

SPARK INDUSTRIES PLC

# Annual Report 2024

Innovating for a Sustainable Future

INNOVATE. ENERGIZE. SUSTAIN.

London Stock Exchange: SPL

Registered in England and Wales

Company Number: 08345621

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[www.sparkindustriesplc.com](http://www.sparkindustriesplc.com)

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# 1. Chief Executive Officer's Statement

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Dear Shareholders,

I am pleased to present Spark Industries PLC's Annual Report for 2024, a year that demonstrated our resilience, innovation, and unwavering commitment to sustainable growth. Despite a challenging global economic environment, we have delivered strong financial performance while advancing our strategic objectives across all three business pillars.

In 2024, we achieved revenue of £5.2 billion, representing solid growth driven by increased demand for renewable energy solutions and industrial automation technologies. Our net income reached £520 million, maintaining a healthy 10% net margin that reflects both operational efficiency and disciplined capital allocation.

The renewable energy sector continues to be our primary growth engine. We expanded our installed base of wind turbines and solar installations significantly, contributing to the global transition toward clean energy. Our advanced materials division achieved breakthrough innovations in graphene-enhanced composites, opening new markets in aerospace and automotive sectors.

Sustainability remains at the core of everything we do. We have made substantial progress toward our Net-Zero commitment, reducing our carbon intensity and increasing the proportion of renewable energy in our operations. Our ESG ratings improved across all major frameworks, reflecting our integrated approach to responsible business practices.

Looking ahead, we are well-positioned to capitalize on the accelerating global energy transition and the increasing adoption of smart manufacturing technologies. Our robust pipeline of innovations, combined with our strong balance sheet and talented workforce of 12,000 employees worldwide, gives me confidence in our ability to deliver long-term value for all stakeholders.

I would like to express my gratitude to our employees, customers, partners, and shareholders for their continued trust and support. Together, we are building a more sustainable and prosperous future.

**Dr. Emily Zhang**

*Chief Executive Officer*

*March 2025*

## 2. Company Overview

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Spark Industries PLC is a leading international provider of renewable energy solutions, advanced materials, and industrial automation systems. Founded in 2010 by a group of visionary engineers and scientists in London, UK, the company has grown from a startup to a publicly listed corporation with global operations.

The company was listed on the London Stock Exchange in 2018 under the ticker symbol SPL, marking a significant milestone in our corporate journey. Today, Spark Industries supplies cutting-edge wind turbines, solar modules, battery-storage systems, high-performance composites, and industrial robots to customers across more than 40 countries.

### 2.1 Our History and Milestones

Year	Milestone
2010	Company founded in London by engineers and scientists with a vision to transform the energy sector
2013	First commercial wind turbine installation; opening of research facilities in Germany
2015	Expansion into solar energy solutions; establishment of Asian operations in Tokyo
2017	Launch of industrial automation division; breakthrough in graphene-enhanced materials
2018	Initial Public Offering on London Stock Exchange (ticker: SPL)
2020	North American expansion with San Francisco R&D center; 5,000 employees milestone
2022	Revenue exceeds £4 billion; commitment to Net-Zero by 2035 announced
2024	Revenue reaches £5.2 billion; 12,000 employees worldwide; ESG ratings improvement

## 2.2 Mission, Vision and Values

### Our Mission

To innovate renewable-energy technologies, advanced materials and intelligent automation that empower industries and communities to thrive sustainably.

### Our Vision

To be the global leader in clean energy and smart manufacturing, shaping a brighter, carbon-neutral future.

### Core Values

- **Integrity and Transparency** - Conduct business ethically and maintain open communication with investors, customers, and communities.

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- **Innovation and Excellence** - Pursue cutting-edge research and engineering while striving for quality in products and services.

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- **Sustainability** - Commit to reducing environmental impact and contributing to a circular economy.

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- **Diversity and Inclusion** - Foster a workforce that reflects a broad range of perspectives and experiences.

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- **Customer Empowerment** - Design solutions that enable customers to operate more efficiently and sustainably.

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## 2.3 Global Presence

Spark Industries operates a global network of research centers, manufacturing facilities, and offices across 20 countries. Our strategic locations enable us to serve local markets effectively while leveraging global expertise and resources.

Region	Key Locations	Primary Functions
Europe	London, Berlin, Copenhagen	Headquarters, R&D, Manufacturing
Asia-Pacific	Tokyo, Singapore, Shanghai	R&D, Manufacturing, Sales
North America	San Francisco, Houston, Toronto	R&D, Sales, Service Centers
Middle East & Africa	Dubai, Johannesburg	Sales, Project Management
Latin America	Sao Paulo, Mexico City	Sales, Service

## 3. Financial Highlights

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The year 2024 demonstrated Spark Industries' financial resilience and growth trajectory. Our diversified business model, spanning renewable energy, advanced materials, and industrial automation, provided stability and multiple growth vectors.

### 3.1 Key Financial Metrics

**£5.2B**

Total Revenue

**£520M**

Net Income

**£850M**

EBITDA

**£12B**

Market Capitalization

**£0.35**

Dividend per Share

**£420M**

R&D Investment

### 3. Financial Highlights

Financial Metric	FY 2024	FY 2023	Change
Revenue (£ million)	5,200	4,750	+9.5%
Gross Profit (£ million)	1,820	1,663	+9.4%
Gross Margin	35.0%	35.0%	-
Operating Income (£ million)	650	585	+11.1%
Net Income (£ million)	520	475	+9.5%
Net Margin	10.0%	10.0%	-
EBITDA (£ million)	850	775	+9.7%
Total Assets (£ million)	9,400	8,650	+8.7%
Shareholders' Equity (£ million)	4,800	4,350	+10.3%
Earnings per Share (£)	1.04	0.95	+9.5%
Dividend per Share (£)	0.35	0.32	+9.4%

### 3.2 Segment Performance

Our three business segments each contributed to the overall performance, with renewable energy leading growth:

Business Segment	Revenue (£M)	% of Total	YoY Growth
Renewable Energy Solutions	2,600	50%	+12%
Advanced Materials	1,300	25%	+7%
Industrial Automation	1,300	25%	+8%

**Note:** All financial figures presented in this report are based on International Financial Reporting Standards (IFRS). Comparative figures for FY 2023 have been restated where applicable.

## 4. Business Review

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Spark Industries operates through three strategic business pillars, each contributing to our mission of enabling sustainable industrial transformation. In 2024, all segments demonstrated growth and innovation.

### 4.1 Renewable Energy Solutions

Our Renewable Energy division is the cornerstone of Spark Industries, representing 50% of total revenue. This segment encompasses wind energy, solar power, and energy storage solutions.

#### Wind Energy

We design and manufacture onshore and offshore wind turbines ranging from 3 MW to 15 MW, incorporating advanced blade materials and digital control systems. In 2024, we:

- Delivered 450 new turbine installations across Europe, Asia, and North America
- Achieved 15% improvement in energy output through enhanced aerodynamics
- Expanded our service and maintenance contracts to cover 2,500 operational turbines
- Launched next-generation 15 MW offshore turbine with 40% larger rotor diameter

#### Solar Power

Our photovoltaic modules utilize high-efficiency silicon and perovskite cell technology. Key achievements in 2024:

- Shipped 3.2 GW of solar modules, a 20% increase year-over-year
- Introduced bifacial panels with 22% conversion efficiency
- Completed 12 utility-scale solar farm projects totaling 800 MW capacity
- Expanded manufacturing capacity in Asia by 30%

#### Energy Storage

Our battery technology division develops lithium-ion and solid-state solutions for grid and industrial applications:

- Deployed 1.5 GWh of battery storage systems globally

- Achieved breakthrough in solid-state battery density (400 Wh/kg)
- Launched integrated microgrid solutions for industrial customers

## 4.2 Advanced Materials

The Advanced Materials division researches and produces lightweight composites, graphene-enhanced alloys, and high-temperature ceramics for renewable energy equipment, aerospace, automotive, and consumer electronics applications.

2024 Highlights:

- Revenue growth of 7% driven by aerospace and automotive demand
- Developed new graphene-enhanced composite with 30% weight reduction
- Secured supply contracts with three major aerospace manufacturers
- Filed 28 new patents, bringing total patent portfolio to 340+
- Opened pilot production facility for next-generation materials in Germany

## 4.3 Industrial Automation

Our Industrial Automation division designs robotic arms, autonomous mobile robots, smart sensors, and AI-powered control software for manufacturing plants, with a focus on energy efficiency and predictive maintenance.

2024 Achievements:

- Installed 2,500+ robotic systems across automotive and electronics industries
- Launched AI-driven predictive maintenance platform reducing downtime by 25%
- Introduced collaborative robots (cobots) for small and medium enterprises
- Expanded digital twin services to 150 industrial customers
- Partnered with leading cloud providers for edge computing solutions

## 4.4 Research and Development

Innovation is fundamental to Spark Industries' competitive advantage. Our R&D investment of £420 million (8% of revenue) supports research priorities including next-generation battery chemistry, advanced materials, hydrogen production, AI for energy management, and circular manufacturing.

Our R&D teams in London, Berlin, Tokyo, and San Francisco collaborate with leading universities and government laboratories worldwide. In 2024, we:

- Published 85 peer-reviewed research papers
- Filed 156 new patent applications
- Launched 12 new products to market
- Established three new university research partnerships
- Received £45 million in government R&D grants

# 5. Sustainability and ESG

Sustainability is embedded in Spark Industries' strategy, operations, and culture. Our commitment to environmental stewardship, social responsibility, and ethical governance drives long-term value creation for all stakeholders.

## 5.1 Environmental Performance

### Climate Action

We have committed to achieving Net-Zero greenhouse gas emissions across our operations by 2035, with interim targets verified by the Science Based Targets initiative (SBTi).

Environmental Metric	2024 Performance	Target
Scope 1 & 2 Emissions (ktCO2e)	185	150 by 2026
Renewable Energy in Operations (%)	72%	100% by 2028
Waste Recycled/Recovered (%)	88%	95% by 2027
Water Efficiency (m3/£M revenue)	45	35 by 2027

### Product Impact

Our products enable significant emissions reductions for our customers:

- Renewable energy installations delivered in 2024 will avoid an estimated 15 million tonnes of CO2 annually
- Industrial automation solutions helped customers reduce energy consumption by an average of 18%
- Lightweight materials contributed to fuel efficiency improvements in transportation applications

## 5.2 Social Responsibility

### Workforce

Our 12,000 employees worldwide are our greatest asset. We are committed to creating an inclusive, safe, and empowering workplace:

Workforce Metric	2024
Total Employees	12,000
Countries of Operation	20
Women in Workforce (%)	35%
Women in Leadership (%)	32%
Employee Engagement Score	78/100
Training Hours per Employee	42

### Community Investment

In 2024, Spark Industries invested £18 million in community programs, including:

- STEM education initiatives reaching 25,000 students globally
- Community electrification projects in underserved regions
- Employee volunteer programs with 15,000 volunteer hours
- Disaster relief and climate resilience programs

## 5.3 Governance Practices

Strong governance underpins our ESG performance. Our Board provides oversight of sustainability strategy, with the Sustainability and Risk Committee meeting quarterly to review progress and approve major initiatives.

Key governance achievements in 2024:

- Published third annual Sustainability Report in accordance with GRI Standards

## 5. Sustainability and ESG

- Enhanced climate-related financial disclosures aligned with TCFD recommendations
- Achieved improved ESG ratings from MSCI (AA), Sustainalytics (Low Risk), and CDP (A-)
- Integrated ESG metrics into executive compensation (20% weighting)

## 6. Corporate Governance

Spark Industries is committed to the highest standards of corporate governance. Our governance framework ensures effective oversight, accountability, and alignment with shareholder interests.

### 6.1 Board of Directors

The Board comprises nine directors, maintaining a majority of independent members in accordance with UK Corporate Governance Code requirements. The Board provides strategic leadership, oversees risk management, and ensures accountability to shareholders.

Name	Role	Committee Memberships
James A. Hamilton	Non-Executive Chairman	-
Dr. Emily Zhang	Chief Executive Officer	-
Richard Patel	Chief Financial Officer	-
Maria Lopez	Chief Operating Officer	-
Dr. Arjun Iyer	Chief Technology Officer	-
Amina Khan	Chief Sustainability Officer	Sustainability & Risk Committee (Chair)
Daniel Morgan	Independent Director	Audit Committee (Chair)
Sophie Nguyen	Independent Director	Compensation Committee (Chair)
Professor Luca Rossi	Independent Director	Nominating & Governance Committee (Chair)

### 6.2 Board Committees

The Board delegates specific responsibilities to four committees, each chaired by an independent director:

Committee	Purpose	Chair
Audit Committee	Oversees financial reporting, internal controls, risk management, and external auditor relationship	Daniel Morgan
Compensation Committee	Determines executive compensation, incentive plans, and benefits	Sophie Nguyen
Nominating & Governance Committee	Reviews board composition, recruits directors, oversees governance policies	Professor Luca Rossi
Sustainability & Risk Committee	Oversees ESG strategy, climate-related disclosures, and sustainability targets	Amina Khan

### Director Independence

Seven of nine directors (78%) are independent, exceeding the UK Corporate Governance Code requirement of at least 50% independence. Directors serve three-year staggered terms to ensure continuity while enabling regular refreshment.

## 6.3 Risk Management

Spark Industries maintains a comprehensive enterprise risk management framework. The Board, through the Audit Committee and Sustainability & Risk Committee, oversees the identification, assessment, and mitigation of key risks.

## Principal Risks

Risk Category	Key Risks	Mitigation Approach
Strategic	Market competition, technology disruption, M&A execution	R&D investment, strategic partnerships, due diligence
Operational	Supply chain disruption, manufacturing safety, quality control	Diversified suppliers, safety protocols, quality management
Financial	Currency fluctuation, interest rates, credit risk	Hedging strategies, diversified funding sources
Regulatory	Environmental regulations, trade policies, data privacy	Regulatory monitoring, compliance programs
Climate	Transition risks, physical risks, policy changes	Net-Zero strategy, resilience planning, scenario analysis

## Code of Ethics

Spark Industries maintains a comprehensive Code of Ethics covering anti-corruption, conflicts of interest, insider trading, whistle-blower protection, and respect for human rights. The Code is publicly available on our website and applies to all employees, officers, and directors. In 2024, 100% of employees completed ethics training.

# 7. Outlook and Strategic Priorities

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Spark Industries enters 2025 with a clear strategic roadmap focused on growth, innovation, and sustainability. We are well-positioned to benefit from secular trends including the global energy transition, digitalization of manufacturing, and demand for advanced materials.

## Strategic Priorities for 2025

### 1. Accelerate Renewable Energy Growth

Target 15% revenue growth in renewable energy through expanded offshore wind offerings, next-generation solar technology, and energy storage solutions. Focus on markets with supportive policy frameworks and strong grid infrastructure.

### 2. Advance Industrial Automation

Scale AI-powered automation solutions and digital twin services. Target mid-market manufacturers with affordable, modular automation platforms. Expand predictive maintenance offerings with machine learning capabilities.

### 3. Drive Materials Innovation

Commercialize next-generation graphene-enhanced materials for aerospace and automotive applications. Expand licensing revenue from proprietary technologies. Develop sustainable materials with recycled content.

#### 4. Deliver on Sustainability Commitments

Progress toward Net-Zero 2035 target with interim milestones. Increase renewable energy in operations to 80%. Enhance circular economy initiatives including product take-back and recycling programs.

### Financial Outlook

Based on current market conditions and our strategic initiatives, we provide the following guidance for 2025:

Metric	2025 Guidance
Revenue Growth	8-12%
Gross Margin	35-37%
EBITDA Margin	16-18%
R&D Investment	8-9% of revenue
Dividend per Share	£0.38-0.40

Our guidance assumes stable macroeconomic conditions, continued policy support for clean energy, and no significant supply chain disruptions. We remain committed to disciplined capital allocation, balancing growth investments with shareholder returns.

## 8. Shareholder Information

### Share Capital

Item	Details
Ordinary Shares Outstanding	500 million
Par Value per Share	£0.10
Market Capitalization (year-end)	£12 billion
Share Price (year-end)	£24.00
52-Week High/Low	£26.50 / £21.20

### Dividend Policy

Spark Industries maintains a progressive dividend policy, targeting a payout ratio of 40-50% of net income. The Board recommends a final dividend of £0.35 per share for 2024, representing a 9.4% increase from the prior year. The dividend will be paid on May 15, 2025, to shareholders on the register as of April 15, 2025.

### Shareholder Structure

Shareholder Category	Approximate Holding
Institutional Investors	65%
Retail Investors	20%
Employee Share Plans	5%
Treasury Shares	2%
Other	8%

## Investor Relations

For further information, please contact:

### **Investor Relations Department**

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## Annual General Meeting

The 2025 Annual General Meeting will be held on April 28, 2025, at 10:00 AM BST at the Company's headquarters in London. Shareholders are encouraged to attend and participate in the meeting. Registration details and proxy forms are available on the Investor Relations website.

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**Disclaimer:** This Annual Report contains forward-looking statements that involve risks and uncertainties. Actual results may differ materially from those projected. Spark Industries PLC undertakes no obligation to update any forward-looking statements.

**Registered Office:** 10 Innovation Way, London EC1X 3AB, United Kingdom

**Company Registration Number:** 08345621 (England and Wales)