

MSA Safety Incorporated NYSE:MSA

Analyst/Investor Day

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Table of Contents

Call Participants	3
Presentation	4
Question and Answer	18

Call Participants

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Presentation

Larry De Maria

Executive Director of Investor Relations

Okay. Let's get started. Good morning, everyone. Welcome to MSA Safety 2024 Investor Day. I'm Larry De Maria, Executive Director of Investor Relations at MSA Safety. The team is excited to be here, and we appreciate you all coming. And for those on the webcast, thank you for joining.

Just a quick safety announcement before we get started. If there's a reason to evacuate the building while you're here today, there are 2 exit paths through the doors at the back of the room. The stairwell is located just behind the back of this room. If you exit to the left side of the room, take a quick right, which will lead you to the hallway with access to the stairwell. And if you exit on the right, please make a quick left by the product display to access the stairs. Those stairs will take you to the lobby and then outside.

We are here today to talk about MSA's next phase of profitable growth. The team has a lot of great content in today's presentation, which is also being webcast live. For those of you in the room, please silence your phones and computers. And for those on the webcast, you'll be able to follow along with the presentation slides this morning. The materials are available on our Investor Relations website at investors.msasafety.com.

First, forward-looking statement. Before we get started, I want to remind you that today's presentation will include forward-looking statements based on our best view of things as of today on non-GAAP financials. Also referenced in the material are non-GAAP financial metrics, and those reconciliations are included in the appendix of today's presentation. Now turning to today's agenda.

We have 2 sessions this morning, and each will be followed by a Q&A panel. For those in person today, you will have the opportunity to ask questions. And for those on the webcast, you can submit your questions online. We'll have a break after the first Q&A panel and lunch reception with the team after the second Q&A session concludes. If you need to use a restroom, get a drink, make a phone call during the presentation, please feel free to do so.

Looking at today's lineup. In the first session, you'll hear from our key leaders, including Nish Vartanian; Steve Blanco, Jose Sanchez, Greg Martin and Stephanie Sciuillo, on the topics of strategy, operational excellence, innovation and sustainability. And in the second session, you'll hear from Gustavo Lopez, Bob Apel, Rob Willis and Lee McChesney as we dive into our product categories and financial goals.

So with that, let's get started with the video introducing MSA Safety.

[Presentation]

Nishan J. Vartanian

Non-Executive Chairman

What a great video, it really encapsulates what MSA is all about, a mission of safety, one that's focused exclusively on protecting worker health and safety. And MSA is leading the way in driving advancements in the safety solutions of tomorrow by focusing on customer-driven innovation. And it all starts with our talented and purpose-driven team. We have our executive leadership team here today. And in the reception area with the product showcase, we have several leaders who are responsible for innovation across our product areas. I hope you're able to interact with many of them throughout the day today. It's been a pleasure -- it's a pleasure to be here this morning and to see so many familiar faces. And I'm sure there are more joining us on the webcast. So thank you for your support and thank you for being

with us today.

I'm Nish Vartanian, Non-Executive Chairman of MSA. And for the past 6 years, prior to my recent retirement from my management role, I was MSA's Chief Executive Officer. And I'm proud to say I worked at MSA for my entire 39-year career. I often thank to John Ryan's quote at the beginning of the video, about a life well spent and how our mission continues to positively impact worker safety around the world. At MSA, we know our work matters each and every day for those 40 million workers around the world. And I'm excited about today's presentation, where our team will focus on how MSA continues to evolve and deliver value for our shareholders over the long term.

Jumping into the slides. MSA Safety is a purpose-led company, driven by a singular mission of safety. Our company's mission and focus on protecting the world's workers has been unwavering since our founding 110 years ago in 1914. And I'm incredibly proud to spend my career with MSA and continue my affiliation with the company going forward as Nonexecutive Chairman.

From the early days of our founding with the flameless cap lamp developed alongside Thomas Edison, the Gibbs breathing apparatus and our first carbon monoxide detectors to our current lineup of innovative interconnected safety technologies across detection, firefighter safety and industrial PPE, MSA has been at the forefront of innovation in the safety sector throughout its history.

With our well-established brand and global presence, our customers look to MSA to keep their employees and critical infrastructure safe and protected. This has resulted in tremendous progress and growth, profitability and returns over the last 10 years. Over this time frame, we've made substantial and sustained improvements in our business by focusing our efforts on our customers, innovation in categories where we believe we've earned the right to win.

During my time as CEO, we had a goal of getting to 20% operating margin. And we surpassed that goal finishing 2023 with 22% margin. And our progress over time has resulted in tremendous returns for shareholders, those who believe in our mission. This has been the case across our past 3 CEOs, John Ryan III, Bill Lambert and me. And if you're looking to invest in a business that serves an important role in society and providing compelling returns, you're in the right room or on the right call.

I have tremendous confidence in Steve Blanco, who I've worked alongside for over 12 years and watched him work and watched him drive that -- this business. And I also know we have the right team in place to drive the company forward and to expand our successful execution. With that, I'd love to welcome my friend, Steve Blanco to the stage.

Steven C. Blanco

President, CEO, COO & Director

Thanks, Nish. And first on Nish, I just want to thank him for the support and the mentorship and his leadership to MSA over his career. And certainly, since I joined the company, the relationship we've had is more than just a work colleague in MSA. It's -- we talk about family all the time. And that's how I feel about it -- about Nish and a true friendship. So thank you very much.

And thank you for coming, and good morning. As Nish said, I'm our CEO, our 10th CEO in a 110-year history, and I'm privileged and honored to serve MSA in that capacity. I joined MSA in 2012 because of the mission we have that Nish talked about. And really, our mission and our focus on worker safety has never been more prominent than it is today.

So you being here really excites the team so we can share a little bit more about where we're headed and the interest you have in MSA excites us for where we think the future will go after our first 110 years. Today, I believe you'll hear how MSA continues to be a market leader and how we'll drive sustainable, profitable growth in our business going forward.

So some key messages and things to think about today is, as you know, safety is all we do. And that singular focus on safety motivates us and drives us forward. Our mission puts the customer at the center of everything we do. And that mission, that men and women may work in safety and they, their families and their communities may live in health throughout the world, drives and motivates our 5,000 associates. They are inspired and driven by every customer interaction.

We aspire to be the leader in premium safety across the globe, and we have safety products and solutions that protect workers and critical infrastructure. Since our founding in 1914, we've grown to be the global leader in sophisticated safety equipment and solutions and we're relentless in our advance of our mission throughout the world.

We've also built resilient positions in our business that are defensible, and they're across 3 market product categories I'll talk about later. It's based on diversification across those products and solutions that we sell. Certainly, the end markets we participate in and the geographies we serve. Third, innovation is really core. As you know, we started out innovating 110 years ago with Thomas Edison's help, and it's not changed. It's there to serve our customers. And we address their safety challenges and solutions based on what their needs are, what they identify as their challenges. Operating in this sector of the safety industry, requires a mindset of continuous improvement. And it's about solving the challenges that our customers have.

To do that internally, one of the things we're really proud of is our culture of continuous improvement. We focused on the execution of the MSA Business System, which helps us deliver on a high-performance culture and has become critical to our success. And of course, we're going to continue to have a disciplined and balanced capital allocation program that enables us to fuel profitable growth, enhance our market position and return capital to our shareholders through dividends and share repurchases.

When you think of the safety industry at a macro level, it's just become even more of a critical priority across the globe. And this gives an illustration as you look at the accelerated pace of that trend over the last 5 years, organizations, whether it's their leadership all the way through to their employee base. They are focused on making sure that safety is foundational to their success. And this slide just illustrates some of the examples of how ubiquitous this has become as a secular trend, which certainly supports MSA Safety and our mission.

We protect workers and critical infrastructure in a variety of diverse markets across the globe. This shares some of those markets such as fire service, energy, utilities, industrial. And these are in the sophisticated safety space in the toughest markets and challenges that these end users might have. We're proud of MSA's products being able to protect over 40 million people annually. It demonstrates our positive impact on society.

Today, we're about \$1.8 billion in sales globally across our categories. We invest about \$80 million annually in R&D, which enables the product vitality rate in the mid-30s. This innovation and the business system we talked about, and we'll talk about a little bit more, enable us to have attractive gross and operating margins. Our business is highly diversified across our regions and products as well as the end markets we talked about. Over 2/3 of our sales are in the Americas, U.S., Canada, Latin, South America. And then the remaining 1/3 of what we call international, which makes up the sales for the rest of the world.

When you think about where we're at globally in our footprint, we have over 5,000 associates around the world aligned to and motivated by our mission. That singular focus is all about safety and what they think about day in and day out. It's how we bring value to our customers through innovative and differentiated products that protect workers' lives in the markets we serve. We've got global coverage and capability and stay very close to our customers to ensure that we understand their pain points and their needs.

When you look at our 3 product market categories, shows some of the diversity. I'll share, as you see from this

illustration, we'll start with Detection on the left. Detection represents 36% of our sales. And this is a category for us that includes solutions that protect the individual worker as well as facilities and critical infrastructure from harmful gases and fire. Our detection business has been built through organic growth, and acquisitions.

In recent years, we've launched the X and S5000 categories, product lines that have been very successful. And just recently, we've launched a fully connected product, portable gas detector that's connected, called the ALTAIR io 4. The product leverages all of the durability and reliability we're known for at MSA, and it's also cloud-connected. It's connected to our Grid software platform, which helps enable and enhance worker safety and productivity.

One of the key differentiators for us in MSA for this Detection business is that we make our own sensors. And owning this proprietary sensor technology really helps us and our products respond faster, last longer and be more productive for our customers. This is an area we have a lot of IP and differentiation from our competitors. Acquisitions in this sector have also been a benefit and have further diversified our end markets. An example of that is Bacharach which added a full range of products in the HVAC and refrigeration applications across a broad range of markets.

If we move to the middle of the screen, you'll see fire services, which represents about 38% of our sales. Here, we protect firefighters with innovative head-to-toe solutions that start with our SCBA or self-contained breathing apparatus, include protective apparel and includes helmets. The products are utilized throughout the world by fire departments. This is a global business for us as well. And in recent years, we've launched our cloud-based platform for the fire services market called FireGrid. It's a platform that ties in SCBA data as well as a range of productivity solutions such as asset management and servicing data. The products and solutions are sold primarily through the fire services market where we have well-established positions, and we go to market through a really strong and unparalleled distribution network. It's been a very durable market for us, and the funding in this market is very resilient over economic cycles.

The third segment on the right is our industrial PPE or personal protective equipment business, and it represents about 26% of sales. Head protection and fall protection are the 2 main core categories in this business. We have other products that are critical to our customers, but these are the 2 we see as growth drivers. We've got a leading position in head protection and are quickly growing our share in fall protection. Fall protection continues to be a fast-growing segment in the safety market. Our solutions comprise both what you would wear as a worker, harnesses and mechanicals as well as things that -- solutions that we have that attach to infrastructure. It's a market that we go to -- or it's a segment, we go to market through typical industrial distribution. Think Fastenal, Grainger, et cetera.

Across our categories, we estimate our addressable market to be more than \$10 billion with attractive tailwinds. We believe we've got ample room to continue to grow in these markets. And across the businesses, we've seen a greater focus, as I said, on worker safety by our customers. And the regulatory landscape around the world continues to positively evolve for our business, along with increased economic investment. Our customers' journey isn't just about safety. They're looking for productivity. They want solutions that not only protect but deliver enhanced productivity and improved compliance. So there's an increased focus on the connected technologies, and we've been building out that capability for years. We believe safety is positioned to have attractive long-term growth. And these trends support our business for years to come.

When you think of our competitive advantages and where we stand, one of the things we really like to start with is our talent and our people. We have an incredibly diverse workforce that are incredibly talented and highly motivated by MSA's mission. And we're able to attract, retain, recruit. People come to MSA because they're passionate about that mission we have, and they stay, and they innovate and they get closer to the customer. The intimacy they provide is fantastic.

And then, of course, as we talk about innovation, we're really proud of how customer-centric we are on innovation. And we've got a comprehensive and proven innovation process we use that challenges us on how we come up with the best safety solutions for our customers. It's about solving those customer problems.

And our scale. We're the trusted brand globally, and we're recognized globally even where we don't have quite the share position -- in some other areas of the world, as the trusted brand, the brand you know will get it done each and every time.

That brings us to our strategy. We've spent a lot of time on this. We've done a comprehensive review recently to really evaluate what did we think worked and where could we improve. And those results really were used to help us figure out and put together a guide path to go forward with for profitable growth. As I've noted before, and you'll hear through -- later today, we believe we're uniquely positioned to drive superior performance within our sector. It's going to start with continuing to focus on being a leader in the premium safety solutions for our products and for our markets. We believe that when we use our scale, our brand reputation and our customer-driven innovation, will continually focus on meeting our customers' requirements with a focus on exceptional commercial execution and customer experience.

Next, we did define, and we're really leaning into a set of targeted categories that we believe we can have accelerated growth with. These, we think we have a competitive advantage. It includes areas such as connected solutions, leaning into higher-growth end markets and capitalizing on safety megatrends around connectivity and productivity. We're also expanding the suite of solutions with recurring revenue streams and further building and exercising our M&A capabilities in a disciplined manner.

Next, we'll continue to lean into deployment and application of the business system, what we call MBS, in all that we do across the company. It's really our mindset and our toolkit to drive continuous improvement. And last, we are going to be strong financial stewards of our capital, as we have been, focused on allocating effectively in ways that drive value for our organization and for our shareholders. It's important to note that while we do this, driving this strategy forward, it all remains centered on advancing our mission for our customers.

It's really -- when you look at it holistically, it's a combination of organic growth and inorganic growth that's disciplined in its approach. It will allow us to continue to win and enhance our position with customers. Our value creation starts with the organic growth, where our innovation is done through a proven R&D engine. It results in high product vitality, which you'll learn more about today. And our investment here will continue and helps us maintain leadership positions in the category. But we'll complement that growth with acquisitions.

Over the past several years, we made 4 acquisitions in our core markets of detection and firefighter safety. And we continue to have a robust M&A pipeline. As we move forward, we're focused on strengthening those M&A capabilities as we believe this is an important aspect of our growth strategy.

Switching to the business system. This is really -- if you think about this holistically, this is our behaviors, processes and tools to help us drive continuous improvement across the enterprise. It utilizes lean principles. It allows us and focuses on ensuring all associates are engaged in continuous improvement with high engagement for leadership to solve problems and improve the business at all levels. We initiated an operations-based approach in 2012 when I joined the organization and have expanded that to what we call the MSA Business System. And we're focused on doing that because we want to continue to improve the business, improve collaboration, transparency and deliver improved results for the business efficiency and operations productivity. I'm really excited how much the team has embraced it and the fact that we're on this improvement journey and believe we have ample runway to continue to improve the business. We're really on a journey that's never going to end when it comes to continuous improvement.

So with the team's confidence and our relentless focus on results, we've defined specific 2028 financial targets that we've now put out and that includes mid-single-digit organic revenue growth, continued positive operating margin expansion resulting in earnings of \$10 to \$11 per share. This is organic-related growth targets that we've defined. Along with these identified organic targets, our business will be supplemented by acquisitions to drive upside with the disciplined allocation of over \$1.5 billion of capital from cash and debt capabilities. We'll manage it appropriately, and we'll make sure we do it in a disciplined manner, but we really have strong belief in our ability to leverage the market that

-- with the capabilities we have in the space we're in.

The MSA leadership is excited to continue the legacy that we've had for the last 110 years. We've compiled a very high-performing leadership team with diverse experiences and backgrounds. The team's got a deep cross-section of experience across industry and at MSA, and it's supported by an incredibly dedicated team of associates who are inspired by our mission. So we're well prepared to build on our culture while we execute on our strategic priorities.

So I want to leave you with a few takeaways of what you'll hear today. Just a reminder that we're mission driven, you're going to hear that consistently and continuously throughout the day. That's what we believe in. That's what makes us really tick. We really drive that. We operate in attractive and resilient markets. We like where they're headed. We have an R&D engine that really revolves around our customer that will continue to deliver market-leading innovation. As I said, our focus on continuous improvement with the business system will deliver sustained value creation, and we'll continue our disciplined capital allocation, focused on growth and returns to our shareholders.

So with that, I'm going to turn it over to Jose Sanchez to talk about operations.

Jose Sanchez

Good morning, everybody. My name is Jose Sanchez, and I am Vice President of Global Operations. I have been with MSA for a bit more than 5 years, 2 years ago, I was expanding my role from internationals to lead operations globally, and I moved from Switzerland to our headquarters in Cranberry Township, Pennsylvania. A year ago, I became part of the executive leadership team of MSA. And before that, I have 20 years of experience in automotive sectors, where I lived in Europe, China and now in U.S.A. Today, I'm very excited to talk to you about the tremendous progress that operations have done over the last year, share a bit about our vision for the future and our relentless focus on continuous improvement around our customers.

Over the last years, we have evolved operation by being mission-focused and delivering performance at a higher level. We are excelling in different areas, and we want to take this as the baseline to continue improving. As we move forward in our vision in operations, we want to further accelerate on our ambition to become best-in-class operator around customer centricity and margin enhancement. And we are going to do that through utilizing the principles of MSA Business System to continue accelerating continuous improvement in culture, not just in operations but enterprise-wide.

As Steve said, we are in a good situation today in operational excellence as a result of creating MSA Operating System a few years ago, which at the time, it allow us to deploy lean principles across operations to build a robust set of processes and tools. Back in 2019 Investor Day, we highlighted that we had opportunity in manufacturing footprint consolidation. And we began our long-term journey of rationalizing our footprint and simplifying some of our global business models. Today, we're going to show you that we made good progress, and there is more to come.

That operating system evolved into our business system by expanding its scope from enterprise-wide -- from operations to enterprise-wide and by incorporating behaviors as part of the way that we lead and manage. I'm excited to share that today we are a best-in-class organization in safety and quality. And we have achieved that while at the same time, we've been able to drive remarkable financial improvements or performance, both in gross margins and working capital.

While we are very proud of what we have achieved so far, we want to continue advancing our performance and further accelerate on our ambition to drive scale and efficiency around customer centricity and margin enhancement. And for that, we're going to focus on advancing our continuous improvement culture through MSA Business System, continuing optimizing our footprint to meet customer needs and enhance customer satisfaction, and accelerating our vision for the Factory of the Future and executing on connected products.

As Steve mentioned before, MSA Business System has become one of the pillars of our strategy. It started in

operations, but now it has rolled out through the entire organization. And on that journey, we are strengthening the organization, training, qualifying, driving projects and processes are coming to life. MSA Business System is a set of behaviors, processes and tools that define how we behave, how we work, how we treat each other and our effectiveness in achieving results.

During the last year, we have been deploying MSA Business System throughout the whole organization. And the first proof of truth was when we went through COVID that we didn't allow our margins to go backwards, where we were able to maintain them despite the incredible supply chain. And we did that through going after more productivity than we have ever done before. and we did it through our pricing organization. And we did it driving our mix. Every team executed as a high-performance organization.

And now during the last 1.5 years, without the big headwinds of inflation and supply chain getting a bit better, we can see all of that work coming to life through our gross margins. But we want to be better. And that's why we keep progressing on our behaviors in the way that we embrace opportunities. For example, we recently stood up our project management office for the whole company. And meanwhile, we continue leveraging our shared service centers around the world as part of the global business processes.

Together with our behavior, we have relentless focus on driving cross-functional collaboration and driving process excellence. I'll elaborate later a bit more about how we approach our working capital and build processes to drive sustainable and scalable results. And together with behaviors and processes, we can build in tools that helps our teams to drive results via systematic problem solving and data analytics. We are incorporating new technologies like Manufacturing Execution System to bring greater visibility and real-time data from all our manufacturing plants, connecting machines and people.

Now I'm going to present 3 case studies that show the success that we've seen in the organization through utilizing the principles of MSA Business System that I just walked through. The first is about delivering margin enhancement. In our efforts to drive productivity and excellence in our operations, we realized that our decentralized manufacturing footprint could be an arduous [undertaking]. And we believe that there are still significant opportunities in manufacturing. Let me give you an example.

We have 4 manufacturing plants around the world, manufacturing V-Gard model helmets, China, Brazil, France and U.S.A. Each of the plants have similar processes but not the same. When we put together the experts of each of those manufacturing plants, we realized that each of them was the best in one category. One was the best in scrap. Another one in the shortest cycle time. Another one in changing the fastest -- the shortest at the color of helmets, another one in the number of pieces per person per hour. We can select the best of each of those categories to create a common global standard that drives the best of the best of the performances.

And not just for the processes we know today, but for the new technologies we are working to develop as part of the Factory of the Future. We reorganized our structure to create a global operations technology team to allow us to be more agile, efficient and effective on identifying new technologies and deploying them across the whole company, embedded collaboration with the other areas of the organization. This Factory of the Future vision includes all our plants and functions globally. Let me give you another example.

We are testing a state-of-the-art disruptive current technology in Globe for turnout gear that basically takes a new customer order and is directly produced without almost any manual intervention, neither in planning, programming the [indiscernible], preparing and spreading the material. That technology help us to reduce labor content of that process by 80%, material waste by 4% and reduces our lead times in turnout gear by 1 week. Once validated, it can be deployed across the other plants of turnout gears around the world.

At the same time, we keep evaluating the opportunity to deploy minimum viable automation into our dynamic processes.

And one of those technologies is cobots that we could use for some repetitive and very manual-intensive activities for some products like SCBAs and detection.

We have done -- we have come a long way and we have done tremendous progress. But with the spirit of continuous improvement, we believe that we can still target to drive 30 to 50 basis point annual operating margin improvement. And to support what I just mentioned, we have deployed full-time continuous improvement personnel in all our major plants to drive savings and advance our continuous improvement culture.

I talked before about our relentless focus on driving process excellence and creating sustainable and scalable platforms to allow us to keep improving our performance. In this case study about how we keep improving working capital is a good reflection of it.

During the last 18 months, we've been improving day by day in our inventory, accounts payables and account receivable numbers while we've been reducing backlog and improving our delivery service to our customers. And we feel confident that we have built strong processes as to drive 30 to 50 basis points of working capital reduction, continuously, sustainably and annually while supporting business growth and improving customer satisfaction. This is a great reflection of how we embrace the opportunities utilizing MSA Business System.

Back at the end of 2022, we formed the MSA Cash Council. The goal was about driving sustainable process enhancements to improve our balance sheet while serving better our customers. And let me share a couple of examples.

We review and refresh our SIOP, sales inventory operating planning process, redefining roles and responsibilities, expectations, communication channels, metrics like forecast accuracy or delivery rates, connecting operations from sales for inputs, all of it with the goal to have a better cross-functional alignment and execution on how we anticipate the demand and optimize our supply, serving better our customers.

And meanwhile, we introduced an intelligent supply chain platform called LeanDNA that allow us to extract the SAP data, connect with forecast, demand planning, transportation, all of us -- all of that with the goal to have a proactive preventive and predictive management of our full supply chain, helping us again to drive inventory reductions while improving customer satisfaction. And not just in inventory, but there has been tremendous progress on account payables and receivables through different process improvements.

For example, let me share with you our [overdue] management process in accounts payables including metrics and reporting was totally [reviewed.] And we standardize and deploy global best practices of terms in our accounts receivables. Those are just a few process improvements among multiple initiatives that give us the confidence that we can keep reducing 30 to 50 basis points working capital annually, while supporting growth and improving customer satisfaction.

Another area of focus for improving our deliveries, while enhancing margins has been through footprint optimization. There has been significant progress over the last years in multiple product groups and regions. We have carried this out with our vision for centers of excellence for different product groups where we can create superior capabilities, not just in manufacturing, but as well in engineering and supply chain. And we are looking all together how we can reduce the complexity of some of the business models. Let me give you a couple of examples.

Last year, we transferred our operations of Sierra Monitor to our center of excellence in Cranberry Township, Pennsylvania. And we are continuing to grow and expand the Cranberry plant, currently transferring the facility from the Bacharach acquisition too, centralizing all our recent acquisitions of detection products into one location in Pennsylvania.

Another example is about fall protection business in North America. We were serving our customers in North America from 3 locations in Europe, China and Mexico. Now we are finalizing the centralization of all those 3 manufacturing centers into just one center of excellence in North America, in Mexico, Querétaro. That will help us to serve our customers closer to them, which will help us to improve our efficiency and ability on how we serve them by reducing transportation and with it, lead times, and the associated cost and our carbon footprint as are using -- less fuel usage.

Another example is the opening of a new facility in Casablanca, Morocco where we can complement our value proposition for Europe in high labor content product. That plan is expanding what we were already doing in the region, supporting internal transfers. And by building new capabilities that allow us to ensure some of the operations performed today by third parties. These are just a few examples of continuous improvement linked with MSA Business System, behaviors, processes and tools. And we'll continue to review our operational footprint aligned with centers of excellence to drive innovation, enhance productivity and improve customer satisfaction.

As we close out this section, I would like to reiterate my excitement about the tremendous progress our organization has achieved this -- in getting best-in-class results. However, the journey is not complete, and we have still opportunities to continue driving better operational and financial performance while driving customer satisfaction. And we are going to achieve it through our relentless focus on driving and advancing our high-performance, continuous improvement culture deploying MSA Business System across the whole organization.

Thank you very much for your time today, and I'll hand over to Greg Martin now.

Gregory L. Martin

Senior VP and Chief Product & Technology Officer

Thank you, Jose. Good morning, everyone. Great to be here. I'm Greg Martin, I'm MSA's Chief Product and Technology Officer. I'm responsible for product strategy, product development, our overall technology strategy at MSA, including IT. And this combination of functions was really a natural fit for us after developing our customer-facing cloud offering and data analytics platform over the last decade. I've been with MSA for nearly 20 years, and I've worked in every product area that we have. And like I said, I'm very passionate -- very excited to be here. I'm passionate about safety, and I really like sharing innovation and what we're doing at MSA.

At MSA, everything starts and ends with our customers. We spend a lot of time understanding how they do their jobs, what keeps them up at night, and what their specific pain points are. We design every aspect of our product to help simplify safety programs, which allows our customers to focus on their jobs. We're also committed to introducing advanced diagnostics and data-driven tools that improve situational awareness to help our customers better understand their hazard so that they can make their safety programs more robust and more proactive. Also, because of our global scale and safety, our 110 years of experience and our reputation for innovation, our customers rely on us to not only launch new products but also bring new and innovative complete safety solutions to market, which include hardware, software and services.

To accomplish this, we do a lot of technology scouting and partnering as well as working with universities and other industry experts and introduce -- to introduce the latest technologies into the safety industry that really help protect our customers. We have a true culture of innovation at MSA, and this culture is driven by our mission, as Steve referenced. From the beginnings of the company, our employees know that they're part of something bigger. It is because of the mission and the innovative work that we do, that we have been successful at recruiting and retaining top product development talent in a large variety of technical disciplines.

A fundamental piece of our strategy is to continue to lead and drive scale in the safety market with premium innovative safety solutions. We will do this by continuing to deeply understand our customers, continuing to expand our offering in high-growth markets and continuing to evolve from a hardware supplier to a complete system solutions provider. Let me

dive a little bit deeper into our product strategy, where we've come from and where we're going.

In the past, MSA has built an incredibly strong reputation on innovation as primarily a hardware supplier with great quality, reliability, and customer service. Trust is incredibly important in safety, and we're a brand that customers trust. In recent years, we have focused on deepening our customer intimacy and using hardware and software systems approach to go after some longer-term strategic outcomes in the industry, while ensuring that we provide additional customer value with each incremental step. Essentially, we're setting strategic North Stars that we're heading towards, while making very calculated incremental advancements along the way.

As we continue down this path, we're building on this foundation for growth. We're more focused on connected and integrated solutions versus just stand-alone products, solutions which provide more value to our customers in both safety and productivity, increase TAM and help us diversify into complementary markets and applications. This integrated solutions approach does not mean that we'll sell less PPE and detectors, but rather it becomes the foundation of an ecosystem. We are applying our unique strengths to growing customer trends and widening our competitive advantage across multiple industries.

As Steve had referenced, safety is absolutely top of mind for companies around the world today. Behavior-based safety is a step beyond compliance. Companies absolutely want to have documentation that their workers are in compliance with their safety programs, but they also want to better understand that the behaviors of their workers on a day-to-day basis to eliminate potential future hazards through data analytics, AI and various levels of control which I'll speak to a little bit later. MSA is very well positioned because of our product installed base, our talent, our cloud architecture, our data set, our analytics and our connected solutions to help our customers expand behavior-based safety programs and improve their safety training and controls to solve their long-term safety challenges.

MSA has an extremely passionate product development team that has been changing and improving over the past decade. Not that long ago, software developers made up only a small percentage of our global R&D team. Today, they account for around 45% of all of our engineers. This is a testament to our effective talent acquisition and how we are able to drive retention through the high levels of mission-driven engagement. This recruitment, retention and engagement of our technical staff is really part of our special sauce, attracting top talent in areas like data science, cloud application software is a critical part of our success and retaining our best and brightest keeps MSA top of mind as a safety-thought leader with our customers, government entities, standard writing committees around the world.

This transition to more of a hardware, software solutions provider comes with a lot of business benefits as well. Software does not add to manufacturing costs. It can be continuously updated to provide more value and feature options via over-the-air updates, and we're becoming more embedded in our customers' day-to-day operations with data and analytics. And as we get closer to our end user customer, that's always a good thing, and it continues with our customer intimacy.

Since I said, everything starts and ends with our customers, I wanted to provide some real examples of how we're truly embedding our teams with our customers to drive unique solutions in safety. Within our portable instruments segment, we embedded engineers at customer facilities. We witnessed how detectors were often issued to workers in a tedious pen-and-paper process. We also noted that if an incident occurred, how difficult it was for the customer to get the data required to fully understand the situation or improve it because of those pen-and-paper records. In our ALTAIR io 4, we created an electronic tag-in, tag-out process that ties the instrument and its data to a user, a group, a zone, an application, whatever the user wants for the day. All that information is then automatically downloaded to document compliance and drive accountability. This data is critical for developing better and more robust training procedures. And all the reports that come out of it can be automatically generated. So when the safety manager or director comes in the next morning, it's right there for them.

In the fire service, we had engineers spend weeks with a large U.S. fire department as they trained in the fire ground and in live burn exercises. I've been in live burns quite a bit myself. I actually -- I think it was my second day at MSA, I was testing one of our new bailout devices, and I got to repel out of a third-story window. So a very cool experience. And

I was hooked on MSA ever since then.

But on the fire ground and in these live burns, we were able to witness some of the many logistic challenges occurring at the fire ground when you have hundreds of firefighters. We watch how they used our software as well as all of their other systems and tools. And then we talk to them about what information was most critical and how they would like it displayed to make it very simple and very intuitive. These findings are being implemented in our FireGrid platform and are launching later this year to provide an even better user experience, especially for very large fire departments.

In industrial PPE, we worked with large warehousing companies and order-picker manufacturers to design a product that integrates with the order picker itself, and it only allows the machine to operate at full speed and to lift up when the operator is successfully tied off safely. This is an example of moving beyond PPE and becoming part of an engineered control system. And this helps ensure higher levels of safety and compliance. This same technology is now being applied to other applications within different segments of fall protection.

These are examples of how the MSA R&D team is putting the MSA Business System to work. They are truly collaborating and problem-solving along with our customers to create win-win product development.

A big part of our overall technology and innovation strategy is to set long-term targets that will materially impact the safety industry and our customers. We refer to these as North Stars within our product development group. Once identified, we set out to iterate every few years with products that provide increased value to the customers and get us closer on a continuum to achieving that North Star goal. This allows us to continuously improve our product lines, continuously add value for our customers and makes it very hard for our competition to catch us. Overall this helps us create a very defensible position with over 1,100 active patents in attractive and growing markets. Let me just give you an example of the process that we follow.

So defining a North Star in fixed gas detection, and -- fixed gas and flame detection, within our portfolio over the last few years. As you spend time with customers in this segment, you truly understand how important these products are to protecting lives and the facilities where they're installed. Based on the critical nature of these products, customers are very much focused on uptime, how to simplify maintenance to ensure that uptime, the best ways to reduce complexity and the overall cost of ownership of these very long-life products.

Since 2016, we have launched multiple products that move us along this continuum. To keep providing additional value along the way for our customers. We launched our first XCell sensors for fixed gas and flame detection in 2016 in our X5000 and S5000 gas detection platforms, which provide industry-leading life, stability and reduced maintenance costs.

This was followed by our TruCal launch which was a new-to-world system of auto adjusting sensors, which again increased uptime and increased the time between maintenance intervals. Gustavo will talk a little bit about this more when he gets into gas detection later this afternoon.

More recently, in 2023, we continue to utilize the power of advanced data analytics when we launched the SENTRY io controller that has built-in diagnostic tools to aid in predictive maintenance. And all the way to our latest launch of our FL5000 flame detector, which launched this year, which utilizes an artificial neural network. This is a form of AI that's able to learn different flame scenarios, and you actually train the detector through the development process. And this helps increase range, accuracy and reduces costly false alarms. This is an area where we continue to innovate and provide more customer value, which directly helps us maintain our leadership position.

And speaking with our customers, it was clear that we can win-win situations by developing safety products that not only protect our customers but also help them achieve their overall impact goals as a company. At the same time, we can and do consider our own footprint when developing new products and look for every opportunity to reduce energy consumption and waste. To this end, we created the MSA new product development impact playbook. This playbook is

a process that we follow from portfolio development through product definition, product design, launch and life cycle management. We have implemented impact criteria into our portfolio pipeline process. And we've also implemented process gates like a sustainability product review within our new product development process. The end result is that we are taking every opportunity to look for ways to make our products which help make the world safer, have even more impact on people, places and planet.

Creating connected solutions is a key part of our overall strategy. Customers who previously just bought a piece of hardware are now interested in adding on software, data analytics and services to have a complete solution. This not only increases the total available market but also helps MSA become more valuable and sticky with our end user customers.

An example of this is with our portable instruments segment and how in the past, the customer may have just purchased the instrument itself. Now they're buying a software subscription, they're getting automated reports. Data analytics are continuing to be added and upgraded. And they're buying add-on services like our calibration auto gas replenishment system where the customer signs up for this, and electronics actually read as their calibration gas is running low and new gas is automatically shipped to them, they pop it in and they're ready to go and it's the easy button for our customers, which is really what they're looking for.

And there's really a good reason that our customers are looking for safety solutions. Just have a look at the safety statistics. These are really big numbers. 80% to 90% being attributed to human error. PPE is and will remain the foundation of safety programs around the world. But technology has enabled PPE to become even more useful and valuable as part of a safety system. There is an industry standard hierarchy of controls. It shows PPE is foundational. But additional controls can be added to increase the overall robustness of a safety program. So what safety professionals around the world are looking to do is add these controls and robustness to their programs, and MSA is very well positioned to help with this.

Data collected in our cloud systems can aid in administrative controls such as training. Systems, like I described, our tag-in, tag-out function built into our ALTAIR io 4 portable instrument is an example of using engineering controls to ensure accountability and have the data at your fingertips. All the way up to using system data analytics running in the background to find a small gas leak that would have otherwise gone unnoticed. And thus, you're eliminating the hazard before the incident actually occurs. And that's a really important point because that's what everyone wants. So when we talk about proactive safety, that's what we're talking about is stopping the hazard from ever occurring in the first place. In the past, we sold PPE, but with connectivity, data and AI, we can provide a connected safety ecosystem, which provides much more value to our end user customers and helps improve safety programs around the world.

I would like to switch gears for a minute now and briefly talk about utilizing scale and growing efficiency within product development. By using a continuous improvement or lean mindset, the MSA business system and our deep talent within new product development, we continue to focus on getting better at what we do every day. A couple of areas that we've been very focused on over the past several years is globally and efficiently scaling how we develop new products to accelerate the number of impactful products that we launch each year. And also improving how we most efficiently handle our existing product lines from a sustaining standpoint so that we can keep those products up and running, our customers happy and also spend -- be able to divert greater resources to our new product development.

We internally track overall average development time for our NPD projects. And we have decreased this time by 25% over the last 5 years. We also have reduced the percent of our total engineering costs that go to sustaining existing product lines from 23% down to 15% over that same period. These are really exciting overall results which have led us to launching 30 new product platforms and solutions over the last 5 years, which is impressive considering that this is over a time period with a global pandemic and a supply chain crisis.

At MSA, we are concentrating on a deep understanding of human center design to enhance safety programs with proactive safety solutions. We're driving growth and defending our market-leading positions through customer-driven

innovation, new safety solutions and services that increase the total available market. We are leveraging leading scale and our proven innovation process to bring the latest technologies to the safety space, and we continue to attract and retain top R&D talent through a purpose-led culture. MSA has dramatically improved its R&D muscle over the past several years. And with the MSA Business System and our continuous improvement mindset, we will continue to strengthen in this area of our business in years to come.

Thank you. And with that, I will turn it over to Stephanie Sciuillo.

Stephanie L. Sciuillo

Senior VP & President of MSA Americas

Good morning. I'm Stephanie Sciuillo, President of MSA Americas. I joined MSA 14 years ago. Prior to this role, I served as Chief Legal Officer. When I came in-house, MSA was actually my favorite client to work for at the time. Today, I continue to serve as executive sponsor for the company's corporate social responsibility efforts globally.

For MSA Safety, corporate responsibility is about the twin goals of growth and impact. Financial performance and business growth and positive societal impact are inherently linked together because of the very work that we do. We estimate that we protect more than 40 million workers annually with our best-in-class products and solutions. Because sustainability and impact considerations are embedded into our business strategy and operations, you'll continue to hear these themes throughout our speakers' presentations today. And you already heard about them from Nish, Steve, Jose and Greg this morning. So I'll tie a couple of these things together right now.

Talking about these topics, our mission, keeping our customers safe. That's something that's very natural to us. If you walk through our facilities, you'd hear about this in daily conversation. Our associates know that they have a platform to bring to life new-to-world technologies and make a positive impact at the same time. That purpose energizes and engages our people to give their very best every day.

Our impact commitments and investments can be seen across our products, our people and our planning. This growth and impact mindset spans the markets that we serve, what we make, how we make it and how we govern ourselves. We serve end markets that are growing because of sustainability trends, and we have products that deliver environmental benefits to our customers. We have products with features that have been designed with sustainability in mind, designed to be inclusive to serve broad demographics and to support worker wellness initiatives.

Impact and sustainability are truly part of our culture of innovation, as you just heard from Greg. You've heard this morning how we integrate sustainability principles throughout our product development. And there are a few themes to continue to listen for throughout the presentations today, enhanced ergonomics, comfort and diverse sizing for diverse workers across the world, reduce cost of operations and ease of maintenance for operators, productivity for both the worker and the work site.

You'll continue to hear why these types of sustainability-linked features are a part of our products' value proposition, truly providing compelling reasons why our customers choose our products and truly supporting the strong pricing that we earn when we deliver on those differentiated value propositions.

You've also heard from Jose how we're making our operations more energy efficient. We're reducing waste and consumption in packaging and manufacturing, in shipping and transportation and throughout our core operations. That's how we're making progress to reduce our Scope 1 and 2 emissions by 42% by 2030. You've also heard we're optimizing our manufacturing footprint. When we do that, we simplify our supply chains, building greater resiliency. We bring production closer to talent and we bring production closer to our customers so that we can better serve them with speed.

Impact and sustainability are part of our culture of continuous improvement. When we reduce waste in our operations,

when we reduce carbon and consumption, we do that in ways that reduce cost at the same time. So these programs are actually supportive of our margin expansion efforts.

Finally, we continue to invest in a variety of business continuity and resiliency programs. That includes incident response, preparedness and foundational programs like product quality and business integrity. You'll continue to hear more on our flagship products throughout the day.

Let's take a few examples now from that lens of impact and sustainability. MSA detection helps customers connect and detect for safety and sustainability, making work safer, easier and more productive. Bacharach's Parasense fixed detection product line serves customers in food and beverage, cold storage and quick-serve applications. We help these customers better detect and resolve refrigerant leaks which helps them reduce their emissions and their reportable events. In addition to the environmental benefits, this truly reduces their operating costs.

You'll hear more today about our ALTAIR io 4 portables. In addition to providing that seamless compliance and real-time status, these devices support circular economy initiatives. The devices are capable of being refurbished, reused and recycled at the end of contract life. Our X and S5000 fixed monitoring systems support worker safety and infrastructure safety. These are products that are well suited for both traditional energy and new energy applications like hydrogen.

The way our detection systems are uniquely designed, they significantly reduced customers' calibration gas consumption. Basically, customers know that their devices work with less time and less gas. That means they decrease cylinder waste to landfill and installing an MSA fixed monitoring system can save hundreds of maintenance hours a year and over 6 figures of cost savings for a customer annually.

You can also see these themes of ergonomics and ease of maintenance in our G1 and M1 firefighting breathing apparatus platforms. For firefighters, our breathing apparatus offers lightweight electronics-free face pieces and overall design that increases the comfort and the wearability with how and where the apparatus sits on your back as it's adjustable for a wide range of body shapes and sizes.

For department administrators, these platforms feature a central power design. So the entire unit is powered by single rechargeable battery. This saves significant maintenance time for the department and reduces battery waste to landfill. And these 2 features are not something that are incidental. Fire departments actually choose which breathing apparatus to buy based on those 2 features.

We also outfit firefighters head to toe with protective apparels. Turnout gear, boots, helmets. Our gear offers inclusive sizing for diverse body shapes, expanding the availability of our equipment. Our Globe line was actually the first firefighter apparel company to offer firefighting gear that was specifically cut for women.

The new Cairns 1836 fire helmet is a great example of impact innovation across the stakeholder value chain. It features a broad array of sizing, those ergonomics we've talked about and clean-ability for the firefighter, supporting worker wellness initiatives, ease of maintenance for department administrators and this helmet actually fits 95% of firefighters based on industry recognized size and data. It's one of the lightest fire helmets on the market, and it delivers enhanced comfort and fit and balance for the wearer with how it sits on your head. Removable soft goods makes it easier to clean and a patented slide-lock system allows quicker and easier maintenance without the need for special tools.

Finally, FireGrid. You heard earlier how our FireGrid cloud platform enables incident commanders to monitor fire scenes locally and remotely. Post-scene data is automatically stored and aggregated and that allows for easier creation of posting incidents, reports and data analytics so that you can learn from every incident you respond to.

Sustainability and impact features can be seen also throughout our PPE portfolio. Our V-Series line of fall protection

delivers exceptional comfort, fit and ergonomics. A patent-pending design improves worker mobility and reduces the feeling of restriction. You have contoured breathable shoulder pads, horizontal leg straps. So these are harnesses that are comfortable to wear all day. And like a seatbelt, a safety harness must be actually worn and engaged, not just available but used. So these are important features that help support customers' behavior-based safety programs.

We're also the leader in industrial head protection, beginning with our iconic V-Gard hard hat line. Building on that world-class brand, we offer next-generation impact-linked products. For instance, the new C1 V-Gard protects against heat stress with our patent-pending thermal barrier technology. It's capable of reducing the temperature inside the helmet by up to 20 degrees in sunny environments. So it helps workers in those environments, be safer, more comfortable and ultimately more productive. Our newly launched V-Gard H2 safety helmet provides superior comfort and versatility using the latest technology to help redirect rotational forces to the head in the event of an impact.

Our singular focus on safety matters. It matters to our strategy, and it matters to our talent. A singular focus on all things safety is a competitive advantage. We dedicate our top talent and industry-leading levels of R&D reinvestment to safety markets. Focus allows us to advance the state-of-the-art faster. That's what allows us to deliver on that 37% new product vitality index.

At MSA, we also bring together that culture of innovation you've heard about this morning, diversity of people and thought, purpose, impact, engagement and continuous improvement. The MSA Business System allows us not only to drive efficiency, but also empowerment, allowing our people to work at their best. This is something that associates want to be a part of. Our mission enables us to recruit, retain and uniquely energize top talent. We're recognized for our mission-driven work and our people know they make a unique impact on the world. 92% of our associates worldwide know how their work connects to help keeping real people safe, real workers safe and that those are the workers that build and protect communities.

When we drive business growth, we also grow our impact because safety is what we do. We take pride in our mission in protecting our customers, the world's workers for so many years to come.
Thank you. Larry, I'll turn it over to you.

Question and Answer

Larry De Maria

Executive Director of Investor Relations

Awesome. Thank you very, very much, Stephanie. Okay. We're going to pause for a minute while we get our chairs situated and we're going to go to Q&A. Remember, for those of you on the webcast, again, to your questions here, we'll take those as we go through the session. And for those in the audience, just please raise your hand, and we'll get you a mic. We would ask you to please use your -- the time this morning for questions on the content you heard in today's session. And we'll have obviously another extensive Q&A at the end of the second session.

Steve Blanco, and Stephanie Sciuolo and Greg Martin and also, for the first time today, Lee McChesney, our CFO, who will have more extensive comments in the second session today.

So I think we can get started. I think we have a mic back there.

Ross Riley Sparenblek

William Blair & Company L.L.C., Research Division

Ross Sparenblek of William Blair. Thanks for the presentation today. Very helpful. A question for Steve. I know we touched on this briefly in the past, but what are your primary focus areas under your new leadership role, any aspects of the business or strategy that you're looking to address? And how are you measuring your success in the first couple of months?

Steven C. Blanco

President, CEO, COO & Director

Thanks, Ross. So -- and thanks for your question. Yes, I would say to think about measuring success. The team is kind of helping me with that as we went through the strategy refresh. But as I reflect on my priorities, I would start with where historically, we've been and the mission in our service to the customer, first and foremost. And we're really focused on how do we continue to evolve and develop our culture while we execute the strategy going forward.

I would also say it's interesting, as I reflected, as we've gone through this strategy, my time at MSA, before MSA, I was -- most of my time was operations, engineering, a little bit of finance. But most of my time at MSA has been in the business, right? And really when -- as Nish was the CEO, I was privileged to run the Americas business. So a real focus on growth -- and that's something this team has really spent a lot of time on is how do we effectively grow globally in Americas and international and execute on that strategy. So we put that strategy together, and I think that really gives us the playbook that we believe can help us do that.

Ross Riley Sparenblek

William Blair & Company L.L.C., Research Division

And then if we kind of look out 5 years here, and you're looking back at what you've accomplished, the 5-year targets look fairly credible. I mean what do you think the biggest challenges are there?

Steven C. Blanco

President, CEO, COO & Director

Well, that's a good question. So we put out the targets. So glad you noticed that. So that's a first for MSA to put out targets. But they're targets that the team is confident in. And as I said, we've got a playbook with a strategy to execute on those targets. When we look at those, 5 years is a pretty good time horizon, right? And you think about what's happened in the last 5 years, we've had a pandemic. We've had supply chain challenges. We've had inflation and tariffs.

We don't know what the next 5 years looks like. But what we do know is the resiliency of our business and where we play and the consistency of the need for that from a safety perspective is really strong, which gives us a lot of confidence, no matter what the economic cycle is. So I think that really positions us well for the next 5 years. And so we're looking forward to it. We'll see where it ends up, but those targets were intentional, and we think they're a good place for us to be.

Larry De Maria

Executive Director of Investor Relations

Thanks. Rob?

Robert W. Mason

Robert W. Baird & Co. Incorporated, Research Division

Yes, Rob Mason with Baird. Again, thanks for the day. It's really good to see everything on display. It's pretty clear you value being in the premium segment of the market, and you refresh the market sizing. I'm curious within that \$10 billion or so of market -- addressable market, how you view sizing of the premium part within that? And then as you think about, I guess, longer term and maybe executing some of the capital deployment, M&A strategy, is it solely within -- remaining within that premium segment? Or do you see opportunities to leverage your scale perhaps in other parts of the globe.

Steven C. Blanco

President, CEO, COO & Director

Yes. Great question. So if you think about that addressable market, I would hit that in 2 ways. Probably just over half of that addressable market is premium in our view. It's probably a little bit more than that. We -- I think we're very conservative on what we think that addressable market is. We actually had some conversations and be -- externally what they say it is versus what we say it is.

What we do believe is over the next 5 years, that you'll see expansion of that addressable market. So when Greg was talking about that safety hierarchy, a lot of what we participate in, in that addressable market is that foundational element, right, that product category. But we're seeing just so much interest in the marketplace that goes up further in that hierarchy. So I think you're going to see that continue to grow in our minds, and I expect that's going to be a real positive for growth.

As we look at M&A, we think we differentiate with technology, right? And so we intend to stay in the sophisticated safety space. We're really pleased that we have, what I would say is the intimacy with the customer. And where that really plays out is important when you need to create solutions for the customer. If it's a product category that they might need, but it's more commoditized that intimacy with the customer isn't quite as important. So we'll stay more so in where we think we can differentiate in the marketplace. So that would be our focus.

Gregory L. Martin

Senior VP and Chief Product & Technology Officer

Can I just add one thing, Steve?

Steven C. Blanco

President, CEO, COO & Director

Yes, sure.

Gregory L. Martin

Senior VP and Chief Product & Technology Officer

And also, I think we've seen over the years that different segments of the market, it may not be like a premium spot in the market where before they were buying the least expensive product they could buy, but then looking at the total cost of ownership over the life cycle. So you might pay more upfront but by adding new technology, you're actually making it less expensive, and it allows us to penetrate other parts of the market. And we've seen that in segments like portable gas, like fixed gas detection. And even as we get into SCBA with our modular -- our M1 SCBA, we're able to really configure that for the customer need, which allows us to penetrate deeper but still provide a very sophisticated solution.

Steven C. Blanco

President, CEO, COO & Director

Cost of ownership.

Gregory L. Martin

Senior VP and Chief Product & Technology Officer

Yes.

Robert W. Mason

Robert W. Baird & Co. Incorporated, Research Division

Just a follow-up question as well on the targets and maybe we'll get to this in the financial portion later. But just a quick observation around the margin expansion opportunity. We've been talking more recently about an incremental margin range that's 30% to 40%. And again, some of that's the benefit of coming off pricing and supply chain catch-up and whatnot. It did not appear that the upper range was maybe as present in the targets? And just maybe a commentary on how you're thinking about the range -- margin.

Lee B. McChesney

Senior VP, CFO & Treasurer

Yes. So we're putting out, obviously 5-year targets. As Steve said, we haven't done that before. It's a good period of time. But the thesis is still good. 30% to 40% incremental is our opportunity. Typically, when you're on the lower side of our mid-single-digit range, you kind of come out in the 30% area. And then if we have an opportunity to be on the higher end and then potentially mix in some M&A., we've shown historically, we've done a nice job of being closer to that 40% side.

But when you look out 5 years, probably a good caution to baseline it on the lower end, and that becomes our opportunity. And certainly, if you look at the -- I think in the past 5 years, we've typically delivered somewhere more in the middle of that range, Rob. So no change there.

Larry De Maria

Executive Director of Investor Relations

Thanks, Stanley, please?

Stanley Stoker Elliott

Stifel, Nicolaus & Company, Incorporated, Research Division

Stanley Elliott with Stifel. Steve, I guess just one quick point of clarification. So the \$10 billion market -- addressable market is not including really the services option that we're talking about on a go forward.

Steven C. Blanco

President, CEO, COO & Director

Yes. I think that's an opportunity.

Gregory L. Martin

Senior VP and Chief Product & Technology Officer

Yes, that part is growing quite a bit.

Steven C. Blanco

President, CEO, COO & Director

Yes, that's right -- yes.

Stanley Stoker Elliott

Stifel, Nicolaus & Company, Incorporated, Research Division

And kind of sticking on the services piece, what's the biggest hurdle in terms of adoption for your customers? Do they not have the infrastructure? Do you all have the infrastructure, the salespeople to be able to push this out. And any help with maybe like adoption rates, I guess, for some of these different end markets that we're thinking about over the 5-year term.

Steven C. Blanco

President, CEO, COO & Director

Yes, good question. Greg, why don't you take it.

Gregory L. Martin

Senior VP and Chief Product & Technology Officer

You want me to take it? Yes, the quick answer is, yes. It really depends on the market segment. You have different customers at different levels of maturity, it depends on your distribution. We -- you have different distributors. It depends on the region. There's different regions at different levels of maturity. We've been at this for about a decade now. So we've really been ramping up our internal teams, our sales, our engineering, our materials. And what we've been really focused on in the last 2 years is meeting the customer at where they're at from a maturity level and helping them get over any hurdles that they might have.

Larry De Maria

Executive Director of Investor Relations

We're going to take some questions from the webcast as well as we're going through this. First one, given your leading positions in most of the categories you play in, what are the upper bounds in terms of potential to capture additional share over the next 3 to 5 years?

Steven C. Blanco

President, CEO, COO & Director

Yes. Thanks. Larry, that's a good question. So when we think -- again, I come back to this addressable market and maybe I'll answer this 2 ways. One, when you look at our categories that we participate in, those 3 product market categories, we have a really nice brand globally. And in some regions of the world, we would say nice share positions, but it's a big place in the world. There's a lot of opportunity in areas where we frankly feel we're not participating at the level that our capability is going forward. So that's number one, we think on a global basis, there's some really nice opportunity for continued growth within those categories, even in the stronger markets. I mean, if you break down the market we're in right here, in the U.S., there are some areas of the U.S. where we have a really nice share and then others that we're not as penetrated, and we've got some plans around that.

But then I would come back to the second piece, and that's that addressable market because our feeling and where we see this market going is you're going to continue to have the needs across the industries for those safety products but more and more on that solution set. And so if we're able to continue to get that addressable market growth, we think that, that's a benefit and tailwind for us.

Larry De Maria

Executive Director of Investor Relations

Thank you. Another one here, the first session and overall, it seems to be a bit more focus on the detection segment. Has anything changed in your strategy that makes this more important?

Steven C. Blanco

President, CEO, COO & Director

Well, I think detection is -- that's a really good question. Detection has been an area, as you know, it's the product market category that has the highest margin profile for us. We've been really pleased with the growth in all 3 of our categories, frankly. But we've seen an over-index growth in the fire service and detection in the last period of time.

We just see the opportunities in detection both organically and inorganically to be pretty significant because of the macro environment and the secular trends. Greg talked a lot about what's going on in the marketplace. And detection is a space where there's going to be an incredible need going forward. We're bullish really on all 3 of the markets having growth potential, but detection, we feel like has more room for growth in really that addressable market.

And so that us is an area that we're going to lean into. But I would say the fire service is also an area that we're excited, and you'll hear more about this later, but it's been a strong market. We're coming off a tougher base, right? We've got the Air Force this year, that customer has been really a nice big win for us. But when you look at that trajectory, it makes it tougher as you're trying to do the comps over a 5-year period. But we -- I think all 3 of those markets are areas that we believe we can participate competitively and win into the future.

Lee B. McChesney

Senior VP, CFO & Treasurer

I would just add a little bit to that. So to give you a little bit of historical context. We focus, kind of combines a few questions here, on these 3 categories, you're going to hear more about them after the break. They've all grown over the last decade, and we've really seen a nice evolution, advancement of the businesses with that focus. Some of those other categories maybe, Rob, you were asking about, we constantly chose to focus these premium areas, and it's been helpful.

But to Steve's point, the industrial PPE business has grown, we certainly like certain categories in there more than

others, in terms like head and fall protection, they have a higher growth characteristics. So that's going to be good. Other parts of it have really good profit margins, really good cash flow. But that part of the business has actually become a smaller percentage, even though it's grown because those other segments are growing at a faster rate. So the fire business has gone through quite a transformation. At one point, it was #2. Now it's become #1. There's good characteristics of all these businesses. And then certainly, detection has had a really nice solid run. You've also seen us add to that with enhancement in the M&A front and then going back to Steve's point.

So there's just some higher growth characteristics in some of these businesses, and we certainly want to participate in them fully and we have a really good market position really in almost all of our businesses today. And the one where we're not number -- top leading position, we'll be growing it almost double digits when we're able to navigate the supply chain side of that, which fall protection.

Larry De Maria

Executive Director of Investor Relations

Can we get the mic up here, please.

Unknown Analyst

I'm curious to get a sense of where you feel you guys are relative to your competitors in this journey of kind of building solutions that marry hardware with software and building up this ecosystem. Where do you stand? Are they nipping at your heels? Are they ahead of you? Are they 5, 10 years behind?

Steven C. Blanco

President, CEO, COO & Director

Good question. Greg, you want to start there?

Gregory L. Martin

Senior VP and Chief Product & Technology Officer

Yes. When you look at the markets we're in, we really believe we have a scalable tech stack that we can leverage across all of these different segments. So we've spent a lot of time focusing on industrial first. They're a little further along on the maturity curve, but we're able to leverage most of that work, our technology, our cloud infrastructure and our skill sets into the fire service and into PPE. So there's -- we're bringing the same technology along.

And when you look at gas detection, we are right there with anyone on the market, and I feel because we have our own sensors, we're developing the data, we have a data set that we've been growing over the years that's incredibly valuable and where we're heading in the future, we're extremely well positioned in industrial. And because of what we've done in industrial, we're really uniquely positioned in the fire service. And so I'm very excited there.

And then what you'll see with like our connected products and fall protection, we're doing some things that will be very difficult for other competitors to follow. So that sort of our mentality is leverage this across our entire platform globally.

Steven C. Blanco

President, CEO, COO & Director

The only other thing I might add is, as we said earlier, we invest about 4.5% in R&D. Safety is all we do. So for us, we're investing that R&D in those categories of safety. And as Greg said, we're able to utilize a lot of those technologies broadly across all of our product market categories. But we are consistently doing that which we feel gives us a nice competition and especially the way we interact with our customers. We got a lot of good competitors out there, but are

just consistent, just relentless drive on innovation helps us to kind of replicate those changes in the market. And we've -- obviously, we've seen the results of that over the last decade. And we feel like if we can continue to innovate based on the challenges that the customer has and give them those solutions they need, that's going to continue to play out for us well into the future.

Larry De Maria

Executive Director of Investor Relations

Thanks. One in here for Stephanie. You talked about sustainability, obviously, in your prepared remarks. Can you talk to us about customer demand for sustainable products and solutions? And how do you see demand evolving in the future?

Stephanie L. Sciullo

Senior VP & President of MSA Americas

Sure. Thanks, Larry. So when I think about sustainable demand from the customers, the first place I'll start is with that 40 million workers that we impact around the world. So everything that we do is sustainability and impact because of that baseline of the safety that we deliver. And these are strong secular safety trends that support and underlie every economy around the world. So whether it's industrials, you know how much industrials continue to talk about needing to invest in safety and keeping their workers safe. And for municipalities and governments this is something where safety of communities continues to get great bipartisan support, whether you're here or any country around the world. So there are some really strong secular trends on that baseline of safety specifically.

If I look at sustainability, let's separate it into 3 categories: Where end markets are growing and continue to evolve, where those end markets will create greater demand for sustainability in terms of products, where the product themselves deliver an environmental benefit, a significant environmental benefit to the customer or where the features -- third, where the features of the product deliver an environmental benefit, that social benefit with diverse sizing or some other worker wellness initiative.

So if I think about markets that are growing because of sustainability, just the clean energy markets. That's something that we play well, whether it's traditional energy or as the world's energy needs continue to grow and diversify, whatever pace that takes and whatever proportion the world splits up its energy needs. We have products that map to all of those different energy environments.

If I think about infrastructure builds, whether for new energy products, general infrastructure builds, EV batteries. As the world's supply chains are figuring out where they go and rewire into different countries, all of that project build and infrastructure builds are something that we can support not just with fixed monitoring but also our PPE portfolio, hard hats, the fall protection equipment and the portable instruments that we have. So that's something that we will continue to be able to serve as all of the infrastructure gets built for these kind of new technologies and industries.

And then finally, the features, you heard today how sustainability features are really woven throughout our NPD portfolio, our new product development portfolio. So that's something that we do see that those features and benefits continue to win with our customers, they are the reason why customers choose the products, and they are a reason why we continue to earn the strong pricing with the value that we're able to deliver.

When I've traveled to Latin America, these are products that people are excited to hear about, whether it's the C1, whether it's the V-Gard GREEN made with sugarcane instead of polyethylene, the connected devices, customers want to hear about these products. So I think this is something we're really well positioned to continue to serve.

Steven C. Blanco

President, CEO, COO & Director

You know what -- just to add to that, it's really cool about what Stephanie talked about as we look at this end to end, and I think the team's done a really nice job thinking holistically about how we are sustainable throughout our processes. But at the end of the day, every product we make, every solution we provide protects people, right? It's really -- we're in an interesting and unique space because as somebody told us, "Well, you guys are the big S, you protect lives." So for us, that's where it starts. And then we certainly have a lot of process and activity around the rest. But it's really -- that 40 million people impacted is something that I would just ask all of us to consider just the importance of that for this organization, especially as we go forward.

Larry De Maria

Executive Director of Investor Relations

Great. Thank you. Thank you all for your questions and the great answers. We're going to take a short break, and we're going to restart at 10:20, in about 10 minutes or so. Thank you.

[Break]

Presentation

Larry De Maria

Executive Director of Investor Relations

Okay. We're going to start up again and start our second session of the day, and please welcome Gustavo Lopez to the stage. Gustavo?

Gustavo Lopez

Thank you, Larry. Good morning, everybody. Glad to be here. I'm Gustavo Lopez, the Vice President of Product Strategy and Pricing at MSA. And I'm very excited to talk to you today about an area that I've been a part of throughout my 20-year journey here at MSA where I've held roles in R&D, product technology leadership as well as leading the recent acquisition of Sierra Monitor.

So let me start by sharing a story about how the MSA mission really becomes embedded in our DNAs. As a young 20-something software engineer, I was part of a development team for one of our gas detectors, which helped protect firefighters from entering a building that had a gas leak. At the time, the customer need was for faster response time on the sensors, which meant you would alert the end user quicker of a potential hazardous situation. And that it did. In this case, the sensors alerted the firefighters as they were arriving on scene, which prompted the fire chief to keep his team outside. Unfortunately, there was an explosion shortly thereafter, but no casualties or injuries occurred because of the technology that we developed and put in the customers' hands. Fire department followed up with a handwritten letter to our team at expressing their gratitude for the technology.

This is just one story of the many that we have in which our solutions make a positive impact on society, driven by the commitment of the many MSA employees throughout the world. As Steve said, we truly live our mission.

Throughout this presentation, you're going to hear how we differentiate, have a clear strategy for growth and continue to deliver value for our customers, thus commanding a leadership position in the marketplace. This journey really began over 10 years ago when we invested organically in the design and manufacturing of sensor technology rather than purchasing from third parties, which truly became the catalyst for us to become a leader with clear differentiation on performance, speed of response and sensor life, all backed by significant IP.

Couple our leverageable tech stack with geographic reach, and we really participate in this area from a position of strength globally. Our main goal for the business is customer driven and is to ultimately help them achieve their desired outcomes, safety, emissions and sustainability. As we look at secular trends like the green energy transition, as well as a shift to connected solutions, our detection portfolio is poised for continued growth and profitability. Lastly, we will leverage our unique expertise and technology breadth to drive scale and diversity on our business.

Over the past 5 years, we have experienced 8% growth with combined sales of \$635 million. Our detection business is global in nature and diversified both from a market and technology perspective. Fixed monitoring represents about 68% of our business that is composed of fire, gas and refrigerant leak detection systems that are typically installed in a facility to help protect the asset. This is a very sticky business as once the product is installed, there is a big service component over the life of the product as it is critical to ensure that they continue to operate properly as they help ensure the safety of a facility. This includes maintenance work as well as spare parts.

Portable gas detectors make up 32% of the detection area. And these devices are worn by workers to protect them from

hazardous gases in various types of applications. In this particular category, there's a growing need for connected solutions as real-time accountability of workers is critical. This data, in turn, is extremely valuable as customers evolve safety programs to become more proactive. Both fixed and portable share similar sensor technology, which is a key value driver and differentiator for MSA.

Our detection business operates in the sophisticated safety technology space with an accessible TAM of \$4 billion, growing in the mid-single digits. Our end markets and customers are diverse, ranging from traditional and emerging energy activities to utilities, food and beverage as well as general industry applications.

In all these markets, there is a need to protect both infrastructure assets through our fixed monitors and workers with our portable gas detectors from toxic and flammable gases. When you look at the key markets that we participate in, there are some nice synergies from secular trends, regulatory tailwinds and changing market dynamics, which gives us confidence in the ability to outpace market growth. Later on, I will share some specific case studies on how we developed unique solutions for customers in the energy and food and beverage sectors.

One of the case studies will detail how MSA sensor technology is used to drive increased uptime while reducing maintenance cost. We will also cover how through the Bacharach acquisition, we are leveraging a connected enterprise platform to improve detection of refrigerant leaks allowing customers to lower energy costs while ensuring compliance to regulatory requirements.

The shift to connected solutions, is also exciting, as Greg alluded to in his presentation. As customers evolve their safety programs to proactive, we are now providing solutions that leverage real-time connectivity, data analytics, guaranteed uptime and advanced reporting. This shift allows us to become a true partner with our customers as we become more embedded in helping them achieve their goals. We have also begun to see significant wins for gas detection systems for the green energy transition as we were recently selected as the fire and gas system provider for one of the largest green hydrogen plants currently under development.

Our winning formula really starts with the customer and understanding at a deep level so that we can uniquely solve their spoken and unspoken customer needs. Throughout this customer centricity obsession, we leverage our strong end users and channel relationships to ensure that our solutions and services are designed hand-in-hand with the stakeholders, creating a very collaborative business relationship. Our innovative R&D teams have years of experience in the gas detection field which allows them to provide the widest and most differentiated set of gas detection technologies.

Over the past years, we have complemented the detection technology with big investments in connected solutions, allowing us to deliver complete end-to-end solutions going beyond the sale of the initial product. And all these innovations are protected through IP, where we have a strong position in. In particular, we have a unique position with sensor technologies, which, again, you're going to hear a case study later on about how we drive significant value with.

We're also in a position where we can take all this data and are able to provide insights to our customers. From providing recommendations on testing cycles, to identifying unsafe behaviors down to the operator level, we're becoming closer to our customers and becoming the trusted advisers as it relates to safety, in turn, helping them achieve their outcomes.

Based on our current market position as well as our differentiated story, we believe we can outpace the market growth, achieving mid- to high single-digit growth results over the next few years. We will do this by focusing on our foundation in being the leader in the premium part of the safety solutions space, hitting on the various market drivers that we discussed before. Our diversified and differentiated product portfolio, coupled with a global market-leading position for -- means we are leveraging our strong position for above-market growth. Being application leaders is critical as our customers are looking for partners to help them achieve their goals.

Through our recent strategy work, we're also going to drive the implementation of the growth accelerators. In particular, we will look to further diversify our end markets as we did through the Bacharach acquisition, leveraging the tailwinds around regulations as well as general high-growth areas like food and beverage. Capitalizing on the growing trend of connected solutions on the portable gas detection space will also be important as we scale in that -- in this space.

There's also an opportunity to drive efficiencies, leveraging MSA's Business System. With the broad portfolio that we have, we will look to further drive scale around the product line through optimization of shared technologies as well as footprint consolidation as was detailed by Jose so that we can better serve our customers from a delivery and simplification of ordering perspective.

Lastly, our growth and differentiation strategy has yielded many results. Organically, we created technology leadership in sensors and software, which we will continue to invest in, in -- as core differentiators. Inorganically, both our Sierra Monitor and Bacharach acquisitions have been big successes and bolstered our leadership position in the marketplace. Acquisitions in this space continue to be very attractive to us given the targets and our proven track record.

As Greg showed in his presentation, we have a passion for helping our customers increase safety performance while also improving operational efficiency. This particular case study details how a large international customer came to us with a need to increase uptime while reducing maintenance cost. Based on that and the feedback from many other customers, we developed patented technology, which has been deployed allowing this particular customer to reduce up to 75% in maintenance cost, while also ensuring that the product is under compliance and working correctly, all in real time. Now let's start with the background.

Fixed toxic detectors are usually installed at a facility and calibration is performed every 90 days per customer standard operating procedures. In many cases, these detectors are installed in hard-to-reach areas. So performing a calibration is not only costly from a materials perspective. It is also challenging to execute from a manpower component. And these are the type of problems where our innovation processes and best-in-class R&D organizations shine.

Through continuous voice of customers, our teams got to work and develop our patented TruCal solution. This technology consists of the sensor performing a self-check every 6 hours, ensuring proper functionality as well as compensating for environmental conditions that may cause the sensor to drift out of calibration. It also verifies that the gas path is clear, ensuring that gas can get to the sensor. And all of these results are communicated in real time to the central station.

By using this technology, customers can extend their maintenance intervals from 90 days all the way up to 24 months, creating large savings on materials and people, all while giving peace of mind that your critical asset is being protected with gas detection that is under compliance.

Again, in this particular case, this large end user implemented TruCal throughout their facility and reported up to 75% savings in maintenance costs after implementation. And more importantly, they have fully standardized on this technology for future projects. This is a great example of how we partner with a customer to understand their needs at a deep level and uniquely solve these needs, all backed by significant IP. It is a testament of what sets the MSA brand apart in the market as a true leader.

With the Bacharach acquisition, we further diversified our portfolio and end markets. This following case study outlines some key benefits of our connected leak detection platform. This particular area is one where regulations are creating a nice tailwind for our type of business. More specifically, per the EPA Clean Air Act, companies need to monitor and report the refrigerated leaks on an ongoing basis. On top of the regulatory compliance aspect, these leaks can cause increasing energy costs at facilities as well as potential loss of product.

Current solutions require a safety technician to go into the equipment room, take samples, record the results and write up a report to create the paper trail for audit purposes. MSA's unique solution is a fully connected enterprise platform where the refrigerant detection devices are connected in real time to our cloud platform, quickly alerting users of a potential leak. Our cloud platform also has the built-in necessary analytics to comply with the EPA regulations as well as to provide insights through our reporting engine.

Giant Eagle, which is a large grocery store chain in the eastern part of the United States, standardized on our solution with really fantastic results. Among the many benefits, they have been able to improve their leakage rates by up to 15% by deploying a real-time system, which allows them to detect and repair leaks quicker. The really exciting part for this solution is that these challenges can be implemented by other grocery store chains as the regulations continue to evolve, which presents a great opportunity for growth in the future.

Going back to our winning formula and process for innovation, our North Star really centers around the customer need to deliver increased uptime as well as to evolve safety programs to become proactive through the data incidents that our connected ecosystems provide. To achieve this, we look at driving 4 key areas: Starting with our technology solutions, which revolves around the detection devices, its sensors and the enabling software. By leveraging these solutions, we provide extreme durability, fast sensor response time and advanced analytics to minimize the amount of downtimes on our systems due to preventive maintenance as was showcased by our TruCal example.

As you saw in the refrigerant leak detection study, compliance to regulations is another key lever with investments in cloud technology and connectivity, we have created ecosystems where customers can easily manage their fleet of gas detectors and receive real-time information on the various incidents that may happen during a work shift. All this data that is generated would be meaningless without the power of analytics. By applying data science principles, our teams are focused on providing actionable insights to improve both product use and human behaviors.

For example, through analyzing product usage of one of our portable gas detectors with real-time data, we were able to push an over-the-year software upgrade to improve battery life by up to 25%. On the human behavior side, we have been able to help customers drive training and accountability to improve unsafe behaviors down to the operator level by identifying trends on incidents.

Lastly, we recognize that detection systems are costly to implement and switching costs are high. In order to minimize these costs for our end users and providing a path to newer technology, we ensure that our next generation fixed detectors can use the same wiring as their MSA predecessors, ensuring an easy transition to next-generation technology.

As we close out this session, I'd like to reiterate our excitement over this category as we believe it can generate above-market growth results over the next 5 years. There's a good runway for us given the market dynamics and secular trends. We have a proven track record where our customers value our differentiated solutions. We've also grown our business with both organic and inorganic investments. And there continues to be room for continued innovation and growth through connected solutions and technology leadership in diverse applications and end markets. And lastly, we will continue to drive meaningful relationships with our customers and position ourselves as a leader in the safety market.

Thank you for your time and interest in MSA. And with that, I'll pass it over to Bob Apel.

Bob Apel

Thank you, Gustavo. Good morning, everybody. My name is Bob Apel. I'm the Executive Director of Global Fire Services and Digital Experience. And I'll be talking through our fire services business and strategy this morning.

I've been with MSA for 28 years, half of that time working in our industrial markets and the latter half of that working in fire service. Prior to my current role, I served as COO of Globe Manufacturing, where we achieved significant sales growth and margin expansion while enhancing performance for our customers. In today's environment, 28 years at one company is a long time. However, as you've heard from many others this morning, our mission drives our associates. I've remained here for 28 years because I believe in our mission. And it's personally fulfilling to go home every night knowing that the work that I've done has contributed to saving a life. If you're looking for purpose in the work that you'll do, you'll have a hard time finding any greater purpose than the work that MSA does.

So there are 3 key fire service topics that I'll be covering over the next 15 minutes or so. I'll cover how we're combining industry-leading products and solutions to develop an integrated ecosystem of products that enable sustained growth and resiliency. We'll also discuss the importance of pillar cities to our strategy. These are large influential departments around the globe that are not only important because of their relative size, but also because of the halo effect that they have among surrounding departments. Winning these pillar city opportunities helps create additional conversions and share gain in the surrounding areas. Engaging with these pillar cities at a deep level helps us develop future features and solutions that help advance firefighter safety. Finally, I'll talk about how we will leverage our current capabilities to further extend our leading position in head-to-toe solutions with both NFPA and EN-certified products.

Today, we define head-to-toe safety as fire helmets, SCBA, protective apparel or as known in the industry, turnout gear, and boots. We estimate that we have at least one of our products in over 90% of U.S. fire departments. And we're incredibly proud to be the manufacturer of choice for so many firefighters.

Over the past 5 years, we've experienced 7% growth to achieve \$684 million in revenue in 2023. We currently enjoy leading positions in SCBA, fire helmets, turnout gear. And while revenue by product category is reasonably balanced, you can see that we do have a nice opportunity to grow our international business.

For example, by leveraging recent acquisitions such as Bristol, we now have an opportunity to serve the international markets with EN-certified turnout gear. Our gear can be customized to meet regional needs and even individual fire department needs with different material choices, colors, trims, sizing, pockets and other accessories.

Our new innovative 1836 fire helmet offers us the opportunity to build upon our current leading position in fire helmets by offering firefighters an innovative helmet that is lightweight, low profile and easy to maintain. Our EN-certified M1 SCBA has had success in Europe similar to the NFPA certified G1 success in the U.S. By listening to our customers, we're able to provide them with the products and solutions they need, ensure firefighter safety and maintain our leading market positions across the globe. We estimate the total addressable market for SCBA, turnout gear and fire helmets to be around \$2.5 billion, growing at a 2% to 3% compound annual growth rate over the next 5 years.

Starting in SCBA. This market growth is largely driven by SCBA replacement cycles. For example, the G1 SCBA was launched 10 years ago. Over the next few years, fire departments will begin to replace their aging fleets. And there are new standards right around the corner that will drive some attractive new product features for some departments. We intend to ensure these departments re-up with MSA by helping them through that replacement process.

Solutions for incident command, remote monitoring and asset management are becoming more in demand as technologies improve. We are on the forefront of this trend and are continually updating our current offering as well as customizing features to accommodate specific departmental operating procedures. This level of customization helps build strong partnerships and helps protect against potential conversion.

In turnout gear, as departments increase their focus on maintenance, second sets of gear are starting to become the norm in new bids. This allows firefighters to have a clean set of gear while another set is being washed or maintained.

Another growth driver is the historically resilient government funding for firefighter safety. We offer assistance to fire departments and applying for funding grants to help build the relationships and hopefully drive that grant spending towards MSA.

By leveraging key differentiators for MSA, we can continue to outperform the market, extending our market-leading positions and driving revenue growth. Our global experience and reach across markets is something that few others can match. For example, when we developed the G1, we lived with firefighters. We went on calls with them. We spent time in the firehouse with them. We serviced product with them. This gave us an intimate understanding of their pain points and how we could potentially solve them.

One such development that arose from this effort was our patented central power management system on the G1. We saw how many batteries went -- the fire departments went through on a daily basis. The amount of time they spent checking those batteries, charging those batteries, changing those batteries that were used on multiple SCBA devices. Our sole power source on the G1 changed the game. Now they only have one battery to power the unit, to charge, to maintain, saving departments hours in labor and significantly reducing cost of ownership.

As you heard earlier from Stephanie, our innovations haven't stopped there. And our deep connection with our customers and the fire service market has never been better. The connected firefighter ecosystem that we continue to build out focuses on the user experience, how we can provide valuable insights without being obtrusive or adding complexity. Firefighters need to focus on fighting fires. Our technology needs to allow them to keep their focus where it belongs, and we are positioned to do that better than anyone else.

In addition to our products and solutions, we also have a highly skilled exclusive channel partner network. Many of these channel partners have been with us for many years, serving as an extension of our sales team. Their knowledge and local relationships help to maintain current and drive new business. They also serve as a critical listening post for us on market conditions.

Our growth strategy combines products, services and resources to achieve success. We continue to build upon the proven track record of innovation in R&D. Again, the recent launch of the 1836 fire helmet is evidence of our ability to continue to reinvent products to meet customer needs. We'll continue to optimize our manufacturing capacity as required for protective apparel or turnout gear to meet new demand.

You've all probably likely heard that over the past few years, like many others in our space, we suffered through some supply chain challenges as a result of the pandemic. Specifically, as it relates to turnout gear, lead times across the industry reached 12 months. Through a number of lean activities, leveraging the MSA Business System, supplier partnerships, and creative approaches to attract talent, we are now able to deliver turnout gear faster than any of our competitors. The result of this improved lead time is an uptick on incoming orders, faster recognition of revenue and a reenergized sales organization.

Building external partnerships to expedite time to market on emerging technologies is also part of our playbook. For example, a few years ago, we began a partnership with an autonomous drone company, expanding our connected firefighter capabilities, and we'll continue to make investments on technologies that further firefighter safety. Altogether, we expect this activity to result in 3% to 5% growth through 2028, which again exceeds market growth.

With some of our larger breathing apparatus wins over the past year, like the U.S. Air Force, there can be some lumpiness in the business periods and some challenging comps. That said, we're excited about our momentum, and we're focused on executing our strategy to continue to outpace market growth.

As you've heard throughout the presentations this morning, we have a passion for safety. This case study shows how

that passion translates to a customer solution. A large West Coast fire department conducted an extensive evaluation for their new SCBA. They were looking for a way to leverage fire scene data to increase firefighter safety through faster, better-informed decisions as well as find a product that offered improved comfort and ease of use for firefighters at a lower cost of ownership.

The MSA G1 SCBA platform provided the capability and flexibility they required. The G1 configurations promote inclusive sizing with adjustable lumbar pads for comfort, integrated thermal imaging to eliminate the need to carry a separate thermal imaging camera and connectivity to the FireGrid. In this instance, FireGrid was deployed to work alongside existing fire department tools to provide greater safety awareness to firefighters on the scene. The capability of FireGrid has led to additional discussions about creating APIs to integrate even more external scene management tool. If you're not familiar with APIs, it's essentially a connector between 2 types of software, right?

So our willingness to configure these new APIs is how we work with fire departments to bring new capability to the market as quickly as possible to improve efficiency and safety. This West Coast pillar city has resulted in another nearby city purchasing MSA, and we're just getting started.

In another example, we recently switched a large U.K. fire brigade from an embedded competitor to MSA's M1 SCBA. The M1 was introduced in 2019 and incorporates many of the features of our G1 SCBA. This fire brigade wanted to improve departmental safety and efficiency. They started with a lack of accessible data logs and fire scene management tools. SCBA maintenance costs and the inability to upgrade their current fleet of SCBA, created a number of operational challenges. They were particularly interested in leveraging SCBA user data to drive lifetime maintenance procedures. Our M1 SCBA and FireGrid solution was exactly what they needed to accomplish their goals.

The M1 SCBA is an upgradable with reliable communication capability. The U.K. telemetry system was specifically designed to perform in challenging urban environments, including skyscrapers and underground tunnels. Utilizing repeaters, the system was able to cover 54 floors in a building located inside a large city.

FireGrid provides the brigade with the additional maintenance tools and data access that they need to operate more efficiently. The FireGrid monitor app was designed specifically for leadership personnel coordinating operations to monitor air pressure, alarm status and state of all active firefighters. The touchscreen user interface allows commanders to manage team assignments and issue evacuation requests.

And the FireGrid cloud platform offers a centralized and easily accessible location for customer data. And if you didn't have an opportunity to see this software in action this morning before the session got started, I would highly recommend that you do that afterwards. We have it on display out there. It's truly an incredible piece of software.

This conversion which was aided by our acquisition of Bristol a few years ago, established a strong foothold for us in a large international market, and this partnership serves as a benchmark for other European and international fire brigades. Our North Star in fire service is to create unique market-leading safety solutions to protect firefighters. We achieved this through seamless integration of value-added technology, connected solutions to drive productivity through data analytics, automating burdensome reporting and inventory management processes with intuitive interfaces, and creating true partnerships with fire departments to develop new products and solutions to improve their safety.

2 years ago, I was sitting in my office in Pittsfield, New Hampshire when I was COO of Globe. I received a call about a local firefighter who was injured in the line of duty. He was wearing our turnout gear. His department was fighting a fire in a 3-story structure. He and his team rescued 6 individuals that day. Just after leading a third-floor resident to the rescue ladder, as this firefighter began to exit the building, a flashover occurred. Flashovers can exceed temperatures of 1,100 degrees Fahrenheit. And our gear protected him from that environment. After he was released from the hospital, we exchanged some messages on his recovery and his appreciation for the work our team does to provide industry-leading turnout gear. He credits our gear for saving his life and allowing him to return home to his wife and kids. Having

kids myself, it's incredibly rewarding to know that the work I've done, the work the Globe does, the work that MSA does had a hand in keeping a family together.

If you remember nothing else from the presentation, remember this, we are a market leader in combining products and solutions to develop an integrated ecosystem that enables a sustained growth and resiliency. This is showcased by the success of our G1 and M1 SCBAs and our FireGrid application. Our focus on serving pillar cities and the associated halo effect those wins have will drive growth and market share gains. You saw real examples of this in the 2 case studies I reviewed.

Leveraging and scaling our current connected firefighter capabilities, fire helmets, turnout gear and boots, provides an unmatched head-to-toe solution for firefighters and makes it difficult for our competition to win. Over the past 2 years, we have seen strong double-digit growth in pillar city win percentage and revenue from those pillar cities. The fire services market fundamentals are strong and they're resilient during various business cycles. With our capability in developing products and solutions for firefighters, our market knowledge and customer intimacy, we are well positioned to outgrow the market over the next 5 years. So thank you for your time. We appreciate you being here.

And with that, I will turn it over to Rob Willis.

Rob Willis

Thanks, Bob. Good morning, everyone. My name is Rob Willis, and I've been with MSA for just about 20 years now, all within our R&D and marketing functions. I'm proud to say that I've spent my career advancing worker safety, whether that's through regulatory developments, where I attend and help write some of the fall protection and head protection code, or it's getting involved in product demonstrations, webinars or giving training.

But it's the commitment to safety that we have at MSA that excites me, and it's why I'm happy to be here to discuss how MSA is advancing worker safety through innovative industrial PPE solutions.

There's 4 key messages for today's presentation. Number one, MSA is growing share and gaining above-market growth in fall protection. In head protection, we have a leading position and we're extending that lead every single day. How have we done this? Through our deep customer relationships. At MSA, we understand our customers' problems. We understand their pain points, and we're able to create unique insights that give us compelling reasons to win. We take these insights and then we allow our tenured design teams to create the best products and solutions.

These products and solutions ultimately turn into diverse revenue streams. Whether that's revenue generated from our channel partners, or in distribution with the name and safety, or it's revenue generated from our end users from pull-through because we've solved an application-based safety problem. It's the strong foundation that we have in industrial PPE that has me so optimistic about our future.

Let's start by looking inside the business where in 2023, we did \$469 million between the years of 2018 to 2023. Head and fall protection, had a 4% CAGR. But if I had to describe the business in my own words, there's really 3 parts to it. You've got fall protection, which should be seen as a growth catalyst. We're growing share, gaining above-market growth, and it's one of the largest markets that we participate in.

Then you've got our industrial head protection, where we're the #1 position today, and it's been through iconic products like the V-Gard that's been around for 60 years and defined head protection. Industrial head protection should be expected to follow general economic conditions and track with GDP.

And finally, we have our other product category, which primarily consists of APR or air-purifying respirators. This is a

very sticky business for us. There's high costs associated with switching to other types of products. And historically, it's been a great source of cash generation. These are the 3 elements of industrial PPE.

From this point forward, I will focus primarily on fall protection and head protection from a market perspective. Those 2 combined have a total addressable market of \$2.5 billion, and we expect a market CAGR of 4% to 5% over the next 5 years.

While I won't list all the diverse markets on the left-hand side, what's important to note is that we have threads of consistency with growth drivers. The first one won't come as a big surprise but compliance with government regulation is a key driver. From OSHA's perspective, fall protection and slips, trips and falls continues to be the #1 citation. And I can tell you from talking to customers all over the world, we're hearing a very similar message, new regulation, new compliance and enforcement is coming along with it. This is truly one of the biggest drivers of industrial PPE growth.

These -- Speaking of government and government spend, in the U.S., we see things like the Infrastructure Bill continuing to be a source of steady employment. Consistent employment means consistent use of PPE. These markets also have a need for increased productivity. Last year, over 100 million production days were lost due to work time injuries. There is truly an economic need to keep our people safe.

When it comes to trends, MSA has always been in front of them, and we react when we need to. Today is no different. We're hearing discussions around the need for comfort, style and what's going on with heat stress. We'll have more on heat stress later. And finally, these markets are looking for technology but they want it done the right way. We have to be careful not to create a product, go out there and look for a problem. You have to start with insight and then use technology in a meaningful way to solve that problem.

A great example of this was the V-TEC io1, which was shown in the opening video and Greg went through it in his remarks. Again here, we took fall protection PPE, we worked with an end user, learned some great insight, and then we used technology to allow our PPE to talk to their product. It improved compliance, hence improving safety.

But it started with the insight and the customer. And that intimacy is what makes us unique. But how long can it take to really learn the problem? Well, that's what gives MSA such an advantage. We've got individuals with 10, 20, 30 years of safety knowledge. They've talked to different customers. We understand their problems. We've seen the perspective from so many different angles. That's what makes us so unique is that body of safety knowledge.

To bring this to light, I'll walk you through how we developed the V-SERIES harnesses. Thanks to the tenacity of the design teams, they watched work being done in harnesses for years. And the #1 complaint was always comfort. What we came to understand is that comfort wasn't solved as it traditionally was by adding more expensive padding in different locations.

What we observed was that comfort could be achieved by redesigning the shape of the harness so that it moves with you. And that's why a harness from MSA looks different than anyone else's because we figured out how to solve comfort through mobility.

It all comes back to that body of safety knowledge that drives innovation. I'm proud to say in a very specific example that over the past 5 years in the U.S. alone in fall protection, we have over 70 patents issued or pending, just that one small slice. This speaks to when MSA invests in differentiation, we make sure to protect it.

And finally, if there's 1 thing that rivals our strength in R&D, it is our strength in distribution, and we are the name in safety. We've got great access to customers. We've got a great network and we can deliver it fast.

And what's the growth story going forward? Well, from head protection, we will continue to leverage all the strengths we get from being #1, whether that's our scale, access to customers, or the influence we can give. In head protection, we're going to double down, leverage that size and continue to take more share.

In fall protection, the investments we've made in R&D are paying off because we're growing share and gaining above market. And again, it's one of the largest places we participate in. From the fall protection perspective, we see growth coming from our Need it NOW! business.

Jose mentioned changes we're making in operations to be producing closer to the customer. Need it NOW! describes a customer that needs innovation. They want a true problem solved, but the reality is they need products delivered 1 to 2 weeks. With the changes we've made, we will be able to supply products quickly through that distribution network and grow revenue because of these changes. Another element of industrial PPE that I'm very excited about is application-based problem solving. This will end up being a very resilient part of our business. And the case study on the next slide will kind of tie this all together.

This is all backed by the MBS systems. We will do things like SKU rationalization, footprint optimization. And that best-in-class R&D team, they help us innovate but they also help with margin improvement projects and dual sourcing initiatives. At MSA, we understand it's a total team effort to design and deliver great PPE. So all in, industrial PPE is looking at a 2% to 4% CAGR over the next 5 years. This does include all 3 parts of the business: fall protection, that we anticipate growing above the market; industrial head protection, tracking general economic conditions and GDP; and the other product category, which won't be a growth driver for us but it's a valuable part of our business with some really important customers, and it helps create a diverse product portfolio from MSA.

I'd love to spend a minute here on the case study of the WinGrip. So your background is when traditional aviation maintenance occurred or it was had to happen, large scaffolding systems had to be created. You can see a render of it in the bottom corner there. They're big, heavy, custom-made for each plane, and it was very time-consuming to do the work but you could do it at height. So to solve this inefficiency, MSA created the WinGrip, which you can see in the bottom right there. This is a mobile vacuum anchor, and you can install 1, 2, 3, however many you need on the aircraft, and you connect your PPE to it, allowing you to work safely at height.

WinGrips are lightweight, portable, can be used in any environment, and there's no electronics on board. This is truly a unique solution from MSA. The results have been fantastic. Our customers see a clear ROI as, again, they're not building complicated staging systems and tearing them down and moving them around from location to location. They're able to just buy the WinGrip, and that's why it's specified in maintenance manuals for major OEMs and military aircraft.

My point in showing you this case study is to help us all learn that there's different parts to this business. We've got our great PPE innovation, distribution-led business, and we've got application-based problem solving with products like the V-TEC io1 and the WinGrip. In the WinGrip's example, these can be big-ticket items where a whole set of these to outfit a plane gets into the 6 figures. So it's a nice spectrum of revenue that you can get in fall protection.

I'll close with 2 north stars. First is how we developed the V-SERIES of PPE. We're working to reduce OSHA's #1 recordable of slips, trips, and falls. And in talking to customers, we found out style and comfort matter. They have to wear these products all day long so they need them to feel good and they want them to look good. That's why those V-SERIES harnesses have a patent-pending racing-style buckle, redefining comfort and they look really modern.

Customers have a job to do, so ease-of-use matters. They need to be able to get back to work. And that's why the V-Shock product line uses colors, iconography, easy-to-understand documentation so that we can quickly train someone on how to use our products safely.

Compliance. Your PPE needs to be inspected every single day. And attention to detail matters so MSA uses clear housings on our V-TEC product line, clear housings that you see inside the unit and you know it's working safely.

And finally, availability. The world's dynamic and when PPE is needed, it's needed quickly. That goes back to the changes we've made in operations to be building PPE closer to our major markets and leverage that great distribution network.

Next slide to head protection. I'd like to close here with how innovation is going to continue to drive our leadership position in head protection. I mentioned earlier heat stress, and there's a lot of discussions around it in the industry, new regulations being developed, which MSA is participating in. And to get ahead of the curve, we recently launched the C1 cooling hard hat. Again, how this works is you've got a patent-pending ReflectIR barrier inside. And so the sun's energy comes down and it bounces right back off. That keeps the inside of that hard hat up to 20 degrees cooler. Cooler people are safer people and they're more productive.

We're hearing trends around the ask for climbing helmets or lower profile helmets. That's why we recently launched the H1 and the H2. They come with different levels of lateral protection. My point in sharing this with you is to describe the breadth of head protection solutions. We've got every application covered and that's why we're #1.

Finally, innovation can come through product partnerships. So we recently announced that the H2 is available with MIPS technology. MIPS, if you haven't heard of it, is available in biking, skiing, snowmobile. In a nutshell, how it works is you've got a slip layer so that if there's an impact on the side of the helmet, the force translates around it to the other side. It reduces the force through the helmet, reducing brain injury. We've got a sample of that out in the hall if you'd like to check it out after.

And finally, process. At MSA, we can take a customer's logo, put it on a hard hat and have it ready to be delivered in 5 days. That's some of the best in the industry. People are looking to catch up with us. So my point here is that innovation can come through product and it can come through process. And now to close again, your key takeaways.

In fall protection, we're growing share and gaining above the market. Head protection has that leadership position that's extending every day. How have we gotten here? Through our deep customer relationships, where we learn insights that we're able to turn into great products and solutions. Those products and solutions and in diverse revenue streams, whether it's pull-through our channel partner, distribution network or with the name and safety or through end user pull-through because we've solved those application-based problems.

That concludes my presentation for the day. I hope you found some of it insightful. I look forward to meeting you all at the break. And I thank you and I'll turn it over to Lee.

Lee B. McChesney
Senior VP, CFO & Treasurer

Thank you, Rob, and my thanks to all of our presenters today. So each did a nice job really sharing really what drives our 5,000 associates each and every day. So again, I'm Lee McChesney. I am privileged to serve as the CFO for MSA Safety.

Our presentation today has shown you that MSA Safety is a unique company. Yes, we have a great business. We have a compelling financial history, but it all starts with our mission. Our mission-driven culture serves as the foundation of everything we do. That mission started in 1914, that people go to work and they come home safe to their families each and every day. That mission drove us then and it still drives us today. I wake up each day with that mindset, that motivation, that purpose.

We really have been fueled for over 100 years. It guides us, our minds and our hearts every day, the responsibility of those 40 million workers we protect. That mission and culture, it's our competitive advantage. We bring that to life through unwavering focus on innovation and serving our end users. This morning, you've seen innovation come to life. Our innovation engine is fueled by experts in their field. Many of them have been doing this for decades, creating the best customer-driven solution out there.

So while the mission and innovation aren't new to MSA, neither is our mindset to improve. The MSA Business System has been coming to life for the last 10 years. It started out in operations under Steve's guidance and is now firmly established across the organization. It's a continuous commitment to drive lean principles throughout MSA Safety. The combination of all these elements really comes together in our value creation model that generates consistent strong cash flow and delivers a balance sheet most organizations would aspire to achieve.

So as we look forward, our leadership team is optimistic on the next phase for the MSA Safety journey. Our strategy is an evolution, what's really served us well over the past 5 years. So let's begin our dive into the next phase of growth with a quick update on 2024.

So last month, Steve and I provided an update on the first quarter and reaffirmed our outlook for 2024. In the first quarter, we were encouraged with a solid start to the year with mid-single-digit sales growth, expanding operating margins, and a balance sheet that really provides us tremendous optionality. Our view for 2024 remains the same again today. Our sales outlook of mid-single-digit growth matches what we're seeing on the order front across our global portfolio. We still see a path to 30% to 40% incremental margins, and our free cash levels will be close to 100% of net income.

So as I consider that outlook, the growth performance in '22 and '23 and compare it to some of the best-in-class peers in the industrial space, MSA Safety remains on a path of differentiated performance here in 2024. So these performance trends in '24 and over the past 5 years are proof points of what MSA Safety can deliver. The results came from a consistent value creation model. And that model starts with our growth enablers, which to no one's surprise, are rooted in an innovation foundation, one that consistently delivers 30%-plus product vitality across a broad set of diverse and resilient product lines that are focused on growing in the secular safety market.

As Greg and his team shared today, we spend significant dedicated time with our end users, understanding their challenges and identifying the right solution. Those solutions are then brought to market through a long tenured MSA Safety commercial team, who work with global channel partners to ensure market responsive commercial execution. Many of our best products come from this connection. You don't have to look much further than MSA+ solutions where you see the power of innovation and commercial connectivity coming together. That focus on growth, when combined with our expanding profitability enablers, provides a differentiated level of performance.

The MSA Business System is the engine that brings those streams to life and enables long-term resilient outperformance. Our MBS toolkit of common behaviors, ever-improving processes and best-in-class tools are a powerful combination. MBS provides us the foundation to deliver NPD that will generate improvements in margin and fuel sales momentum. It provides us the foundation to our teams to deliver increased levels of productivity, deliver pricing discipline that's focused on value propositions and really enables the functional groups to look at challenges in a different way and remove complexity in our organization.

Now the combination of the growth, the profitability and efficiency enablers fuels industry-leading financial performance. We can consistently invest in organic growth, deliver returns to our shareholders and complete high-quality acquisitions. As you've heard several times today, that capability has been on display well over the past decade. During a period of time that can only be described as challenging, MSA Safety has continued to perform.

We've delivered 5% growth CAGR despite the pandemic, supply chain challenges and a broad rotation of geopolitical challenges. Our well-positioned business groups serve as a broad mix of diverse markets, which really help us avoid the cyclicity often experienced by many industrials.

That growth foundation has served us well as we're really focused on improving our margins over the past decade from a 12.7% adjusted operating margin to 22.2% in 10 years. The momentum, it started in operations and our SG&A cost structure and has really blossomed again, into the MSA Business System, and we still see more opportunity in costs and on the balance sheet.

With that said, all of this comes to life in a pretty compelling return on capital employed over 20%. Our consistent growth, improving margins and a compelling level of capital efficiency deliver really a differentiated level of performance amongst industrials.

So let's turn to the balance sheet and the breadth of liquidity that's really available to us historically and as we look forward. Our balance sheet has been always an asset, and we've been able to leverage it, and it continues to get stronger and ultimately provides us exceptional optionality again. Over the past 10 years, we've maintained 90% free cash flow conversion that has allowed us to continually invest in the business while keeping leverage levels quite low.

I mean, consider the investments we've been able to make to fuel our business. Market-leading innovation that's fueled 30% vitality rates, long-term investments in the connected worker you've heard about today, acquisitions that significantly expand our fire services and detection business. And we've been able to fully fund the legacy liability divestiture.

And of high importance here today, we've delivered strong, consistent returns to our shareholders that significantly exceed market average shareholder returns. So as we look forward, this balance sheet strength will continue to be our foundation to drive returns to all of our stakeholders. Our debt-to-EBITDA ratio has been healthy over the past decade, and it's a good indication of what we can do going forward.

Broadly, our debt ratios on average will stay between 1.5 and 2.5x EBITDA as we consistently generate cash flow and improve those ratios quickly each year. I'd also note that we have, in the past decade, exceeded 2.5x for a short period of time for a few quarters for strategic actions like the General Monitors acquisition. And you might see us from time to time consider that on a really compelling basis.

So with that said, let's think about how we're going to really use this robust cash flow over the next 5 years. So let's start on the left side of the chart, which shows you our history of capital deployment. At a high level, there have certainly been a nice balance to investing in both organic and acquisitive growth and returning cash to our shareholders. We'll certainly start with our focus on organic growth, where about 1/3 of our dollars have been allocated to invest in our customers, innovation, and really building a stronger, leaner MSA.

We've also continued to deliver on the important commitment of dividends and share repurchases for our shareholders. As you've seen -- as you may have seen, we just increased our dividend 8.5%, which represents our 54th year of dividend increases.

And we also just communicated that our Board of Directors authorized \$200 million of share repurchase authorization that will enable us to fully offset dilution pressures from our employee compensation plans and provides us opportunistic reinvestment. We are in the market today under that program.

Finally, we have made a meaningful allocation toward 3 acquisitions and the strategic legacy liability divestiture, investments that clearly accelerated our business performance and delivered significant value creation for our

shareholders.

So as we look forward, there's an opportunity to see a similar balance across all 3 priorities, 1/3 going towards organic growth to continue our innovation, our customer and business capability journey, up to 1/3 going to our shareholders again through dividend and consistent series of share repurchase activity, and then finally, 1/3 going towards M&A, which has been a clear value creator and potentially could play a larger role going forward.

So let's take a few minutes to explore that M&A opportunity a bit more. Now it goes without saying, our first focus is organic growth for MSA Safety. The mix of products, the diversity of markets, the strength of our product lines that fuel our business across the globe, it's been our consistent first priority. However, with our focus on the mission, serving our customer, we've also enhanced that journey with a more consistent approach to finding high-quality acquisitions and has increased our impact to all of our stakeholders.

So I'm delighted to have Chris Hepler and his team now turning their full attention to organic growth and include acquisitions and capability investments. Chris will partner with the global leadership team and really find the right opportunities to enhance our portfolio. So where will these efforts be focused? Well, our core objective is to enhance the 3 major business portfolios we have today. We continue to seek out strategic bolt-ons and look for really complementary adjacencies.

Certainly, we like the characteristics of detection. Bacharach was a great example of a group with strong brands, excellent market position in a space we already had some experience in. Within fire services, there could be a geographic opportunity or a further expansion what a firefighter uses to fight a fire. And finally, as you just heard from Rob, we like head and fall protection. So if there are assets that could accelerate our progress, we'd certainly look at them as well.

Now broadly, we have a clear acquisition filter that requires leading market and brand positions, an ability to expand our TAM, businesses, again, where technology fuels differentiated solutions, and opportunities that could further diversify our end markets and the geographic regions we serve. With all that said, we'll continue to be disciplined on the financial returns we target with acquisitions. Generally -- again, we're looking for opportunities that enhance growth and bring accretive margins within the first few years of ownership and enhance the portfolio.

As I've said before, M&A has been an enhancement to the MSA story, the results, and we're positioned well to bring the right opportunities forward. So on that note, we have a strong track record of doing M&A by being selective. On this slide, you can see really an assessment of our most -- 4 most recent acquisitions. You understand that we looked at over 50 before we got to these 4.

So we have a standard set of strategic and financial criteria that every opportunity is assessed against. So when you bring these deals together, think about the amount of capital we deployed and the value creation, you can understand the investments have delivered really a really strong return.

And we continue to look for lessons learned. So recently, Chris and Stephanie championed the process to really deeply dive into these past investments through our toolkit of the Business System and identified several improvement areas that are now being enhanced into our integration toolkit for future deployment.

So with that said, let's turn to what that all means. Well, it all starts with what you've really seen from the team throughout the day. We're going to continue to be the leader in premium safety solutions. We'll follow our mission. We'll fuel that with market-leading innovation and continue to focus on markets where our product lines have served us so well.

We've also identified growth accelerators that have the capacity really to enhance our trajectory and fully offset headwinds that likely will come our way. But our continued focus on delivering full solutions versus products, increasing our recurring revenue through an expanded focus on service offerings, pursuing connected solutions in higher growth areas like detection, we're going to leverage the MSA Business System fully across the organization and deliver benefits to our customers and to our shareholders. And then finally, we will continue to leverage our cash flow and resulting stellar balance sheet to fuel our business and deliver strong returns to our shareholders.

So what does it all mean as you think about where MSA Safety can go over the next 5 years? So first, we foresee really a compelling opportunity to generate differentiated value creation. Yes, we are an industrial, but again, we're not your average industrial that brings a fair amount of volatility. Our resilient business has come through consistently year in and year out. And that's the same mindset we have as we look forward here.

Over the next 5 years, we have the growth programs to drive consistent mid-single-digit organic growth, leverage our market position and enhance the journey with our consistent investment in innovation.

We will continue to leverage the business system to target operating margin and working capital improvements annually across the organization. 30 to 50 basis points is what we'll target at each of those areas, and we stand ready for whatever the macro brings our way.

Productivity, driving positive product line mix, managing inflation, value pricing and really the ability to deliver an adjusted operating margin that approaches 25%. Broadly, this is a platform with an organic EPS beyond \$10 with a significant platform for M&A to drive an expansion even further.

So all of this is fueled by disciplined capital deployment, leverages over \$1 billion of free cash flow generation and a really nice mix of broad debt liquidity we have at our disposal. We have this balance sheet that provides us the fuel to drive organic growth and invest in M&A, and it's just a powerful optionality we have to look at, all again coming together to sustain a strong ROCE, over 20% on an expanding capital base.

So as we look forward, we see an opportunity to deliver over \$2 billion of sales organically. As you heard today, our detection business growing up to 7% organically, our fire service business growing up to 5% organically, our industrial PPE business growing up to 4% organically. The Business System's serving to accelerate our performance and provides that platform again to continue driving improvements in our margins and our working capital levels.

Keep in mind our history. Our adjusted operating margin rate, again, was in the low teens. We went to work to get it to the mid-teens, then the high teens and then 20%. You heard that when we kicked off the day. Certainly, it gets harder to drive the rate further, but we do see that path to approaching 25% adjusted operating margin. These objectives represent really a continuation of our mindset to deliver sustainable value creation like we have over the past decade.

So we began this presentation with highlights from Nish on shareholder value created over the last 3 CEOs. I want to bring that view to our shareholder performance over the -- really, the last 10 years. So whether you compare MSA Safety to the S&P 400 MidCap, the S&P 400 Industrials, the S&P 500, MSA has delivered differentiated value. The business has grown resiliently and increased its margin rate close to 1,000 basis points.

So my final thoughts are all about where we began. For MSA Safety, it's not about the number, it's about the mission and our culture that is our competitive advantage. Our organization is focused on serving that mission and fueling that pursuit with customer-influenced innovation. That focus drives a strong business model that provides our stakeholders an outperformance opportunity and does so really with a level of resiliency not often seen.

That formula is why this business has survived for 110 years, why it's performed so well over those past 3 CEOs and

really why it's thrived over the past 10. And while you still see the team here today with a mindset that we can do it again. I will now pass you back to Steve to close our prepared remarks. I say thank you for your time and your interest in MSA Safety.

Steven C. Blanco

President, CEO, COO & Director

Thanks, Lee. So first of all, thanks to the team. I hope you heard the passion and got a sense for just how optimistic the team is about the future, leveraging what we've done in the past but continuing well into the future. I think we're well positioned to continue driving value for our shareholders. We feel good about that. We think we've made excellent progress over the past several years staying focused on our customers and on the mission.

We're in attractive and resilient end markets and we expect that to continue. We think the innovation engine, which has fueled us for 110 years is what's going to continue to fuel us well into the future as we serve our mission for our customers. And the Business System, you heard a lot about it. You've got some good examples, I think, from the team on how we've utilized it. And really, it's permeated throughout the enterprise. We believe it's just really in the beginning stages. We think there's a lot more opportunity for what it can do to the organization.

And of course, as you look at the capital deployment, as you heard Lee talk about, we think that's a great opportunity for us to really leverage what we do and to be more effective in the utilization of capital going forward inorganically as well as what we do from the organic side. So we've put targets out there. We're excited about what those targets show, and we're looking forward to your feedback and the growth story as we go forward.

So with that, I think I'll turn it over to Larry and we got another Q&A.

Larry De Maria

Executive Director of Investor Relations

Thank you, Steve. Okay. We're going to turn to our final Q&A. And this concludes our prepared remarks. Please give us a moment while we get [seated] on stage here, and we'll get going in a second. And as a reminder, for those of you on the webcast, please feel free to submit your questions online and we'll get to those as we proceed through the Q&A. Right. Let's get started. Rob, thanks.

Question and Answer

Robert W. Mason

Robert W. Baird & Co. Incorporated, Research Division

Thanks for the presentations. Lee, towards the end, you mentioned value pricing in your commentary. And I'm curious how really the company thinks about within this 3% to 5%, how you're -- what you're including for price? And maybe more specifically over the last 3 years or so, as you've had to go out for more price, has it changed your thinking about MSA's entitlement around pricing, particularly in this premium part of the segment that you play in?

Lee B. McChesney

Senior VP, CFO & Treasurer

Yes. Yes, I'll start. I appreciate the question, Rob. So we have built really a nice capability around pricing over the past decade as part really under the MSA Business System banner, and it served us well, right? And it's really a tool that we've built a team around. It's deployed across the globe, it's deployed in all the businesses. So it's enabled us to really offset certainly what's been a period of high inflation. But I think we're now moving into this more period of a normalized inflationary environment, and that's one certainly where there's kind of a range of options on the pricing spectrum. So I think we're well prepared.

As we look out over the next 5 years, I think a safe assumption is more moderated levels of inflation kind of between 1% and 2%. And we think between all the different tools you have and the pricing toolkit, we'll be able to mitigate and deal with that inflation. But I also think we're ready to respond no matter what happens in the market. There's some elections that come up that could change some things. We know we've built a really nice team around the globe, and we've proven that we've been able to navigate that. So I think we're still in a very good place, Rob.

Robert W. Mason

Robert W. Baird & Co. Incorporated, Research Division

Just to follow-up a question real quickly on fall protection. You've been in this status of #3 player in the market but gaining share. Could you just update us on where you think that share gap stands today, how it may have changed over the last few years? And then I'm curious if, you're obviously innovating in fall protection, how your top 2 competitors are - is any 1 or 2 or both innovating -- trying to innovate at the same pace, would you make a distinction there?

Steven C. Blanco

President, CEO, COO & Director

Yes. Thanks for the question, Rob. So if you think of fall protection, there are -- there's a number of different participants in the market globally. Where we see that space, you can kind of parse it out 2 ways. There's really 3 bigger players that participate and we're 1 of those 3. We are third right now in market share. And then there's a lot of other players in the market. There's some right behind us, but by and large, that bottom 50% is -- it's a long tail that's pretty broad. And we have participated in a market over the last, gosh, we -- I think it's 2016 we determined we're going to make that core. And once we determined that was core, we said that's going to get the same innovation investment resource that some of our other core categories got. We acquired Latchways for the mechanical side and we've been reinvesting in that business.

So our market share, we're still third but we're now double digits in our market share. We've doubled that market share over the last 5.5 years, 6 years, I guess, because that included COVID. And we're super bullish about the opportunity to continue to grow. Now we've got in the market scale that really previously, we were trying to get people knew the brand

of MSA. Fall protection wasn't what they really kind of leaned into in MSA until the last couple of years. And our brand recognition is now at the top of the game, even with the other competitors.

And how they're participating? We got strong competitors. We've got a couple of big competitors that are global in nature. They continue to be really strong competitors. But we do feel like where we're innovating, the things that Rob talked about, are really creating a gap in product capability. What stopped us from growing faster, quite frankly, is our supply chain issues and our ability to deliver. This is a product category where you need it now, right? Its -- helmets are very similar. We've got great scale in helmets and we've got great coverage because of distribution. But with the challenges we've had, it's really -- we've had these stops and starts where we've gotten product to the customer, and then we've had supply chain issues and we can't deliver in a timely manner.

The unique thing for us and what really makes me pretty passionate about this is most of the times, when you can't deliver to the customer because you've got a supply chain issue, they don't come back to you, right? They get something else and they say, "Okay, well, I got this from this other competitor", and they're satisfied. With fall protection, every time we have product available, they come right back to us and they continue to tell us, "Your brand, we trust what you guys do here." So we've -- that's why we've done that footprint rationalization and changed our strategy and really have a center of excellence we put in Mexico to really improve our delivery performance and we're following that up with the supply chain. So we're equally excited by what the next 5 years can do on fall protection, too.

Larry De Maria

Executive Director of Investor Relations

Thanks. Let's go to Stanley over here, please?

Stanley Stoker Elliott

Stifel, Nicolaus & Company, Incorporated, Research Division

Lee, could you guys talk a little bit about the margin targets you framed down? So the 23, 25 how should we think about that split versus the International business versus the Americas business? And then is this going to be coming from gross margin expansion or is it just kind of leveraging the cost structure?

Lee B. McChesney

Senior VP, CFO & Treasurer

Thank you, Stanley. So we spoke just together in the same place about 30 to 50 basis points of operating margin improvement being targeted each year. And I think similar to what you've seen from us over the last several years, it's a good balance of both gross margin and SG&A opportunity. It's certainly something we look for everyone to participate in. We've made a lot of progress. If you look at -- go back to the history of where we've moved from 12% to 22% operating margin, really, we saw that come to life across the board. So that came across in the Americas, in International markets. And then if you double click down, you get into things like Latin America, Latin America is really almost up to line average now.

So I think overall, there's opportunities, there's still plenty of opportunity out there. You do have some parts of the world where maybe the competitive set or scale is not quite where it is in the strongest places they are. There's going to be that dynamic and then maybe there's a little bit of a cost structure in some parts, like Europe's going to be a challenged place.

We love the progress. We think it will continue to improve. But I think most people have found that Europe doesn't have the same operating margin at the end as others. But again, we love the growth there. We love the progress we're showing there as well.

Stanley Stoker Elliott

Stifel, Nicolaus & Company, Incorporated, Research Division

And then maybe a little bit more color, I guess, on the leverage assumptions that are based within these numbers, right? I mean, if you could do a 90% free cash flow conversion off of \$11, you're basically close to that \$1.5 billion. That's before you'd even lever up to 1.5, 2x, whatever that number is. How should we think about leverage that you guys want to comfortably run with? Is it opportunistic around M&A? Any color there would be great.

Lee B. McChesney

Senior VP, CFO & Treasurer

Yes. No, I appreciate the question. So to your point, good math. You look out on those targets and U.S. cash flow of about \$1.5 billion over 5 years. And again, I'll go back to the capital allocation I talked about earlier. 1/3 of that certainly goes to organically reinvesting in the business, 1/3 going back to our shareholders, and then 1/3 for M&A opportunities. So you're right, just that alone is an incredible amount of optionality for us to utilize on the M&A front.

But as you look at kind of some of the things we're interested in, whether it's in the fire space or in the detection, and we even talked again about things like PPE and the multiples you got to pay, you're going to need that cash flow and some level of debt. I think I want to try to give color out there that 1.5x and 2.5x is a comfortable zone. We can -- the P&L, the balance sheet can support that. Our challenge will be to find the right opportunities at all to meet all that criteria.

But I think our message today is we have that capacity. That's where the bolt-ons. And a bolt-on today is different than a bolt-on than what it was 5 years ago in terms of size we can do. And then you really look at these near neighbor opportunities that we're also interested in the world. They are really like natural extensions, increases the TAM that we planned. I think you got right to the core, to the heart of it. We have more opportunity in this area than we've ever had.

Larry De Maria

Executive Director of Investor Relations

Thanks. Ross, please?

Ross Riley Sparenblek

William Blair & Company L.L.C., Research Division

Thinking about the Detection growth, international piece has historically lagged the Americas. Anything we should read into that? And how do we think about the greater market opportunity going forward? And then just given that detection is expected to be a bigger piece of that mix, what does that imply for the margins and just looking for the overall resiliency of those targets?

Steven C. Blanco

President, CEO, COO & Director

Ross, can you repeat the first? I'm sorry, I didn't catch it.

Ross Riley Sparenblek

William Blair & Company L.L.C., Research Division

Just your expectations for International versus Americas on the detection growth?

Steven C. Blanco

President, CEO, COO & Director

Okay, on Detection specifically. Yes. Thanks for the question. So when we think of Detection, you probably noticed strategically this time on Investor Day, we focused on product market categories. We didn't focus on regions. And that's because we believe we can participate and win globally with these 3 categories. So when you think Detection specifically, the markets there, I'm going to parse it out a couple of different ways.

So I'm going to start with what we would call infrastructure, the fixed -- fixed monitoring, really, categories. And we're really -- we look at that internationally as a real growth driver, an opportunity, especially in the Middle East and Asia. The Middle East infrastructure spend continues to go up. We think historically about energy and oil and gas in the Middle East but there's a lot of hydrogen work going on there as well as carbon capture, right, the CCUS, carbon capture, utilization and supply, as they're trying to capture that, that technology has been out for a little while but they're now really leaning into applying that technology to make sure that they hit certain goals that they've set. And we've seen that play out well for our business and we expect that to continue in the hydrogen space.

So you've got this energy spectrum that's fairly broad. And when you add those all up, it's a pretty good story from a growth perspective over the next probably 7 or 8 years, at least. And the Middle East is going to play in that. Asia Pacific and then Latin America and North America as well. Europe, we think, is pretty stable in that regard.

And then when you get to the portable detection, this is an area where we've already seen strength outside of the U.S. for this ALTAIR io 4, this connected device. We've seen some really nice progress, and we just again have been launching this globally. We started in the U.S. but getting these approvals across the globe because of the cellular coverage, et cetera, we've just been knocking through. I think we're in over 60 countries now. LAR, as soon as we got it out there, we got this big customer that said, "I really want to move this way," and we got a really nice win there. We just had a nice road show in the Middle East. The team was in Saudi Arabia and the reviews were fantastic.

So again, I would say Detection overall, we're very bullish internationally. I think the growth will probably come more Middle East and Asia than Europe. Europe is more of a stable business. They like the technology. That Europe -- if I could just swing a little bit, Europe is going to be a focus on Fire Service share and Detection share.

Ross Riley Sparenblek

William Blair & Company L.L.C., Research Division

And then just maybe parsing out the framework on the 3% to 5% market growth, it looks like implied 3% overall market. You had a couple of points of share in price. But then we also have this digital narrative and recurring revenue stepping up to, I think, 20% of sales in the coming years. I'm not sure that overlaps with the share, but I mean, maybe just help us conceptualize?

Lee B. McChesney

Senior VP, CFO & Treasurer

Yes. No, I'll do that. You got a pretty good math there, Ross. So just in case you didn't hear the question, just, hey, you think about that revenue outlook, what's the dynamics within price and GDP and market share. So it's a similar that we've talked about in the past with the mid-single-digit growth. There's probably a point or so, price 1 to 2 points, depending on what's going on with the inflationary environment. Certainly, GDP, certainly some, I'll say, depressed views of GDP over the next 5 years. But normally, that might be a little bit higher. And then the rest of it really goes to just what we're doing through innovation and commercially to win in the marketplace. So it's the same mix. I think the GDP is probably a little bit of the difference maker as you look out for the next couple of years.

Larry De Maria

Executive Director of Investor Relations

And we had a question online that maybe build on Ross's question around recurring revenues, maybe where they are now and what they could look like going forward in the future?

Steven C. Blanco

President, CEO, COO & Director

The question is on looking...

Larry De Maria

Executive Director of Investor Relations

Where are we now and where can they go?

Steven C. Blanco

President, CEO, COO & Director

Recurring, recurring revenues. We're about 15% right now on recurring revenues. We're not going to put a number out there for the future yet. And part of that is because what we're trying to do is make sure we provide our solutions the way the customer wants to buy. I think Greg hit this earlier. We think the industrial space is more mature and probably will make that transition a little more quickly. They'll adapt that technology. We've seen a bit of a pull, right, when we've had these discussions and showed them the technology.

Fire Services, a very traditional market, high interest in the technology but how they apply it and use it, at this stage, it's fairly early in the game. Some of the bigger departments, we looked at this and see this as something that helps us win not by itself but it's one of that -- really the suite of different capabilities we have that then we're able to win some of these larger opportunities. But I think going forward, we're going to see that appreciate.

The question is the time line that it happens. We've studied other firms in how they've done this in other types of businesses. And that time horizon is different. So we're very aware of that and we're very measured in how we go after it. We're going to have the suite of technologies to make it happen, but I think the percentage is going to be -- it's going to be up to the customer how quickly they adapt. I don't know, Greg, if you got anything else you want to add to that.

Gregory L. Martin

Senior VP and Chief Product & Technology Officer

No, I'd just add, that 15% is really our standardized recurring parts, services, our contractual subscriptions, all of that, and we see that growing at a much faster pace than our standard business because you have adoption and uptake but then you also have market expansion on top of that. So we really do see that growing nicely over the next cycle.

Larry De Maria

Executive Director of Investor Relations

Thanks. Another one online. It looks like you've taken a step forward in terms of growth with your long-term targets. What has to go right to hit these targets? And if we fast forward a couple of years and you missed these targets, what went wrong?

Steven C. Blanco

President, CEO, COO & Director

Well, we have -- we put a strategy together and define some targets that the team has high confidence in and believes in. So I would start there. We feel good about the targets. Obviously, it's the first time we put targets out. So we felt this

was important to define them and share our perspective in a way that showed you confidence in where we think we can be.

So certainly, we expect the execution requirements that some of the team laid out today as part of that story and how we do that. But as we said earlier, certainly, we know that the economy can do different things. We know that based on what we've seen over the last 5 years. So there's possibilities that something different would happen. If that didn't happen, if the economy was a lot tougher than we think, again as we said, we've got a very resilient business. It's shown its ability throughout economic cycles to really be able to weather those storms. And we also know how to pull the right levers. We do a nice job. The team is very focused on making sure we keep the balance sheet intact, and we would do that again if we needed to.

Larry De Maria

Executive Director of Investor Relations

So another question looking for additional color on the M&A assumptions, which obviously feature a lot of the presentations today. Can you maybe talk a little bit about the M&A pipeline multiples and what we're seeing in the market?

Steven C. Blanco

President, CEO, COO & Director

Yes. How about I start, and then I'm going to hand it to Lee to close it out a little bit? First, the 3 categories we play in, right? There's 3 product market businesses we have. Those are -- we're staying within those swim lanes, so to speak, because we feel like there's just a lot of opportunity to participate in those. And we view the markets as very strong and providing a lot of opportunity for expansion and growth.

So it's going to be in those spaces, first and foremost. We're excited. Lee's super excited. I think Chris is, too. We've got Chris dedicated, which gives you a perspective on our belief of the need for M&A and the capability we have, again, in a disciplined way. But yes, we're -- I think we think that it's an area that we can grow. And why don't you talk a little bit about what's the sizing and the criteria?

Lee B. McChesney

Senior VP, CFO & Treasurer

Yes, I'll do that and maybe just get a little bit of a market update as well in terms to the question. So as we've talked about today, M&A has been important, has enhanced the journey for MSA Safety. So we've had really the entire leadership team has some relationships in the marketplace that we leverage and we have, obviously, our dedicated M&A team. And we're always keeping the funnel warm. Certainly, the last year or 2, the numbers speak for themselves. Not a lot of transactions have occurred. But I would say over the last 9 months, it's a lot warmer.

So conversations are occurring. People clearly know we're interested and we're going through our valuation process. We've been through some processes. I mentioned earlier, we're disciplined and they got to hit all those boxes. So I think we're optimistic. I think everyone -- I think I heard this quote even this morning, the dollars are increasing in the M&A space, the number of transactions are still lower. But that's a good place to start because that means there's going to be more coming. So -- and I think just again, as Steve said, we've oriented towards this, whether it's the resources we're putting into finding opportunities or making sure we're prepared to do the integration well, as I mentioned also.

In terms of sizing, I mean, I would start off with, look at what we've done in the past, right? We've done these nice bolt-on acquisitions. You could certainly size it a bit higher because we're a larger group. The balance sheet is even stronger than it was in the past. But I still give you those guidelines on leverage on purpose because it defines who we are as a safety company and kind of the level of risk and the level of how important that balance sheet is to us to give us

optionality.

But I said there could be some scenarios like General Monitors. General Monitors, we went into low 3s. It checked every box we're looking for, and it really helped accelerate our journey in the detection space. Again, we were already in the detection space. It wasn't a surprise we did that, but it really accelerated our journey. So -- but it would be within those financial thresholds.

Larry De Maria

Executive Director of Investor Relations

Another one for Stephanie. You've had good growth in the Americas segment over the past several years. Where do you see the best opportunities going forward? And what should we expect in terms of margins?

Stephanie L. Sciullo

Senior VP & President of MSA Americas

Sure. So I'll tie together a couple of the things that we've been talking about this morning. The Americas certainly has had a very strong position and strong track record for many years. And I'll take this generally from a product portfolio and from a geographic point of view as well. If we think about this generally, we see opportunities in top line growth and margin expansion.

Speaking to some of these questions over here, first, just GDP. I mean, your basic market growth throughout the Americas provides some of our opportunity to grow. And that's before you get to possible TAM expansion, pricing, mix sophistication from that perspective or before you even think about the point or 2 that we can be taking on share. And the time that I've spent in the Americas, talking with customers, talking with partners, I like the position of strength that we have in our strong market share positions and the strength that, that allows us to be able to move from, and strength of brand recognition, strength of scale and reach, strength of customer intimacy.

So that's actually, to me, a very good position to continue to grow and to have all of those different levers between market share, GDP mix, the TAM expansion and pricing opportunities. So with that portfolio, I continue to see good opportunities for profitable revenue growth generally across the Americas.

From a product portfolio standpoint, we also see opportunities across each of these lines. In particular, Bacharach, you heard a little bit about refrigerant detection. That is fueled by regulatory tailwinds in multiple geographies and that includes Europe as well. Our connected portable devices, we have a considerable runway here. Steve talked a little bit about some of those geographies where we're announcing these products. Customers are saying, yes, we want this and we want it from MSA because you're a brand that we trust.

If I look at detection, continued opportunities in that energy security and the clean energy applications and energy transition. Serving all of our fire departments throughout the Americas, and we have continued runways, particularly in Latin America on fire detection and some of the larger departments down there. Fall protection, we certainly talked about this morning as well.

And then finally, I see some opportunities across the 2 continents in turnout gear. That's a place where we have replacement cycles but also the ability to continue to win share and serve all of those fire departments that know us from fire helmets and our breathing apparatus as well.

And then in terms of other margin expansion, the productivity improvements that we have an opportunity there, we'll continue to be able to drive some of those efficiencies through our Business System behaviors. So I really see a lot of opportunities and a lot of different levers that make me excited about our runway.

Larry De Maria

Executive Director of Investor Relations

Great. Just a couple of more online here. But On the Fire Services presentation, you showed, obviously, U.K. Fire Brigade and the West Coast win. Are there more pillar cities out there over the next few years to keep an eye on?

Steven C. Blanco

President, CEO, COO & Director

Yes, thanks for the question. I'll just parse that out a little bit. There are -- I would say when we look at the globe, there are certainly some pillar cities still in the Americas that are front and center over the next few years within this time horizon, which we're participating in and feel like we have a great opportunity to compete.

International, over the next 2 to 3 years, we expect to see a lot more opportunities because of our M1 that's bringing to bear our chances to compete in some of those things. So you're going to see some of those in Asia over the next 24 to 36 months even and some in the European theater as well. So we are expecting to see more pillar cities. I think in the international market, the comments that Bob Apel talked about with the pillar city and the ability once you have that city to be able to participate in other adjacent departments and get those wins is probably even more important.

And we've got -- when you think of the U.K. when we were able to win London and have that customer, we're really fortunate and we've got a great relationship we continue to build with London. But the amount of wins we've already had for a country where we had no participation before London's win has been fantastic. So we expect that to play out again in some of these other big opportunities in the International segment. In the U.S., in Latin America again, there's some not as many relative to the scale of the business but there's some really nice opportunities coming forward.

Stephanie L. Sciullo

Senior VP & President of MSA Americas

Yes. If I could add, in the Americas, we have opportunities with pillar cities, and we're really proud of the pillar cities that we've been able to win, earn their trust and continue to serve. But we really think about this as G1 for all. We have the ability to serve those large departments with our most sophisticated products, the top technologies with G1 and certain connected devices and doing something pretty custom for those top departments.

But for even the smallest volunteer departments, there's a modularity with the M1. There's the ability to have certain features that are an essential G1 that might not be all of the bells and whistles but are still available that are sophisticated technology and add a strong margin profile that we're able to play at any size of the department across the Americas.

Larry De Maria

Executive Director of Investor Relations

And then maybe the last 1 here. What part of the investment thesis is least appreciated or most misunderstood by the market, maybe something that came up today that you want to double down on?

Steven C. Blanco

President, CEO, COO & Director

Yes. Thanks for the question. I think we talked a lot about the mission. I would start with the mission because it really enables us to have this really inspired and dedicated team focused on the customer. It's -- and I didn't start with MSA but as I've been here, it brought me here, brought Lee here. You think about the talent we have and their passion to serve

the customer. It's really unique. It's a team of associates that every day are going to do everything they can to support the customer, and that helps our business, right? It helps the customer because we protect that customer with our solutions. But it really, I think that's something that the reason we talk about that so much is just how innate it is within the buildings of MSA and our culture. So I would say that would be first and foremost.

I also would say that number two, this transition we've made into the solution set is not to be taken lightly. And we believe that this is where the industry is going and our ability to pivot, which we've been doing for years with some of the technology we've been creating. But what we think the market is going to do with that over the next 5-plus years should be really good for the business.

Larry De Maria

Executive Director of Investor Relations

Great. Okay. Well, that concludes our Q&A session. I want to thank everyone for your time today. We're excited about our positioning and the journey ahead. We hope this was an informative presentation and event for everyone with us here and those who are on the webcast.

Thanks for joining us, thanks for your ongoing support, and we look forward to connecting with you again. Thank you, and have a great day.

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