

# CAF develops high-speed train

SPAIN's increasingly successful rail industry is developing new designs of high-speed trains. CAF plans to complete a prototype by the end of next year or early in 2010. "The prototype will be tested for one year," says Mr Javier Goikoetxea Areizaga, project coordinator with CAF's research department. "The goal is to win a contract and have the first commercial trains in service by 2015."

The project forms part of Spain's AVI-2015 high-speed research project to make a leap forward in high-speed rail technology, which is partly funded by the government and involves industry and research centres. The main objectives of AVI-2015 are:

- to solve the problem of flying ballast
- to cope with different power supplies without increasing

weight and cost

- to introduce a new generation of active suspension
- to cut energy consumption by 10%
- to further develop gauge-changing technology
- to develop a new open architecture for ETCS, and
- to reduce the certification time for new trains by 50%.

CAF is developing a number of new technologies including a tilting system, a centring process, and adaptive bogie steering. The new high-speed train will be designed so that it can have fixed-gauge bogies for 320km/h operation or variable-gauge bogies for 300km/h. "We want to have good performance and stability on both conventional and high-speed lines," says Goikoetxea. The train will have distributed traction, an Ethernet, and optimised aerodynamics.