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The Shape of Things to Come: Massachusetts 2020

**Executive Summary
June 18, 2010**

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MassEcon 17th Annual Conference Executive Summary
The Shape of Things to Come: Massachusetts 2020
Newton Marriott Hotel, June 18, 2010

Panelists: **Mark Nemec, Ph.D** *Managing Director, Technology Industry Client Group*
Forrester Research
Jamie Goldstein, *General Partner*
North Bridge Venture Partners
Frank van Mierlo, *President*
1366 Technologies
Greg Herrema, *Senior Vice President & President, Analytical Instruments*
Thermo Fisher Scientific

Moderator: **Curt Nickisch**, *Business & Technology Reporter*
WBUR Radio

MassEcon's 17th Annual Conference began with moderator Curt Nickisch, Business & Technology Reporter, WBUR Radio, posing questions to the panelists and the audience about key forces in the marketplace that will build competitive companies and help position Massachusetts for future economic growth. The panelists responding to this call include representatives from scientific instruments, solar energy, venture capital, and technology research industries. Mr. Nickisch first introduced Mark Nemec to explain what the "re-set" economy will look like.

Mark Nemec, Forrester Research

Mark Nemec's presentation focused on the trends he thinks will drive business growth and create competitive companies. From his research at Forrester, Mark concluded that the economy has survived the "Gateway Recession," or the transition from a downturn to an upturn. Mark stressed that the new "re-set economy" will subject businesses to transformations, which will enhance effectiveness and productivity. He identified technology, and the investment in technology, to be the driving force to affect significant change and opportunity. Mark stated that "technology is now recognized not only as an input but a structuring force that can change the dynamics of our companies and society." He indicated that the recent recession produced massive organizational shifts within the economy and in the way that people think about work.

The research also showed that a growing number of consumers regularly use the web to participate in social media venues (instant messaging, networking sites, blogs, and peer-generated videos), which in turn is changing consumers lifestyle. Mark stated businesses that understand consumer technology use and utilize a social media strategy, will optimize business results. In the past year alone, 88% of all business people were deploying social technology in conducting their business. Mark continued that investing in technology also means utilizing developments that are making technology more sustainable, like green IT.

In understanding the phenomenon of how technology will enhance growth in the future of businesses, Mark left the audience with the question, "How do *you* use technology to generate value and create sustainable value within your company?"

For Mark's slide show presentation, click [here](#) or go to <http://tiny.cc/vqu6l>

Jamie Goldstein, North Bridge Venture Partners

Jamie Goldstein examined growth areas for businesses in Massachusetts from a venture capital perspective and identified company characteristics that he thinks will lead to success after the recession. The economic downturn forced states, businesses, and venture capitalists to be more selective in their investments – sometimes investing only in the innovative ideas that do not require a large sum of money. Jamie stated that the businesses governed by “scrappy management,” where a lot is accomplished without a lot of capital, are best positioned to stay afloat. He continued, with limits on capital, it is important for businesses to find inexpensive ways to reach customers, have a solid return of investment for customers, and create scalable business models. North Bridge Venture Partners has more than \$3 billion dollars under management; however, the investors at North Bridge are interested in providing limited investment to prove a new business thesis.

Jamie identified the key growth areas in Massachusetts and the companies that are anchoring those areas. Jamie’s top six growth areas were “mobile, video, cloud computing, open source, healthcare IT, and advanced materials (energy, generation & storage, and lighting). He stated that “Massachusetts is investing in various technology sectors, and as long as the state maximizes and promote its strengths, Massachusetts will continue to see success.”

For Jamie’s slide show presentation click [here](#) or go to <http://tiny.cc/232x4>

Frank van Mierlo, 1366 Technologies

Frank began his presentation with the strong statement that “silicon can reach coal parity.” Frank identified solar energy as the best energy alternative for the world because of its abundance. He stated, “every year there is more solar energy hitting the planet than the total remaining supply of coal, oil and gas, and uranium combined.”

Frank argued that it is crucial to start investing in solar production and slowly replace fossil fuels with renewable energy. He identified the two key areas in need of investment within the solar energy market: 1) a cheaper way to manufacture solar cells and 2) a cheaper way of making silicon solar wafer. By investing in new manufacturing technologies, silicon will have the potential to be cost-competitive with fossil fuels.

Frank concluded his presentation by leaving the audience with the following statistic, “One year of US oil imports buys enough solar panels to generate the electricity for all Americans to drive electric cars for 30 years.”

For Frank’s slide show presentation click [here](#) or go to <http://tiny.cc/v1t9e>

Greg Herrema, Thermo Fisher Scientific

The final speaker, Greg Herrema, continued the discussion of how to maintain a strong, competitive company after the recession. Greg advocated for companies to define their mission statements based on the relevant needs of society, so that the products developed by companies directly correlate to the consumer needs. He stated that this direct correlation will result in higher consumer participation and investment, even through economic downturns. Thermo Fisher Scientific’s consumer-centric mission statement; to provide a “healthier, cleaner and safer” environment for the consumers, is the key factor sustaining Thermo Fisher Scientific as a leader within its industry.

Greg recognized thinking globally as another way to adapt to the economic climate, enhance visibility, and open up to new markets. By identifying macro-economic trends, companies can adapt to global changes and utilize them for growth. Greg listed macro-economic trends favorable to the science industries, including “aging population, growth in emerging markets, increased

concern for consumer product safety, increased environmental regulation, and biopharma consolidation.” Greg further commented that Massachusetts has a global presence in the science industries because of the numerous medical and research centers. He cited the over 100 colleges and universities in Massachusetts, providing research labs, future employees, and consumers for scientific products.

For Greg’s slide show click [here](#) or go to <http://tiny.cc/iku3q>

Question and Answer Period

Francesca Maltese, Development Manager of the O’Connell Companies, asked the panelists, “What is the driving model for businesses during the recession?”

Jamie Goldstein said that “decompression” is the new theme that companies need to think about since there is no IPO market. “Without a great IPO market, everything becomes compressed. Therefore you have to make your company run on a lot less capital, if the employees or investors are going to make a return on it. Investors are not going to invest if there are questions about receiving a great return,” stated Goldstein.

Mark Nemec added to Jamie’s statement by saying that marketing is changing in a beneficial way in allowing companies to save money because of changes in how consumers are making purchasing decisions. With the expanding social media, blogging has turned into a community meeting point where individuals and groups can market and evaluate products of companies. Mark suggests that becoming a part of this new phenomenon of community marketing will allow companies to be engaged in a form of marketing that saves money and expands visibility of their products.

Mary Jo Bohart of the Lexington Chamber of Commerce asked the panelists how municipalities can help keep the growth of companies locally, instead of companies flocking abroad.

A key issue that panelists commented on is the failure of municipalities to meet timelines in the permitting process. *Editor’s note: The 43D legislation and Growth District designations were enacted to address this problem.*

Jamie Goldstein stated that the decision for most companies comes down to where a company will receive the greatest amount of benefits. “Other states are far more aggressive, along with other countries, in providing incentives to a company to locate to their state or country. Incentive complacency could lead Massachusetts and other states to lose companies over the decade.”

Greg Herrema added some positive insight into Massachusetts’ efforts to benefit businesses. He indicated that in the past Massachusetts has helped give Thermo Fisher Scientific grants to provide employee training and workforce development programs for the company. “Finding more opportunities for Massachusetts to give out these grants in advancing the employee populations would further increase the state’s relationship with businesses and build a strong employee base that would benefit the state,” stated Herrema.

Would companies move abroad if Massachusetts communities were more aggressive?

Greg Herrema responded that the growth abroad does not affect the growth at home. Greg stated that becoming engaged within the global economy allows for companies to grow faster, causing a continuation of growth at home and abroad.

Jamie Goldstein cited a recent *Fortune* article discussing how Chinese companies are moving manufacturing back to the United States because of lower electricity and real estate costs in different parts in the country, particularly the South. “I would love to see Massachusetts within the mix of these conversations, offering the best proposal!”

Does 1366 Technologies have enough money?

Frank van Mierlo honestly answered “no.” He continued by saying, “there is no question that if you are going to make an impact in energy, you need investments. The investment in solar is worth

making but investments are needed to make the solar market successful. Dollars going abroad for oil are not creating jobs here, so if we want more jobs then there needs to be an investment not only to improve the environment but also the job market. You should be frugal, you do not want to waste capital. Money needs to be available.” Although Frank acknowledged that changing the energy sources for the world is a daunting task, he remains optimistic. He believes that compelling business propositions can have oil companies join in the effort. Frank uses the example of Total, a French oil company that is investing in solar; the company recently bought a silicon production plant in Pennsylvania.

Editor’s Note: North Bridge is an investor in 1366 Technologies

Dick Shafer of The Taunton Development Corporation proposed the notion that companies can help solve immigration issues and affect immigration reform.

All the panelists agreed that one of the biggest struggles companies have is in applying for H1 Visas for employees and that there is no question that change needs to occur to enable more talented people to be absorbed in the regional and national economy.

Greg Herrema discussed his idea that having cross-training among employees and companies in the United States and abroad will help aid in the long-term development of companies, as well as bring more resources to underdeveloped nations.

Curt ended the conference with a final question to the panelists: “Where do you see your company, Massachusetts, and the re-set economy in 2020?”

Mark Nemec and his company are committed to Massachusetts. Currently, the company is building the largest commercial project in Cambridge. In looking at future changes, Mark notes one of the most troubling issues as the nation’s education infrastructure. “There needs to be more changes in public education to make it more sustainable. There needs to be concern about the few number of graduates majoring in science and engineering.” Mark concluded that producing change within the educational system will greatly affect the development of the state, leading to more analytical and empowered minds entering the workforce.

Jamie Goldstein offered a forewarning to the Massachusetts companies in the room, stating that companies need to become more competitive if they want investments. “Five years ago, 99 percent of Northbridge’s investments were in Massachusetts, but investments will decrease. Other regions have equally good ideas. A lot of companies are started here but we will be spreading funding to other places.”

Frank van Mierlo remained optimistic that solar will approximate the cost of coal. He stated that there will be an increase in its production, resulting in an increase of green jobs.

Greg Herrema shared with the audience Thermo Fisher Scientifics’ *Vision 2020*, where the company will have \$20 billion in revenues. Thermo will lead brands around the world, grow its employee base, and invest greater resources in developing countries.

To conclude the conference, Curt Nickisch thanked the panelists for providing critical advice on how to experience success during the recession and how to improve the relationship between the state and companies.

Opening remarks by Curt Nickisch, Business & Technology Reporter, WBUR Radio

Curt Nickisch is the Business and Technology Reporter for WBUR, a major source of news and information in New England and one of the country's pre-eminent public radio stations. WBUR provides thorough and intelligent coverage of national, international and regional news, plus extensive reports from National Public Radio (NPR), the BBC, Public Radio International and American Public Media. Curt Nickisch covers compelling and interesting Massachusetts businesses, economic issues and other financial stories for WBUR listeners and online users. His start in radio journalism began during Fulbright study in Europe, where he reported for Germany's international broadcaster, Deutsche Welle. Curt has won various journalism awards, including national Edward R. Murrow and Scropps Howard Radio Awards for his documentary on German POWs interned in America.

Remarks by Mark Nemec, Ph.D., Managing Director, Technology Industry Client Group, Forrester Research

Mark Nemec, Ph.D. is the Managing Director of the Technology Industry Client Group at Forrester Research, Inc., an independent research company that provides advice to global leaders in business and technology. Forrester serves professionals in 19 key roles at major companies providing proprietary research, customer insight, consulting, events, and peer-to-peer executive programs. Mark is responsible for overseeing the global strategy and day-to-day operations of Forrester's offerings for established and emerging hardware, software, and service providers. Recently, Mark launched the Forrester Leadership Boards (FLBs) in Americas and served as the FLB's Vice President. The FLBs serve select executives across the IT, marketing and strategy, and technology industry communities through exclusive research, best practices, and peer-to-peer networking.

Remarks by Jamie Goldstein, General Partner, North Bridge Venture Partners

Jamie Goldstein is a General Partner at North Bridge Venture Partners, an active early-stage venture capital firm based in the Boston and San Mateo, California areas. With 12 partners and principals, North Bridge Venture Capital has \$3 billion dollars under management. North Bridge's industry focuses include: communications, healthcare, materials and manufacturing, semi-conductors and components, services and software. Prior to joining North Bridge, Jamie co-founded Pure-Speech, a venture-backed speech recognition software and applications company targeting service providers and enterprise call centers. Jamie served as Vice President of Sales and Marketing, driving revenue through OEM relationships with leading PC manufacturers and voice services platform providers. He is actively involved in the MIT Deshpande Center for Innovation, is a Trustee of the MATCH School (a Boston-area Charter school) and serves on the Board of the New England Venture Capital Association.

Remarks by Frank van Mierlo, President, 1366 Technologies

Frank van Mierlo is President of 1366 Technologies, an innovator and manufacturer enabling the world's most cost effective high efficiency silicon solar cells. In 2007, Frank together with MIT professor Ely Sachs started 1366 Technologies Inc. with the goal to make silicon-based solar cells competitive with coal generated electricity. 1366 Technologies Inc. commercializes improved manufacturing processes and the related equipment. Products include: a patterning machine to make structured texturing, a dispensing machine that improves metallization and a direct wafer machine that lowers the cost of making silicon wafers by 60 percent. 1366 Technologies is the second venture that Frank has started out of MIT. His previous venture was Bluefin Robotics Corp., a company that experienced double digit growth and was always profitable under Frank's leadership.

Remarks by Greg Herrema, Senior Vice President & President, Analytical Instruments, Thermo Fisher Scientific

Greg Herrema is the Senior Vice President and the President of Analytical Instruments at Thermo Fisher Scientific, the world's leading provider of Laboratory Information Management Systems (LIMS) and Chromatography Data Systems (CDS). From routine testing to complex research and discovery, Thermo Fisher Scientific provides high-end analytical instruments, reagents and consumables, laboratory equipment, and software and services. Greg joined Thermo Fisher Scientific in 2002 as President of the Environmental Instruments businesses. In this role, Greg oversees the development, manufacturing and servicing of advanced analytical instrumentation and data management software marked under the Thermo Scientific brand.

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About MassEcon

MassEcon (The Massachusetts Alliance for Economic Development) is a private, non-profit partnership of business, industry leaders, and government dedicated to fostering economic growth in the Commonwealth. Launched in 1993 as an outgrowth of recommendations of the Governor's Council on Economic Growth and Technology, MassEcon markets Massachusetts by providing information services to companies seeking to expand within or relocate to Massachusetts. MassEcon's products and services include www.massachusettsSitefinder.com, developed in conjunction with the Commonwealth, a statewide *Site Finder Service*; the *Research & Information Service*, providing customized information to support a company's site selection decision; and the *Massachusetts Ambassadors* program, a private sector leadership corps that helps market Massachusetts as a place to do business. Through these channels, and in conjunction with state and local partners, the Alliance has worked with over 1,000 companies including Sun Microsystems, Erie Plastics, Merck, and American Superconductor. Membership in MassEcon is open to all segments of the business community.