



How Copper Contributes to Sustainable Mobility

Several analysis predict that by 2040, about 60% of global new passenger vehicle sales will be EVs, and these vehicles will then make up 30% of the global passenger vehicle fleet. Europe is expected to become the second largest market for EVs in the 2020s, behind China. This brings up concerns as to whether there are actually enough resources to meet this growing demand and to enable the high uptake of EVs in the coming decades. The availability of copper will be presented and put in perspective with other raw materials such as rare earth elements. High performance motor design without rare earth permanent magnets is feasible: the ReFreeDrive project has tackled this challenge. Its main results and a comparison with permanent magnet benchmarks will be presented.



Short biography of Fernando Nuño

Fernando Nuño works at the European Copper Institute as Energy and Climate Portfolio Manager. He is in charge of copper products and markets related to the Energy Transition, notably electric motors and cables. He is also responsible for innovation and has led several EU-funded H2020 projects, notably ReFreeDrive, which develops rare earth-free motors for electric vehicles.

He graduated as an Energy Engineer in 1998 from Bilbao Engineering School (Spain) and Institut Français du Pétrole (France). Since then, he has worked in various areas of the energy sector, such as combined heat and power generation, and regulation of electricity markets.