



Using Drones For Infrastructure Inspection

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ferrovial
servicios

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Profile

A quick overview

We improve the future through the development and operation of sustainable infrastructure and cities. We are committed to the highest level of operating excellence and innovation and we create value for society and our shareholders, investors and employees.



Revenues

9.701
Million euro

Employees

69.000
Employees

Backlog

31.531
Million euro

Market capitalization
At 31/12/2015

15.270
Million euro

EBITDA

1.027
Million euro

Net income

720
Million euro

Profile

Structure

The complete cycle of infrastructure development

Construction

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agroman

- Civil Engineering.
- Industrial Engineering.
- Water.
- 80 years of experience

Services

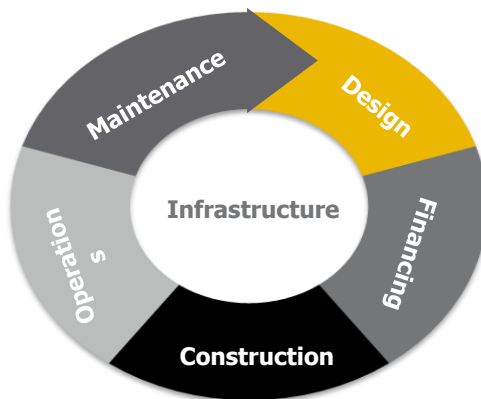
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servicios

- Municipal services and waste management.
- Infrastructure maintenance.
- Focus on intelligent cities, waste reuse and energy efficiency.

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servicios



Airports

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aeropuertos

- Largest private investor in airports.
- 4 airports in the UK:
 - 25% stake in HAH.
 - 50% property of Aberdeen, Glasgow and Southampton.
 - 86,7 M passengers.

Toll roads

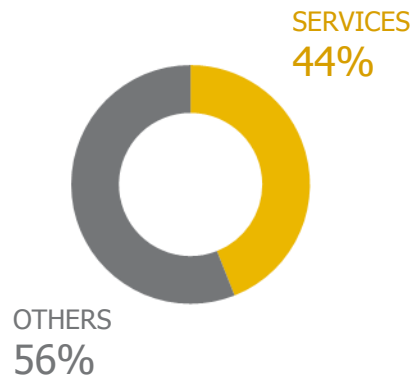
cintra

- Leader in private sector transport infrastructure development.
- Toll road management of 407 ETR and 26 other concessions in 7 countries

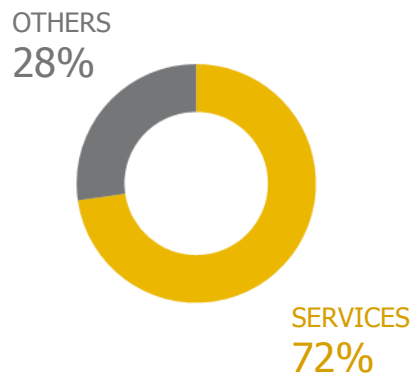
Who we are
A significant
component of
Ferrovial



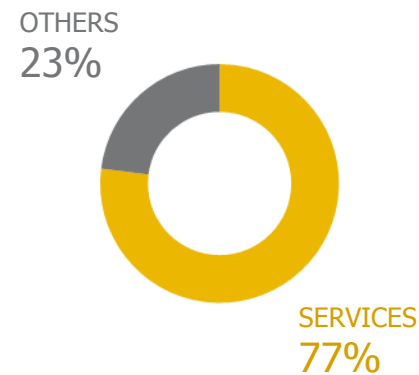
Revenues **9,701 M€**



Backlog: **31,531 M€**



Employees **74,032**



Who we are

Key figures



Revenues

4,401
million euro

Employees

53,954
(2014 year-end)

Backlog

22,369
million euro (including JVs)

EBITDA

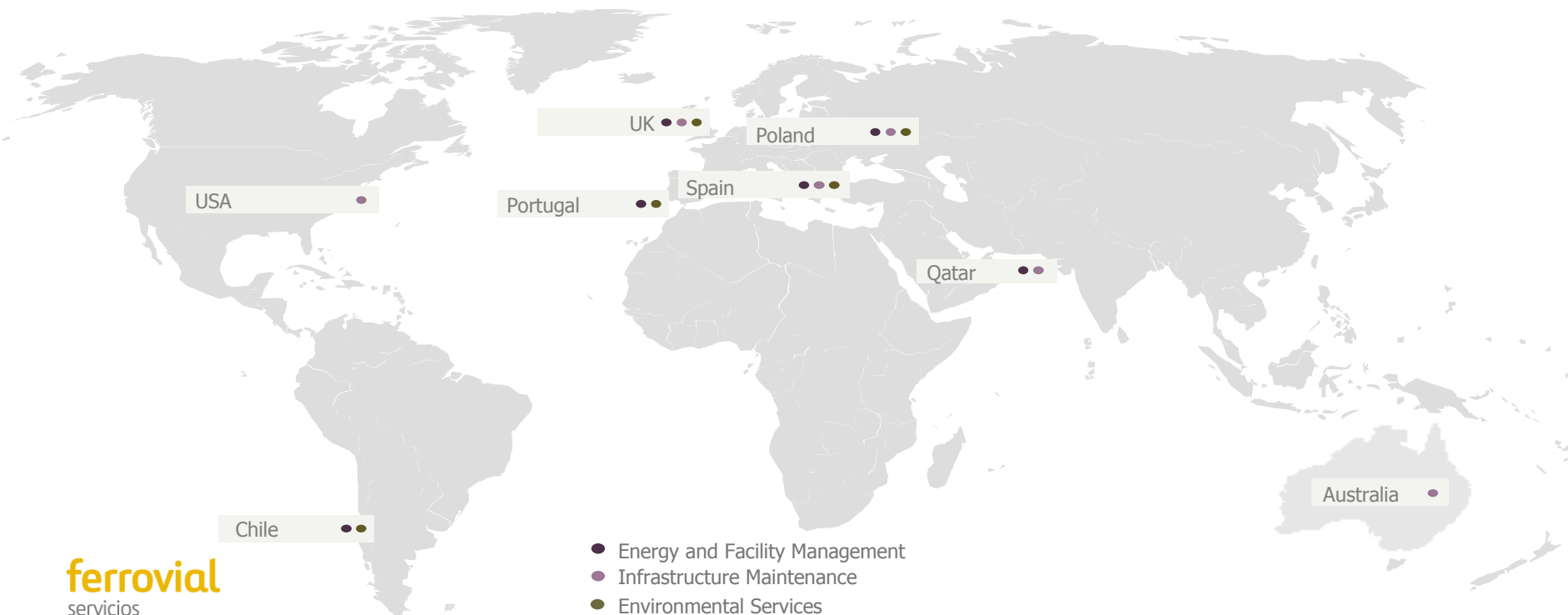
387
million euro

Operating cash flow

302
million euro (pre-tax)

Who we are

A stable presence in 8 countries



What is a drone?

Unmanned aerial vehicles (UAV) or remotely piloted aircraft (RPA), more commonly known as **drones**, can be controlled at a distance or pre-programmed to follow a given route.



Drones and the law

The **use of drones for professional purposes** is regulated in Spain by **temporary operating rules** established by the Spanish Aviation Safety and Security Agency (AESA) in Royal Decree-Law 8/2014.

Companies wishing to use drones must be **certified as drone operators** and fulfil certain legal requirements.



Legal requirements to operate a drone. RD 8/2014

- Companies must be certified by AESA as drone operators.
- The aircraft must bear an identifying **number or code**; pilots must have a **drone pilot licence**, which is obtained following written and practical tests, and must have a Type II medical certificate and third-party liability insurance.
- The use of drones in **urban areas** is **not permitted**.
- Drones **may not be operated over crowds of people**: parks, beaches, concerts, demonstrations, etc.
- Drones **may not be operated at night**.
- They **cannot be used in** controlled airspace (altitudes above 120 metres) or in restricted areas (military installations, prisons, etc.)
- Drones weighing more than 2 kg **may not be operated out of the operator's sight**, and the maximum allowed distance from the operator is 500 metres.
- Drones **may not be operated near an airport** or aerodrome (minimum distance: 8 km.) or within its Controlled Traffic Region (CTR).

Where we use drones

Main projects under way



ROADS

Road maintenance, inspection
and vigilance



UTILITIES

Inspection of pipes and power
lines



LARGE INFRASTRUCTURES

Maintenance and Monitoring
large infrastructures

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S^[2]R > safety &
> security
> research