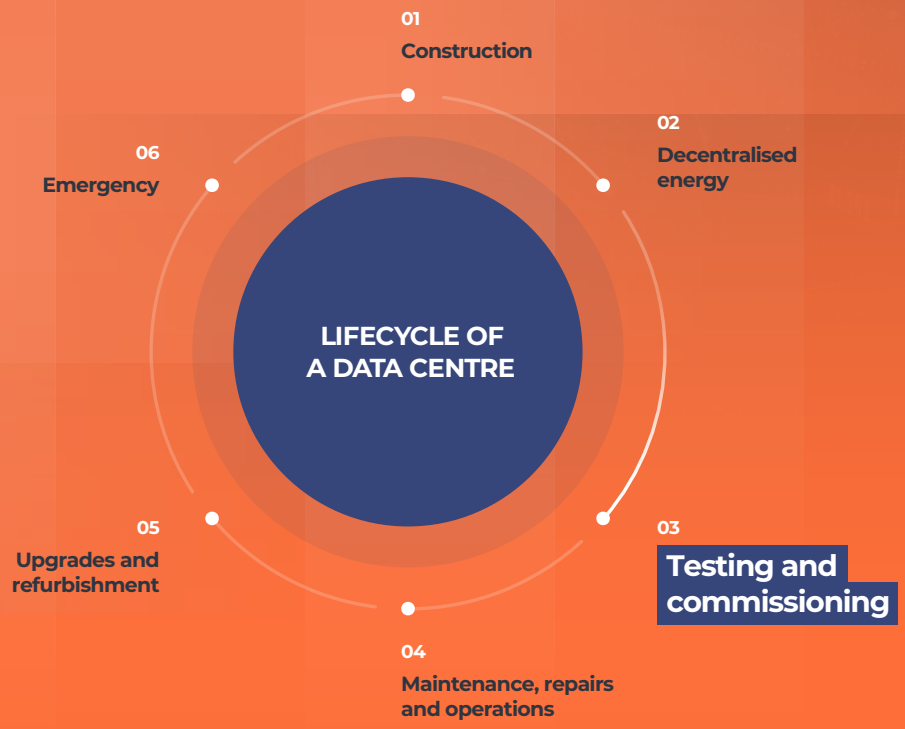
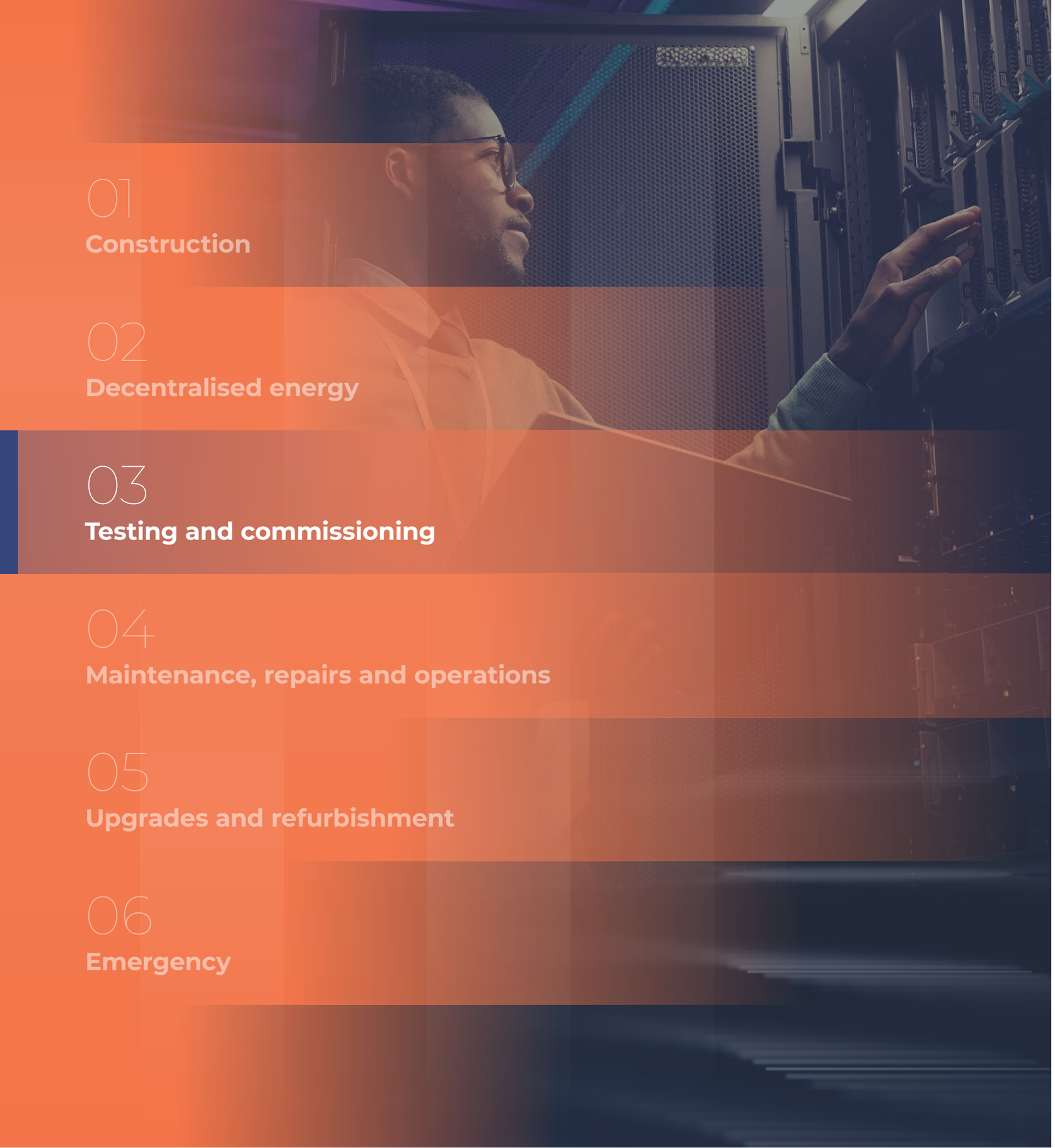
aggreko

Testing and commissioning

for data centres





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Decentralised energy

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Maintenance, repairs and operations

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Upgrades and refurbishment

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Emergency

Demand for robust data centre infrastructure is growing across Europe, from growth hubs like Scandinavia and Spain to mature markets such as the UK, Ireland, and Germany. Making reliable, efficient commissioning more important than ever. Every stage of testing must be executed with precision to ensure systems can handle increasing complexity and critical load demands.

At Aggreko, our commissioning process ensures that all major systems, from power distribution units and UPS systems to transformers and cooling solutions, are validated before your facility goes live. This reduces the risk of downtime, inefficiencies, or costly rework, while protecting your brand reputation.

Our commissioning process: Key testing stages

Factory Acceptance Testing (FAT)

Level 1

Conducted at the manufacturer's site, FAT simulates real-world operating conditions using load banks to verify quality, safety, and performance across multiple power factors. This early-stage testing helps identify potential faults before delivery, avoiding delays later in the project.

Site Acceptance Testing (SAT)

Level 2

After delivery, SAT ensures the equipment has arrived undamaged and aligns with design specs. This stage confirms the equipment is ready for installation, typically carried out by the OEM or certified contractors.

Pre-functional testing

Level 3

Each device undergoes inspection of installation, wiring, initial power-up, and OEM startup protocols. Full documentation supports traceability and ensures readiness for the next stage.

Functional testing

Level 4

Systems such as UPS modules and generators are tested under full load. Additional diagnostics like thermal imaging identify hotspots, validating the equipment's performance under operational stress.

Integrated System Testing (IST)

Level 5

The most comprehensive phase, IST verifies how systems interact under real-world load and fault scenarios. It validates full infrastructure performance including power, cooling, and controls, ensuring a coordinated response to failures or utility disruptions.

Going live with complete support

Following commissioning, we provide detailed reports and support during the go-live phase. For facilities aiming for LEED certification or long-term resilience, we offer an optional re-commissioning review 8–10 months post-handover. Annual load bank testing is also recommended to maintain performance standards.

Why choose Aggreko?

- **Tailored packages** for each unique data centre project
- **Cleaner technologies** to cut emissions, fuel use, and cost
- **Smart efficiency** to streamline energy use for peak performance
- **Specialist expertise** to deliver knowledge and support from our experienced team
- **Complete flexibility** to shape a range of fuel types, remote monitoring, and contract terms around your needs

More solutions for every challenge

We have a huge fleet of modular rental equipment, including our unique Greener Upgrades™ solutions that help you make simple choices which are kinder to the environment. Whether that's lowering NOx or Particulate Matter to reducing CO2 emissions and fuel usage.

For unrivalled flexibility, our modular systems are quick to install and can scale up or down, depending on demand. All solutions could include Fuel Management, ARM (Aggreko Remote Monitoring), and Aggreko Connect.

Power

- Diesel generators: 30–2100 kVA
- Gas generators: 1875 kVA
- Stage V generators: 30–1250 kVA
- Battery Energy Storage Systems (BESS): 45 kVA to multi-MW
- LV/MV distribution & HV transformer substations

Testing

- Load banks: 100 kW–6 MW
- Liquid cooled load banks (e-boilers): 600kW

Cooling

- Air-cooled chillers: 50–800 kW
- Cooling towers: 2.5 MW+
- Air conditioners: 50–250 kW
- Air handlers: 15–500 kW

Heating

- Electric & IDF heaters: 3–200 kW
- Heat pump chillers: 50–400 kW
- Dehumidification units: up to 7000 m³/h
- Electric boilers: 600–1200 kW

GREENER UPGRADES™

Cleaner energy solutions with Greener Upgrades™

We're investing in new technologies, alternative fuels and services to make greener solutions accessible for our customers. Using our consultative approach, we're delivering solutions that maximise performance, improve efficiencies and lower costs, supporting the move to a more sustainable and efficient future.

Stage V generators

Compliant with the EU's Medium Combustion Plant Directive (MCPD) our Stage V generators are high performance. The engines deliver efficient power whilst limiting harmful pollutants such as carbon monoxide, NOx and PM.

Battery Energy Storage Systems (BESS)

BESS work as a stand alone solution or with generators, ideal for use in situations with limited utility or when emissions and fuel use needs to be minimised.

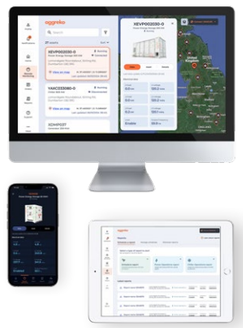
HVO

HVO/B10 fuel

Our generators can run on a range of biofuels including HVO and B10 to significantly reduce carbon and harmful emissions.

PowerMX2

PowerMX2 is our fuel efficient, load flexible, low emission generator. With two 625 kVA Stage V engines in one compact 20ft container, PowerMX2 delivers maximum power with reduced emissions and fuel consumption.



Aggreko Connect

Aggreko Connect is your online hub providing access to all your information in one central place. With speed and simplicity, you can view equipment on-hire, review your orders, and through Aggreko Remote Monitoring (ARM) even monitor kit performance.

With Aggreko Connect's reporting feature, you'll have access to more data including insights into carbon and local emissions, Delta T and ambient temperatures, load profile and usage, so you can fully understand the capabilities of your energy solutions.

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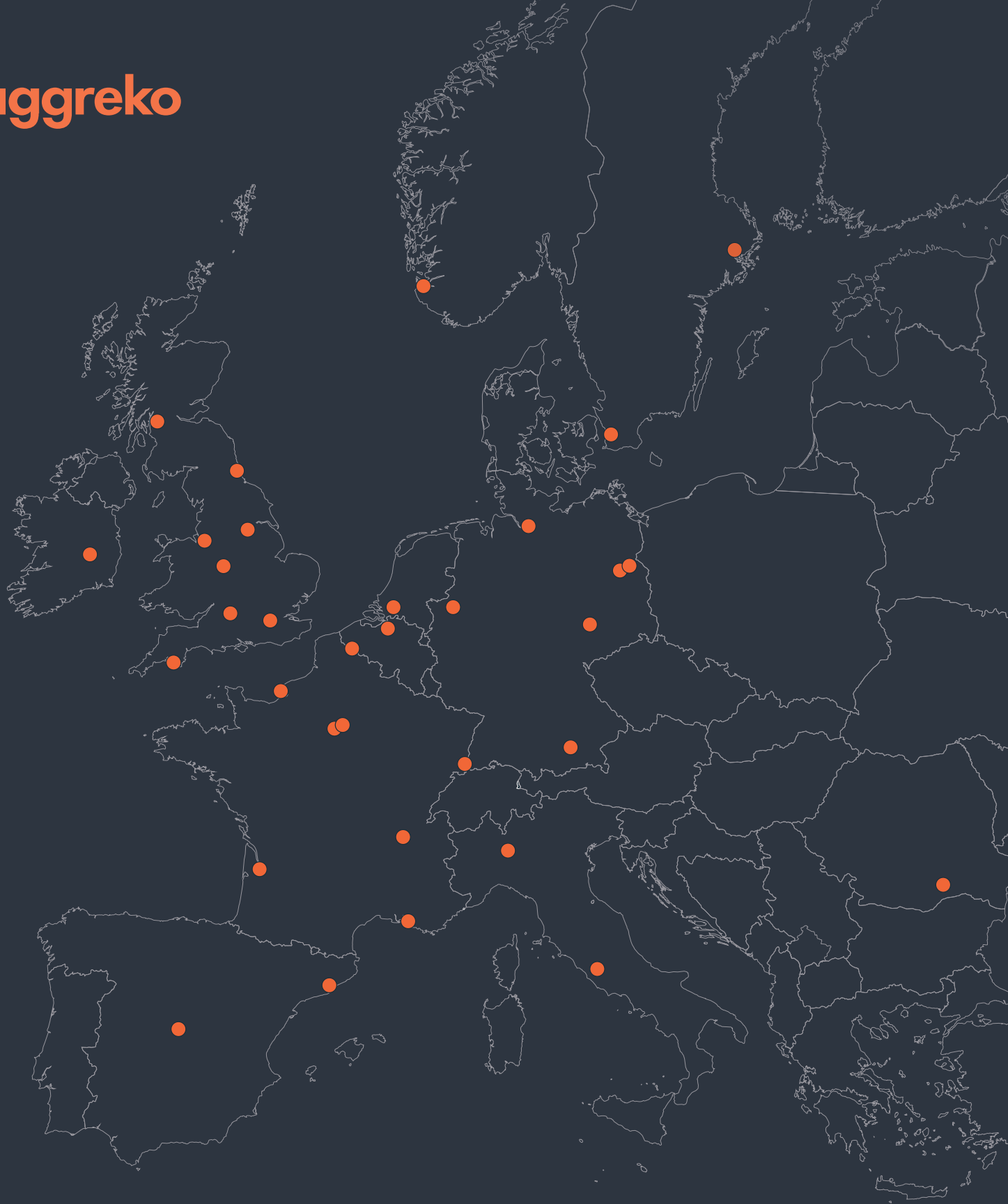

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