

JOURNAL OF THE PARLIAMENTARY AND SCIENTIFIC COMMITTEE
ALL-PARTY PARLIAMENTARY GROUP



SCIENCE IN PARLIAMENT
sip
SPRING 2025



This is not an official publication of the House of Commons or the House of Lords. It has not been approved by either House or its Committees. All-Party Groups are informal groups of members of both Houses with a common interest in particular issues. The views expressed in this Journal are those of the Group. This Journal is funded by the members of the Parliamentary and Scientific Committee (All-Party Parliamentary Group).

Artificial Intelligence

**Transforming
science and law**



UNIVERSITY OF
LIVERPOOL



Rt Hon George Freeman FRSA MP
Chair, Parliamentary & Scientific Committee

As I write, we are approaching the end of the new Government's first nine months since winning office in July last year.

As the Chancellor prepares to give her Spring Statement (or Emergency Budget after stubbornly low growth rates with economic contraction in January) the UK Science Research Technology & Innovation sectors are hoping that the continuation of the last Government's major commitment to science spending & R+D led growth will see a continued commitment to R+D in the forthcoming Industrial Strategy.

With public finances under increasing pressure and tax revenues falling, the Chancellor is warning of tough choices on public spending. Until 2010, that historically meant cuts to R+D but I'm proud to say that hopefully those days are now gone.

The key questions which Ministers are being asked will soon be answered: how much will R+D be at the heart of this Industrial Strategy? Will all the funding go to The Golden Triangle or will the Freeman/Gove crusade for R+D levelling up via regional clusters be continued? Will it all be AI and 'tech' or will the Government continue support for the BioEconomy, AgriTech, Space, Fusion and Cleantech? Will Ministers intervene to free up visas for researchers? We will see.

Meanwhile I'm pleased to report that science continues to attract growing interest from policymakers across Parliament: in the **Science, Technology & Innovation Select Committee** we are looking into Regional R+D as well as AI and science diplomacy. The **Lords Science & Technology Committee** is as busy as ever on Industrial Strategy, the BioEconomy and Life Science.

Our programme of meetings continue to attract full houses with some fascinating recent events:

- **How to tackle Contaminants or Emerging Concern (CECs) in water** in partnership with the Royal Society of Chemistry
- **How can Precision Prevention reduce the demand on the NHS?** in partnership with The Physiological Society
- **Communicating risk – what, who, why does it matter?** in partnership with the Hazards Forum
- **Building a healthcare science workforce equipped to face the grand challenges** in partnership with the Institute of Physics & Engineering in Medicine
- **Accelerating the UK bioeconomy: the scientific and economic case for investment** in partnership with the University of York

But perhaps the highlight of this quarter has been **#BritishScienceWeek** and the **#STEMforBRITAIN** event bringing inspiring young scientists & posters into Parliament. Our Annual Science Awards for Early-Career Researchers saw Portcullis House full of inspired young scientists. It was a huge honour to award their Gold, Silver and Bronze Awards with the Learned Societies and supporter organisations. The Summer SiP will carry a special photo feature of the day. On 17 March, we also judged the Gold winners for the **Westminster Medal** – designed to promote the importance of communicating science to a lay audience.

We also had **The Royal Society Partnership Anniversary** celebration in Parliament with the wonderful Dame Maggie Pocock inspiring a new generation of young scientists to be passionate about the power of science to change lives. As the recent paper from the Guy Foundation highlights – space travel has been shown to be a series accelerator of ageing and cell decline. Watch this space for some fascinating downstream research. In the words of the great Carl Sagan: *"from the DNA in our bones to the calcium in our teeth we are but resembled stardust."*

Have a great Easter,
George



Journal of the Parliamentary and Scientific Committee (All-Party Parliamentary Group)

CONTENTS

- 2 How the UK can lead the materials sector with AI and robotics
- 5 AI and law: The changing nature of legal work
- 7 Economic growth and innovation
- 9 Responsible leadership: Saving our ailing National Health Service
- 12 Beyond genomics: Unlocking the full potential of Our Future Health
- 15 The future of UK healthcare: How personalised prevention can revolutionise the NHS
- 17 Transforming healthcare: The potential of personalised prevention
- 20 Revealing the big picture
- 23 New Approach Methodologies: New wine in old bottles or old wine in new bottles?
- 25 The role of engineers in achieving a sustainable future
- 28 Tick and flea treatments: A hidden chemical threat in our waterways
- 31 "So, how do you decide what to write about in POST?"
- 33 UK PARLIAMENT: POST
- 35 HOUSE OF COMMONS LIBRARY
- 39 SELECT COMMITTEES: HOUSE OF COMMONS
- 41 SELECT COMMITTEES: HOUSE OF LORDS
- 44 SCIENCE DIRECTORY
- 49 SCIENCE DIARY

Science in Parliament has two main objectives:

Inform the scientific and industrial communities of activities within Parliament of a scientific nature and of the progress of relevant legislation

Keep Members of Parliament abreast of scientific affairs

Responsible leadership:

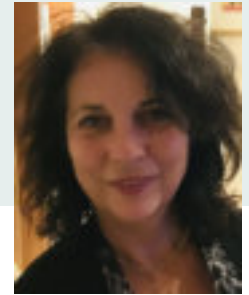
Saving our ailing National Health Service



Professor Mike Saks
BA, MA, PhD, FIKE, FIoD, FIRL,
FRBC, FRCCM, FRSA

Chair of the Institute for
Responsible Leadership
Emeritus Professor, University
of Suffolk

Visiting Professor, Universities of
Westminster, York and Toronto



Julie Search-Whittaker BEd, MA,
FIRL

Chief Executive of the
Institute for Responsible
Leadership

Responsible leadership is vital in a particularly turbulent world with a high incidence of wars, public scandals and financial collapse with a huge impact on citizens. The leaders of organisations and countries, also have a broader moral responsibility to address matters such as ecological issues, human rights and poverty in innovative and ethical ways.¹ The dilemmas of responsible leadership continue to be present worldwide – not least in our ailing health service which this article uses as an illustration.

RESPONSIBLE LEADERSHIP: THE IMPORTANCE OF STAKEHOLDERS

In the business world much of the focus on responsible leadership has been on the needs of shareholders of companies rather than a wider range of stakeholders. While this has highlighted the financial benefits of liquidity and profitability related to good governance in terms of features such as accountability, risk management and succession planning,² it does not address broader agendas. Kempster, Maak and Parry argue that a framework with greater emphasis on social responsibility and a broader, long-term outcome orientation leading to 'good dividends' is necessary.³

While highly laudable, their framework has its own limitations as it is abstract and not that strongly grounded. At the Institute for Responsible Leadership (IRL), of which the authors are the Chair and Chief Executive respectively, it is argued that the currently most meaningful and operational touchstone for such responsible leadership is the Sustainable Development Goals (SDGs) of the UN for 2030.⁴ These SDGs, adopted by all member states of the UN in 2015 and used as a key benchmark by many organisations in the UK, are shown in Figure 1.

Figure 1: The 17 United Nations Sustainable Development Goals



- Goal 1: End poverty everywhere
- Goal 2: Bring about zero hunger
- Goal 3: Promote good health and wellbeing
- Goal 4: Improve the quality of education
- Goal 5: Facilitate gender equality
- Goal 6: Provide clean water and sanitation
- Goal 7: Generate affordable and clean energy
- Goal 8: Encourage decent work and economic growth
- Goal 9: Enhance infrastructure, industry and innovation
- Goal 10: Reduce inequality in all its forms
- Goal 11: Create sustainable cities and communities
- Goal 12: Engage in responsible production and consumption
- Goal 13: Take action on climate change
- Goal 14: Conserve life below water
- Goal 15: Protect life on land
- Goal 16: Promote peace, justice and strong institutions
- Goal 17: Engender global partnerships for sustainable development

The pursuit of these SDGs may not only improve the bottom line in the corporate sector, but also advance the interests of stakeholders in the public, private and third sector. As Saks highlights in his collaborative edited book with the IRL and the United Nations Institute for Training and Research (UNITAR) (Figure 2) while they are stretch targets, responsible leadership is essential to the ultimate achievement of the UN SDGs. The discursive chapters of the book span from areas such as cybercrime, good governance and responsible innovation to education, climate change and human trafficking.

Further details of the IRL's activities in these and other areas are available on the IRL website (www.responsible-leadership.org). Since health is one of the key SDGs which underlies a number of the other goals and is also discussed extensively in this book, it is proposed to highlight the importance of responsible leadership in relation to the presently ailing National Health Service (NHS) in Britain, the travails of which have become a major issue of public concern.

OUR AILING NATIONAL HEALTH SERVICE

The pioneering NHS, implemented in 1948 in Britain and free at the point of access, has been the shining reference point for other NHSs formed at a later date throughout the Western world. However, in the last couple of decades the NHS has been in decline to the detriment of stakeholders who heavily depend on it for their health and wellbeing. It is therefore no surprise that the sustainability of the British NHS has been brought into question by the report by Lord Darzi in 2024 (Figure 3) that was commissioned for England on an eight-week timescale by the new Labour government of that year.

This review identified many key failings with the examples set out below:

- Crumbling Victorian hospital buildings in various states of disrepair and desperate need of modernisation.
- Extended waiting times with 7.6 million people still on the list for routine operations and some 14,000 avoidable deaths per annum from

longer waits in A&E departments.

- Unproductive hospitals where no more operations were performed despite a 17% increase in the hospital workforce over the past five years.
- A need to more strongly prioritise prevention with an ageing population and rising rates of chronic illnesses.
- More resources required in primary care, where the number of community nurses fell by 5% compared to an increase of 35% hospital nurses in 2019 to 2023.
- The collapse of social care, which is means-tested and placing an increasing burden on families and the NHS – not least by hospital bed blocking.
- Technology deficits in the wake of AI and other developments which place the NHS well behind the private sector in many areas and increase waiting lists.

Central to resolving these issues sustainably is radical reform and investment. Pleasingly, the new government has taken some short range steps to progress the agenda. It also has a target by 2029 of carrying out 92% of routine operations and appointments within 18 weeks. Against this, it is self-confessedly felt that this target, unless matched by more fulsome actions on a wider front, could lead to the displacement of other aspects of the NHS such as cutting local health services, especially if shortening A&E waiting times is prioritised. Amongst many other things, innovative approaches to care will need to be adopted and a more supportive, rather than adversarial, approach to top-level managers may be required.

NEED FOR AN INTERNATIONAL FRAME OF REFERENCE

One dimension of how to move things forward that has received too little attention is the power of learning from lessons internationally. This is underlined by the recent co-edited book by Giarelli and Saks which importantly focuses on the challenges, reforms and future prospects of the NHSs of Western Europe including in countries spanning from Sweden, Denmark and Norway in

Figure 2: Responsible Leadership: Essential to the Achievement of the United Nations Sustainable Development Goals



Saks M (ed) (2023) *Responsible Leadership: Essential to the Achievement of the United Nations Sustainable Development Goals*, Abingdon: Routledge.

Figure 3: The “Darzi Report”



Professor Lord Darzi (2024) *Independent Investigation of the National Health Service in England*, London: Department of Health and Social Care.

Scandinavia to Spain, Portugal, Italy and Greece in the Mediterranean macro-region (Figure 4).

This is one of a number of helpful recent books in which Saks has been involved on comparative health policy covering countries as diverse as India, Japan and the United States.⁵ In addition, he has taken a lead policy role on the Technical Expert Group of the World Health Organization in providing its first ever guidance on global health practitioner regulation (Figure 5). This is based on an extensive commissioned international review of 410 peer-reviewed articles and more than 400 items of grey literature.

There are many future pointers arising from this international experience for responsible leaders in government and the NHS in Britain, such as:

- Ensuring adequate regulation of professions and support workers to protect the public
- Encouraging collaborative working as opposed to a destructive silo-based approach
- Striking an appropriate balance between centralisation and decentralisation
- Addressing inequalities between groups and regions in different parts of the country
- Increasing the influence of the patient voice in healthcare decision making
- Making sure that our health services are sufficiently funded and regularly upgraded.

Although there are always going to be dilemmas over resource allocation with new and existing developments in healthcare, these are worthy ambitions for both our own and other health services to achieve sustainability for healthy and inclusive living for the benefit of users.

CONCLUSION

It is no coincidence that the logo for the IRL (see Figure 6) includes an image of Nelson Mandela – a much revered responsible leader who very humbly and commendably brokered the end of apartheid with FW de Klerk in South

Africa after twenty-seven years in jail for his subversive activities.

In dealing with the crisis in our NHS in particular and advancing the UN's SDG 3 in health and wellbeing – while acknowledging the political debate about the source of the problems – we need in Mandela's words, to let bygones be bygones at the appropriate point in time. We can then move on to systematically address the issues in an informed way in the public interest. This will take time, but identifying what the issues are is a critical staging post in providing for their resolution. In the broader frame of reference of the IRL, which aims to work in the interests of all relevant stakeholders, this will involve clear commitment and milestones to chart progress.

References

- ¹ Saks M and Search-Whittaker J (2018) 'Responsible leadership in challenging times', *Innovation Review*, December.
- ² Grant Thornton (2019) *Corporate Governance and Company Performance*, London: Grant Thornton.
- ³ Kempster S, Maak T and Parry K (eds) (2020) *Good Dividends: Responsible Leadership of Business Purpose*, Abingdon: Routledge.
- ⁴ United Nations (2015) *Transforming Our World: The 2030 Agenda for Sustainable Development*, Geneva: United Nations
- ⁵ See, for example:
Saks M (2015) *The Professions, State and the Market: Medicine in Britain, the United States and Russia*, Abingdon: Routledge;
Chamberlain JM, Dent M and Saks M (eds) (2018) *Professional Health Regulation in the Public Interest: International Perspectives*, Bristol: Policy Press;
Saks M (ed) (2020) *Support Workers and the Health Professions in International Perspective: The Invisible Providers of Health Care*, Bristol: Policy Press.

Figure 4: The National Health Services of Western Europe



Giarelli G and Saks M (eds) (2024) *National Health Services of Western Europe: Challenges, Reforms and Future Perspectives*, Abingdon: Routledge.

Figure 5: Health Practitioner Regulation



World Health Organization (2024) *Health Practitioner Regulation: Design, Reform and Implementation Guidance*, Geneva: WHO.

Figure 6: IRL logo





AI and the Future of Innovation Culture

WWW.IKEINSTITUTE.ORG