Dear Clients, Friends and Colleagues:

Welcome to the most recent edition of the Sikich Technology Industry M&A Report. This quarter’s feature article is provided by Life Fitness’ head of engineering and discusses recent trends of technology in the fitness industry. Continuing with this theme, this edition also includes analysis of the recent FitBit IPO and its implications for the fitness industry.

Detouring from the fitness in technology theme, we celebrate the 50th anniversary of Moore’s Law and take a look at a battery powered rocket engine that can be printed using a 3D printer.

As always, please feel free to forward this link to whomever you feel would be interested.

Kurt Estes
Director, Sikich Investment Banking

The Intersection of Fitness and Technology

Consumers are aspiring to lead healthier lives by eating clean and developing a better understanding of health and wellness. Furthermore, as consumers become more connected, Gartner predicts by 2018 more than 50 percent of users will go to a tablet or smartphone first for all online activities, and more than 25 percent of consumers reported use of a fitness app on their smartphone1. These statistics prove technology is considerably affecting what consumers care about: their health. According to IDC, the market for wearable devices will reach 126.1 million units shipped in 2019, representing a $27.9 billion worldwide revenue opportunity. Fitbit, the largest technology IPO of 2015, was founded in 2007 with a $425,000 seed investment and epitomizes this convergence.

Fitbit’s mission is to help people live healthier by empowering them with “data, inspiration and guidance.” Fitbit provides a platform consisting of wearable devices ranging from $59.95 to $249.95 that connects with fitness software allowing people to track their daily steps,

1 NPD Group
Good News in Technology

Moore’s Law

Gordon Moore, co-founder of Intel, published a paper on April 19, 1965 predicting that engineers would be able to shrink the size of transistors to double the number that fit on a chip every 12 months. He later amended this time frame to every 24 months, which is the number most often quoted today. Moore’s Law has been remarkably accurate to date, despite many predictions of its end over the last few decades. There is likely a physical limit to how small a transistor can be made, but Intel predicts it can continue meeting Law’s predictions for another 10 years, at which point transistors will be about 5 nanometers in width (about the same thickness as a cell membrane) and the cost of production will outweigh the benefit. Still, 60 years is a pretty good run, especially for a prediction in an industry that has changed as rapidly at the semiconductor industry.

Battery Powered Rocket Created on a 3D Printer

In April, Reuters profiled a company creating rocket engines for small payload (about 100kg) rockets. While on the surface this may not sound all that exciting, the underlying technology is quite groundbreaking. Rocket Lab, a privately held company, has developed a rocket powered by batteries. Further, the main components of the Rutherford Engine, an electrically powered turbo pump, are printed by a 3D printer in less than three days. This new rocket is expected to begin commercial launches in 2016 and cost less than $5 million per launch.

Images courtesy of gizmag.com
The Collision of Technology and Fitness

By Mike Edwards, VP of Engineering and Doug Miller, Chief Architect, Life Fitness, a Brunswick Company

It would be nearly impossible not to notice the increased attention that our society is giving to health and fitness. Turn on your TV and you will see The Biggest Loser and American Ninja Warrior, take a look at Washington where both sides are relentlessly conducting obesity studies to find a solution or open TechCrunch to see tech giants, such as Apple and Google, creating health databases that will interact with your insurance company.

In recent years, personal fitness devices like Fitbit and Jawbone have exploded into the market, but as smartphone technology and the Internet of Things (IoT) continue to evolve, these standalone devices are being replaced by those that incorporate fitness functionality into everyday devices, such as our phones and watches. Manufacturers of fitness equipment must leverage these technologies to remain successful in the evolving fitness industry.

Health of the Industry

Before you consider how technology is affecting the fitness industry, you will want to understand whether or not the industry is growing. Overall, the sporting goods industry grew by an estimated 3.4 percent in 2014, an increase from 2.8 percent in 2013. Further, the industry has exceeded real GDP growth for the last five years after a significant rebound in 2010.

The sporting goods industry totaled $84 billion in sales in 2014 in four major segments – apparel (50 percent), sports equipment (27 percent), footwear (17 percent) and exercise equipment (6 percent). While exercise equipment is the smallest segment, it still accounted for more than $5 billion in sales in 2014 – nearly 5 percent growth over 2013, with a 4 percent compound annual growth rate (CAGR) over the past six years and growing faster than the overall industry.

The chart below shows that the segment growth over that period can be attributed primarily to treadmills ($1.31 billion) and ellipticals ($1.27 billion), both of which have more than 5 percent CAGR in the past six years. While exercise bikes accounted for only $530 million sales in 2014, this was a significant increase (6.8 percent) over 2013 sales and substantially more than the other modalities in the category.

The Collision of Technology and Fitness continued...

You might ask why there is a focus on treadmills, ellipticals and bikes. These three modalities account for more than 61 percent of the segment sales, and they show consistent year-over-year growth. One of the key attributes that these modalities have over the others is the incorporation of an exercise console. As technology in the fitness industry has matured, these consoles have migrated from simple knobs, dials and LED’s to the equivalent of industrial tablets complete with wireless connectivity and entertainment options.

Importance of the Console
The console on a piece of exercise equipment serves multiple purposes, for both the user and, in commercial environments, for the facility owner. First and foremost, it acts as the user interface to the equipment. It must be easy to use with an intuitive set of controls, allow the user to access a variety of workouts and provide appropriate feedback during and after the workout. Given the similarity in requirements for smartphones, it should not be a surprise that several manufacturers have adopted the Android OS and are leveraging advances in GUI development such as Google’s Material Design.

Ideally the above features would be present on all exercise consoles from entry level units to premium devices. However, users demand that premium devices also provide features like TV, on-demand video, web surfing and interactive courses that adjust the playback rate based on the speed of the user. These consoles can connect to your smartphone or tablet via either a wired or wireless interface. Interactivity is often supported through a smartphone or tablet app, which typically also supports some level of workout tracking. High-end consoles often support user login capabilities allowing the capture and retrieval of customized work-outs and displays through cloud base infrastructure.

The features mentioned so far focus primarily on the end user, so in a sense, they also benefit the facility owner (in commercial environments) who need more. They must also be able to manage their equipment remotely, either from the front desk or from a centralized support center in the larger franchise models. With this capability, they can monitor usage, optimize their equipment layouts, plan for routine maintenance (before heavily used equipment breaks) and provide screen and workout customization for users. To support all these functions and features, exercise consoles need a variety of technologies, which is where they enter the realm of the IoT.

By incorporating wireless technologies, particularly Bluetooth Smart, fitness equipment developers are able to reduce the barriers of connecting users

Which Technologies are Important
IHS Technology projects the total number of devices utilizing the IoT will grow from 7.8 billion devices in 2014 to 12.2 billion devices in 2019, at a CAGR of 9.2 percent. The primary factors driving this growth include consumer acceptance of a broader range of connected devices and advances in processor technologies.

In terms of technologies powering the IoT, wired is estimated to have been the most widely implemented connectivity method at the end of 2014. However, Wireless Local Area Networks (WLAN) and Wireless Personal Area Networks (WPAN) technologies are expected to show the strongest growth during the forecast period, driven by the increased penetration of short-range wireless technologies in both consumer and industrial devices. When combined, Bluetooth and Wi-Fi units far surpass wired devices.

Specifically, Bluetooth is projected to grow from 34.6 percent of all IoT devices in 2014 to 36 percent of all devices in 2019. These percentages include IoT devices that are estimated to include only Bluetooth technology, as well as those devices estimated to include Bluetooth combination solutions (i.e. Wi-Fi | Bluetooth and ANT+ | Bluetooth Smart). Factors driving this anticipated growth are the sheer volume of mobile and consumer devices that will be Bluetooth enabled, as well as the anticipated uptake of Bluetooth Smart in the growing number of low-power applications that will be available.

By incorporating wireless technologies, particularly Bluetooth Smart, fitness equipment developers are able to reduce the barriers of connecting users and providing access to a wealth of robust features including tracking and interacting with the emerging health databases like Google Fit and Apple Healthkit. A significant challenge for commercial fitness equipment is consumers using multiple exercise equipment on a daily basis, and the variety of personal smartphones they would like to easily interact with during their workouts. Acceptance of standards by smartphone developers such as Bluetooth, Bluetooth Smart and NFC, are making this seamless user experience possible. The continued expansion of Open Source development will accelerate the interactivity of fitness equipment and the rest of the IoT world.
The Collision of Technology and Fitness continued...

Beyond Consoles – Wearables

Excluding exercise equipment for a moment, we can also look specifically at the sports and fitness devices segment. This vertical includes activity monitors, heart rate monitors, running and outdoor computers, cycling computers, fitness accessories and pedometers. The total available market for sports and fitness devices was 55 million units in 2014 and is projected to grow to 137 million units in 2019, a compounded growth rate of 20.1 percent.

Source: IHS Technology, “Bluetooth® Technology’s Role in the Internet of Things”, May 2015 report

Similarly, the wearables market is exploding. The number of total wearables shipped reached an estimated 130 million devices in 2014, and is projected to reach 233 million units annually in 2019, at a CAGR of 12.5 percent during that time frame. In terms of wireless wearable devices, unit shipments will grow from 49 million in 2014 to 133 million in 2019, at a CAGR of 22 percent. This is inclusive of all connectivity technologies relevant to the wearables market.

The next wave of wearable innovation will involve increasingly efficient, low-power displays and processors that can extend battery capacity to enable increased functionality in smaller form factors. The next wave of wearable tech will be predominantly headwear and wrist-worn computing, but the field will remain diverse, with products that support applications other than social, gaming and infotainment applications, and a considerable share will provide health monitoring.

In 2012, Life Fitness announced an Open API approach through their “LF Connect™” and “LF Open™” applications, allowing developers the freedom to create interactive workout solutions, including applications and websites that interface with Life Fitness equipment. In 2013, Precor announced its “Preva® Networked Fitness” system, which allows users to track their fitness progress at the gym with on-console software or with the Preva Mobile app. Since then, other exercise equipment manufacturers have released equivalent features or, at a minimum, provided Bluetooth or Wi-Fi functionality. In parallel, and as mentioned above, the wearables market has exploded.

More recently, Google, Apple and other major technology companies have launched smart watches that further integrate with exercise equipment as well as your electronic health records (EHR) through Google Fit and Apple Healthkit. Accordingly, expect the higher tier exercise equipment manufacturers to continue evolving their products to integrate more connectivity solutions. This migration will continue not only in the console, but also in the equipment bases where the power and motion control electronics create the “feel” of the specific ride.

In order for our society to become healthier, fitness must become second nature, less intrusive and more than an activity that you squeeze into your schedule. Technology advances can and will help us achieve this laudable goal.

Where is Technology in Fitness Going Next?

Like all industries, fitness continues to evolve. As the economy stabilized and the sporting goods industry was able to recover in 2010, manufacturers began embracing technologies previously found only in high-end smartphones.

Since then, other exercise equipment manufacturers have released equivalent features or, at a minimum, provided Bluetooth or Wi-Fi functionality. In parallel, and as mentioned above, the wearables market has exploded.

Industry Perspective

Top Acquirers (By Deal Volume)

<table>
<thead>
<tr>
<th>Acquirer Name</th>
<th>Number of Deals</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Covered, Inc.</td>
<td>3</td>
</tr>
<tr>
<td>Patriot Technology Solutions, Inc.</td>
<td>2</td>
</tr>
<tr>
<td>salesforce.com, Inc.</td>
<td>2</td>
</tr>
<tr>
<td>Acuma Software</td>
<td>2</td>
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<tr>
<td>Accela, Inc.</td>
<td>2</td>
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<tr>
<td>Google Inc.</td>
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<tr>
<td>Neiman Marcus Corp.</td>
<td>2</td>
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<tr>
<td>Hawlett-Packard Company</td>
<td>2</td>
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<tr>
<td>Myriad Technologies, LLC</td>
<td>2</td>
</tr>
<tr>
<td>Intuitive Wireless Group, LLC</td>
<td>2</td>
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<tr>
<td>Total</td>
<td>21</td>
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Top Acquirers (By Deal Size)

<table>
<thead>
<tr>
<th>Acquirer Name</th>
<th>Deal Size ($ mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vantiv Communications Inc.</td>
<td>$4,719</td>
</tr>
<tr>
<td>Ontario Teachers’ Pension Plan; Thoma Bravo, LLC; Ontario Teachers’ Pension Plan - International Investments</td>
<td>$3,866</td>
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<tr>
<td>Hawlett-Packard Company</td>
<td>$2,651</td>
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<tr>
<td>Bain Capital, LLC</td>
<td>$2,400</td>
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<tr>
<td>OM Corporation</td>
<td>$1,250</td>
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<tr>
<td>Atos SE</td>
<td>$1,400</td>
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<tr>
<td>Lexmark International Technology S.A.</td>
<td>$1,004</td>
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<tr>
<td>TTM Technologies Inc.</td>
<td>$1,006</td>
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<tr>
<td>Harman International Industries, Incorporated</td>
<td>$780</td>
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<tr>
<td>Arrivo Technologies Wireless (U.S.A.) Manufacturing, Inc.</td>
<td>$576</td>
</tr>
<tr>
<td>Total</td>
<td>$19,553</td>
</tr>
</tbody>
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Source: Capital IQ
Industry Perspective continued from page 5

**Technology Industry EBITDA Chart ($ in billions)**

Source: Capital IQ

**Technology Industry R&D Chart ($ in billions)**

Source: Capital IQ

**Technology Industry Revenue Chart ($ in billions)**

Source: Capital IQ

**Cash Balance Chart ($ in billions)**

Source: Capital IQ

**Median Transaction Multiples**

(on closed transactions)

<table>
<thead>
<tr>
<th>Q2 2012</th>
<th>4Q 2012</th>
<th>Q2 2013</th>
<th>4Q 2013</th>
<th>Q2 2014</th>
<th>4Q 2014</th>
<th>Q2 2015</th>
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<tbody>
<tr>
<td>EV / LTM Revenue</td>
<td>median</td>
<td>EV / LTM EBITDA</td>
<td>median</td>
<td>EV / LTM EBITDA</td>
<td>median</td>
<td>EV / LTM Revenue</td>
</tr>
<tr>
<td>$74</td>
<td>11.0x</td>
<td>$83</td>
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<td>$74</td>
<td>11.0x</td>
<td>$83</td>
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**Q2 Disclosed Deal Count & Median Multiple by Deal Size**

<table>
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<tr>
<th>Deal Value ($ in billions)</th>
<th>0 to 25M</th>
<th>25 to 50M</th>
<th>50 to 100M</th>
<th>$100M+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median EV/EBITDA</td>
<td>4.5x</td>
<td>13.7x</td>
<td>18.5x</td>
<td>22.6x</td>
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<td>13.7x</td>
<td>18.5x</td>
<td>22.6x</td>
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</tbody>
</table>

**Closed Deal Count & Value**

<table>
<thead>
<tr>
<th>Deal Value ($ in billions)</th>
<th>0 to 25M</th>
<th>25 to 50M</th>
<th>50 to 100M</th>
<th>$100M+</th>
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</table>

Sikich Investment Banking

The Sikich team has more than 100 years of combined experience working with technology related companies. Our team includes former tier one consulting partners, technology company executives, venture capitalists and technology strategists. Our team’s experience includes working in a wide variety of technologies including: IT, all areas of telecommunications, Software and SaaS, nanotechnology, green technology, alternative energy, medical and life science, and electronics manufacturing and recycling.

Learn more at sikich.com/ib.

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