

Fallbrook Technologies takes the #1 spot

According to The Patent Board's Automotive & Transportation Patent ScorecardTM published in The Wall Street Journal, Robert Bosch leads in Science StrengthTM

(Chicago – January 13, 2009) – The latest Automotive & Transportation Patent Scorecard was released today and has ranked 171 of the top automotive & transportation companies according to the relative strengths of their patent portfolios. The Patent Scorecard provides readers with deeper insight into patent portfolios as measurable financial assets and drivers of the market value. The names remain the same but the order changes with a new leader emerging. **Fallbrook Technologies, Inc.** (Fallbrook) (San Diego, California, USA) takes the lead with a small yet extremely impactful portfolio to power their way to the top of the automotive and transportation industry, displacing Denso Corporation along with other major automotive companies. Their rise to #1 is due to a surge of issued patents that drove up its internally-driven patent impact, for an Industry ImpactTM score that far exceeds any of its larger competitors. Fallbrook currently manufactures a NuVinci[®] continuously variable planetary (CVP) for light electric vehicles and scooters as well as a revolutionary bicycle hub. Fallbrook's CVP is a continuously variable transmission (CVT) technology that addresses key drawbacks of past CVT designs, namely awkward packaging and high manufacturing costs. The core technology is also key for optimal system design of electric and hybrid vehicles. While Fallbrook manufactures certain products itself it plans to commercialize various applications of its technology through licensing and development partnerships. Fallbrook's rank is primarily due to strong internal citations; the pattern is one found in companies very often with a new breakthrough idea that has not yet matured. As a result of this increase in rank, all the other top 10 companies decreased in rank with two exceptions: **Toyota Motor Corporation** (Toyota-Cho, Japan) held onto 4th and **Nissan Motor Co Ltd.** (Tokyo, Japan) maintained 9th overall.

Denso Corporation (Kariya, Aichi, Japan) drops into 2nd position with a 3% decrease in patenting by this period as well as a 17% decrease in Industry ImpactTM to now score below the industry average. **Denso** does continue to maintain the lowest (quickest) Innovation Cycle TimeTM of 7.3 years among the top 10. Third ranked **Honda Motor Co Ltd.** (Honda) (Tokyo, Japan) has the highest patent volume this quarter at 784; however they have an Industry ImpactTM that sits below the industry average. **Honda's** Science StrengthTM score rose by 33% and they rank 2nd by this indicator. **Toyota Motor** held onto 4th position with an increase in patenting this period by 8%. Toyota also has a low Innovation Cycle TimeTM at 7.8 years. Meanwhile, **General Motors Corporation** (GM) (Detroit, Michigan, USA) dropped two spots to sit at 5th with patent impact and volume indicators declining, while their science indicators increase. However, **GM** does have the highest volume of pending published applications this quarter.

Ford Motor Company (Ford) (Dearborn, Michigan, USA) continues to have the highest Research IntensityTM of the top 10 at 2.07. Research IntensityTM indicates the extent to which a portfolio includes patents with above-average science linkages. A higher score indicates that the company's technology is closer to the cutting-edge than its competitors. Ford's most highly science linked patent is related to a collision avoidance system and is referencing the IEEE to a great extent. However, it is **Robert Bosch GmbH** (Stuttgart, Germany) that leads in Science StrengthTM despite a 29% decline in this indicator. **Robert Bosch** also has a Research IntensityTM above the industry average at 1.46; however they declined here as well. **Nissan Motor** held onto 9th position, maintaining their patent volume and increasing slightly in both Research IntensityTM and Science StrengthTM by which they rank 8th. **Nissan** had the largest increase in pending applications this period among the top 10 at 26%. **Magna International Inc.** (Aurora, Ontario, Canada) dropped two spots with a 6% decline in patenting; however they continue to maintain one of the higher Industry ImpactTM scores of the top 10. In addition, their Research IntensityTM increased another 18% over its last period for a score of 1.46.

Outside of the top 10 there were three companies with significant increases in their rank. **Yanmar Co Ltd** (Osaka, Osaka Japan) climbed six spots to rank 14th, with a 22% increase in patenting and a 15% increase in Industry ImpactTM, which now sits at over twice the industry. **Automotive Technologies International, Inc.** (ATI) (Denver, Colorado, USA) continues to rise, up nine spots to rank 20th. **ATI's** patenting increased by 38% over last period and has the second highest Industry ImpactTM score in the Automotive & Industry Patent Scorecard at 4.396, which is primarily externally driven. **ATI** develops devices for automotive safety and their products include weight sensing devices, crash sensors, occupant spacial sensing and film airbags. The company that is citing them the most is outside of auto industry – Silverbrook Research, with all of the Silverbrook citing patents related to pressure sensors. The third company making strides is **Mazda Motor Corporation** (Mazda) (Aki-gun, Hiroshima, Japan), with a thirteen rank increase to sit at 32nd. **Mazda** had an increase in patenting this period by 16% as well as a low Innovation Cycle TimeTM at 7.7 years.

About the Industry

The industry includes companies that are involved in the manufacture and/or sale of land and sea vehicles and their parts. This includes tires, brakes, steering systems, engines, transmission systems and after-market products, as well as sensors, safety systems, electronics and climate control.

The Patent Board Scorecard Ranks Fallbrook Technologies, Inc. as #1 Innovator in Automotive & Transportation Industry

Top 10 Innovators in Automotive & Transportation Patent Scorecard[™] | Quarterly snapshot – 13 week averages

Previous Rank		Current Rank	Company	Patent Granted*	Science Strength [™]	Innovation Cycle Time [™]	Industry Impact [™]	Technology Strength [™]	Research Intensity [™]
10	△	1	Fallbrook Technologies Inc	19	0	10.8	43.101	834.19	0
1	▽	2	Denso Corp	745	49.5	7.3	0.867	649.7	0.69
2	▽	3	Honda Motor Co Ltd	784	529.8	8.6	0.738	577.29	1.24
4	◀▶	4	Toyota Motor Corp	515	120.3	7.8	1.007	521.04	0.91
3	△	5	General Motors Corp	512	363.8	8	0.887	453.74	1.72
5	▽	6	Ford Motor Co	337	386.3	7.9	1.216	412.95	2.07
6	▽	7	Robert Bosch GmbH	492	648.8	10	0.578	284.16	1.46
7	▽	8	Delphi Corporation	324	154	7.8	0.847	274.42	1.16
9	◀▶	9	Nissan Motor Co Ltd	305	144.5	8.1	0.887	270.19	1.15
8	▽	10	Magna International Inc	155	38.8	12.4	1.625	252.15	1.46

**The Patent Scorecard includes all U.S. utility patents that were represented by each entity. Only Automotive & Transportation patents are used for companies that are represented in multiple industries. Industry Impact[™] and Research Intensity[™] indicators are both normalized to 1.0 for the industry average. Gray boxes signify a score above the industry average. The leading score among the top 10 are signified by the orange boxes. The Patent Board continues to evolve its indicators and advance the importance of Intellectual Property as the New Asset Class. For more information on The Patent Scorecard please contact The Patent Board at info@patentboard.com.*

About The Patent Board Indicators

Patents Granted – equals the number of U.S. patents granted in a given year, excluding design and other special-case inventions.

Science Strength[™] - ranking measure to indicate how much a company uses science in building its patent portfolio with a combined measure of science and quantity.

Innovation Cycle Time[™] - indicates whether a patent or patent portfolio is building off newer or older inventions (art).

Industry Impact[™] - indicates the extent to which others are building upon a portfolio of issued US utility patents as compared to the total set of utility patents.

Technology Strength[™] - ranking measure to indicate an overall strength of the company's patent portfolio holdings with a combined measure of quality and quantity.

Research Intensity[™] – indicates the extent to which a portfolio includes patents with above average Science Linkage as compared to the control group.

About The Patent Board

The Patent Board is the world's leading business-based patent advisor to Fortune 500 companies, technology-based start-ups, law firms, investment banks, and governments. With four decades of experience, The Patent Board utilizes proprietary data, tools, and analytics to leverage patent-based IP as an asset class. The Patent Board is the official patent ratings partner for The Wall Street Journal with a weekly Patent Scorecard column for the WSJ Market Data Center online and monthly publications in Intellectual Property Today.

The Patent Board[™] tracks and analyzes innovation, movement, and the business impact of patent assets across 17-industries on a global basis. The Patent Board has offices in Chicago and Philadelphia. For more information visit The Patent Board's website at www.PatentBoard.com or contact Christine Wren at cwren@patentboard.com or +1.312.205.7037.

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