UK AI COUNCIL

AI Roadmap

February 2021

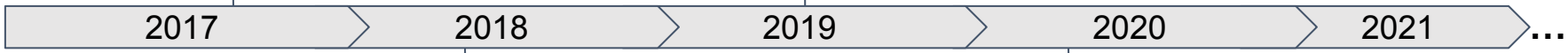
The AI Council is an independent expert committee. It provides advice to the UK Government, as well as high-level leadership of the Artificial Intelligence (AI) ecosystem.

AI Council: A Brief History

October, 2017: The Hall-Pesenti AI Review recommends the creation of an AI Council to promote growth and coordination in the sector.

2019: The AI Council is established to provide advice to government and high-level leadership of the AI ecosystem.

January, 2021, The AI Council publishes its 'AI Roadmap', providing 16 recommendations to help the government's strategic direction on AI.



April, 2018: The UK Government and AI community agree a £1bn Sector Deal to boost the UK's global position as a leader in developing AI technologies.

June, 2020 The AI Council begins developing a collective vision for how AI should develop in the UK.

AI Council: Background

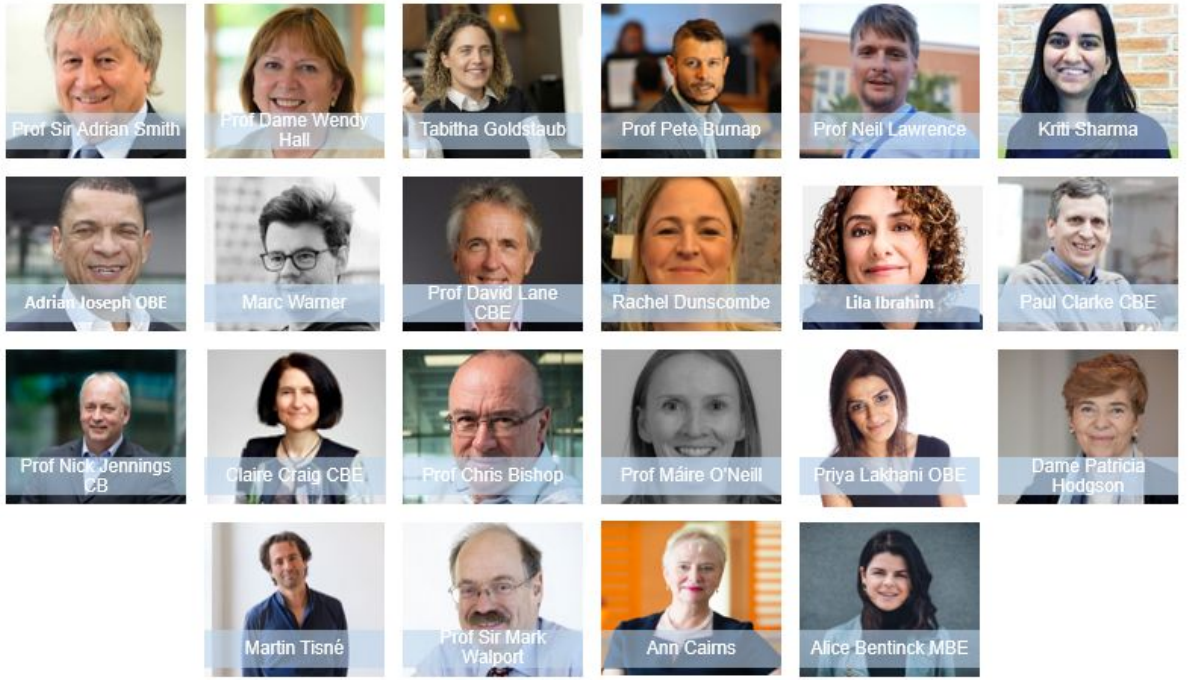
The AI Council was established in 2019 to provide independent, expert advice to the UK Government and high-level leadership of the Artificial Intelligence (AI) ecosystem.

It works to support the growth of AI in the UK, promote its adoption and use in businesses and society, and encourage experts to focus on priority topics in AI. Its aims are to:

1. Provide an open dialogue and exchange of ideas between industry, academia and government.
2. Advise the Office for AI and broader government on its current priorities, opportunities and challenges for AI policy.
3. Share research and development expertise and horizon scan for new AI technologies, applications and their impact
4. Work on public perception of AI, and on raising the profile of the AI and Data Grand Challenge.

AI Council: Membership

The Council includes members from across industry, the public sector and academia and covers a broad range of backgrounds and expertise to contribute to leadership of the AI ecosystem.



AI Council: Background

In January 2021, the AI Council published its ‘AI Roadmap’, setting out 16 recommendations to help the government develop a **UK National AI Strategy**.

This report has two underlying messages:

1. we must “double down” on recent investment the UK has made in AI.
2. we must look to the horizon and remain adaptable to disruption, responding to the rapid pace and evolution of science and technology and its applications.

AI Roadmap: Pillars

The AI Roadmap set out suggested directions across the following four pillars:

1. Research, Development and Innovation
2. Skills and Diversity
3. Data, Infrastructure and Public Trust
4. National, Cross-sector Adoption

AI Roadmap: Recommendations (1)

Research, Development and Innovation

1. **Scale up and make sustainable public sector investment in AI; ensure consistent access to top talent from around the world; and find new ways to bring researchers, disciplines and sectors together**. Build on the commitments in the government's R&D Roadmap and suggestions in the soon to be published UKRI AI review.

2. **Cement The Alan Turing Institute as a truly national institute, with a set of regional investments that draw on strengths from across the UK**. Provide assured long term public sector funding that will give the Turing and others the confidence to plan and invest in strategic leadership for the UK in AI research, development and innovation.

3. **Ensure moonshots, as described in the R&D Roadmap as challenge-led, high-risk, scalable programmes, are both advancing and leveraging AI.** These could tackle fundamental challenges such as creating "explainable AI", or important goals in any area where AI can contribute strongly, such as the UK Digital Twin program or developing smart materials for energy storage in the move towards Net Zero carbon emissions

AI Roadmap: Recommendations (2)

Skills and Diversity

4 **Scale up and commit to an ongoing 10 year programme of high level AI skillbuilding.** This would include research fellowships, AI-relevant PhDs across disciplines, industry-led Masters and level 7 apprenticeships

5 **Make diversity and inclusion a priority**. We suggest benchmarking and forensically tracking levels of diversity to make data-led decisions about where to invest and ensure that underrepresented groups are given equal opportunity and included in all programs

6 **Commit to achieving AI and data literacy for everyone**. The public needs to understand the risks and rewards of AI so they can be confident and informed users. An online academy for understanding AI, with trusted materials and initiatives would support teachers, school students and lifelong learning

AI Roadmap: Recommendations (3)

Data, Infrastructure and Public Trust

7. **Consolidate and accelerate the infrastructure needed to increase access to data for AI**. Invest in the relevant organisations, link general principles to specific applications, and pursue initiatives for pump priming innovation and enabling safe data sharing for valuable uses.

8. **Lead the development of data governance options and its uses**. The UK should lead in developing appropriate standards to frame the future governance of data.

9. **Ensure public trust through public scrutiny**. The UK must lead in finding ways to enable public scrutiny of, and input to, automated decision-making and help ensure that the public can trust AI.

10. **Thoughtfully position the UK with respect to other major AI nations**. Building on its strengths, the UK has a crucial opportunity to become a global lead in good governance, standards and frameworks for AI and enhance bilateral cooperation with key actors.

AI Roadmap: Recommendations (4)

National, Cross-sector Adoption

11 **Increase buyer confidence and AI capability across all sectors and all sizes of company**. Support investment for local initiatives to enable safe value-creating innovation and improve the data maturity needed for AI innovation.

12 **Support the UK's AI startup vendor community**. Enable greater access to data, infrastructure, skills, compute, specialist knowledge and funds.

13 **Enable robust public sector investments in AI**, building capability in the use of data, analytics and AI to ensure intelligent procurement of AI as part of projects for public benefit.

14 **Use AI to meet the challenges of Net Zero carbon emissions**. Work on access to data, governance, to develop cleaner systems, products and services.

15 **Use AI to help keep the country safe and secure**. Work with government departments/agencies and defence and security companies to ensure AI is available to assess and respond to modern defence and security threats and opportunities.

16 **Build on the work of NHSX and others to lead the way in using AI to improve outcomes and create value in healthcare**. The UK's comparative advantage will depend on smart strategies for data sharing, new partnership models with SMEs and skill-building.