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MSA - MSA Safety Inc Corporate Analyst Meeting

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PRESENTATION

Elyse Lorenzato - *MSA Safety Incorporated - Director of IR*

Good afternoon, everyone, and welcome to MSA's 2019 Investor Day. Thank you for traveling from near and far to be here with us at the New York Stock Exchange. And we also want to thank those of you who are listening over the web for taking the time out of your day to join us.

I'm Elyse Lorenzato, Director of Investor Relations for MSA.

As the safety market leader, safety is in our DNA and safety awareness is a big part of our company culture. So with that in mind, I'd ask that for your safety and for the safety of those around you that you make a note of where the emergency exits are in the room here in Siebert Hall. We have one on the side and one in the back. So in the event of a fire alarm, the NYSE security will help us with a safe evacuation.

We have a number of members of our leadership team here today to provide you with a deep understanding of MSA's competitive advantages and the growth programs that will position MSA for continuing to execute our formula for success. I'd encourage you to take the time to meet and speak with the MSA team on the breaks and, of course, to interact with the many new products and technologies that we have here on display today.

An important part of our innovation process behind that technology is the voice of customer research that we leveraged throughout the R&D process. In that spirit, I want to thank many of you for responding to our Investor Relations perception study earlier this year. I think you'll see that we used your feedback to create the agenda that we have for you today.

So we'll start the day off with an introduction from our CEO, Nish Vartanian. And then we'll have a session on strategy and growth programs from our CFO, Ken Krause. From there, we'll move into our segment review with Steve Blanco and Bob Leenen. We'll then pause for Q&A, and we'll have a break and a product showcase, so you can interact with the many displays that we have around the room here today. Then we'll come back and resume with a presentation on innovation with our Head of R&D, Greg Martin and members of his team, and we'll also take you through our approach to M&A. Ken will then take us through the financial review, and Nish will wrap up the day. And then we'll head downstairs to ring the closing bell for MSA's 105th year in business and our 15-year anniversary of listing on the NYSE. So we have a full day planned for you, and we hope you enjoy interacting with the talent and technology that support this great organization.

Before we begin, I want to remind everyone that today's presentation contains forward-looking statements which involve risks, uncertainties and other factors that could cause our actual results to differ from those statements. Those risks are detailed in our Form 10-K filed in February this year.

We've also included non-GAAP measures in the discussion today, and the reconciliations for those measures can be found in the appendix.

And with that, it is my great pleasure to introduce MSA's President and CEO, Nish Vartanian.

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

Thanks, Elyse, and hello, everybody, and thank you for your interest in MSA. In recognition of Veterans Day, I'd like to thank all the veterans that are here today for your service. And just last week, I read of Marine Corp veteran, Richard, and I'm not going to use his last name, who walked away from an accident that could have proven to be fatal.

He was working on-site of a 9-story construction project. And as he stood in the basket of a snorkel lift, hanging a barrier, he was suddenly struck by a falling steel framing hammer. According to Richard, everything went black for a second, and it took a minute to figure out what happened. Then you heard a guy screaming, "I'm sorry, I'm sorry." Richard guided his lift to the ground before checking his head. And he later learned that a worker applying waterproofing above him had placed his hammer on the edge of the roof before it slipped and fell about 90 feet, striking Richard's V-Gard. Richard required 12 staples and was diagnosed with a mild concussion, and he was back at work within a week. He sent the note to MSA, thanking us for the high-quality product. And he said that he learned in the Marine Corps how important it was to use his equipment, and he was glad he had his MSA equipment on that day. I can tell you that at MSA, we know what's at stake for our customers.

So today, I'll spend some time on our mission of protecting lives, including our innovative and differentiated products, the attractive markets we serve and our high-performance culture, and our top talent who support our market-leading positions. Then I'll step aside and you can get a better sense for some of the talent that are behind those letters, MSA.

There are 3 people in the room today that won't be speaking or demonstrating product. And I thought you might want to interact with them during breaks, so I do want to introduce them. First is Dave McArthur. Dave, if you could put or stand up in the back there. Dave's been with us for 35 years. And when I think of Dave, one of his many defining moments, but one of them, in particular, is when he was Northeast region for the -- for MSA Regional Sales Manager on that terrible day of 9/11. When 9/11 occurred, me, like most of you, looked at our televisions and stunned at what happened. For Dave -- Dave snapped into action that day. Being in New York City, he knew that there'd be rescue workers at ground 0 and he arranged with Pittsburgh to have 3 18 wheelers loaded with MSA equipment and escorted across Pennsylvania's Turnpike and meeting those 18 wheelers at ground zero. Dave then led our efforts over the next several months and making sure workers at ground zero were protected appropriately. Today, Dave is our Vice President of Global Customer Marketing, where you'll see his fingerprints around some of the displays here today or our trade shows around the world. He focuses on pricing, equipping our sales teams to make sure that they position our product appropriately to get the right pricing around the world and many of our marketing activities and demand creation work.

Second is Eleni Lucido. Eleni, if you could stand up? Eleni's been with us for 10 years. She's our Vice President, General Manager of the U.S. and Canadian region, which is our largest, most profitable geography. Previously, she was the CFO of the Americas segment. And before that, she was Director of Internal Audit and spent over 10 years of her career with Deloitte, which included an international assignment in Greece. And a defining moment for Eleni during my time with her was when she was CFO of the Americas, and I was President of the Americas. She was the first one to sound the alarm on some of the trends that she saw in Brazil in 2015 and how that market started to turn down for us, and we got ahead of the curve there to make adjustments in our cost structure. And we made it through that severe economic downturn in Brazil without ever going into the red, staying profitable through that and then came out the other side with an organization and structure that's in place today that's doing a fantastic job for us as an organization.

And third, Stephanie Sciullo. Stephanie, if you could stand. Stephanie has 10 years experience with MSA, as Eleni, she's our Deputy General Counsel. And one of Stephanie's marquee moments is -- has been leading our efforts in the successful insurance recovery program that we have. And as many of you know, our Chief Legal Officer, Doug McClaine, announced his intention to retire in early 2020. And as we mentioned in the notice, Stephanie will be named our Chief Legal Officer, January 1. Previous to MSA, Stephanie worked with Reed Smith.

I want to spend just a few minutes and talk about the mission of MSA, and what I believe it means to our stakeholders, including all of you. Our mission to protect people at work is at the core of everything we do, and we take great pride in the impact our mission has on society. Those aren't just words on the screen. Protecting people's lives is why we come to work every day. It's a mission that began 105 years ago, when our 2 founders were frustrated with the depth and destruction from mine explosions ignited by open flames. They convinced the world's greatest inventor, Thomas Edison, to develop our first product featuring the latest illumination technology, a filament, which disrupted the safety industry as the first flameless miners' cap lamp. Due to that disruptive technology, thousands of lives were saved over the next several years.

At MSA today, our products protect the lives of tens of millions of workers around the world every day, and that very same spirit of disruptive innovation is alive and well. And products like LUNAR, which marries cellular, GPS, ranging cloud and thermal-imaging technologies to provide firefighters with a new tool that will help get them home safely.

Our mission, just by its nature, creates a unique and special bond with our customers. It's a bond based on trust at the highest level. And it's because of that bond, we're able to get candid feedback that allows us to develop and improve mission-critical safety products like no other company.

And what worker in the most dangerous occupations doesn't want to have input in the design of the technology that will help get them home safe at the end of a shift? What's more is we're able to leverage that focus, that mission to attract, engage and motivate our workforce. And I say that because all of our associates across multiple generations have a clear understanding and take exceptional pride in the importance of their work.

While walking in the building a few weeks ago, I met a new associate and learned she was a recent graduate of Northwestern University with a Ph. D. in chemical engineering. I ask why she'd move from Chicago to Pittsburgh to work for MSA. And she told me she was very interested in our sensor work and she really liked the people she interviewed with, and we seemed like a pretty good company. As we went our separate ways, I reminded her that the work she was doing was really important to our customers who use our products. And she replied, "I know. My father wears an MSA V-Gard."

We've created such a strong bond around our mission and values that our employees ranked MSA #1 in Western Pennsylvania this year as the organization that operates by the strongest of values. I'm also proud of the fact that we have a highly engaged workforce in a workplace where people can enrich their career development and grow within the organization. And I guess, I'm a pretty good example of that. As some of you know, I started my career as a sales intern nearly 35 years ago. And over these many years, my career was influenced by some great leaders, role models, mentors. And I've been presented with some wonderful opportunities to jump through, and I've certainly had success with that. Today, I feel very fortunate to lead this company being just our 9th CEO over those 105 years. Our Director of PR mentioned to me that we've had 18 presidents over that same time period.

And for the shareholders of MSA, the reason we're here today, that mission that has been the foundation for our success, we've provided an increasing dividend for more than 50 years and a strong rate of return for those who believe that there are rewards associated with fulfilling our mission. So the concept of doing well by doing good is not new to MSA. And while our mission is our purpose or why we come to work each day, our values guide us in how we get our work done. As mentioned, MSA was recently named a top workplace for the sixth time. We continue to implement a number of workplace initiatives to strengthen our culture. And this kind of recognition plays an important role in positioning MSA as a leader in a region to help us to continue to attract top talent.

While our sole purpose is safety, we're very diversified from a geographical, a market and a product standpoint. And that diversification has allowed us to perform really well through many economic cycles and insulated MSA in times when other companies have seen a lot of volatility. And a recent example of that is the industrial recession of 2015. During that period, our top line didn't decline like other companies that were involved in the oil and gas industry. MSA's top line was fairly stable and our profitability increased through that phase.

We have leading market positions across nearly every area we compete. Our products are used in mission-critical applications, and they're not a discretionary purchase, they're a must-have item. But what makes customers choose MSA over competition is how we respond to customer needs through innovation. And these products are highly engineered, they're loaded with technology. We have over 1,000 patents or patents pending and our high barriers to entry, which include government standards, over 600 of them globally, some that are very difficult to meet. This business is also very sticky. We have customers who have used our products over many decades, and they've grown to trust the product with those 3 letters of MSA on the side of it.

Later today, you'll get a better sense for some of the technology in these products. We invest about 4% of our revenue on R&D, and that generates more than 35% of what we call our Sales Vitality Index, and that's products that have been developed within the last 5 years, from the Connected Firefighter area to monitoring with the ALTAIR 360 in industrial PPE products like the V-Series fall protection product line, our new H1 safety helmet, which is in front of all of you. We innovate across all of our market-leading platforms. With every new product we launch, we look to enhance our profit profile by creating enhanced value for our customers. And when you look at our gross profit profile, it's reflective of a great business and products that are highly differentiated.

Our addressable market is about $8 billion to $9 billion across those 3 segments of gas detection, industrial PPE and fire service. This total addressable market has expanded since our last Investor Day, particularly in the fire service and gas detection, where we broad -- we've been broadening our product lines and introducing technology for these applications. Like the Connected Firefighter powered by LUNAR, it's creating an addressable market that doesn't exist today. And in gas detection, our ALTAIR 360 expands our reach in the area monitoring space, where we previously didn't have a product to compete. Our acquisition of Sierra Monitor earlier this year opens the door to the Internet of -- Industrial Internet of Things, which is a growing opportunity, and we expect to continue to broaden that total accessible market in years ahead through product innovation and strategic acquisition.

Our markets generally grow in the low to mid- single-digit rate. And you can see that we've outpaced that growth through our product innovation. Put simply, we expect the safety market to grow faster than the overall economy, and we expect to outgrow the pace of the safety market.

When you think about it, as more and more companies are placing greater focus on social responsibility and enhancing ESG reporting, safety has never been more important. And go no further than CEO's letters to shareholders, all of them talk of their employees and their safety record associated with them. Protecting people's lives is not a place anyone who looks to cut corners from an expense standpoint.

And turning that conversation to look inward at our own ESG strategy, we've been focused on putting together a better defined ESG strategy, enhancing our disclosures to better communicate many of the programs that we've had in place for years. We've taken a closer look at this area and determine what is material and important to MSA's business and to all of our stakeholders? And as a result of that analysis, our newly defined ESG strategy is focused on our people, our communities, our environment and our integrity. And all of these areas are central to our culture and our brand. I encourage you to check out our new disclosures on our website.

We've had a step change over the last few years in our level of diversity and inclusion, and we've done a nice job of aligning our talent to the vision for the future. And our business has really shifted from event-driven markets to markets that provide a more consistent profile for the organization. And that's been through organic investment and inorganic investment.

We've executed against our plans and have driven real discipline in the organization through the MSA operating system. And we continue to improve our competitive position while increasing margins and cash flow to fuel further investment in our business of protecting lives.

So the key message points I'd like to leave you with are this: We have leading positions in attractive markets. We expect the safety market to outpace the growth of the general economy and MSA to outpace the growth of the safety industry. And we have a strong talent pipeline, who you'll hear from throughout the day.

Now I'd like to invite Ken Krause to give you more insight into the growth programs in future areas that will drive the value creation for all MSA stakeholders. Ken?

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

Thank you, Nish, and it's great to be here once again with you all, a lot of familiar faces in the crowd and some new faces as well. It's great to be here to not only talk about MSA and some of the expectations going forward, but to really give you a sense and look into the exciting new products we have to showcase, some of the talent that we have and some of the exciting things that we have on the horizon for our business.

Before I turn it over to Steve Blanco and Bob Leenen to walk through the segment results, I'm going to walk through our strategy, talk a little bit about what our results have been and also some of our expectations going forward. We'll talk about our expectations for profitability going forward, our revenue growth outlook. We'll spend a little bit of time on 2020. And then we'll also talk a little bit about the options we see going forward and opportunities to continue to grow our leadership position in many of our core markets. Many of you are probably aware that we've been going through a strategy refresh of sorts. And just like every great company does, we challenge our assumptions, we challenge our focus areas. And as part of that, I'll start to provide a little bit more insight into our direction as we head into the future.

But starting here, first and foremost, on the overall corporate strategy, as you may know, we've been executing what we call a growth in focus strategy. That growth in focus strategy is really aimed at our market leadership positions, first and foremost. How do we continue to expand those market leadership positions across the core portfolio, but also the core markets? When we look at some of the acquisitions we made recently, most notably with Globe, we took the opportunity not only to invest in fire service, but to expand our position with the fire service community. And so we saw some nice success through that acquisition. We've also had a really great track record with organic R&D. Greg Martin will talk a little bit about that and some of the individuals in our organization will be here to showcase some of that. But as you just look around the room, and I know you -- as you came into the room today, you saw some of those exciting innovations, whether it'd be the safety io initiatives or some of the new gas detectors we have or some of the exciting things we have going on in fall protection in the back of the room. I certainly am excited about the pipeline of products that we have continued to introduce to the market.

Our focus on productivity also continues to be very strong. We continue to focus highly on improving the productivity in our business. We've identified a whole host of new restructuring ideas and opportunities. And we continue to execute in a very responsible manner with restructuring dollars. Our talent and our culture is certainly front and center. Nish and I oftentimes get the question, "What's changed at MSA?" When we look at our business over the last couple of years, the financial performance certainly reflects that something has changed. And what I think has changed, and I think Nish would agree with me, is our talent, our bench and our culture. As we look at our performance and our culture, we've really been able to successfully migrate that to what we call a high-performance culture and attract and retain some really strong talent. Many of those individuals are here in the room, but we also have a whole host of those individuals back at the office. And so we continue to invest in talent. And in order to invest in talent and invest in our business, cash flow is a primary focus. We continue to focus on cash flow. Cash flow conversion is incredibly important to me as well as the team at MSA. It's interesting when you go back to 2010 to 2015, I think there was 1 year in that period where we saw 100% free cash flow conversion. But over the last 4 or 5 years, from 2015 till 2018 and into '19, we're seeing strong improvements with cash flow conversion at or above the net income number despite having strong organic growth. So we continue to be very well positioned to maintain a very balanced approach to our capital allocation.

And as we look at some of the commitments we've made in the past, we were in Siebert Hall back in March 2018. And at that point, we unveiled certain guidelines for how we manage the business. We do not provide quarterly earnings guidance or quarterly guidance, but we do provide guidelines around how we manage the business and how we look at our business throughout the cycle.

When we look at our business, there's a number of different metrics that we've discussed, but first and foremost, our growth outlook. When we look at our growth outlook back in March 2018, it was really focused on mid-single-digit growth. And during that time period, we've been able to successfully deliver mid-single-digit growth. Last year, we delivered about 8% growth organically. I believe it was about 13% with the acquisition that we made with Globe the year before. And then this year, we're seeing solid growth, again, with 5% growth and 8% growth in the third quarter of this year.

Our cost structure continues to be a focus for us, and we're seeing nice results there. We're seeing about 120 basis points of improvement in 2018 and another 110 basis points in 2019. That's after improving the margins upwards of 300 to 400 basis points between 2015 to 2017. So we continue to be focused on that area, continuing to focus on driving incremental margins at 30% to 40%. We've been successfully delivering on that.

Earnings growth at a multiple of the revenue growth is also a major focus for us. When we look at our business, it's about focusing in on growing that earnings line. Revenue growth is certainly important, but we think it's really important to translate that into earnings growth and momentum in that area, and we've been successful at delivering on that. And cash flow conversion, as I noted previously, has been a focus. And it all comes together to allow us to continue to invest in this business to invest in acquisitions like Sierra Monitors, like Globe or Latchways going back to 2015, to continue to invest organically in R&D at about 4% of sales and also continue to increase our dividend. We've had a strong track record of increasing our dividend for over 50 years, as Nish had noted and, more recently, seeing double-digit increases in our dividend.

When we look at some of the new products, I'll tell you, it's interesting. Nish and I were just at an investor conference a week or so ago, and something that we really started to talk about is the breadth of our product portfolio. It's hard for me and Nish to remember a time when we've had the breadth of the portfolio that we have today. We've got new products that are coming to market in just about every one of our core markets, whether it'd be industrial PPE with fall protection and the V-Series and seeing accelerated growth there or on the gas detection side with some of the TruCal sensors. We're over on the fire service side with some of the new turnout gear and some of the innovations and technology around LUNAR and the importance of that. But our pipeline is very full. But when we look at the overall financial performance on some of those products, that's where it gets quite compelling. When we look at our performance from 2015 to '18, a period of recovery for many, coming out of the industrial recession, healthy growth. We saw about 4% growth in gas detection and about 6% growth coming through in the industrial core PPE. But over the last 9 months, we've seen an acceleration. We continue to see a nice performance, and that is really driven by market share gains. We don't see our markets growing at 9% or 12%. But what we see is an opportunity to continue to leverage all the new products that we're bringing to bear in the new markets to continue to gain share and grow our business.

And when we look at the margin performance over time, that new product development area, and I'll talk about it during the financial review, but that new product development area is really bringing some nice results as well. So as we introduce new products, we get an opportunity to leverage pricing, but many, if not all of those products are accretive to the overall margin. So we continue to focus in on our core products, we focus in on our core markets and bringing those exciting new innovations to bear that have more technology than they ever have that allow us pricing opportunities. All the while, focusing in on productivity and leverage of our SG&A. And those 2 areas, give us the opportunity to continue to recognize improvements in margin and position us well to continue to do more M&A.

When we look at our balance sheet, we've never been at a better position than we are today. We've continued to bring on acquisitions but also at the same time, delever. And currently, we feel like we're positioned well to continue to leverage that and to grow this business.

When we look at our relative percentage rankings in our peer group, it's interesting, over time, we've seen great improvement. And the peer group that we compare ourselves against here is our proxy peer group, and it's interesting. When we step back and we look at the performance in our proxy peer group, the 3-year TSR performance in that proxy group outpaces the Russell 2000 by over 2x. It outpaces the S&P 500 by over 1.5x. So we're comparing ourselves against some really tough competitors and -- or a tough peer group. It's certainly not an easy peer group to compare ourselves to. But what we're seeing here is great progress. We're seeing progress from the 32nd percentile a few years ago, up to the 60th percentile today. So we're seeing great performance and great improvement and further improvement here in 2019. It's interesting when you step back and you look at the top quartile of this peer group. The top quartile margins in this peer group are around 24%. And we think, over time, we have an opportunity to continue to build on this business. Whether it be through the gross profit line and leveraging the gross profit of realization or through the SG&A, continuing to gain leverage, we think there's a whole host of different levers. And hopefully, today, you'll walk away with better insight into what we can do with respect to some of the growth programs, some of the gross profit programs as well as some of the productivity programs.

So stepping back and looking at our financial commitments and what we've provided in the past. We want to reaffirm our outlook. When we look at our long-term financial expectations, we feel like we can continue to grow this business at a solid mid-single-digit revenue growth. We feel like we can translate that into a multiple of that into earnings. And we continue to focus on cash flow, cash flow that will continue to generate improvements in our balance sheet and allow us to invest and go after additional strategic acquisitions. And so we feel like we're positioned well to continue to execute with this framework and this sort of guidance in line as we go into the next several years.

And as I started the conversation, I started to discuss some of the opportunities that we have around the world. And it's interesting, over the last, as I said, over the last 6 to 9 months, we have done a -- we've conducted a robust engagement where we've continued to challenge ourselves with our opportunities. And as we've gone through that exercise, we've identified a few different initiatives that we'll continue to focus on, and you'll hear more about today.

First and foremost, the U.S. and Canada. Many of you who follow us know that the U.S. and Canada is our biggest and our most profitable region. And as a result of some of the strengths we bring to market, we see great opportunities to continue to expand that position, continue to leverage our channels, leverage our brand and grow our business. So I think what you'll see as we move forward is disproportionate investment into the U.S. and Canada when we look at growth opportunities.

When we look at Europe, probably to no surprise, we continue to focus on margin enhancement. Bob Leenen will talk a little bit about this, but I'll tell you, over the last couple of years, we've taken this business from an 8% to 9% margin to today about a 12% margin over a relatively short period of time. And we feel like we have an opportunity to continue to pursue additional margin improvement in earnings growth, while the while focusing on certain geographies, geographies like Germany and France and the U.K. as well as some of the Nordic regions, where we'll continue to invest and identify additional programs we can go after to improve our business. And strategic emerging markets are important to us as well.

When we look at our future, 4 markets come to mind, Mexico and Brazil. Steve Blanco will talk about those markets with you in his area. Those are in the Americas segment, and they offer an opportunity to continue to grow our business. And Bob Leenen will talk to you a little bit about the Middle East and China. All 4 of those regions, we have assets deployed. We've got capabilities. We've got manufacturing resources that we can leverage and continue to grow in those markets with a focus on those 4 areas.

So we feel like we're positioned fairly well, and we've got a tremendous amount of opportunity going into the future. But before I turn it over here to Steve Blanco, I just wanted to highlight a few items from today. I think, first and foremost, a key takeaway is technology is becoming an ever-increasing part of our portfolio. When we look at the innovations we're making and bringing to market, there's so much related to technology. And that technology is helping us widen the barriers. It's helping us deepen the barriers and provide us opportunities to continue to price and improve our business and leverage that into accelerated earnings growth.

Steve will talk a little bit about the Americas. We'll talk about how we're intending to grow our position with the firefighter community and the fire service community. He'll also talk about advanced gas detection, some of the things we're doing to bring those innovations to market. He'll provide a little bit more insight into Mexico and Brazil as well. Bob will talk a lot about the initiatives we have to grow the earnings in Europe and international. Our focus on restructuring that business, improving the efficiency of that business model, all the while investing in certain European growth markets like Germany and France, the U.K. and the Nordic regions as well as some of the things he's planning in China with fire service or in the Middle East with some of our strong industrial-based business. Greg Martin will talk and his team will talk a lot about the growth platforms and the innovations we're bringing to bear and showcase some of the talent we have throughout that part of the organization. And then I'll be back on to finish with the financial review and more in-depth financial review before Nish joins me at the podium to close out today's comments.

So with that, I'll ask Steve Blanco to join me here. Steve has been with the company since about 2010 -- 2012 and joined us from Eaton, Steve brought a tremendous amount of experience to MSA from Eaton Corp. as well as Ford Motor Company. And Steve has brought a focus on the MSA operating system. He's done a nice job at really bringing in the MSA operating system that we can use to grow our business. He's used it recently in the fall protection area. But we've also used it in some of our restructuring programs and productivity initiatives. And so it's great to have Steve with me here today. I'll turn it over to Steve Blanco.

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

Thank you, Ken, and good afternoon. So as Ken talked about, the Americas represents about 64% of MSA's overall revenue, and as Nish talked, a significant portion resides in the U.S. and Canada. Our business mix for the Americas is about 40% fire safety and then 30% each for gas detection and industrial PPE. Our leading market positions, strong brand equity and mature channels of distribution support an incremental margin profile of about 35% to 40% and an operating margin of about 24% to 25%, which tells us we've got strong runway in the segment.

As Ken mentioned, the MSA operating system has helped us and continues to help us in our approach to drive disciplined execution on our priority programs. And we've got a good history in the Americas of continuing to generate value, both on the top line and in terms of profitability. And we expect that to continue. The market dynamics really are attractive. And we see room to grow both in our existing core markets as well as new markets we're creating and expanding into with disruptive technology.

Today, I'll give you more insight into 4 key programs that we'll be executing on in the next several years to position the Americas as a continual growth driver in MSA. As I go through these, I'd ask you to note, innovation and disciplined execution are key themes that emerge for the Americas. And these have really given us the right to win in our core markets.

If we start with fire service, back in 2014, we launched the G1. And the G1, when we launched it, MSA had a #2 position in the U.S. and Canadian fire service. But the G1 was revolutionary to the market, addressing many previously unmet customer needs. This is largely because it was designed side-by-side with firefighters. So voice of customer is an important aspect of what we do on the R&D side, and it makes our products highly competitive. It's enabled MSA to have a leading market position in the fire service for not only SCBA, but fire helmets as well and now with the Globe acquisition, turnout gear.

Our head-to-toe solutions, combined distribution channels and our brand strength have really earned us a unique position where we can get a price premium, offer complementary technologies to capture more wallet share and better protect our customers as a first mover in the fire service. And that really brings us to the path forward. Because we have a leading position across our fire service PPE, we can now create a connected platform to add even greater value for our customers. We're launching the MSA connected firefighter powered by LUNAR in mid-2020. And this is a breakthrough innovation in the fire service. In fact, we've done trials in beta testing with our customers, and the feedback has been tremendous. LUNAR combines search and rescue features with thermal imaging, and it enables greater situational awareness for firefighters through remote monitoring and incident command. And LUNAR expands our addressable market in the industry, and it's an industry we know very well. In fact, it creates addressable market that doesn't exist today. You'll see more on LUNAR later in the day from Jason Traynor and with a demo right here at the exchange.

There are a lot of companies doing IoT, but MSA is the leader in bringing IoT solutions to the fire service market. Beyond the connected firefighter, we also have additional opportunities for growth in this market. As Nish mentioned, firefighter health and wellness is a key focus in the industry and for MSA. In many cases, that's starting to include firefighters purchasing 2 sets of turnout gear to ensure they always have a clean option when one is being laundered. We're in the early days of this trend, but we expect that a second set of turnout gear will become standard operating procedure in the years to come.

Within the industrial markets, we often talk about fall protection as a key opportunity for growth across general industrial applications, utilities, construction and oil and gas. And that's because it's the largest and fastest-growing area of the sophisticated safety products market and it's an area that we see a big growth opportunity. While we're #1 or #2 in our other core products, we're a #3 player in fall protection, for now. We're determined to get a leading position in fall protection. And you've seen us make investments through M&A like Latchways, manufacturing, marketing and sales and R&D to capture share in the market.

In fact, I'd like to share some important statistics with you. In the Americas, we've doubled our fall protection sales representation, added additional regional distribution centers close to our customers, increased MSA training centers from 3 to 12, roughly tripled our manufacturing capacity and launched 50 new products in just over 3 years. We're investing as a leader in fall protection should, with more to come.

Fall protection has been the Americas' fastest-growing product category for 3 years and counting. Our portfolio is completely transformed, and it's being recognized by our existing and potential customers. Jen McGurrin will provide more color on fall protection during her presentation. And with the V-Series harnesses and lanyards launching, we have great momentum in the market and are confident in our ability to continue to outpace the market and gain share into the future.

Another area where we have opportunity ahead is gas detection. This is where we have an opportunity to expand our addressable market and have through NPD and M&A. For example, we organically developed the ALTAIR io360 area monitor, which is launching in the coming months and provides a new market segment for MSA. Think of this as bridging the gap between portable gas detection and fixed gas detection. And we organically developed our safety IO cloud platform with solutions like live monitor and fleet manager.

On the M&A side, the acquisition of Sierra Monitor earlier in the year provides access into the industrial IoT market that's rapidly growing and provides key software advances and talent that are really helping us across our portfolio.

Generally speaking, the safety market is becoming more connected and solutions oriented. It's a trend we see continuing with the next generation of products. Gustavo Lopez will share more on this during his presentation.

And our X&S 5000 gas detector monitors are also driving growth in the detection market. These monitors use our highly differentiated Xcell sensors with TruCal technology. The customer-driven innovation will be something Aaron Tufts discusses later today. We have hundreds of thousands of points of detection around the world that currently use legacy MSA platforms. We see that as a replacement opportunity. But we're also gaining share because these sensors save our customers significant operating costs through their productivity gains. They can focus on their work, not worrying about calibrating their gas detection instruments. Year-to-date, we've seen 9% growth in gas detection for the Americas, which is outpacing our end markets, and it's a growth platform for us in the future.

We also have a strong position in Latin America. And as we analyze where the markets in MSA's greatest strengths align, Brazil and Mexico have -- stand out as key drivers for growth opportunities in the years to come for Latin America. We have manufacturing assets in both of these locations, strong brand equity, good channels and great talent, and we're winning in these markets. Our Latin American revenue growth is about 9% year-to-date. In the future, we'll be utilizing targeted elements referenced earlier to accelerate growth in Latin America, but we're also focused on further productivity gains, like implementing a shared service center starting in 2020 to enable profitable growth as we build greater scale across all of Latin America. These strategic emerging markets continue to place a heavier emphasis on safety and are another key element of the Americas' plan for growth in the coming years.

As you can see, we're excited about the Americas in the coming years. If we summarize, our portfolio is highly differentiated with long-cycle business in fixed gas detection. Our fire service business runs on a different demand curve than industrial. These different business cycles provide some balance for us in a potentially uncertain economy, and we feel we're well positioned to manage through that in the Americas segment and MSA overall.

Our segment cost structure is healthy, with SG&A at about 18% to 19% of sales, and we believe we can flex and respond quickly to economic trends as needed. So the incremental margins will be accretive to MSA with growth in this segment. Our growth programs focused on the U.S. and Canada will provide growth through share capture and addressable market expansion. And in Latin America, targeting our key initiatives on our 2 largest markets of Brazil and Mexico will help us continue to have scalable growth across the region.

Thank you. Ken?

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

Thank you, Steve. We'll have a Q&A session here after Bob Leenen finishes his section on international. But I just wanted to summarize as well from Steve. Steve's done an incredible job in the Americas. Steve and Eleni in North America and Canada. And they've done a nice job really repositioning this business. The incrementals are 35% or so. But the margins that they've been reporting at around 25% to 26%, we think there's tremendous upside there. We think with all of the innovations we're bringing to market in the fire service, some of the standards and the secular changes in fire safety as well as some of the things we're doing on gas detection are certainly exciting for us.

The fall protection number. When we look at the fall protection number and what we're doing with V-Series and how we're leveraging that acquisition from Latchways and some of the capacity that we got from the Latchways acquisition, combined with the innovations we're making, certainly provide us some upside as we think about the future, and it is part of the reason why we think about the U.S., Canada, but then also Mexico and Brazil are reasons we're pretty excited about the future for his segment. So great job, Steve, and thank you for that.

Before I turn it over here to Bob, I want to just make a few introductory comments for Bob. Bob has been with MSA from about 2012. He previously served as the CFO of the international regions before assuming his current role. He was here back in 2018 when we had our last Investor Day. So he's going to give you an update on some of the things we committed to in that discussion and then update you on the progress we're making towards those metrics, but also talk about some of the future opportunities that we have in some of his regions. So Bob?

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

Thank you, Ken. Let me start by refreshing the view on what the international segment covers as part of MSA. It is a very diverse region, covering all the geographies outside of the Americas, which means Europe, Middle East, Africa, India, Southeast Asia and China. It is also diverse in terms of how it breaks out into a mix of product groups and end users. This diversity has historically come with a degree of complexity that has resulted in subpar performance, and we are on a path to improve that, both in terms of revenue and profitability.

Compared with our last investor conference, our revenue trajectory has significantly improved, driven both by continued success in emerging markets and core product revenues in Europe shifting from decline in 2017, towards solid growth in 2018 and even higher in 2019.

We've also seen a nice step-up in our profitability profile, driven again by emerging markets, revenue growth and cost structure rationalization in Europe. While we have made good steps forward, it continues to be a tale of 2 stories within international. First of all, continued focus on the need for profitability expansion in Europe; and secondly, a focus on accelerating revenue growth in emerging markets, where our operating margins are already solid. Our progress on those 2 points, as well as our plans going forward, will be the main themes that I'll be focusing on as I talk you through the segment and lay out the outlook to generate approximately 25% incremental operating margins in international going forward.

As I said, the improved revenue and operating margin performance versus the last investor conference in a large part reflects the continued solid performance in emerging markets, while executing on key priorities for Europe mentioned last time when we were here. And I will share some more specifics around that in the coming slides.

Looking forward, there are 4 key programs which will drive our success. First, focused growth in strategic emerging markets; and secondly, 3 programs which are aligned very much with Europe, which is growth in select European markets, cost structure rationalization in Europe and price realization improvements.

The emerging markets business in international collectively represents roughly half of the international segment revenues, and we have a solid track record of success there, both in terms of above-average revenue growth as well as profitability, enabled by an efficient cost structure. Our priority in these markets is to further accelerate our revenue growth, and we will continue to make investments here, but with a strong focus on allocating our resources to those regions with the biggest opportunities for profitable growth, while leveraging our channels of distribution to serve other markets indirectly.

2 markets which particularly stand out for us are China and the Middle East. In China, we have a very strong leadership team in place with a long tenure with MSA, and MSA is recognized as a premium brand in the market. The ongoing industrialization of China, coupled with the transition of the fire service from a military to professional organization, both provide strong fundamental revenue growth drivers for MSA in China for years to come. And we are also well positioned there with a very well-run manufacturing facility and long-standing partnerships with the strongest PPE channel partners in the market.

In the Middle East, we've had great success growing our FGFD revenues enabled by the large local OGP market and have and will continue to make investments to strengthen that business, for instance by establishing a local assembly capability with a key partner of ours in Saudi Arabia, which will be up and running before year-end. This is a key enabler for us to continue our success with several extremely large local end users in that market. At the same time, we will continue to leverage our strong channel partner network and invest in commercial talent to gain more traction with driving end-user demand for our PPE products where we have considerable room to grow.

The same geographically targeted approach, which is working well for us in emerging markets, is also what we're increasingly applying to Europe. 80% of the European market opportunities concentrated in Germany, France, U.K. and the Nordics. And this is also where MSA has the strongest presence, both in terms of commercial and manufacturing capabilities. This is also where we are generating most of our profit in Europe. So this is where we will focus our revenue growth efforts, while increasingly leveraging our channels of distribution to serve other markets indirectly.

Let me expand on that last point a little bit longer. As was presented during our last investor conference, a key pillar for the success of international, both from a revenue growth perspective and from a profitability perspective, is our focus on channels optimization. With this, we mean focusing our go-to-market strategy on growth with a select number of channel partners with the right capabilities and geographic as well as end user coverage and building long-term relationships with them. This will give us the reach necessary to efficiently serve end-user customers across all of international, without the complexity of having supplied them directly and through our own local affiliates in many countries. Essentially, this involves replicating the model successfully deployed in North America 20-plus years ago in Europe. And I mentioned Europe, in particular, as we are much further advanced with this in our emerging markets regions already.

We have made solid progress in this area, and this has been a major driver of the performance improvements in Europe. To give some specifics, we are generating a solid 7% year-over-year revenue growth in core products in Europe year-to-date. This was 4% growth from full year '18 to '17 and 2% decline from full year '17 to '16. In other words, our core product revenue growth has significantly improved in Europe. As I had mentioned during our prior investor conference, getting Europe on track from a revenue growth perspective again was the first priority to improve profitability. And I believe we are firmly on track now.

Key to this improved momentum in core product revenue growth has been our channels optimization focus. Our core product group growth has largely been driven by revenue growth with our channel partners. And the share of revenues with channel partners versus direct with end users has increased from 60% of the European business to 70%. I expect that transition to continue and thereby continue to support core product revenue growth in Europe going forward. This transition is also what has enabled us to streamline our affiliate footprint to improve our cost structure in Europe. The affiliate footprint projects, which we've completed so far, generating roughly $2 million in recurring annual savings and they're encouraging and a major driver behind the cost structure improvements in our European P&L so far.

Just like we will continue to focus on channels optimization in Europe, we will also continue to focus on improving our cost structure. And it is encouraging to see the year-to-date progress on this with European SG&A dollars having declined 2% year-over-year. The main levers we are working on are as follows: First, as mentioned before, we will continue to streamline our affiliate footprint, enabled by channels optimization, and are executing against an explicitly defined road map to do so. Secondly, as we make progress with reducing complexity, such as by reducing our affiliate footprints, reducing the number of small customers, reducing SKUs, et cetera, we have taken and will continue to take steps to streamline our management structure to reduce costs and make us more agile. Third, earlier this year, we've communicated to the European organization our intention to migrate a substantial amount of back-office functions to a shared service center in Eastern Europe. This model is consistent with what we have already successfully implemented in Asia in the past 2 to 3 years as well as a long time ago already in North America.

While we did consider a more speedy implementation of this initiative, that would have been prohibitively expensive from a restructuring perspective, and we have consciously chosen the path of natural attrition instead. This means a slower, but steady path to realizing savings and a much better return on investment for our shareholders. It also means less distraction from serving our customers, and I'm, at the same time, encouraged by the progress we're already seeing in the past months in migrating headcount in Eastern Europe.

Fourth, the broader organization in Europe has also embraced the necessary productivity culture, by supporting a range of indirect spend initiatives to drive savings across the P&L, by improving controls on spending and generating increased purchasing savings all through the organization. And finally, we will soon conclude on plans for our manufacturing and warehouse and footprint in Europe. Similar to our shared services initiative, we are carefully considering the best path forward towards generating attractive returns for our shareholders.

The key takeaway here is that we have multiple levers for cost structure rationalization in Europe, which we are executing against across all lines of the P&L and have a healthy pipeline of opportunities for savings for 2020 and beyond.

Aside from driving profitable revenue growth in our target markets and further streamlining our cost structure, price realization is another key element to improving operating margins in international and, in particular, in Europe. MSA has a strong track record of price realization in the Americas, and the recent progress we've made in the emerging markets regions in international is also encouraging.

Our 2019 price realization dollars in international, overall, are substantially higher than they were -- substantially higher in 2019 versus what they were in 2018, driven primarily by improvements in emerging markets. However, frankly speaking, the progress in Europe in this area has been an area of disappointment, which is impacting our 2019 operating margin performance. This is a top priority for the European team. And we're also getting support from an outside consultant, specialized in this area, to help us improve line of sight on all the opportunity areas.

I'm confident we will tackle the potential for improvement here for several reasons. First of all, we have a comprehensive plan to address this with each topic mapped out with detailed actions along the lines of the major buckets mentioned on this slide. Second, the vast majority of the opportunities in this area are directly in our control and largely revolve around improving discipline and eliminating leakages within our own organization and processes. And finally, the progress we've made in emerging markets also confirms our ability to improve this -- in this area in Europe. I should add that the implementation of our next price increase to take effect January 1, 2020, is fully on track across all of international.

To wrap things up, international covers diverse markets and is well positioned to support MSA's mid-single-digit revenue growth objectives by focusing on our largest, most profitable geographic revenue growth opportunities, especially emerging markets, where we already have solid levels of profitability, but we have also put Europe back on a solid core product revenue growth trajectory in the past 2 years.

As you were able to take away from our recent Q3 earnings call, our cost structure in Europe is also moving in the right direction, and there's still plenty of runway left to improve there in the coming years.

Price realization is another key lever we're increasingly focused on, and our experience in the Americas as well as very encouraging improvements in emerging markets confirms this is a major opportunity for Europe which is getting a lot of attention. As a result, the key takeaway is that we continue to stay focused on our multiyear journey of operating margin expense in international, consistent with the approximately 25% incremental operating margins I had mentioned at the start of this presentation.

And to conclude, I can say the belief within the international team and the potential for this segment to contribute to increasing shareholder value has never been stronger and so is the sense of urgency to deliver on the 4 major programs mentioned earlier to make that possible. Thank you very much.

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

Just a few comments on Bob's area. I think Bob is doing a really good job at improving that business. But we're not done. We've consistently communicated that this is a multiyear journey. And you're not going to see improvement each and every year at the same level, but you will see improvement, and that's what we've committed to. And we think we can continue to do that. It's great to see the 7% growth, just saying the core growth coming in at about 7% in that segment. But what's really good to see is a return on restructuring dollars. When we look at the returns, they're quite compelling. You've got 2% reduction in SG&A this year, year-to-date on 2% revenue growth. And so we continue to pare back. We continue to streamline. And we continue to focus our business in on the areas that we see the biggest opportunities. I think Bob had mentioned an incremental margin profile in the mid-20 range. We think we have the right to move towards that.

Granted, structurally, the business is completely different in Europe than it is in the Americas, but there's opportunities. There's tremendous opportunities on the gross margin line, on the channels, on the SG&A. And I think Bob has done a really nice job and the team are doing a really nice job at executing towards that.

So I'll ask Nish to join me here at the front. We can take any questions that you might have at this point before taking a short break and then rolling into the product side of this discussion.

QUESTIONS AND ANSWERS

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

Larry? Larry, if you could just state your name first and where you're from. That way, the transcripts will recognize who's asking the question.

Lawrence Tighe De Maria - *William Blair & Company L.L.C., Research Division - Co-Group Head of Global Industrial Infrastructure*

Sure. It's Larry De Maria, William Blair. A couple of things. First, fall protection. Obviously, you're #3 there, and you've highlighted that as an opportunity. Just curious what the competitive landscape is like? What's the opportunity for consolidating that industry is like? I assume that's a large part of how you plan in growing there? Or if there's organic opportunities in just expanding your core?

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

So yes, Larry, there's a combination of the 2. So there's opportunity from an organic standpoint, as we're exhibiting this year, right? So we have strong growth from an organic standpoint and our R&D investment. We've overinvested in fall protection, because we see a significant opportunity to gain some share and grow with that business, and we've been executing. Steve mentioned we introduced 50 products over a 3-year period. And as you've seen, our growth has been quite nice. And so last year, overall, we grew about 13%. This year, we're up over 20% organic growth. And we think we can continue with the solid trend line with organic investment and then certainly supplement that or accelerate that with some opportunities within organic and acquisition. It's still a fairly fragmented market and there are some opportunities out there that we continue to investigate from an inorganic standpoint and some of those inorganic opportunities could certainly extend our product line. So we think there's plenty of runway there. We're a distant #3 player in the market, and we think we have significant room to run as far as market share growth is concerned.

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

Larry, we see the top 2 or 3 players making up about half of the market. And so you've got about half of the market that remains relatively fragmented and there's an opportunity for us. But I would agree with Nish, there's nothing like returns on R&D, and that's exactly what we're seeing. We're deploying R&D, coupled with the acquisition we made with Latchways that gave us some capacity. But the R&D engine, and not only what we've launched, but things that we have on the horizon are certainly exciting and when we think about that market.

Lawrence Tighe De Maria - *William Blair & Company L.L.C., Research Division - Co-Group Head of Global Industrial Infrastructure*

And second question, if I can. Obviously, I understand what you're trying to do in Europe, the attrition, be the channel optimization, et cetera. But what about the manufacturing footprint and there's other larger structural, let's say, restructuring you can do, maybe it's pushed out but ...?

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

Yes, there certainly is. We have a track record of looking at our operations. We look at it each and every year and challenge our footprint. We've done a nice job at reducing our footprint over time. But we've talked also about the opportunities to continue to refine and optimize that footprint. And so we are very active in evaluating opportunities across the manufacturing footprint here in the U.S. but also abroad. And so we certainly are taking a close look at that and challenging ourselves. Now one benefit we do have with our footprint is we do a lot of local manufacturing. So there's a lot of local standards, local manufacturing, and that certainly helps us when we're dealing with the geopolitical risk that we're dealing with today. But with that said, we're also very mindful and challenging ourself around all of our plants and really challenging that footprint on an ongoing basis. So stay tuned on that front. But that's certainly something that is on our radar.

Robert W. Mason - *Robert W. Baird & Co. Incorporated, Research Division - Associate*

It's Rob Mason with Baird. Back on international, again. Just on the channel optimization strategy. I think in conversations, Nish, you've referenced maybe you're 50% of the way through that process. What remains on the other 50% -- what is the remaining 50%? What does that consist of? Do you need more channel partners? Do you need deeper penetration with the existing channel partners in it? Are there any regions in particular where that still needs to be built out, especially?

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

Yes, throughout Europe. We could use deeper relations with some of the channel partners we have. We have some pretty darn good channel partners in place, and that was the work that we've done over the last couple of years. If you were to break it down to a baseball game, we're in the fourth or fifth inning of what we're doing from a channel optimization standpoint. We've made a lot of progress with our sales organization and really retraining them, so to speak, in how to work with channels of distribution. The first 25 years of my career was spent in the sales organization, and we went from a direct to indirect sales strategy, while I was a salesperson became regional manager, national sales manager. And one of the things we learned is you really have to equip your sales force to approach the market differently when you go from a direct to an indirect channel, a selling strategy. And so we've done that over the last couple of years in working with our sales teams. We've developed some relationships with some key channel partners within the European market. And those relationships are really taking hold, and we're gaining some headwind there, where they're seeing us as a trusted partner to work with where we could bring some value to them and grow -- to help grow their business. So that takes some time. So we're about halfway through. We think it's more about deeper relations with those channel partners. And in some cases, finding new channels of distribution. Some of those emerging channels. I look at channels of distribution where you grow and you prune and you grow and you prune your channels of distribution because those customers focus change through time, and we need to change along with that. So really happy with the progress we're making. Bob had some really good statistics and data around it. We're seeing some real strong growth in our core product areas within Europe. When you look at our core product areas and our sales through those channels of distribution, we're making some real good headway there. And we've got some good leadership. We've done it successfully in North America and all of the Americas are helping us to do that in Europe. So I think we've got some good progress going on there.

Robert W. Mason - *Robert W. Baird & Co. Incorporated, Research Division - Associate*

And maybe just to follow up. You referenced tightening your focus on maybe the 80% of the market in Europe. What happens -- one, is that necessarily new this year as we go forward? Or has that been ongoing? And then 2, what happens? Or how should we think about the other 20% of your sales in Europe, if that's the right way to think about it? And where those sales should go?

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

Right. So when you look at Europe, Europe, we have about 80% of our revenue going through 4 key geographical areas, right? The U.K., Germany, France and the Nordics. So those 4 areas represent about 80% of our business. And we have really strong brand, a really good presence, manufacturing capabilities in those 4 geographies. When you get into those other geographies, that's where we're not quite as strong. And we can -- we think through alternative channels of distributions and ways to reach the market, we can continue that business and pick our pockets where we might want to grow in some of those other geographies. But boy, if we really double down and focus on those core geographies where we have strength, we think we have some room to run. I -- that's akin to something that we did in the Americas where we had small channels of distribution, those under $50,000 distributors. We went through a very specific strategy in working with wholesalers. And having wholesalers and the distribution network in North America pick those distributors up, and we've really focused on the bigger distributors in the North American market, and we grew our business quite nicely, and it was profitable. And so that's part of our thinking as we go forward in the European market is we can really penetrate those markets more effectively, where we have some good strength, good brand and build on our capabilities today.

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

But we don't expect to abandon the business, right? So we do have a really good business in certain areas that we didn't talk about. And so in Southern Europe, we have a pretty healthy business in other parts of Europe. So we -- we're looking at how we continue -- how we can optimize that, how do we go-to-market with a more efficient model as opposed to relying on the bricks-and-mortar that we've relied upon in the past. And so we've got a standardized ERP across those geographies that we can leverage. So it's about how do we leverage the channel more effectively. Nish and I have talked a number of times and there were times where we looked at growth opportunities in Canada. And instead of using a new salesperson to drive demand, we looked at using our channel to drive the demand. And so that's kind of what we're looking to do when we think about the European business organization.

Garo Norian - *Palisade Capital Management LLC - SVP of Research*

Garo Norian, Palisade Capital. Question on margins. I guess, 2 related questions. First, I think you highlighted a top quartile in kind of the peer group that you look at is just 24%. I wasn't sure if the implication was that, that's a goal for you guys and over kind of a certain amount of time frame? And then kind of relatedly, as you're looking at the improvement plan for margins, what does that do to how you think about the M&A opportunity set? Are you willing to acquire businesses that might be margin dilutive to where you are over time?

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

So when we look at the business over time, certainly, 24% is not a target I'm setting for this business next year or the year after, but it's an aspiration. And so when we look at our incremental margin profile that's consistently been in that 30% to 40% range, we feel like we've got great opportunities to move towards that type of performance. And I think you will. I think that Nish and I and the entire team is responsible and accountable, that we will continue to restructure this business and challenge ourselves to get us into that higher performance level. So I think over time, we have the opportunity to migrate towards that.

When we look at acquisitions, it's really about return on invested capital. And so when we look at the acquisitions that we've made historically, we've done a really nice job at deploying capital and seeing accelerated returns. And so certainly have those challenges, but there's a lot of companies that are in that top quartile business or area that continue to acquire businesses. There might be a little bit lower margin profile, but the return on invested capital makes sense. So when we look at the ROIC on some of our deals, we're certainly being very responsible and focused on leveraging that business and returning in excess of cost of capital by year 3 and out to year 5. If it was a really big strategic deal, you certainly would be willing to go out to that level, but we'd like to be around 3 years on hurdling that cost to capital. So that's kind of how we think about it. They don't -- and it doesn't inhibit our ability to grow the business.

Adi Padva - *Brown Investment Advisory & Trust Co. - Equity Research Analyst*

Adi Padva from Brown Advisory. A question on demand. How much of your demand is driven by customers wanting the best technology, the newest product versus how much of it is dictated by external factors such as standard committees, et cetera?

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

So that varies across the product line, right? So when you introduce a product like the X&S 5000 transmitter, that's winning some market share, clearly. And then it's also -- you have some customers who are identifying where they're able to reduce their operating expenses, and Aaron Tufts will have a very specific example of that as -- when he comes up and presents a little bit later today. And that specific customer is looking at replacing all of their devices with the new S5000 device. So through innovation, we can create demand for ourselves. The H1 helmet that's in front of you, we believe that, that will create some demand in the marketplace for customers to convert over from V-Gards. In some specific application areas, we think that we can generate some demand, but to put an exact number on that is kind of difficult. When you introduce a new NFPA standard device, which is every 5 years, you get some departments that might be 2 standards behind that look to upgrade to that. But certainly, innovation does drive growth in our market. And we think that there's some significant opportunity there, especially when we exhibit the products drive higher compliance or safety for the worker. And we think that right here, this product here on our new fall protection product lines that -- with the V-Series of our fall protection products, that will drive some conversion, and some customers will step up into that product because of the fact that it's lighter weight and allows for more freedom of movement. And Jen will talk about some of those features. And so some of the innovation does create some nice opportunity for us for growth.

Stanley Stoker Elliott - *Stifel, Nicolaus & Company, Incorporated, Research Division - VP & Analyst*

Stanley Elliott with Stifel. Quick question when you think about -- in the past, it was kind of the fire business, then there's almost everything else. And then today, you're highlighting you have the industrial piece, the gas detection and then also the fire piece. Is the thought process behind M&A to further penetrate within that $8 billion to $9 billion market that you're talking about? Or are there other safety applications within the realm where you could even go adjacent to that and become a bigger player in a larger subset?

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

Sure, Stanley. So it all starts with our mission, right? Everything goes back to our mission. And our mission is all about protecting people, protecting people at work in high-risk areas. So certainly, we'll step outside of what we've had, have in the past, defined as core products, right? So core products did not include turnout gear for firefighters. And now it does. We identified that as within a market area. So the fire service market is right in the sweet spot of a market we really understand. We have great penetration into that market. And we thought we could extend our product portfolio into the turnout gear piece of the fire service market, and that's worked out quite well for us because we leverage that with our channels of distribution and then also expand the channels of distribution for our other products. And we're taking that view of our product portfolio in the markets we serve to look at other opportunities in our pipeline for acquisition. So certainly, we'll step outside of our core product areas into some other areas. And along the way, we just really look to diversify our portfolio to bring balance. In the past, our revenue was driven by episodic events. So the fire service was -- post 9/11, the fire service market became very strong for us, along with gas mask business and ballistic helmet business. And that business went away kind of quickly. And so we learned a lesson from that, that we really need to further diversify our business to insulate ourselves from that type of situation. And that's why you see the investment in fall protection. The fall protection business is a good, steady business, where you get a lot of small orders for harnesses and lanyards and other products throughout the year. And it's a real nice piece when you're growing your market share. Much the same with turnout gear. Turnout gear for firefighters. Our average order size is 4 to 6 sets of turnout gear, and that business is pretty much spread out over 4 quarters fairly evenly as opposed to seasonality. We get some seasonality with our head protection business. So we look to balance the portfolio out with that stableness of business in some different markets and some different areas. We look at the geographies also where we can enhance our position and that really benefiting us back in 2015. When that oil and gas market tanked, we saw certain products decline significantly. Head protection declined, portable gas detection was in somewhat of a decline. But the beauty was the fire service products filled that void from a revenue standpoint, and the fixed gas and flame detection business was fairly stable through the front end of that. So we look for that diversification in our portfolio to make sure we can balance ourselves out as we go through the different economic cycles.

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

What we've done when we look at the -- any deal, we always ask ourself 3 questions and 3 areas of focus. It's the product, it's the channel and it's the talent. And so when we look at a deal, we ask ourselves, does this do something on our product side? Does it accelerate something on our road map, like Sierra did? When we look at the channel, we look at it, and we ask ourself, is this an opportunity to become more meaningful in the channel and leverage our channel? Globe did that. Globe is certainly not a core product to us and turnout gear wasn't. But when we looked at the channel, we looked at fire service, we said, "This is a great opportunity to provide the customer with a complete portfolio of products." And then talent. Aaron Tuffs we'll see here in a bit, joined us from General Monitors, the acquisition of General Monitors. We've got a number of other individuals that we've been able to pick up along the way. And so that talent piece is incredibly important to us. And so that -- those -- that view allows us to expand, but stay true to the safety mission. And so that's how I think we'll continue to execute on the M&A front.

Well, seeing we now have no further questions at this point, why don't we take a brief break while we can queue the video up and then turn it over to Greg Martin here to start to walk through our growth platforms.

(Break)

PRESENTATION

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

I am glad everybody in the room is able to enjoy some of the demos. It is great to see the excitement around some of the products and what we're bringing to market. And speaking of some of those new products, we have got Greg Martin here who is going to be joining me at the podium here shortly. Greg heads up our new product development area. And we pride ourselves on superior product innovation and Greg is really the driver behind that. Greg has been with the company for a number of years and joined the company just around the same time that I did, back in 2005-2006 time period. And Greg has grown through the organization. Greg was incredibly important part of our sensor development. I remember putting together project approvals and support for our sensor technologies back in 2007 and 2008. It's hard to believe how fast the time goes, and he was really an early believer in a lot of those technologies and really spearheaded a lot of those efforts. He's an electrical engineer, he got his MBA, and he's going to introduce some of the ways we think about new product development. And the approach we're taking there before we go even deeper into the organization and showcase some of our talent and some of our products.

So Greg Martin.

Gregory L. Martin - *MSA Safety Incorporated - VP of Product Strategy & Development*

Good afternoon, everyone. So thank you, Ken, and -- Nish and Ken actually let me out of the office today. So I'm very happy to be here.

So I'm going to speak to you about something I'm really, really passionate about, and that's new product development, innovation and safety. Product innovation at MSA is about using both technology and design to simplify safety for our customers, so it becomes an ingrained behavior and allows them to focus on the job at hand, and it's working. With more than 35% product vitality and 5% organic revenue growth in 2019 through Q3, our customers are recognizing and paying for the value that we are bringing to the market.

Great product design, paired with simplified, enabling technology means workers can have approved situational awareness and make quicker decisions with protective equipment that they feel proud and comfortable wearing.

Safety is all we do at MSA, and this allows us to be very much in touch with our customers. We use this insight to create intuitive, differentiated and patented ways to make behavior-based safety easier than ever for our customers. In this section, we'll provide a look into some of our latest innovations in sensor technology, personal protective equipment and connected products across industrial and fire service market.

Deeply understanding how our customers do their job is the first step to a great design. Our product development starts and ends with our customers. How we keep them safe, save them time, help them gain efficiency or simplify their safety program. Our deep understanding of safety also better equips us to navigate this dynamic and highly regulated market where safety standards are evolving or being created almost continuously. This understanding, when combined with our significant IP being generated, provides a very defensible position for continued profitable growth for MSA.

In recent years, there are many examples of where we're creating a sustainable competitive advantage through innovation. When MSA launched the integrated thermal imaging camera or the iTIC into the G1 SCBA platform, we want to make sure that this life-saving technology was available to every firefighter and not just one per team.

This new-to-world integration of technology provides additional value to our customers, helps increase safety and expand MSA's addressable market. Within fixed gas detection, much of the cost of ownership is after the initial product purchase. With the 5,000 series of fixed gas monitors, which you can see right over here around the corner, we really wanted to focus on how to increase uptime and safety while improving expenses associated with ownership. And those aren't necessarily expenses that a customer might be paying to us, that's their own expenses. So it becomes a win-win situation as customers are willing to pay a premium upfront based on obvious back end efficiency gains. Aaron Tufts will walk you through a very specific example from one of our customers and explain how this works for them.

More impactful fresher, faster product development cycles can only be made possible with changes to how we operate. Continuous improvement is the rule of the game. When I first took the position in charge of R&D at MSA, one of the first positions I created, the person is actually here in the back, Carrie DuMars, is our manager of new product development acceleration. And that position is really about how we do new product development, what technology we use to help us develop products and how quickly we can change as the market needs change, and so Carrie is really driving that.

An example of our commitment to how we're driving efficiency is the amount of engineering spend that we've thoughtfully transitioned from older product sustaining efforts to core new product R&D. Through Q3, we have already been able to shift nearly $2 million directly to new core product development. And of course, R&D innovation and efficiency is most dependent on talent. We are very proud of the success of our high-performance culture initiative aimed at attracting and retaining creative product developers who not only have the critical skill sets that we need today, but are capable of adapting quickly to the changes and challenges that we'll face in the future.

In recent years, we've needed to shift the makeup of our engineering workforce as our products have become more technologically advanced and connected. As an example, since 2015, the number of software developers at MSA has doubled. At that same time, we've been able to maintain our overall headcount in R&D and the software program now makes up more than 20% of our R&D workforce. While we have many programs to attract top talent, our #1 recruitment tool continues to be our shared mission and purpose.

I would also like to take a minute to talk to you about our human centered design and user experience initiative. We really decided to lean in on this area of product look and usability as it's often the difference between an average product and a great product. You can see this product here, our V-FLEX harness. It was one of the cornerstones of the development of the V-FLEX harness and our whole reimagined line of fall protection. And while there's often some added upfront effort, typically optimized designs will reduce costs while adding value to the customer and improving overall profitability.

Overall, new product development is a core component to the MSA growth engine, and we are focused on accelerating the pace of innovation. And that acceleration is already paying dividends. Alone -- in 2019 alone, we will launch more than 20 discrete fall protection products, including the much anticipated line of V-Series harnesses. These harnesses bring unique value to the market while covering multiple applications and price points.

Also launched in 2019 is our V-Gard H1 Safety Helmet, which Nish referenced and many of you have sitting right in front of you. Leveraging the iconic V-Gard brand, the H1 helmet is the latest in MSA's full line of high-performance head protection.

Also at the forefront of what we're doing to help drive safety first behavior is our safety io Software as a Service platform, which Matt can demonstrate over here to the right.

Currently covering portable gas detection, live monitoring and fleet management, new services are filling our development pipeline. Jason Traynor will be up here in a few minutes to talk about how we're going to begin leveraging that same platform within the fire service.

Also, we will be launching our ALTAIR io360 gas monitor very soon. It's a rugged high-performance connected device with the simple usability of a smart home product, and it bridges the gap between a portable and a fixed gas detector, which expands MSA's addressable market.

At MSA, we've established a track record of listening to our customers, launching innovative new products, growing revenue and expanding our margin profile, benefiting both safety market and our shareholders. And our future is very bright.

We're designing in the ability to improve and upgrade many of our core product platforms with feature releases made possible through connectivity and modularity. This provides customers access to the newest technologies and shortens buying cycles.

Our M1 SCBA, for example, the M stands for modularity. It's designed to be build up to cover evolving customer budgets and needs or as new technology becomes available. Some innovations, such as LUNAR, are a completely new category. LUNAR can be used independently or seamlessly integrated into MSA's ecosystem, which incrementally increases the size of the market and provide share gain opportunities for MSA.

Another way to increase the size of the market is to offer new capabilities. As technology is finally making mass personalization possible and profitable, MSA is offering the ability for customers to add names, titles, units or other identifiers to a helmet for an upcharge. And some technology enhancements take years of development, such as the new diffusion supervision upgrade on the 5,000 series of fixed gas monitors, but are absolutely worth the time and dedication. When Aaron Tufts comes up here, he'll walk you through an example of how this innovation both helps us protect existing customer real estate while penetrating our competitive accounts.

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

Thanks, Greg, and hopefully, from that insightful -- it's incredible how many patents we have out there and all the work we're doing to really disrupt the safety market.

With that, I'll introduce Aaron Tufts. Aaron joined us, as I had indicated earlier, from the General Monitors acquisition a few years back. He's a chemical engineer by trade, but he currently heads up all of our global sales effort for our FGFD business, and he'll provide a bit of a view and a case study around some of the innovation we're driving in that area. The innovation around our sensor technology and how that's continuing to help our customers go-to-market and do their jobs even more efficiently, but also in a very safe manner.

And so with that, I'll turn it over to Aaron Tufts.

Aaron Tufts - *MSA Safety Incorporated - Business Leader Fixed Gas and Flame Detection*

Thank you, Ken. I'm going to give you a brief example about how we disrupted a well-established market through innovation. As Ken mentioned, I'm a chemical engineer by degree, and this is really, really techy and the science is amazingly complicated, but I'll keep it as simple as possible, I promise.

When oil and gas come out of the ground, they're often accompanied by hydrogen sulfide, also known as H2S. Thank you.

H2S is very dangerous to humans. As a result, permanently mounted detectors are installed to provide safety at the job sites. Now traditionally, these sensors have been really good at detecting H2S, but they weren't able to communicate that they were losing sensitivity due to age or environmental conditions or that they had reached the end of their life. They also had no way of knowing if something blocked the inlet to the sensor and created an obstruction which would not allow H2S to be detected. Our customers and manufacturers are well aware of these limitations and therefore, recommended a calibration be performed, which entails a technician going to the detector and applying a very small amount of H2S to confirm functionality. This was typically done every 90 days. Some end users were even more conservative and did this every 30 days. This obviously is not efficient.

It's manageable, if you only have a few detectors. But if you have hundreds or thousands of these devices, you're talking about teams of technicians and fleets of trucks, which quickly become extremely expensive and time-consuming.

So we began the process of designing a new detector by literally revisiting customers around the world and asking them probing questions to find out what issues they have with their current devices. The trick is interpreting their pain points and converting them into tangible solutions. For instance, customers feared the process of changing out their existing detectors because they'd have to pay a contractor to fabricate a new mount. This is a big deal because we have hundreds of thousands of legacy detectors installed around the world. And they are often installed in extremely remote and hard to reach installations. Customers in Western Canada hated having to get out of their truck to check their H2S because it was minus 40 degrees outside. I get it.

But the universal pain point was the hydrogen sulfide detectors required significant maintenance, which keeps them away from other productive tasks. Our customers are being asked to do more with less every day, so anything MSA could do to boost their productivity was desirable. And that's when it dawned on us: this isn't just a safety innovation, it's a productivity solution.

So we developed and launched the X and S5000 gas detectors with what we call TruCal. We also include several small innovations that add to the customer experience when using our products, like extremely bright LEDs, so customers can stay in their company truck. We made it completely backwards compatible, so that they're easy to install in the same exact mount as previous generations. But the real innovation is that it checks the sensor multiple times a day and is able to communicate several vital pieces of information. They can say, "I'm currently operating correctly." They can say, "I need a small change in sensitivity," which it does. They can say, "I need calibrated, please send the technician with a bottle of gas." They can say, "I've reached the end of my life, please replace my sensor," or it can say, "the inlet to my sensor is blocked, and I cannot detect any potential leaks." This ability is what we call TruCal, and when Nish talks about disruptive technology, this is it. All of these features are revolutionary in the industry.

Right now depending on your geography and climate, the X and S5000 will request a calibration 18 to 24 months after initial installation. So think about that for a second. The customer is used to going to each device every 90 days, and now we are proposing they allow the detector to tell them when calibration is required. Honestly, this has been such a huge improvement that it's been a bit of a shock to the system. But once we educate them on the benefits and explain the potential savings, they understand that now there's an answer, backed by technology and patents, that could help make them more productive. The bottom line is, this is a no-brainer for our customers. This technology resonates with end users. I was in sales like Nish for many, many years, and I know there's no such thing as an easy sale. This is pretty darn close.

The MSA detectors check themselves and provide added assurances that they're operating correctly or they will tell you they need attention. It's that simple, but it certainly wasn't easy. It took a significant R&D effort to create this technology, and it is protected via multiple patents. And these savings have been identified by our customers. We have a large customer that has over 30,000 devices installed in their H2S rich oil and gas fields across many continents in multiple locations. By their estimation, if they can extend their maintenance interval to 12 months, it will result in operational savings of more than $5 million every year.

Productivity gains will hold true for every customer who chooses the X or S detector for their hydrogen sulfide detection needs, and innovation was the key to enabling this opportunity. It wasn't easy, but it is simple.

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

Thank you, Aaron. It's great to have that deep dive into that case study. We're going to transition into fall protection. Jen McGurrin here is here with me today. Jen has been with MSA for -- since 2017. She actually demonstrated some of the products in our last Investor Day in March 2018. And she's been responsible for the global fall and industrial head protection. Anne Osbourn is also here in the room today, too. Anne works closely with Jen McGurrin. She's actually managing the virtual reality, fall protection showcase in the back, but she's also a really vital component to the team, and especially in North America where we're seeing such strong results. But I'm going to turn it over to Jen. Jen has her MBA from Carnegie Mellon University. She's got a tremendous amount of experience in consumer goods, and she's brought a breath of fresh air to this portfolio. I think she's doing a really nice job at bringing a lot of new products to market, and positioning those products for success in our markets and growing our share position. So Jen?

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

Thanks, Ken. I'd like to start by highlighting the opportunity to increase compliance in fall protection. There are 4.5 million workplace injuries each year in the U.S. and falls continue to be the #1 OSHA violation and the leading cause of death in the construction industry.

Compliance in fall protection is relatively lower than other safety products. Hard hats are ubiquitous, but fall protection is not. The next time you walk by a construction site, take a look at the workers on site. I think you'll see all of them wearing hard hats, but look at workers at height and notice if they're tied off with personal protective equipment. I think you'll find that they all are not.

NIOSH, the National Institute for Occupational Safety and Health, reports that almost 60% of construction worker fall-related deaths do not involve the use of proper PPE. There is a tremendous opportunity to increase compliance to prevent injuries and deaths and increase productivity, and that opportunity is reflected in market growth. The $2 billion fall protection market is one of the fastest-growing areas of safety, with expected growth in the mid-single digits. With over 10% annual growth in R&D investment, we are investing disproportionately in fall protection to bring better solutions that help safety managers increase compliance, which will decrease injuries and save lives.

As we develop new products, we are focused on 3 customer needs that drive compliance. Comfort, if it doesn't bother me, I'm more likely to wear it; style, if I look good, I'm more likely to wear it; and ease of use, if I know how to use the product, I'm more likely to use it. These needs are universal and apply to both fall protection and industrial head protection. As we develop new products, we're focused on creating competitive advantage by incorporating proprietary features into our products to create unique benefits for customers, benefits that customers are willing to pay more for.

We are able to drive price realization and to deepen engagement with customers with premium products like the V-Gard H1 and with added features like personalization, which is a unique offering by MSA.

I'd like to highlight 2 of our recent launches and how we're bringing unique solutions to the market in both fall protection and industrial head protection. In 2018, we launched the first harness in our completely new V-Series portfolio of harnesses and lanyards. The V-FLEX harness is a premium harness focused on comfort. Almost all harness manufacturers talk about comfort, but we are delivering on comfort in unique ways. We set out to design a harness that is so comfortable that you forget you're wearing it.

As Greg mentioned, we are pursuing proprietary designs to differentiate from competition. We have 12 patents pending on the V-FLEX harness, including the RaceFLEX buckle, which makes the harness easier to put on. The racing style design with its athletic cut allows for much more mobility than a traditional harness. With a modern look and feel and updated V-Series branding, we also hit the mark on style, which we know is an unmet need in our industry, particularly with younger workers.

We recently launched the V-Gard H1 Safety helmet, which will be marketed globally. While we expect the standard V-Gard to continue to be the prevailing market solution, the H1, which is offered at a significantly higher price point is appealing to a subset of industrial workers who prefer this style, and the H1 is ideal for specific applications, such as work at heights.

With decades of experience in designing helmets and as the market leader in industrial helmets, MSA is uniquely positioned to meet the needs of customers looking for this style of helmet. We have built in proprietary features into the H1 with no contact foam to lessen heat stress and a pivoting suspension to enhance stability, the H1 is taking comfort to a new level. And importantly, we made the helmet much easier to use than competitive helmets. Our patent-pending push-button accessory attachment makes adding and removing accessories intuitive and quick. We do not require special adapters or tools like some of the competition.

As we look forward, we're continuing our focus on customer needs of comfort, style and ease of use as we develop products in a robust pipeline. We're leveraging technology to address unmet needs in unique ways. In the comfort space, we're tackling heat stress with cooling technology and working on light-weighting our products as workers tell us that when carrying PPE on their body, every ounce matters. We are continually working to make our products easier to use by simplifying product selection and usage and by developing enhanced tools to track inventory and monitor compliance.

I'm excited about the future opportunity and MSA's role in keeping workers safe.

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

So we're going to be transitioning into connectivity. Thank you, Jen, for the comments. And it's incredible to see how comfortable, how easy to use our products are and the competitive advantage we're driving in the fall protection area as well as in the head protection area. Oftentimes look at head protection and people question the competitive advantage we have there, and we're seeing really nice results, especially with that new H1 product that's on the table in front of you. So we're excited about that launch that's coming.

So with that, we're going to transition into a connectivity video. But before we do that, I'll introduce Gustavo Lopez and Jason Traynor. Gustavo heads up our connectivity area associated with gas detection, safety io, which we're showcasing over here to my right. He's responsible for leading that business. In addition, he's leading the efforts around integrating Sierra monitors into our business. So the connectivity side of Sierra monitors coupled with what we're doing on Sierra, you can clearly see how they fit. And the acquisition, the integration is going really well. Gustavo has been with us going back 10-plus years. Also really a critical part of the sensor development efforts around XCell sensors with Greg early on. Gustavo has his computer engineering degree as well as an engineering degree from the University of Pittsburgh. He has his Masters, MBA from Carnegie Mellon.

Jason Traynor is responsible for connectivity around the firefighter. And so he heads up a lot of our fire safety products and fire service products, and he's responsible for all we're doing around LUNAR and all the efforts around connectivity.

And so we'll transition now to a video, which really leverages and shows what we're doing to leverage the connectivity features in both ends of our market, the industrial market as well as the fire service market. So I'd ask those in the video room to go ahead and queue the video.

(presentation)

Gustavo Lopez - *MSA Safety Incorporated - General Manager, Portable Gas Detection, Safety io and Sierra Monitor Integration Leader*

Thanks, Ken. So as you see from the video, the industrial market is evolving along with our customer needs. We're addressing these needs through our connected ecosystem. The first component that we focused our platform and investment on is on connecting devices to the cloud. Our approach is to ensure that this process is as seamless as connecting your Smart Home products, thus simplifying a tremendously complex industrial environment. Since most industrial settings have little standardization and have grown over time, we're also looking to leverage unique technologies like that of Sierra Monitors Industrial IoT gateways to provide us the flexibility to connect to both new and existing infrastructure.

This allows them to say, to capture a large portion of the market as well as percent expansion opportunities in the future. Once connected, our safety io cloud platform is focused on delivering value to our customers. And this platform aims to drive better awareness and efficiencies for our customers by helping them manage 3 critical parts of their day-to-day activities: First, we're helping them manage their products. So imagine a refinery with hundreds or thousands of gas detection assets that require management not only to internal practices, but also to comply with regulations. Our system automates this and provides reports that arm our customers with insights to more efficiently handle maintenance and inventory management, thus increasing uptime.

Secondly, we're helping our customers manage their people. In a non-connected industrial setting, a safety manager may not be aware of a potentially hazardous situation in the field. Through our connected ecosystem, we can now provide alerts over-the-air to quickly identify and address the situations down to the worker and their location. And lastly, we can use all their information to help our customers better manage their processes. Not only does this support the trend of moving to digital workflows, but through our analysis layers, customer can now isolate weak points within their safety programs, improving compliance and behavior-based safety.

Simplifying safety through connect technology presents many growth opportunities for MSA, as we support our customers' transformation towards industry 4.0. Simply put, we're redefining the possibilities and creating new categories in the industrial safety space.

Which brings me to our latest innovation and new-to-the-market technology, the ALTAIR io360. It's a product that's going to redefine the transportable gas detection category. This connected gas detector, which we expect to launch in the coming months, really bridges the gap between a portable and a fixed gas detector, allowing customers to quickly deploy gas detection for applications such as perimeter monitoring and compliance spaces.

Amongst some of its unique capabilities are the ease of quickly deploying a system. Our engineering team worked tirelessly to ensure that this experience is as simple and intuitive as any smart home product, taking seconds to set up as opposed to hours. There is 0 IT skill required. We did the hard work so that our customers would not have to.

Backed by MSA's world-class sensing technology, the io360 brings unparalleled performance to this area of the market. Through our continued investment in technology, we were able to greatly reduce the power consumption of our sensors, resulting in months of battery life for this product. This innovation, which has various patents filed, gives the io360 a big advantage versus competitive solutions as its battery of 60 days is an order of magnitude better than comparable systems.

So let me give you an example of the value to our customers. Whether in a turnaround or shutdown that may last week or months, our customers will install or deploy temporary gas detection systems. With current technology, a technician or worker has to visually inspect these gas detectors and replace batteries as often as daily. With a 60-day run time and connectivity being completely integrated, customers simply deploy these detectors throughout the facility and monitor them remotely through our cloud platform. Minimal maintenance or oversight is required.

All this technology is also packed in a small form factor that is easy to carry and fits in your hand, allowing customers to quickly deploy large systems. While this market segment is still developing, so we're measured with the adoption rate of the technology, sales of the io360 will be completely incremental to MSA as we're expanding our addressable market.

We're very proud to have been protecting workers and work sites over the last 100 years. I will now look forward to embarking on a new wave of solutions that will redefine connected workers and work sites.

And with that in mind, I'll hand it over to Jason, who will walk us through how we're using the same type of approach in the fire service.

Jason Traynor - *MSA Safety Incorporated - General Manager, Global Respiratory Protection and Fire Helmets*

So similar to the view that we saw in Gustavo's industrial slide, our fire team is able to leverage the same investment in technology to be able to connect both products and people to our connected ecosystem. By connecting these things through MSA's IoT solution, we're able to influence the efficient management of assets, things like our SCBA, deployment of firefighting resources and enhance processes that are designed to ensure firefighter safety.

As our market share and the corresponding installed base has grown, we view this system as an opportunity to shift the discussion from SCBA replacement every 10 to 15 years to an ongoing engagement with our customers and understanding of their product through the normal life cycle and being able to connect with them to stay connected and have a more regular discussion around the product.

Our global market-leading position in SCBA has allowed us to launch complementary and disruptive technologies to our existing customers. An added benefit for LUNAR is that it works with or without the G1 SCBA. So we're able to engage with customers who have historically not used MSA, SCBA or other MSA products. This connected ecosystem is creating a new addressable market for us, and one that we feel is going to be more valuable than the sum of its individual parts.

Backward compatibility has continued to be a driving principle for our R&D system. When we look at early adopters of our firefighting technology, we want them to be confident and ensure that they're going to be able to stay connected with MSA through the life cycle of this connected ecosystem as it evolves over time. The MSA Hub is a good example of this. We'll launch the hub later this year, and there's an example on the side of the room. But it will seamlessly integrate with the G1 SCBAs that we've developed and delivered from 2014 till now.

Those customers who invested in the earliest days of the G1 will be able to seamlessly use this product to get their data into the cloud and enjoy all the benefits that the customer who is signing on in 2020 or beyond would also enjoy.

This connected system is going to be able to provide a much deeper understanding of the environment that our products are being used in. Specifically, we get our product approved through a very broad standard, very large different environments. But the more that we can understand how they're actually being used, we can inform product development and engage to be able to take advantage of insights that are gained through that big data. Continued investment in this connected ecosystem reinforces our promise of the G1 as platform for the future.

So you may be wondering about the name LUNAR. I know we've talked a lot about it earlier today. LUNAR is a commonly used acronym in the Fire service in a Mayday scenario. It demonstrates the critical information that they would expect a firefighter to be able to share in a Mayday that is specifically location, unit, name, air and the resources to extricate the firefighter. We were able to take this commonly used acronym and build a tool that we felt would be able to address all of those things, through technology and new-to-world search and rescue efforts that haven't been previously entertained in the market.

We're also able to combine them with critical existing technologies, things like thermal imaging, accountability and understanding of the individuals on the fire ground beyond those who are wearing an SCBA. This product does operate independently of the SCBA, but does -- also provides additional value if connected through Bluetooth to the G1.

It's important to note that LUNAR is designed to be individually issued to each firefighter, allowing them all to be tracked in our connectivity system, which historically would have only looked after the folks that were on air. LUNAR is intended to provide first step confidence for people that are in a rescue scenario to accelerate the rescue of a first responder who has entered into an alarm state. To demonstrate that, we're going to show a quick video. On Friday, we were able to go into the boardroom here at the stock exchange, hide 1 LUNAR device to set it into alarm, and allow Matt Quigley, who's here with us today, to go through some of the decision points, and understanding of when you get to a point in the road where you're going to look left or look right, getting data back from the device, understanding how to process that information and then take action on it. Historically, it would have been sort of a blind guess. Should I go right or should I go left? This product is designed and intended to be able to provide information that historically wouldn't have been available, and we'd like to show the video to demonstrate that.

(presentation)

Jason Traynor - *MSA Safety Incorporated - General Manager, Global Respiratory Protection and Fire Helmets*

So a quick example of how the product would be used, the more complicated the environment, the more valuable this decision-making information is. This was intended to be a quick overview of how the product can work.

With that, I'll hand it back to Ken.

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

It's incredible to see the passion that both Jason and Gustavo have, passion that they have for the improving safety in their markets. And it's interesting, when you look at what we're doing with software and Greg's comment around 20% of our engineers are now software engineers, we're seeing a great improvement there in moving away from sleepy sort of safety, right, and more innovative technology that offers us an opportunity to take advantage of subscription-based models and things like that. And really, as you -- when you think about fire service, it's interesting. It's all kind of goes back to the implementation and the investment in the G1. We launched the G1 in 2014, '15 time period, and that's grown considerably. And over that time, we've only continued to bolster that position and most recently, with the acquisition of Globe. And so we've used acquisitions to help advance our position in these markets, both at Globe in the fire service as well as with Sierra Monitor on the connectivity side. So we certainly are using acquisitions to expand our addressable market, which takes me into the acquisition area. And so I'll be introducing Chris Hepler here shortly.

Chris joined us back in April. He was Head of M&A for a major industrial and before that had experience in investment banking. And so it's great to have him with me now and to really drive improvements in our process, process-oriented approach to M&A and pipeline building and less opportunistic and more sustainable sort of efforts that we're doing there. It's really great to see the work he's doing and the process he's putting in place for us at MSA. But when we look at our capital deployment, we've consistently maintained a very balanced approach. It's something I've talked about for years now. But it's all about balance, and it's about generating cash flow, improving our cash flow position, and we've generated upwards of $800 million of operating cash flow and about $650 million of free cash flow over the last 5 years. We've greatly improved our cash flow position. And with doing that, we've afforded us the opportunity to pay an increasing dividend. About 1/3 of our cash flow is used to service our dividend and we feel it's very sustainable. And over half of the cash flow that we've generated has been redeployed in strategic acquisitions, acquisitions that help us supplement product gaps, help us leverage our channels and so forth.

In terms of priorities going forward, it's about growth. It's about how do we continue to grow this business, how do we bring assets and acquisitions on that are going to improve our strategic positioning in our markets? How can we continue to fund our increasing dividend? The goal is to grow the business, turn that growth into cash flow and fund our increasing dividend. We do have a share repurchase program that's authorized. It's about $100 million program that was authorized a few years back. We use it primarily to offset dilution, and we give priority to the dividend. We give priority to paying the dividend as well as investing for growth.

I'll turn it over to Chris now. He'll walk through the process, and then I'll be back to close it out and to go through more formal financial review.

Chris Hepler - *MSA Safety Incorporated - Executive Director of Corporate Development*

Thanks for the introduction, Ken. Pleased to be here today to talk about the corporate development activities at MSA.

Before I jump into the slides, I thought I'd give an introduction about my initial observation since being at MSA from earlier this year. First, the leadership team and colleagues I've met across the globe are extremely passionate about safety and highly focused on providing the best possible solutions to our customers. Simply stated, we live our mission. Second, execution matters. We hold ourselves and each other accountable by doing what we say we're going to do, and we continuously strive for better outcomes. Lastly, we have a strong focus on growth, strategic M&A as part of that story, and continues to be a priority for the company. We're in a good position to execute.

The slide in front of you highlights some of the selected acquisitions over the past several years. We've invested over $700 million in acquisitions that have made us a more robust company and helped us drive profitable growth for our stakeholders. These investments have been focused across our core markets, gas detection, fall protection, fire services, and most recently with Sierra, gas detection and connectivity. These acquisitions have helped us improve our competitive positions, grow our addressable markets and bring new talent into our company. A key goal of my role is to continue to drive successful outcomes in our M&A program.

So what do we look for? From a strategic perspective, we look for a few key things. I think Nish touched on this earlier, but we want safety oriented businesses that align well with our mission, our company culture and our values. This is critical to us. Next up, we want companies with leading positions in their markets or that help us drive better solutions for our customers. Next, we're looking for synergies, particularly as it relates to leveraging the channel. And lastly, we want a talented and deep management team that wants to stay on with MSA and grow.

The financial criteria are consistent with what you've seen in the past. We're looking for earnings accretion in year 1, a return on invested capital exceeding our cost of capital by year 3, and accretion to our growth and margin profile as well as high cash flow conversion. Our past acquisitions have fit these criteria; we expect Sierra to do the same, and they'll be our criteria going forward as we evaluate future acquisitions.

We have a disciplined approach to M&A that we drive across all aspects of a deal from origination, due diligence and integration. We meet regularly as a leadership team to evaluate opportunities and review deals and diligence and those being integrated. We focus on several initiatives to drive pipeline development. Our leadership team is focused on cultivating relationships with our highest strategic targets. Our geographic and our product leaders are consistently bringing new ideas to fill gaps in their business and markets. Corporate development complements that effort by developing relationships with investment bankers, private equity and potential targets around the world. Our focus has resulted in a healthy pipeline of actionable opportunities balanced across our core markets and highly logical extensions. And we believe we have ample opportunities behind our current pipeline.

With that, I'd pass it back to Ken to discuss our financial position.

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

Thanks, Chris. And before I go into detail on the financial position, it's interesting when we look at that, the comments that Chris had, values. Values are really important to MSA. The values and how it might integrate with our culture. It might make sense on a product side or a channel, but if the culture doesn't fit, that's so oftentimes the reason why deals go south. And so we're very conscientious how important culture is to the deal process. And the other thing that I wanted to just add a little bit of color on was the question we had earlier around margins. And when we acquire, if the margin profile is not above the MSA profile, will we still go forth. And it's interesting, there's a couple of deals on the slide there, Latchways, for example, I don't think was accretive to margins at the acquisition. But as we implemented our approach and integrated it, it became accretive. I think we paid high teen multiple for that business. And over time though, today, it's a single-digit multiple. If I look at the Sierra Monitor acquisition, the headline multiple is something like 30x because there was a bit of SG&A in there, being a public company that we could take advantage of and leverage, and we expect that to be a low to mid-single-digit sort of multiple once it's fully integrated.

So we do look at acquisitions, but we do have a road map for value creation. We've used the leverage. As you see here, we've used our balance sheet on a number of occasions. Back in 2010, we were a completely different company at that period of time. We were a much smaller company, but we levered up. We made a strategic move to go after General Monitors. General Monitors is part of the reason why you hear so much about gas detection today. It was really our platform. Nish was responsible for the integration back in 2010 and '11. And we've been very successful there. Levered up for it. Delevered after that deal. Brought Latchways on, the U.K. public company. Paid about $200 million for that asset. Levered up to about 2.6x, and then since delevered down, acquired Globe, again, levered up. And now we're positioned, again, very well. I mean we have significant capacity. Cash flow conversion remains very strong. And we continue to be very active. As Chris had indicated, pipeline's full. It's just a valuation issue at this point. When you look across the space, valuations are really steep. And so we're very cognizant of that. We will not chase acquisitions. We'll be very disciplined. We will continue to invest in R&D, but we'll supplement that with acquisitions that make a lot of sense.

So as I finish here, we'll continue to maintain a disciplined approach to our acquisitions and our deal cycle. You'll see additional deals come through. Our plan is to continue to do that, the right deals. We're going to be very patient there. Balance sheet is strong. It's positioned very well to continue to invest in our business, and we're focusing in on just like we did with Globe and we did with Sierra, we're focused on existing core products, but we're also focused in new areas, areas that might be important to our end markets. And so we continue to look at that, how we might leverage the channel.

So with that, I'll transition into the financial review. And so we'll go in through the financial review, and then we'll come back with just some closing commentary and some Q&A with Nish and I here before heading down to the floor for the closing bell.

So the financial review. Overall, it's been a really good story. We've continued to really drive performance, and we intend to continue to drive performance. We've seen 7% CAGR on the sales line over the last 3 or so years. That's only about a 2% CAGR in organic revenue. Currently, we're running at about a 5% to 6% organic CAGR. So we're accelerating even though that represents a rebound, an expansionary cycle, we're actually growing faster today on an organic standpoint than we were during this 3-year period. Incremental margins are about 40%. They've consistently been there. In the last 9 months, I think our incremental was around 39% on an organic basis and -- or 45% accrued, sorry, 45% on an organic basis. I think it was 39% in the quarter. So still continuing very strong. We continue to drive operating margins higher, 450 basis points through 2018 and another 100-plus basis points in 2019. So we're continuing to see leverage there. And cash flow conversion has consistently been at or around 100%.

Continuing to focus on pricing, that's going to be a big driver for us. We will operate in a very rational market, with some really good and strong competitors. And so pricing continues to be front and center. You heard Bob talk about that internationally, and we, of course, have been very much ahead of it in the U.S. and the Americas.

New products. We'll talk about that here shortly. New products are certainly crucial to the story going forward. We've been very successful, and we intend to continue to deploy investment into the new product area. Productivity initiatives and restructuring spend. I'll talk a little bit about what we've done there and also some things that we have ahead of us. And acquisitions. Accretion on the acquisition line, we've had a strong track record there. And working capital management. 3 or 4 years ago, working capital was running in the high 20 range. Last year, we finished at 23.8% of sales. So we've tilted our incentive compensation metrics. The focus on working capital as a percentage of sales, and it certainly has paid off, and we've seen some good returns there.

More recently, year-to-date, again, strong performance, 5% organic growth or constant currency growth, 9% earnings growth, and we feel positioned -- like we're positioned well. We're positioned well to finish the year and to go into next year. Backlog, as we've said at the call, was pretty healthy. Order activity was healthy. Book-to-bill was relatively healthy, and margin expansion continues. We're certainly not going to market on a price. We're going to market using what we have in terms of value and all the things you heard today around technology, all the things you heard today around cost of ownership, those are all important to the customer, and we're reflecting that in our price realization.

Cash flow conversion for the most recent quarter was about 95% of sales -- or 95% of net income. And so we're seeing good performance there despite seeing pretty solid growth. I think it was 8% growth in the quarter. So despite investing in some working capital and building some inventory to help us fulfill the orders, we were able to recognize some nice improvements in cash flow in the most recent quarter.

I started today talking about our peer group. I talked about their performance. And you can see here, their performance has been very strong, 105% return for the proxy peer group median over the last 3 or so years versus 48% in the Russell 2000 to more than 2x the Russell 2000 and more than 1.5x the S&P 500. So we certainly compare ourself to some companies that are really good operators. And so -- but when you look at MSA, we've certainly far outpaced that. 206% total shareholder return from 2016 to 2019, taking our market capitalization from $1.6 billion to $4.9 billion today, taking return on invested capital from 8% to 15% today, taking cash flow conversion from 70% to 80%, upwards of 100% today, improving our operating margins 400-plus basis points, all paying off and showing through in this total shareholder return. And we think we've got a lot of opportunity ahead, and I'll talk a little bit about that, but we have a tremendous amount of opportunity. When you understand that our incremental margin profile is 30% to 40%, our actual EBIT margin today is 18%, roughly. So we've got opportunities there. We've got opportunities on restructuring. We've got opportunities on new products. And so I think what you'll see as you go through this, and hopefully, you're seeing is that this story is not dependent upon 1 lever. There is a whole host of levers that we can pull to continue to drive improved performance in our business going forward. And it all really starts with new products. When we look at the new products here and we put together this slide to really illustrate how important new products are to us. When you look across these products, and you heard about the X5000 today. We talked a little bit about ALTAIR io360, but the 4XR also and then the FL500 on the Fixed Gas side on the far left-hand side of the screen, the integrated thermal imaging camera that we launched with the G1, all of those products and even this V-Series product that we're having great success with this year, all accretive to the overall margin profile and really important to us. But there's times where when we launch, we're not accretive. And that was the case with the G1 SCBA.

Going back to the G1 SCBA back in 2014, when we launched that product, it actually was a bit dilutive to margins. But we have initiatives around what we call value add, value engineering. And so what we go do is we go back into the product and we do another voice of customer, so to speak. And we ask ourselves and we ask customers, what do they value in a product. And as we go through that, we find that there are certain things maybe they just don't value that we thought they would value. And so as a result, we go in and we reengineer the product. We also look at it and we go in and execute a number of sourcing initiatives. So boards were a great example when it came to the G1 SCBA electronics. We started to take closer look at that, and sourcing became a really important part of the value creation opportunity there. So we took those margins in the G1 SCBA up over 500 basis points when we executed our value-added, value engineering activities a few years back. So if they're not accretive when we launch them, our intention is to make them accretive going forward.

When we look at the safety market and the dynamics around the safety market, they're very compelling. As I said earlier, we've got some really strong competitors -- really valuable competitors, and they do a really nice job going to market based upon value as opposed to going to market based upon price. We do not -- even when it comes to the V-Gard, do not go to market based upon price. We go to market based upon technology and the value that we're bringing to bear for the customer. The cost of ownership. We're making the customer, allowing them because the products are more comfortable, do their job better, allowing them to be more productive and realize a total cost of ownership that rivals everyone in the market, quite frankly. I mean we've done a really nice job and Aaron had talked about the TruCal sensors and test gas with our gas detection. We have the least amount of test gas requirements on some of our gas detectors than others. So that's a cost that a customer has to incur. And we're taking that cost out of the equation and allows us to realize some pricing opportunities. But safety is -- again, it's a very attractive market. It's got a pretty broad moat around it. And all we're doing to innovate and develop game-changing technology is just widening or deepening that moat, and so it makes it even more -- even more competitive for us and allows us to continue to grow our business. And quite frankly, we're the only company that's focused in this market. We're the only company that every day when we wake up and our feet hit the floor, we're thinking about safety. We're thinking about how we can provide innovations to the customer, how we can improve our position and how we can help them do their job in a more safe environment. And so each and every day we are, and we're the only company focused in on that mission. When we think about restructuring programs, we've done a really nice job at MSA at being responsible when it comes to restructuring. When we look at restructuring programs, and you heard Bob talk about this early on, when we look at restructuring programs, we're looking at the returns.

We're not just deploying capital because we're going to add it back to earnings. We deploy capital with some rigorous financial metrics. When we deploy restructuring dollars, as you've seen here, we've deployed upwards of $21 million in cash for restructuring programs over the last 2 to 3 years, and we've generated a $30 million cost reduction on those efforts. We've invested another $11 million in our overfunded pension plan back in 2017. That's essentially a noncash use of resources to go after returns. But we've invested cash of $21 million to get $30 million of return and generate over 400 basis points of leverage on the SG&A line. And it's interesting. This is from 2015 to '19. But even just looking in '19 alone, we look more recently at what we're doing, this year, our business is growing around 5%. Our SG&A is only up about 1.9%, and we're giving about a 3% raise, merit increase. So you can clearly see that we're continuing to be very responsible. We're taking costs out, and we're improving the efficiency of the business, and we intend to continue to do that through headcount and challenging our position there. Looking at our geographic footprint, the question we had earlier from Larry around geographic footprint, it's certainly an area of focus for us, and just maintaining this discipline around a cost-conscious culture. We continue to do that. We started this back in 2015, and we certainly aren't finished.

Nish and I partnered early on when he was the President of the Americas to really look at that business and ask ourselves, can we get better? That was -- at that point, that was a 20% margin business. Today, that's a 25% to 26% margin business. So we greatly improved that business even from a very much point of strength.

When we look at the cost structure and where we'll be looking at additional cost savings, we've got about $1 billion of actionable costs. It's split across the spectrum, cost of sales, also on the labor and overhead with respect to some of our manufacturing initiatives, and then SG&A expense. We will not be cutting, and I've said this through the recession -- the industrial recession, I'll say it in an expansionary period, I'll say it when we're growing, we will not be cutting R&D. That's an area where we're getting solid returns. And in fact, I have to applaud Greg Martin in what he's been doing, but what he's -- we have 2 aspects of engineering. One is new products. So that's new platforms, new products, like you've seen today. The other form of engineering is sustaining engineering, going into products that are in the marketplace and reengineering those and investing dollars there. What Greg's been able to do is redeploy investments from the sustaining side to new products, and that's driving significant results. So he's being very disciplined and very focused on the returns, and we're seeing some really nice performance there.

When we look at the actionable costs in a little bit more detail, material cost, cost of sales is certainly an opportunity. 70% of cost of sales is raw materials. I've consistently said this, and this is an area that we challenge our sourcing group. We've invested in sourcing. A big opportunity for us is in gross profit, both in pricing but also in some of the defensive measures around sourcing, value engineering and overhead initiatives.

From an SG&A perspective, we showcase Europe all the time. But I'll tell you, it's not just about Europe, it's about how do we prioritize our investments. How do we look at our opportunities and redeploy when we need to. And that's something we do on an ongoing basis at MSA is really looking at our footprint and identifying that not everything is incremental, but we have to redeploy our investments to where the biggest opportunities are. And that's what we're trying to do under our strategy refresh. When we look at the key emerging markets, when we look at Mexico and Brazil, the Middle East and China, really focused on those 4 markets because we've got such premium positions in those markets. We've got great opportunities to continue to leverage our brand in a market that really values that brand. So we continue to look at how do we take cost out, but also how do we redeploy existing cost to go after growth.

So in summary, as I go into some of the closing comments here, really, it's -- there's a diverse amount of opportunities that we have that we can continue to pull upon to drive value in our portfolio. It's not dependent upon 1 growth initiative. It's not just the SCBA, it's not just G1, it's not just fire service, but it's technology in fire service. It's firefighter connectivity, it's fall protection, it's gas detection, it's hard hats, the H1 hard hat, the climbing hard hat. There's such a broad array of new products that we have coming to market that we're really excited about that we feel will continue to drive growth for us. Investing in strategic emerging markets, investing in these markets is also a really important part of our strategy. These are the markets that are going to be the faster-growing markets going forward. They have historically been, and we expect with safety standards and the evolution of safety standards and the enforcement of those standards, these markets will only become even more important going into the future.

From a margin improvement opportunity, we've got opportunities up and down the P&L; up in cost of sales with sourcing and to SG&A with shared services; and other initiatives across the footprint. And we feel like we're positioned well when it comes to the balance sheet. Our focus on cash flow has never been any stronger. We're laser-focused in on the cash flow. Improving our working capital is certainly an initiative we continue to target and driving improvements in cash so that we can use to continue to grow this business.

So in summary, as I look at some of the long-term financial expectations, I'll finish as I started. We continue to have confidence in our ability to deliver mid-single-digit revenue growth over the long term. Growing earnings at a multiple of the revenue through new products and pricing, continuous improvements in productivity, leveraging our already strong incrementals in the Americas. How do we continue to expand our position with our channels? How do we continue to expand our share of wallet with our customers? And how do we leverage our cost structure, which is already relatively low? And then on international, how do we help ourselves become better? How do we implement those self-help measures that will improve the margin profile and greatly improve our business performance? And then how do we continue to drive cash flow, drive working capital improvements? It's a CapEx-light business. We only spend between 2.5% and 3.5% of our cash flow in capital. And so how do we continue to redeploy that capital in growth platforms going forward? When we look at the near term outlook, when we look at 2020, we feel like we're positioned well here as well. We expect to finish well, through 9 months, solid 5% growth, organic, constant currency growth. And as we start 2020 -- when we look at 2020, we're kind of bifurcating this into 2 periods. The first half and the second half. When we look at 2020, we feel like we've got a high degree of confidence and some line of sight into the first half with our backlog, with our order, with the pipeline of business we have across our portfolio. We feel pretty healthy. We have a pretty healthy outlook when it comes to fire service and gas detection. The industrial core PPE is healthy and balanced as well. We feel like fall protection will definitely continue to be a growth platform for us. The head protection market's been choppy. You know it's been choppy. You've seen our results in head protection. Employment's at an all-time high. Unemployment's at an all-time low. And so we feel like it could be a bit choppy in that area, but we feel very balanced as we enter 2020. The challenge you have is more macro. It's more geopolitical risk. When we think about the second half of 2020, we've got an election that we're going to be going into, an election phase. And so we certainly are very conscientious of that. And it includes a lot of uncertainty. But for the first half, we feel like we're going to be very on track. And for the long term, we feel like we've got a high degree of confidence in our ability to continue to deliver on the metrics that we've provided and the framework we've provided for how we manage the business at MSA.

So as we close out the day, just a few key important points to remember. Really MSA has evolved tremendously. Our talent, the investments we've made have all made us a better company. And we feel like we've got a runway ahead of us that will continue to afford us an opportunity to grow our business in what we call the MSA way. The MSA way is really grounded in a high degree and a commitment to ethics, doing it in an ethical manner. And we've been recognized a number of times with awards around our commitment and our core value of ethics. And so we will remain committed to executing the MSA way while driving improvements in technology that help our customers become better at what they do, do it more productive, in a safer environment.

So with that, I'll ask Nish to join me at the front and to open it up for any Q&A, Greg as well, to close out the day before we head out to the floor for the closing bell. So Nish?

QUESTIONS AND ANSWERS

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

Yes, sure. If there are any questions you might have, please feel free to ask me, Ken or Greg. Stanley?

Stanley Stoker Elliott - *Stifel, Nicolaus & Company, Incorporated, Research Division - VP & Analyst*

Looking at the connectivity piece, seems almost like an evolution going from assets to people. One, is that the case? Two, there was a brief mention in there about a subscription-based model. How quickly can that evolve? Is that more of a tool to kind of enhance the value selling piece? Or is that, I guess, an area where you can end up getting price within that?

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

Sure. Within gas detection, we already have a subscription-based model, and we're continuously adding new services to that. What we've been doing over the past probably 18 months is integrating a few disparate systems that we had within fire service onto our cloud and putting them together, and they always were free with the product. But what we're going to then be able to do in the future is, as we're adding new functionality, new features that customers want, we will be adding that same type of service to the fire service as well.

Stanley Stoker Elliott - *Stifel, Nicolaus & Company, Incorporated, Research Division - VP & Analyst*

And then secondly, with the increased resources on the M&A side and the additional capacity there, what's your thought process? Is it smaller deals? Is it a larger deal? I mean you have a lot of financial flexibility at this point. And then the second kind of an offshoot to that would be, what's your comfort level? Is it 1 deal at a time? Is it ability to manage more than 1?

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

So yes, Stanley, there's just a couple of points on that. So you saw us make an acquisition of about $25 million acquisition of Sierra Monitor. That's a little bit on the small side. We really look at that as more of a technology play with the Internet of Things and really helping to expand our reach into that area. The sweet spot for us would be in the $100 million to $150 million range from a revenue standpoint. That would be a nice size acquisition for MSA. And as you saw in the past, and Ken went through the slides where we would lever up a bit and digest that acquisition and then lever down and then take on another acquisition. What gives me some great comfort, as Ken mentioned, I did the integration work with General Monitors, and I have a good -- pretty darn good understanding of what you need from a talent standpoint to do that integration work. And it's complex. It's -- I often joke about that was -- first 18 months of that was the most difficult 18 months of my professional career, but it's a tremendous growing experience. And we've got a lot of talent at MSA, who could take on that type of work. And we have a lot of people with a lot of capabilities who we can deploy into those acquisitions. We did that with Gavan Duff, when he went and did the Latchways integration work. And today, Tom Vetras is working and has done an exceptional job with Globe and the integration of that. So we have some talent to go ahead and do that. To do 2 acquisitions in that $100 million range in a year would be tough. I mean, that's -- that would be stretching and distracting the organization a bit. But we have a good steady pace that we'd like to get after. And as Ken mentioned, the valuations are -- have been a little bit steep. We've put a lot of effort into that pipeline that we have and continue to work.

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

Yes, you have to also just -- when you're thinking about leverage, think about where you are in the cycle. And so we're always cognizant of where we are in the cycle. I mean you certainly wouldn't want to get yourself into a position where we're trying to integrate 2 or 3 acquisitions and also at the same time be levered up to 3.5 or 4x. I don't think it would be responsible at this point in the cycle. But with that said, we're certainly looking at deals and identifying opportunities, and so stay tuned.

Lawrence Tighe De Maria - *William Blair & Company L.L.C., Research Division - Co-Group Head of Global Industrial Infrastructure*

You guys talked about the 30%, 40% -- to 40% incrementals. Curious how you would think about decremental should we go into a softer spot.

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

Yes, that's a great question, Larry. I was just looking at that recently and they're going to vary, but I was really impressed with the resiliency in the European business and the international business. And so when you look at that business, year-to-date, I think the revenues are down on an as-reported basis by something like $15 million. So it's like $342 million to $327 million, so $15 million, $16 million. Operating profit's only off about 2. And so in that business, which is a relatively cost-intensive business, we're seeing a decremental of about 10%. So with anything, the decrementals in the other aspect of the business should be a little bit better than that. So stay tuned on that side. But I feel pretty well positioned, especially when I look at that business, I feel well positioned because of a couple of things. I think we've got a number of opportunities on the restructuring front. We continue to challenge. We work with our Head of HR, Paul Uhler, and always looking at our talent, looking at how we optimize talent, trying to determine when we pull levers on restructuring. So we have -- we're very active with identifying pipeline of activity to help manage this business if the markets change. If we don't see that organic growth come through, how might we move and act? So we've got a pipeline of opportunities we're continuing to mine and develop so that we can easily pull the lever when we need to.

Lawrence Tighe De Maria - *William Blair & Company L.L.C., Research Division - Co-Group Head of Global Industrial Infrastructure*

And then secondly, on the M&A front, obviously, you talked about multiples being high right now and being prohibitive to probably closing some deals. Just curious, are there deals that have traded away that you'd be interested in? Or is the market kind of in inertia right now as we wait for the spreads to narrow?

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

I think it's a combination of both.

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

Right. So we've looked at some deals, and they -- the valuations may have been a little bit higher than we would like to chase after. And some companies are taking kind of a wait and see attitude on what they do with their business. So it's a combination. We continue to court some businesses that are there. As Chris mentioned, we've got a very robust pipeline of opportunities that we continue to court. And when the valuations get right and the right opportunity comes along when someone wants to let their business go, we'll make that move.

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

We've got a disciplined diligence process. And so there's been deals, quite frankly, that we've walked away from. We went through diligence, and we've identified things that just didn't make sense, culture, other aspects. And so as we've looked at those deals, we walked away from them. And so we were just very disciplined when it comes to M&A. We realize there's a lot of value because we've seen -- we've driven value with M&A. But we also realize there's some destruction that can occur with the wrong deal. And so I think we're fairly well balanced when it comes to pursuing opportunities.

Nishan J. Vartanian - *MSA Safety Incorporated - President, CEO & Director*

Okay. Well, if there aren't any more questions, throughout the day, I took some notes, and you heard a number of growth and productivity programs throughout the day from our leadership team. And some key messages that I'd like to leave you with from today.

Number one, the constant for MSA is going to be our mission. That mission is what drives everything we do as an organization, from the way we recruit people, engage, motivate, look at our markets and approach how we do all of our business. It all comes back to that one mission that we've had for 105 years, and that's protecting lives. We expect the safety market to outpace the growth of the general economy, and our expectation is that MSA will outpace the growth of safety. We've got a strong talent pipeline with a very special bond to that mission we have, and more than anything, that drives the success of MSA. Jen talked about injury statistics in the workforce and the large number of injuries that occur today. Last year alone, 5,000 workers in the U.S. died while on the job. So now, while we've made some significant progress as a country here in the U.S. and around the world, there's an awful lot of work to do around protecting workers.

So I want to thank you for your interest in MSA and in listening to the MSA story, and we look forward to keeping you informed on the next -- as the next chapter for MSA unfolds.

And with that, I'll turn things over to Elyse to close out the day. Elyse?

Elyse Lorenzato - *MSA Safety Incorporated - Director of IR*

Thank you, Nish. Thank you, everyone, for being here with us today. And for those on the web, our call has been recorded today, and a replay will be available on the Investor Relations website. So we invite all of you to join us at 4:00 on the trading floor for the closing bell. And once again, thank you for being here and for your interest in MSA.
