



## GKN DRIVELINE PIONEERS DEVELOPMENT OF ELECTRIC VEHICLE SYSTEMS

**Redditch, UK 7<sup>th</sup> March 2011** -- GKN Driveline currently has more than 36 electric and hybrid-electric vehicle projects underway with major automakers around the world in the wake of its ground-breaking electric rear-axle project with Peugeot-Citroën.

The Peugeot 3008 HYbrid4 goes on sale this year followed by two other Peugeot-Citroën hybrid vehicles equipped with GKN Driveline components – the Peugeot 508 HYbrid4 and the Citroën DS5 HYbrid4.

Interest is high among automakers for a system that can turn any front-wheel-drive vehicle platform into an all-wheel-drive hybrid with the potential to improve fuel economy by up to 35 percent, according to Jim Voeffray, GKN Driveline's sales and marketing director.

Jim Voeffray notes that over the past 10 years GKN Driveline has furnished more than 200,000 electric rear-drive axles to Nissan and Mazda in Japan, giving the company considerable experience in this rapidly growing market segment.

"In parallel with hybrids, interest in electric cars and vehicles with range extenders has been apparent at auto shows for several years," he points out, reporting that in addition to its work with Peugeot-Citroën, GKN Driveline has also developed eTransmissions for three electric-car programmes scheduled for production in Asia and North America.

The company, which supplies more than 40 percent of the world's standard front- and rear-wheel sashes, relies on two competitive strengths for its growing electric-axle business:

- For hybrids, the company has a patented disconnect system that turns its eAxle (electric-drive axle) off in less than 80 milliseconds to improve efficiency when the axle is not needed, then turns it back on in about 100 milliseconds when torque is required.



- For electric vehicles, GKN has developed three families of ready-made eTransmissions that can be inexpensively tuned to meet different vehicle requirements.

“What counts for our customers, the vehicle manufacturers, is our ability to complete development projects quickly and at a relatively low cost,” Jim Voeffray says.

The Peugeot 3008 HYbrid4 -- a crossover with a 120 kW diesel engine to drive the vehicle’s front wheels and a 27 kW electric motor for its rear axle -- can travel short distances on electric power alone. It also can operate in four-wheel-drive for maximum performance and road grip and can run on the highway for hours with an efficient 2.0-litre diesel equipped with a particulate filter. Despite a rating of 200 available horsepower, Peugeot says fuel consumption for its hybrid is 35 percent less than for vehicles of comparable size and performance.

GKN Driveline’s axle business for pure electric vehicles began with a modular approach, as engineers created three standard families of eTransmissions to drive front and/or rear axles on small city cars, standard mid-range cars, large premium sedans, SUVs and sportscars. Within each transmission family, GKN Driveline only needs to change two gears inside a common gearbox to adapt to different motor speeds, power levels and wheel speeds.

Standard products can be customised to meet individual vehicle manufacturer requirements, helping to reduce both cost and development time. GKN Driveline can provide prototypes in three months and be in series production within 18 months.

GKN Driveline’s ability to meet aggressive production schedules helps automakers reduce product-development costs and introduce new products ahead of competitors. Its eTransmissions are compact, lightweight and 96-percent efficient, offering the final consumer vehicles with greater range at lower cost.

“GKN Driveline is developing eTransmissions for 15 different projects and has confirmed eTransmission orders for electric vehicles in Europe, Asia and North America,” says Jim Voeffray.

“Our global engineering and manufacturing footprint is a competitive advantage and our relationships with various electric-motor manufacturers means that we can quickly offer a fully tested and powered rear-axle module to automakers looking for turn-key solutions.”



### About GKN Driveline

GKN Driveline is the world's leading supplier of automotive driveline systems and solutions. As a global business serving the leading vehicle manufacturers, GKN Driveline develops, builds and supplies an extensive range of automotive driveline systems – for use in the smallest ultra low-cost car to the most sophisticated premium vehicle demanding the most complex driving dynamics.

GKN Driveline is a leading global producer of CVJ systems, AWD systems, Trans Axle solutions and eDrive systems.

[www.gkndriveline.com](http://www.gkndriveline.com)

### About GKN Group

GKN plc is a global engineering business serving mainly the automotive, aerospace and land systems markets. It has operations in more than 30 countries, around 38,000 employees in subsidiaries and joint ventures and had sales of £5.4 billion in the year to 31 December 2010. GKN plc is listed on the London Stock Exchange (LSE: GKN)

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