



MSA
The Safety Company

INVESTOR DAY
May 22, 2024



Welcome & Opening Remarks

LARRY DE MARIA

EXECUTIVE DIRECTOR, INVESTOR RELATIONS



Cautionary Statements Regarding Forward-Looking Statements

This presentation may contain (and verbal statements made by MSA® Safety Incorporated (“MSA Safety”) may contain) “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements relate to future events or our future financial performance and involve various assumptions, known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. These risks and other factors include, but are not limited to, statements in this presentation regarding our expectations of future results, performance or financial condition we express or imply in any forward-looking statements. In some cases, you can identify forward-looking statements by words such as “may,” “will,” “should,” “expects,” “intends,” “plans,” “objectives,” “anticipates,” “believes,” “estimates,” “predicts,” “potential” or other comparable words. Actual results, performance or outcomes may differ materially from those expressed or implied by these forward-looking statements and may not align with historical performance and events due to a number of factors, including, but not limited to, those discussed in the sections of our annual report on Form 10-K entitled “Cautionary Statement Regarding Forward-Looking Statements” and “Risk Factors,” and those discussed in our Form 10-Q quarterly reports filed after such annual report. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements, and caution should be exercised against placing undue reliance upon such statements, which are based only on information currently available to us and speak only as of the date hereof. We are under no duty to update publicly any of the forward-looking statements after the date of this presentation, whether as a result of new information, future events or otherwise, except as required by law.

Non-GAAP Financials

To supplement our Consolidated Financial Statements presented in accordance with generally accepted accounting principles in the United States (“GAAP”), we use, and this presentation includes, certain non-GAAP financial measures. These financial measures include adjusted operating income, adjusted operating margin, adjusted EBITDA, adjusted earnings, adjusted earnings per diluted share, R&D investment, net debt, debt to adjusted EBITDA, net debt to adjusted EBITDA, free cash flow and free cash flow conversion. We believe these non-GAAP financial measures provide information useful to investors in understanding our operating performance and trends, and to facilitate comparisons with the performance of our peers. Management also uses these measures internally to assess and better understand our underlying business performance and trends related to core business activities. The non-GAAP financial measures and key performance indicators we use, and computational methods with respect thereto, may differ from the non-GAAP financial measures and key performance indicators, and computational methods, that our peers use to assess their performance and trends.

The presentation of these non-GAAP financial measures does not comply with GAAP. These non-GAAP financial measures should be viewed as supplemental in nature, and not as a substitute for, or superior to, our reported results prepared in accordance with GAAP. When non-GAAP financial measures are disclosed, the Securities and Exchange Commission’s Regulation G requires: (i) the presentation of the most directly comparable financial measure calculated and presented in accordance with GAAP and (ii) a reconciliation of the differences between the non-GAAP financial measure presented and the most directly comparable financial measure calculated and presented in accordance with GAAP. For an explanation of these measures, together with a reconciliation to the most directly comparable GAAP financial measure, see the appendix of this presentation.

Today's Agenda & Speakers

8:30 AM **Welcome & Opening Remarks**

Larry De Maria

Executive Director, Investor Relations

Protecting Lives for 110 Years

Nish Vartanian

Non-Executive Chairman

Building on a Strong Foundation of Safety Innovation

Steve Blanco

President and Chief Executive Officer

Driving Value Creation with Operational Excellence

Jose Sanchez

Vice President, Global Operations

Protecting Customers through Innovation and Connected Strategy

Greg Martin

Senior Vice President, Chief Product and Technology Officer

Impacting Worker Safety Across the World

Stephanie Sciuolo

Senior Vice President and President, MSA Americas

9:50 AM **Q&A Session**

10:10 AM **Break**

10:20 AM **Expanding Our Leading Detection Solutions**

Gustavo Lopez

Vice President, Product Strategy and Pricing

Furthering Fire Service Safety Solutions through Connected Ecosystem

Bob Apel

Executive Director, Global Fire Service and Digital Experience

Advancing Worker Safety through Innovative Industrial PPE Solutions

Rob Willis

Global Product Group Director, Industrial PPE and Fall Protection Systems

Our Next Phase of Outperformance

Lee McChesney

Senior Vice President and Chief Financial Officer

Closing Remarks

Steve Blanco

President and Chief Executive Officer

11:40 AM **Q&A Session**



Protecting Lives for 110 Years

NISH VARTANIAN

NON-EXECUTIVE CHAIRMAN



Purpose-Led Company Driven by Our Mission of Safety

MISSION

That men and women may work in safety and that they, their families, and their communities may live in health throughout the world

VISION

To be the world's leading provider of safety solutions that protect workers when life is on the line

We pursue this vision with an unsurpassed commitment to integrity, customer service, and product innovation that creates exceptional value for all MSA stakeholders

VALUES

Embracing change and encouraging innovation in a culture of safety



110-Year History of Leading Safety Innovation

1914 - 1919

Introduced key products including Edison Flameless Electric Miners' Cap Lamp, Gibbs SCBA, and CO detector

1935

Launched Explosimeter Model 2A, became standard for combustible gas detection for decades

1962

Introduced first version of iconic V-Gard® helmet, became world-recognized for comfort, quality, and durability

1971

Long-life, lithium-iodine battery developed by MSA subsidiary for use in first heart pacemaker

1987

Invented Quick-Fill® System allowing firefighters to replenish air supplies during emergencies, became part of NFPA standard for all manufacturers

2002

Acquired CGF Gallet, leading European manufacturer of protective helmets for fire services

2010

Acquired General Monitors, leader in innovative gas monitoring and flame detection instrumentation

Launched revolutionary XCell® sensor line, set a new performance standard

2017

Launched state-of-the-art Fixed Gas Platform X5000 & S5000 Transmitters with MSA XCell® sensors



2018

Reimagined fall protection with new V-Series® Line



2021

Acquired Bacharach, leader in HVAC-R gas detection instrumentation



Continually innovating in pursuit of worker safety

1900s

MSA Safety founded in response to Jed Mine explosion in West Virginia

1914



Designed filter system and aerosol filter respirators for Apollo 12 spacecraft

1969

Launched TIM System (Total Instrument Manager), world's first computer-controlled, networked, portable instrument calibration and record-keeping system

1996

Patented M7 Responder Combination SCBA became standard at global U.S. Air Force bases

2008



2000s

Launched M1 SCBA, designed with firefighters for international markets

2019

Acquired Globe Manufacturing, leader in turnout gear

2017

Acquired Latchways plc, provider of innovative fall protection systems and solutions

2015

Launched innovative G1™ SCBA to offer first responders integrated and enhanced solutions

2014

Launched Cairns® 1836 Fire Helmet, one of the lightest weight traditional-style fire helmets available

2024

Launched ALTAIR io4 Connected Wearable and MSA+ business model, which bundles hardware, software, and services for a seamless customer experience

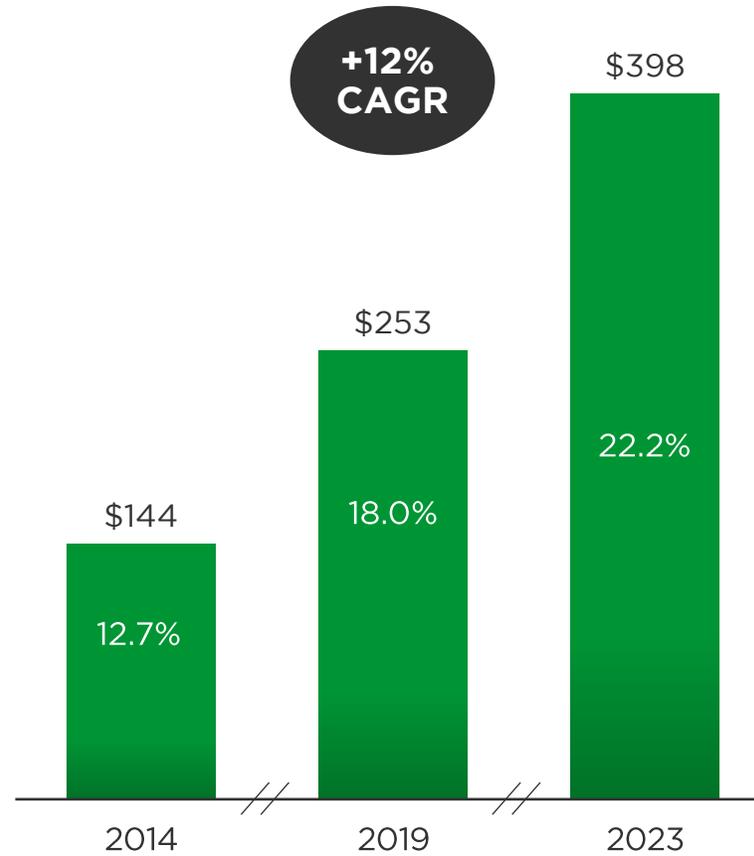
2021

Strong Historical Financial Performance

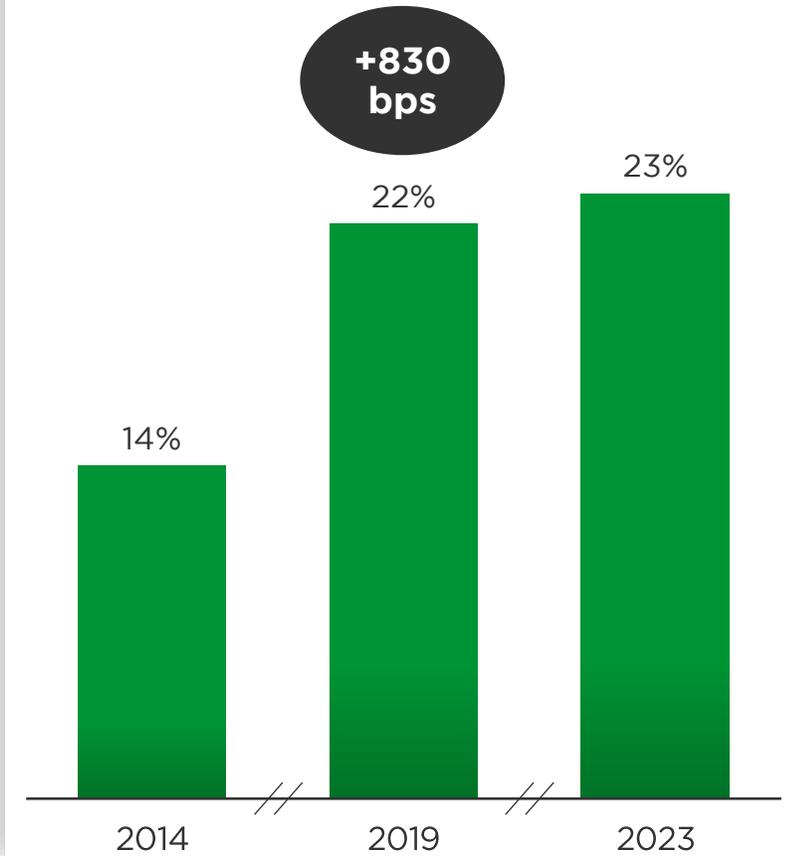
Net Sales (\$MM)



Adj. Operating Income (\$MM) & Margin (%)

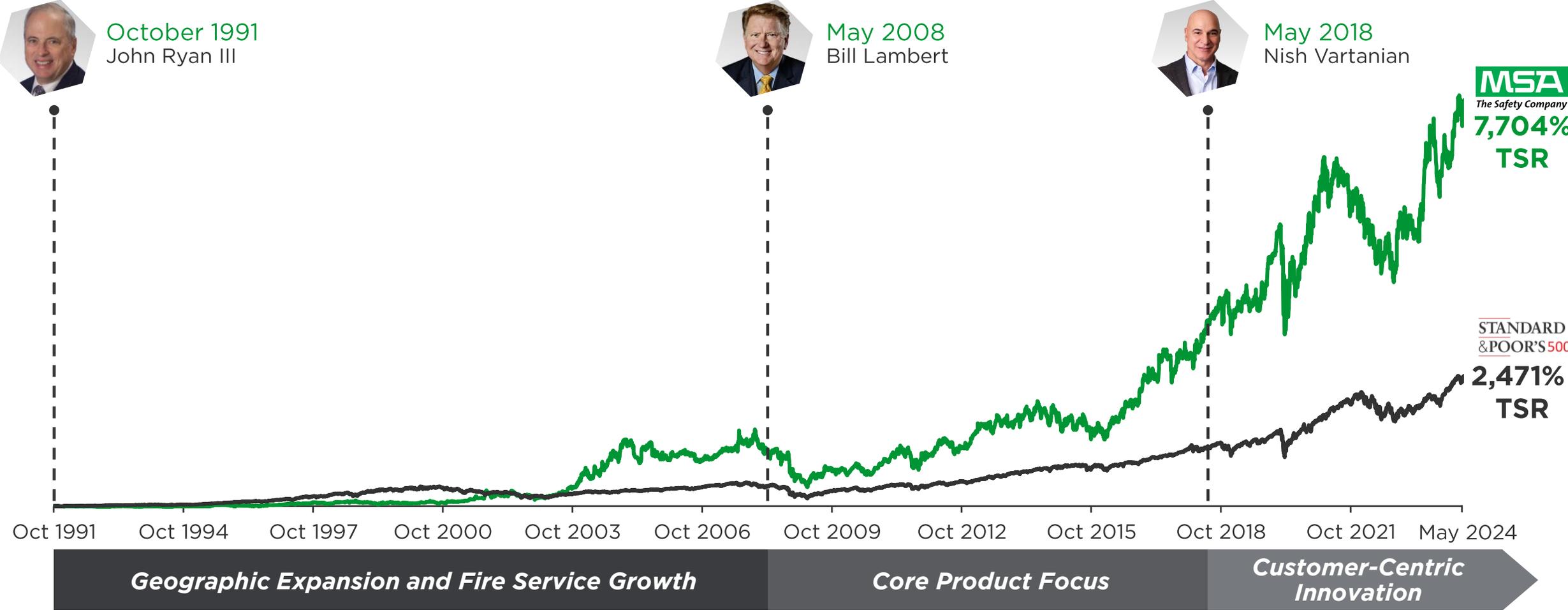


Adj. ROCE¹ (%)



See appendix for definitions of non-GAAP measures and non-GAAP reconciliations. "CAGR" stands for compound annual growth rate. (1) Adjusted ROCE is defined as adjusted earnings plus after-tax interest expense, divided by average capital employed.

Delivering Exceptional Long-Term Returns to Our Shareholders



October 1991
John Ryan III



May 2008
Bill Lambert



May 2018
Nish Vartanian

SUSTAINABLE OUTPERFORMANCE OVER TENURE OF THREE CEOS, EXCEEDING THE S&P 500 BY >3X



Building on a Strong Foundation of Safety Innovation

STEVE BLANCO

PRESIDENT AND CHIEF EXECUTIVE OFFICER



Key Messages

- 1** **MSA Safety is a mission-driven company** with an unwavering dedication to helping customers achieve their safety and productivity goals
- 2** We have **leading positions in attractive and resilient markets** across the globe with favorable secular tailwinds
- 3** Our proven innovation engine drives **profitable, above-market growth**
- 4** We leverage the **MSA Business System to deliver continuous improvement** and support our high-performance culture
- 5** Our continued disciplined capital allocation **fuels growth, drives margin expansion, and returns capital to our shareholders**

Safety is a Growing Focus Area for Companies

~70% of S&P 500 companies highlight “safety” in investor materials, +17% over last 5 years¹



Safety: performance indicators

Serious incident frequency (SIF)
Serious incidents and near misses per million hours worked (12-month average)

Total recordable injury frequency (TRIF)
Personnel injuries per million hours worked (12-month average)

Oil and gas leakages
Number of leakages with rate above 0.1 kg/m³ during the past 12 months

Equinor

Operational excellence: Committed to safe, efficient, profitable production

Safe, stable & repeatable operational performance	Effective cost & capital management	Sustainable, value-focused production plans
Safety & operating performance inextricably linked Focus on Operating Model Driving well-planned, efficient operational practices	~\$1bn pa Sustainable opex savings ~\$1.6bn Lower capex 2024-26 ¹	Prioritising stability at Quellaveco & SMC Value-focused production at Los Bronces & Kumba Ongoing asset optimisation
Improving the competitiveness of our assets is our biggest margin lever		

Anglo American



SAFEGUARDING THE FUTURE

We live a safety culture that delivers results:

- 90% reduction in severe injuries over 5 years
- 45% reduction in injury & illness rate since 2018
- In line with our vision to be **fatality free** across all operations & all partners

We live a safety culture that is:

- ➔ Enabled by Innovation
- ➔ Supported by Technology
- ➔ Driven by Science-based programs

We protect our people... so they can bring the energy to change the world

GE VERNOVA

Safety

Guided by our values. Our number one priority

Amcor Values
Integrity, Collaboration, Accountability, Results and Outperformance

Recordable-case frequency rate (per million hours worked)

Year	2005	2010	2015	2020	2023	1H24	1H24 TRIF
Rate	11.2	4.1	2.0	2.8	1.5	1.3	0.3

Amcor

Our mission

FedEx Corporation will produce superior financial returns for its shareholders by providing high-value-added logistics, transportation, and related business services through focused operating companies. Customer requirements will be met in the highest quality manner appropriate to each market segment served. FedEx will strive to develop mutually rewarding relationships with its team members, partners, and suppliers. Safety will be the first consideration in all operations. Corporate activities will be conducted to the highest ethical and professional standards.



FedEx

Safety moment
Learning and improving from fatal accidents

Netherlands February 3, 2023
Toridan 55 years old was removing spent catalyst from the raffia inside reactor, under nitrogen (industry practice). Became trapped by the collapse of a pile of catalyst.

Immediate action plan

- ➔ Stop all similar operations in the Company
- ➔ Review alternative intervention mode with Contractors, HSE and technical experts
- ➔ Decision to ban human intervention for catalyst change operations
 - Water flooding method selected
 - Despite impact on cost (loss of catalyst, wastewater disposal)

Implementation at every site

- ➔ 2023: executed first catalyst changes using the new method
- ➔ 2024: further improve the process
 - 14 replacements planned in first half 2024
 - Vessel modifications
 - Robots (first tests performed in 2023)

TotalEnergies

(1) Data sourced via AlphaSense.

Protecting Workers Around the World Across Wide Variety of End Markets



Fire Service



Energy



Utilities



Construction



**Food &
Beverage**



Industrial



Government



Water



Transportation



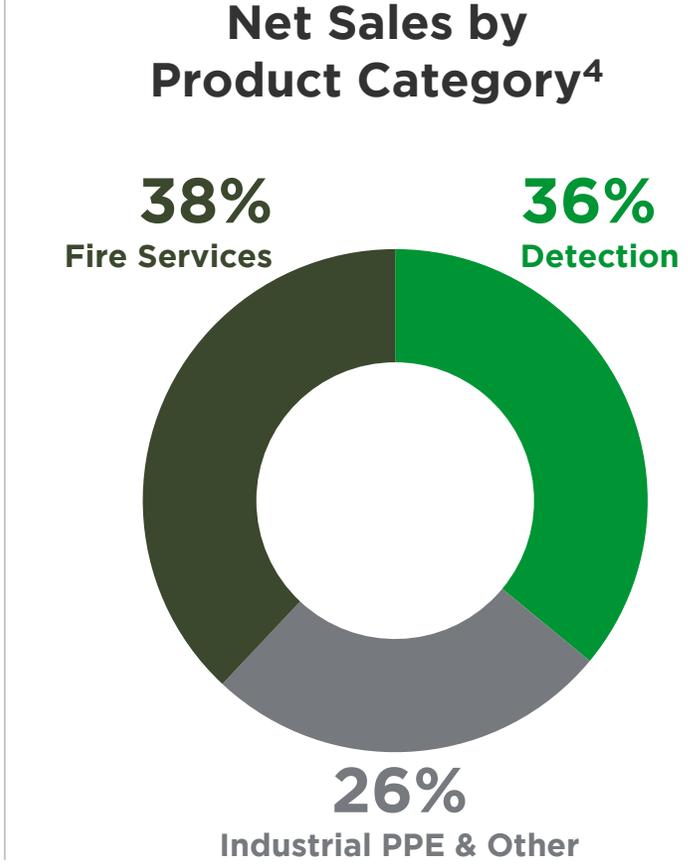
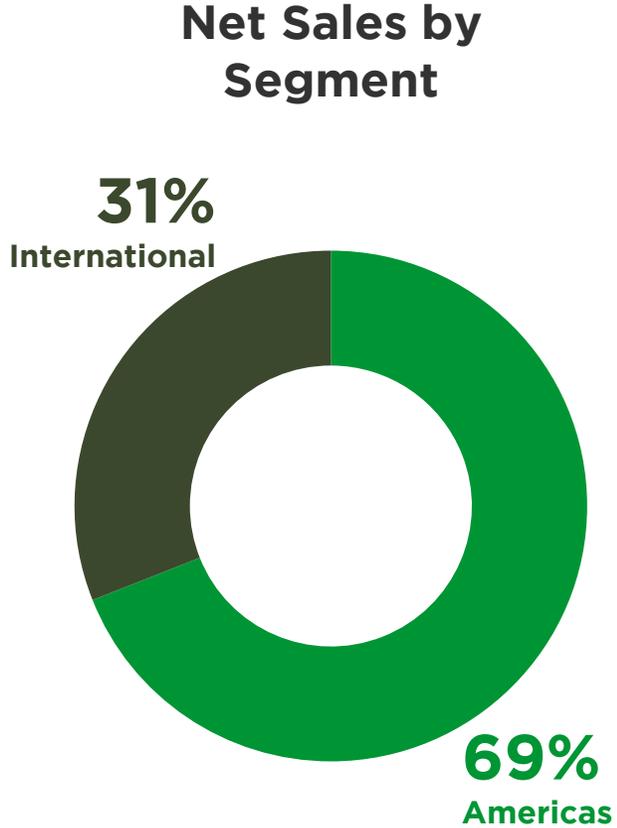
Mining



(1) As of December 31, 2023. "Workers Protected" is an estimate based on internal data, third-party and internal market research, product expert opinions, and certain assumptions, and is subject to change.

Diverse Business Drives Resilient Long-Term Growth

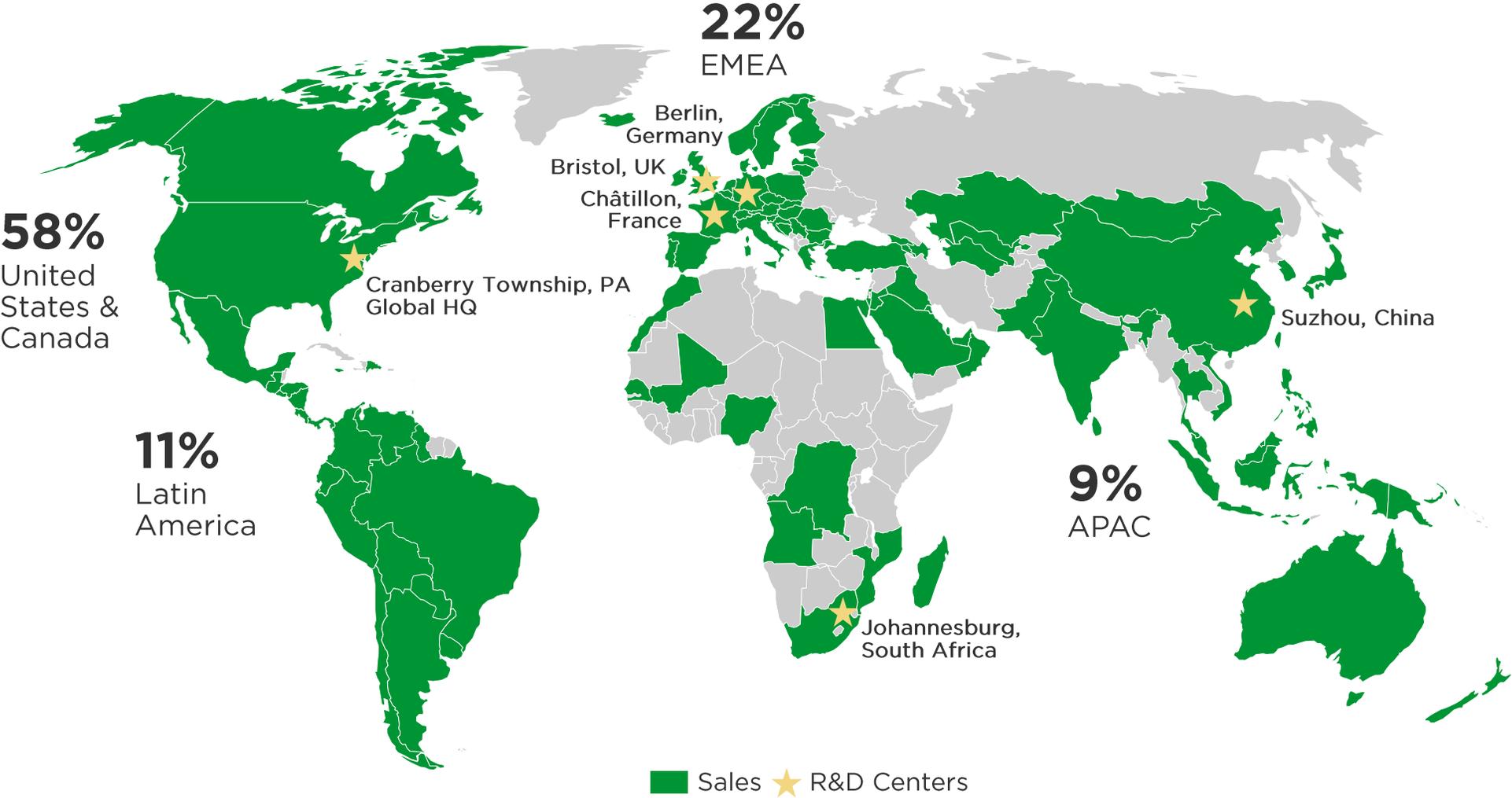
\$1.8B	Net Sales ¹
5.7%	Net Sales CAGR (2018 - 2023)
4.5%	R&D Investment ²
37%	Product Vitality ³
47.7%	Gross Margin ¹
22.2%	Adj. Operating Margin ¹
54 Years	Consecutive Dividend Increases



See appendix for definitions of non-GAAP measures and non-GAAP reconciliations. (1) Key metrics for the year ended December 31, 2023. (2) Percentage of net sales; includes capitalized software development costs. (3) Percent of sales from products developed and launched in past 5 years. (4) Fire Services includes Self-Contained Breathing Apparatus (SCBA) and Firefighter Helmets & Protective Apparel. Detection includes Fixed Gas & Flame Detection and Portable Gas Detection. Industrial PPE & Other includes Industrial Head Protection, Fall Protection, and Other PPE Sales.

Delivering Innovative Safety Solutions Globally

Percentage of Net Sales by Region



Sales in
100+
Countries

5,000+
Associates

Leading Positions in Attractive and Fragmented Areas of Safety

DETECTION

Connected instrumentation to protect workers, enhance site safety, and increase operational efficiency

Fixed Gas & Flame Detection



Portable Gas Detection



FIRE SERVICES

Innovative products and solutions to help protect firefighters

SCBA & Connected Firefighter



Protective Apparel & Helmets



INDUSTRIAL PPE AND OTHER

Sophisticated solutions to enhance worker safety

Industrial Head Protection



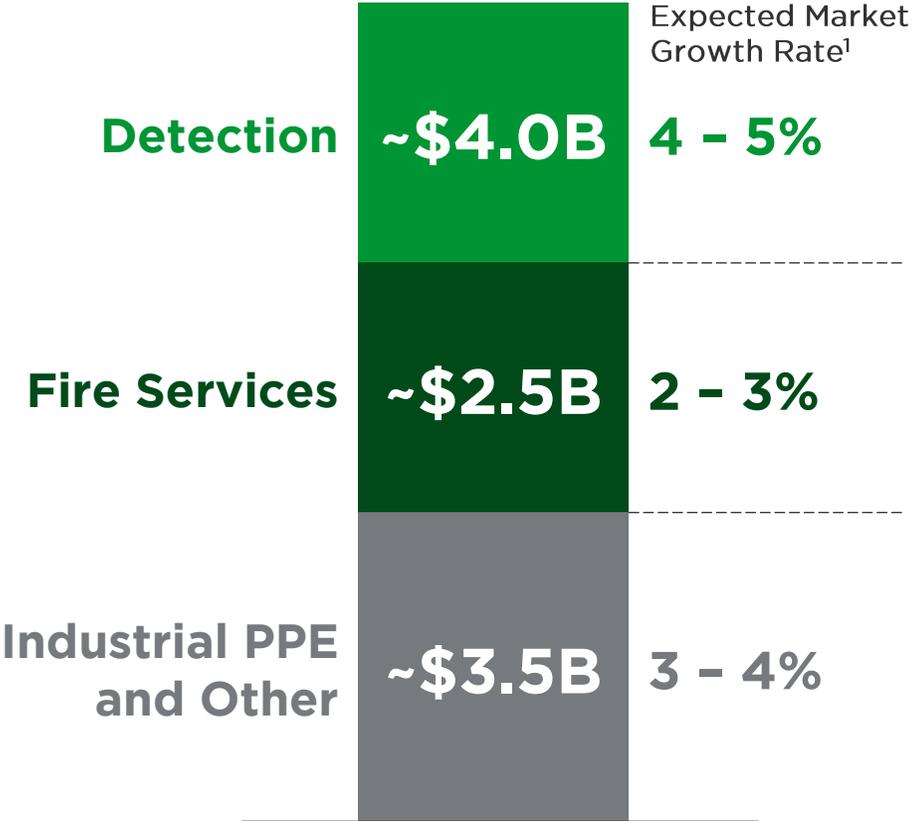
Fall Protection



Driving Profitable Growth Across Attractive and Resilient End Markets

SERVING A \$10B+ GLOBAL ADDRESSABLE MARKET...

...WITH STRONG SECULAR GROWTH TAILWINDS



- Increasing regulatory standards and compliance requirements
 - Energy transition and decarbonization
 - Global infrastructure spend
 - Digital transformation to multi-year subscription contracts
- Enhanced focus and evolving standards for firefighter health and safety
 - Adoption of connected solutions for incident command, remote monitoring, and asset management and maintenance
 - Resilient funding for firefighter safety
- Increased focus on proactive prevention
 - Sustainability and ESG
 - Nearshoring and infrastructure spend
 - Adoption of connected PPE solutions
 - Increasing level of standards and regulations in emerging economies

(1) 5-year period (2023 - 2028). Source: Internal estimates and third-party data.

Singular Mission of Safety Yields Sustainable Competitive Advantages



TALENT

- Living our mission enables attraction and retention of top talent
- High-performance, diverse culture with unique capabilities, talents, and perspectives
- Associates are fully committed to meeting safety needs of customers



INNOVATION

- Strong and enduring customer relationships provide unique insights
- Focus on niche categories where technology and brand matters
- Best-in-class innovation process focused on solving our customers' safety challenges
- Connected worker ecosystem fuels data-driven insights to enable safer, more informed decision-making



SCALE

- Pure-play safety company with global reach and vast installed base
- Unmatched reputation and brand recognition
- Deep experience with global safety regulations and presence on standards committees
- Purposefully developed sales organization and well-established channel relationships

LEVERAGING KEY DIFFERENTIATORS TO EXTEND MARKET-LEADING POSITIONS AND DRIVE GROWTH

Our Strategy | Positioned for Superior Performance

CONTINUE TO BE THE LEADER IN PREMIUM SAFETY SOLUTIONS



- Leverage scale, market leadership, and customer-centric innovation to drive above-market profitable growth
- Deliver excellence in customer experience and commercial execution
- Enhance diversification across end markets, geographies, and product portfolio to fortify resilient organic growth

IMPLEMENT TARGETED GROWTH ACCELERATORS



- Continue to evolve from hardware supplier to system solutions provider, improving customer safety outcomes and generating recurring revenue
- Lean into high-growth end markets and distinct safety megatrends around connectivity and productivity solutions
- Enhance portfolio through strategic acquisitions

APPLY MSA BUSINESS SYSTEM TO ENABLE EXCELLENCE



- Drive excellence in pricing, operations, resource allocation, and balance sheet efficiency
- Set foundation for digital automation
- Empower high-performance teams and leaders
- Win as a team with consistent tools, processes, and behaviors

ALLOCATE CAPITAL EFFECTIVELY



- Leverage premier financial profile to deliver sustainable long-term growth
- Maintain disciplined approach with growth bias
- Return value to shareholders through an increasing dividend, share repurchases to offset dilution, and opportunistic reinvestment

DRIVEN BY OUR MISSION AND CULTURE OF SAFETY

Driving Organic and Inorganic Growth to Advance Our Mission

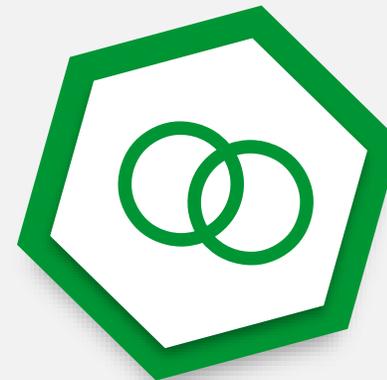


ACCELERATING OUR INNOVATION ENGINE...

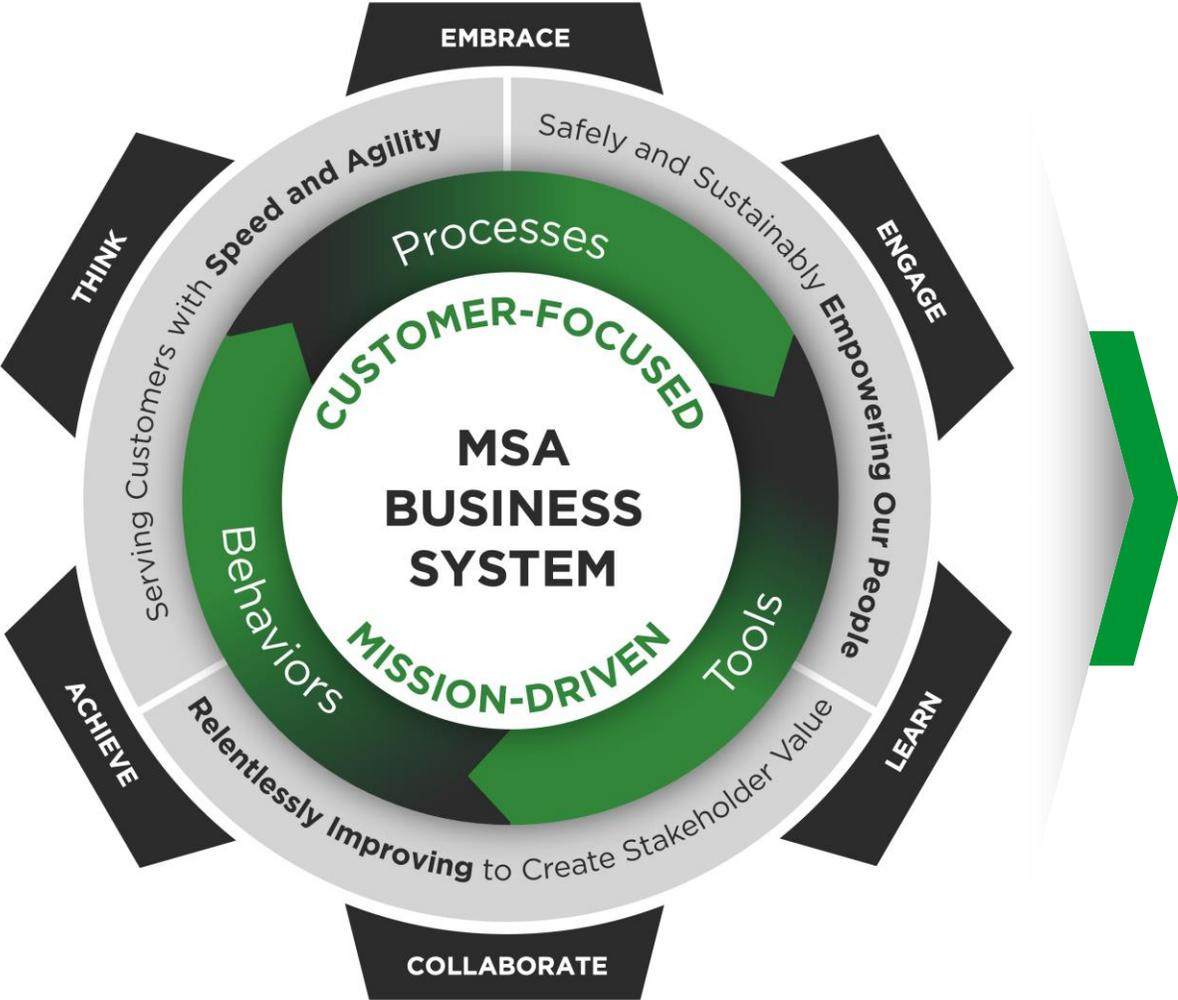
- Attracting and retaining top R&D talent drawn to mission-driven culture
- Solving long-term safety challenges through North Star innovation process
- Deepening customer intimacy to understand unique end user needs and increase safety
- Meeting the needs of all global workers through integration of human-centered design
- Providing latest technologies and connected solutions to the world's workers

...AND FOCUSING ON ACCRETIVE M&A

- Complementing organic growth with strategy-led acquisitions
- Leveraging M&A to enhance portfolio and continue to diversify end markets and geographies
- Prioritizing bolt-on acquisitions
- Focusing on high-quality assets with attractive financial returns
- Maintaining our discipline and execution rigor



MSA Business System | Driving Continuous Improvement



WHERE WE ARE IN OUR JOURNEY

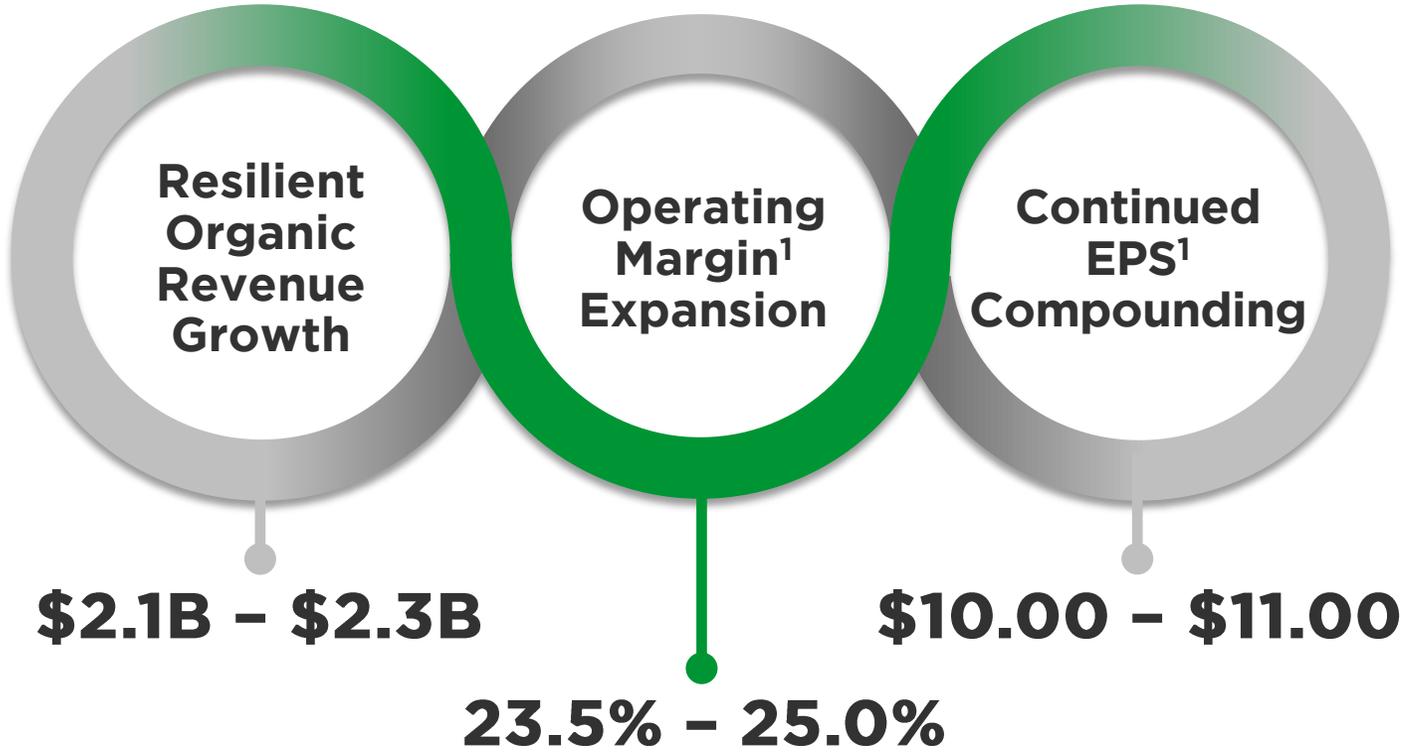
- Launched globally across all functions
- Driving behaviors to improve safety and increase customer satisfaction
- Improving processes to enhance productivity and reduce complexity
- Creating value through mission-driven, high-performance culture and margin expansion

LOOKING AHEAD

- Deepening results-oriented and continuous improvement culture
- Investing in digital technologies to improve efficiency
- Advancing productivity and operational excellence to contribute to sustained competitive advantages and customer success

Introducing 2028 Financial Targets

ORGANIC GROWTH TARGETS



COMPLEMENTED BY



WHILE CONTINUING OUR HERITAGE OF STRONG ROCE

MISSION-DRIVEN REINVESTMENT

(1) Targets refer to adjusted metric, see appendix and our Investor Relations website for definitions of non-GAAP measures. (2) Reflects expected cumulative free cash flow after dividends and share repurchase and available debt capacity.

Experienced Leadership Team Focused on Execution

EXECUTIVE LEADERSHIP TEAM

ALSO PRESENTING



Steve Blanco
President and Chief Executive Officer
2012



Dave Howells
SVP and President, MSA International
1981



Greg Martin
SVP, Chief Product and Technology Officer
2005



Lee McChesney
SVP and Chief Financial Officer
2022



Nish Vartanian
Non-Executive Chairman
1985



Gustavo Lopez
VP, Product Strategy and Pricing
2004



Rick Roda
VP, Secretary and Chief Legal Officer
1995



Jose Sanchez
VP, Global Operations
2019



Stephanie Sciuolo
SVP and President, MSA Americas
2010



Glennis Williams
VP, Chief Human Resources Officer and Global Business Services
2020



Bob Apel
Executive Director, Global Fire Service and Digital Experience
1995



Rob Willis
Global Product Group Director, Industrial PPE and Fall Protection Systems
2005

DIVERSE LEADERSHIP TEAM WITH 200+ YEARS EXPERIENCE IN SAFETY INDUSTRY

What You'll Hear Today



Mission-driven growth company **providing market-leading solutions since 1914**



Attractive and resilient end markets bolstered by secular tailwinds



Well-established **customer-centric innovation engine** with human-centered design



Proven playbook supported by **MSA Business System** **delivering sustained value creation**



Disciplined capital deployment focused on fueling growth, driving efficiency, and returning capital to shareholders



Driving Value Creation with Operational Excellence

JOSE SANCHEZ

VICE PRESIDENT, GLOBAL OPERATIONS



Key Messages

- 1 Building on **established track record** of operational performance
- 2 Accelerating our vision towards **world-class operations**
- 3 **Utilizing the MSA Business System** to foster continuous improvement and drive process excellence across entire organization

Strong Progress on Our Operational Excellence Journey

WHERE WE WERE

- Launched MSA Operating System
 - Scope limited to global operations
 - Established tools and processes
 - Deployed lean principles
- Initiated manufacturing strategy to optimize structure and rationalize footprint

WHERE WE ARE

- MSA Business System evolved with behaviors and enterprise-wide scope
- Decreased Lost Time Incident Rate¹ to 0.1 in 2023 from 1.0 in 2019
- Increased Customer Satisfaction Performance Index² to 4.2 out of 5 in 2023 from 3.9 in 2019
- Expanded gross margin to 47.7% in 2023 from 45.6% in 2019
- Reduced working capital³ from COVID high of 34.2% in 2022 to 26.6% in 2023

WHERE WE'RE GOING

- Best-in-class operator focused on customer centricity
- Advance continuous improvement culture and process excellence
- Optimize operations footprint to meet customer needs
- Factory of the Future and connected products

(1) Total hours worked / number of lost time incidents x 1,000,000. (2) Based on customer survey. (3) Accounts receivable + inventory - accounts payable.

Advancing Our Strategy through Operational Rigor



CONTINUE TO BE
THE LEADER IN
PREMIUM
SAFETY
SOLUTIONS



IMPLEMENT
TARGETED
GROWTH
ACCELERATORS



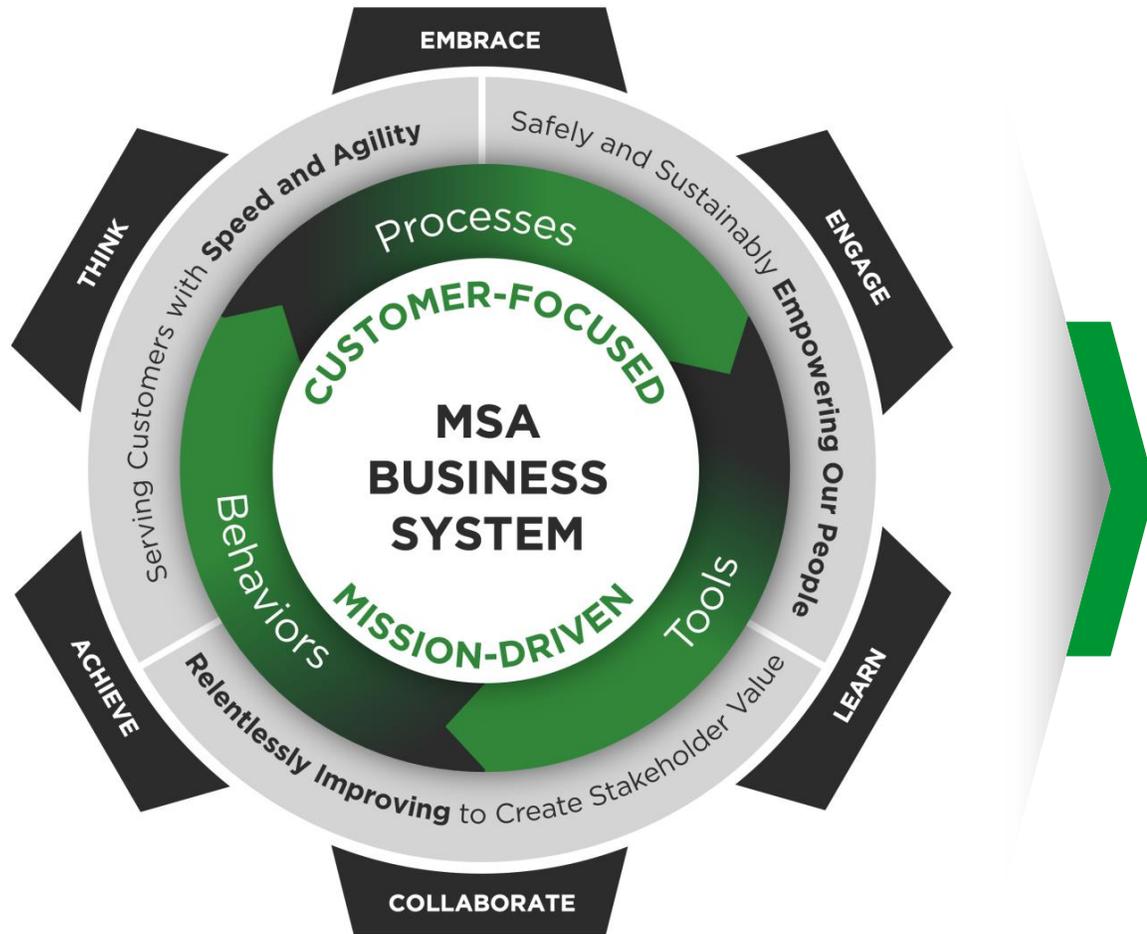
**APPLY MSA
BUSINESS
SYSTEM TO
ENABLE
EXCELLENCE**



ALLOCATE
CAPITAL
EFFECTIVELY

DRIVEN BY OUR MISSION AND CULTURE OF SAFETY

MSA Business System | Driving Continuous Improvement



BEHAVIORS

The way we act and react to changes and challenges

- Relentless focus on improving our performance on new product development, SG&A, project management, and global business service

PROCESSES

How we work with others and apply tools

- Working Capital: SIOP¹ to forecast supply and demand and apply global best practices in transaction processing

TOOLS

Ways to identify and eliminate waste, standardize work, and problem solve

- Manufacturing Execution System (MES): gaining greater visibility and real-time data from our manufacturing plants through technology

FOUNDATION TO ACHIEVE SUPERIOR AND SUSTAINABLE RESULTS

Case Study | Achieving Margin Expansion through Operational Excellence

OPPORTUNITY

Decentralized manufacturing footprint

- Standardization gaps
- Remove duplicative efforts to optimize and improve processes

SOLUTION

Designed organization structure to support operational excellence

- Developed global industrial engineering teams by Product Groups and Manufacturing Processes
- Created operations technology organization
- Built continuous improvement team with global reach
- Optimized organization for:
 - Best-in-class standards
 - Value engineering / value-added
 - Enhanced data analytics and benchmarking
 - New technologies
 - Connected products

RESULTS

Targeting 30 – 50 bps annual operating margin improvement



Case Study | Improving Working Capital Management

OPPORTUNITY

Post-pandemic supply chain instability

- Catalyst to improve MSA's inventory management

SOLUTION

Formed “Cash Council” to enhance working capital management through focus on sustainable process improvements

- SIOP: Cross-functional collaboration to accurately anticipate demand and optimize supply
- Implemented intelligent supply chain software platform to connect with SAP and serve as single source for inventory excellence and production readiness
- Relentless focus on driving cross-functional process excellence:
 - Consignment inventory
 - Minimum purchase requirements
 - Safety stock levels
 - Best-in-class partnership with suppliers
 - Overdue collection management

RESULTS

Reduced net working capital by \$47MM while increasing sales by 17%

- Decreased 2023 net working capital to 26.6% of sales from 34.2% in 2022
- Targeting 30 – 50 bps annual working capital reduction while supporting growth



Case Study | Optimizing Manufacturing Footprint

OPPORTUNITY

Dispersed manufacturing footprint

- Not optimized for environmental impact, lead times, costs, capacity, or customer satisfaction

SOLUTION

Created Centers of Excellence (CoE) to improve customer satisfaction, decrease complexity, drive cost savings, and reduce environmental impact

- Rationalizing product portfolio and commercial strategy to reduce brick and mortar offices

Footprint Consolidation

- Establishing CoE for Fall Protection in Mexico, transferring production from Europe and China
- Expanding Detection CoE in Cranberry Township, PA by transferring operations of acquired businesses

Capacity Expansion

- Continuing to support growth in EMEA through new plant in Morocco with expanded capability, low-cost solution, and available labor
- Driving process efficiency through Global Business Service centers in Poland and Malaysia

RESULTS

Improved delivery service

- More effective and efficient supply for Fall Protection, Detection, and Turnout Gear products
- Best-in-class market expected lead times



Key Takeaways



Building on
**established track
record** of operational
performance



Accelerating our vision
towards **world-class
operations**



**Utilizing the MSA
Business System**
to foster continuous
improvement and drive
process excellence across
entire organization



Protecting Customers through Innovation and Connected Strategy

GREG MARTIN

SENIOR VICE PRESIDENT, CHIEF PRODUCT
AND TECHNOLOGY OFFICER



Key Messages

- 1** Concentrating on deep customer understanding and human-centered design to **enhance safety programs with proactive solutions**
- 2** Driving growth and defending market-leading positions through **customer-driven innovation and new safety solutions and services**
- 3** **Leveraging leading scale and proven innovation process** to bring latest technologies into safety industry
- 4** **Attracting and retaining top R&D talent** through our purpose-led culture

Advancing Our Strategy through Focus on Innovation



**CONTINUE TO BE
THE LEADER IN
PREMIUM
SAFETY
SOLUTIONS**



**IMPLEMENT
TARGETED
GROWTH
ACCELERATORS**



**APPLY MSA
BUSINESS
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**ALLOCATE
CAPITAL
EFFECTIVELY**

DRIVEN BY OUR MISSION AND CULTURE OF SAFETY

Evolving Our Product Strategy and Development

FOUNDATION FOR GROWTH

- Focused on product development excellence and Voice of Customer to identify spoken / unspoken needs
- Designed a primarily hardware-based portfolio to safely solve unique challenges
- Built a strong brand reputation for quality, reliability, and performance

CURRENT FOCUS AREAS

- Driving long-term strategic outcomes
- Evolving a hardware / software system-approach to product solutions
- Integrating human-centered design
- Deepening customer intimacy
- Maturing solutions towards a North Star that solves an important safety need

STRATEGIC PRIORITIES

- Increase solutions portfolio offerings
- Meet our customers on their digital journeys and grow recurring revenue
- Continue to drive further diversification with market and application expansion
- Move up the hierarchy of control to create proactive safety solutions while simplifying customers' safety processes
- Focus on selling connected / integrated solutions rather than single products

UNIQUELY POSITIONED TO MEET CUSTOMER SAFETY NEEDS

Differentiators Position Us to Benefit from Key Secular Trends



TECHNOLOGY EASE OF USE

Enabling technology integration with small learning curve



BEHAVIOR-BASED SAFETY

Utilizing unique insights to train customers on safer operating procedures



CONNECTED WORKER

Creating an ecosystem of products that generate data-driven, value-added insights



SAFETY AND COMPLIANCE

Worker safety is the #1 priority for companies

Competitive Advantages



Large installed base with growing number of connected assets



Best-in-class innovation process dedicated to solving customers' biggest problems



Attract and retain key talent by living MSA's mission every day



Mature cloud-based software / hardware platforms well established in the market



Significant intellectual property driven by continuous innovation



Connected solutions provide customers with actionable data and insights

FOCUS ON CUSTOMER-CENTRICITY ENHANCES OUR COMPETITIVE ADVANTAGE

Delivering Leading Solutions through Tech-Forward Innovation Team



ATTRACT	+	MOTIVATE	+	RETAIN
<ul style="list-style-type: none"> • Top talent drawn to MSA Safety's mission-driven culture 		<ul style="list-style-type: none"> • Associates are inspired by our singular mission of safety 		<ul style="list-style-type: none"> • Created environment for innovation and creativity

Grew software team headcount to 45% of R&D team

Top-tier engagement results

2023 retention rate of ~92%, outpacing benchmarks¹

Advantages



No additional manufacturing costs when developing software solutions



Incremental margin upside for contract renewals when selling software



Enhances barrier to entry

(1) 2022 benchmarks according to LinkedIn Talent Blog, Forbes, Terminal iO, and Talent Rise.

Embedding Product Development Teams Provides Access to Customer Insights, Enabling Continuously Improved Solutions



DETECTION



FIRE SERVICE



INDUSTRIAL PPE

Observation

Outdated paper process for customers issuing gas detectors, verifying compliance, and linking data logs to specific users

Large fire scenes have many things happening simultaneously from many sources, which adds situational awareness complexity

Worker non-compliance around working safely at height creates unique safety challenges in large fulfillment centers

Actionable Insights

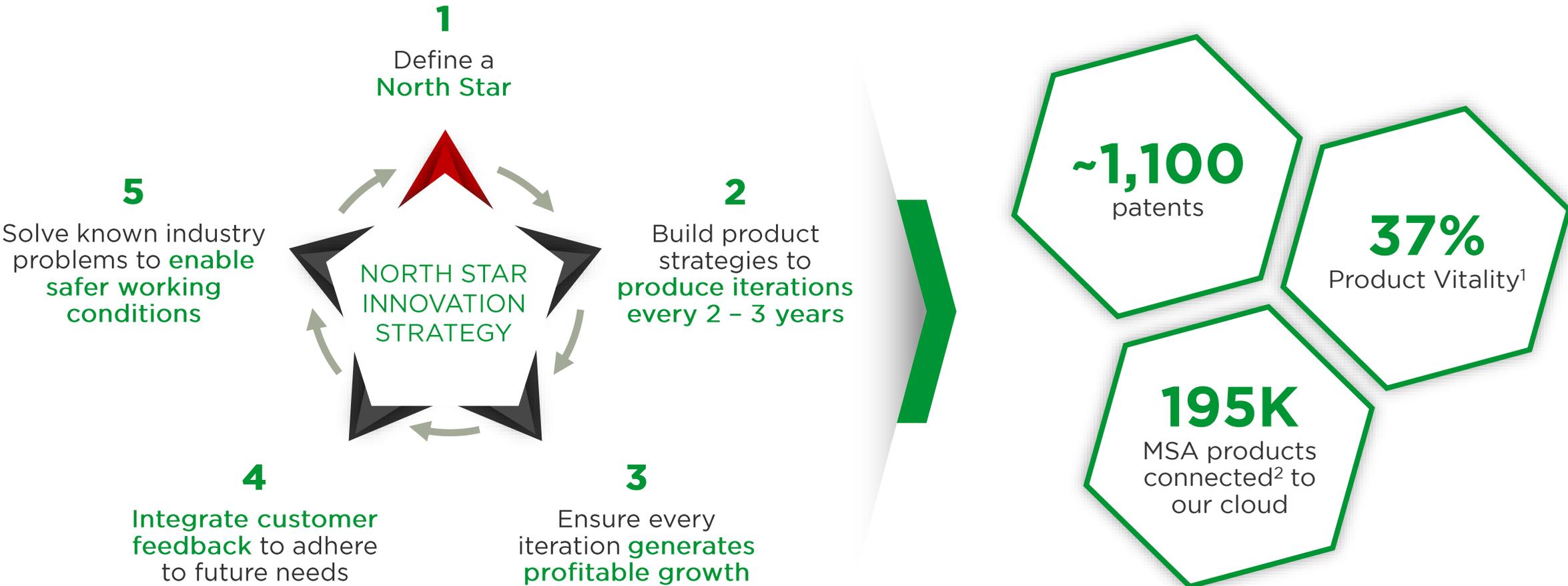
Developed electronic tag-out / tag-in process to assign gas detectors, data, and actions to an individual each day

Implemented tiered notifications on our system, making critical alerts more noticeable, traceable, and accessible

Created smart fall protection solution that does not allow lift to fully function unless operator is safely connected

INTEGRATING INSIGHTS INTO NEW PRODUCT DEVELOPMENT TO DELIVER BEST-IN-CLASS INNOVATION

Unique Approach to Innovation Enables Defensible Market Positions



GENERATE PROFITABLE GROWTH WHILE MOVING CLOSER TO SOLVING CUSTOMERS' LONG-TERM SAFETY CHALLENGES

(1) Percent of sales from products developed and launched in past 5 years. (2) Includes both real-time connectivity and asset management.

Case Study | North Star Innovation Process

OPPORTUNITY

Fixed gas and flame detectors protect facilities from multiple hazards

- Ideal product always runs to protect facility, requires minimal maintenance, and only alarms in presence of specific hazard

THE NORTH STAR

Minimize downtime, maintenance, and cost of ownership

SOLUTION

North Star Innovations

- **2016** | XCell® sensors: increased product life, stability, and immunity to interferents
- **2017** | TruCal® Technology: auto-adjusts sensor reading, alerts when sensor needs calibration or has reached end-of-life, and extends maintenance cycles
- **2019** | Diffusion supervision: proactively alerts users to gas inlet physical blockages
- **2023** | SENTRY io™ Controller: automated system configuration and powerful diagnostic tools that enable predictive maintenance
- **2024** | FL5000 flame detector: Artificial Neural Network evolved false alarm immunity via computer learning

RESULTS

Reduced customers' cost of ownership

- Up to 50% reduction in commissioning, calibration, and maintenance costs
 - Certified Testing Labs validating extended maintenance intervals
 - Improved diagnostics and self-testing increases uptime
 - Wireless connectivity lowers commissioning and maintenance time



Integrating Sustainability in New Product Development

Developed **NPD Impact Playbook** to systematically identify sustainable opportunities that help our customers achieve their sustainability goals

Product Design Sustainability Design Review

- Dedicated, focused discussion on potential Impact attributes

Product Specification

- Sustainability requirements captured and clearly identified

End-of-Life

- Clearly defined instructions with product designed for responsible disposal

Industrial Design Packaging

- Reviewed for sustainability opportunities

User Instructions and Product Labeling

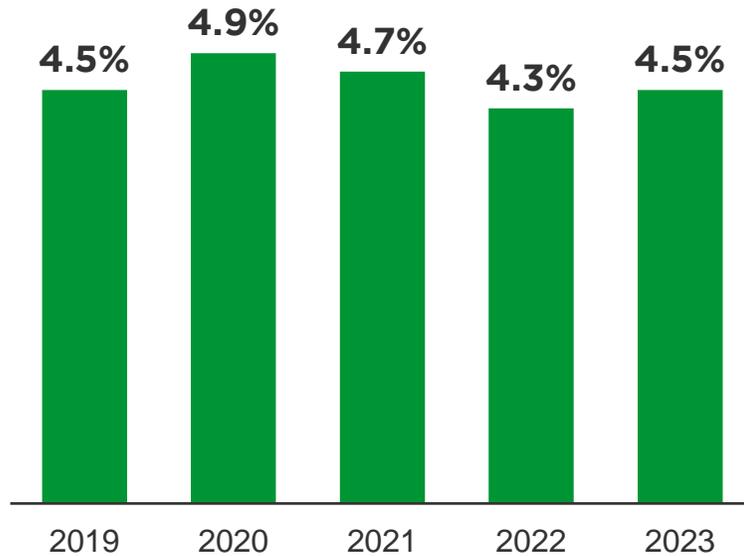
- Pursue quick-start guidelines, paper-and-printing reductions, and graphic-rich content where possible



MEETING CUSTOMER DEMAND AND ENSURING EVERY PROJECT DRIVES MEASURABLE BUSINESS IMPACT

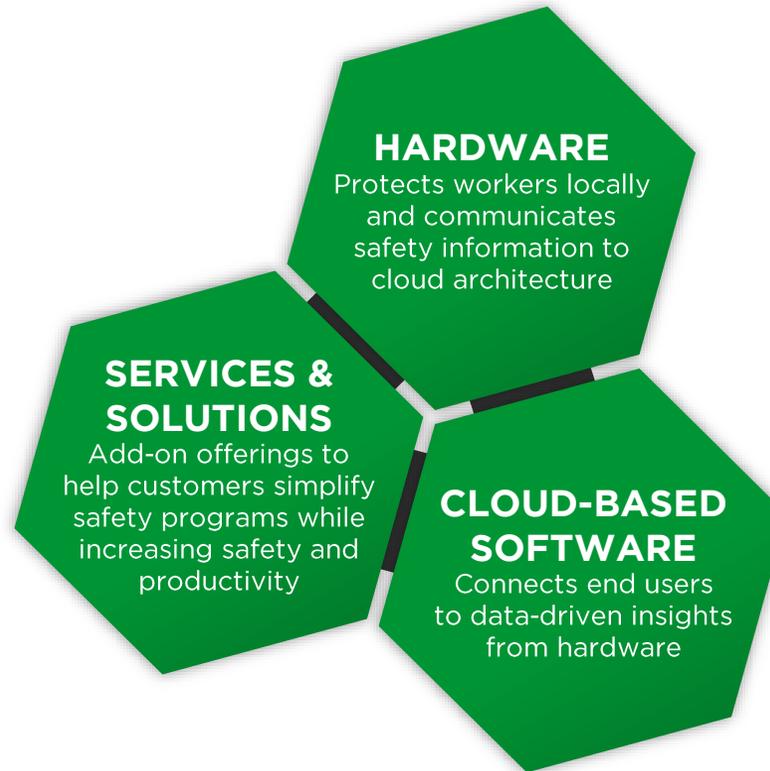
Accelerating High-Return Investments in Connected Solutions to...

% Sales Invested in New Product Development¹



\$300MM+ Invested Over Last 5 Years

Connecting the Ecosystem to Strengthen Customer Value Proposition



Cloud-Connected Data Drives Customer Value and Category Growth



CASE STUDY: PORTABLE INSTRUMENTS

- Fast-growing TAM² driven by hardware-only customers converting to end-to-end solutions, including full-service reporting
- Customers are building new data and analytics tools into operating procedures
- MSA solutions creating multiple “sticky” touchpoints across entire product lifecycle

(1) Chart includes R&D and capitalized software development costs. (2) Total Addressable Market.

...Build Upon Our Strong PPE Foundation to Create Safety Ecosystems

Key Safety Statistics

2.3MM U.S. non-fatal workplace injuries in 2022, +4.5% YOY¹

80 - 90% of serious injuries attributed to human error²

\$167B Total cost of U.S. work injuries³

Hierarchy of Controls

Examples

Connected Safety Program

Elimination Physically remove the hazard	Using multiple data points to find and correct a small leak before it is a hazard
Substitution Replace the hazard	Changing operating procedures based on real site analytics
Engineering Controls Isolate people from the hazard	Unit can not be used until individual user tags into the system
Admin Controls Change the way people work	Training based on real data collected from site
Individual PPE Protect one worker at a time	Portable Gas Detector

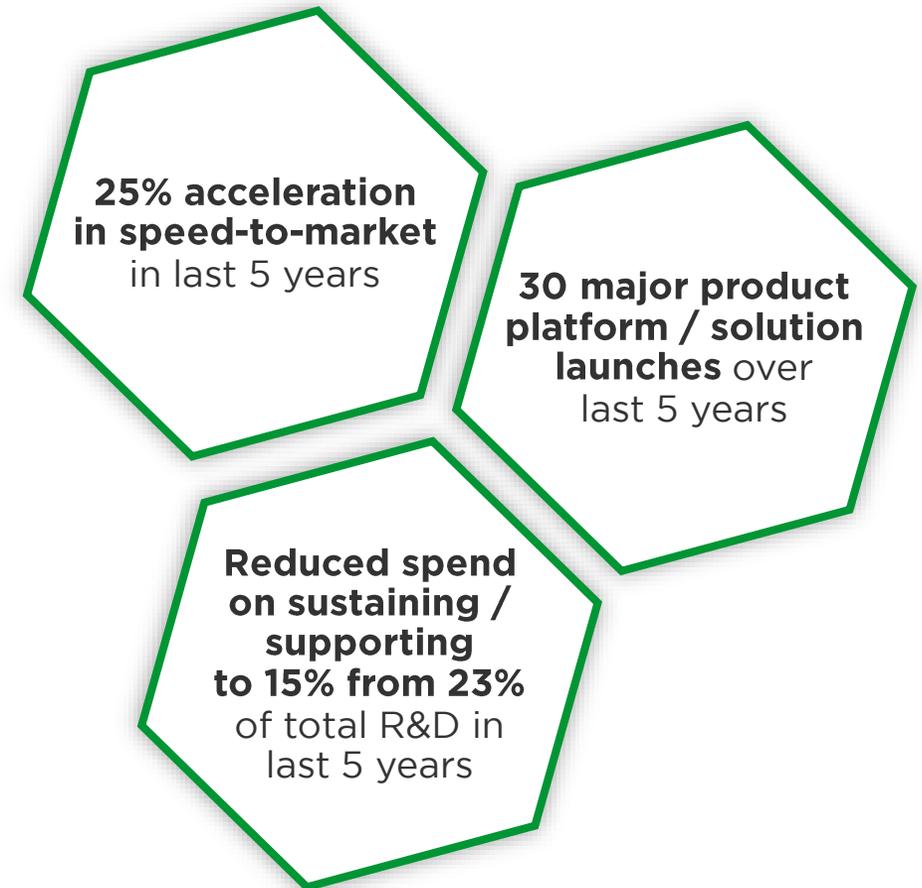
CONNECTED SAFETY PROGRAM HELPS DRIVE TRANSFORMATIONAL, PROACTIVE SAFETY

Scaling Innovation Within New Product Development

Applying Continuous Improvement Mindset...

- **MSA Business System**
 - Increase throughput
 - Reduce development times
 - Drive process efficiency
- **Integrate customer-centric design principles** throughout development
- **Drive efficiency and improve time-to-market** with advanced modeling and simulation tools
- **Create resource efficiency** through system-level design and process excellence
- **Leverage corporate data analytics and AI team** to drive customer and internal value

...to Realize Significant Achievements



Key Takeaways

1

Concentrating on deep customer understanding and human-centered design to **enhance safety programs with proactive solutions**

2

Driving growth and defending market-leading positions through **customer-driven innovation and new safety solutions and services**

3

Leveraging leading scale and proven innovation process to bring latest technologies into safety industry

4

Attracting and retaining top R&D talent through our purpose-led culture



Impacting Worker Safety Across the World

STEPHANIE SCIULLO

SENIOR VICE PRESIDENT AND
PRESIDENT, MSA AMERICAS



Key Messages

1

Achieving **business growth and social impact** through best-in-class products and solutions protecting over **40 million global workers annually**

2

Integrating sustainability, social, and impact considerations throughout our value chain from product design, operations, and customer impact

3

MSA's mission of safety **attracts, retains, and energizes top talent**

Protecting the World's Workers and Workplaces with Innovative Products and Solutions



Our Products & Solutions

- Leader in premium safety solutions
- Invent, innovate, and develop next generation solutions
- Make work safer, easier, and more productive



Our People

- Diverse workforce and inclusive workplace energized by our mission
- Continuous improvement and personal growth harnessed through MSA Business System
- Unique outcomes for global safety marketplace



Our Planet

- Optimize operations for environmental sustainability
- Committed to a 1.5° Celsius Carbon Reduction Target
- Raise awareness of unique products that help customers reach their own carbon reduction targets



ONE MISSION. ONE PASSION. ONE PURPOSE.

Integrating Sustainability into Product Solutions, Design, and Operations

Supporting Worker Safety and Sustainability with What We Make and How We Make It



Innovative Safety Solutions Support Carbon Reduction Goals



Material Stewardship & Cleanability



Support Diverse Energy Markets & Clean Energy



Inclusive Sizing & Ergonomics



Packaging



End-of-Life Disposal

How We Govern Ourselves



Product Quality



Supply Chain Resiliency



Risk Reduction Programs and Investments

Committed to 42% Reduction in Scope 1 and 2 Greenhouse Gas Emissions by 2030

- Reducing costs
- Lowering carbon footprint
- Cutting total energy consumption

Identifying Opportunities to Reduce Operational Waste

- Packaging
- Waste and scrap
- Recycling or reuse abilities

Enabling Customers' Compliance and Sustainability

DETECTION

Connecting and detecting for safety and sustainability



Bacharach

Industry-leading precision monitoring for low-level leak detection, helps companies reduce carbon footprint and operating cost



ALTAIR io™ 4

Seamless safety compliance and real-time awareness, with many devices expected to be returned to MSA for refurbishment, reuse, or recycling



X5000 and S5000 Fixed Monitoring

New design and technology extends calibration intervals and offers longer sensor life in traditional and clean energy markets

Our Solutions are Sustainable, Inclusive, and Help Customers Manage Compliance

FIRE SERVICES

Head-to-toe
firefighter solutions



G1™ SCBA Rechargeable Battery

Unique solution simplifies maintenance for firefighters and reduces waste to landfill



Helmets and Protective Apparel

Inclusive sizing and fit, enhanced comfort, and improved cleanability helps all firefighters safely work at peak performance



FireGrid™ Software

Cloud-based incident and asset management applications improve situational awareness for data-driven decision-making

Differentiated Solutions Designed for Comfort to Encourage Safety Behaviors

INDUSTRIAL PPE

World leader in industrial head protection solutions, with best-in-class fall protection offerings



V-Flex® Safety Harness

Ergonomically designed harnesses to improve worker mobility and comfort with unique connected fall protection capabilities



V-Gard C1® Hard Hat

Protects against heat stress with patent-pending ReflectIR® Thermal Barrier technology



V-Gard H2™ Hard Hat

Next-gen Type 2 hard hat expands impact coverage without sacrificing comfort

Diverse and Inspired Workforce is Foundation for Innovation

MISSION-DRIVEN

- 92% of associates incorporate MSA’s mission into their daily work¹

PERSONAL DEVELOPMENT- & IMPROVEMENT-ORIENTED

- MSA Business System fosters continuous improvement mindset
- Investing in our team’s development to solve today’s safety challenges and anticipate those of tomorrow

DIVERSE & INNOVATIVE

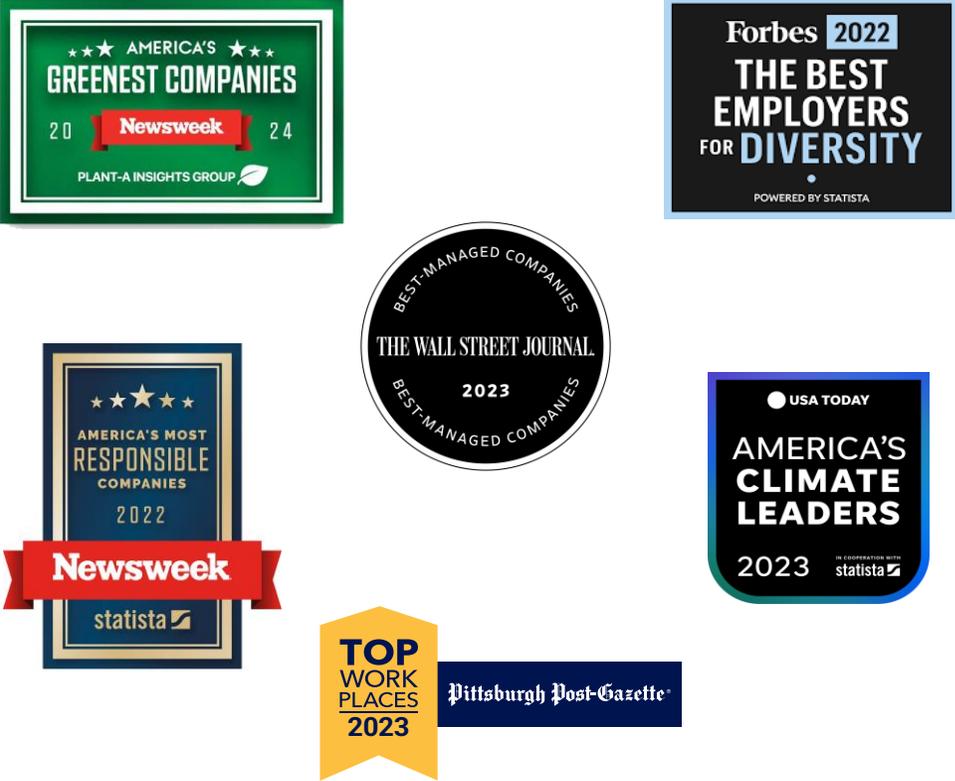
- Attracting tech-forward workforce – our mission of safety offers a unique opportunity to work on cutting-edge technologies that help protect the world’s workers and workplaces
- Broad and diverse talent pool enables development of differentiated products, services, and solutions fit for global needs

55% Diverse Workforce²

30% Board Diversity

53% Diverse Executives²

OUR PEOPLE MAKE AN IMPACT



SINGULAR MISSION OF SAFETY DELIVERS DIFFERENTIATED RESULTS FOR ALL STAKEHOLDERS

(1) 2023 employee engagement survey. (2) U.S. workforce as of December 31, 2023.

Key Takeaways



Achieving **business growth and social impact** through best-in-class products and solutions protecting over **40 million global workers annually**



Integrating sustainability, social, and impact considerations throughout our value chain from product design, operations, and customer impact



MSA's mission of safety **attracts, retains, and energizes top talent**

Q&A





Break

Live Gas Reading

H ₂ S	CO	O ₂	COMB
PPM	PPM	% VOL	% LEL
0	0	20.8	0



Expanding Our Leading Detection Solutions

GUSTAVO LOPEZ

VICE PRESIDENT, PRODUCT STRATEGY AND PRICING



Key Messages

1

Enabling customers to achieve their **safety, emissions, and sustainability goals**

2

Increasing growth and profitability by capitalizing on tailwinds from secular trends

3

Driving further innovation and growth through connected solutions

4

Leveraging differentiated technology expertise to scale and diversify the business

Detection At-a-Glance

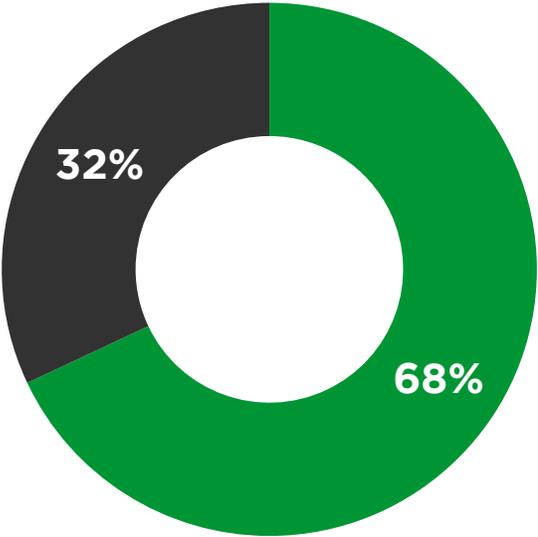
\$635MM

2023 Net Sales

8%

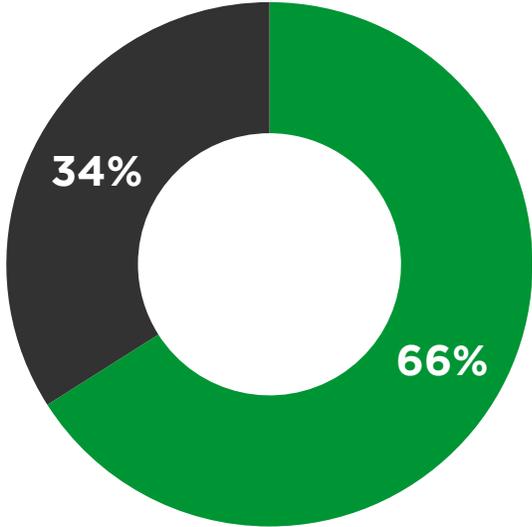
2018 - 2023 Net Sales CAGR

PRODUCT CATEGORY BREAKDOWN

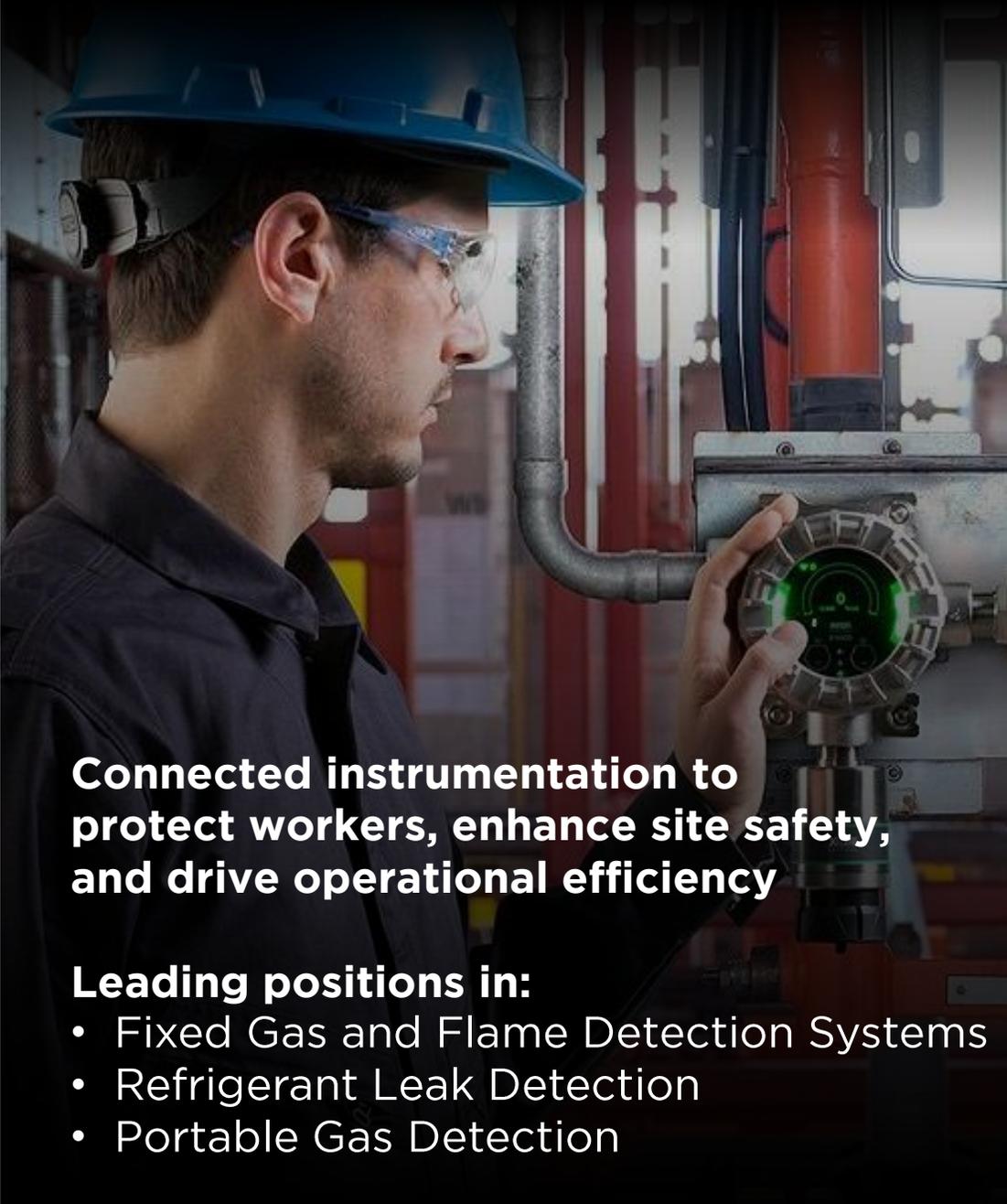


■ Fixed
■ Portable

GEOGRAPHIC BREAKDOWN



■ Americas
■ International



Connected instrumentation to protect workers, enhance site safety, and drive operational efficiency

Leading positions in:

- Fixed Gas and Flame Detection Systems
- Refrigerant Leak Detection
- Portable Gas Detection

Market Overview | Positioned Favorably for Growth

TAM ~\$4.0B	Market CAGR ¹ 4 – 5%
Energy	<ul style="list-style-type: none"> • Growing market with diverse, high-margin applications and strong installed base globally for MSA • Portable and fixed gas detection
Utilities & Government	<ul style="list-style-type: none"> • Portable and fixed gas detection solutions for utilities, military, and marine applications
Food & Beverage	<ul style="list-style-type: none"> • Expanding market in food retail, restaurants, food production and processing, and cold storage • Leak detection, ventilation control, and emissions reduction fit well with MSA’s detection portfolio with focus on our HVAC-R line
Manufacturing / General Industry	<ul style="list-style-type: none"> • Stable, safety-focused market with diverse applications • Portable and fixed monitor solutions for chemical processing, pharmaceuticals & biotech, semiconductor production, and automotive

KEY MARKET GROWTH DRIVERS



Expanding need for energy-efficient solutions



Tailwind from increasing regulations



Market shift to higher value-add connected solutions



Leveraging data to provide insights and drive safety advancements



Transition to green energy requires gas detection

(1) 5-year period (2023 – 2028). Source: Internal estimates and third-party data.

How We Win in Detection



CUSTOMER CENTRICITY

- Strong end user and channel relationships drive sticky business
- Intimate knowledge of applications through Voice of Customer and human-centered design



INNOVATION

- Expert R&D team with deepest breadth of technology expertise in gas detection
- Connected capabilities deliver complete end-to-end solutions



INTELLECTUAL PROPERTY

- Strong patents in sensor technology (reliability, robustness, and predictive maintenance)
- Innovative IP around processes that improve uptime and behavior-based safety



DATA-DRIVEN INSIGHTS

- Connected solutions provide insights regarding operating procedure compliance and behavior-based safety
- Feedback loop for improving solutions with customer and through R&D

LEVERAGING DIFFERENTIATORS TO SOLVE UNIQUE CUSTOMER NEEDS AND BUILD RESILIENT RELATIONSHIPS

Detection Playbook for Growth

CONTINUE TO BE THE LEADER IN PREMIUM SAFETY SOLUTIONS



- Continue to invest in R&D as key enabler for differentiation and growth
- Build on deep sensor and application expertise to develop new products and solutions
- Leverage brand, scale, and channel strength to grow market share

IMPLEMENT TARGETED GROWTH ACCELERATORS



- Capitalize on high-growth connected segment for portable gas detection
- Complement portfolio with strategic M&A in attractive end markets and applications
- Build on Bacharach acquisition for continued HVAC-R growth

APPLY MSA BUSINESS SYSTEM TO ENABLE EXCELLENCE



- Create efficiencies and enhance scale by optimizing product and technology portfolio
- Continue footprint consolidation aligned with CoE strategy to drive innovation, enhance productivity, and improve customer satisfaction

5 - 7% Expected Revenue CAGR
(2023 - 2028)

Case Study | Innovating to Reduce Cost of Ownership and Increase Safety

OPPORTUNITY

Reduce calibration intervals for gas detectors

- Calibration often performed every 90 days
- Requires significant financial and personnel resources
- Maintenance expenses can quickly exceed upfront purchase / installation costs

SOLUTION

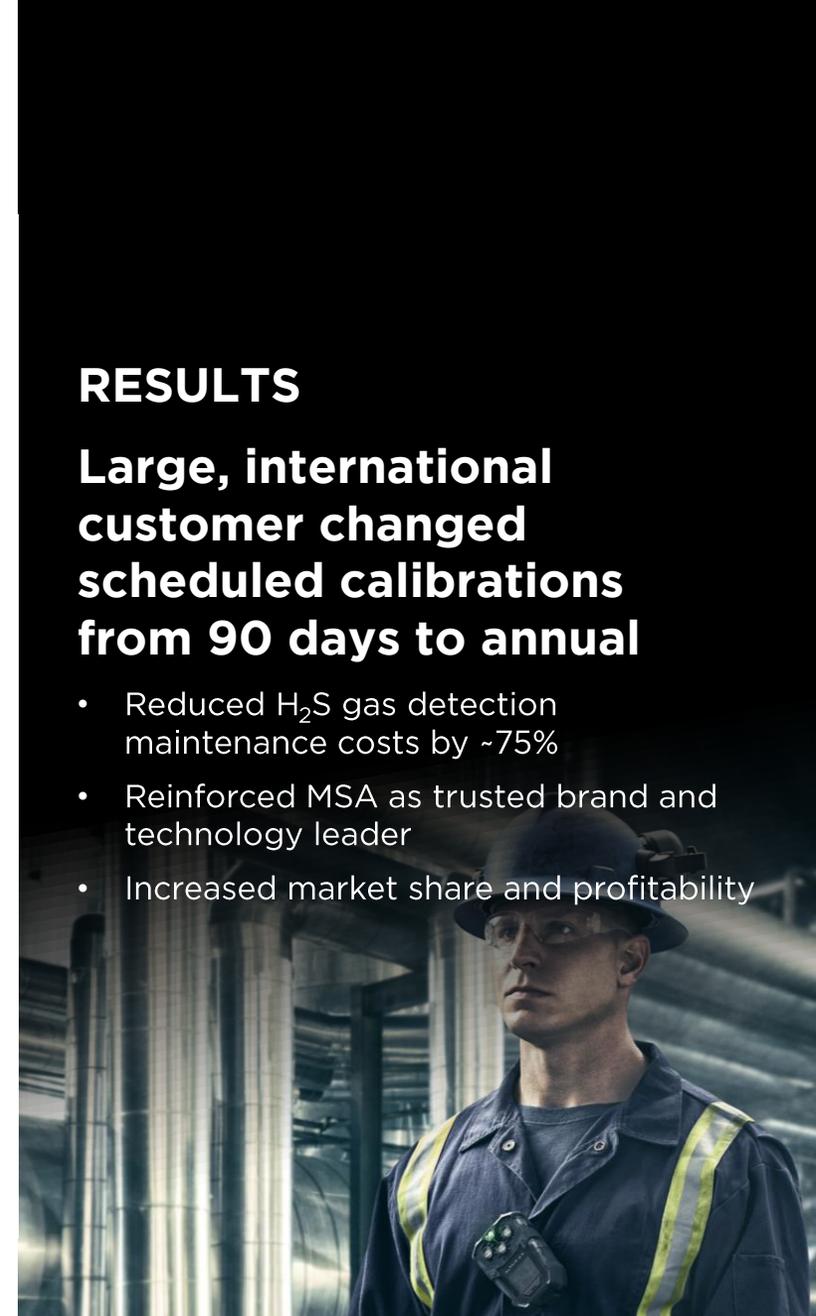
TruCal® Technology significantly lowers total cost of ownership

- Intelligent technology reduces maintenance burden
 - Automatically performs self-check every six hours to verify sensor accuracy, operation, sensitivity, and ensure proper functionality
 - Alerts users when sensor is nearing end-of-life
 - Communicates maintenance requirements to facility control system to trigger corrective actions
- Customers can extend calibration interval up to 24 months

RESULTS

Large, international customer changed scheduled calibrations from 90 days to annual

- Reduced H₂S gas detection maintenance costs by ~75%
- Reinforced MSA as trusted brand and technology leader
- Increased market share and profitability



Case Study | Enabling Customers' Sustainability Goals through Refrigerant Leak Detection

OPPORTUNITY

Improve detection of refrigerant leaks

- Leaks discovered only upon equipment failure
 - Increased energy costs
 - Negative impact on customers' carbon neutrality goals
- Regulatory compliance for refrigerant management required to avoid fines

SOLUTION

Bacharach® Parasense Connected Enterprise Platform provides early, low-level leak detection, notification, and analytics

- Refrigerant Tracking and Compliance Reporting captures data for regulatory requirements
- Energy Management Platform analyzes waste, identifies changes to operational characteristics, and benchmarks performance with automated emails to identify leaks and report energy exceptions

RESULTS

Significant savings in paperwork, reporting, and compliance costs

- Reduced leakage rates by up to 15%
- Immediately detected and repaired leaks to avoid fines, reduce waste, and improve operational efficiency
- Leveraged data analytics for continuous improvement



Detection North Star



Deliver **industry-leading uptime** and enable **proactive, data-driven safety programs**

TECHNOLOGY SOLUTIONS

Capture greater wallet share

- Cloud-connected products with Industrial Internet of Things capabilities
- Sensors have improved life, performance, response speed, and diagnostics
- Advanced algorithms improve performance, extend testing cycles, increase uptime, and minimize maintenance costs

COMPLIANCE

Automated tests and proactive maintenance

- Backed by Connected Platforms
- Easy management of maintenance records, standard operating procedures, and real-time incidents through Grid Cloud Platform

ANALYTICS

Complete view of product use and human behaviors

- Create step-change in customer safety maturity
- Improve customer safety practices and procedures
- Leverage data analytics / AI
- Provide real-time information access through direct-to-cloud technology

EASE OF USE

Minimize upgrade costs for Fixed Gas Detectors

- Use of same wiring footprint
- Ensure seamless training across product generations through use of common UI / UX
- Improve uptime by applying human-centered design to customer activities

Key Takeaways



Enabling customers to achieve their **safety, emissions, and sustainability goals**



Increasing growth and profitability by capitalizing on tailwinds from secular trends



Driving further innovation and growth through connected solutions



Leveraging differentiated technology expertise to scale and diversify the business



Furthering Fire Service Safety Solutions through Connected Ecosystem

BOB APEL

EXECUTIVE DIRECTOR, GLOBAL FIRE SERVICE
PRODUCTS AND DIGITAL EXPERIENCE



Key Messages

1

Establishing industry-leading solutions to develop **integrated ecosystem of products** that enable **sustained growth and resiliency**

2

Serving key pillar cities to enhance our position in the global fire services market

3

Leveraging scale and connected ecosystem to extend **leading position in head-to-toe firefighter solutions**

Fire Services At-a-Glance

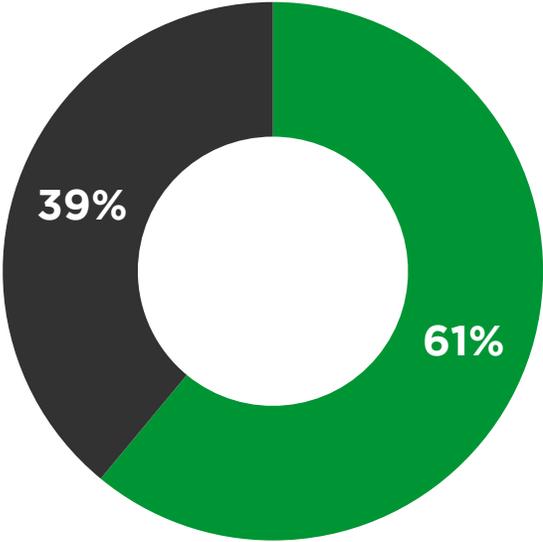
\$684MM

2023 Net Sales

7%

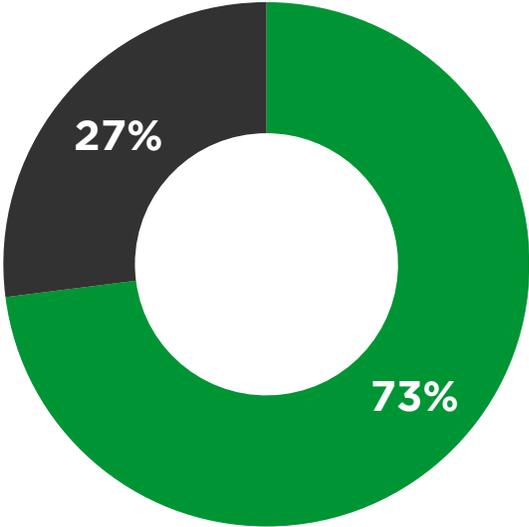
2018 - 2023 Net Sales CAGR

PRODUCT CATEGORY BREAKDOWN

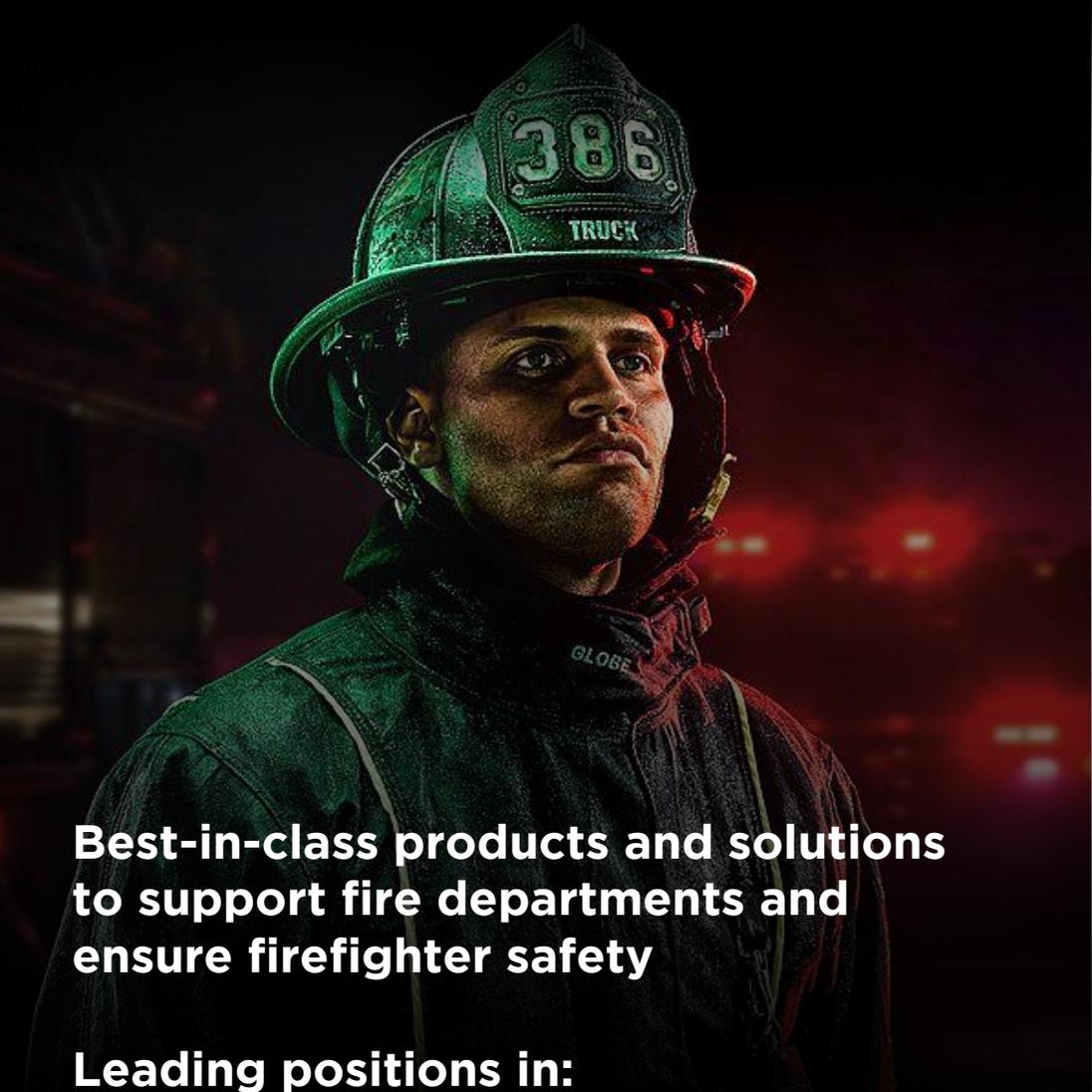


- Self-Contained Breathing Apparatus
- Helmets & Protective Apparel

GEOGRAPHIC BREAKDOWN



- Americas
- International



Best-in-class products and solutions to support fire departments and ensure firefighter safety

Leading positions in:

- Self-Contained Breathing Apparatus (SCBA) & Connected Firefighter
- Helmets & Protective Apparel

Market Overview | Well-positioned to Capture Share in Expanding Global Market

TAM ~\$2.5B	Market CAGR¹ 2 – 3%
Self-Contained Breathing Apparatus	<ul style="list-style-type: none"> • Growth driven by start of replacement cycle • New standards cycles will drive adoption of new product features • Initial growth period offset by Air Force comparison
Protective Apparel	<ul style="list-style-type: none"> • Growth driven by second sets of gear and new material finishes • Firefighter turnover rates increasing along with new recruit classes
Fire Helmets	<ul style="list-style-type: none"> • Growth driven by new technologies and dual certifications • Durable helmets that offer customizable fit and comfort

KEY MARKET GROWTH DRIVERS



Enhanced focus and evolving standards for firefighter health and safety



Adoption of connected solutions for incident command, remote monitoring, and asset management



Turnout gear demand increasing, driven by need for second set of gear



Resilient funding for firefighter safety

(1) 5-year period (2023 – 2028). Source: Internal estimates and third-party data.

How We Win in Fire Services



GLOBAL LEADERSHIP

- Experience and reach across global markets
- Comprehensive product portfolio
- Participation in global standard-setting bodies



INNOVATION

- Enabling connected Fire Services ecosystem
- Enhancing user experience to drive valuable insights



BRAND EQUITY

- Trusted partner to deliver reliable solutions
- Strong relationships with end customers
- Exclusive channel partner network



DATA-DRIVEN INSIGHTS

- Driving safer, more informed decision making
- Providing easier access to data for customers

LEVERAGING KEY DIFFERENTIATORS TO CONTINUE TO OUTPERFORM THE MARKET

Fire Services Playbook for Growth

CONTINUE TO BE THE LEADER IN PREMIUM SAFETY SOLUTIONS



- Build on consistent NPD track record to introduce new products and solutions
- Leverage leading position to outgrow market
- Evolve connected platform to seamlessly integrate value-added technology

IMPLEMENT TARGETED GROWTH ACCELERATORS



- Improve connected product portfolio to deliver enhanced firefighter protection
- Grow brand presence in pillar cities and drive conversions
- Build external partnerships to expedite time-to-market on emerging technologies

APPLY MSA BUSINESS SYSTEM TO ENABLE EXCELLENCE



- Enhance user experience across products and solutions to improve customer success
- Increase productivity in manual cut-sew processes
- Increase protective apparel capacity to meet growing demand and further reduce lead times

3 - 5% Expected Revenue CAGR
(2023 - 2028)

Case Study | Maximizing Customer Value

OPPORTUNITY

Enable fire departments to leverage data

- Fire departments want to leverage fire scene data to make faster, better-informed decisions
- Comfort, ease of use, and cost of ownership are also important considerations

SOLUTION

FireGrid™ Software is real-time incident management platform that enables greater safety awareness

- Delivers seamless hardware and software integration
- Works alongside existing fire department tools
- Provides mission-critical information, including air pressure status and alarm notifications and history

G1™ SCBA platform offers flexibility via hardware options and configurable technology

- Developed through customer-centric approach
 - Inclusive sizing
 - Options for integrated thermal imaging

RESULTS

Large West Coast fire department chose suite of MSA solutions

- Established foothold in West Coast market, leading nearby city to also choose MSA
- Ongoing partnership provides MSA data and feedback to continue improving G1™ SCBA and connected ecosystem



Case Study | Innovating to Reduce Cost of Ownership and Increase Safety

OPPORTUNITY

Improve fire department safety and efficiency

- Firefighters need easy-to-use communication modules, accessible data logs, and fire scene management tools
- High costs of ownership driven by equipment maintenance
- SCBA can be difficult, expensive, or challenging to upgrade with new technology

SOLUTION

M1 UK SCBA with Telemetry reduces cost of ownership and provides an upgradeable platform

- Strong, reliable communication signal in urban environments, including skyscrapers and underground tunnels
- FireGrid™ Software enables maintenance tracking and data access to allow more efficient decision making**
- Eliminates need for fragmented paper and spreadsheet-based management systems
 - Cloud platform offers centralized, easily accessible data

RESULTS

Large UK Fire Brigade switched from embedded competitor to MSA

- Established foothold in UK Fire Service market with leading SCBA platform and innovative communications and software solutions
- Partnership is a benchmark for other European and international fire brigades

Fire Services North Star



Create **unique, market-leading safety solutions** to protect firefighters

TECHNOLOGY SOLUTIONS

Seamless integration of value-added technology

- Inclusive of software, hardware, material selections, and partnerships
- Telemetry increases on-scene firefighter safety

CONNECTIVITY AND ANALYTICS

Connected solutions drive productivity and safety enhancements

- Data from connected products provide valuable insights for firefighters and MSA
- Address the hidden costs of equipment maintenance

EASE OF USE

Automate and digitize manually burdensome reporting and inventory management processes

- Intuitive interfaces integrated into workflow
- Simple onboarding

VALUE-ADDED ECOSYSTEM

Creating true partnerships with Fire Departments

- Solutions beyond the product
- FireGrid™ Software integrates various products into cloud-based system
- Provide accurate and prompt safety information

Key Takeaways



Establishing industry-leading solutions to develop **integrated ecosystem of products** that enable **sustained growth and resiliency**



Serving key pillar cities to enhance our position in the global fire services market



Leveraging scale and connected ecosystem to extend **leading position in head-to-toe firefighter solutions**



Advancing Worker Safety through Innovative Industrial PPE Solutions

ROB WILLIS

GLOBAL PRODUCT GROUP DIRECTOR,
INDUSTRIAL PPE AND FALL PROTECTION SYSTEMS



Key Messages

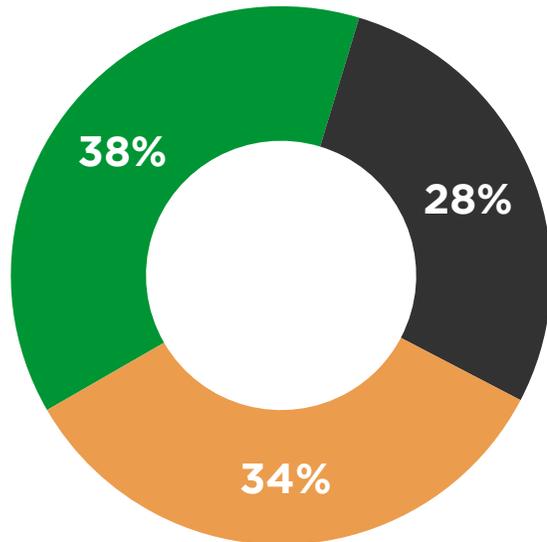
- 1** **Growing share and gaining above-market growth** in Fall Protection and **extending leading position** in Head Protection
- 2** **Deepening customer relationships** to gain unique insights and compelling reasons to win
- 3** Empowering tenured teams to **innovate products and solutions**
- 4** **Diversifying revenue streams** through both need-it-now products and application-based solutions

Industrial PPE At-a-Glance

\$469MM
2023 Net Sales

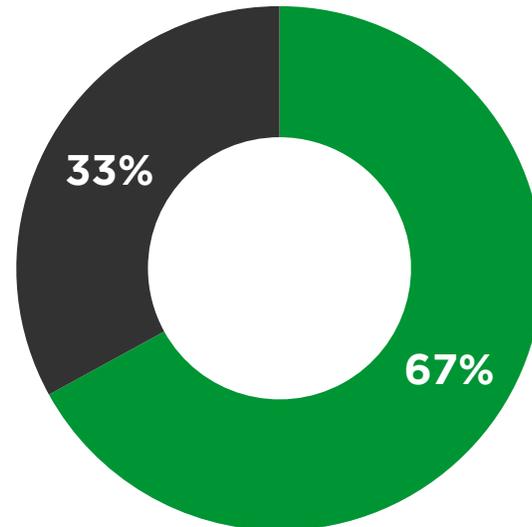
Head & Fall Protection 4%
Other PPE¹ (3%)
2018 - 2023 Net Sales CAGR

PRODUCT CATEGORY BREAKDOWN



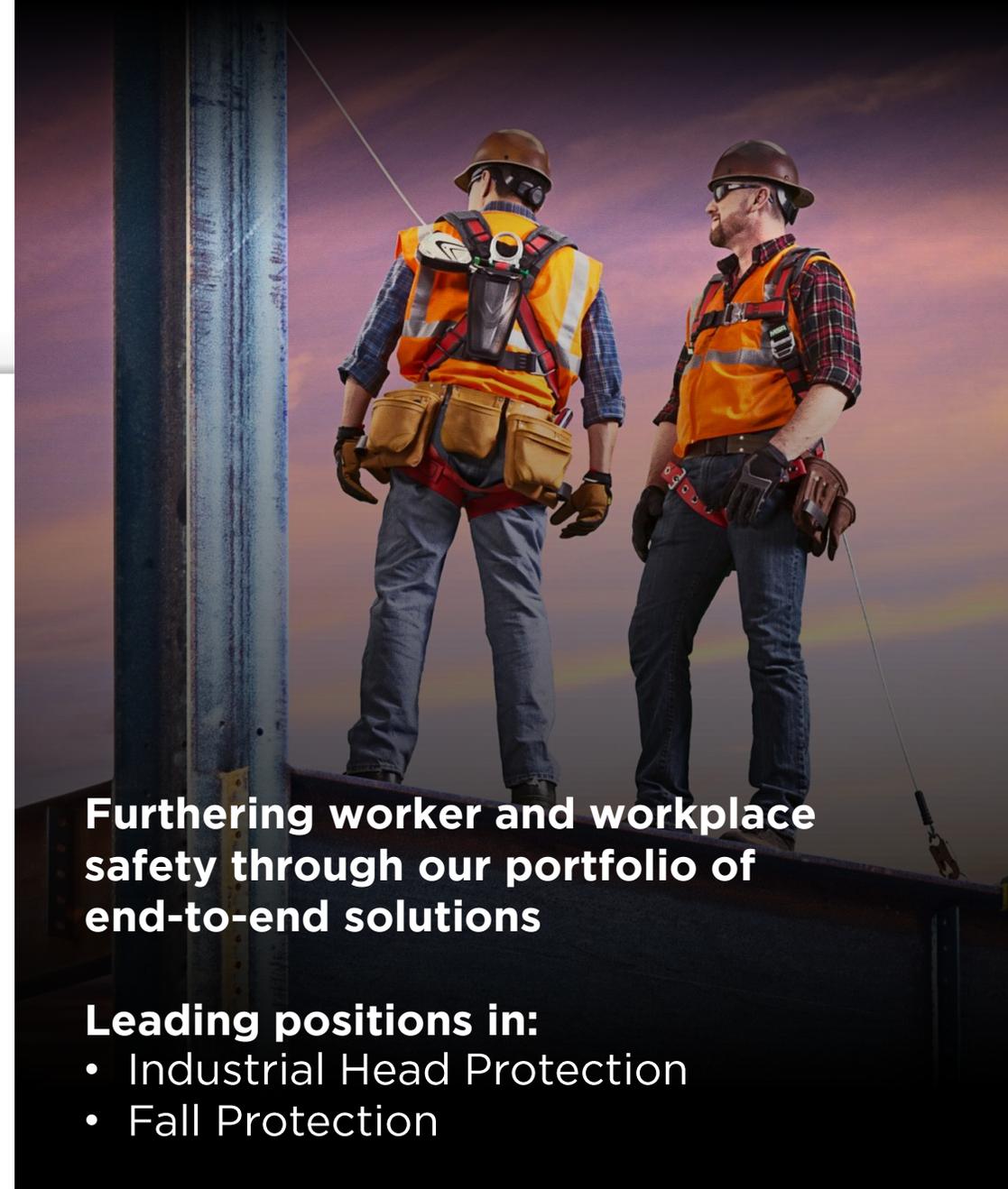
■ Head Protection
■ Fall Protection
■ Other¹

GEOGRAPHIC BREAKDOWN



■ Americas
■ International

(1) Air-Purifying Respirator, Eye & Hearing Protection, Military and Police Solutions.



Furthering worker and workplace safety through our portfolio of end-to-end solutions

Leading positions in:

- Industrial Head Protection
- Fall Protection

Market Overview | Increasingly Driven by Focus on Incident Prevention

TAM ¹ ~\$2.5B	Market CAGR ² 4 – 5%
Energy	<ul style="list-style-type: none"> • Growing market with diverse high-margin applications • Head and Fall Protection solutions designed for global end-user requirements
Utilities	<ul style="list-style-type: none"> • Stable, government-driven market • Head and Fall Protection for electrical, gas, telecom, and water / wastewater applications
Construction	<ul style="list-style-type: none"> • Market growing globally, focused efforts on key accounts • Head and Fall Protection for working at height and confined space entry
Industrial	<ul style="list-style-type: none"> • Stable, safety-focused market growing with diverse applications • Head and Fall Protection for working at height, confined space entry, warehouses, and fulfillment centers
Transportation	<ul style="list-style-type: none"> • Stable market with diverse high-margin applications • Head and Fall Protection for airplane maintenance

KEY MARKET GROWTH DRIVERS



Compliance with government regulation (OSHA #1 Citation: Slips, Trips, and Falls)



Demand for higher productivity with 100MM+ days lost due to injuries



Customer preferences related to form, fit, and function



Purpose-built technologies

How We Win in Industrial PPE



CUSTOMER INTIMACY

- Team of application experts with deep understanding of customer requirements
- Leadership in industry standards and government regulations



INNOVATION

- Strong portfolio of IP and technology
- New applications to address customer preferences provide runway of opportunity



DISTRIBUTION

- Leading market position for “need-it-now” products
- Superior breadth of product selection
- Best-in-class delivery and network

LEVERAGING KEY DIFFERENTIATORS TO DEEPEN CUSTOMER RELATIONSHIPS

Industrial PPE Playbook for Growth

CONTINUE TO BE THE LEADER IN PREMIUM SAFETY SOLUTIONS



- Leverage scale and best-in-class production to extend leading position in Head Protection
- Develop innovative Fall Protection solutions integrating customer feedback, application experts, and R&D
- Prioritize key end markets and geographies with customized and scalable solutions

IMPLEMENT TARGETED GROWTH ACCELERATORS



- Drive volume and share in Fall Protection “need-it-now” business through production improvements and working capital investments
- Enter new application-focused markets with high resiliency and profitability

APPLY MSA BUSINESS SYSTEM TO ENABLE EXCELLENCE



- Rationalize SKUs through consistent utilization of lean principles
- Align footprint to regional demand trends
- Improve product cost by leveraging engineering expertise

2 – 4% Expected Revenue CAGR
(2023 – 2028)¹

Case Study | Improving Cost of Ownership and Productivity

OPPORTUNITY

Perform aircraft maintenance more efficiently

- Traditionally conducted by installing expensive, custom, and time-consuming scaffolding or staging around the airplane



SOLUTION

WinGrip® Vacuum Anchor is mobile system that attaches to aircraft wing

- Only vacuum without electronics that is reliable, lightweight, and quick to install
- Optionality with single point anchor or multiple connected points, depending on number of workers
- Maintains functionality in rain, large temperature ranges, and various altitudes

RESULTS

Installation time significantly reduced vs. traditional staging systems

- Strong ROI for customers who typically service annually as product can be used for 10+ years
- Specified in maintenance manuals for major OEMs and military aircraft



Fall Protection North Star



Help reduce OSHA's #1 cited hazard: slips, trips, and falls

STYLE & COMFORT

Modern product style and genuine comfort leads to compliance

- V-SERIES® harness line addresses productivity through superior comfort
- V-TEC® PFL meets worker demand for lightweight design to address worker fatigue

EASE OF USE

Intuitive PPE can be used faster, easier, and more consistently

- Developed V-SHOCK® product line to be easily understandable with iconography, clearance charts, and color-coding system

COMPLIANCE

Making inspections simple and consistent

- V-TEC® SRLs use clear case housings to simplify inspections
- V-SERIES® harnesses use consistent design queues to simplify training and inspections

AVAILABILITY

When customers need PPE, they need it quickly

- Increasing inventory availability of Fall Protection for the “need-it-now” customer base
- Significantly improving delivery time through footprint optimization projects

Head Protection North Star



Be the leader in industrial Head Protection **through innovation**

REDUCE HEAT STRESS

OSHA's leading weather-related cause of death

- V-Gard C1® uses patent-pending ReflectIR Thermal Barrier to keep the inside of the hard hat up to 20°F cooler

CLIMBING HELMETS

Trends around requests for Type 1 and Type 2 lateral protection

- The V-Gard H1™ and V-Gard H2™ safety helmets provide the ideal balance of comfort and protection
- Stylish low-profile hard hats that meet the lateral (side impact) requirements of ANSI Type 1 or Type 2

ROTATIONAL IMPACT

Technology partnerships to advance safety

- V-Gard H2™ available using MIPS® rotational technology
- Low friction layer helps redirect forces of rotational impacts away from the head
- Reduces risk of brain injury

AVAILABILITY

Custom logo and delivery unrivaled

- MSA produces the V-Gard® in all major regions
- Customer logo process has an industry-leading turnaround time of five days

Note: MIPS is a registered trademark of MIPS AB.

Key Takeaways

1

Growing share and gaining above-market growth in Fall Protection and **extending leading position** in Head Protection

2

Deepening customer relationships to gain unique insights and compelling reasons to win

3

Empowering tenured teams to **innovate products and solutions**

4

Diversifying revenue streams through both need-it-now products and application-based solutions



Our Next Phase of Outperformance

LEE MCCHESNEY

SENIOR VICE PRESIDENT AND
CHIEF FINANCIAL OFFICER



Key Messages

1

Mission-driven culture serves as the foundation of our **established track record of execution and growth**

2

We provide our end users with market-leading solutions through **unwavering focus on innovation and serving our customers**, which drives growth

3

MSA Business System and commitment to **continuous improvement** will deliver **sustained results** for key stakeholders

4

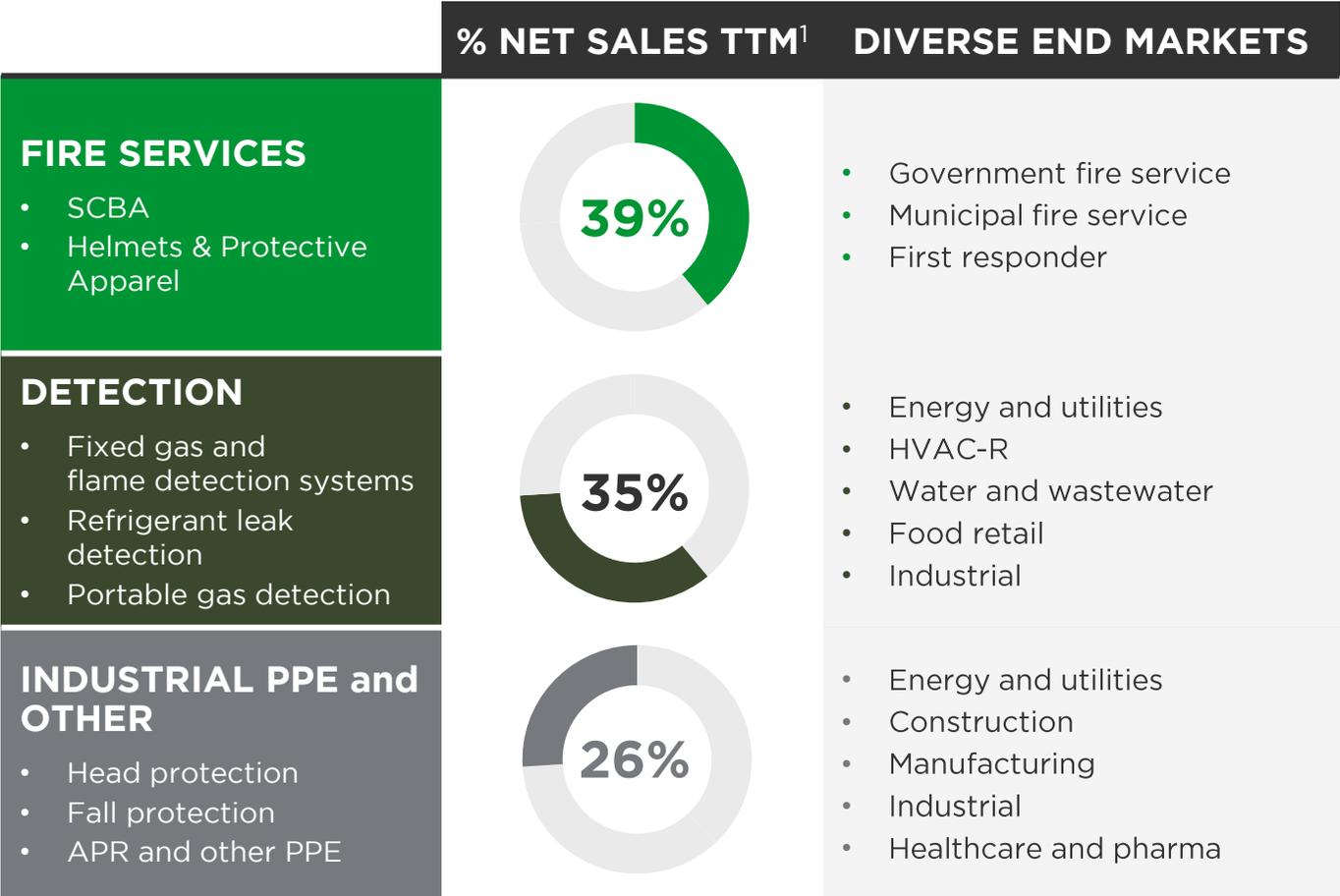
Our **value creation model** generates consistent free cash flow, enabling a strong balance sheet with optionality for **disciplined capital allocation**

5

Our strategy leverages our heritage and fuels our next set of long-term growth targets

Reaffirming Mid-Single Digit Growth Outlook for 2024

Reflecting Solid Start to 2024 and Resilient Portfolio of Products and Markets



(1) % of net sales for the trailing 12-month period ended March 31, 2024.

Operating Environment Update

POSITIVES

- + Growing global demand for safety products and solutions
- + Stable funding environment for firefighter safety
- + Supportive market dynamics in detection
- + Infrastructure stimulus in key regions
- + Excess backlog opportunity for balance of year
- + Leveraging MSA Business System to enhance commercial excellence and drive productivity

CHALLENGES

- Industrial end market demand mixed regionally
- Supply chain has improved, but remains dynamic
- Macroeconomic and geopolitical uncertainty impacts near-term visibility

MSA Safety Value Creation Model

GROWTH ENABLERS

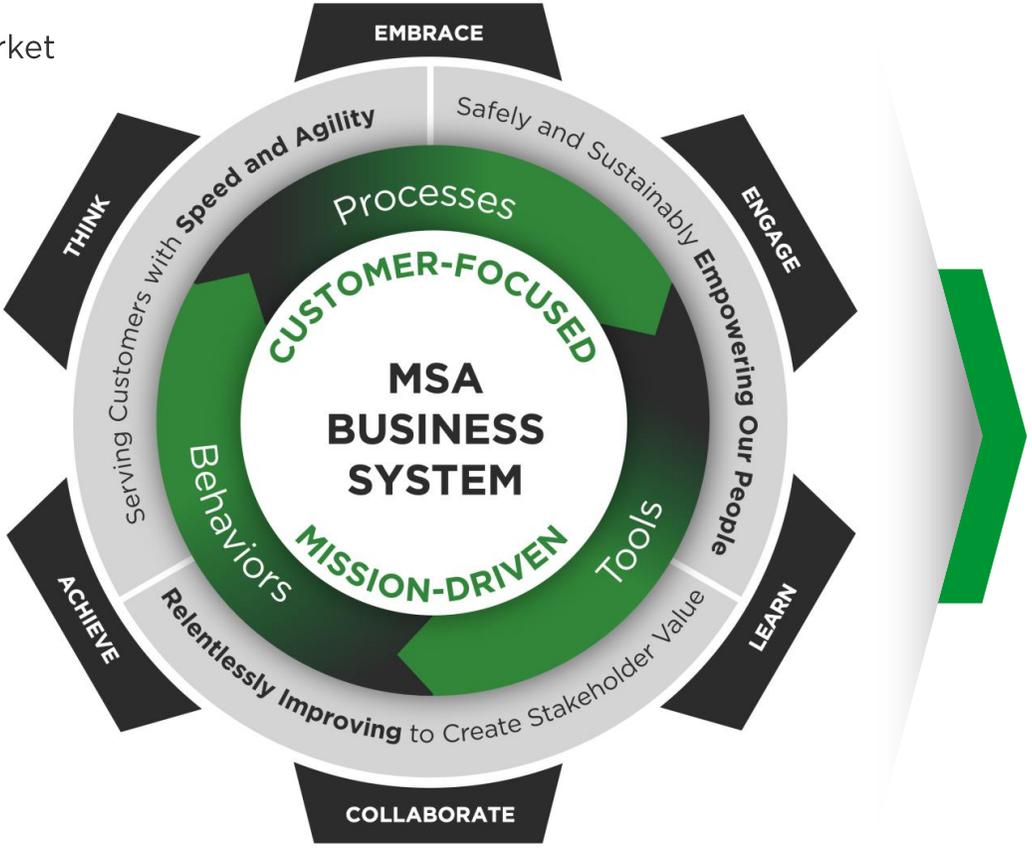
- Diverse, resilient product lines in growing secular market
- Market-leading innovation with 37% Product Vitality
- Commercial execution
 - Established brand and market position
 - Strong customer intimacy

PROFITABILITY ENABLERS

- Growing productivity momentum across portfolio and functions
- Stable, less cyclical business model
- Unique, diversified product portfolio
- Complexity reduction programs

FINANCIAL DIFFERENTIATORS

- Strong balance sheet provides optionality
- Long-term investment mindset
 - Non-organic growth builds capabilities
 - Proven M&A execution and integration ability
 - Investments that fuel growth over long-term

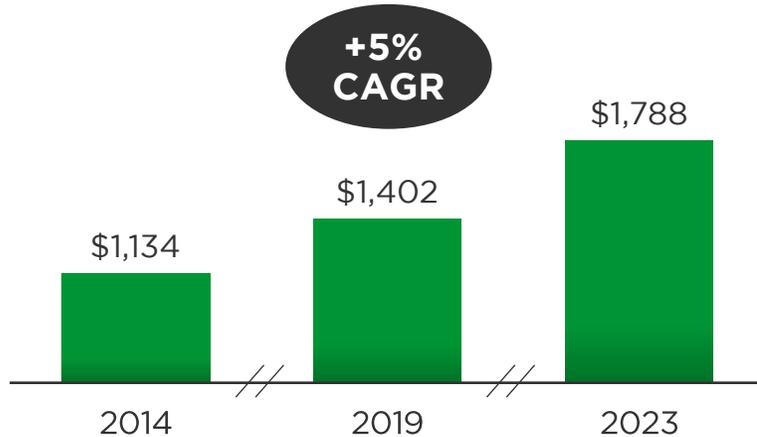


**Long-term,
resilient
outperformance**

OUR MISSION-DRIVEN CULTURE AND BUSINESS SYSTEM DELIVERS RESILIENT, QUALITY RETURNS

Strong Historical Financial Performance

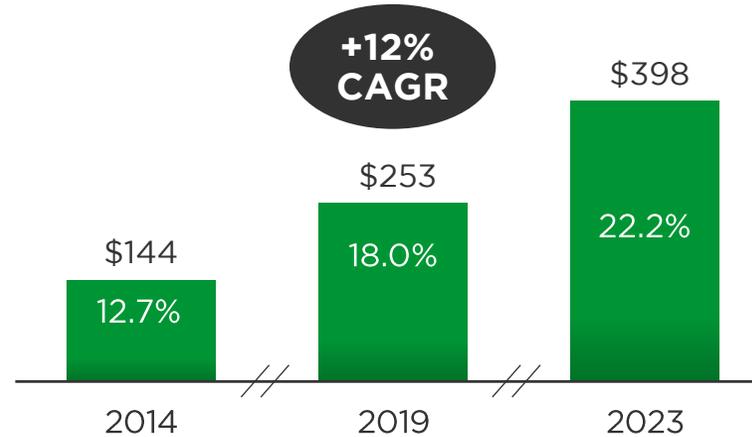
Net Sales (\$MM)



Total Sales Growth of 5%

- Mission-focused product innovation
- Well-balanced growth across portfolio with defined focus areas
- Well-positioned business portfolio serving diverse markets, limiting cyclicality
- Strategic bolt-on acquisitions

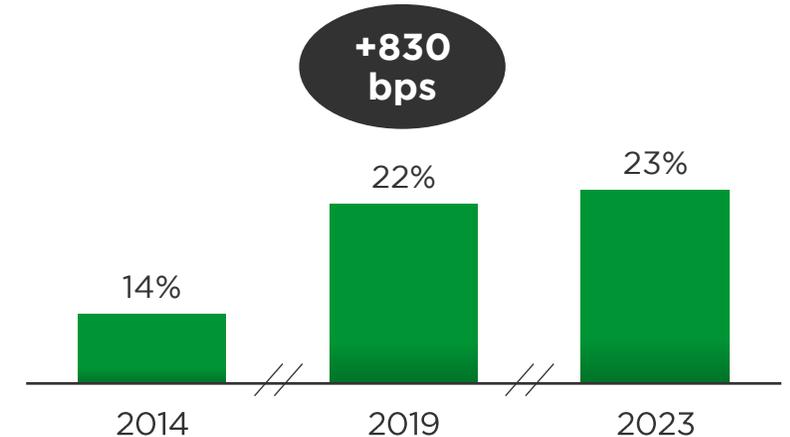
Adj. Operating Income (\$MM) & Margin (%)



Total Margin Growth of 950 bps

- Volume leverage drives profitable growth
- MSA Business System evolution from operations to full organization
- Optimization across operations, businesses, and functions
- Clear strategic alignment enabled mix and complexity reduction

Adj. ROCE¹ (%)



Attractive Return on Capital

- Sustained, profitable growth has fueled margin expansion
- Balanced working capital progress
- Continued balance sheet strength and disciplined acquisition execution
- Strategic legacy liability divestiture benefits ROCE by ~300 bps

See appendix for definitions of non-GAAP measures and non-GAAP reconciliations. "CAGR" stands for compound annual growth rate. (1) Adjusted ROCE is defined as adjusted earnings plus after-tax interest expense, divided by average capital employed.

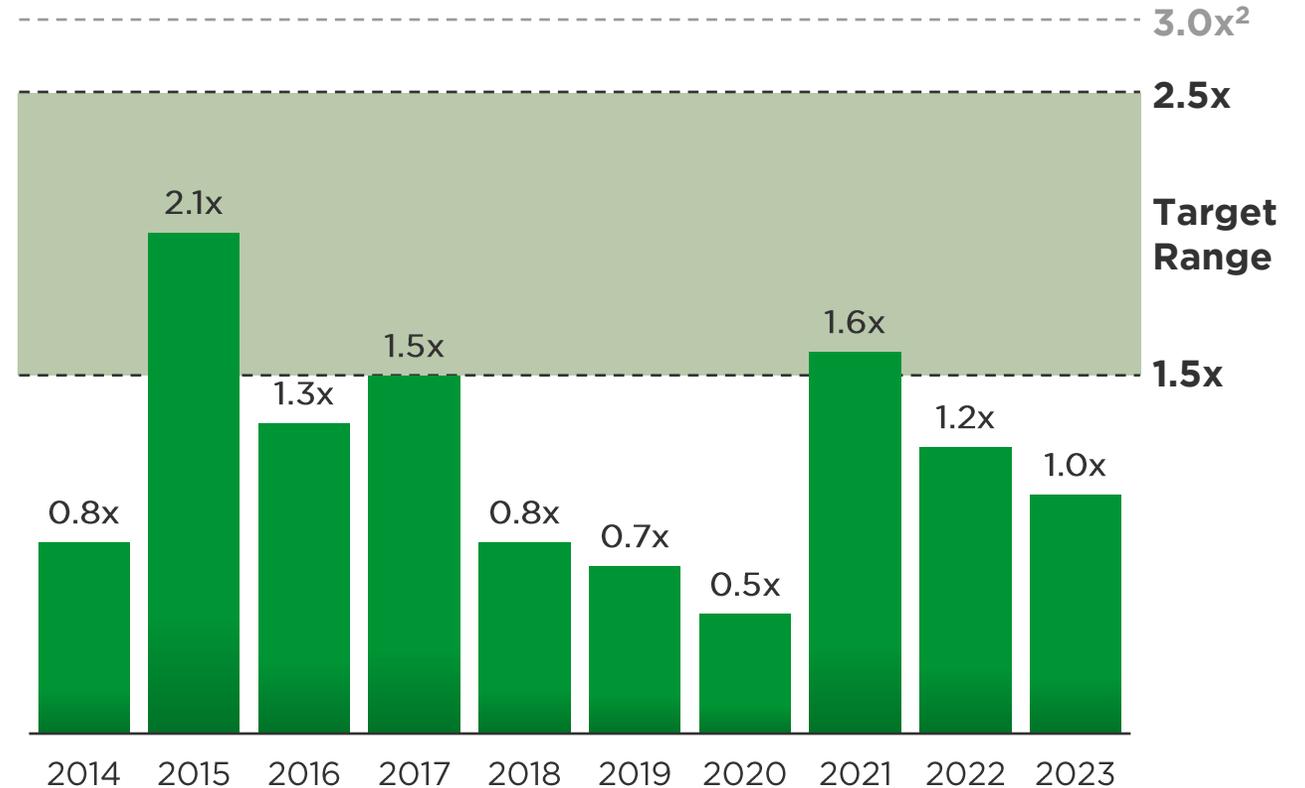
Balance Sheet Strength and Ample Liquidity Provide Optionality

Capital Summary & Financial Highlights (\$MM, 12/31/2023)

Cash & Cash Equivalents	\$146
Total Debt	\$602
Net Debt	\$455
Available Credit	\$1,400

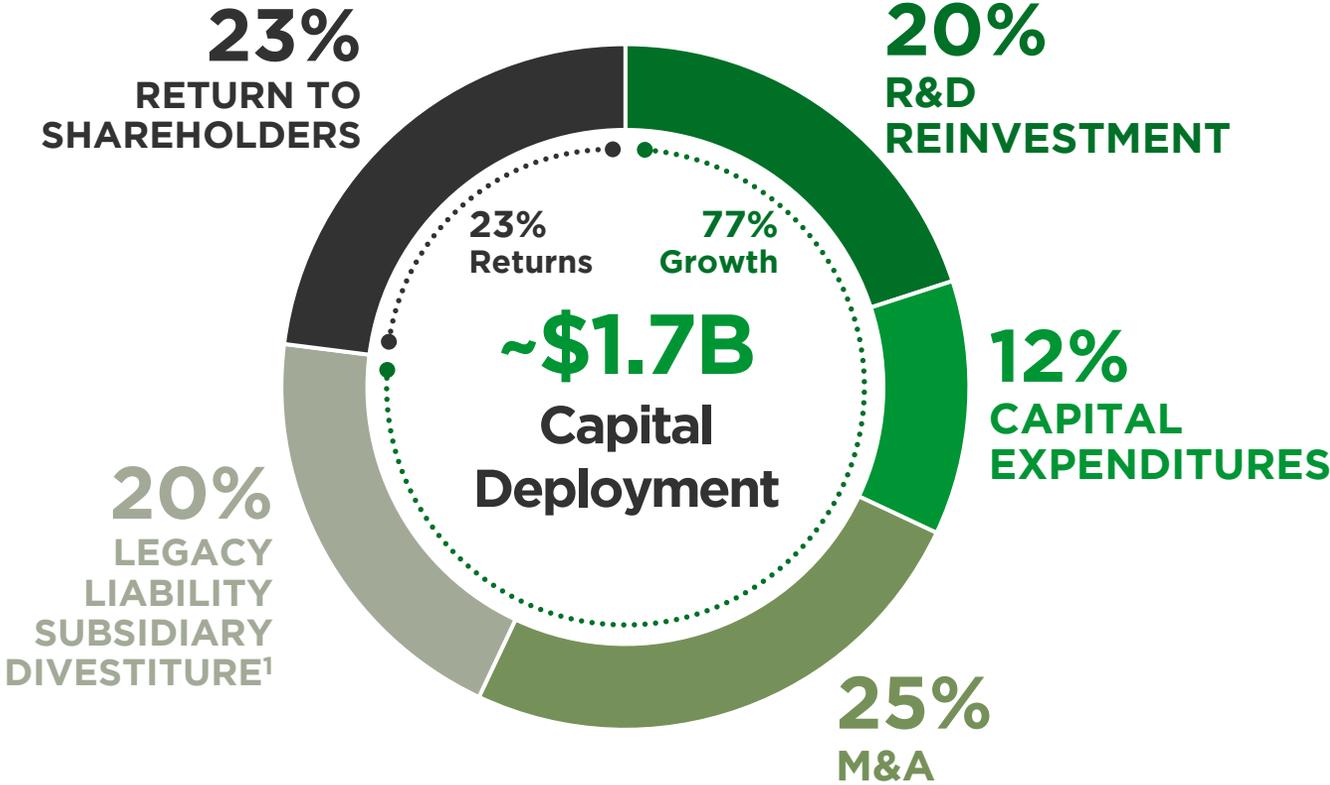
**~90% FCF
Conversion¹**
(2014 - 2023)

Net Leverage



Growth and Capital Deployment

5-Year Historical Capital Deployment on Growth and Return of Capital to Shareholders



Future Priorities

ORGANIC GROWTH

- Serving our customers
- Investing in technology and innovation to expand addressable market
- Funding R&D and new product development

M&A

- Augmenting value creation with strategy-led M&A
- Rigorous and disciplined assessments
- Increasing capacity and capability for acquisitions

RETURN TO SHAREHOLDERS

- Generating industry-leading returns through 50+ years of consecutive dividend increases
- Share repurchases to offset dilution and opportunistic reinvestment

WE HAVE BALANCED OUR CAPITAL DEPLOYMENT CONSISTENTLY TO OUR SHAREHOLDERS

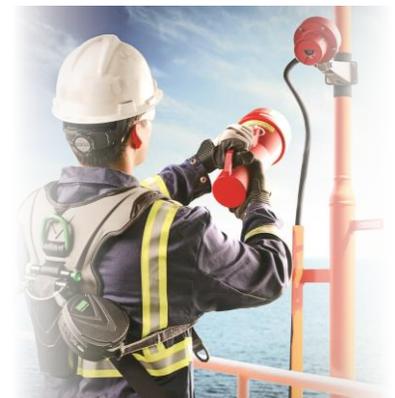
(1) <https://news.msasafety.com/2023-01-05-MSA-Safety-Announces-Divestiture-of-its-Subsidiary-Holding-Legacy-Liabilities>.

Value Creation Approach through Strategic M&A



Focus Areas

Detection



Fire Services



Industrial PPE



- Strategic bolt-ons in core product categories
- Expand core with complementary adjacencies



Strategic Discipline

- Leading positions with strong brand and product quality
- Leverage MSA channels, scale, and capabilities
- Technology-enabled
- Diversify end markets and geographies



Financial Criteria

- ROIC > Cost of Capital by Year 3
- EPS accretive on cash basis in Year 1
- Accretive growth and margins
- Value creation through synergy potential

HIGHLY DISCIPLINED PROCESS ACROSS DEAL LIFECYCLE

Strong Track Record of Value Creation through M&A



		Price: \$337MM Year: 2021	Price: \$60MM Year: 2021	Price: \$33MM Year: 2019	Price: \$215MM Year: 2017
Financial	ROIC Exceeds Cost of Capital	✓	✓	✓	✓
	EPS Accretive	✓	✓	✓	✓
	Accretive to Growth and Margins	✓	✓	✓	✓
	Value Creation through Synergies	✓	✓	✓	✓
Strategic	Strengthen Base Business	✓	✓	✓	✓
	Platform for Future Growth	✓	✓	✓	✓
	Product and Customer Reach	✓	✓	✓	✓
	Sustainable Competitive Advantage	✓	✓	✓	✓

Bolstered Already Strong Positions in Detection and Fire Services

\$645MM
Capital Deployed

~\$160MM
Average Deal Size

~\$60MM
Average Sales

✓ On track
✓ In process

Our Strategy | Positioned for Superior Performance



**CONTINUE TO BE
THE LEADER IN
PREMIUM
SAFETY
SOLUTIONS**



**IMPLEMENT
TARGETED
GROWTH
ACCELERATORS**



**APPLY MSA
BUSINESS
SYSTEM TO
ENABLE
EXCELLENCE**



**ALLOCATE
CAPITAL
EFFECTIVELY**

DRIVEN BY OUR MISSION AND CULTURE OF SAFETY

MSA Safety Long-Term 2028 Financial Targets

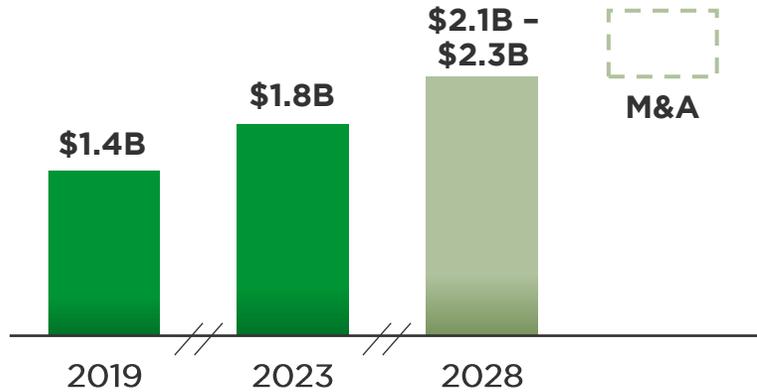
MISSION-DRIVEN REINVESTMENT

	Resilient Organic Revenue Growth	\$2.1B – \$2.3B	<ul style="list-style-type: none">• 3 – 5% organic revenue growth• Market growth, customer-centric innovation, and commercial excellence• Macro secular safety trends
	Operating Margin ¹ Expansion	23.5% – 25.0%	<ul style="list-style-type: none">• Target 30 – 50 bps annually• MSA Business System evolution across global business• Continued focus on operating efficiency
	Continued EPS ¹ Compounding	\$10.00 – \$11.00	<ul style="list-style-type: none">• Strategy evolution delivers new base of expansion• 30 – 40% incremental operating margins
	Capital Deployment Optionality	\$1.5B⁺²	<ul style="list-style-type: none">• Consistent organic growth investment• Sustained dividend + share repurchases• Accretive acquisitions from free cash flow generation and available debt capacity• Continue performance of 20%+ Adj. ROCE³

OUR STRATEGY FUELS PROVEN SHAREHOLDER VALUE CREATION

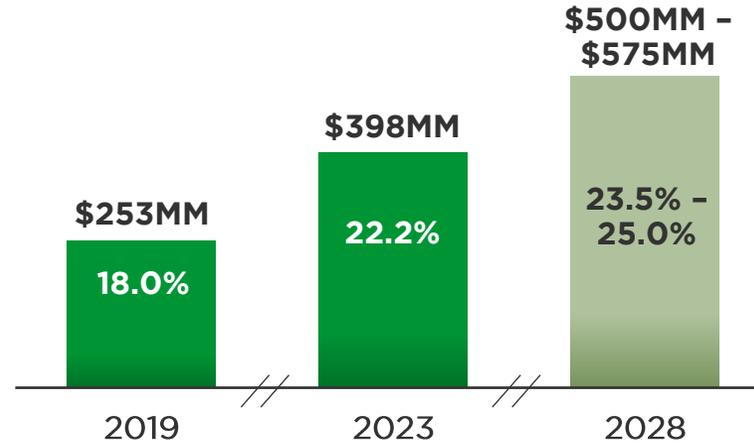
Our Outlook Expands on Proven Resilient Growth History

Resilient Organic Growth



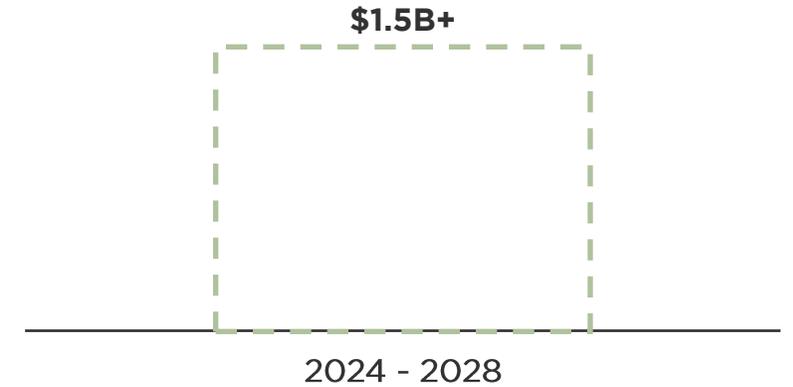
- Customer-led innovation in attractive areas of safety to continue fueling growth
- Expected revenue CAGRs¹:
 - Detection: 5 – 7%
 - Fire Service: 3 – 5%
 - Industrial PPE: 2 – 4%
- M&A to complement organic growth by enhancing portfolio and further diversifying end markets

Expanding Adj. Operating Income (\$MM) & Margin (%)



- MSA Business System has accelerated our results and will continue to drive operating margin improvements
- Equal focus on investment opportunities and reinvestment in gross margin and SG&A

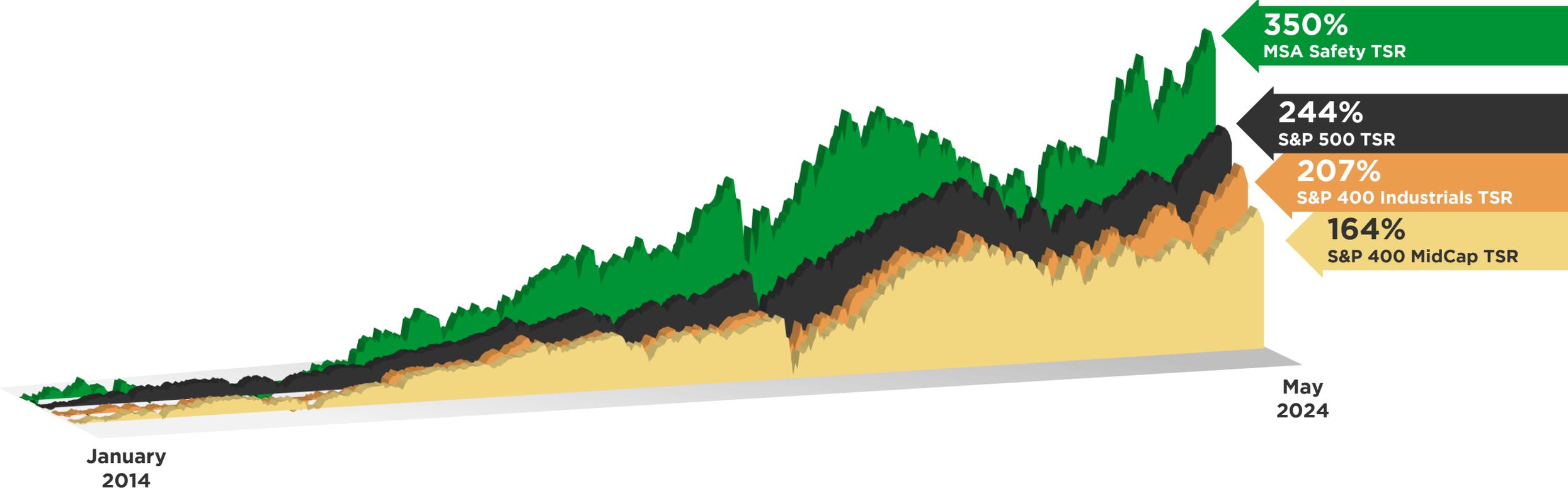
Capital Deployment Optionality²



- Maintaining discipline and execution rigor in M&A to deliver attractive returns
- Ample capacity to compound profitable growth through consistent cash flow generation and credit availability
- Targeting 20%+ Adj. ROCE³ on an organic basis through high free cash flow conversion and capital efficiency discipline, consistent with recent performance

REFLECTS OUR ABILITY TO DELIVER SUSTAINED VALUE CREATION

Defined History of Value Creation for All Stakeholders



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Net Sales (\$MM)	\$1,134	\$1,131	\$1,150	\$1,197	\$1,358	\$1,402	\$1,348	\$1,400	\$1,528	\$1,788
Adj. Operating Margin	12.7%	12.7%	14.9%	16.3%	17.3%	18.0%	18.4%	17.2%	19.0%	22.2%

PROVEN ABILITY TO OUTPERFORM THROUGH CYCLES

Key Takeaways

1

Mission-driven culture serves as the foundation of our **established track record of execution and growth**

2

We provide our end users with market-leading solutions through **unwavering focus on innovation and serving our customers** which drives growth

3

MSA Business System and commitment to **continuous improvement** will deliver **sustained results** for key stakeholders

4

Our **value creation model** generates consistent free cash flow, enabling a strong balance sheet with optionality for **disciplined capital allocation**

5

Our strategy leverages our heritage and fuels our next set of long-term growth targets



Closing Remarks

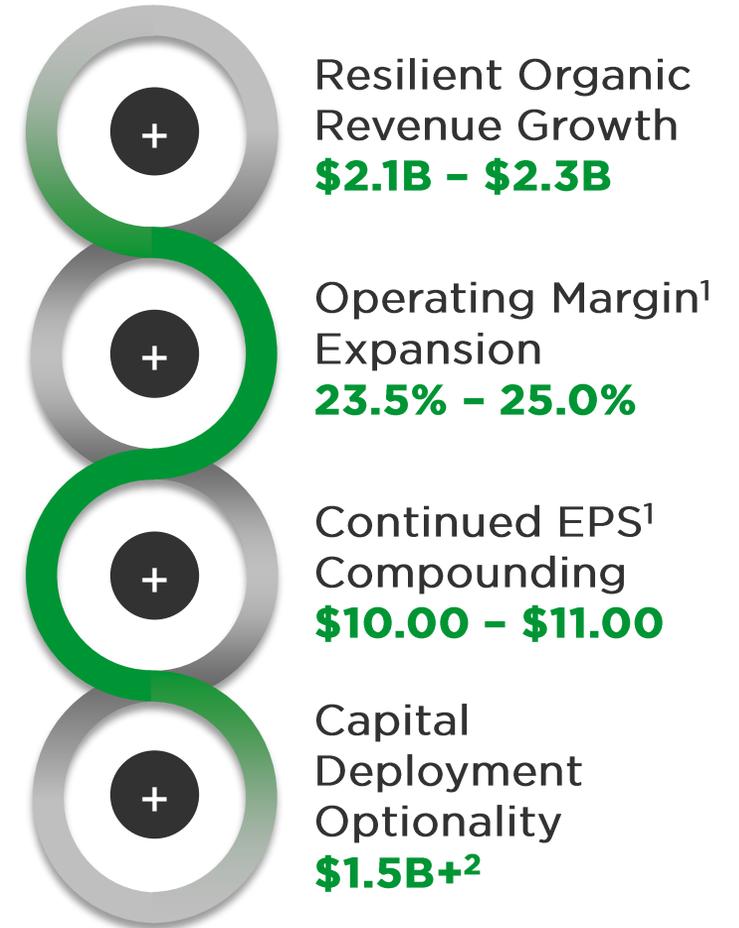
STEVE BLANCO

PRESIDENT AND CHIEF EXECUTIVE OFFICER



What You Heard Today

- 1** Mission-driven growth company **providing market-leading solutions since 1914**
- 2** **Attractive and resilient end markets** bolstered by secular tailwinds
- 3** Well-established **customer-centric innovation engine** with human-centered design
- 4** Proven playbook supported by **MSA Business System delivering sustained value creation**
- 5** **Disciplined capital deployment** focused on fueling growth, driving efficiency, and returning capital to shareholders





Q&A

A man wearing a grey hard hat, safety glasses, and a high-visibility yellow and black safety vest is standing in a tunnel. He has a device attached to his vest. The tunnel walls are lined with pipes and structural supports. The lighting is dramatic, with a strong light source on the left creating a lens flare.

Board Composition & Executive Bios

Board of Directors



Steve Blanco
President and CEO,
MSA Safety
2024



Robert Bruggeworth
Lead Independent
Director; President and
CEO, Qorvo, Inc.
2007



Gregory Jordan
EVP, General Counsel
and Chief Administrative
Officer, PNC Financial
2019



William Lambert
Former CEO,
MSA Safety
2007



Diane Pearse
Former President and
CEO, Hickory Farms
2004



Rebecca Roberts
Former President,
Chevron Corp
2013



Sandra Phillips Rogers
SVP, Corporate Resources,
General Counsel, and
Chief Legal Officer
Toyota Motors
North America
2017



Luca Savi
President and CEO,
ITT Inc.
2021



William Sperry
SVP and CFO,
Hubbell Incorporated
2019



Nish Vartanian
Non-Executive Chairman
2018

Skills Matrix

Leadership	100%
Financial Oversight	100%
Manufacturing Operations	100%
Global Business	90%
M&A	90%
Safety Industry	30%
CSR ¹	30%

Board Attributes

8.7 Years
Average Tenure

30%
Diversity

80%
Independence

(1) Corporate Social Responsibility.



Bob Apel

Executive Director, Global Fire Service and Digital Experience

Bob Apel serves as Executive Director of Global Fire Service and Digital Experience. In this role, he is responsible for leading the development and execution of the company's global fire service product and technology strategy. From July 2020 to December 2023, he served as Chief Operating Officer of Globe Manufacturing Company, where he led Globe's SAP integration. Prior to that, Bob held various leadership roles of increasing responsibility across MSA Safety's Americas business segment, including Director of Marketing, Product Group Manager for Respiratory Protection, and Product Group Manager for Head, Eye, Face, and Hearing protection. He joined the company in 1995.



Steve Blanco

President and Chief Executive Officer

Steve Blanco serves as President and Chief Executive Officer. He oversees MSA Safety's global business, managed through the company's two primary business segments, MSA Americas and MSA International, and is responsible for all MSA Safety business initiatives, strategy development, and operations. Steve joined the MSA Board of Directors in 2024. He most recently served as President and Chief Operating Officer, overseeing the company's global portfolio and the implementation of the company's strategic initiatives. He served as President of the company's Americas business segment from 2017 to 2022. As President of MSA Americas, revenue in the segment grew by more than 40%. During his tenure with the company, Steve also helped oversee the acquisitions and integrations of Bacharach, Globe Manufacturing and Sierra Monitor. Prior to joining MSA Safety, Steve worked for Eaton Corporation, serving as Vice President of Manufacturing for the company's Electrical Sector, and worked for Ford Motor Company and Visteon. He joined MSA Safety in 2012.



Larry De Maria

Executive Director, Investor Relations

Larry De Maria, CFA serves as Executive Director, Investor Relations. In this role, Larry serves as the primary point of contact for MSA Safety investors and research analysts. He focuses on MSA Safety's investor relations strategy and communicating the company's performance and strategies to deliver sustained shareholder value. Prior to joining MSA Safety, he served as Group Head, Global Industrial Infrastructure, Equity Research for William Blair & Company. He joined MSA Safety in 2024.



Dave Howells

Senior Vice President and President, MSA International

Dave Howells serves as Senior Vice President and President, MSA International. In this role, he is responsible for leading MSA's business operations across Europe, the Middle East, Africa, and Asia. He most recently served as Vice President, Sales & Customer Marketing for International, guiding the company's efforts to accelerate revenue growth and expand gross margins. Prior to that, Dave held various leadership roles in MSA's global distribution channels and sales organizations. He joined the company in 1981.



Gustavo Lopez

Vice President, Product Strategy and Pricing

Gustavo Lopez serves as Vice President, Product Strategy and Pricing. In this role, he leads the product marketing and pricing organizations, as well as the company's Global Product Leadership Council, which focuses on aligning the company's product strategies across the entire portfolio to drive efficiency within the organization. Previously, Gustavo served in various roles of increasing responsibility across the company's software, connected technology, and detection products and solutions segments, and he led the integration of the company's acquisition of Sierra Monitor. He joined MSA Safety in 2004.



Greg Martin

Senior Vice President, Chief Product and Technology Officer

Greg Martin serves as Senior Vice President, Chief Product and Technology Officer. In this role, he leads the company's product strategy, product development, and corporate digital transformation efforts. His team is focused on using technology and software to enhance customer safety, productivity, and experience, while improving MSA's internal efficiency through data driven insights. Prior to that, Greg held various leadership roles of increasing responsibility within the company's product development and strategy groups and functions. Prior to MSA Safety, Greg held various product marketing positions at both Alstom S.A. and Areva S.A. within the energy sector, and held engineering positions at Teradyne, Inc. in the semiconductor industry. He joined MSA Safety in 2005.



Lee McChesney

Senior Vice President and Chief Financial Officer

Lee McChesney serves as Senior Vice President and Chief Financial Officer. In this role, he is responsible for improving value creation and overseeing capital allocation. He leads our global financial operations, including treasury, financial planning and analysis, investor relations, operations finance, commercial finance, accounting, and audit. In addition, Lee oversees our mergers, acquisitions, and divestitures function. Prior to joining MSA Safety, Lee worked for Stanley Black & Decker, serving most recently as Vice President for Corporate Finance and CFO for the company's Global Tools and Storage business and President for the company's Hand Tools, Accessories, and Storage business, and worked for United Technologies. He joined MSA Safety in 2022.



Rick Roda

Vice President, Secretary and Chief Legal Officer

Rick Roda serves as Vice President, Secretary and Chief Legal Officer. In this role, he is responsible for the company's global legal affairs. He also serves as the company's Chief Compliance Officer. He most recently served as Deputy General Counsel, Secretary, and Chief Compliance Officer. Prior to that, Rick held various leadership roles of increasing responsibility including having oversight of MSA's transactional, corporate legal and securities law functions. As MSA's principal M&A counsel, Rick has overseen the legal work associated with MSA's acquisitions over the past two decades. He joined the company in 1995.



Jose Sanchez

Vice President, Global Operations

Jose Sanchez serves as Vice President, Global Operations. In this role, he leads the company's operations globally, and is responsible for procurement, supply chain, manufacturing, operations technology, and strategy. He also leads safety, sustainability, quality, delivery, cost, and continuous improvement in these areas. Prior to joining MSA Safety, Jose served as managing director at SRG Global, a global supplier of automotive components, overseeing multiple plants in Europe and Asia. He joined MSA Safety in 2019.



Stephanie Sciullo

Senior Vice President and President, MSA Americas

Stephanie Sciullo serves as Senior Vice President and President, MSA Americas where she is responsible for overseeing MSA's business interests in the United States, Canada, and Latin America and is executive sponsor for the company's corporate social responsibility program. Prior to that, she served in varying roles of increasing responsibility within the company's law department, most recently as Senior Vice President and Chief Legal Officer. She joined the company in 2010.



Nish Vartanian

Non-Executive Chairman

Nish recently announced his retirement from MSA Safety, serving most recently as Chief Executive Officer, after first joining the company in 1985. Nish also serves on the board of Koppers Holdings, Inc. (NYSE: KOP), the Board of Trustees for the Manufacturers Alliance for Productivity and Innovation (MAPI); the International Association of Fire Fighters Foundation; and the Allegheny Conference on Community Development. He is also a director of the Federal Reserve Bank of Cleveland, Pittsburgh Branch.



Glennis Williams

Vice President, Chief Human Resources Officer and Global Business Services

Glennis Williams serves as Vice President, Chief Human Resources Officer and Global Business Services. In this role, she is responsible for leading the company's human resources operations and for developing and deploying an integrated strategy and operating model for MSA's Global Business Services. She led the company's human resources transformation, focused on driving strategic talent and business outcomes and aligning the company's strategies with long-term organizational goals. Prior to MSA Safety, Glennis served as Senior Vice President and Chief Human Resource Officer for Hillenbrand, a global diversified industrial company; as Vice President, Global Human Resources at Welbilt, Inc., a provider of commercial kitchen equipment and solutions; and as Vice President, Human Resources, for Joy Global. She joined MSA Safety in 2020.



Rob Willis

Global Product Group Director, Industrial PPE and Fall Protection Systems

Rob Willis serves as Global Product Group Director for Industrial Personal Protective Equipment (PPE) & Fall Protection Systems. In this role, he is responsible for leading the development and execution of Industrial PPE products and Fall Protection systems for the company's global portfolio. Previously, Rob held varying roles of increasing responsibilities within the company's fall protection product segment. He joined the company in 2005.



Reconciliation of Non-GAAP Financial Measures

Adjusted Earnings

(In thousands)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Net income attributable to MSA Safety Incorporated ^(a)	\$ 87,310	\$ 69,069	\$ 91,461	\$ 24,640	\$ 124,308	\$ 137,998	\$ 124,077	\$ 21,340	\$ 179,630	\$ 58,583
Tax charges associated with reorganization	-	7,605	6,473	(2,504)	1,794	584	1,119	2,468	-	(992)
Loss on divestiture of MSA LLC	-	-	-	-	-	-	-	-	-	129,211
Deferred tax asset write-off related to divestiture of MSA LLC	-	-	-	-	-	-	-	-	-	70,366
Product liability expense	3,893	982	341	126,432	45,327	26,619	39,036	185,264	20,590	3
Restructuring charges	8,515	12,258	5,694	17,632	13,247	13,846	27,381	16,433	7,965	9,892
Transaction costs ^(b)	-	7,462	2,531	4,225	421	4,400	717	7,120	3,233	965
Amortization of acquisition-related intangible assets	-	-	-	-	-	-	-	8,764	9,207	9,246
Currency exchange losses, net	1,509	2,204	766	5,127	2,330	19,814	8,578	216	10,255	17,079
Loss on extinguishment of debt	-	-	-	-	1,494	-	-	-	-	-
Asset related (gains) losses and other	(2,116)	1,636	32	678	484	371	993	788	6,290	173
Income tax expense on adjustments	(3,812)	(6,792)	(3,161)	(56,133)	(16,331)	(14,104)	(21,295)	(57,648)	(14,662)	(11,665)
Tax charges (benefit) associated with tax reform	-	-	-	19,817	2,518	-	-	-	-	(5,313)
Adjusted earnings	<u>\$ 95,299</u>	<u>\$ 94,424</u>	<u>\$ 104,137</u>	<u>\$ 139,914</u>	<u>\$ 175,592</u>	<u>\$ 189,528</u>	<u>\$ 180,606</u>	<u>\$ 184,745</u>	<u>\$ 222,508</u>	<u>\$ 277,548</u>

(a) During 2021, the Company changed its method of accounting for certain inventory in the United States from the last-in, first-out method to the first-in, first-out method. All prior periods presented have been retrospectively adjusted to apply the new method of accounting. For the period of 2014 - 2016 this represents income from continuing operations.

(b) Transaction costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during acquisitions and divestitures.

Free Cash Flow

(In thousands, except percentage amounts)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Cash flow from operating activities	\$ 107,031	\$ 55,254	\$ 134,894	\$ 230,336	\$ 263,887	\$ 164,962	\$ 206,555	\$ 199,145	\$ 157,455	\$ 92,857
Contribution on divestiture of MSA LLC	-	-	-	-	-	-	-	-	-	341,186
Product liability payments related to MSA LLC	-	-	-	-	-	-	-	-	-	5,250
Capital expenditures	(33,583)	(36,241)	(25,523)	(23,725)	(33,960)	(36,604)	(48,905)	(43,837)	(42,553)	(42,764)
Free cash flow	\$ 73,448	\$ 19,013	\$ 109,371	\$ 206,611	\$ 229,927	\$ 128,358	\$ 157,650	\$ 155,308	\$ 114,902	\$ 396,529
Adjusted earnings	\$ 95,299	\$ 94,424	\$ 104,137	\$ 139,914	\$ 175,592	\$ 189,528	\$ 180,606	\$ 184,745	\$ 222,508	\$ 277,548
Free cash flow conversion (adjusted earnings)	77%	20%	105%	148%	131%	68%	87%	84%	52%	143%
Net income attributable to MSA Safety Incorporated	\$ 87,310	\$ 69,069	\$ 91,461	\$ 24,640	\$ 124,308	\$ 137,998	\$ 124,077	\$ 21,340	\$ 179,630	\$ 58,583
Free cash flow conversion (GAAP earnings)	84%	28%	120%	839%	185%	93%	127%	728%	64%	677%

Management believes that free cash flow is a meaningful measure for investors. Management reviews cash from operations after deducting capital expenditures because these expenditures are necessary to promote growth of MSA's business and are likely to produce cash from operations in future periods. It is important to note that free cash flow does not reflect the residual cash balance of the company for discretionary spending since other items, including debt and dividend payments, are deducted from free cash flow before arriving at the company's ending cash balance. Management defines adjusted free cash flow conversion as free cash flow divided by adjusted earnings. There can be no assurances that MSA's definition of adjusted free cash flow is consistent with that of other companies. As such, management believes that it is appropriate to consider cash from operating activities determined on a GAAP basis as well as free cash flow.

The free cash flow for the twelve months ended 2023 is adjusted to reflect the divestiture of MSA LLC.

Adjusted ROCE

	2014	2019	2023
Net income attributable to MSA Safety Incorporated ^(a)	\$ 87,310	\$ 137,998	\$ 58,583
Tax charges associated with reorganization	-	584	(992)
Loss on divestiture of MSA LLC	-	-	129,211
Deferred tax asset write-off related to divestiture of MSA LLC	-	-	70,366
Product liability expense	3,893	26,619	3
Restructuring charges	8,515	13,846	9,892
Transaction costs ^(b)	-	4,400	965
Amortization of acquisition-related intangible assets	-	-	9,246
Currency exchange losses, net	1,509	19,814	17,079
Asset related (gains) losses and other	(2,116)	371	173
Income tax expense on adjustments	(3,812)	(14,104)	(11,665)
Tax charges (benefit) associated with tax reform	-	-	(5,313)
Adjusted earnings	\$ 95,299	\$ 189,528	\$ 277,548
After-tax interest expense	6,669	10,355	34,395
Adjusted ROCE earnings	<u>\$ 101,968</u>	<u>\$ 199,883</u>	<u>\$ 311,943</u>
Capital employed ^(c)	\$ 684,302	\$ 928,772	\$ 1,422,052
Average capital employed ^(d)	\$ 713,859	\$ 894,754	\$ 1,377,862
Adjusted ROCE ^(e)	14.3%	22.3%	22.6%

(a) During 2021, the Company changed its method of accounting for certain inventory in the United States from the last-in, first-out method to the first-in, first-out method. All prior periods presented have been retrospectively adjusted to apply the new method of accounting. For the period of 2014, this represents income from continuing operations.

(b) Transaction costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during acquisitions and divestitures.

(c) Capital employed is the sum of year-end stockholder's equity and total debt minus cash.

(d) Average capital employed is computed by averaging the sum of the capital employed at the beginning and the end of the period.

(e) Adjusted ROCE is computed by dividing adjusted ROCE earnings by average capital employed.

Adjusted Operating Income and Adjusted Operating Margin

(In thousands, except percentage amounts)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Net sales	\$ 1,133,885	\$ 1,130,783	\$ 1,149,530	\$ 1,196,809	\$ 1,358,104	\$ 1,401,981	\$ 1,348,223	\$ 1,400,182	\$ 1,527,953	\$ 1,787,647
Operating income ^(a)	134,079	121,975	162,383	41,306	173,711	188,247	171,895	22,780	239,137	231,320
Operating margin	11.8%	10.8%	14.1%	3.5%	12.8%	13.4%	12.7%	1.6%	15.7%	12.9%
Restructuring charges	8,515	12,258	5,694	17,632	13,247	13,846	27,381	16,433	7,965	9,892
Currency exchange losses, net	1,509	2,204	766	5,127	2,330	19,814	8,578	216	10,255	17,079
Loss on divestiture of MSA LLC	-	-	-	-	-	-	-	-	-	129,211
Product liability expense	-	-	-	126,432	45,327	26,619	39,036	185,264	20,590	3
Transaction costs ^(b)	-	7,462	2,531	4,225	421	4,400	717	7,120	3,233	965
Amortization of acquisition-related intangible assets	-	-	-	-	-	-	-	8,764	9,207	9,246
COVID-19 related costs	-	-	-	-	-	-	757	-	-	-
Adjusted operating income	<u>\$ 144,103</u>	<u>\$ 143,899</u>	<u>\$ 171,374</u>	<u>\$ 194,722</u>	<u>\$ 235,036</u>	<u>\$ 252,926</u>	<u>\$ 248,364</u>	<u>\$ 240,577</u>	<u>\$ 290,387</u>	<u>\$ 397,716</u>
Adjusted operating margin (%)	12.7%	12.7%	14.9%	16.3%	17.3%	18.0%	18.4%	17.2%	19.0%	22.2%

(a) During 2021, the Company changed its method of accounting for certain inventory in the United States from the last-in, first-out method to the first-in, first-out method. All prior periods presented have been retrospectively adjusted to apply the new method of accounting.

(b) Transaction costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during acquisitions and divestitures.

Adjusted EBITDA, Total Debt to Adjusted EBITDA, and Net Debt to Adjusted EBITDA

(In thousands)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Operating income ^(a)	\$ 134,079	\$ 121,975	\$ 162,383	\$ 41,306	\$ 173,711	\$ 188,247	\$ 171,895	\$ 22,780	\$ 239,137	\$ 231,320
Loss on divestiture of MSA LLC	-	-	-	-	-	-	-	-	-	129,211
Depreciation and amortization	29,921	31,684	35,273	37,877	37,852	38,020	39,674	45,417	47,110	51,527
Product liability expenses	-	-	-	126,432	45,327	26,619	39,036	185,264	20,590	3
Restructuring charges	8,515	12,258	5,694	17,632	13,247	13,846	27,381	16,433	7,965	9,892
Currency exchange losses, net	1,509	2,204	766	5,127	2,330	19,814	8,578	216	10,255	17,079
Transaction costs ^(b)	-	7,462	2,531	4,225	421	4,400	717	7,120	3,233	965
Amortization of acquisition-related intangible assets	-	-	-	-	-	-	-	8,764	9,207	9,246
COVID-19 related costs	-	-	-	-	-	-	757	-	-	-
Adjusted EBITDA	\$ 174,024	\$ 175,583	\$ 206,647	\$ 232,599	\$ 272,888	\$ 290,946	\$ 288,038	\$ 285,994	\$ 337,497	\$ 449,243
Total end-of-period debt	\$ 251,667	\$ 466,626	\$ 390,502	\$ 474,512	\$ 361,374	\$ 348,394	\$ 307,157	\$ 597,651	\$ 572,832	\$ 601,692
Total debt to adjusted EBITDA	1.4x	2.7x	1.9x	2.0x	1.3x	1.2x	1.1x	2.1x	1.7x	1.3x
Total end-of-period cash and cash equivalents	\$ 105,998	\$ 105,925	\$ 113,759	\$ 134,244	\$ 140,095	\$ 152,195	\$ 160,672	\$ 140,895	\$ 162,902	\$ 146,442
Net debt	\$ 145,669	\$ 360,701	\$ 276,743	\$ 340,268	\$ 221,279	\$ 196,199	\$ 146,485	\$ 456,756	\$ 409,930	\$ 455,250
Net debt to adjusted EBITDA	0.8x	2.1x	1.3x	1.5x	0.8x	0.7x	0.5x	1.6x	1.2x	1.0x

Management believes that Total Debt to Adjusted EBITDA and Net Debt to Adjusted EBITDA are useful measures for investors, as management uses these measures to internally assess the Company's liquidity and balance sheet strength. There can be no assurances that that MSA Safety's definition of Total Debt to Adjusted EBITDA and Net Debt to Adjusted EBITDA is consistent with that of other companies.

(a) During 2021, the Company changed its method of accounting for certain inventory in the United States from the last-in, first-out method to the first-in, first-out method. All prior periods presented have been retrospectively adjusted to apply the new method of accounting.

(b) Transaction costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during acquisitions and divestitures.

R&D Investment

(In thousands, except percentage amounts)

	2019	2020	2021	2022	2023
Research and development expense	\$ 57,848	\$ 58,268	\$ 57,793	\$ 57,012	\$ 67,988
Capitalized software development costs	5,045	8,200	8,100	8,713	12,060
Total R&D investment	\$ 62,893	\$ 66,468	\$ 65,893	\$ 65,725	\$ 80,048
Net sales	\$ 1,401,981	\$ 1,348,223	\$ 1,400,182	\$ 1,527,953	\$ 1,787,647
R&D investment (% net sales)	4.5%	4.9%	4.7%	4.3%	4.5%

Management believes that total R&D investment is a meaningful measure for investors. Management includes capitalized software development costs when evaluating total research and development expenditures as it believes it better represents its overall spend. Management defines R&D investment as research and development expense plus capitalized software development cost. As such, management believes that it is appropriate to consider research and development expense determined on a GAAP basis as well as total R&D investment.