



SPECIAL FEATURE:  
01

# Moving Forward Responsibly

"Moving forward responsibly" is what Kia Motors strives to do. We have seen development and we have enjoyed convenience; but now confronting us are the limitations of Earth, our only habitat. We now know that climate change is not natural but manmade. If our children are to enjoy the kind of convenience and prosperity we have enjoyed, we must make changes and act now. That is why Kia Motors is serious about sustainable mobility and the future of the automotive industry. We want to ensure that our children not only hear about the joys of automotive mobility but get to experience it themselves in a more convenient, safer and sustainable manner.





**9,200,000,000**

World population: 6.7 billion in 2007 / 9.2 billion in 2050  
(UN Population Division report, 2007)



**40%**

The percentage of the species on Earth that went extinct between 1970 and 2000.  
(UNEP, "Global Biodiversity Outlook 2," 2006)

**10,000,000**

Number of megacities with populations of over 10 million: 14 in 1995 / 26 in 2015  
(UN Population Fund statistics, 2007)



**January 2007**

Warmest winter since 1880  
Record high glacial melt  
(Samsung Global Environment Research Center, "Climate Catastrophe: A Reality We Want to Deny")



**2015**

Buenos Aires, Tianjin, Bangkok, Cairo, New York City, LA, Osaka, Tokyo  
Cities expected to suffer devastating damage by 2015 due to rising sea levels  
(Samsung Global Environment Research Center,  
"Climate Catastrophe: A Reality We Want to Deny")



**6.5:1**

Before 2020, every 6.5 people are expected to own 1 car,  
which means more than 1 billion cars worldwide  
(Wall Street Journal, April 2006)



**0.8**

Rise in the Earth's average temperature since 1900  
(IPCC report, February 2007)



**14%**

Share of transport sector's greenhouse gas emissions  
(IEA, "CO<sub>2</sub> Emission Trends and Reduction Opportunities  
in Transport, Households and Commercial Sectors")





## Go! Eco Dynamics!

The ultimate goal of sustainable mobility is zero emissions; that is, developing emission-free vehicles. Cars were created because of the dream of going farther than what our eyes could see. Similarly, the vehicles of the future will be created because we dream of passing down the freedom of mobility to our children. Kia Motors takes the first step toward this dream with "Eco Dynamics."

### A new century

Over the past century, automakers strove to make cars that were more convenient, comfortable and stylish. Automobiles, born out of our dream to realize the freedom of mobility, have become the most common and most personal mode of transport. Cars are a part of the most special and everyday moments of our lives. Cars have done very well in carrying out their primary duty as a means of transport, and they have also brought us the added values of personal possession and experience. However, if cars are to provide these same benefits in the second century of their existence, they must undergo an almost complete transformation.

Cars run on oil. Oil combustion generates CO<sub>2</sub>. CO<sub>2</sub> emissions are negatively impacting the Earth. Unless we change our way of life, the environmental damage caused by CO<sub>2</sub> emissions may be irreversible. In 2009, Kia Motors

released the Forte LPI Hybrid under our new green brand "Eco Dynamics." In so doing, we offered our first official solution to the global climate change challenge.

### Ushering in the era of eco-friendly cars

The economic downturn, depletion of fossil fuels, skyrocketing oil prices, toughening of environmental regulations and policy support for green vehicles... The stage was set in 2009 for the development and spread of eco-friendly vehicles. The popularity of hybrid electric vehicles really took off, spurring full-fledged efforts to develop what are deemed next-generation vehicles—i.e., plug-in hybrid electric vehicles (HEVs), electric vehicles (EVs) and fuel cell electric vehicles (FCEVs). Kia Motors, for its part, released the Forte LPI Hybrid in Korea, the consummation of 20 years of R&D, and staked our place in



the green automotive landscape. In 2010, we will unveil the K5 (Optima) Hybrid in North America and enter the global eco-friendly vehicle market. In 2011, we are planning to provide a pilot fleet of subcompact EVs to the government, and in 2012, we will begin the mass production of our FCEVs.

Under our new Eco Dynamics sub-brand, Kia Motors will be releasing a new green vehicle every year for the next four years (2009-2012). Our lineup of green cars will embody Kia Motors' ideas and solutions for the second century of automotive history. "Eco Dynamics" combines "eco" from "ecology" (nature and environment) and "economy" (efficiency) with "dynamics" (energy and vitality). Under our environmentally-friendly Eco Dynamics sub-brand, Kia Motors aims to steadily raise the existing value of cars while reducing fuel consumption and emissions to contribute to the sustainability of our planet and humankind. We invite you to the world of Eco Dynamics.

### Hybrid electric vehicle (HEV)

HEVs run on two different power sources—an internal combustion engine and an electric motor. Compared to existing cars, which are powered only by an internal combustion engine, HEVs have much higher fuel economy and power performance while emitting significantly less exhaust. The electric motor supplies most of the power for starts and acceleration. When HEVs come to a stop, the engine is shut off to cut unnecessary fuel consumption. When HEVs are going uphill or accelerating, the electric motor alleviates some of the work the engine has to perform. Electricity consumed at starts and acceleration is recharged by the braking energy generated during deceleration. HEVs show marked improvement in fuel economy and greatly reduce harmful emissions. This is especially true for stop-and-go city driving.

**2010: K5 (Optima) Hybrid** Since 2005, Kia Motors, in collaboration with the Ministry of Environment, has been running a pilot fleet of Pride (Rio) HEVs. With our proprietary technologies and domestically produced core parts, Kia Motors released the Forte LPI Hybrid, the world's first hybrid with an LPI engine. The K5 (Optima) Hybrid will make its debut in Korea in 2011 following its release in North America in late 2010. The K5 Hybrid, featuring our proprietary hybrid system, will set a new standard in the global hybrid market and lead the development of hybrid technology in Korea. The K5 Hybrid is future-oriented and distinctive, showcasing green design elements. It boasts the highest fuel economy (over 20.0 km/ℓ) in its vehicle class. It is a full hybrid system, with a clutch and a six-speed automatic transmission connected to the engine and the electric motor, allowing the vehicle to run solely on the electric motor at low speeds. We have succeeded in producing all the parts for the electric motor in Korea, laying down the basis for sustained advances in hybrid technology and enhancing the competitiveness of our partner companies.

**Ray: Our first hybrid-only model** In 2012, Kia Motors plans to launch our first hybrid-only model, equipped with our proprietary Flexible Hybrid System (FHS) and boasting the highest level of fuel economy in the world. FHS expands the range of the electric motor, using two motors and planetary gearing. It also features a continuously variable transmission that raises the range of control at the optimal driving level, thereby dramatically enhancing fuel economy. By replacing a few parts—e.g., higher battery power, rechargeable system and power cable, the vehicle can be turned into a high-output plug-in hybrid electric vehicle (PHEV). In the meantime, Kia Motors also plans to develop a PHEV that can be recharged at homes. In short, we aim to respond proactively to North America's ZEV (zero emission vehicle) laws and regulations.

### Electric vehicle (EV)

EVs run solely on an electric motor. EVs use the electric energy stored in a high-voltage battery for starts and acceleration. The energy created during deceleration recharges the battery, enabling economical driving. The battery, like a cell phone battery, may be recharged at homes. The battery can also be recharged at high-speed charging stations. As they run only on electric energy,



EVs are more economical than cars that run on fossil fuels. Moreover, they produce zero emissions so they are eco-friendly through and through.


**Compact urban electric crossover utility vehicle (CUV)** Since the Vesta EV in 1986 and the Sportage EV in 1999, Kia Motors has spent over 20 years researching and developing batteries, which are crucial to the development and commercialization of EVs. Based on accumulated technology and know-how, Kia Motors is planning to launch a compact electric CUV in 2011 that brings together existing and newly-developed EV technologies. This compact CUV model will be equipped with a high-performance lithium-ion polymer battery and an EV-specific electric power component. It will be a multi-purpose vehicle, well-suited for urban driving as well as cargo transport. Kia Motors is working to secure safety and reliability by building a sophisticated system that eliminates risk factors posed by high-voltage electric components. We are also working closely with our partner companies and relevant industries for the domestic production

of key parts as this will lay the foundation for advances in EV technology in Korea. Following the launch of the compact electric CUV in 2011, we will strive to expand the lineup of models featuring related EV technologies. We will also work to build infrastructure for convenient recharging.

**Fuel cell electric vehicle (FCEV)**

No matter how advanced our technologies become, cars that run on fossil fuels are bound to emit exhaust. Accordingly, an alternative that truly takes the environment into consideration is vehicles that run on something other than fossil fuels. Hydrogen FCEVs run on electricity generated by the chemical reaction between hydrogen and oxygen that power the motor. Thus, the only byproduct is water. Hydrogen FCEVs can tackle the twin issues of environmental degradation and energy depletion. For the commercialization of hydrogen FCEVs, however, we first need an infrastructure of hydrogen fueling stations and a more energy-efficient manufacturing process.

**Fuel cell technologies of Mohave (Borrego)** Kia Motors has been engaged in developing fuel cell technologies since 1988. We have successfully proven our low-temperature (-20 °C) startup technology, and we are now focused on overcoming the technological hurdles of improving the durability of fuel cells while lowering their high production cost. In 1999, we developed a fuel cell stack\* with a maximum output of 2 kW and an output density of 0.2 kW/l. In 2009, we succeeded in developing the Mohave (Borrego) FCEV, which features a 115-kW fuel cell stack—the world's most powerful—and a next-generation energy storage unit known as a supercapacitor. The fuel cell stack is built into the Mohave FCEV's underfloor for even weight distribution. This setup enables a more dynamic driving performance and enhances safe maneuverability. With its 700-bar hydrogen storage system, the Mohave FCEV can travel up to 758 km on a single charge, which is comparable to the distance existing mass-produced cars can travel with a single fueling. It can also travel at a speed of up to 160 km/h. The Mohave FCEV is designed to prevent damage to the hydrogen tank and pipes that can be sustained in rear-end collisions. Moreover, the Mohave FCEV is equipped with a hydrogen leak detection sensor and a collision detection sensor to prevent hydrogen leaks during impact. The Mohave FCEV's proven safety features fulfill the requirements of U.S. automobile collision regulations.

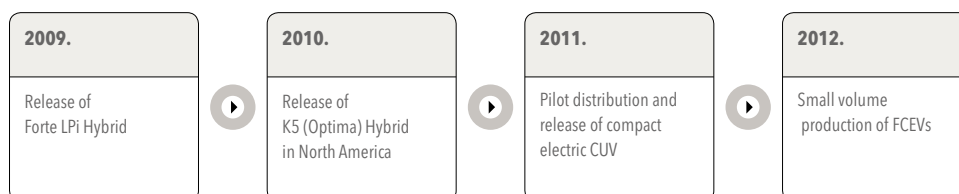
produce major fuel cell components. As a result, Kia Motors can now produce 99% of the key parts in Korea. Kia Motors is presently working with some 120 partner companies on developing technologies to create a FCEV that can start at -30 °C, is 60% more efficient than existing systems and can run on a fuel stack that is half the size of current stacks. Kia Motors pledges that through continued R&D, we will pave the way for a tomorrow in which everyone can enjoy the benefits, convenience, and safety of FCEVs. 

\* Stack: Fuel cells stacked on top of one another in tens and even hundreds to produce the desired power output

**Dreaming of a Mohave (Borrego) FCEV future** Since developing our first FCEV in 2000, Kia Motors won the Michelin Challenge Bibendum, an international green vehicle tournament, and was recognized for our technological capabilities by completing the FCEV road rally. Since 2004, we have been a part of a FCEV pilot program overseen by the U.S. Department of Energy. We completed the U.S. Hydrogen Road Tour's cross-country rally with the Sportage FCEV in 2008, and in 2009, we organized a 6-month Mohave FCEV pilot program for the public. Kia Motors has provided Mohave FCEV pilot fleets to the Blue House, government ministries and local governments to validate our FCEV technologies and prepare for commercialization. The Mohave FCEV successfully completed the U.S. Hydrogen Road Tour 2009—a 2,655km rally from San Diego (USA) to Vancouver (Canada), proving its durability and technological superiority. We are planning to expand our pilot programs in 2010, and in 2011, we will set up a small volume FCEV production system to begin a pilot distribution program. Kia Motors has secured proprietary design technologies for fuel cell systems and has striven to domestically



**Roadmap for vehicles of the future**



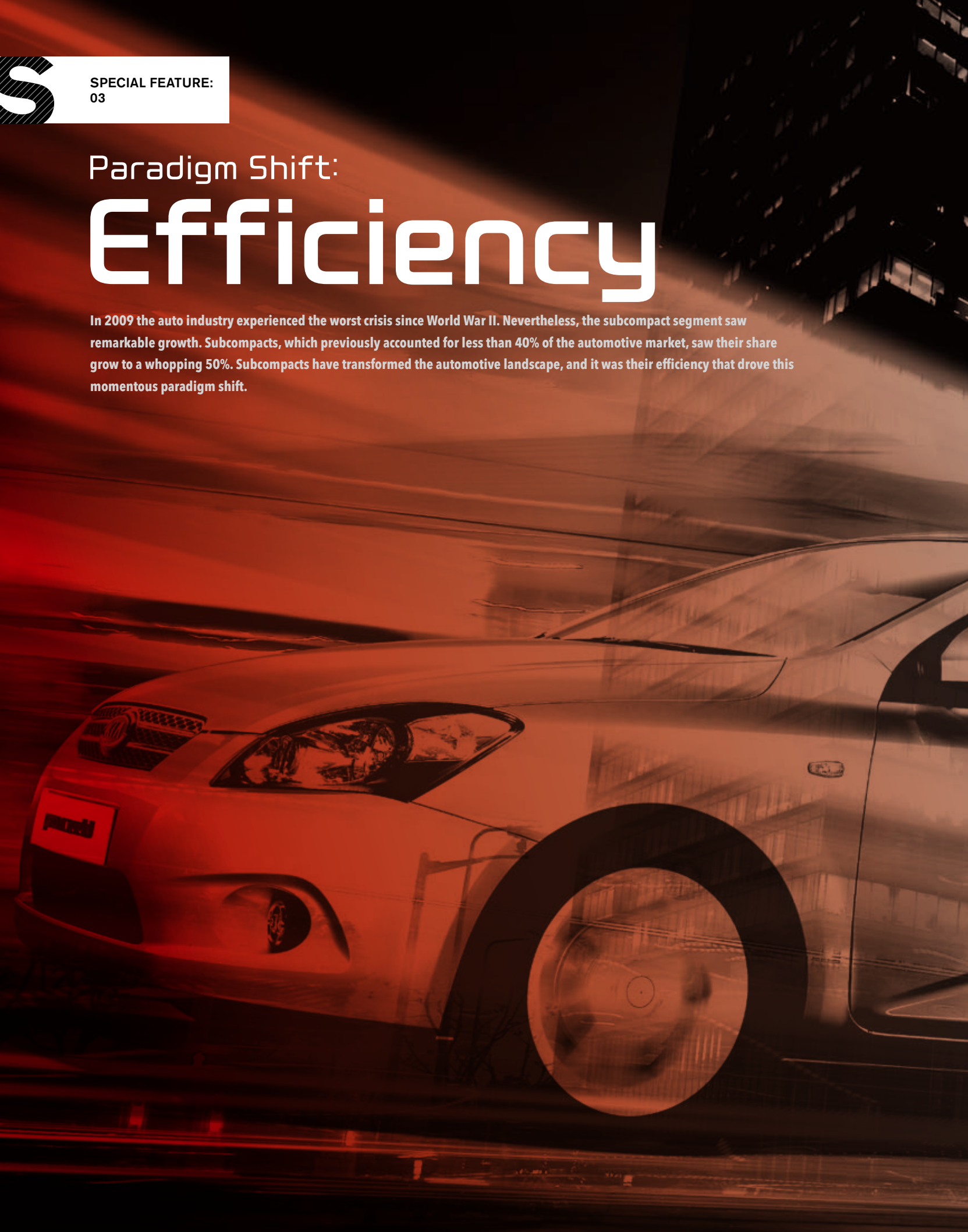


SPECIAL FEATURE:  
03

Paradigm Shift:

# Efficiency

In 2009 the auto industry experienced the worst crisis since World War II. Nevertheless, the subcompact segment saw remarkable growth. Subcompacts, which previously accounted for less than 40% of the automotive market, saw their share grow to a whopping 50%. Subcompacts have transformed the automotive landscape, and it was their efficiency that drove this momentous paradigm shift.



### **Realignment of the automotive market**

In 2009, the global auto industry was hit with the worst crisis ever. There was a dramatic contraction of the global auto market, which had been expanding steadily since 2002. Structural changes also ensued. The industry's center of gravity shifted from advanced markets to emerging markets. Consumers in both emerging and advanced economies started downsizing to subcompact vehicles. The third trend in the automotive industry in 2009 was the onset of the full-fledged growth of the green vehicle market. While HEVs, EVs and FCEVs represent the environmental aspect of this trend, subcompacts stand for the efficiency aspect. We now introduce to you our efforts to raise efficiency and the reasons why efficiency has emerged as a new keyword in the auto industry.

### **Tougher regulations and preemptive responses**

The Life Cycle Assessment (LCA), which is carried out to reduce the environmental impact of the automotive lifecycle, shows that the largest bulk of CO<sub>2</sub> emissions comes from when the car is on the road. Given that a car continually uses energy for up to over a decade, it is only natural that environmental regulations and the auto industry's efforts to raise fuel economy and cut emissions are focused on this stage of the vehicle lifecycle.

In 2009 alone, Korea, the United States, the EU and many other countries around the world announced tougher fuel economy regulations. The Korean government has decided to gradually reduce average fuel economy and CO<sub>2</sub> emissions to 17.0 km/ℓ and 140 g/km, respectively, by 2015. The United States strengthened its fuel economy standards to 39 mpg (up 42%) for standard passenger cars and 30 mpg (up 30%) for light trucks. The EU decided to pass legislation to gradually cut average CO<sub>2</sub> emissions to under 130 g/km by 2015, while China is considering strengthening its fuel economy regulations by 8.8% to 34.3% from current standards by 2012. Thanks to our continued efforts aimed at improving fuel economy and cutting emissions, Kia Motors is poised to meet Korea's new regulations by 2011; the United States' by 2013-2014; and the EU's by 2012. The next section details Kia Motors' efforts to preempt stricter environmental regulations and raise efficiency.

### **Maximizing efficiency, minimizing emissions**

Kia Motors will be able to meet the toughened environmental regulations around the world even before they go into force. Our efforts at raising efficiency were not targeted at meeting the regulations themselves; they were founded on our sense of duty to curb climate change and environmental degradation. A car's engine is a key automotive component, akin to the human heart. Accordingly, improving engine performance and efficiency is central to improving a vehicle's fuel economy. The R engine in the 2010 Sorento R (all-new Sorento) is a high-performance, eco-friendly diesel engine. The engine features an 1800-bar high-pressure fuel injection system that cuts emissions while raising fuel economy and power output. The R engine's Exhaust Gas Recirculation System (EGR) limits exhaust emissions, and the variable turbo charger system with a self-diagnostic engine control unit enhances engine performance and reduces emissions. Add Kia Motor's proprietary FWD 6-speed automatic transmission, and the Sorento R has a fuel economy of 14.1 km/ℓ, a 30% improvement from the previous Sorento (10.9 km/ℓ).

The 2009 Forte (Cerato) LPI Hybrid, Kia Motors' first hybrid car, features a Gamma Liquid Petroleum Injection (LPI) engine, which uses Kia Motors' proprietary LPI technology. With a fuel economy of 17.2 km/ℓ—25% higher than standard cars, the Forte LPI Hybrid meets North America's Super Ultra Low Emission Vehicle (SULEV) standard, the world's toughest standard on automotive emissions.


### **Improving transmissions for better driving experience and fuel economy**

Along with the engine, the transmission plays an important role in improving fuel economy. The greater the number of gears there are, the smoother the driving experience and the higher the fuel economy become. Therefore, even with the same engine, a vehicle equipped with a more highly calibrated transmission has better acceleration and fuel economy. The drawback, however, is that such a transmission is more complex, and thus, heavier. This increases the weight of the vehicle. Therefore, the central objective of transmission development is reducing size and weight while increasing the number of gears.

The high-efficiency 6-speed transmission in Sorento R and K7 (Cadenza) is significantly lighter and has fewer parts than the existing 5-speed transmission. Designed to minimize energy loss between gears, the 6-speed transmission has a fuel economy around 2% higher than that of the 5-speed transmission.

A major accomplishment in 2009 was equipping the Forte LPi Hybrid with a hybrid-specific continuously variable transmission (CVT), which is free of transmission shock and optimizes fuel economy. We have removed the torque converter and used a starter clutch and a high-efficiency oil pump, raising the fuel economy by around 7% compared to existing automatic transmissions. Our hybrid CVT has replaced the German-made transmission used in the Pride (Rio) Hybrid. It has laid a solid foundation for the development of proprietary Kia technologies and secured cost competitiveness by replacing imported components.

### Technologies for going lightweight

A 1% reduction in the weight of a vehicle results in a 0.5-0.6% increase in fuel economy. However, lighter materials are less durable. Therefore, much R&D is required to decrease the thickness and weight while maintaining performance and durability. K7 (Cadenza)'s Lambda II engine is designed for the power and performance demanded by full-sized cars. Three, instead of the existing two, variable length intake manifolds were applied for high performance across the entire speed range. We also raised the revolution speed, which has resulted in a maximum output of 290 horsepower, 31 horsepower higher than the 3.3-liter engine. To realize high output as well as high fuel economy, we focused on making the engine lighter. We reduced the number of crankshaft balancing weights from nine to five and curved the fitting line of the cylinder block. We are the world's first to use a plastic thermostat while we also applied a stainless steel (SUS) exhaust manifold, plastic oil filter body and a smart electric module concept that minimizes the thickness of the wiring. In effect, despite the upgraded performance, the Lambda II engine is around 6 kg lighter than the existing engine. In addition, Kia Motors has replaced steel with light yet durable magnesium or aluminum. We have also replaced both the back frame and the cushion frame with super lightweight magnesium alloy die-cast frames, reducing the vehicle weight by around 6 kg. Forged steel has also been replaced with aluminum alloy, taking off an additional 6 kg. As for plastic parts, Kia Motors has applied technologies to make them thinner, resulting in a weight reduction of 10-15%. 



#### **SORENTO R** 01

Equipped with the eco-friendly and high-performance R engine, high-efficiency 6-speed transmission and Active Eco System, it boasts the highest fuel economy among Korean SUVs (fuel economy: 14.1 km/ℓ (diesel 2.2 2WD))

#### **VENGA** 02

A European subcompact model that won an iF design award even before its release

#### **cee'd** 03

A beloved European model that is both safe and green

#### **NEW MORNING** 04

The most popular model in our subcompact lineup (fuel economy: 18 km/ℓ (1.0 AT))

#### **FORTE LPi HYBRID** 05

Meets North America's Super Ultra Low Emission Vehicle (SULEV) standard, the world's toughest standard on automotive emissions (fuel economy: 17.8 km/ℓ (1.6 CVT))

**Eco-driving technology helpers**

**Idle Stop & Go (ISG)**

The Auto Stop function (Auto Stop, ISG) shuts down the engine when the car comes to a stop after driving for 2 or more seconds at 9 km/h or higher. The engine immediately reignites when the car restarts. This technology raises fuel economy and reduces emissions by cutting unnecessary fuel consumption by up to 15% on city roads, which demand stop-and-go driving.

**Electronic Toll Collection System (ETCS)**

ETCS automatically deducts the toll as a vehicle passes through a toll booth. ETCS is convenient and reduces congestion that can build up at tollgates. Minimizing congestion cuts back on extra fuel consumption, which in turn, enables highway motorists to practice eco-friendly and economical driving.

**Eco Guide**

The Eco Guide encourages fuel-efficient driving habits by monitoring the vehicle's speed and acceleration and displaying the real-time fuel-efficiency status on a 12-tiered indicator block on the dashboard.

**Active Eco System**

The existing Eco System uses the ECO indicator on the dashboard to encourage fuel-efficient driving. In contrast, the Active Eco System actively controls parts of the engine, transmission and air-conditioner system to realize optimal fuel economy.

When the driver turns on the Active Eco System, the vehicle minimizes fuel consumption from unnecessary acceleration, limits torque rise when accelerating, sets the maximum speed at 140 km/h, lowers the engine revolution and optimizes the air-conditioner compressor's duration of operation. Tests show that the Active Eco System raises fuel economy by around 11%.

**Eco Driving Point**

The Eco Driving Point rates the fuel-economy status of a vehicle on a zero to eight scale. When the rating reaches eight, an image of a blooming flower appears on the dashboard. If the driver maintains the level-eight rating for a set period of time, the flower turns into a bouquet. Eco driving points accumulate, so the driver can check just how fuel-efficient his/her driving has been with this entertaining function.





SPECIAL FEATURE:  
04



## K7

11.0 km/l (2.7 A/T)

### 1.2 tons

Amount of CO<sub>2</sub> emissions reduced compared to competing vehicles of the same class=Amount of CO<sub>2</sub> absorbed by 100 pine trees in a year

### 11.0 km/ℓ

Top fuel economy in its class, made possible by a high-efficiency engine, a 6-speed transmission, eco-friendly tires and a lightweight aerodynamic body

### 6 kg

Lambda II 3.5 engine, with a maximum output of 290 horsepower, is 31 horsepower more powerful but 6 kg lighter than the Lambda II 3.3 engine

### Pedestrian safety technology

Designed to minimize injury to pedestrians in collision situations

# Green Lineup



## FORTE KOUP

15.0 km/l (1.6 A/T)

### KOUP=Kia+Coupe

Kia Motors' first coupe-style sports sedan

### Best of Show

Won "Best of Show" at the 2009 New York International Motor Show

### VDC

Vehicle dynamics control system actively controls the brake and engine output when the vehicle suddenly turns, accelerates or brakes

### Active Headrest

The system automatically readjusts the headrest in collision situations to minimize impact on the occupant's head and neck



## FORTE LPI HYBRID

17.8 km/l (1.6)

### 25%

Fuel economy improvement over the gasoline version in order to meet North America's Super Ultra Low Emission Vehicle (SULEV) standard, the world's toughest emission standard

### 7%

Fuel economy improvement realized through hybrid-specific continuously variable transmission (CVT) that eliminates transmission shock and enables driving at optimal fuel economy level

### 15%

Reduction in fuel consumption when using the Auto Stop (ISG) function

### 55%

With CO<sub>2</sub> emissions of 99 g/km, Forte LPI Hybrid emits 55% less CO<sub>2</sub> than gasoline vehicles of the same class (1.6 gasoline), which emit 179 g/km

Kia Motors boasts a full lineup of passenger cars. Every year, we release all-new models and facelift (FL) models. We strive to raise the value of mobility by providing our customers with a wider selection of vehicles that bring more convenience, safety and joy while causing less environmental impact.

38  
39



## SORENTO R

14.1 km/l (2.2 A/T)

### 30%

Fuel economy improvement from previous version (10.9 km/l)

### 11%

Fuel economy improvement realized through the Active Eco System

### 2%

Fuel economy improvement compared to the existing 5-speed transmission realized through the high-efficiency 6-speed transmission that minimizes energy loss between gears and enhances power and comfort

### R Engine-Diesel

Meets Euro 5 emission standards; a proven low-polluting vehicle as per the Special Act on the Improvement of Air and Environment for Seoul Metropolitan Area



### 01. MORNING (PICANTO) 18.0 km/ℓ (1.0 A/T)

**"Energy Winner of the Year"** Consumers Korea

**Eco Driving** Fuel-efficiency status monitoring system

**ETCS** Electronic toll collection system for easy passage through toll booths

**Rear camera display mirror** LCD rearview display for accident prevention



### 02. PRIDE (RIO) 15.1 km/ℓ (1.6 A/T)

**16.2%** Fuel economy improvement from previous version

**22.0 km/ℓ** Highest fuel economy among manual transmission models in Korea

**No. 1 Highest** subcompact market share 4 years running (2006-2009)

**UCC** Underfloor catalytic converter for exhaust reduction



### 03. cee'd

★★★★ *What Car?*'s new vehicles rating

**No. 1** Customer satisfaction in *Auto Express*' compact family car category

**"Best Subcompact"** *Automobile*

**ISG** Auto Stop (Idle Stop & Go) cuts up to 15% in fuel consumption



### 04. SOUL 15.0 km/ℓ (1.6 A/T)

**"Top Safety Pick"** U.S. Insurance Institute for Highway Safety (IIHS)

**"2009 Car of the Year"** Chile

**"Most Exciting Car of 2010"** TIME.COM

**"Good Design"** 2009 red dot award



### 05. FORTE (CERATO) 15.2 km/ℓ (1.6 A/T)

**Top fuel economy rating** First among subcompacts; realized through optimized engine

**EU Certificate of Compliance with Annex IV;** meets heavy metals regulations

**Eco Driving + ETCS** Fuel-efficiency monitoring system and electronic toll collection system

**No. 1** Customer satisfaction in China Association for Quality survey



### 06. LOTZE (OPTIMA/MAGENTIS) 11.5 km/ℓ (2.0 A/T)

**6.5%** Fuel economy improvement from previous version

**23 kg** Engine weight reduction by using aluminum

**"Safest Mid-Size Sedan"** U.S. Insurance Institute for Highway Safety (IIHS)

**Top rating** Only vehicle to receive top rating across all categories in Korean crash testing



### 07. OPIRUS (AMANTI) 10.1 km/ℓ (3.3 A/T)

**SmartGreen Index No.1** U.S. Strategic Vision survey in full-size luxury sedan category  
**Top safety rating** U.S. Insurance Institute for Highway Safety (IIHS) crash testing  
**TPU/TPO** Dioxin-free, 100% recyclable materials  
**TPMS** Tire-pressure monitoring system



### 08. MOHAVE (BORREGO) 10.8 km/ℓ (3.0 A/T)

**10%** Engine weight reduction by changing engine cylinder block material  
**EU Certificate** of Compliance with Annex IV; meets heavy metals regulations  
**ASD** Amplitude selective damper for enhanced comfort and maneuverability  
**Top safety** Rollover detection curtain & side airbags



### 09. SPORTAGE 13.1 km/ℓ (2.0 A/T)

**6.3%** Fuel economy improvement from previous version; top fuel economy among Korean compact SUVs  
**Eco Driving** Fuel-efficiency status monitoring system  
**VDC** Vehicle dynamics control for brake and engine output  
**"Most Reliable Car"** Consumer Reports



### 10. CARENS 8.6 km/ℓ (2.0 A/T)

**2.0 LPI model** A proven low-polluting vehicle as per the Special Act on the Improvement of Air and Environment for Seoul Metropolitan Area  
**Eco Driving** Fuel-efficiency status monitoring system  
**"Top Family Car under \$25,000"** MSN Autos, a U.S. automotive website  
**VDC** Vehicle dynamics control for brake and engine output



### 11. CARNIVAL (SEDONA) 12.8 km/ℓ (2.2 A/T)

**22%** Fuel economy improvement from previous model  
**"2010 Top Recommended"** Edmunds.com, a U.S. automotive website  
**VDC** Vehicle dynamics control for brake and engine output  
**"Safest Minivan"** U.S. Insurance Institute for Highway Safety (IIHS)



### 12. BONGO (K SERIES TRUCK) 11.2 km/ℓ (2.9 M/T)

**25%** Reduction in NO<sub>x</sub> (atmospheric pollutant) emissions through 2.4 ℓ Theta LPI engine  
**3 million won** Savings in fuel cost over five years (200,000 km) compared to diesel vehicles  
**16.7%** Reduction in the emission of environmental pollutants with CPF (exhaust filter)  
**1.2=2.5** 1.2-ton truck with a loading capacity equivalent to that of a 2.5-ton truck



### 13. NEW GRANBIRD

**Euro 4** Meets Euro 4 standards with EGR (exhaust gas recirculation) and PMC (particulate matter catalyst)  
**ELR Seatbelt** Emergency locking retractor seatbelts for passenger safety in collisions and rollovers  
**Brake safety** Multi-stage parking brake and 4-circuit valve  
**Aerodynamic spoilers** Minimize drag and enhance fuel economy

## ...and Your Action!

When your efforts combine with ours, the complete formula for sustainability can be revealed. From the moment you open your eyes in the morning to right before you go to bed, there are little things you can do to make a difference. Here are some everyday tips that can bring about momentous changes.

### Practice eco-driving

Plan your travel route before you leave so that you can avoid congestion and minimize unnecessary fuel consumption that results when you get lost. The weight of the vehicle has a major effect on fuel consumption, so remove unnecessary loads from your car. Stay within the fuel-efficient speed range of 60-80 km/h on highways, and avoid sudden starts, brakes and acceleration. Maintain optimal tire pressure, and when buying a new car, opt for a fuel-efficient vehicle.



### Aim for zero standby power usage

Standby power accounts for 11% of total household power consumption. Therefore, if you unplug your idle appliances, you will, in effect, save one month's worth of utilities bills every year. Get into the habit of unplugging, and when getting new appliances, make sure they are certified high-efficiency, energy-saving products.



### Minimize the use of disposable goods

Get into the habit of using reusable shopping bags and personal mugs or tumblers.



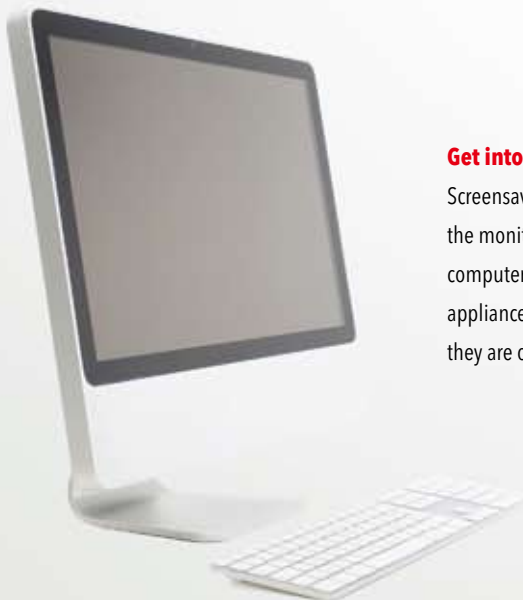


**Keep your showers short!**

Did you know the amount of water we use during a two-minute shower is equivalent to what a person in Africa uses over the course of an entire day? Get into the habit of keeping your showers to less than five minutes. You will help conserve precious water resources.

**Maintain optimal indoor temperature**

The optimal indoor temperature is 26-28 °C in the summer and 18-20 °C in the winter. In the summer, use a fan along with the air conditioner. It is better for your health and keeps your room cooler.



**Get into the habit of turning off your computer**

Screensavers use almost as much energy as when the monitor is fully on. When you are not using your computer, turn off the monitor. Also, set your office appliances so that they go into energy-saving mode when they are on standby. 