

Introducing Amerlux FINCH 1" Collection of Cylinders and Downlights - Offering exceptional output, flexibility and a broad



range of configurations, the Amerlux FINCH collection delivers soft, high-quality illumination in various solutions: fixed downlight, wall mount, exterior ground mount, downlight and adjustable with a patent-pending 50-degree aiming angle. FINCH is designed to be used as accent or general illumination inside and outside high-end hospitality, commercial, residential and retail applications, or where a slat or smaller ceiling is required. **Interior Lighting:** Whether installed on ceilings or walls, FINCH is a versatile design tool. Use it to complement any design or as a decorative element with stand-out flair. **Exterior Lighting:** Emphasize or mask your surroundings using one product family and size. Do it from the ground up or along the walls.

- » FINCH surface downlight cylinder - Available in 3" to 18" lengths, delivers up to 1500 lumens and offers beveled door options for extra shielding. Use alone or in a composition to create a unique design.
- » FINCH wall mount direct/indirect cylinder - Measures 6" in length, delivers up to 800 lumens for both direct and indirect, and offers beveled front door options for additional shielding for the direct portion and a flush lens for the indirect portion, to prevent dust accumulation.
- » FINCH round and square downlight - Available as a round or square, delivers up to 1000 lumens and provides a toolless, field-replaceable LED engine for easy maintenance and long-lasting sustainable performance.
- » FINCH wall mount cylinder - Measures 6" in length, delivers up to 1000 lumens and offers beveled front door options for additional shielding for the direct portion and a flush lens for the indirect portion, to prevent dust accumulation.
- » FINCH exterior ground mount cylinder - Delivers over 900 lumens for landscape use. Sealed against elements, includes weatherproof wiring box with inside driver for 12VAC transformer connection. Features replaceable optics for desired effects, with optional accessories like hexcell louver or optical films.

bestlight.amerlux.com/finch/

National LED Market Observer

1. How AI is Proving as a Game Changer in Manufacturing - As AI gets smarter, manufacturing factories will become genius factories. They'll use real-time information to make things even better and faster. Imagine a world where machines could think, learn, and make decisions like humans. That's the magic of Artificial Intelligence (AI), significantly impacting manufacturing. Don't worry if AI sounds like a sci-fi concept – it's already here, changing the manufacturing game uniquely. Here's a mind-blowing stat: experts predict that AI in the manufacturing market will grow to a whopping \$16.3 billion by 2027, growing super-fast at an average rate of almost 47% between 2022 and 2027. Look at how AI is used in manufacturing to make things better and faster at: [How AI is Proving as a Game Changer in Manufacturing \(rtinsights.com\)](https://rtinsights.com)



2. What Can ChatGPT Do for Facility Managers? by Greg Zimmerman - The Artificial Intelligence (AI) platform ChatGPT is everywhere these days – it's acting as a virtual assistant on websites, helping school kids cheat on essay assignments, and even writing novels and poetry. The natural language processing (NLP) model with seemingly endless possibilities has led many to wonder whether the AI is coming for their jobs. For facility managers, the answer is probably not. ChatGPT can be used to automate several thankless tasks facility managers have to complete on a day-to-day basis. For instance, the AI could be of "significant benefit" in generating contracts, budgets, work agreements, requests for proposals, and other "busy work" that can be the bane of facility managers' existence. Additionally, it can help organizations better understand their facility's performance, identify areas for improvement, and develop strategies for optimizing operations. [What Can ChatGPT Do for Facility Managers? - Facility Management Building Automation Quick Read \(facilitiesnet.com\)](https://facilitiesnet.com)

3. LED Revolution 2.0 by Craig DiLouie - LED Revolution 2.0 is a big opportunity for quality lighting, lighting controls, data, and the full range of LED capabilities. The primary purpose of lighting systems is to serve people and realize the owner's organizational goals. As such, upgrading remaining traditional and existing LED installations with today's state-of-the-art lighting and control offerings represents a major opportunity. This opportunity includes designing lighting and control systems that take advantage of the full range of today's LED capabilities and benefits, from circadian lighting to precise optics to color tuning to data to advanced controls and more. [LED Revolution 2.0 \(lightingcontrolsassociation.org\)](https://lightingcontrolsassociation.org)

4. NYControlled Registration Opens - NYControlled, the upcoming educational trade show for lighting control systems and products, will open its doors on **Tuesday, November 14, 2023** at the Metropolitan Pavilion in NYC for the inaugural event. Supported by the Lighting Controls Association, this much-awaited lighting controls event is now accepting registrations for both exhibitors and attendees. The latest New York lighting trade show, NYControlled is the place to learn about the most rapidly-changing segment of our market, lighting controls. Brought to you jointly by the [IESNYC](https://iesny.com) and [DLFNY, NYControlled Registration Opens \(lightingcontrolsassociation.org\)](https://lightingcontrolsassociation.org)

5. Drones, Robots, AI Trace Buildings' Energy Leakage - Researchers at New York University are looking to detect energy leakage from buildings with help from robots, drones and AI. The team is using a \$1 million grant to apply technology to compliance with a New York City law taking effect next year that aims for net-zero emissions at big buildings by 2030. By enabling the non-invasive detection of moisture and thermal irregularities in building envelopes, engineers will not need to make as many physical visits. The AI-powered technology under development at NYU detects building envelope leaks through robots and drone scans. The data collected would be sent to cloud-based servers and analyzed by AI-powered software that can generate detailed reports on building conditions. [NYU research team scores \\$1M for automated building envelope assessments | Facilities Dive](https://www.facilitiesdive.com/news/nyu-research-team-scores-1m-for-automated-building-envelope-assessments/)

6. The Things LED Lights Can Do: U2 Opens "The Sphere" - It looked like a typical U2 outdoor concert: Two helicopters zoomed through the starlit sky before producing spotlights over a Las Vegas desert and frontman Bono, who knelt to the ground while singing the band's 2004 hit "Vertigo." This scene may seem customary, but the visuals were created by floor-to-ceiling graphics inside the immersive Sphere. It was one of the several impressive moments during U2's "UV Achtung Baby" residency launch show at the high-tech, globe-shaped venue. The legendary rock band, which has won 22 Grammys, performed for two hours inside the massive, state-of-the-art spherical venue with crystal-clear audio. Throughout the night, there were a plethora of attractive visuals — including kaleidoscope images, a burning flag and Las Vegas' skyline, taking the more than 18,000 attendees on U2's epic musical journey. [The Things LED Lights Can Do: U2 Opens "The Sphere" – lightED \(lightedmag.com\)](https://lightedmag.com)



7. Value in Being Green: Decarbonization Efforts to Stimulate the Retrofit Market by Craig DiLouie - To achieve the environmental goals of the 2016 Paris Agreement signed by nearly 200 nations, the pace of retrofits in the Global North will need to triple from around 1% to 3% or more per year, according to commercial real estate services firm Jones Lang LaSalle (JLL), Chicago. JLL's 2022 report, "Retrofitting Buildings to be Future-Fit," makes the case to act now. The Paris Agreement called for limiting global warming. For economies, this entails reducing emissions and offsetting the remainder. For commercial buildings, it entails maximizing operational efficiencies, electrifying heat, sourcing off-site local renewable energy and setting up on-site renewables, with offsetting as a last resort. Buildings are of interest as they account for an estimated 39% of global energy-related carbon emissions. For lighting, the JLL report specifically identified LED luminaires, detailed sensor deployment and digital controls that maximize energy savings and can provide data for energy management, reporting and occupant comfort. [Value in Being Green: Decarbonization efforts to stimulate the retrofit market - Electrical Contractor Magazine \(ecmag.com\)](https://ecmag.com)

8. **U.S. Allocates \$201 Million for Airport Lighting Projects** - More than \$201 million in funding from the Infrastructure Investment and Jobs Act, signed into law in 2021, is allocated for airfield lighting system enhancements at 82 airports across the United States. These projects are primarily aimed at acquiring and installing new lighting systems for runways and taxiways, specifically designed to enhance safety during adverse weather conditions and low visibility, including nighttime operations. Projects announced last week at: [U.S. Allocates \\$201 Million for Airport Lighting Projects \(inside.lighting\)](#)

9. **The Lighting Controls Revolution is Here by Jim Lucy** - PoE cabling is now being used to control not only lighting systems, but security, HVAC and other building networks. It's a big opportunity for electrical contractors. With all that's happened with LED technology over the past 20 years, the lighting industry is certainly no stranger to revolutionary change. But electrical contractors and other lighting professionals need to be ready for another technological wave now starting to hit the industry – the expansion of PoE (Power Over Ethernet) wiring systems into adjacent building technologies, including HVAC and security. In his presentation on Day 3 at NECA, "How Lighting Controls Can Revolutionize Service and Maintenance," Collin Weiner, president of CalEnergy Corp., said he expects the growth of digital power systems to challenge the industry in many ways. While PoE has been used in the lighting industry for several years, the newest rendition of it, X-oE, can handle up to 120W, a significant jump over the previous UPoE+ and its 90W capacity. He also said contractors should familiarize themselves with Bluetooth technology because more lighting control manufacturers will be using it as a communications protocol. [The Lighting Controls Revolution is Here | EC&M \(ecmweb.com\)](#)

10. **FSG Acquires Lighting Management, Inc.** - LMI is headquartered in Valley Cottage, New York, with additional offices in North Carolina, South Carolina, and Florida. LMI brings a wealth of expertise in lighting services, design, and controls to FSG and allows us to further expand our lighting service offerings across the nation. For over 47 years, LMI has served retail, commercial, and hospitality customers across the US, specializing in lighting products, design, and solutions. Leon Mowadia, FSG's Chief Operating Officer of Distribution, notes, "LMI brings an extensive range of expertise in lighting, design, value-engineering, and controls to FSG. The long-tenured staff of knowledgeable lighting professionals will be a great addition. This strategic acquisition supports the continued expansion of our lighting business nationally and synergizes with our vision." FSG has appointed Luke Graham as VP of this new branch. [FSG Acquires Lighting Management, Inc. - FSG Resources \(fsg-resources.com\)](#)

11. **Lighting Industry is Called to Participate in North American Luminaire PCR Effort** - Environmental product declaration program operator Smart EPD has announced a call for participation to develop a North American product category rule (PCR) for luminaires. Interested parties from the lighting community should [submit applications to serve on the PCR committee by Oct. 27, 2023](#). According to the U.S. General Services Administration (GSA), PCRs are "a set of rules and guidelines for developing [environmental product declarations] for a specific product or type of product." PCRs are developed via collaboration between program operators and industry stakeholders, who help to draft, revise, and approve the PCR through a process similar to that of industry consensus standards. Readers can send inquiries regarding the PCR process to pcr@smarteprd.com, and [visit the Smart EPD website to apply prior to Oct. 27](#).

12. **100 Lighting Products Now Have Declare Labels** - Declare Labels have been likened to nutrition labels for products – but for building materials. Manufacturers voluntarily provide comprehensive product data in these labels, which are color-coded to highlight potential chemicals of concern. These labels also furnish details on the product's assembly location, longevity, disposal options, and its alignment with the **Living Building Challenge** (LBC) requirements. The Declare database, accessible and free, is a resource for designers, property owners, and informed homeowners aiming for eco-conscious choices. Products in this database meet the prerequisites of certain green building standards, encompassing Core Green Building, LBC, LEED and WELL Certifications. Al Uszynski of inside.lighting lists them all, from A-Light to Zumtobel at: [100 Lighting Products Now Have Declare Labels \(inside.lighting\)](#)

Global LED Energy Market Observer:

13. **RESEARCH: Smart Lighting Market Size to Grow by \$17B from 2022 to 2027** - The [smart lighting market](#) is expected to grow by USD 17.20 billion from 2022 to 2027. However, the growth momentum of the market will progress at a CAGR of 16.88% during the forecast period. The market is segmented by application (commercial, residential, public infrastructure, and others), component (hardware, software, and services), and geography (Europe, North America, APAC, South America, and Middle East and Africa). The emergence of smart lighting is a key factor driving market growth. Smart lighting can optimize its use of power by controlling lights, heating, and air conditioning as well as remotely managing appliances. The adoption of LED is expected to save energy, as well as integrate with smart and Internet of Things technologies. Growing global interest in smart lighting is driving supplier partnerships and global ecosystems. The report analyzes the market size and growth and provides accurate predictions on the growth of the market. [View Free PDF Sample Smart Lighting Market Size to Grow by \\$17B from 2022 to 2027 – lightED \(lightedmag.com\)](#)

14. **RESEARCH: Global Smart Street Lighting Market Report 2023-2027** - The [“Smart Street Lighting Global Market Report 2023”](#) report has been added to ResearchAndMarkets.com’s offering. The global smart street lighting market is expected to grow from \$1.77 billion in 2022 to \$2.12 billion in 2023 at a compound annual growth rate (CAGR) of 19.4%. The smart street lighting market is expected to reach \$4.35 billion in 2027 at a CAGR of 19.8%. Smart street lighting represents a revolutionary approach to street illumination, incorporating advanced technology such as cameras, light-sensing photocells, and various sensors. These intelligent street lighting systems are deployed for general lighting purposes and have far-reaching applications, including monitoring traffic, parking areas, pedestrian crossings, seismic activities, and atmospheric changes. For more information: <https://www.researchandmarkets.com/r/v33wi9>

15. **DALI Lighting Awards 2023 Open for Entries** - The [DALI Alliance](#), the global industry organization for DALI lighting control, recently announced the call for entries for the DALI Lighting Awards 2023. With a closing date of November 30, 2023, the DALI Lighting Awards 2023 will highlight and recognize the best use of DALI control applications and solutions in lighting projects across the world. The DALI Lighting Awards 2023 will accept entries for all projects linked with DALI technology in the categories listed at: [DALI Lighting Awards 2023 Open for Entries \(lightingcontrolsassociation.org\)](#)

16 **Fluence Teams with Growth Media Specialist on Year-Round Strawberries** - Horticultural lighting vendor Fluence is going electric in its latest research endeavor. Electric, that is, as in studying the relationship between LED lighting and the process by which electricity flows through a growth medium to help or hinder the development of greenhouse strawberries. Fluence has teamed with Dutch growth media specialist Grodan in a Wageningen University & Research (WUR) trial in which WUR is studying how to optimize “EC” levels to facilitate year-round cultivation of Favori strawberries. EC stands for “electrical conductivity,” and is an indicator of salt levels. A high EC corresponds to high salt levels, which — depending on the time of year and other factors — can be good or bad for the fruit. Further complicating the EC effect, sometimes a high level might undesirably limit the size of the fruit while potentially enhancing the flavor. [Fluence teams with growth media specialist on year-round strawberries | LEDs Magazine](#)



17. **Fluence LEDs Help Organic Grower Flora & Flame Realize Better Yields, Higher-Quality Cannabis** - Fluence announced the results of its partnership with Oakland, California-based cannabis cultivator Flora & Flame, which has increased yields by 50%, improved bud quality and reduced cycle times with Fluence's LED fixtures. Flora & Flame is central to a new wave of cannabis cultivators—founded with a vision to build a more sustainable, eco-friendly business model. The company manages an all-organic, indoor vertical farm with a focus on growing cannabis that enhances quality of life and ensures consistency, clarity and purity for its customers. After testing fixtures from more than half a dozen competitors, Flora & Flame selected Fluence's SPYDR 2p and 2x fixtures, which has resulted in improved trichome quality and overall trichome percentage, increased bud density and boosted overall production by 50% compared to legacy high-pressure sodium (HPS) fixtures. For more information on Fluence, visit www.fluence-led.com

18. **Sollum Lands LED Lighting Deals at Large Greenhouses in Canada and U.S. - Is the drought beginning to ease in the horticultural lighting industry?** Montreal-based Sollum said that it will provide LED toplights covering a hectare of beefsteak tomatoes growing (about 108,000 square feet) inside a 1.5- hectare greenhouse operated by grower Les Serres Bertrand in Lanoraie, Québec. Les Serres Bertrand currently uses only natural light in the greenhouse. It plans to begin installation by mid-October in time for mid-December planting, a Sollum spokesperson told LEDs Magazine. The installation will include Sollum's "Sun as a Service" [controls allowing the grower to dynamically alter the light recipe](#). In a separate deal, Sollum said that Loudon, N.H.-based plant nursery Pleasant View Gardens will replace high-pressure sodium (HPS) lights with Sollum's SF-PRO LED fittings at Pleasant View greenhouses in Loudon and Pembroke, N.H., initially over 30,000 square feet. [Sollum lands LED lighting deals at large greenhouses in Canada and the U.S. | LEDs Magazine](#)

19. **Philips Horticulture LED Partners Up with Houweling Americas** - Houweling Americas is a division of the Houweling Group, a family-owned company based in the Netherlands and founded in 1925. With offices in Western and Central Canada and a diverse product range that includes greenhouse hygiene, water treatment, coir substrates, nutrients, and LED lighting, Houweling Americas is a trusted supplier for greenhouse growers across Canada. As a certified Philips LED horticulture partner, Houweling Americas will offer only the Philips LED lighting portfolio of greenhouse lighting solutions. The collaboration of the two companies strengthens the Philips Horticulture lighting partner network in Canada to ensure growers have ready access to the most reliable LED lighting products that drive production and efficiency. [Philips Horticulture LED partners up with Houweling Americas - LEDinside](#)

20. **RESEARCH: Sollum Technologies Announces Groundbreaking Research Program to Advance Horticultural Lighting Science** - With an unwavering commitment to pushing the boundaries of innovation in controlled environment agriculture, Sollum® is poised to partner with research centers and universities across the United States. This program, named S.E.A.R.C.H1, is designed to enable researchers and institutions to bring about breakthroughs in the knowledge and practice of horticultural lighting while using Sollum's cutting-edge LED grow light solution. Sollum, in keeping with the unmatched capabilities of its technology in greenhouse lighting, aims to revolutionize the way plants are grown indoors by using its fully adaptable lighting solution to optimize growth, increase product quality and shelf life, contribute to pest management, promote resource efficiency, and an important factor in greenhouse operations, control costs, especially energy costs. https://www.ledinside.com/news/2023/10/2023_10_03_04

21. **RESEARCH: Industrial Lighting Market Expectations from 2022 to 2027** - The industrial lighting market size is expected to grow by USD 3.01 billion between 2022 and 2027. However, the growth momentum of the market will progress at a CAGR of 6.34% during the forecast period. The market is segmented by type (LED technology and traditional technology), application (new installation, replacement installation, and retrofit installation), and geography (APAC, Europe, North America, South America, and Middle East and Africa). The growing demand from the automotive sector drives the market growth. There is a significant growth in automotive lighting fueled by the demand for exterior lighting, especially headlights. The report analyzes the market size and growth and provides accurate predictions on the growth of the market. [View Free PDF Sample Industrial Lighting Market Expectations From 2022 to 2027 – lightED \(lightedmag.com\)](#)

22. **Circadian Light Eases Recovery in a Swedish Neonatal Intensive Care Ward** - Even at the best of times, newborns' eyes are sensitive to bright light. A Chromaviso system in Uppsala keeps things calm for babies, parents, and staff. A hospital in Uppsala, Sweden has installed LED-based circadian lighting in its neonatal intensive care ward, where parents and staff say the softer and controllable tones have fostered a calm environment that helps premature and full-term babies develop and recover. Circadian lighting, which is also known as human-centric lighting, generally provides illumination that mimics the daily spectral and intensity patterns of the sun, with the stimulating brightness and blues of midday giving away to relaxing, subdued, warm orange tones prior to night. Many circadian systems such as Chromaviso's can be tailored to suit different needs and environments. [Circadian light eases recovery in a Swedish neonatal intensive care ward | LEDs Magazine](#)

23. **New Philips Ultinon Pro6000 Standard H7-LED Bulbs A Road-Legal, Bright New Journey Ahead** - Now, drivers wishing to legally upgrade their H7 headlight bulbs to LED can choose the Philips Ultinon Pro6000 Standard H7-LED. This new LED bulb, developed by Lumileds, offers high performance and durability at a pocket-friendly price and fits a wide range of vehicle models. It meets licensing standards for road homologation, making it a safe replacement for halogen bulbs in a wide range of vehicle models, including cars, motorhomes, vans, and motorcycles. The Philips Ultinon Pro6000 LED Standard range bulbs are approved for road traffic in the respective countries where approval exists and for listed range of vehicle models and lighting functions only. To find out more, please visit: <https://Philips.com/RoadLegalLED>

24. **New Addition to The LED Retrofit Lamps: ams OSRAM Launches the OSRAM NIGHT BREAKER® H1-LED** - ams OSRAM launches its first street-approved¹ LED retrofit lamp for H1 sockets. The OSRAM NIGHT BREAKER® H1-LED enables low-beam and highbeam headlights to be upgraded to state-of-the-art LED technology. **This launch means that 19 more models from various manufacturers can benefit from the OSRAM NIGHT BREAKER® family.** Thanks to the OSRAM NIGHT BREAKER® H4 and H7 LED lamps, motorists in Germany can already benefit from LED retrofit lamps on more than 200 models from different vehicle manufacturers. [New addition to the LED retrofit lamps: ams OSRAM launches the OSRAM NIGHT BREAKER® H1-LED - LEDinside](#)



25. **GE Licensing, Current Lighting, Savant and Seoul Semiconductor Co., Ltd. Enter into Patent License Agreement** - [GE Licensing](#) ("GEL"), [Current Lighting Solutions, LLC](#) ("Current"), [Savant Systems Inc.](#) and [Seoul Semiconductor Co., Ltd.](#) ("SSC") today announced that they have entered into a patent license whereby SSC acquired a license to a PFS (also known as KSF) patent portfolio for all application fields widely licensed by the LED industry. Thanks to this collaborative agreement, Seoul Semiconductor has emerged as the unique beneficiary of GEL's PFS patent portfolio for all applications, such as display, lighting, and automotive, among others. Seoul Semiconductor has emerged as the unique beneficiary of GEL's PFS patent portfolio for all applications thanks to the collaborative agreement. [GE Licensing, Current Lighting, Savant and Seoul Semiconductor Co., Ltd. Enter into Patent License Agreement | LEDs Magazine](#)

26. **India's Growth in LED Lighting Manufacturing by David Shiller** - I've written previous articles about the gradual shift in US imports away from China toward Mexico, India, Southeast Asia and Eastern Europe, [here](#) and [here](#). DigiTimes Research projects India's production value of LED lighting to rise from \$2.2 Billion USD in 2020 to \$16.2 Billion in 2025. That's more than a 7X increase, or a compound annual growth rate (CAGR) of 49%. India is now the fastest growing world economy, the largest population in the world (as of 2023), and is #6 in global gross domestic product (GDP). You can read more about the opportunities and challenges of manufacturing in India, at Digi Times here. [India's Growth In LED Lighting Manufacturing | LightNOW \(lightnowblog.com\)](#)

27. **2023 Assessment of Mercury-Free Lighting** - The [Clean Lighting Coalition](#) shared data from 60+ countries which, according to the association, shines a light on one crucial fact: we do not need to delay an international phase-out of toxic, mercury-laden fluorescent lamps any longer as cost-effective, energy-efficient LED alternatives are widely available across the globe. Global LED stock is projected to keep growing and the major manufacturers are prepared to meet lamp-by-lamp replacement of fluorescents at the end of their useful life – a strategy that avoids an influx of mercury waste to manage while also stopping new mercury from entering the market. Download the reports: [Africa-Regional-Profile.pdf \(cleanlightingcoalition.org\)](#)

28. RESEARCH: TrendForce 2024: Riding the Wave of Revolutionary Tech Trends - CSPs increase AI investment, driving a 38% growth in AI server shipments by 2024. Major CSPs such as Microsoft, Google, and AWS are ramping up their investments in AI in light of the growing popularity of ChatBOTS, generative AI, and other applications, boosting demand for AI servers. TrendForce estimates that shipments of AI servers (including those equipped with GPUs, FPGAs, and ASICs) will exceed 1.2 million units in 2023—a YoY increase of 37.7%—making up nearly 9% of total server shipments. This number is expected to grow 38% in 2024 with AI occupying a share of 12%. The global push for green solutions intensifies, with AI simulations emerging as a linchpin for renewable energy and decarbonized manufacturing. For additional insights from TrendForce analysts on the latest tech industry news, trends, and forecasts, visit our blog at <https://www.trendforce.com/news/>



Monthly Feature:

How Automation Can Drive Productivity in the Supply Chain by Ajay Manglani from Kognitos - Over the next decade, AI will catalyze innovations we cannot yet envision, taking supply chains from vulnerable to antifragile. The supply chain industry faces rising complexities from consumer demands, trade uncertainties, natural disasters, and more. To stay competitive, supply chain leaders must leverage AI to dramatically improve productivity, agility, and resilience. AI is no longer just hype – leading organizations like Amazon, Walmart, FedEx and UPS are already using it throughout their supply chain operations. According to Gartner, 50% of supply chain organizations will invest in applications that support artificial intelligence and advanced analytics capabilities through 2024. The firms that transform their supply chains with AI first will gain a major competitive advantage.

AI offers three main benefits for supply chain productivity:

1. Intelligent Automation of Manual Processes

Many supply chain processes involve repetitive, low-value tasks that can be automated entirely by AI. For example:

- Purchase order generation - AI can pull data from multiple systems and automatically create purchase orders, reducing overhead costs. Amazon uses this to cut fulfillment center staffing needs by 20%.
- Shipment booking - AI can instantly search options, compare costs, and book shipments without human intervention. DHL reports saving 60% in booking costs.
- Customs clearance - AI can automatically fill out forms and submit documentation to customs authorities. This reduces delays and slashes administrative costs.

2. Enhanced Demand Forecasting and Planning

AI applies predictive analytics and machine learning to demand sensing and planning activities. This provides:

- Hyper-accurate demand forecasts - By analyzing billions of data points, AI can detect demand patterns and changes faster than humans. Walmart has reduced out of stocks by 10-15% with AI forecasting.
- Dynamic inventory optimization - AI systems can rapidly reroute inventory across networks to align with demand shifts. This prevents shortages and excesses.
- Efficient production planning - AI considers probabilities and constraints to create optimal production schedules. Baked-in machine learning continuously improves planning.

3. Intelligent Logistics Optimization

AI can optimize logistics decisions instantly by processing millions of variables and constraints.

- Dynamic delivery routing - AI adjusts routes to account for real-time traffic, weather delays, and other disruptions. UPS uses AI routing to save \$200 million a year.
- Load consolidation - AI analyzes all shipment options and finds the most efficient way to consolidate loads across a distribution network. This reduces costs and carbon emissions.
- Automated warehouse picking - AI-driven robots can rapidly retrieve items for order fulfillment. This cuts warehouse labor costs by up to 40%.
- The supply chain leaders that embrace AI first will boost efficiency, reduce costs and delight customers with superior responsiveness and availability. To drive the next productivity frontier, invest in AI now.

And these companies are not alone in driving innovation across supply chain and inventory management processes. In a [research conducted by McKinsey & Co](#), the company predicts the potential productivity gain of 1.2 to 2.0 percent of annual revenues, or \$400 billion to \$660 billion by AI streamlining processes and automating key functions such as inventory and supply chain management. It is clear that artificial intelligence is rapidly transforming the supply chain industry and companies that fail to adopt AI will likely be left behind.

The consequences of not adopting AI include:

- Increased costs coming from more money on labor, transportation and other expenses.
- Reduced efficiency due to not adopting AI automations.
- Poor customer service due to not resolving customer problems more quickly.
- Increased risk of disruptions which can lead to lost customers and revenue and therefore damage to their reputation.

On the other hand, companies that adopt AI will drive the next productivity frontier.

- AI will revolutionize decision-making, elevating supply chain leaders from data analysts to strategic thinkers. Rather than spending time processing data, leaders can rely on AI insights to focus on high-impact strategies that create competitive differentiation.
- With AI, supply chains will morph into cognitive, self-learning networks that understand shifting constraints and continuously adapt to optimize outcomes. Much like the human brain, supply chains will become intelligent entities unto themselves.
- AI will enable ultra-coordinated, hyper-efficient supply chains that can dynamically align production, inventory, and logistics with real-time market demands across global networks. Supply and demand will dance in perfect harmony.

We are at the dawn of the AI era for supply chain management. Early adopters have only scratched the surface of AI's potential. Over the next decade, AI will catalyze innovations we cannot yet envision, taking supply chains from vulnerable to antifragile. The future belongs to the supply chains that embrace AI first.

[How Automation Can Drive Productivity in the Supply Chain | Supply & Demand Chain Executive \(sdcexec.com\)](#)

