



ECO-DRIVING UNCOVERED

The benefits and challenges of eco-driving, based on the first study using real journey data.

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A heritage of environmental responsibility

Since Fiat was founded over a century ago, our mission has been to provide vehicles that enhance people's quality of life, making driving fun and affordable, while making as little impact as possible on the world around. Throughout our history we have led the way in developing new technology that can make driving even more accessible and economical. By their very nature, our designs have always been environmentally aware - our cars are made to fit into their environment and not to impose on it, providing solutions to people's mobility needs in the most efficient way possible.

Today we are still recognised as the leading manufacturer of small, practical and efficient cars. And our heritage as an environmentally-aware manufacturer of affordable and fuel-efficient cars continues to shape our approach to innovation and design. We focus on creating ever-more efficient vehicles, and are proud to have, in Europe¹, the lowest average CO₂ emissions of any vehicle manufacturer group. We are constantly exploring new ways to improve the efficiency of our vehicles, from our Start&Stop technology, available in our 7 newest models and 31 versions; to our MultiAir engines that reduce fuel consumption and CO₂ emissions by up to 10% while improving performance. The newest expression of MultiAir technology is the two cylinder TwinAir engine, a fun-to-drive engine with 85HP and only 92 g/km CO₂ emissions on 500 with Dualogic gearbox.

We are also committed to expanding the use of alternative fuels. We are leader in the European market of CNG vehicles with our bi-fuel Natural Power range covering every mobility need from city cars to professional vehicles.

Changing driver behaviour with eco:Drive

But a car manufacturer's responsibility towards the environment doesn't stop at technological advances that reduce the CO₂ emissions of its vehicles. This area has for a long time been the focus of the car industry in its response to the challenges of climate change, and rightly so – we have a responsibility to innovate to produce low emission cars if we are to remain relevant in the future. However, at Fiat we feel strongly that there are opportunities to further reduce the emissions associated with cars by looking beyond the model itself, and thinking about the role of the driver.

We don't believe that a manufacturer's responsibility towards the environment ends when a customer drives the car away from the showroom – we must be concerned not just with what people drive but with how they drive it, too.

¹JATO Dynamics, Volume-weighted average CO₂ emissions 2009 (g/km)
<http://www.jato.com/PressReleases/Small%20Cars%20Driving%20Down%20European%20CO2%20Emissions.pdf>

That's why we developed eco:Drive. We knew that by making simple changes to the way you drive, you can significantly reduce your CO₂ emissions. With eco:Drive, we wanted to show drivers exactly how they can drive more efficiently and what effect that has on their fuel consumption and CO₂ emissions. eco:Drive is an interactive, personalised tool that makes use of Fiat's in-car Blue&Me infotainment system. Plugging a USB key into the Blue&Me port on the dashboard allows eco:Drive to record information about your driving style. You then just plug this USB into your computer to see how you performed, how you can improve, and track the fuel and CO₂ savings you manage to make.

eco:Drive has provided us with a bank of data about how people drive their cars – over 9,000,000 journeys have been uploaded by 42,000 drivers. For the first time, we are able to see exactly how efficiently people drive and how they respond to learning about eco-driving. In the past, knowledge about eco-driving's effectiveness has been based on individual experiences comparing one's fuel consumption from one day to the next, having been explained the techniques. The eco:Drive data tells us about the effectiveness of eco-driving for a large number of people, over an extended period of time, in a range of road and traffic conditions. This is the closest anyone has come to understanding the 'real-life' impacts of eco-driving.

Lower emissions, better drivers

What have we learnt? We have seen that eco-driving works – on average, eco:Drivers reduced their fuel consumption and emissions by 6%; the best 10% of drivers managed to improve by at least 16%. We have seen that the changes from eco-driving are not, in most cases, temporary – it is possible to achieve real behaviour change that lasts over an extended period of time. We have seen that eco-drivers are better drivers, learning to anticipate changes in traffic flow so that they stop and start less frequently and drive at a more consistent speed. We have also seen that there are big variations between the improvements experienced by different people and in different places, which shows that the effectiveness of eco-driving is heavily dependent on traffic conditions, road systems and personal commitment.

Next steps for Fiat

The findings from eco:Drive to date provide some important lessons for Fiat and for all those involved in the car world.

As a carmaker, we believe we have a responsibility to explain to drivers just how they can save on fuel and emissions by driving more efficiently, and make it as easy as possible for them to do so. Changing driving behaviour isn't easy. We think eco:Drive's interactive, personalised approach helped drivers by allowing them to see what they are achieving. But we think we can do more to remind drivers regularly of what to improve on, so that eco-driving becomes true habit. That's why we are developing a new version of eco:Drive for 2011, eco:Drive Live, which provides regular feedback on driving style, and tips for improvement, through portable devices (such as satnav or smartphones).

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