UK Political Science, Economy, and Life Sciences

Strategic Insights for 2025

Political Science

Economic Projections

Life Sciences

Rt. Hon. Professor the Lord Ajay Kakkar KG KBE

Oxford Global CEO Programme

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UK Political Science, Economy, and Life Sciences: Strategic Insights for 2025

Agenda

This presentation will cover five key areas, designed to provide a comprehensive overview and strategic insights for 2025:

Overview of UK Political Landscape
Historical foundations, current dynamics, and 2025 trends (Slides 3-5)

Economic Projections and Challenges
Overview, SWOT analysis, and 2025 forecasts (Slides 6-8)

Life Sciences Sector Trends
State of play, key trends, and challenges (Slides 9-11)

Intersections and Opportunities
Politics-economy-life sciences connections (Slides 12-13)

Conclusion and Q&A
Summary and discussion with Lord Kakkar (Slides 14-15)

Our Approach

We demonstrate interdisciplinary connections between politics, economy, and life sciences, providing a holistic view for strategic decision-making.

- Exploring how policy decisions drive innovation

UK Political Science: Historical Foundations

Core principles and institutional structure

Core Principles

- Parliamentary sovereignty- Supreme authority of Parliament
- Rule of law- Legal system based on principles rather than arbitrary decisions
- Devolution- Decentralization of power to Scotland, Wales, & NI

Key Institutions

- House of Commons- Lower house with 650 elected members
- House of Lords- Upper house with appointed members, including Lord Kakkar since 2010
- Supreme Court- Highest court of appeal in the UK

2025 Context

- Labour majority government- Shifted political priorities
- Post-Brexit regulatory evolution- Retaining EU laws in health and technology
- Devolution- Scotland and Wales promoting green biotech agendas

Lord Kakkar's Influence

Appointed peer in 2010, contributing scientific rigor to public policy

Significant role in health scrutiny within the House of Lords

UK Political Science: Current Political Dynamics

Post-Brexit Regulatory Evolution

- UK evolving regulatory landscape: retaining EU laws in health and technology
- UK-India FTA (2025) expected to boost life sciences exports

Devolution Impacts

- Devolution plays crucial role in UK governance
- Scotland and Wales actively promoting green biotech agendas

2024 Labour Majority

- Following 2024 election, UK operating under Labour majority
- Government shifted political priorities

Global Influences

- AUKUS, CPTPP shaping UK foreign policy
- Political stability crucial for sustained R&D funding

UK Political Science: Trends in 2025

Rising Focus on Data-Driven Policy

- Increasing emphasis on data-driven policy-making, especially AI ethics for healthcare
- MHRA actively involved in shaping international rules for AI in healthcare
- Focus on accelerating access to safe and effective technologies within NHS and globally

Academic Leadership

- UK universities (Oxford, LSE) hold top positions in global QS Politics rankings
- Leadership in interdisciplinary studies combining politics with biotechnology
- Strong foundation for evidence-based policy development in life sciences

Implications for Leaders

- Navigating regulatory shifts in medtech approvals as a key challenge
- MHRA's new international reliance routes streamline pathways for pre-approved devices
- Adapting to evolving regulatory environment crucial for market success

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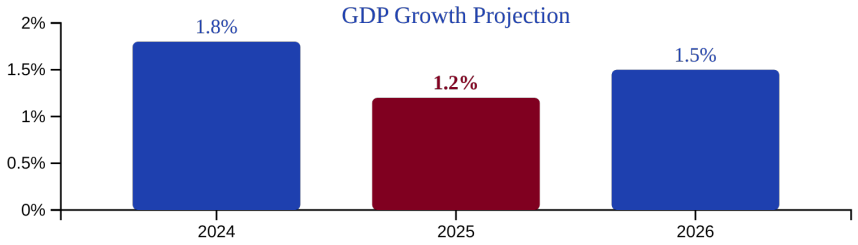
UK Economy Overview

2025 Economic Outlook

1.2% GDP growth
IMF forecast

2.5% inflation
Persistent pressure



Key Economic Drivers

- **Services sector**: 80% of GDP
- **Manufacturing**: Post-Brexit recovery
- **Trade**: Global positioning

Labour Government Priorities

£22 billion NHS boost
Key health investment

Fiscal focus on public services
Labour's clear priority

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Economic Challenges & Opportunities

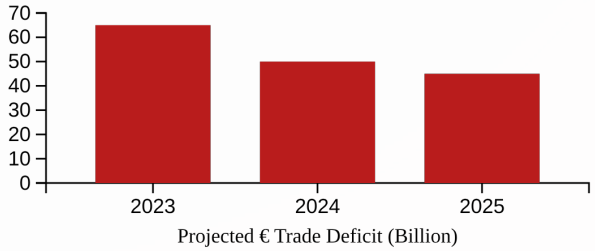
Challenges

Trade Deficit

€50 billion with EU, impacting economic stability and foreign direct investment

Energy Costs

Rising prices affecting R&D investment and operational costs in life sciences



Projected € Trade Deficit (Billion)

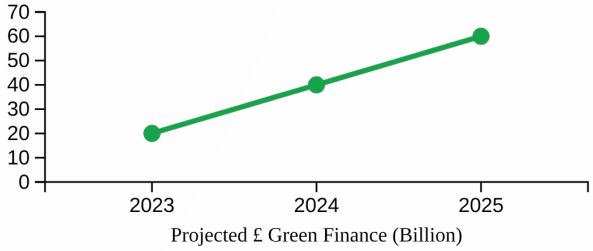
Opportunities

Green Finance

£100 billion in green bonds by 2025, supporting sustainable life sciences initiatives

Life Sciences Impact

£108 billion GVA contribution (2024), driving economic growth



Projected £ Green Finance (Billion)

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2025 Economic Projections

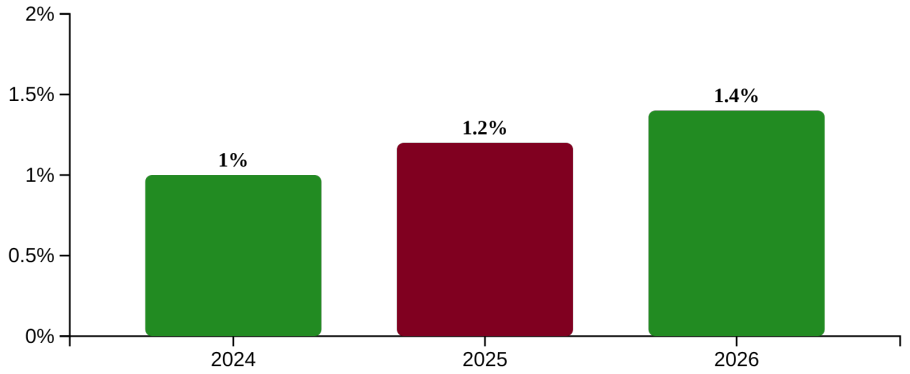
Key Economic Indicators for 2025

GDP Growth
1.2%
Forecast by IMF

Inflation
2.5%
Persistent pressure

Unemployment
Stable at 4.2%
Wage growth: 3.5%

UK Economic Growth Projection



Global Context

UK positioned as neutral global hub amid US/China tensions

- Strategic positioning for life sciences
- Post-Brexit trade agreements

UK Life Sciences Sector: State of Play

Market Size (2025)

£100B+
Market Value

4,500+
Companies

250,000
Jobs

Government Strategy

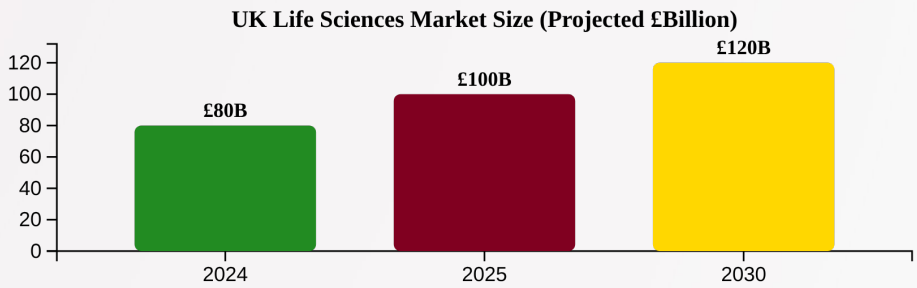
Mission 2030
Position the UK as Europe's leading life sciences economy by 2030

£2 Billion
Strategic investment in research and development

AI Applications

Drug Discovery
AI technologies reducing clinical trial failure rates by up to 90%

Clinical Trials
Accelerating clinical trial processes and improving patient outcomes



> **Lord Kakkar's contribution:** Pioneering research in thrombosis exemplifies the UK's innovative life sciences community

Key Trends in UK Life Sciences 2025

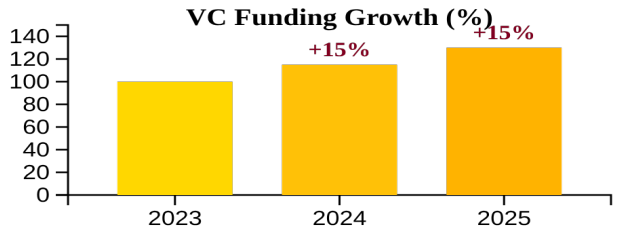
Innovation

- Significant advancements in mRNA technologies and vaccines, building on post-COVID momentum
- AI in drug discovery showing potential to reduce clinical trial failure rates by up to 90%
- Ethical considerations surrounding gene editing technologies (CRISPR) becoming increasingly prominent

Lord Kakkar's thrombosis research exemplifies the innovative spirit in UK life sciences

Investment

- Robust venture capital (VC) funding estimated at £20 billion (up 15% year-on-year)
- Strong early-stage investment environment, but challenges in later-stage development
- Global ranking for Phase III clinical trials has slipped to 8th place



Policy

- Ongoing NHS transformation as critical policy driver, integrating new technologies to improve patient outcomes
- Strong ties with EU funding programs like Horizon Europe crucial for sustained R&D
- MHRA's new international reliance routes streamlining pathways for trusted international regulators

Navigating regulatory shifts in medtech approvals a key challenge for leaders

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Challenges in Life Sciences

Regulatory Challenges

Balancing MHRA's fast-track approval pathways with EMA alignment requirements creates operational delays for life sciences companies. Post-Brexit, navigating the new regulatory landscape while maintaining EU market access remains complex.

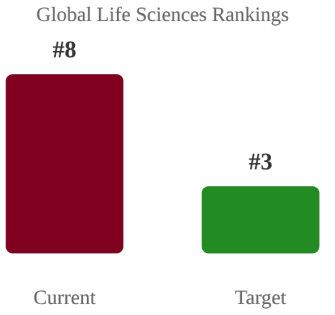
Post-Brexit Talent Shortages

The UK life sciences sector faces critical talent shortages following Brexit. While there has been a 20% growth in STEM visas to address this, the sector continues to grapple with skills gaps in specialized areas like thrombosis research.

Global Competition

Intense competition from leading nations, particularly the US and China, necessitates strategic positioning for the UK to achieve its target of becoming the third-largest global life sciences economy by 2035.

UK Life Sciences Position



UK Target	**3rd globally by 2035**
Current Position	**8th in Phase III trials**

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Intersections: Politics, Economy & Life Sciences

The interplay between politics, economics, and life sciences in the UK is becoming increasingly integrated, creating both dependencies and synergistic opportunities.

Political-Economic

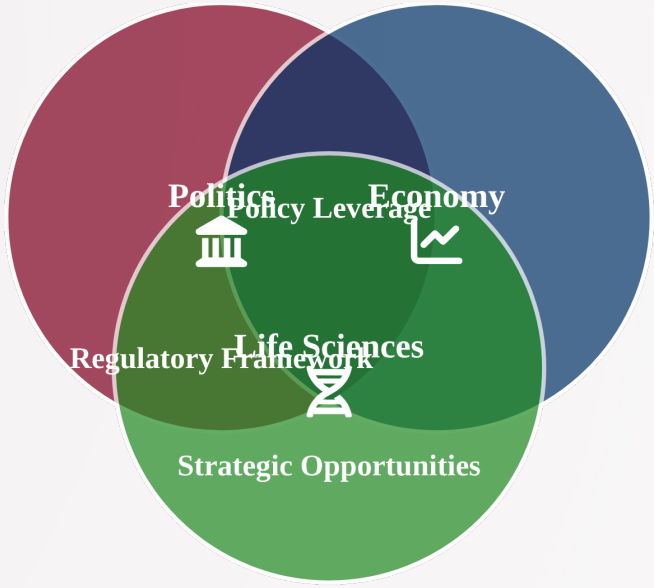
Labour's "missions" directly influence economic allocation, with £520 million to ARIA for high-risk research.

Economic-Life Sciences

£108 billion output supports 1.2% GDP growth, making life sciences a key economic driver.

Political-Life Sciences

Lords' scrutiny shapes ethical and regulatory landscape for AI in healthcare, ensuring innovation aligns with societal values.



Lord Kakkar's role in health scrutiny since 2010 exemplifies how scientific expertise can directly influence public policy.

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Strategic Opportunities for Leaders

Policy Leverage

Engage proactively with House of Lords committees to advocate for R&D incentives and shape legislation supporting life sciences innovation.

Lord Kakkar's own role in health scrutiny within the Lords exemplifies the potential for influence on health policy.

Economic Plays

Invest strategically in green biotech initiatives, aligning with the UK's robust net-zero policy push and capitalizing on the growing green finance market.

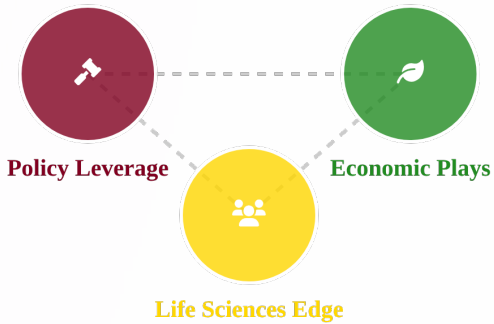
Projected £100 billion in green bonds by 2025 presents significant investment opportunities.

Life Sciences Edge

Position the UK as a strategic bridge for clinical trials and partnerships with the EU, leveraging its unique regulatory position post-Brexit.

Facilitate faster market access and collaboration through streamlined regulatory pathways.

Interconnected Strategic Opportunities



> The UK's position at the intersection of politics, economy, and life sciences creates unique opportunities for strategic advantage.

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Conclusion

Key Insights

Resilient Political Landscape

The UK political system shows remarkable resilience with a clear focus on data-driven policy-making and academic leadership, creating a stable environment for long-term planning.

Steady Economic Outlook

The UK economy projects 1.2% GDP growth in 2025, with the life sciences sector contributing £108 billion GVA and £22 billion NHS investment driving growth.

Innovative Life Sciences Sector

The UK life sciences sector employs 250,000 individuals and includes 4,500+ firms, with AI in drug discovery showing potential to reduce clinical trial failure rates by 90%.

Strategic Synergies

- The interplay between politics, economics, and life sciences creates both dependencies and synergistic opportunities for leaders.
- Policy-leverage, economic plays, and life sciences edge positions create a dynamic landscape ripe for strategic engagement.

Call to Action

We propose a collaborative effort focused on advancing ethical AI for advanced therapies, particularly in critical areas such as thrombosis and cancer. This initiative would leverage the UK's strengths in AI innovation and life sciences research.

Q&A session.