



WHITE PAPER:

**INVESTING IN SUCCESS:
CAPITALIZING ON THE
AUTO TECH REVOLUTION**

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This white paper has been released in association with the TU-Automotive Detroit 2016 Conference & Exhibition (June 8-9, SCS, Novi, MI)

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INVESTING IN SUCCESS: CAPITALIZING ON THE AUTO TECH REVOLUTION

The rapidly evolving automotive industry is in the grips of a very public competition that features two distinct communities focussed on exactly the same goal.

The aim for each party is to create an array of mobility services and solutions that will allow people to get from point A to point B in a way that benefits the consumer, lessens the impact on the environment and reduces congestion.

Automakers and automotive tier 1s (one of the two parties vested in this dynamic) recognize that even in spite of their significant heritage and market share, they are by no means guaranteed to maintain their base of customers if they do not innovate, recruit totally new job functions and invest in and acquire new companies. Technology disrupters, fleet-footed, young and unbound by corporate protocol, make up the second group and are comprised of multinational companies such as Apple, Google, Uber and Amazon as well as start-up enterprises, of which it would be unfair to name-check only a select few. Both groups *could* pursue this goal separately but what is so attractive to the investment community is that there is a great need for collaboration, which is fuelling a very fertile M&A environment.

According to research from Statista's Digital Market Outlook, the revenue received from the US connected car market will grow from \$8 billion in 2016 to \$21.2 billion in 2020. The area of the industry that is projected to create the most revenue (\$13 billion) is safety and driving assistance, although in-car content, navigation & diagnostics and maintenance also make significant contributions. The forecast does not include data on how connectivity and autonomy are set to plug into the Internet of Things and enable new mobility services. PwC predicts that the sharing economy (or the "access economy", as I believe we should refer to it) will generate worldwide revenues of \$335 billion by 2025. Car sharing will account as one fifth of this sector – the other parts being P2P crowd-funding, online staffing, P2P accommodation and music/video streaming.

The nature of statistics is that they require constant review and reissue. Despite this, what *will* remain constant is the financial opportunity that this presents to those willing to take up the task. This article aims to clarify the different investment opportunities and cooperative strategies that are needed to capitalize on the auto tech revolution, with views from senior financial services professionals and automotive executives. It will also seek answers on how start-ups can successfully navigate the automotive ecosystem to attract investment and grow their businesses.

The Multi-Billion Dollar Mobility Challenge

'Mobility' can mean different things to different people but Ted Serbinski, managing director at Techstars Mobility, a mentorship-driven start-up accelerator based in downtown Detroit, defines it as "any technology or service that enables people and goods to move around more freely". He admits that this is a broad thesis but the description has allowed Techstars to establish partnerships with 8 leading corporations, some of whom would not immediately strike you as being involved in the mobility revolution.

Techstars Mobility, now in year 2, lists entrenched automotive players such as Ford, Magna and Verizon amongst its backers, but the name that really jumps out is McDonalds. I ask Ted the simple question, "Why McDonalds?" He answers, "You've got to think of their business in this way – they

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have 15,000 locations around the world, 70 million people eat in their restaurant every day. As mobility changes the world, it will change how people get to their food. Will your autonomous vehicle or your ride-share be compatible with a McD's drive thru?" The explanation (and Ted's original definition of mobility) makes sense and enforces how new approaches to mobility will transform how 'things' and not just people will be moved on-demand from one point to another – think Uber's Christmas tree initiative last December.

Serbinski tells me that a lot of entrepreneurs are trying to figure out how to get into the mobility and transportation game at the moment – evidenced by a jump in applications that Techstars Mobility has received in Year 2 compared to Year 1. He says, "We saw nearly 500 applications in year 2, with a 44% increase in company applications that aligned with our mobility thesis from year 1. Over the past 2 years, we have now interfaced with over 1000 companies through applications and discussions about our program." He warns, however, that affecting the way people move around requires "a more nuanced approach and a specific skill set compared to creating a social web app".

M&A to Provide the Missing Parts of the Jigsaw Puzzle

The prize for becoming a frontrunner in this new mobility world can go a long way in explaining why there has been a spike in M&A activity. Scott Mattson, managing director at William Blair & Co., the global investment banking and asset management firm, suggests that strategic buyers recognize the need to "go out and acquire capabilities and technologies that can fill the gaps in their solution stacks". He argues that "the musical chairs are starting to fill up – automakers and tier 1s are selecting their partners for the coming years". Indeed, just in the first 3 months of 2016, we have seen moves from multiple ends of the ecosystem. Manufacturer, General Motors has pursued an aggressive strategy that has seen them invest \$500 million in peer-to-peer ridesharing service, Lyft and also acquire Silicon Valley driverless car start-up, Cruise Automation. INRIX, a global provider of connected car services has bought out automotive software and services provider, OpenCar to challenge Apple and Google's automotive efforts and Uber has reportedly ordered 100,000 autonomous cars from Mercedes-Benz, essentially flipping the disruptor-OEM dynamic on its head.

But what does this mean for the future of the industry? Mattson posits that M&A will continue to reshape the landscape and additional IPOs in the connected car and fleet space will be seen. He argues that there are a "diminishing number of assets of scale as a lot of companies have already been acquired but scarcity will help to inflate valuations". Therefore, it is of utmost importance that all players move quickly to establish cross-industry partnerships that can secure their long-term future.

In agreement is the managing director of BMW iVentures' New York office, Dr. Ulrich Quay. He believes that automakers around the world will be roused into action by the M&A headlines of months past, predicting: "You can be sure that every automaker CEO will be asking their strategy guys for their views on up-and-coming ride-sharing companies." He agrees with Mattson that valuations will soar, "GM's autonomous car deal will heat up this sector. The deal signifies a stamp of approval for the investment potential of this industry." What is clear is that automakers are willing to take large calculated risks on tech companies that could allow them to lead the pack, despite the reality that most ventures won't bring in the results that they would like.

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Start-up and OEM Worlds Collide

Those start-ups aiming to convince OEM venture arms and investment firms that they are 'winners' would be well advised to enquire into the services of the Autotech Council, who, like Techstars, help connect automotive focused businesses with the ideas, technologies and entrepreneurs that will drive change in the automotive mobility industry. As a reaction to the realization that they can no longer own and invent everything like they have been used to, there has been a flurry of automakers (Jaguar Land Rover, BMW, General Motors and Daimler, to name a few) who have set up incubator operations in Silicon Valley, where innovation is pervasive. Now, the Council sees its mission to get OEMs to understand the value of supporting creativity and entrepreneurship and as Liz Kerton, the Council's executive director, says: "It's not one particular start up that will make it but, even if one fails, those ideas that may get used, incorporated and born again within other companies. Setting up a field office here is a commitment to long-term innovation, and a new kind of partnership."

Kerton says Silicon Valley was chosen as the Council's HQ due to the critical mass of automotive activity there but by no means are all members based in this area. According to research by LSP Digital, 55% of the world's connected car start-ups list the United States as their home and Kerton believes that even those start-ups that didn't begin their existence working directly in the automotive sphere will play a part in years to come. She asks: "How many companies were putting artificial intelligence and the car together a few years ago? Talented R&D Phds were seeing their life's work go into robot dogs and sex toys. AI in cars is far more practical, and could save lives." She's right - and now automakers such as Mercedes Benz are using AI to create a more personalized user experience [a topic they will address at the TU-Automotive Detroit conference in June]. She continues, "They [tech companies] connected the dots. Ten years ago, it was the connected car driving the Valley forward. Now, a lot of the activity is in self-driving cars which means new concepts to look at like AI, augmented reality and computer vision."

Indeed, the conversation is no longer about "tethered vs. embedded connectivity" or "what the killer app is" – something that serial entrepreneur and former CEO of AUPEO!, a personalized internet radio service that was acquired by Panasonic in 2013, Holger Weiss will remember clearly. With advisory roles on the Boards of start-ups High Mobility and gestigon, Weiss uses his view of the market to cite one major opportunity. He says: "The challenge is to fill the user experience gaps in the car so that journeys are less frustrating, time consuming and dangerous." This feeds back into the need for automakers to fill their technology and knowledge holes. Using the example of a vehicle operating autonomously and handing back control to the driver, he adds: "The computer needs to understand if the driver is capable of driving and that's where gestigon's gesture control technology can fill in. There's huge potential for start-ups to provide tech to OEMs."

With the marker laid down, what advice can be offered for start-ups trying to claim a piece of the industry? On the product, Serbinski advises: "Make sure what you're building is solving a real problem and is a service that someone would be willing to pay for." Furthermore, when it comes to how people choose to get around, old habits are hard to break. He continues: "Sometimes the biggest hurdle is that no-one else is doing it yet. Status quo can be the biggest competitor – if you've been driving to work for the last 20 years, it's going to be really hard to change that old habit with

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some new app.” On interactions, Kerton advises the need to sync expectations and timelines between automakers and disruptors: “Steadily, OEMs are getting better at moving quickly. We teach our members the value of a ‘fast no’ – that way start-ups can ‘pivot’ their product and go again. A ‘Talk to me in 6 months’ is bad for everyone.”

Another area that the community needs to be pro-active in relates to patents strategy. Research collected by Black Stone IP, a boutique investment bank specializing in IP transactions and IP-driven M&A, shows that non-auto companies hold large patent portfolios relevant to important features of the next-generation automobile. Ian McClure, vice-president of IP Strategy at the firm, comments: “Our data shows that very important areas such as mapping, sensors and vehicle-to-vehicle communications are protected by patents that are held by tier 1s and tech providers.” Unfortunately, the industry cannot rely on the free release of patents in this area, like that seen by Toyota in which they employed a no charge and royalty free strategy for their 5,600 hydrogen fuel cell patents. McClure adds: “Even though there had been a lot of R&D in fuel cell tech, the market was having a tough time in standardizing that’s why they had to open them up to develop the market.” No such move will be made here and a lot of the work will be done by industry consortia, such as GSMA and ITS, to push standards and cooperation.

The good news for tech disruptors and indeed investors is that significant evidence indicates that patents can help companies raise additional capital and maintain shareholder value. According to Diego Useche of the Université Montesquieu, “an additional patent obtained prior to IPO increases the IPO proceeds by about 0.90% in US and 1.06% in Europe, holding other factors fixed”. As a result, McClure advises: “Identifying, disclosing and filing patent applications quickly on important innovations as they occur in the development process.”

Who can make a car or mobility solution?

The buying/sharing/leasing decisions made by the consumer of tomorrow will be much more dependent upon the digital features of the vehicle, rather than traditional mechanical metrics such as top speed. Whether a company is 2 years old or 102 years old, both will be focused on producing the ‘mobility solution’ of the future and then convincing consumers of its worth (this is already happening with the TV marketing campaigns of a handful of OEMs). For the future to be fully realized – i.e. a solution that is fully automated, electric, shared and connected – cross-industry collaboration and partnerships are essential. Much of the power rests in the research labs of technology players so we can expect the next few years to be filled with a large amount of investment and acquisition activity.

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