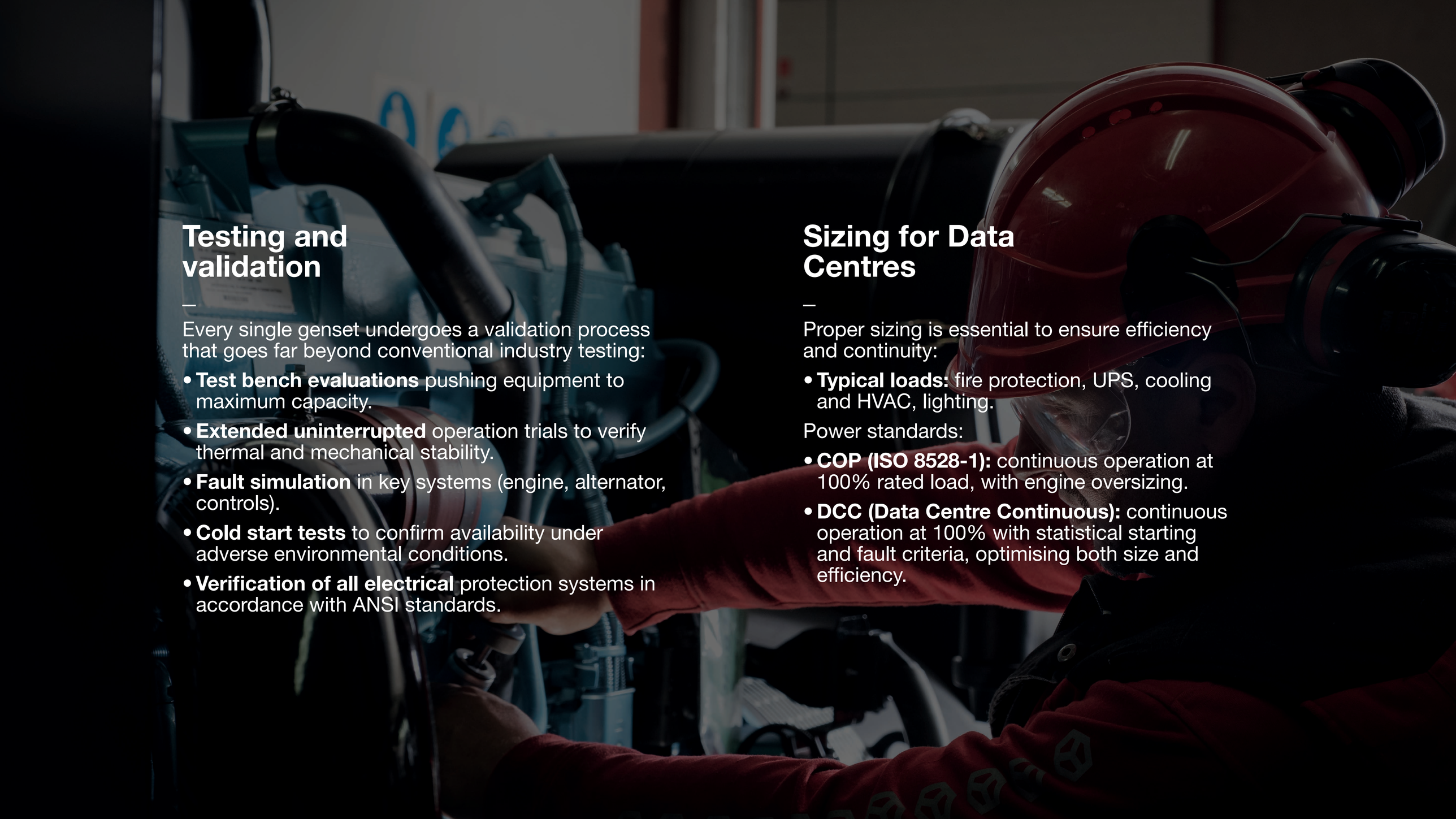
From theory to practice: our technical capability

Genesal Energy knows that the difference between a conventional solution and a **trusted solution for a Data Centre lies in the technical details.**

That is why we turn our experience into measurable and verifiable results, integrating innovation, precision engineering and validation protocols that go beyond standard practice.

Below, we list the capabilities that make our gensets the ideal response for critical infrastructures.

From theory to measurable performance.



Testing and validation

Every single genset undergoes a validation process that goes far beyond conventional industry testing:

- **Test bench evaluations** pushing equipment to maximum capacity.
- **Extended uninterrupted** operation trials to verify thermal and mechanical stability.
- **Fault simulation** in key systems (engine, alternator, controls).
- **Cold start tests** to confirm availability under adverse environmental conditions.
- **Verification of all electrical** protection systems in accordance with ANSI standards.

Sizing for Data Centres

Proper sizing is essential to ensure efficiency and continuity:

- **Typical loads:** fire protection, UPS, cooling and HVAC, lighting.

Power standards:

- **COP (ISO 8528-1):** continuous operation at 100% rated load, with engine oversizing.
- **DCC (Data Centre Continuous):** continuous operation at 100% with statistical starting and fault criteria, optimising both size and efficiency.

Integration and cybersecurity

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Genesal gensets are not standalone units – they are fully integrated within the digital and operational ecosystem of the Data Centre:

- **Compatibility with leading communication protocols:** Modbus RTU / TCP-IP, SNMP, IEC 61850.
- **Signal exchange options** to trigger protections and alarms on-site.
- **Direct integration with BMS** (Building Management System) **and SCADA** platforms, with real-time monitoring and configurable alarms.
- **Compliance with sector-specific cybersecurity** requirements, safeguarding the communications network connected to the gensets.

Power and Tier compatibility

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The Uptime Institute's TIER classification defines different levels of availability for Data Centres. Genesal Energy designs gensets ready to integrate into the most demanding infrastructures:

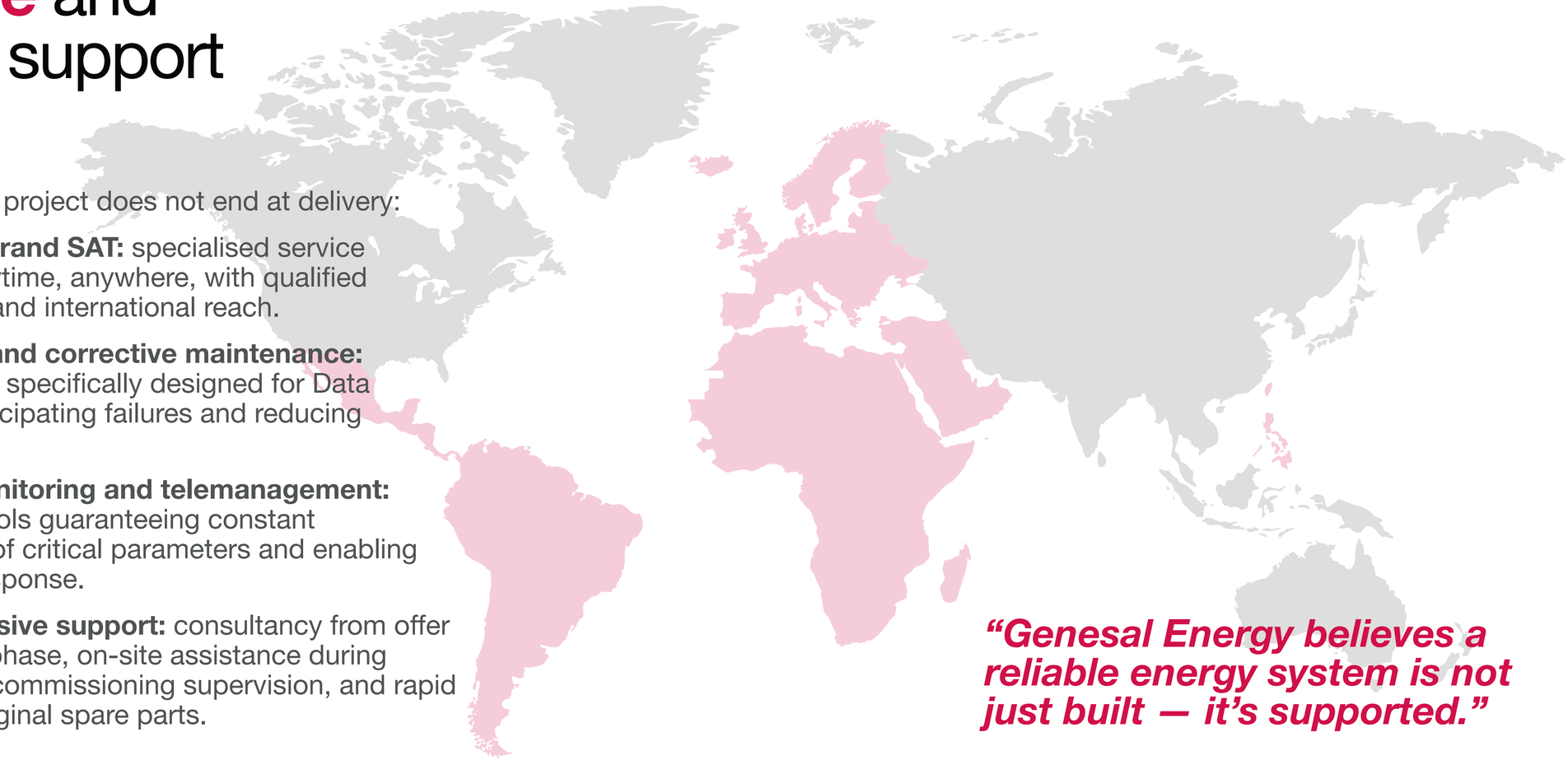
- **Units up to 5250 kVA,** designed under criteria of maximum reliability and continuity.
- Integration into Tier III (fault-tolerant, N+1, ≥72h autonomy) **and Tier IV** (2N+1 full redundancy, ≥96h autonomy) architectures.
- **Engines with DCC** (Data Centre Continuous) certification, capable of continuous operation at full rated power.

COMMITMENT TO SUSTAINABILITY

After-sales service and global support

A Data Centre project does not end at delivery:

- **24/7 multi-brand SAT:** specialised service available anytime, anywhere, with qualified technicians and international reach.
- **Preventive and corrective maintenance:** programmes specifically designed for Data Centres, anticipating failures and reducing downtime.
- **Remote monitoring and telemanagement:** advanced tools guaranteeing constant supervision of critical parameters and enabling proactive response.
- **Comprehensive support:** consultancy from offer and design phase, on-site assistance during installation, commissioning supervision, and rapid supply of original spare parts.



“Genesal Energy believes a reliable energy system is not just built — it’s supported.”

COMMITMENT TO SUSTAINABILITY

Sustainability and Ecodesign in Data Centres

Sustainability is a cross-cutting commitment at **Genesal Energy and an essential pillar in the design of solutions for Data Centres.** We know that Data Centres are major energy consumers and that reducing their environmental footprint is a global challenge.

That is why we integrate ecodesign principles, technological innovation and sustainable fuels, anticipating regulations and aligning with energy transition objectives.

We are proud to be the first company in the energy sector to obtain ISO 14006 (Ecodesign)

GREEN BY DESIGN

Rethinking Backup Systems

—

Sustainable Power for a Digital Future

- Design with **efficiency first** — energy-conscious systems from day one.
- Use **clean technologies** to minimize environmental impact.
- **Extend lifecycle** of backup infrastructure and reduce electronic waste.
- Align with **ESG standards** and rising environmental regulations.

A resilient backup system must also be a sustainable one.

GENESAL ENERGY

Pure Energy