



TECHNOLOGY DRIVING INNOVATION, OPPORTUNITY AND TRANSFORMATION

**Technological megatrends are transforming businesses,
markets and entire economies**

At the 2014 Goldman Sachs *Builders + Innovators Summit* (B+I) honoring the 100 most intriguing entrepreneurs in the U.S., we brought together emerging business leaders and seasoned innovators to exchange ideas, insights and strategies. While the range of topics discussed were as compelling as the entrepreneurs themselves, the overarching theme emerging from the plenary sessions and informal conversations was that businesses across all industries must think of themselves as technology companies.

At B+I, each session returned to this central question concerning the role technology will play in shaping the business models and markets of tomorrow. We heard from athletic apparel executives on how wearables — devices worn on the body that measure physical activity — will reinvent their space; from healthcare innovators on the potential to connect tiny, ingestible sensors with users' smartphones to track physiological data; and from medical entrepreneurs, outlining a new doctor-patient paradigm, with on-call medical experts and online behavioral therapies to enable people to more readily take charge of their own well-being and achieve healthier lifestyles.

In short, technological megatrends are transforming businesses, markets and entire economies. 2014 saw the advancement of

innovations that continue to shape our lives, such as cloud technology, increasing accessibility of powerful computing; seamless mobile and the Internet of Things (IoT), connecting billions of people through personal devices; 3-D printing, recasting the way we think about design and production; and machine learning, bringing forth technology that is more intelligent and driving a wave of industrial automation and potentially disruptive applications.

Further, we see fundamental changes across the industrial landscape, as connected and intelligent machines continue to make processes more efficient, flexible and productive. Likened to a new industrial revolution, the transformation brought forth by technology is creating both enormous opportunities and structural challenges. In addition to the potential impacts on human capital, incumbents across traditional sectors face increasing competition as technology and tech companies enter their space and alter their competitive landscape. For example, when utility companies invest in smart grid software rather than buying transformers; when customers demand a central hub to control their lights, HVAC and entrance to their houses; and when automotive manufacturers simulate and measure the impact of design on performance, we see technology-driven disruptions that are requiring the currently more established manufacturers to adapt.

Technology Driving Innovation, Opportunity and Transformation

In this way, the small-run possibilities of 3-D printing are providing the potential for increased customization and geographical dispersion of manufacturing. As much as we have seen the emergence of “Software as a Service” (SaaS) alter the competitive landscape, a similar and likely outcome will be the rise of “Manufacturing as a Service” (MaaS), whereby designers send layouts for output to local 3-D printers — or even directly to the customer for production on-site.

In the wake of such monumental change, Goldman Sachs is working with clients around the world as they contend with the direct and knock-on effects of the technology revolution. This means helping smaller innovative businesses as well as entrepreneurs capitalize on reduced costs of entry to compete, grow — and sometimes grapple with hyper-growth — as they look to become leaders in their industries. This also means helping established companies leverage, develop and/or acquire technology that will allow them to pursue new markets, models and pathways to growth.

At the same time, our role at the center of the global capital markets requires us to continually work toward staying at the technological forefront — whether that be in how we assess investment opportunities, raise capital or manage risks.

One of our most important technological initiatives in 2014 was the creation of a Goldman Sachs-designed messaging platform for financial companies, enabling market participants to communicate instantly, securely and compliantly. This platform, called Symphony, was an outgrowth of our core business and our efforts to meet the changing needs of our own people and the clients we serve. Our focus on developing an advanced technology solution to meet a complex financial services need reflects our own mindset as a “technology company” and demonstrates the evolution of our industry as a whole.

The pervasiveness and permeating impact of innovation is, like never before, a reality that is pushing companies across all industries to think and act like disruptors in their own spaces. And in those few sectors that have yet to realize the transformative effects of technology, rest assured that the innovators are coming. Ready or not, technology is ubiquitous. ■

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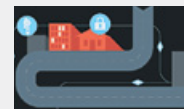
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