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MSA - MSA Safety Inc Corporate Analyst Meeting

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Let's get started. Good afternoon, everyone, and welcome to MSA's 2018 Investor Day. Thank you for traveling from near and far to be here with us today at the New York Stock Exchange. And we also want to thank our guests joining via webcast for taking the time out of their day to join the session. I'm Elyse Lorenzato, Director of Investor Relations for MSA, and today, you're going to hear from several members of our leadership team about the programs and product innovations that we expect will drive profitable growth in the years to come. If you haven't had a chance, we invite you to download our events app, MSA Safety Events. There, you can find our agenda and our presentation materials, and you can follow along in real-time. As you've seen in the events app, we have several Q&A sessions built in throughout the day, so you'll have a chance to ask your questions and interact with the management team.

Before we get started, I just want to remind everyone of the safe harbor. Today's presentation includes certain forward-looking statements that involve risks, uncertainties and other factors that may cause our actual results to differ from those statements. Risks, uncertainties and other factors are detailed in our SEC filings, including our most recent Form 10-K filed in February 2018. Our discussion also includes certain non-GAAP financial measures. You can find the reconciliations to the most directly comparable GAAP measures in the appendix of the presentation materials and also posted on our Investor Relations website, investors.msasafety.com.

And now it's my pleasure to introduce MSA's Chairman and CEO, Bill Lambert.

William M. Lambert - *MSA Safety Incorporated - Chairman & CEO*

Thank you very much, Elyse, and I want to say welcome to all of you here today. It is truly my great pleasure to welcome all of you to MSA's 2018 Investor Day. As a safety company, let me begin with a quick safety message. If a fire alarm were to go off, we will stop this meeting immediately. We have exits in the back, we have an exit on the side. And the guards that you saw, our security guards at the elevators, they will escort us to the hallway and to the stairwell. We're on the sixth floor. So let's have a nice, orderly evacuation. Hopefully, there will be no interruptions, but if there is a fire alarm, we will evacuate.



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As I said, it's my pleasure to welcome all of you here to our 2018 Investor Day. 104 years ago, 2 mine rescue engineers, John T. Ryan and George H. Deike, embarked upon a mission to improve worker safety in mining. And in many respects, their vision in starting this company and the mission that they had at that time is the same mission that we have today. And it has, in many respects, changed the world and improved safety in the workplace. And while our company and while our revenues have grown over that time period to \$1.2 billion and our presence has expanded to 42 countries with over 4,700 employees around the world, what hasn't changed is our mission to protect men and women everyday who work in demanding and sometimes very dangerous work environments.

MSA Safety is a global safety equipment provider headquartered just outside of Pittsburgh. Many of you have been there to visit with us and to meet with us and to see our operations. We have a long history that spans decades, but today is really about talking about the future. And let me just set the stage for you if I can here for a few minutes and provide a brief overview of the company and the markets in which we compete before we discuss MSA's next chapter and why all of us here are so excited about our road map for the next several years.

MSA Safety is a company built on integrity, and our core values define who we are and how we operate as a business. Integrity is our most important core value, and we exemplify ethical behavior in everything that we do and that's evidenced by the Ethisphere Institute award, where we've been recognized by them as one of the most -- as one of the world's most ethical companies now 3 years in a row.

MSA Safety operates within this type of a picture as indicated on the left side of the chart. The global safety market is estimated at about \$40 billion to \$45 billion in total size. But I think it's important for you to understand the components of that market and where MSA truly focuses, which is a subset of that \$40 billion to \$45 billion market and how we create sustainable value. Much of the global safety market is noncore personal protective equipment or PPE as you'll hear many times today in the presentations. That noncore personal protective equipment are things like steel-toed shoes and protective gloves and disposable clothing and disposable respirators. We don't compete there. Where we compete is within about a \$7 billion portion of the market that consists of what we call sophisticated safety equipment, where technology is paramount, where the barriers to entry are much higher and where performance standards for the equipment is much more rigorous. Our strategy emphasizes what we call our profitable core products, which I'll describe for you in just a few minutes, where we've created sustainable competitive advantage and where we hold a #1 or a #2 market position in nearly all of those core product lines. The growth drivers within the safety market include those things that you see on the right side of this chart: population growth and economic development; as well as the development and increased enforcement of safety standards, particularly in the emerging markets of the world. You'll hear more about all of these by some of today's presenters.

Let's talk about our core product portfolio where we are a market leader. On the left side of this chart, you'll see we group our 6 core products into 3 primary categories: those related to firefighter safety; those related to gas detection; and those related to industrial core personal protective equipment. Within firefighter safety, we sell self-contained breathing apparatus or SCBA, and we sell firefighter helmets and protective apparel. We have a #1 market position in this area, enabled by investments in R&D and strategic acquisitions.

Within gas detection, we sell both fixed gas and flame detection systems as well as portable gas detection instruments. And we also hold strong leading market positions there.

In the personal protective equipment, we are the North American market leader in industrial head protection. The iconic MSA V-Gard hardhat is known to industrial and construction workers around the world, and we've made some substantial updates to the design in recent years to further improve that comfort and that market presence. And we're seeing some great results from that.

Fall protection, as indicated, is another area where we've made significant investments. It is the single-largest and fastest-growing area of the sophisticated safety products market.

We sell these core products into diverse geographies and end markets through primarily indirect channels of distribution. Among those markets are structural and industrial firefighting safety, a broad range of industrial applications, including the oil and gas market, utilities, mining and construction.

Our strategy is driving above-market shareholder returns. We focus on executing our strategy and strategically deploying capital to drive revenue growth and our operating income. We have a strong record of turning that profitability into free cash flow, which we use to fuel the investment



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cycle. It all results in creating value as indicated in the graphs on the right side of this chart. MSA's total shareholder return has nicely outpaced the market over the past 3 years, and we've increased our dividend to shareholders in each of the past 50 years. But today is not just about reviewing historical results, it's about looking forward and giving you more insight into MSA's strategic direction and what kind of financial returns we expect from the strategy execution.

As we push ahead into our next phase of value-creation, we are transitioning into our next generation of MSA leadership. As we announced back in December and discussed on our fourth quarter earnings call last month, my intention is to step down as CEO in May of this year. As part of the decision, we also announced that Nish Vartanian has been elected a director of MSA. Nish's election to Director and his appointment to President and Chief Operating Officer mid-last year highlight the board's and my confidence in his ability to lead our company and to continue our growth journey. Nish, who you'll meet in just a few minutes, is a 32-year veteran of MSA, and he has excelled in every position he's held. He led our North American sales and distribution teams, our North American business as a whole and most recently, the entire Americas segment. Nish also led the integration of General Monitors, MSA's largest acquisition, which provided us a market-leading position in upstream oil and gas, not to mention about \$0.50 of adjusted earnings per share in the first full year of ownership and clearing our cost of capital hurdle within the first 2 years of ownership. Nish's leadership has made a tremendous impact on MSA over the years, both from a financial perspective and also from a cultural perspective. His strategic vision, his growth-focused mindset and his leadership skills, I'm sure, will motivate and inspire our associates to continue driving our business forward. In that spirit, the board and I expect to elect Nish our next CEO in May. Nish and I have been working very closely together throughout the succession planning process to ensure a very smooth transition, and we will continue to do that in the weeks and in the months ahead, I assure you. I have complete confidence in Nish's ability to lead MSA into the future, and after our session here this afternoon, I think you'll have a better idea of what that path might look like for us.

To give you a bit of a preview of today's highlights, let me just discuss this quick agenda here. Nish is going to start us off by discussing our revenue growth targets over the next several years. Our CFO, Ken Krause, will continue the discussion and provide more insight into the work we've done to improve productivity and to reduce our cost structure over these past years in particular, and he'll also discuss where we see opportunity to further improve this moving forward. After Ken's discussion, Nish, Ken and I will field some questions from you. We'll take a very short break there to field any questions that you might have. Then our business segment leaders of MSA Americas and MSA International, Steve Blanco and Bob Leenen, they will discuss strategies that they are executing in their regions to generate profitable growth. We'll take a short break there to answer any questions you might have, to ask the presidents of our segments. Then we'll continue the day by hearing about our growth platforms from our product general managers. They will discuss the exciting new innovations that MSA is bringing to market throughout our core portfolio, and once again, we'll stop and you can offer any questions you might have to our product general managers. Finally, we'll wrap it all up with a financial review and discuss our revenue and profitability goals over the longer term. Ken will lead that discussion.

So at this time, and with that brief introduction, let me introduce MSA's President and Chief Operating Officer, Nish Vartanian. Nish?

Nishan J. Vartanian - *MSA Safety Incorporated - President and COO*

Thank you, Bill. I've said it before and I'll say it again, thank you for the trust that you and the Board of Directors have placed in me and for providing me with this tremendous opportunity going forward. I'm truly excited about the opportunity with MSA and continuing on beyond -- much beyond my 32 years with the company. And I'm also grateful to many of our associates around the world who have had a very significant impact on me as a person and obviously, my professional career at MSA. Those are the individuals who make a significant difference to this company. They're the ones who carry out our mission and do great work, and I continue that to carry on.

As many of you know, our 3 key strategic pillars are advancing our core products, that's where we can add value and capitalize on potential for growth. Second, it's driving operational and process excellence to bring that growth to the bottom line. And third, it's effectively deploying capital to drive growth and return value to you, our shareholders. As I think about this organization and its path forward, I see great opportunity to continue driving shareholder value through growth and margin improvements. While we'll continue in executing our current strategy, I wanted to take the opportunity to frame our day in terms of my interpretation of that strategy. Through our growth and focus initiative, which involves focusing on market leadership, profitability, capital allocation and a high performance culture, we will achieve our financial and strategic goals. Today, I'll spend time discussing our culture and revenue growth expectations, and as you may assume from my background and from what you've heard so far,

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there will be a heavy emphasis on growth. After my session, Ken will discuss our strategies for improving profitability and our capital allocation priorities.

To achieve our strategic vision, we need to get it right on the people side of the equation. We don't underestimate how important people are in driving superior financial results and market-leading positions. Our workforce is a truly high-performance team that has embraced excellence and continuous improvement as it relates to customer solutions, processes and financial performance. We engage our associates through our mission. Quite frankly, we're proud to work for a company that designs, develops and manufactures products that protects lives in some of the most difficult and challenging work environments. Our mission, that men and women may work in safety and their families and communities may live in health throughout the world, resonates with our entire workforce. They also value our commitment to integrity, as Bill mentioned earlier. So let me take a few minutes to explain some of the key people moves and the themes that will drive this business going forward.

We have a new leadership team in place in both of our segments. You'll hear more from Steve and Bob later this afternoon. But I wanted to take a moment to introduce them and give you more detail on their backgrounds. Now the first thing you'll notice when you look at Steve and Bob, while they both live about 4,000 miles apart from each other, they somehow follow my hairstyles. Steve Blanco is President of our Americas business segment. He was formally the Vice President, General Manager of our U.S. and Canadian region, and prior to that, Steve was VP of our global operations. And he played a key role in the ramp-up of our G1 launch and related manufacturing ramp-up of a couple of years ago. Steve also brought the operating system to MSA, which we've deployed across all functions and levels of our organization to drive performance and efficiency.

Bob Leenen is President of our International segment. Prior to that, he was the Regional CFO of our International segment. Needless to say, he has a keen understanding of the profitability drivers across the International segment and the various opportunities and challenges associated with operating across many diverse geographies. I can tell you that Bob has moved with speed and agility with the many changes that he's made very quickly as he became the leader of the group, and he'll detail those changes later this afternoon. I have full confidence that Steve and Bob are both very well-prepared to lead their respective organizations, and they're off to a great start.

We have a strong pipeline of talent throughout the world, and I would like to just mention a couple of the leaders that are here in the room today who aren't speaking and I'll do that by tenure. So the first person is Dave McArthur. Dave, put your hand up in the back there. So Dave's been with MSA for 33 years. He's Vice President of our global customer marketing. Dave's a graduate of Rutgers University, where he also earned his Master's Degree. And like me, Dave came up through the sales organization of MSA. One of his key moments with MSA and really what underscores his leadership in the organization, on that terrible day of 9/11, Dave McArthur was the first MSA sales associate at Ground Zero that same day. And so as people were leaving the city, Dave was going in to support the workers in their recovery efforts, and he stayed there for several months thereafter. Dave went on to lead the North American sales and marketing organization, and then as I took on the Americas region, Dave went on to become the Americas marketing leader and now he's pushing his marketing efforts around the world.

Greg Martin, Vice President of Product Marketing. Greg, if you could put your hand up. So Greg has been with us for 13 years, and he's the global product general manager. So you're going to hear from the global product GMs, and so all those individuals report to Greg. Greg's been with us, as I mentioned, for 13 years. He has an Electrical Engineering degree from Penn State University and his Master's Degree from Point Park College. Greg has made an impact on MSA in a number of areas. When you look at some of our product portfolio, he led the development of the ALTAIR 4X product and also holds patents around sensor self-testing.

And third, Eleni Lucido. Eleni, if you could put your hand up in the back. Eleni is our Vice President and General Manager of the U.S. and Canada. She came to MSA 7 years ago from Deloitte. She's also a Penn State graduate, and she's made significant impact on the financial performance of our Americas segment.

So it's just not about engagement and development of our people, it's also about using tools to drive performance of the organization, and we do that through our bonus programs. For example, when you look at that chart, when our incentive program was based on operating margin and cash flow, we saw tremendous results in these areas. Our long-term incentives over the next 3 years are based on revenue growth and EBITDA margin. And we also plan to keep tight management on working capital to run as efficiently as possible. So the entire executive leadership team and the broader organization from top to bottom, their compensation is aligned with the financial goals that we'll be sharing with you here today.



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Now that you know some of the key people behind the results and the way we engage the organization, let's talk about the markets and how we drive growth at MSA. We increase market and geographic penetration through a combination of organic and inorganic investments, all focused on our core products and markets. Our organic strategy is based on developing unique solutions to customers' problems, to help them improve their levels of protection and enhance productivity. And you'll hear more about the competitive advantage we have in our products later today from our product general managers.

As Bill mentioned, our total addressable market reflects about \$7 billion of the safety industry. We focus on sophisticated safety equipment across our core products and markets, where we differentiate through technology and innovation and have leading market positions in just about every one of these areas. We think that between base market growth and market share gain, a realistic revenue growth rate for MSA over the long term is in the mid-single-digit range.

As I mentioned, we have leading market positions in just about every one of our core products. We've gained share through organic R&D investments, like breathing apparatus and portable gas detection, where we've developed industry-leading technology in-house. And we've also acquired technology and market share in certain areas, like fall protection and fixed gas and flame detection. When you look at historical growth rates and think about the market over that time, we have some distinct trends playing out. We saw high single, low double-digit growth in gas detection and head protection early in this period. In 2015, those businesses, which are our highest-margin businesses, contracted on industrial and energy market headwinds. We saw a nice rebound in 2017 and posted growth in all of these products for the full year and had strong order pace in the fourth quarter. A quick analysis of our core products reveals those with the highest growth were also those with the lowest margin, and we were still able to increase EBITDA margin by 450 basis points despite that unfavorable mix.

Part of our core strategy was based on the belief that through greater R&D investment, we could drive higher levels of gross profit leverage that comes along with developing those advanced technologies, some of which you see here on the slide. And we believe we have opportunity going forward. Since the inception of this strategy, we've stepped up R&D investment by about 100 basis points and we've seen over 700 basis points of improvement in gross profit during that time. And about 35% of our total sales last year were from products we developed in the last 5 years. And while we've developed technologies and have driven growth, we've also optimized the portfolio through inorganic activities. Since the inception of our strategy, we've deployed over \$700 million of capital on the strategic acquisitions of General Monitors, Latchways and Globe, all of which were accretive to earnings per share in the first year. We've also pruned the noncore portfolio and divested the peripheral lower-margin businesses where we could not add value. We've grown the core from 55% of total sales in 2009 to over 85% in 2017. And we've seen operating leverage that comes along with selling these higher-margin products.

When we acquire, we look at how an asset can add value in 3 ways: to fill product gaps within a core product group or market; to expand into new geographies or in the new market segments. All of our acquisitions fulfill at least one of these criteria. The Latchways acquisition hit the mark in all 3 areas: products; markets; and geographies. Not to mention, it was accretive by \$0.13 on a GAAP basis and \$0.23 on an adjusted basis in year 1.

Our most recent acquisition was Globe, a leading manufacturer of turnout gear for firefighter -- or firefighter protective clothing. We acquired Globe for 9x EBITDA in 2017, and we've done very well with it so far. Globe extended our core product portfolio in a market where we had deep history and experience, protecting the U.S. firefighter. We are now the market leader in U.S. fire service with head-to-toe solutions for firefighters with our SCBA helmets and turnout gear. The Globe acquisition also expands our channels of distribution and provides greater end-user penetration for this key market. Globe was accretive to earnings per share, EBITDA margin and cash flow almost immediately, and we're progressing well with the integration process. Acquisitions are part of the strategy moving forward, and the U.S. tax reform provides us with even more opportunity to make investments in accretive assets. We're looking at a number of opportunities now and continue to develop our M&A pipeline. So we expect our constant currency rate of revenue growth rate to be in that mid-single-digit range. We may have some years with our fluctuations depending upon cycles on our various end markets. And as we mentioned on our fourth quarter earnings call a few weeks ago, we expect to see revenue growth in that mid-single-digit range for 2018. So our annual expectations are right on track with our longer-range projections. And we're positioned well to drive operating leverage on the expected revenue growth.

And now Ken Krause, our CFO, is going to give you more insight into what we're doing with our cost structure over the past few years to improve incremental margins, and he'll also provide more insight in how much EBITDA growth and free cash flow we're planning for in this mid-single-digit



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range of revenue growth. I should also add that we've recently expanded Ken's role to include oversight of corporate development, where I know he'll continue to drive value for MSA. So now I'll turn it over to Ken.

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

Good afternoon, everybody. It's great to be here to talk about MSA, our strategy, the results we've seen historically and some of our expectations as we go forward. And I'll start the conversation with a focus on productivity. We'll then evolve that into capital allocation and other financial aspects. But it's interesting, when we start with the conversation, I think it's instructive to dissect our performance and bifurcate our historical performance into 2 or 3 broad categories. First and foremost, 2009 to 2015, during that period of time, we started to embark upon this core strategy. In doing that, we started to hone in and focus in on the core products, the core products and the core markets where we could create the most amount of value. And during that period of time, we saw significant expansion in gross profit performance. In fact, we saw almost 650 basis points of improvement in gross profit from 2009 to 2015. At the same time, as Nish had indicated, we ramped up our investment in new product development and R&D. During that period of time, we invested almost 100 basis more -- 100 basis points more in R&D efforts, and we also saw a bit of a drag on the cost side, the SG&A side. We saw SG&A costs ramp up about 200 basis points as a percentage of sales during that period. So unfortunately, we were -- or fortunately, we were focusing the portfolio in on the products in the areas that we created the most value, but we also where it was necessary to make certain investments in our cost structure. Now over the last couple of years, we've certainly changed that focus. And back in 2015, if you recall, we announced our first formal cost takeout program. That was about a \$10 million program that we announced in late 2015 for 2016. We also followed that on in 2016 with another program in 2017. And during the course of the last 2 years, we have been focused greatly in on our cost structure. That, in turn, has driven nice leverage and changed our footprint quite extensively. We saw, over the last 2 years, about 300 basis points of improvement in overall margins associated with SG&A reduction. We also saw another 100 basis points associated with improvements in our gross profit metrics despite having a less favorable mix. [It's interesting, if you turn back the clock to 2014 or the beginning of 2015 and you compare our portfolio to today, we actually had about 10% more of our business represented by the industrial core versus today. Today, we have a much higher degree of business flowing into the fire service, which actually carries an incremental margin of about 1,000 basis points less than the industrial core products] (corrected by company after the call). So the mix is quite unfavorable over the last couple of years just because we've been executing in a more slower growth, a sluggish growth economy. And so we've started to see some of that rebound, which, in turn, has changed our focus into this growth focus. As Nish talked about, we're starting to see a nice change in the overall landscape and that is providing a sense of optimism to start the year. But also what provides a sense of optimism is the cost structure and what we're doing on the cost structure. Looking close -- more closely at the cost structure, we have taken out upwards of \$25 million of SG&A over the last 2 years. Our investments, if you look at our 10-K, we've invested almost \$24 million in restructuring activities. Half of that was noncash. We actually were able to use our overfunded pension plan in the U.S. to help fund a portion of those investments and in turn, have only invested about \$12 million of cash to see a \$25 million cash return in a relatively accelerated time period.

And how have we done that? We've done that through a focus on headcount, a focus on optimizing our footprint around the world. When we started embarking upon this strategy, we had close to 5,000 people. Today, as Bill indicated, we have about 4,700 people, but that includes about 600 people from 2 acquisitions. So if I exclude those acquisitions from the mix, we actually have reduced our headcount by almost 900 people over a 2-year period. Pretty nice results. And in turn, in doing that, we have started to rationalize our geographic footprint. Bob Leenen will talk about it here shortly, but we've done a nice job at prioritizing more growth-oriented markets and moved away from markets like Japan, markets like sub-Saharan Africa, that just didn't offer the growth profile and the profitability prospects that other markets did. So we've moved away from that and in turn, have also implemented a cost-conscious culture across MSA, really taking a closer look at all of the various costs and really driving value through continuous improvement and various efficiency-related programs.

And what's compelling about this is our incremental margins have changed dramatically. Over the period of the Q3 to Q4 period of last year, we saw a robust uptick in our margin activity. We did see an uptick in revenue in the fourth quarter, but our overall mix remained relatively unfavorable, with 38% of our business flowing through the -- to the fire service versus 33% in the Q3 period. Despite having that less favorable mix, we continue to see nice improvement in the overall business, with incremental margins approaching 35% at MSA and getting us to an almost 19% operating margin when you exclude certain acquisition-related cost in the business, a level that we think we can get to and go beyond as we think about the next several years.



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And what provides a sense of optimism in our ability to go after and drive further margin growth is the changes we're seeing in the overall market and the end market landscape. I think it's instructive to bifurcate the last 5 or 6 years and look at this from a lens of 2011 to 2014 first. During that period of time, we didn't have a replacement cycle, but what we were seeing was significant uptick in oil and gas markets, we were seeing a significant uptick in construction markets and other industrial-related markets. What we saw during that time period was a nice level of growth coming through from gas detection, approximating a 9% CAGR, while head protection and fall protection were growing at about 12%. Despite not having a replacement cycle, we still saw 3% SCBA growth. So -- but as we turned the page and we looked at our business from 2014 to '17, it's quite a different story. During that time period, we've seen robust levels of growth in SCBA as you very well know, and if you've followed us, the investments in our G1 adjacent train, that we'll talk about shortly, have certainly paid off and provided nice returns for us. But what we have not seen up until the fourth quarter of last year was meaningful growth in gas detection and improvements in industrial core PPE, notably, head protection and portable gas. But as we look at our order pace and we look at some of the changes we're seeing in our end markets, we're getting a much higher degree of confidence, a more optimistic outlook for our business as we think about 2018. We finished last year with the highest backlog since we started the replacement cycle on the SCBA side. And our Globe integration is going very well. As Nish pointed out, we were accretive in the first quarter of owning that asset, and we continue to see a nice steady recovery in our gas detection business. Gustavo Lopez will be talking a little bit about the technologies and how we go to market and win in those markets in a little bit. And we continue to see further growth and rebound in our head protection. It's interesting, we have talked about synchronized global growth. I think a number of industrials have talked about that from time to time, and I think our hardhat and our head protection business is reflective of what we're seeing there, with growth in every single market around the world last year to finish 2017 in head protection. So it provides a sense of optimism going into 2018. And what also provides that sense of optimism is the changes in order pace. When we look at industrial PPE, we certainly -- as I said, head protection was pretty strong for the better part of last year. But what we started to see was gas detection coming on, and gas detection is one of the most profitable areas for MSA, coupled with the SCBA. I know there were a lot of concerns about the length of the replacement cycle, and I think that second half performance provided us a sense of optimism and confidence that, that replacement cycle still had some legs to go. And Steve Blanco will be talking a little bit more about the replacement cycle as part of his comments.

But let's not lose sight of the cost structure and the opportunities we have in the cost structure. First and foremost, we have never cut R&D and we won't cut R&D. At least in the last several years, we have maintained our commitment to R&D and our investments at the 4% to 4.5% level. And we continue to expect to invest in R&D at those levels through the next cycle. But what we are taking a close look at are SG&A expenses and cost of products sold. SG&A expenses in our segment level represent significant opportunities for us. I'll talk about that in a bit, but starting, first and foremost, in the cost of sales area. In cost of sales, we spent almost \$640 million in cost of products sold, of which 70% of that spend is in raw materials. We see great opportunities to continue to leverage the raw material side of things through a number of investments we're making in sourcing, a number of activities we have going on, on the value engineering side and indirect cost. If I step back and look at what we've done on value engineering, it's quite compelling, especially considering the SCBA line. When we embarked upon the replacement cycle, we launched the G1 SCBA, it actually was dilutive to the overall margin profile. As we ramp the full production and as we took a closer look at value engineering as part of the G1 SCBA, we saw a significant improvement in profitability, ramping product margins up by 500 basis points in that product alone. We think we have more room to go in value engineering, and we're using that approach across the entire portfolio, combined with diligent activities in the sourcing side.

Looking closer at the SG&A expenses, we see certainly a stark difference between our International segment and our Americas segment level of profitability, and we're going after that as well. Notably, when we look at the customer-facing costs, otherwise known as selling and marketing cost, we're certainly targeting further improvement in that area as well as administrative costs. Bob Leenen and the team will talk more about what we're doing to optimize our channels of distribution. While we don't think we will, in the near term, get to a level of profitability that's commensurate with the Americas in the International segment, we see strong opportunities to improve this profitability profile in the near term through a combination of initiatives. First and foremost, the leveraging of our channels. We have one of the strongest channels. Our strongest channel is in the U.S. and the Americas segment, so we're starting to look at how we can take some of that activity abroad and use some of those skills. We're also looking at how we leverage our technology. Looking notably at our SAP investments, and how we might standardize and implement back-office shared-service organizations and also continuing to look at reducing our complexity. So nothing's off the table. We're looking at all aspects of our cost structure. And we expect to see meaningful levels of improvement in our SG&A across the International segment as we move forward.

That will help enable further growth in earnings. As we saw the last several years, we saw robust uptick in earnings and EBITDA growth has been quite compelling. And as we've ramped up that return, we've also ramped up our investments for growth. If you've followed us, you've seen



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significant improvements in our cash flow profile. Back in 2013 to '15, we had a free cash flow conversion that was approaching 65%. In 2015, we revised our incentive compensation metrics to focus closely in on working capital as a percentage of sales, and we've seen working capital as a percentage of sales come down from roughly 30% of sales to 25% of sales to finish last year, strong results and allowing us the opportunity to continue to deploy capital for investments, to continue to invest in R&D and at the same time, return cash to our shareholders, just like we have over a very long period of time. We've continued to increase our dividend for well over 50 years. Last year's dividends approximated about 35% of free cash flow, and we think we have room to go on that as well.

So as we look at some of the recent changes on the U.S. tax reform, part of the reason why we think we have some opportunities for improvements there is associated with U.S. tax reform, not only on the liquidity front, but on the earnings front as well. But as you remember -- if you might recall, in our fourth quarter call, we had mentioned the opportunity to bring back upwards of \$100 million of cash from our foreign affiliates to repatriate that in a cash-efficient manner, that will allow us to continue to invest in growth and bring on acquisitions like General Monitors, bring on acquisitions like Globe and like Latchways and then in turn, return value to our shareholders.

Liquidity is only one side of the equation on tax reform for MSA. The other side of the equation is our ETR. Over the last 5-or-so years, our average ETR has approximated 31%. And although we've seen strong improvements recently, coming down to 27% last year due to a number of tax-planning initiatives that we executed in MSA, we see further upside in our tax rates for 2018 and beyond. Currently, we're targeting a tax rate of roughly 23% to 24% for next year, which represents solid improvement over our historical levels. If you've followed us, you know that, that is very much subject to our profile profitability. So the more money we make in the U.S. under tax reform, certainly, that's beneficial. But the more we make offshore in some of our international markets, which now actually have a higher effective rate than the U.S., that will present a bit of a headwind. But all in all, U.S. tax reform, as I've said on a number of occasions, will be very beneficial to MSA. We have the perfect attributes to benefit from U.S. tax reform. We have a significant amount of our profitability in the U.S., we've made a significant acquisition in Globe last year and it's a U.S.-based manufacturer, and we also have a significant amount of our liquidity offshore. So when we look through all the various boxes of tax reform, we are set to benefit greatly from these changes.

And it helps us set us up for our some of our longer-range targets. So when we look at our longer-range targets, Nish had spoke about our revenue growth expectations being in the mid-single-digit constant currency revenue growth range. We expect to be there as we think about the next several years. And at the same time, we are continuing to maintain diligence in the cost structure, continuing to look at ways that we can improve our cost structure and expand our margins. As I said earlier, in the fourth quarter of last year, we've reached a record, almost 19% operating margin, which represented significant year-over-year improvement despite a less favorable mix. And as we think about the next several years, we think we can get to/or above those levels as we execute in this more -- much more improved business cycle. We'll continue to target 100% free cash flow conversion, although that may change from year-to-year depending on the growth. We certainly think we can operate this business at 100% free cash flow conversion, and we're committed to doing that and executing in that manner and in turn, driving our EBITDA growth at a multiple of our revenue growth. So as we expand margins, as we expand cost takeout programs, as we expand our core products and drive higher pricing opportunities, we expect EBITDA to grow at a 1.5x to 3x our revenue growth expectation.

So with that, I will finish my prepared comments. I'll ask Bill and I'll ask Nish to join me at the front to turn it over for any Q&A you might have with respect to the first section.

QUESTIONS AND ANSWERS

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

Stanley?

Stanley S. Elliott - Stifel, Nicolaus & Company, Incorporated, Research Division - VP and Analyst

So you guys had mentioned kind of a 19% margin -- it is. Okay. Do you guys have any sort of -- in the past, you've had the 15 by 15 [write-in] as the target. You've obviously gone well ahead of that. Are there other targets that we should think about? You mentioned the 19 numbers -- number



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that you think is realistic and something you could achieve. Are you all coming out when setting official targets in terms of profitability on a go-forward basis?

Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

Great question. I think the targets that we're officially setting to are related to, one, our growth prospects. And so in terms of looking at our revenue growth outlook, we think, based upon our current cycle and the business environment that we're in, we think that mid-single digit is very achievable. And in fact, in 2018, we talked about on the fourth quarter call an expectation for mid-single-digit constant currency organic growth. It's, of course, much higher than that when you include the Globe acquisition, and so we certainly are targeting that sort of profile, that mid-single-digit growth over the long term. We're also targeting our earnings to grow at a multiple of our revenue growth. At this point, we're reluctant to provide discreet guidance with respect to the operating margin, but I'll say, we are planning for improvements. As Nish had indicated, many of our targets are associated with improvements in EBITDA, improvements in adjusted operating margin, and we think we can certainly continue to improve the margin profile back to or above the 19% level that we saw in the fourth quarter.

Richard Charles Eastman - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

And just to elaborate on the 19%, you kind of mentioned kind of next 3 years. But if we think in the context of mid-single-digit growth, the model delivers 35% incremental, is that...

Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

Yes, that's based -- yes, that delivered in the Q3 to Q4 period. As I said in the prepared comments, it delivered about a 33% incremental operating margin with that mix. That's correct.

Richard Charles Eastman - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

Okay. And then just a question, maybe for Nish. We don't often speak about pricing in MSA's business, and I would think there's fairly different dynamics in North America versus International when you think about feature sets and what the world pays for safety perhaps. But is -- going forward over the next 3 years, do we think of pricing as stable? Do we think of -- is there a number in here for price capture, both International as well as in North America?

Nishan J. Vartanian - *MSA Safety Incorporated - President and COO*

Yes, so we do a fairly effective job in driving pricing and have a lot of focus on that with pricing managers throughout the world. So we do have a high degree of confidence in our pricing model and be able to push through some price increases on an annual basis and price to market. So we do have some different product features and sets for different parts of the world. So later today, you'll hear about the M1 breathing apparatus, Jason Traynor will talk about, and that's a breathing apparatus that's designed specifically for the international market, that has a little different feature set than the G1 breathing apparatus, using some common components but a different feature set than the G1 breathing apparatus. And we priced that product to the markets around the world so we can be competitive and capture good margin. And as history says and how we performed in the past with new product development, we've done a very nice job with our margin and margin expansion with the new products that we've introduced. So we've done a strong focus around pricing and making sure we're optimizing our pricing, both on new products, replacement products and obviously, replacement parts and components, something that we're very focused on going forward.



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Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

No other questions. So we will move to the next section, and I'll let -- I'll allow Nish Vartanian to introduce Steve Blanco, the head of our Americas segment. Thank you so much.

PRESENTATION

Nishan J. Vartanian - *MSA Safety Incorporated - President and COO*

Yes, I'd like to introduce Steve Blanco. As I mentioned earlier, Steve came to us really driving our global operations organization and brought what we now call today the MSA operating system to MSA, which we drive down through all parts of the organization. So I mentioned, he used the MSA operating system to really drive performance and delivery of the G1 SCBA and the ramp-up of that around our suppliers, quality and delivery of the G1 breathing apparatus and did an exceptional job there. What Steve's done in the North American and now the Americas segment, he's deployed that operating system across the sales organization, and the first place he rolled that out was with fall protection. And we've shown some significant improvements in our fall protection results during 2017 throughout the Americas with 22% growth in revenue. And indeed, what we've seen with some of that, we've rolled that operating system out throughout the world. So I'd like to introduce Steve, who I know is going to drive some future performance improvement going forward for the Americas. So Steve?

Steven C. Blanco - *MSA Safety Incorporated - President of MSA Americas*

Thank you, Nish. And good afternoon, everyone. So as Bill noted, excuse me here, as Bill noted, MSA Americas represented about 62% of our total revenue overall. And 82% of that is represented by the U.S. and Canada, while 18% is represented by Latin America. We've had strong mid-single-digit growth for the past several years, with expanded operating margins coming from our product margin improvements and SG&A reductions. And we've got a well-balanced core product mix across the Americas, as you can see here. A number of those core products have leading market positions.

When you look at how MSA Americas goes to market, we have 3 distinct channels. First is the industrial PPE safety. And when we say industrial PPE safety, we're referring to industrial construction, OGP, utilities, et cetera, where we have that core PPE product, infrastructure protection and firefighter safety. You'll note, there's core products that go across certain demand streams. For example, SCBA goes across firefighter safety certainly, but also industrial. And Jason Traynor, our Product Manager for firefighter safety, will talk later about the new G1 industrial SCBA later today. And you can also see that we have the portable gas detection that's in industrial and firefighter safety. About 80% of the Americas revenue is generated through distribution. And this model supports our 25% segment-adjusted operating margin.

If you'll look at industrial head protection, we consider this a foundational PPE for the industrial and construction workers. And we've got a leading market share position here. In the U.S., we've got over half of the unit share as well as over 60% of the dollar share. And our brand equity on the V-Gard is created through value-added capabilities that MSA has. And those include superior comfort, our quality and our delivery with our strong distribution network. It also includes high levels of customization, our products, our colors and our logos. In 2017, over 40% of our units sold included customized logos that were tailored specifically to the end-users' customers' needs. The Americas' head protection revenue was up about 10% in 2017. And with industrial economic growth, our V-Gard provides a foundational position for our sales and distribution throughout the Americas.

Nish mentioned fall protection. This is a major Americas' growth focus. And it was the fastest-growing product group for 2017 at over 20%. We had 3 key growth drivers. First, our Latchways acquisition from 2015 provided us great technology and great products, which we've continued on. And we have a continued strong pipeline of products in the future. Our ability to get to market quickly through our distribution network in the Americas was the second key growth driver. And third is the MSA operating system, which you heard a little bit about earlier. With our defined key performance indicators, our standardized cadence of review and engaged problem solving and action resolution, we were able to drive results through disciplined execution that achieved our revenue goals. We've made a number of strategic investments, including doubling our sales force in the United States in mid-2017. We've added training centers, distribution centers for immediate customer delivery and a co-branding relationship with a strategic



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distribution partner. We also have 15 new core products that are coming together in fall protection in 2018 that Jen McGurrin will discuss later. Fall protection is the fastest growing of the sophisticated safety products market overall. And we expect it to be a source of growth for years to come in the Americas.

As you look at portable gas, this is another growth driver in the industrial PPE safety market. We had strong growth in 2017, an 8% revenue growth and margin expansion. And we've invested in our own revolutionary and proprietary XCell sensor technology at the onset of our corporate strategy. We have industry-leading responsiveness, cost of ownership, reliability and durability. And this improves customer efficiency and gives customers peace of mind on their jobs. Our customers need to be more productive now than ever, and it's especially important in the markets where we're strongest, such as petrochem and oil and gas. The lowest cost of ownership we have and the best-in-class calibration and testing allows them to be efficient. Our latest 4XR multi-gas instrument and the focus on connectivity provide confidence for continued success going forward. Gustavo Lopez, our Product General Manager of Detection, will share our product strategy later today.

If you'll look at fixed gas, we use our XCell sensors here as well in the next generation of the -- our fixed gas platform, which is the S5000 and the Ultima X5000. The value proposition here is very similar to portables, it's about cost of ownership and productivity. And customers can remotely configure and test their gas detection. And with \$0.02 for inputs for each gas monitor, it further reduces the overall cost of ownership. TruCal technology reduces the need for time-consuming calibration, saving our customers time and money and allowing them to focus on their core operations rather than gas detection. We launched the next-generation platform in 2017, and they have an identical footprint to our Ultima X, which allows drop-in replacement without changes to wiring or conduit. While FGFD product adoption operates in a longer cycle and is somewhat dependent on oil and gas capital investment, our base business has continued to be strong. And we expect good long-term runway with this product and are excited about replacing our existing base as well as gaining share through the next cycle.

If you'll look at firefighter safety, we expect this to continue to be a key value driver in the Americas in 2018 and beyond. As we've mentioned on past calls, the G1 SCBA has helped us become a market leader in the U.S. and Canada. We ended 2017 with great momentum as well. The G1 is a platform and not a product. The Integrated Thermal Imaging Camera, or iTIC as we call it, and our ability to bolt on the iTIC to both new units and retrofits really highlights this value proposition. And with the Globe acquisition, we now offer head-to-toe solutions for the entire firefighter safety market providing the ability for future integration and monitoring of the entire system. We're excited about the relationship and opportunities that accompany the acquisition. For example, last fall, we executed a new partnership agreement to sell MSA SCBAs and fire helmets through a long-standing Globe distributor, one of the largest. This provides us better coverage on the West Coast than ever, effectively doubling our sales coverage in a key geographic region for MSA.

This chart shows where we've converted a significant number of fire departments in the U.S. and Canada to the G1. The competitive conversion rate continues to be strong. It also shows more opportunity where we added distribution in the West that I just referenced. We've had good market share gain and good gross margin expansion since launch. The U.S. replacement cycle is in full swing, and we're seeing good momentum in Latin America as well where we've supplied G1 SCBAs to 30 fire departments in 7 different Latin American countries thus far. Firefighter safety is an important part of our Latin American growth plan moving forward. As we've said many times, our SCBA innovations are not just a U.S. play.

So we've had strong results on the revenue and operating income side over the past several years. And in 2017, we realized 11% growth in the collective industrial PPE market. Latin American business increased over 10% in 2017, and we're encouraged by the results we're seeing across the portfolio of the Americas' emerging markets. We ended 2017 with great momentum on SCBA and entered 2018 on an elevated backlog for SCBA. The macroeconomic conditions in industrial end markets provide good tailwinds, and we expect continued steady demand in firefighter safety markets. Americas is well positioned to help MSA achieve our revenue and margin expansion goals. This wraps up the Americas revenue.

And with that, I'll turn it back over to you, Ken.

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

So thank you so much, Steve.



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There'll be a Q&A session after Bob's presentation is done on International. But right now, I want to introduce Bob Leenen. Bob Leenen comes to us today from Europe. He's based in Switzerland. He has been with the company for several years now. I had the benefit or the opportunity to hire Bob a number of years ago, and he most recently was the Chief Financial Officer of our International segment. So he knows our business very well. He knows our markets, but he also brings a wealth of experience from outside the organization that will enable him to do this job. And I think what you'll see here is a genuine excitement level about the opportunities he has before him and his plans to execute on a number of initiatives aimed at driving improved performance across the International segment. So Bob?

Bob Willem Leenen - *MSA Safety Incorporated - President of MSA International*

Good afternoon.

Similar to the Americas segment, which Steve just presented, the International segment is also very diverse. On the one hand, it's very diverse in terms of the mix of our business and product groups, customer segments and end users. On the other hand, it's also very diverse geographically. On the one hand, we have the developed Western European markets, which make up roughly 2/3 of the International segment revenues, and we have the emerging markets, which we call in International, Middle East, Africa, India, China and Southeast Asia.

Where there's clearly a contrast with the Americas segment in recent years is our revenue growth and profitability performance. We really need to dig a little bit deeper there where you can see the last couple of years is that actually, in our emerging markets business, we've had very solid revenue growth, very solid operating margin expansion. And that unfortunately has been diluted by weak performance in Europe. What's important to point out there is that whereas Europe represents 2/3 of the revenues of the International segment, the emerging markets segment actually covers 2/3 of the profits. So if you'll look at the International segment, it's really a tale of 2 stories. On the one hand, the need for ongoing profitability expansion in Europe. And on the other hand, expanding, accelerating our revenue growth in the emerging markets segment where we actually have quite solid operating margins already. And those will be the main themes really of my presentation here as I walk you through the International segment.

And we start with Europe. We laid a very solid foundation several years ago when we executed our Europe 2.0 transformation, which really had as a focus to take our fragmented European organization and consolidate it into one Pan-European MSA business. There were a couple of ingredients there: rolling out SAP, consolidating warehouses and outsourcing that to a third-party logistics provider, eliminating Country General Manager positions, consolidating our European business under one leadership team and also putting in place a tax-efficient headquarters for European business in Switzerland. That platform, our IT platform, the leadership team, the tax-efficient headquarters really has given us a very good line of sight on where the levers are to continue to improve performance of the European business, in particular in the area of profitability. And that's really our focus for Europe going forward.

There's a couple of things we're doing there. First, we've made a couple of critical leadership changes in Europe. That's really a reflection of the urgency we see behind capturing the full potential for MSA in Europe. Those leadership changes are complete. So we've made them over the past 3 to 6 months. They're behind us now. Secondly, realigning our commercial organization. There's a couple of things that we're doing there. We've historically been organized in Europe with our commercial organization, very geographically focused sub-segments geographically of Europe. We've made a switch to become customer-segment focused, which positions us much better to focus on the largest opportunities for revenues and also to support our Pan-European key accounts better. What we're also doing is aligning our marketing organization along those same customer segments. And we're actually doing that globally in MSA that provides better support for our sales organization; allows the international business, in particular, in Europe to better leverage the capabilities that we have elsewhere, in particular at our corporate headquarters in the U.S.; and simply put, we're eliminating waste as a result of that. Third part of realigning our customer-facing organization is deploying a really focused effort on the product group training. This is something, as our products, which you'll hear later, get more and more complex into the features and benefits, we see this as a great opportunity in particular, in International, to better job at selling based on those features and benefits. And as a result, not just drive more sales, but in particular, also bridge some of the gap in gross margins between the International segment and Americas.

The third initiative -- and actually, what I should say is those changes, those key leadership changes, realigning our customer-facing organization, that's fairly critical. While our focus is on profitability growth in Europe, it's difficult to grow the bottom line when your revenues are declining. And



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we've really seen that the last couple of quarters that we had revenue decline in Europe, so the most urgent topic for us was to turn that around and get Europe at least into a -- again, a modest revenue growth mode.

The channels optimization piece is probably, structurally though, what is the key priority for our European business. It's basically a fundamental choice to move away from direct distribution towards indirect distribution through channel partners. And you've seen already from Steve's presentation how that focused approach, in particular in North America, enables a much more efficient cost structure for the Americas business. I'm going to share a few more slides on that as we progress.

Finally, we still see substantial opportunity for cost reduction in Europe. The channels optimization is one enabler of that. As we do business with less customers, we can optimize our footprint in Europe in terms of offices, legal entities, et cetera, but we're also looking at other topics, some of the things Ken mentioned. So we're looking at back-office consolidation, we're looking at better leveraging SAP to do process efficiencies in SG&A, and we're also taking a critical look in the time ahead at our cost of goods sold. And that includes also our manufacturing footprint, specifically in Europe. I would say simply put, we don't have any sacred cows in Europe. Everything is under consideration to improve our profitability levels in that part of the business. Yes, in summary, there's a -- clearly, we've recognized there's room for improvement in Europe. We have good line of sight in what the opportunities are. We've made the [leads of] changes that we feel are necessary to start to progress with capturing those opportunities and there's a strong sense of urgency to execute on them.

And we then take a look at some of the operational and financial metrics across International. You can see where and why we're focused on bridging the gap between International and overall MSA, narrowing the gap in terms of level of complexity in our business as well as narrowing the gap in terms of our profitability levels. We make, in International, roughly 1/3 of the revenues of MSA consolidated, but we've got 2/3 of the customers. Simply put, we're serving a lot of very small end users across a lot of relatively small countries. And that has driven a sub-optimal cost structure in our sales organization, in our back-office functions and our overall footprint, in general. And you can see that reflected, for instance, in the number of employees we have also.

We're not going to get fully to the metrics that you could see from Americas, and there's a couple of reasons for that. First, is the channels of distribution in the international market that are less mature in many areas. And secondly, the reality is we are serving a lot more countries, including smaller countries. But it is a key focus to optimize that. And in particular, in Europe, we have the leadership team tracked against very explicit complexity reduction targets, cost-reduction targets and also revenue growth targets ties to our channels optimization initiative.

We zoom in a bit, taking a closer look at what that actually means, channels optimization for us. First, as we commit ourselves to indirect distribution through channel partners, we are in the process of migrating a lot of these end users, these small end users to our channel partners, who, frankly speaking, are much better equipped to serve these small end users than we are, who are better equipped to have good customer service levels to these small end users. We do not want to lose the business. We want these end users to continue to be buying and using MSA products. We just don't want to have to deal with them all directly ourselves. This is a major driver of complexity reduction. You can imagine if you make a significant cut in the number of your customers, what that can do in terms of freeing up timing, your sales organization in our operations team and supply chain and our back-office functions. Secondly, as we were doing that, we were rolling out incentives to our channel partners to better align them with MSA basically, rewarding them when they were driving revenue growth with us. And we're also rolling out differentiated service levels depending on the value a customer brings to us. A good example of that is which of our customers are we reimbursing for freight expenses and which are we not. This whole topic of channels optimization has been something that we didn't really have a lot of visibility on before we had SAP, and we are really accelerating executing on this opportunity.

If we look at incentives and differentiated service levels, that's not rocket science. So we have models in this area that are working just fine in the Americas segment. We are taking them, adjusting them where necessary for the international markets and rolling them out. And that's really just a matter of day-to-day execution. We can see already in our metrics that it is working. The channel partners that we are focusing on in certain parts of our organization are growing faster than our overall business.

Finally, an important part of our channels optimization initiative is also improving our geographical coverage. We are to invest our resources, the MSA resources in those markets where we have the most attractive opportunities for growth rather than spreading them too thin across too many countries and markets. So that's a bit of a change versus where we were many years ago. We're going to be ensuring that we have channel partner



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coverage in the markets where we do not intend to be active. And finally, there's an important part as well and that's leveraging global opportunities. So there's a number of key partnerships globally that we've not yet fully tapped into in our International business, and we're going to leverage them, for example, relations in North America with Amazon, with Bunzl. We are taking those partnerships, rolling them out globally and achieving the benefits. So this channels optimization strategy for us primarily, of course, is focused on improving the profitability in Europe but we definitely also see it as a lever to drive more revenue growth. And the initial signals we see in the business also confirm to us that that's possible and realistic.

If we then zoom in on how channels optimization will enable us to improve our cost structure, especially in Europe. It all starts with cultivating long-term relations with these channel partners. We're going to shift a lot of the end users to them, have them do business with them. We believe we will have better customer service levels working through them. And as we progress with that, we believe we'll be able to take out part of our cost structure. We will not need as many offices around, in particular, Europe, we will not need as many legal entities. And with that, comes a reduction in selling expenses, back-office expenses plus then the ability to consolidate that on a Pan-European level. As a result, we see this as an opportunity to improve profitability in Europe and also then free up funds to invest elsewhere, in particular, in our emerging markets business where I already said, we have a good track record of revenue growth and we have solid levels of profitability there.

If we go to our emerging markets business. This covers, in the International segment, Middle East, Africa, India, China, Southeast Asia. We have a track record of success on the revenues there with revenue growth exceeding MSA consolidated average. We have solid operating margins there. There's a significant tailwind in those markets coming from maturing safety awareness and safety standards, GDP growth and also, in particular, the very strong economic base for MSA products. Think of the industrialization of China and the commodities based in regions like the Middle East with oil, mining in Australia, et cetera, et cetera. So we have an efficient cost structure there. We are definitely going to be very focused on our investments. We are going to invest more to accelerate that revenue growth, but we're going to be focused on the geographic markets where we make those investments. And having learned the lesson from Europe, we will deploy optimized channel strategies to not be active ourselves in every single geographical market in our emerging markets business.

So to wrap it up. The MSA International segment covers large and attractive markets, the developed Western European markets, which are large and has a significant opportunity for expanding market share, and the emerging markets where there's a lot of tailwind, which would drive -- help -- support us in driving revenue growth. We're taking a bit of a different approach. The priorities are clearly different. In the developed markets in Europe, we're focused on profitability expansion with channels optimization being the key initiative, complexity reduction and cost reduction. In emerging markets, our focus is much less about transformation and change. It's much more focused on accelerating what we are already doing, investing in growth on the solid levels of profitability that we already have there. I would say, across both of those subsets of International, I've not seen the sense of urgency any stronger than it is now in my 5 years with MSA. I'm personally also very committed to ensuring, in our resource allocation, that we clearly distinguish between those 2 subsets of our business that we don't have one dragging the other down. And I would say the entire MSA International team is very committed to contribute to expanding shareholder value through our business.

So with that, thank you very much. I think we've got Q&A coming up.

QUESTIONS AND ANSWERS

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

Okay. So with that, Steve Blanco and Nish have joined Bob and I here at the podium, and we'll open it up to any Q&A you might have at this point with John.

John Carey - - Analyst

With respect to emerging markets. A comment you just made in passing suggested that you were more successful in selecting your market opportunities there than you had been in Europe, and you just passed over -- I was wondering if you could elaborate on that. What exactly did you mean there?



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Bob Willem Leenen - *MSA Safety Incorporated - President of MSA International*

Yes. I think the -- there's probably 2 main cause of that. On the one hand, we have a decades long legacy in Europe of creating local affiliates, doing acquisitions. As a result, more factories, more affiliates. And we don't have that as much in our emerging markets business. Secondly, we've learned the lesson from Europe over the past couple of years that we need to be much smarter in doing business. And we can be active and gain market share in a country without necessarily opening an office, hiring 10 accountants, et cetera, et cetera, et cetera. And that channels optimization initiative is clearly something -- which is also going to be the guiding light for us going forward in emerging markets. Now we can see that also if you looked at the percentage of our business in International going through distribution, you saw the average on the screen, that is much higher in our emerging markets business. And obviously, that contributes also then to significantly higher profitability in our emerging markets business versus our business in Western Europe, in particular.

Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

Rick?

Richard Charles Eastman - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

Just a couple things. Could you just maybe hang a number around the op profit in emerging versus Europe? I mean, are we -- consolidated, we can see the numbers, it's -- just call it, 10% for the sake of doing that. But is Europe a mid-single-digit op profit number just order of magnitude?

Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

Yes. I'll take that. Europe is -- if you look across our emerging markets, we actually see accretion to the overall margin when you combine the geographies of the Middle East, Asia Pacific, China. But Europe is exactly there. It's in that mid-single-digit range to finish last year. And so it came in about that level.

Richard Charles Eastman - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

And I'm curious, you made mention, and I think you showed the number up there about gross margin for all of International being 41%. And it's also curious that more product goes direct. So as you push more through distribution, your gross margin will go down, correct? And my question is around, is gross margin a function of having things that you can manage, a lot of excess capacity? Or is it more in the production side? Or is it product, pricing and market?

Bob Willem Leenen - *MSA Safety Incorporated - President of MSA International*

There's a couple of things we're doing there. First, is just the old-fashioned annual price increases to offset inflation, obviously. The other thing which we're doing is we're really putting a lot of effort behind rolling out product training, which -- in particular, in the international markets, a bit further away from the corporate headquarters where most of our marketing resources are sitting, our sales, service and customer service organizations, they have not been as equipped as they should have been in terms of properly selling our products based on features and benefits. So that is a big opportunity. The channels optimization will also address that partially as we look more closely at costs like freight, which customers are we paying that for which are we not. And finally, I mentioned also the cost of sales productivity. Ken talked about that, driving productivity there through value engineering, et cetera, specifically, in the region we are also looking at the manufacturing footprint. So I think bridging that gap in gross margins is not just pricing, it is definitely also looking at our cost structure.



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Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

Well, the other thing I would just add, Rick, is at times, you could be correct, right? Selling through distribution could be less profitable for certain organizations. But if you just look at MSA, and you compare the Americas segment. For example, in the margin profile and the Americas segment, there's about an 800 basis point difference between the Americas segment and the International segment. And it's not necessarily the channel, but it's where it's being sold into, the end market, the product base. So when you look at the overall core profile and product portfolio across the Americas segment, it actually is closing in on 90% of our total business. So core products in the Americas represent almost 90%, whereas in Bob's area, they -- it's closer to 80%. So it's products through the channel to the right market. And so -- and that's the recipe we've seen in the Americas, and that's kind of where we're moving in the International segment.

Richard Charles Eastman - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

And can I just -- one last question, I promise. Is the Latin American business -- is that as inherently profitable as U.S. business? Or is it -- again, just speak to the growth rate versus the margin potential in Latin America.

Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

Yes. I'll start it then I'll turn it over to Steve. But it certainly is a profitable organization for us. And actually, as part of the value creation efforts, we went in and streamlined certain operations in Brazil. If you'll recall, Brazil was going through a pretty heavy recession. And as part of that, we went in and streamlined that operation significantly to boost the profitability. Latin America is a very profitable organization for us. It's very much -- similar to our Middle Eastern operation, we have certainly a higher level of profitability coming through that. And in addition, we've got pretty healthy growth prospects. I'll turn it over to Steve (inaudible).

Steven C. Blanco - *MSA Safety Incorporated - President of MSA Americas*

No. I think, Ken, you're exactly right. It's a consistent -- overall, I mean, by product group, it can be a little bit different. But yes, it's absolutely very consistent with North America.

Unidentified Participant

I wanted to talk about the profitability gap between, say, continental and the emerging markets. And I wanted to know if there are any functional differences necessarily between Europe and maybe the emerging markets. It almost sounds like it's product mix driven in that profitability.

Bob Willem Leenen - *MSA Safety Incorporated - President of MSA International*

What do you mean with functional differences?

Unidentified Participant

There are functional differences between the way you operate in Continental Europe versus the way you're operating in the emerging markets.

Bob Willem Leenen - *MSA Safety Incorporated - President of MSA International*

Oh, yes. Absolutely. In emerging markets, we have a much leaner structure as a result -- as we are growing that business, you see a lot more of the revenues dropping down to the bottom line. In the emerging markets, we don't have much manufacturing footprint, which we have significantly in Europe. In emerging markets, we don't have that many offices and affiliates. And as a result, much less expenses in our back-office functions. So there's much less footprint in -- MSA footprint in those markets, which attracts non-revenue driving expenses. And that's a big difference.



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Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

And the other thing I would just add is just the end markets again, we're selling into. If you step back and you look at the emerging markets, for the most part, they're all commodity-based economies. And so we're selling into energy, we're selling into mining, we're selling into markets that are more in line with what we see on our core portfolio. And so we're seeing significant improvements and significant levels of profitability as a result of that. So it all steps back to kind of the response to Rick's question, it's really the products you're selling into those end markets. And Europe, when you compare Europe to the rest of the world, we've consistently had a heavy focus on government. We've had a heavy focus on ballistic helmets, we've had a heavy focus on those sorts of end markets where we're shifting the focus away from those end markets into the industrial core business. And with that, we expect improvements in profitability. Not necessarily to the same level as the Americas in the near term, but we think there's a good opportunity in front of us to drive a higher-margin profile in that International segment.

Unidentified Participant

Got it. And then the channel optimization, it seems like one of the biggest opportunities internationally but also for MSA as a whole as what that could do to the entire consolidated margin group. I'm curious, what steps are you taking today that wasn't part of the original Europe 2.0 as you kind of roll that out? Is there a regional kind of rollouts with that cost -- the optimization, et cetera?

Bob Willem Leenen - *MSA Safety Incorporated - President of MSA International*

Well, the channels optimization topic was never part of Europe 2.0. So actually, Europe 2.0 and the visibility we got from having one IT platform actually gave us the visibility, the transparency to identify that opportunity. Before Europe 2.0, we had Country General Managers running their business the way they wanted to. What are we doing differently now? We are -- partially, what we're doing is actually having some resources from the U.S. assisting us and guiding us through that process. Rather than trying to reinvent the wheel ourselves, we are leveraging as much as possible, which is already proven to work in the Americas segment not just over the past couple of years, but over the last 20 years.

Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

The only thing I would -- the only thing additional maybe that I would add there is that if you step back and you look at the underlying economic factors when we were executing Europe 2.0 is very much a defensive strategy because Europe was stagnating and if anything, it was declining. We've recently -- if you follow some of the macroeconomic indicators and news, you're starting to see a bit of a rebound. And so now as opposed to retrenching and executing a defensive strategy, it's about going on the offense. How do we drive demand for these core products? How do we drive an expanded distribution strategy? That's the difference. It's really a different end market and business climate than we were executing the Europe 2.0 strategy.

Unidentified Participant

You have manufacturing facilities all over the world, emerging markets, developed countries. Can you contrast the labor situation in terms of labor supply, quality, productivity and retention?

Unidentified Company Representative

Steve, (inaudible).

Steven C. Blanco - *MSA Safety Incorporated - President of MSA Americas*

In what way? What's the question really relate to about...



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Our ability to get talent or...

Unidentified Participant

No. Just the -- what you're seeing in different markets. And do you expect over time to make further -- any adjustments in terms of where facilities are located?

Steven C. Blanco - *MSA Safety Incorporated - President of MSA Americas*

Well, we consistently go through a process of evaluating our manufacturing strategy. And that's going to continue. And that's an ongoing process, so certainly as that goes on, there are potential changes that could occur with that just like we've been doing as we evaluate the manufacturing strategy on an ongoing basis. And we have facilities in different regions and locations, and they're all part of that evaluation.

Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

Some of those factories of course help us when we think about manufacturing locally for that local economy. So Brazil is a great example. It's very difficult to be successful in Brazil without that manufacturing base in Brazil, so we have a pretty robust factory. And actually, if you walk through the factory, you'd see just about every one of our core products being manufactured there. So we have a nice footprint. But with that said, we're looking at other geographies and other countries to really challenge that assumption, to challenge that assumption of whether we need those factories in those areas. We've done a nice job. If you turn back the clock a number of years and look at a project we had, it was called Project Magellan. And under Project Magellan, we actually went through and executed a rationalization project across the footprint where we shuttered a number of locations and geographies and invested in nice new facilities in China. We also invested in a new facility in Mexico to help us serve Latin America as well as the U.S. market. So I think the footprint is just about right, but there is certain opportunities in certain parts of Bob's segment that we're looking at.

Unidentified Participant

Lots of talk about channel strategy. I was wondering what role e-commerce would play on your business as we look out 5 years and how that varies by product and geography.

Nishan J. Vartanian - *MSA Safety Incorporated - President and COO*

Yes. So we have a digital strategy, what we call a digital strategy, which Dave McArthur is leading. So Dave comes to us with obviously a very strong sales background with MSA with over 33 year's experience. And we continue to -- we have a digital strategy laid out and an e-commerce strategy laid out for the organization we've built off SAP as part of the system and allowing our distributors to order products online and to do some work directly with us with checking on delivery. So we continue to work on that. If you're talking about situations such as Amazon and online sales through distribution, we work very closely with our distributor partners and making sure we're supporting them with the appropriate materials so MSA is positioned properly on their websites. So we got a very robust process around that. That goes into our channel optimization program. And we stay very close to those channel partners to make sure that we're providing them with adequate material going forward.

Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

Great. So seeing that we have no further questions at this point, it's just about 2:30 Eastern Standard Time, we're going to take a 15-minute break. We'll again join the conference here and start the conference at 2:45 Eastern Standard Time. So we'll just go on break and be back with you here momentarily.

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(Break)

PRESENTATION

Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

So welcome back. It's great to continue our conversation about MSA and transition into some of our growth platforms. Over the next series of presentations, we'll talk about and you'll get the opportunity to see some of the talent that we have on our bench but also some of the initiatives that we have that will grow this business into the next several years.

The first speaker is Jason Traynor. Jason has over 20 years of experience across a plethora of industry, semiconductor, health care and now with MSA Safety. Jason has been with MSA since 2012. He was critical to the successful launch of the G1 platform. Jason is focused in on firefighter safety and has a vast array of knowledge about fire safety products, our G1 platform as well as our turnout gear now with Globe and our fire helmets. Jason has his undergraduate degree as well as his MBA from Carnegie Mellon University in Pittsburgh.

And with that, I'll turn it over to Jason to lead the conversation around our firefighter safety products. Jason?

Jason Traynor - *MSA Safety Incorporated - General Manager Firefighter Safety*

So thanks for allowing me the time to have a little bit of a discussion with you today around MSA's firefighter safety business.

Just a bit of context to start.

Firefighter safety, as we define it, is roughly 1/3 of MSA's global revenue. This includes fire helmets, fire protective apparel and self-contained breathing apparatus.

SCBA, on a compounded annual basis, has grown about 8% since 2012, so over the last 5 years. Fire helmets alone grew a little bit over 5%. But with the Globe acquisition, we have an 18% 5-year compounded annual growth that's demonstrated on the slide.

Both of the product areas are fairly consistent with regard to their split between the Americas and International. A lot of what we'll talk about in the next few slides are how we'll accelerate our International growth and bring a bit more balance to the split, both on fire helmets, turnout gear and self-contained breathing apparatus.

So I want to start just kind to give a baseline of 4 critical areas that we're looking to fuel our growth.

Certainly, competitive conversion and market share gains will be a consistent driver. We've demonstrated success with the G1 SCBA in the North American and Latin American market, and we'll look to replicate that in other parts of the world.

Geographic expansion in MSA International is another critical area. We have certain markets that we've been historically underserved because of product fitness for those given markets. We'll talk a little bit about the M1 SCBA and how it's intended to target unmet customer needs within the International region, needs that were identified and uncovered through voice of customer.

Also, we're focused on head-to-toe firefighter protection. During the earlier presentations, we heard about the Globe acquisition and how that's really established MSA in a unique position to be able to provide firefighting boots, turnout gear, self-contained breathing apparatus and a fire helmet for both of the global standards, both the European norm and the NFPA.



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And then finally, we want to introduce a concept of a connected firefighter and cloud connectivity for our data. We're able to take information from the SCBA or from other products that have sensor inputs, push it into the cloud and then provide just a higher level of understanding of how the product is being used and the accountability system that fire departments use to manage their assets.

So first, we've talked a lot about the G1 SCBA. This is the product that's on the mannequin to my left. It's absolutely been a catalyst for growth for MSA in the North American market. We were sort of distinct #2 in the market for -- prior to this launch, the product launched in late 2014 and has had absolutely great success with regard to hitting the mark for firefighters. This product was developed with a lot of insights, a lot of input from end user firefighters, and we feel like the way that the product has been designed has really hit a perfect intersection with the demand for the market.

Along with that, we've shown sustained gross margin expansion. We talked a bit about value engineering earlier and how we were able to take cost out of the product but, more importantly, pass a lot of that ability to manage margins through to the end user with regard to total cost of ownership. So by taking complexity off of the face piece, by a lot of the design aspects that went into the system, things like a rechargeable battery, removable and launderable soft goods, were able to push through that broader total cost of ownership benefit to our end user. So we have really been able to leverage that and build off that overall length of the product life rather than the discrete purchase price.

And most importantly, we've been able to establish this as a platform for the future. So the G1 project was a multiyear R&D effort culminating in its launch in 2014, but we've been able to continue to make investments and push the ball down the field with things like the integrated thermal imaging camera that's able to drive disproportionate value into the system as a discrete add-on or a piece of the product that maybe historically didn't exist in this segment.

So with regard to expanding the platform and continuing to take the G1 platform further, late last year we launched an industrial version of this product. It's absolutely targeted for oil, gas and petrochemical applications. One of the sort of back-end benefits of this global product development is aligning this product for use in a refinery, in an oil/gas petrochemical application, by definition allows it to be sold globally. Very similar jobs, very similar applications and one that we feel will have continued growth, both in the Americas and in our International regions specifically in the Middle East.

What we've been able to take forward from the original G1 into the industrial product are many of the shared components. So when we look at economies of scale across a multiple platform approach, we're able to bring volume from the fire side, apply it to industrial and really benefit both with regard to time-to-market and the management of the product over time.

Finally, the G1 face piece as it sits on the mannequin today is really the core of a hub-and-spoke for multiple platforms. This ability for an individual end user to cross between an industrial application and a fire application is really critical when it comes to things like fit testing and the efficiencies that are gained by having one face piece rather than multiple face pieces for multiple applications.

So we're really excited to be able to introduce today the M1 SCBA. This is also a derivative of the G1 but absolutely a modular approach to being able to address the fragmented market needs in our International region. So while we're able to carry forward many of the G1 benefits, things like comfort, balance, the field of vision that the face piece allows, we needed to be able to strip content out to allow customers to then tailor the SCBA to their individual departments' protocols and budget. The other benefit that modularity provides us is the ability to go back to customers over time and enhance the system. So if they've planned for a budget year that's in the next 12 months, how they go forward from that, this design and this system will provide them flexibility. This has all -- the M1 has also been driven by customer insights, our ability to reach out to customers in our International region across really the entire region to provide an understanding of where there are pain points with their existing customer and how can we design a product that's most effective to address those pain points.

And then finally, this is an opportunity for us to make a literal physical connection between our international market-leading fire helmet and our self-contained breathing apparatus. The face piece is able to direct-connect to the fire helmet, and so we're able to leverage a system approach where we have customers who are really enthusiastic about our fire helmet. Maybe this provides them a benefit to connect to the SCBA. Or on the flip side, really enthusiastic SCBA customers can then pull through our galley helmet.



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So the head-to-toe firefighter safety and the connection of MSA and Globe is still relatively young in its connection, but we're looking out to the future to be able to establish a system for firefighting that is genuinely unique. Right now, there's some overlap and pieces that may be redundant within the system. What we'd like to do going forward, whether it's the fire helmet and the connection to the SCBA, with the way the SCBA interacts with your turnout gear, we're able to take an approach that is kind of a total system rather than discrete pieces of protective equipment that were designed independently and then later put together as a system. So our aspiration is absolutely to build a system that's more valuable than the sum of its parts to encourage existing customers to expand their share of wallet with MSA and to continue to connect through our channels, new products and really unique solutions that are much, much more difficult for a competitor to match if they don't have that whole system.

Globe has historically been very strong in the United States and Canada. We are taking a pretty systematic approach to looking at individual international markets, understanding how Globe's current product offering can intersect with those markets and how we can leverage our channels to drive that disproportionate growth in the other parts of the world beyond the U.S.

With regard to global fire service connectivity and the MSA cloud, Gustavo is going to talk more about how this application fits into the industrial world. But essentially, it's a bit of a simplified version, but we can send SCBA data through a long-range radio to a base station that would typically be installed on a fire truck. That base station will bring together multiple SCBA information, can allow you to manage a scene and understand how much area your firefighters have in their system. You can send evacuations. You can send other data back and forth. What's unique about this system is we'll now have the ability to take data that was historically local to an individual fire scene to put it into the cloud and allow for things like a remote incident command where an individual department could look at multiple fire scenes that could be happening concurrently. Historically, there was no way to see multiple scenes at the same time or to better manage our assets as they're spread throughout a municipality.

We're going to talk a lot more about this in the next few months, but this is absolutely intended to be an enabling technology, a connective technology that'll allow us to stay closer to our customers, to enhance the intimacy with them post sale and then to bring more value, again, to the total system versus an SCBA as a discrete piece of protective equipment.

So that concludes my area on growth. I think in the most general sense, we're focused on continuing to take share where we have opportunities to grow, enhancing our wallet share with existing customers and then continuing to drive growth through acquisitions like Globe and this aspect of a broader firefighting system.

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

Thanks, Jason. It's really exciting to see us owning a fire service from head to toe. When you look at the firefighter in the mannequin that we have here in the room, whether it be the fire helmet, the Cairns helmet we have on the mannequin or the F1 XF we have abroad, the SCBA, what you see here, the G1, but now the M1 that we're starting to introduce globally and then the turnout gear, it's really an exciting market to be in, and it's a market that provides us some opportunities to continue to see growth and revenue as well as profitability.

And now as we transition into the industrial side of business, Jennifer McGurrin will be joining me here at the podium. Jennifer has over 15 years of experience. She has worked with a number of leading consumer global oriented companies across the whole end -- broad array of end markets. She's got experience in corporate strategy, innovation, marketing, brand and channel management. She brings to MSA a whole host of attributes and critical skills that we're leveraging in the head protection area as well as the fall protection area. She's only been with MSA for about a year, but she's certainly having a big impact already. She has her -- she also has her MBA from Carnegie Mellon University.

So with that, I'll turn it over to Jennifer McGurrin.

Jennifer McGurrin - MSA Safety Incorporated - General Manager Industrial Head Protection and Fall Protection

Thanks, Ken, and good afternoon.



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We're seeing favorable industry dynamics in both industrial head and fall protection. MSA is the global leader in head protection with very strong share in the Americas and room to grow internationally. For the past 5 years, we've grown about 4% annually.

Fall protection has been a core focus for MSA since the acquisition of Latchways in 2015, and we have room to grow. The market is very large and growing for a number of reasons. First of all, according to OSHA, 40% of construction deaths are caused by falls. And in 2016, falls were the most cited violation by OSHA for the sixth year in a row. At the same time, there are an increased number of industry standards. There are companies in the Americas, for example, that follow ANSI, the American National Standards Institute, which sets standards for fall protection. Five years ago, there was one fall protection standard. Today, there are 13, and we're seeing this expand. In Europe, we're also seeing changes where standards are moving towards becoming regulation. All of this is generated because compliance is relatively low for fall protection and room to increase over time.

MSA is #3 in the world in this fragmented industry, and we're well positioned to grow. Latchways brought us unique capabilities that we're leveraging across markets. In the Americas, we're stronger on the personal protective equipment side. And internationally, we're stronger in engineered systems, which are rooftop systems designed into buildings by architects. We're working to leverage our complementary strengths to grow both sides of the business.

Let's take a deeper dive into head protection, where MSA is the market leader.

Every working day, tens of millions of people wear MSA hardhats for protection on their job sites. The ubiquity of our hardhats keeps our brand top of mind.

As Ken mentioned, I've been with MSA about a year, and I've really been impressed with the strong brand equity that the MSA V-Gard has earned over time. The V-Gard is recognizable and trademarked, with 85% unaided brand awareness and 97% aided brand awareness across the U.S. and Canada.

The brand is underpinned by a number of strengths. First, our scale allows us to have a broad product portfolio to hit the mark in a number of applications. For example, our Skullgard helmet is rated up to 350 degrees Fahrenheit, which makes it ideal for high-heat environments like steel working. We also have a portfolio of integrated accessories to help our workers match the application at hand.

Steve mentioned our customization capabilities. When we look into the consumer space, we see that customization is a strong trend, whether it's your morning cup of coffee or your running shoes, and we're seeing this translate into the business world. We have experts who are graphic designers at 12 locations around the globe that help deliver logo-ing to our customers. And we have unique offerings like NFL logos, which we offer under exclusive license.

Quality is important in everything that we do, centered around comfort, which is a key part of our hardhat success. Our Fas-Trac III Suspension, our most common suspension, has blind preference and comfort versus the nearest competition. We have precision engineering, we make our hats with virgin materials and we comply with all industry standards.

And then finally, distribution is key for us, as Steve and Bob both mentioned. Over the years, MSA has built a strong network of partnerships with our distributors, which not only delivers hardhats into our workers' hands but also helps us pull through our other safety products.

Looking for where do we want to maintain our very strong shares in the Americas while pursuing gains in the international markets. This will be centered on insight-driven innovation focused on comfort, style and integrated accessories, 3 key areas that we've identified through our voice of customer research. We're working on innovation to bring a step change in comfort to drive compliance, and we're also looking to update our styles, which we find is very important, particularly with younger workers. We know we can drive sales when we get this right. We launched the V-Gard 900 in Europe in 2016 and have seen growth with a style that meets the needs of European workers. We're also continuing to focus on customer experience and expanding our customization capabilities, and we'll be launching new technology this year that allows our workers to personalize their helmets even more with their name, their employee number or other type of personalization. And we're always looking for continuous improvement on lead time reduction and delivery.



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I'm excited about the robust pipeline of new products that we have in head protection and look forward to sharing them with you in the near future.

Switching over to fall protection.

The Americas growth stems from focus and execution. Fall protection was a strategic priority and continues to be with aligned resources and incentives behind the business. Steve mentioned the success of deploying the MSA Operating System and getting the key performance indicators that we know drive the business, getting those right. We've also implemented programs that focus on on-time delivery such as our Need It Now Program, which makes sure we have the right products in the right place at the right time.

The centerpiece of our growth, though, has been innovation. The Latchways acquisition served as a catalyst for growth by bringing innovative products and capabilities to our portfolio. We launched 15 new products in 2017, including the V-TEC personal fall limiter, which is compact and lightweight, self-protecting lanyard that uses technology from Latchways.

And finally, branding is a key part of our strategy. Last year, we launched the V series brand in fall protection to leverage our strong V-Gard brand in head protection into the fall space.

Looking forward, we're focused on growth. Innovation will be -- continue to be our foundation, and we have a strong pipeline of new product development concentrated on comfort and ease of use to drive compliance as well as lower cost of ownership for our customers, driven by durable materials, built-in features like retraction dampening that limit damage and field serviceability to limit downtime. Our new product strategy is all about differentiation, and we plan to launch 15 new products in 2018, including the first-of-its-kind, leading-edge personal fall limiter made with proprietary materials. This unit will differentiate from competition for both weight and ease of use. We're also working on launching a premium harness with proprietary features, such as unique chest buckle, that provides both comfort and flexibility for the worker.

We're looking to replicate the growth in the Americas internationally, as Bob laid out. We'll do this by meeting local needs with new products, strengthening our sales and channel relationships and flawless execution. I'm excited about the opportunities we have in both head and fall protection and MSA as a whole.

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

So we'll have a Q&A session after we finish with our last speaker here, Gustavo. But I think what you'll see when you look at the head protection product portfolio that Jennifer just spoke about or the fall protection product portfolio, one thing that really matters in safety is brand. She spoke about 85% brand awareness or 97%. Really, brand does matter in the safety industry as well as innovation not only in the hardhat, which many -- may come to a surprise to many of you, or to the fall protection side. Innovation has been a really key part of what we're doing with our core product portfolio and products that may appear on the surface to be somewhat commoditized. And so we continue to invest in innovation, and it's an area of focus in head protection as well as in the fall protection side. And it also is in an area -- and Gustavo Lopez has joined me here at the podium. Innovation is a critical component of what he does on an ongoing basis.

Gustavo was instrumental in working on our XCell sensor project. If you go back 1 decade or so ago, the XCell sensors are what really enabled us to develop our ALTAIR portable gas suite of products and get to a -- just about a market-leading position in that product portfolio while, at same time, providing us an opportunity for margin expansion. That product portfolio, the portable gas area, provides customers with lowest total cost of ownership. You saw those on Jennifer's slide. But that is a really important part of the product portfolio in the gas detection area. But Gustavo comes to us and he's going to be speaking to you about some of the initiatives we have in gas detection, some of the things we're doing to invest in new and innovative products in gas detection. He's been with MSA for almost 15 years. He started with MSA as a staff engineer and has worked on a number of our most important and strategic projects across our footprint. He also has his MBA from Carnegie Mellon University, and he has an undergrad engineering degree from the University of Pittsburgh. So Gustavo, the floor is yours.



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Gustavo Lopez - MSA Safety Incorporated - General Manager Detection Products

Thanks, Ken, and good afternoon.

So I appreciate the opportunity in having you -- talk to you about something that I'm very, very passionate about, which is really our gas detection business, which I've been fortunate to be a part of for most of my MSA career.

So when we look at gas detection at MSA, it's about 1/3 of our business globally. And it's really comprised of 2 major product categories with portable instruments and fixed gas and flame detection.

Our portable instruments are products that are mounted on an industrial worker. So they follow a little bit more of the trend in, say, a hardhat or industrial PPE. Our fixed gas detectors really protect the infrastructure. So it's really tied more to the capital investments of a facility and has a little bit of a longer sales cycle.

When we look at portable instruments and we see our revenue by [sections], you'll see that our revenue really is weighted a little bit heavier towards the Americas segment. So we believe there's a nice opportunity for us to expand our market share when we look at MSA International, which I'll now talk to you in a little bit.

We've done a really nice job with the Americas in the Latin American sector, where we have a really nice market-leading position there. But we believe a lot of those programs, coupled with the channels optimization lines that Bob is really implementing, are really going to help us moving forward.

When we look at fixed gas detection, it's a little bit more of a balanced look at our markets. The General Monitors acquisition really strengthened ourselves outside of the Americas and gave us a really, really nice position there. One of the really nice things about this business is that it is highly repetitive. So a lot of the -- a great deal of the business that we receive there is what we call the retrofit capabilities. So when you put a product out there that usually lasts 10-plus years, that product ages. The infrastructure is aging. We have upgraded products that we're developing that fit within the same slots that Steve alluded to as we minimize the wiring cost from a customer and giving them that opportunity to upgrade to the newer and more exciting technology.

So with that in mind, let me walk you through the key pillars of our growth strategy.

So number one, I mentioned our market share expansion opportunities in MSA International. This really comes into play when we look at our portable instruments product range. We have all the right approvals. And now with the added focus that we have from our channels optimization and the sales perspective, we believe there's some nice upside for us over the next couple of years.

Our large global installed base of fixed gas detectors is really important. As I mentioned earlier, we have some newer products that we're just introducing now with the Ultima X and the S5000 that just hit the mark last year. So just to put it in perspective, we have hundreds of thousands of gas detectors around the world that we can go after that have been sold years and years along the way. As those products ages, we have a nice upgraded platform where we can encourage our customers to upgrade to the newer technology.

We also believe we're going to be able to get some nice competitive conversions with this new product. This new product really is going to set the standard from a cost of ownership perspective as we introduce some new and patented technologies by MSA that really we've been working on over the last 4 years. And something on that project that I'd like to make sure that we communicate here. That's really the culmination of 4 years of R&D between our Cranberry facility in Pittsburgh and our R&D facility in Lake Forest, which is the General Monitors facility. So we really took the best of both worlds as we developed those platforms.

And last but not least, we certainly are looking at connectivity, and we are creating a nice ecosystem that's going to allow us to increase our wallet share with existing customers and really see it as a nice software-as-a-service opportunity moving forward.

So now let me take a step back and walk you through what is our value proposition with gas detection.

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So at the heart of what we do, it really starts with the customer and the customer need for lower downtime. And we really consider lower downtime in 3 major categories. Reliability, so false alarms are tremendously expensive to a customer since they obviously have to stop what they're doing and figure out whether or not they need to address it. A fast response time within your sensors. So if I'm entering like a confined space, the quicker your sensor acts, the quicker I can get out of a potentially hazardous situation. And last but not least, it's been the maintenance cycle. So imagine you're an industrial worker and your job is to maintain hundreds, if not thousands, of these gas detectors every day. Logistically, it's complicated. From a materials perspective, it's complicated. So that's an area that we see as an opportunity.

So to uniquely solve those needs, we've disproportionately invested in our own proprietary sensor technology that we own and we protect in the XCell sensors. Now one of the latest innovations that we've introduced to the market is the XCell sensors with TruCal technology that we've introduced and the product that I'm showing there on the left, the Ultima X5000. Just to put it in perspective, that's a product that you buy and then you -- that lasts about 10 years but also has to get maintained and calibrated either monthly or quarterly. Using the TruCal technology, the sensor is going to continuously update itself and adjusts its signal over environmental conditions. And what it means to a customer is it can go up to a year without having to calibrate that sensor, having the ultimate cost of ownership savings and why we believe that we'll be able to take some nice market share with that really, really strong innovation by us.

The other area that we're looking at is connectivity. So certainly, this is a hot topic within the industry. And one of the things that we've done is we've enabled our new products with connectivity as standard. So the 2 products that you're seeing here, the ALTAIR 4XR and the Ultima X5000, have standard Bluetooth wireless connectivity, allowing us to adapt to the world of the future.

So with that in mind, I'm pleased to announce that we've created a new group, a new focused initiative at MSA called Safety IO to really look at this opportunity as we see it as a nice growth platform for us in the software-as-a-service perspective. In this particular example, I'm showing an industrial worker taking their gas detector, paring it to a smartphone that then goes to a cloud and then you enable to be able to manage your incidents remotely. So what that means to a customer is you can now have a 360-degree view of what's going on with a facility and also with your worker. So imagine the hundreds of thousands of lone workers that go in a day every day and go about their jobs and are entering confined spaces that can be in really hazardous conditions. With this system, as the employer, we're going to be able to give the employer a nice solution to be able to remotely manage your assets not only from a safety perspective but also from a productivity area. It's going to allow us to change that conversation that we have with our customers beyond the traditional physical product and more into a consultative approach as we really look to become a trusted advisor and increase really our wallet share with our existing and newer end customers.

Now that we are very excited about this opportunity, we do remain very balanced from a revenue perspective as we're really building something from scratch. So we don't expect the revenue contributions to be very significant over the first several years of implementation.

And lastly, hopefully, I gave you a little bit of insight into our gas detection strategy and why we're very, very confident about our position for profitable growth. One, we've shown that our technology innovation, our technology leadership, is something that our customers want and crave, and we'll continue to invest in our sensor technology and continue to improve the situation there, making customers want MSA and need MSA. And secondly, our connected ecosystem is going to generate further growth opportunities outside of our traditional business and really engage our customers in conversations that we're not present in today.

I appreciate the time that you took -- taken with us today. And with that in mind, Ken can come up and we'll start the Q&A.

QUESTIONS AND ANSWERS

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

Thank you, Gustavo. Appreciate that.

I think it's interesting. We've got -- hopefully, you're taking away that we're investing in the business. We're heavily investing in R&D and new product development. And I think what was somewhat telling, not only are we investing in products that we'll see good growth in the Americas,



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in the U.S. where we already have very strong share, but we're investing in products that we can launch globally and in Europe. I spoke earlier about the mix being different in Europe or in International versus the Americas with close to 80% of our business core in the international market versus almost 90% in the Americas. Well, I think what saw there in Jennifer's presentation, that only 20% of our portfolio for head production is in the International segment. So we're ramping up investment to bring new products to bear in that market. We're also doing something like that in the portable gas area as we look at investments there, as well as in Jason's M1 project that we spoke about. So a lot of good excitement, a lot of good investments that we're making to grow the business across the globe.

With that, I'll open it up for any Q&A you might have on the product platforms.

Unidentified Participant

Thanks. When you're talking about the investments in the cloud and having the connected assets, with so much of your business going through distribution domestically, is that -- will there be additional resource that you'll need to bring on to make sure that the customers are fully utilizing this? And then I guess second part is, this is very similar to something you guys have already done with good success on the fire side, if I'm not mistaken.

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

We certainly have opportunities to grow this business. I mean, when we look at the investments, there will be investments. There will certainly be investments needed to be made to grow this business. But as Gustavo indicated, this is a multiyear journey. And so we've got a number of years that we're working through this process to build up this business. We're also, at the same point, looking not only organically but inorganically on this side, looking at how we might accelerate our ability to go to market quicker. So there's a whole host of things. And you're right. I mean, we've got a number of things we're doing on the fire service side with remote monitoring, gas detection sort of technologies. And Gustavo can talk a little bit about those technologies, but we certainly do have a bit of an exposure in those markets. Nothing like this Internet of Things or this cloud-based technology not necessarily in line, but we do have a bit of experience in that area, so.

Gustavo Lopez - MSA Safety Incorporated - General Manager Detection Products

Yes. Over the last probably 5, 10 years, we have had solutions like this before. What we're looking at more in the future is how do we enable initial insight. And the fact that now our products are really enabled for connectivity allows us to do a little bit more certainly as cloud computers are becoming a lot more prevalent in a lot of these areas. So we see it as just as a nice opportunity for us. But like Ken said, I mean, we do remain balanced. This is going to be a long-term journey. Our industry as a whole is slow to adopt some of these newer technologies. But one of the reasons that I've shown in there, the new group and the new initiative, safety io, is to really look at that opportunity on how do we change ourselves, how do we become more agile in responding to these needs, which we don't know everything right now but -- so that we can adapt and provide additional value-added services to our customers.

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

Rick?

Richard Charles Eastman - Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst

Yes, just a question. Perhaps I'll address this to Jennifer. And I give you all the credit for the U.S. growth in fall protection, but I'm a little curious. In year 2 post the Latchways acquisition, maybe you could give us just a little bit of a sense of what you stumbled into with Latchways and the sales in Europe for Latchways. And again, can we flip that around and have the success in Europe that we've had here domestically in the fall protection side? How far are -- from that happening are we?



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Jennifer McGurrin - MSA Safety Incorporated - General Manager Industrial Head Protection and Fall Protection

Sure. So in Latchways' side, the engineered systems side of the business, that's a longer-term sale, longer-lead-time sale, and we didn't see orders convert as quickly as we would like. But the pipeline is still very strong, so we're optimistic about that business coming in. And we're working to build our personal protective equipment side of the business in Europe as well. At the same time, we're looking to bring -- grow our systems business in the Americas. So our goal is to grow both sides of the business in a complementary fashion.

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

Yes. Yes, The system side hit a bit of a road bump in 2017, but we think we've got it back on track. I think also, the other opportunity that we have internationally is in aerospace. We've seen some good wins in aerospace in the U.S. with our WinGrip product from Latchways. We think we still have opportunities on that side as well. So I think there's a whole host of opportunities around the world that we're continuing to target and execute on with respect to the fall protection brand.

Okay. Well, seeing we have no further questions, I'll proceed into the financial review. Thank you. Thank you, Jennifer, Gustavo and Jason.

PRESENTATION

Kenneth D. Krause - MSA Safety Incorporated - Senior VP, CFO & Treasurer

So with that, I'll transition into the financial review, and then we'll wrap it up with Bill's concluding comments and open it up for any Q&A we might have at that point.

So as we start the financial review, I think, again, it's important to step back, look at what we've done over the long term. Over a 5-year trend, we've seen core products grow at about 7%. If we exclude some of our acquisitions, we've seen at about -- approximate 5%. All-in total sales CAGR has been close to 4%. And we've seen nice improvements in gross profit despite that less favorable mix that I spoke about to start the day. We've seen about 110 basis points of improvement, which has been driven by all those new products that we just talked about and the pricing associated with them but also that diligence and that value engineering that we continue to execute on in the manufacturing cost side.

EBITDA margins continue to trend higher. As we said, we finished last year approaching 19%. We think over the next couple of years, 2 to 3 years, we could probably get to or above that level with the market outlook that we have currently. We're continuing to look at gross profit. We're continuing to look at our opportunities to leverage our new products and the pricing, the channels we have in Europe and abroad. And we're also continuing to take a close look at SG&A. Although we've made great strides over the last couple of years with SG&A, we think we have opportunities across the world not only in the International segment, which appears so obvious, but also in the Americas segment, where we're continuing to take a close look at what we're doing in that business. So continue to look at how we can drive even more margin expansion and earnings growth as we head into the next several years.

And cash flow is continuing to get the focus that it needs. Over the last couple of years, we've made great strides at improving our working capital position, driving cash flow conversion of over 100%, up from 65% over a 3-year period. It's a nice progress. And it's not something that we have stopped focusing in on, but, quite to the contrast, we continue to focus, we continue to drive changes, we continue to look at our footprint to try to optimize it, to make sure we have the right amount of working capital available to grow this business as we enter an expansionary cycle.

And our approach to capital allocation will remain unchanged. We have a very balanced approach to capital allocation, whether it be, first and foremost, those investments in growth that I spoke about a number of times, the acquisition front where we spent over \$400 million in the last 2 to 3 years alone. But going back to 2010, we spent almost \$700 million to bring those new products into the fold to grow the business and grow our market share into those leading positions.



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We'll continue to return cash to shareholders, just like we've done over the last 50-plus years. And we'll continue to look at our share repurchase program. We have a \$100 million share repurchase program. I'll be quite frank with you, it's used primarily to offset dilution. Our focus is on, first and foremost, investing in growth, growing the business, growing the earnings stream and, in turn, sharing that growth through an increasing dividend.

Speaking about growth and speaking about our ability to continue to lever up for growth, I think we've shown a nice track record and a trend line and a willingness to use our balance sheet to lever up to grow this business, starting, first and foremost, back in 2010 with General Monitors. General Monitors -- during that acquisition, we levered up to 3.6x. We would lever up to 3.5 for the right deal, 3.6 for the right deal. We want to run this business and we intend to run this business as an investment-grade business. So that means something in the range of 1.5 to 2x on a normal operating basis. But we're not -- we will and we are not reluctant to growing the business through acquisition and leveraging up. Just like we did with Latchways back in 2015 or recently with Globe, we intend to continue to use our balance sheet, and that U.S. tax reform that we're seeing will help accelerate some of our efforts in this area to go after those assets, to bring those assets on, integrate them and see the accretion that we've seen.

It's interesting. When I step back and look at these 3 specific acquisitions, we've seen accretion that's been significant on a GAAP basis but also on a non-GAAP basis. And not only have we seen accretion in year 1, we've actually seen accretion in each and every one of these deals in the first quarter of owning the asset. So we'll continue to look at how we can diligently deploy capital, to go after these sorts of acquisitions, to bring them into the fold and create value for our shareholder base.

We're going to commit to remaining disciplined in our strategy. As you very well know, we've got a number of metrics we look at from a financial perspective. First and foremost, of -- earnings accretion and hurdling our cost of capital by year 3. Those get priority when we look at any deal. They've got to clear those sorts of metrics. Then, we also look at sales growth. So when we enter into an acquisition, we are always looking at not only this business over the next 1 to 2 years, but what's it look like over 3 to 5 years. Are we going to be accretive to the overall growth profile when we get out 3 or 4 years from now? We also take a very hard look at EBITDA margins and cash flow. This business at MSA, the organic business, is not capital intensive. It only takes about 3% of sales in terms of CapEx on an ongoing basis. So when we go out and acquire, we try to target those businesses that won't use significant amounts of cash flow but nonetheless will create more cash flow that we can use to reinvest back in the business and grow this business.

From a strategic rationale, Nish touched upon it early on, but we look at it through a number of different perspectives and use a very wide lens. First and foremost, it's about the products. It's about what products are we acquiring that we can bring into the fold to expand our addressable market like we did with Globe, or that we can continue to leverage our market leadership position like we did back in -- with General Monitors or more recently with Latchways to bolster that, to bolster that actual market position. And then geographies. It's interesting. When I step back -- and we've spent a lot of time on these recent deals, the Latchways and the Globe acquisition, but if I just step back and I think about the General Monitors acquisition back in 2010, that acquisition gave us an opportunity to acquire a business and, in turn, get a technology that allowed us to compete more effectively in the Middle East. That was back in 2010. We effectively acquired that asset, and it opened up the energy market in the Middle East, and we've seen great results from that business. It's new products, opened up new markets and, in turn, new geographies. And we expect to continue to deploy that strategy as we go forward to drive above-average shareholder returns. Not only is the step change in EBITDA that's been enabled by our focus on core and our focus on productivity, but the acquisitions have certainly helped us drive further improvements. And although we've -- you saw a bit of a challenged return over the 2009 to '15 period relative to the Russell 2000, we've seen great results over the last 2-or-so years. And to start the year, we're continuing to see nice results across our business.

And before I start to talk about some of our commitments going forward, I think it's refreshing and it's instructive to step back and look at what our commitments have been in the past.

So if you look at our past targets and some of the things that we've done for our shareholders, if you just start at the top line from the standpoint of mid-single-digit revenue growth, we've provided that target for some time, and we continue to execute and see that performance, or whether it be the accretion, as I spoke about earlier, on some of these more significant deals that we've been able to acquire, we've been able to go out and drive the accretion in the first year of ownership.



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Cost targets that we've provided of \$10 million in 2016 and, again, in 2017, we've outpaced those nicely, bringing in over \$25 million of improvement in profitability. And lastly, but certainly not least, the cash flow and the working capital. Back in 2015, I think you can probably recall some of the conversations we had around working capital and about cash flow and how do we get to that 100% conversion. Well, we focused in on there. We provided a target, and we executed to that target to help enable us to continue to fund this increasing dividend that we've paid for over 50 years.

So when we look at the 2018 outlook, some of the things we're thinking about and the planning assumptions that we have for 2018, first and foremost, about growth. We expect mid-single-digit organic revenue growth in 2018. The business is doing well through the first quarter, and we're seeing that hold up nicely as we finished February. But we continue to execute on that, and the markets continue to appear very favorable. And our position in those markets is -- it continues to improve.

The cost structure continues to get focused. Although we're starting to enter a more expansionary cycle, which is taking a little bit more investment, we are certainly continuing to focus on productivity, we're continuing to focus on regions that we can go after and reduce our footprint and reduce our complexity, increase our focus. Something that Bob Leenen spoke about in his presentation was focus. Focus on what you can do and do it more often, do better and do it more often to create value, and we're continuing to do that on the cost structure side.

Tax reform will be a wind in our sail in 2018 with an effective rate going down to 23% to 24%, but also the ability to pull back upwards of \$75 million to \$100 million of cash from our foreign affiliates. When we look at that expectation from repatriation, much of that's heavily weighted to Q2, Q3 and Q4, but we're already starting to see some performance and some ability to pull some of that cash back into the first quarter. And we'll continue to ramp up and accelerate some of that work that will allow us to continue to deploy capital to continue to go after targets, to continue to acquire, invest in R&D and return cash to the shareholder base as we continue to drive improvements in our cash flow performance.

Longer-term expectations as I started the day, revenue growth from a standpoint of mid-single-digit, we think that's very achievable over the next several years, over the next 2 to 3 years. The margin improvement, I spoke about earlier, it was good to see this business at a 19% operating margin despite having 38% of our business in fire service. Good to see that come through in the fourth quarter with incremental margins of almost 35%. Really good to see the cost stay out but the revenue come on and see what happened with our EBITDA performance in the fourth quarter going -- growing so nicely, increasing so nicely. And our plans for the future are to continue to see that sort of performance as we move forward with 1.5 to 3x the revenue growth coming through on the EBITDA line. That will allow us to continue to deploy cash, to continue to grow the business and continue to target 100% free cash flow conversion, allowing us to maintain a very balanced approach to capital allocation as we go through 2018, '19 and '20.

With that, I'll turn it over to Bill for some concluding comments, and then Nish and I will join Bill back at the podium for any questions you might have to wrap up the day.

William M. Lambert - *MSA Safety Incorporated - Chairman & CEO*

So thanks very much, Ken. Today, you've heard from our key business leaders about the drivers and the results over the past several years that we've achieved here at MSA. And I'll tell you, this is my 38th year with MSA, and I could not be more proud of this team that you've heard from today and the results that they have been able to achieve and the platform for growth that they have outlined for the future going forward.

And maybe you asked coming into the room, what's next for MSA? And as Ken just indicated, what we're looking for is mid-single-digit organic constant currency growth. We made an acquisition last year, and so our total growth will be higher than that. We expect to leverage that revenue growth, that revenue growth rate by 1.5 to 3x and an EBITDA growth rate. We've provided insight from our team into the products, the strategies and the programs that you can expect us to execute on to provide all the support that we need to achieve those kinds of financial results. As you know, MSA doesn't provide what's normally discussed as guidance, but I think the way we peeled back the onion today, you have a pretty good sense of where our growth is coming from and where the improvement initiatives will lead and what we can expect to see in the way of earnings growth.

When I look at this Investor Day presentation and all that you've heard today, our growth is in focus, and that initiative is being led by Nish Vartanian. He and the team that you heard from today will achieve those strategic and financial goals by driving market leadership in the core areas of our



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business; by achieving profitable growth through continuous improvement programs, and you heard a lot of that from Steve and from Bob; and by strategically deploying capital and using our balance sheet, as Ken talked about; by investing in our people. We think we are very well positioned to create value for all of our stakeholders going forward. But I want to leave you with one final thought. At the end of the day, we are about protecting workers when their lives are on the line. At MSA, we know what's at stake, and that is truly what inspires our people to design, to develop and to manufacture the world's best safety equipment that saves and protects people who put their trust in the MSA brand, just as many of you, as stakeholders and shareholders of MSA, have put your trust in us.

I want to thank you for being here today, thank all of those on the webcast for joining us as well. I sincerely hope you found today's sessions to be valuable and insightful. And now I'd like to open up the floor for any final questions that you may have and ask Nish and Ken to join me up here, and we can answer any final questions you might have on anything you heard today or what we have planned going forward.

QUESTIONS AND ANSWERS

William M. Lambert - *MSA Safety Incorporated - Chairman & CEO*

No questions? Really? Rick, I knew it.

Richard Charles Eastman - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

Bill and Nish, are there any sophisticated safety equipment markets, end markets globally or just even PPE end markets globally that MSA does not touch at the present time? Any big categories? I could think of medical perhaps or anything like that, that would be a little bit out of the box here relative to what you've done in the past.

William M. Lambert - *MSA Safety Incorporated - Chairman & CEO*

Rick, I don't know that I would say it's out-of-the-box, but I think that as you heard today and you look at the product mix that Bob Leenen had internationally, there are areas that we have great strength in, in the Americas that's not duplicated in other parts of the world. And so I think that for at least the near future, you'd see us continue to strengthen our position in those core areas that we've identified but into new markets, into new geographies or the geographies where we have maybe less presence than we'd like to have. Longer term, I think that will be the markets that you talked about is something that Nish and the team going forward will be looking at for our strategy and where else might MSA play with the competencies that we've developed.

Unidentified Participant

With respect to Europe, what are the mileposts we should be watching for to know whether you're on track towards making the improvements that you've outlined?

William M. Lambert - *MSA Safety Incorporated - Chairman & CEO*

Well, Ken has established financial metrics that we're looking at, and Bob has established other metrics with regard to channels of distribution, customer coverage, sales per employee, et cetera, as well as headcount. So, Ken, maybe you can talk about some of the KPIs that you've identified from a financial perspective.



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Kenneth D. Krause - *MSA Safety Incorporated - Senior VP, CFO & Treasurer*

Yes, certainly. I mean, we'll continue to look at our distribution strategy. We'll look at what sales we're driving in terms of -- I don't think it's much different than what we've seen in the past. Core sales, I think, are important. I think the operating margin is important. And in fact, if you -- what's interesting, if you look at the fourth quarter of last year -- or for the full year of last year, but for the fourth quarter of last year, we saw about a 200 basis point improvement across the International segment, which was enabled substantially by lower SG&A costs. That's one area. But also stepping back and looking at that business last year for the full year, it was about a 10% operating margin year-over-year, no change. The revenues were down almost \$13 million on an ongoing basis. So I think we're already starting to make some progress. And the things that we'll continue to look at or how -- is related to our core revenue, related to our industrial channels, customer experience and loyalty metrics that we use here in the U.S. and also just our traditional operating margins. So we'll continue to look at all of those and talk to you on a quarterly basis about how we continue to trend and improve those metrics going forward.

Unidentified Participant

Can you talk about the company's key R&D priorities over the next few years and how that differs from what the priorities might have been the past few years?

William M. Lambert - *MSA Safety Incorporated - Chairman & CEO*

Well, Nish, why don't you take that one?

Nishan J. Vartanian - *MSA Safety Incorporated - President and COO*

Yes. So obviously, we continue to focus our R&D resources on the core products, and core products obviously have driven a lot of profitability in the organization. You heard Gustavo talk about the Internet of Things, and we're beginning to put more resources into that aspect of the business in fixed gas and flame detection. The fact is, as you just saw with the X and S5000, those are -- that's really the first launch we've had for fixed gas and flame detection of a new product platform since we acquired General Monitors, and that's the first of several that we're working on. So we'll start to see some products around fixed gas and flame detection, more work around our sensors and development of sensors so we can continue to broaden our capabilities in that area and bring more value to our customers in that aspect of the business and then, obviously, what we're doing around SCBA in the integration of Globe and fire helmets with protecting the firefighter. And clearly, you heard from Jen McGurrian on about 15 products we're bringing -- we're bringing 15 products to market this year with fall protection. We continue to invest disproportionately into the fall protection space, which she articulated is a nice opportunity for us going forward. So that's where I see the allocation of our R&D resources going forward and got a lot of confidence.

William M. Lambert - *MSA Safety Incorporated - Chairman & CEO*

But maybe a difference that you see now in MSA, and you have a hint of that from the product general managers' discussions, in today's world, we have set great platform products, and now we're working to connect those platform products so that firefighter that needs gas detection or needs the ability to understand what is the air consumption rate and maybe the health of that firefighter, now with this platform that we've established, we're connecting those devices and then providing others who may need to monitor that worker with the information that they need to protect that worker better. And that's where you'll see, and as Gustavo talked about, MSA io and where we go with that platform, having connected devices and sharing information so that we can better understand the behavior -- the safety behavior of workers and improve that safety.

Unidentified Participant

My question is on the same topic, actually. Your competitive position in the G1 platform, the market share you've taken has been tremendous. I guess, on the connected, the cloud opportunity, how would you rate where you're at in the cycle versus your competitors? And talk about that in

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the gas business. I mean, up against a Honeywell, where would you rate your technology and the opportunities versus the main guys you're up against?

William M. Lambert - *MSA Safety Incorporated - Chairman & CEO*

Well, I think as Gustavo talked about, for the past 5 to 8 years, we've spent a lot of our R&D resource on developing new sensor lines, sensors that can adjust themselves and calibrate themselves, so to speak, and working that into the foundation and platform of our products, whether it be portable instruments or the fixed gas and flame detection instruments. Building on that now and connecting ourselves to the cloud is something that we didn't provide as much focus on in past years. But over the last 2 to 3 years, we have been. We're a bit behind perhaps where Honeywell is or where another competitor is who recently made a large acquisition in this space on the portable gas detection side. But when you look at what we might be able to provide for the overall industrial worker and for the firefighter and not just for, say, portable gas detection instruments, we think we're not far behind. And in fact, we think that certain platforms have evolved over time through outside service providers like Amazon Web Services where we don't have to put the kind of resources and money into the programs that they established because these other platforms now exist and allow us to get there faster. So in one respect then within certain product lines, we might be a little bit behind in that regard, but we think we have a path forward to not only catch up but to surpass where they are in this space.

Well, if there are no further questions, thank you very much. I'd like to turn it back over to Elyse Lorenzato, who will go through some final comments with you. And thank you very much.

Elyse Lorenzato - *MSA Safety Incorporated - Director Investor Relations*

Okay. Seeing that we have no further questions, that concludes our 2018 Investor Day. If you missed a portion of the presentation, a webcast replay and transcript will be available on our website shortly. Thank you all for being here with us today in the room, and thank you to those who tuned in on the web. We appreciate your continued interest in MSA. And for those in the room, we do have an opportunity to go downstairs for the closing bell if you're interested. So we'll do that shortly. Thank you.

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