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## Ford Opens Portfolio of Patented Technologies to Competitors to Accelerate Industry-Wide Electrified Vehicle Development

- Ford is opening its portfolio of electrified vehicle technology patents to competitive automakers to accelerate industry-wide research and development of electrified vehicles
- In 2014, Ford filed for 400-plus electrified vehicle patents – more than 20 percent of the total patents the company applied for last year
- Ford is set to hire an additional 200 electrified vehicle engineers this year as the team moves into a newly dedicated facility – Ford Engineering Laboratories – home to Henry Ford's first laboratories

**DEARBORN, Mich., May 28, 2015** – Ford Motor Company is offering competitors access to its electrified vehicle technology patents – a move to help accelerate industry-wide research and development of electrified vehicles.

In 2014, Ford filed more than 400 patents dedicated to electrified vehicle technologies. This is more than 20 percent of the patents the company filed – totaling more than 2,000 applications.

“Innovation is our goal,” said Kevin Layden, director, Ford Electrification Programs. “The way to provide the best technology is through constant development and progress. By sharing our research with other companies, we will accelerate the growth of electrified vehicle technology and deliver even better products to customers.”

Ford Motor Company is a leader in this area – offering six hybrid or fully electrified vehicles including Ford Focus Electric, Ford Fusion Hybrid, Ford Fusion Energi plug-in hybrid, Ford C-MAX Hybrid, Ford C-MAX Energi plug-in hybrid and Lincoln MKZ Hybrid. In total, Ford has more than 650 electrified vehicle patents and approximately 1,000 pending patent applications on electrified vehicle technologies.

Ford's innovations have resulted in acclaimed electrified vehicles on the road today, but the company believes sharing its patented

technologies will promote faster development of future inventions as all automakers look toward greater opportunities.

“As an industry, we need to collaborate while we continue to challenge each other,” said Layden. “By sharing ideas, companies can solve bigger challenges and help improve the industry.”

To access Ford’s patents and published patent applications, interested parties can contact the company’s technology commercialization and licensing office, or work through AutoHarvest – an automaker collaborative innovation and licensing marketplace. AutoHarvest allows members to showcase capabilities and technologies, then privately connect with fellow inventors to explore technology and business development opportunities of mutual interest. The patents would be available for a fee.

“Ford helped launch AutoHarvest as a founding member to enable efficient and transparent technology licensing across the automotive industry and beyond,” said Bill Coughlin, president and CEO, Ford Global Technologies, which manages intellectual property for Ford.

As part of Ford’s increased focus on new and innovative technologies, the automaker is set to hire an additional 200 electrified vehicle engineers this year as the team moves into a newly dedicated facility – Ford Engineering Laboratories – home to Henry Ford’s first labs in Dearborn.

### **Available Ford electrified vehicle patents**

Here are some of Ford’s electrified vehicle patents available for competitors to purchase:

- Method and Apparatus for Battery Charge Balancing, patent No. US5764027: The patent covers passive cell balancing: discharging a cell through a resistor to lower the state of charge to match other cells. This innovation extends battery run time and overall life. This is the first invention to enable battery balancing at any time, instead of only while charging, and it enables the use of lithium-ion batteries in electrified vehicles. It was invented long before lithium-ion battery-powered vehicles became commonplace – truly ahead of its time.
- Temperature Dependent Regenerative Brake System for Electric Vehicle, patent No. US6275763: The technology works to maximize the amount of energy recaptured in a hybrid vehicle through regenerative braking. By improving the interplay between normal friction brakes and regenerative braking during stopping at certain air temperatures, a driver is able to recapture more energy than previously possible, helping the motorist drive farther on a charge.

- Driving Behavior Feedback Interface, patent No. US8880290: The patent provides a system and method for monitoring driver inputs such as braking and accelerating, and vehicle parameters including energy consumption to assess driving behavior. The feedback can be used to coach future driving behavior that may translate into better long-term driving habits and improve fuel economy. This technology also has enabled drivers of non-electrified vehicles, such as a Ford Focus, to develop better driving habits.

### About Ford Motor Company

[Ford Motor Company](http://corporate.ford.com), a global automotive industry leader based in Dearborn, Michigan, manufactures or distributes automobiles across six continents. With about 194,000 employees and 66 plants worldwide, the company's automotive brands include Ford and Lincoln. The company provides financial services through Ford Motor Credit Company. For more information regarding Ford and its products worldwide, please visit <http://corporate.ford.com>.

### About AutoHarvest

*AutoHarvest Foundation, a 501(C)3 nonprofit, is a unique innovation ecosystem led by some of the most highly respected figures in the automotive and manufacturing industries. In 2012, AutoHarvest.org was launched as the world's only truly neutral and global on-line meeting place for innovators of all types with an interest in advanced manufacturing. This system allows users of all types to showcase capabilities, technologies and needs system-wide and then privately connect with fellow inventors and commercial entities to explore technology and business development opportunities of mutual interest. The AutoHarvest interest group consists of over 250 prominent R&D and manufacturing organizations from industry, government and academia. For more information visit: [www.autoharvest.org](http://www.autoharvest.org).*