



Fiat Group at MobilityTech 2010

Fiat Group is participating, as Gold Sponsor, at the fifth edition of MobilityTech, one of the principal showcases for “sustainable mobility”, which takes place on 18-19 October at Palazzo Giureconsulti in Milan. The Group, which has a long-standing commitment to the environment, will be exhibiting several “ecological” vehicles and participating at numerous forums forming part of the event.

In detail, taking to the “catwalk” at MobilityTech – dedicated this year to Green Technologies – is the brand new Fiat 500 TwinAir that, with 92 g/km of CO₂ for the Dualogic robotized transmission version, has the lowest CO₂ emissions level of any turbo gasoline-powered car on the market (based on the New European Driving Cycle standard). Alongside this very special vehicle, two cars from Fiat’s Natural Power (bifuel CNG/gasoline) range can also be admired: the Panda Natural Power, an attractive and intelligent car which offers a solution to the compromises typical of CNG-powered cars, combining the needs of the driver (interior comfort, extended range and maximum safety) with respect for the environment; and, the new Doblò Natural Power, the latest addition to the Natural Power line, fitted with the 120 hp 1.4 16v Euro 5 T-Jet (the range’s first CNG turbo engine) that provides high performance together with low emissions and consumption. Also present is Iveco Irisbus, exhibiting the hybrid version of the Citelis, a 12-meter bus with a hybrid diesel-electric propulsion system that offers up to a 30% reduction in fuel consumption and CO₂ emissions. In addition to the Citelis are a hybrid minibus, used by Radiobus ATM, and the zero emission ECODAILY Electric, which is entirely designed, produced and distributed by Iveco, which also provides full service support.

The Fiat Group’s approach to sustainable mobility is based on a portfolio of solutions focused on improved efficiency for conventional engines and utilization of alternative technologies and fuels, without, of course, neglecting the driver’s role in reducing emissions when operating the vehicle. Since the launch of the Common Rail in the 1990s – a real revolution in diesel engine technology – the Group has never stopped striving for ever more highly evolved solutions. At the beginning of 2010, the new TwinAir family of two-cylinder engines (875 cm³) was presented by FPT Fiat Powertrain Technologies. The first application of the 85 hp version was launched on the Fiat 500 last month. The new 85 hp TwinAir uses the revolutionary MultiAir system combined with specific fluid dynamics optimized for maximum fuel yield. In addition, by taking the concept of “downsizing” to the extreme and with skilful fine-tuning of the basic engineering, the new family – with outputs ranging from 65 to 105 hp – can achieve up to 30% less CO₂ emissions compared to a 4-cylinder engine with the same performance.



On the alternative fuel front, Fiat is leader in Europe for OEM-produced natural gas vehicles as demonstrated by the nearly 400,000 vehicles sold to date in the Natural Power range, a complete range of bifuel (CNG/gasoline) cars and light commercial vehicles capable of responding to any mobility requirement. Pioneer of this technology over 10 years ago, Fiat believes natural gas is the most economical and eco-friendly fuel available today: the only real alternative to gasoline that is available now and capable of making a decisive contribution to the reduction in CO₂ emissions.

This was also underlined by Massimo Ferrera, head of R&D for alternative fuel engines at Fiat Powertrain Technologies who, during his speech at the afternoon session on CNG and LPG, provided the technical reasons for the strategic choice of CNG, the results that validate Fiat's leadership in the sector and, above all, future prospects "that are taking shape through the application of new engine technologies developed at Fiat, such as the application of MultiAir technology to CNG engines, diversification of alternative fuels for internal combustion engines, based on opportunities in individual markets, and the use of renewable sources: first among these being biomethane gas, a practical solution for both automakers and end users".

Fiat's concrete and constant commitment has resulted in it being recognized as the brand with the lowest average emissions among the ten top-selling automobile producers in Europe for three consecutive years by JATO, the global leader in automotive research. This position was confirmed again for the first half of 2010, with an average of 123.5 g/km (a further improvement of 4.3 g/km over 2009). In addition to this significant achievement were the results of the rankings by model and by group. In fact, although all of the top 20 selling models in Europe reduced emissions for the first six months of 2010, three Fiat cars were at the top of the league table: taking first place was the Fiat 500 with an extraordinary 116.0 g/km of CO₂ emissions (an 3.9 g/km improvement over 2009), followed in second place by the Fiat Panda (118.9 g/km) and in fourth by the Fiat Punto (123.5 g/km). In addition, Fiat Group Automobiles also retained the number one position in the group ranking (126.2 g/km): a true record, making it the only auto group to already be below the European average value of 130 g/km set for 2015.

The attention to sustainable mobility is part of a strategic commitment that involves the entire Fiat Group, as confirmed by the 80 out of 100 received in a survey conducted by the Carbon Disclosure Project (the highest score for any of the automobile companies included in the world's 500 largest corporations by market capitalization), due to the level of transparency on issues linked to climate change.



For the second year running, Fiat S.p.A. was recognized as a sustainability leader once again in 2010 with its position in the Dow Jones Sustainability World and Dow Jones Sustainability Europe indexes being confirmed. It received a score of 93/100 compared to an average of 70/100 for all Automobiles sector companies analyzed by SAM, the specialists in sustainable investment.

During the opening session of MobilityTech, entitled "Change the way you move: Green Technologies", Nevio Di Giusto, Chief Executive of Centro Ricerche Fiat (CRF), explained the Fiat Group's approach to "sustainable" mobility, illustrating how the winning strategy is to be flexible in using the resources available. Di Giusto commented: "Trains, cars, buses and planes have meant access to mobility for billions of people. At the same time, satisfying the growing demand for mobility has generated problematic side effects for the environment, energy, traffic safety and urban congestion. Fiat Group, and in particular CRF, the focal point for the Group's activities in innovation, is committed to finding innovative solutions to tackle these problems and to open the way toward mobility that is sustainable from the social, environmental and economic points of view".

Naturally, the first step is increasingly safer, more ecological and comfortable means of transport, where "ecological" refers not just to operation of the vehicle, but to its entire life cycle: production, use and disposal. No single solution exists, but constant commitment is needed to optimize vehicles and engines, both through the search for solutions to make conventional engines more and more efficient and through the use of alternative power sources and fuels, to raise energy efficiency and increase the percentage of a vehicle recycled at the end of its life cycle.

But this still is not enough. The network infrastructure needs to be improved with advanced technological solutions that raise the level of safety and optimize efficiency.

During the Mobvision round table – promoted by the Ministry for the Environment in collaboration with the Milan representative office of the European Commission – in a session entitled "Future Present", Nevio Di Giusto addressed the theme of innovation by explaining how time has become a key element in the research process.

The history of innovation is, in fact, often a story of discontinuity, of processes that become exponential once triggered. But above all, it is a story of enormous commitment every day. Our generation is experiencing the most profound and rapid change in the history of humanity. The inventions of the last century have changed our lives and, in most cases, have improved them. In all of this, the time factor plays a fundamental role. Time is a competitive advantage because it responds to the requirement all of us have for more and newer things in less time. Today's challenge is to innovate



more and more efficiently (i.e., with shortened time horizons and limited resources) and in an increasingly sustainable manner.

When we talk about innovation, we are talking about tomorrow, so one of the most frequent asked questions is: "exactly what will the car of the future be like?" Di Giusto's answer: "The most probable response is a low environmental-impact, intelligent car that travels on intelligent roads, where intelligence primarily means communication and co-operation between vehicle and road infrastructure."

Such systems could not only improve safety, by increasing the driver's capacity to identify critical situations using virtual technology, but will also provide valid support for improving the efficiency of traffic by warning of critical road conditions, such as traffic jams and accidents, picked up by sensors located along the road or in the vehicles themselves.

One of the current mobility challenges relates precisely to the extension of the use of wireless communication technologies to the exchange of information between vehicles (Vehicle to Vehicle or V2V) and between vehicles and the road infrastructure (Vehicle to Infrastructure or V2I). The European Commission, which considers road safety and traffic efficiency issues of major importance, has in fact decided to give substantial support to three major research projects focused on these systems (including SAFESPOT co-ordinated by Centro Ricerche Fiat) and numerous plans for development of the necessary supporting technologies.

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