HM Government

HM Government Response to Sir Patrick Vallance's Pro-Innovation Regulation of Technologies Review

Digital Technologies

March 2023

HM Government

HM Government Response to Sir Patrick Vallance's Pro-Innovation Regulation of Technologies Review

Digital Technologies

March 2023

Contents

Introduction

At Autumn Statement 2022, the Chancellor announced a programme of work to advise how the UK can better regulate emerging technologies, enabling their rapid and safe introduction.

The aim of this review is to establish the UK as the best regulated economy in the world in key growth sectors ensuring that industry and investors have the certainty then need to drive innovation, investment and growth through anticipating new developments in emerging technologies.

This work has been led by Sir Patrick Vallance, the Government Chief Scientific Adviser and National Technology Adviser.

This report, covering Digital Technologies, is the first report to be published from this work programme.

Two leading experts – Priya Lakhani and Matt Clifford – supported Sir Patrick Vallance for this Digital Technologies report, working hand-in-hand with industry to identify any barriers to innovation and getting emerging technologies to market. The government is grateful to them for their comprehensive work to inform this report.

Response to recommendations

1. The government is grateful to Sir Patrick for this report into the regulation of emerging digital technologies. The UK has long been a leading location for digital and tech companies to innovate and do business. However, this report highlights that there are areas where we can further ensure that the UK's regulatory environment enables innovation and a thriving digital economy. From better regulating the applications of AI, to promoting openness of public data and accelerating legislation to bring forward the future of transport, Sir Patrick's report presents ambitious ideas to unlock progress. The government accepts all of the report's recommendations and sets out how we propose to implement them in practice as detailed below.

Recommendation 1 – multi-regulator AI sandbox

Government should work with regulators to develop a multi-regulator sandbox for AI to be in operation within the next six months.

Response

2. Innovators can often face regulatory challenges in getting new, cutting-edge products to market. This is particularly true when a technology's path to market requires interaction with multiple regulators, or when regulatory guidance is emergent. Regulatory sandboxes provide a space for innovators to test their new ideas and work with regulators on the application of regulatory frameworks.

3. The government will engage regulators, including the Digital Regulation Cooperation Forum, immediately, to prepare for the launch of a new sandbox based on the features and principles set out in the Vallance Review. More detail will be provided alongside the launch of the AI White Paper in the coming weeks.

Recommendation 2 – generative AI

Government should announce a clear policy position on the relationship between intellectual property law and generative AI to provide confidence to innovators and investors.

Response

4. Sir Patrick rightly highlights the need for regulatory certainty to unlock the huge potential of AI. The government will act at pace to provide clarity in relation to the application of intellectual property law to the AI sector.

5. To support this, the Intellectual Property Office (IPO) will produce a code of practice by the summer which will provide guidance to support AI firms to access copyrighted work as an input to their models, whilst ensuring there are protections (e.g. labelling) on generated output to support right holders of copyrighted work. To inform the code of practice, the IPO will convene a group of AI firms and rights holders to identify barriers faced by users of data mining techniques when accessing copyright materials. An AI firm which commits to the code of practice can expect to be able to have a reasonable licence offered by a rights holder in return.

6. The government believes that the involvement of both the AI and creative sectors will ensure the creation of a balanced and pragmatic code of practice that will enable both sectors to grow in partnership. However, this may be followed up with legislation, if the code of practice is not adopted or agreement is not reached.

7. The Intellectual Property Office will also take forward the recommendations in relation to enforcement: providing guidance to AI firms (by the summer); coordinating intelligence on any systematic copyright infringement; and encouraging the development of AI tools which assist with enforcement.

Recommendation 3 – public data

Government should facilitate greater industry access to public data, and prioritise wider data sharing and linkage across the public sector, to help deliver the government's public services transformation programme.

Response

8. The government is committed to playing its part to unleash the power of data for innovation across the UK, supporting stronger growth, better jobs and bold discoveries. As part of this commitment, government will work at pace to transform 50 of the top 75 public services by 2025, working with innovators from industry.

9. Furthermore, recognising that one of the challenges is knowing what data is held where, government has already committed to delivering a Data Marketplace by 2025, to provide a single front door for government users to discover public sector data. Going further, and recognising the potential value of the Marketplace beyond government, we will explore how this could be expanded over the next 12 months to make public sector data accessible to industry and other external groups, including the legislative arrangements relating to open public data and aspects such as licensing-type agreements, so as to maximise public and economic value.

10. In parallel, the government will continue to support the delivery of the Office for National Statistics' (ONS) Integrated Data Service as the single data analysis and dissemination platform in Government, with the Full Public Beta version due by 31 March 2023. Departments will engage with the ONS to agree data sharing arrangements with the Integrated Data Service to make public sector data available to analysts across government.

Recommendation 4 – Future of Transport Bill

The government should bring forward the Future of Transport Bill to unlock innovation across automated transport applications.

Response

11. The Review shows how AI and data underpin important technologies such as self-driving vehicles. The government is committed to bringing forward this legislation when parliamentary time allows. The legislation will enable innovation in transport that benefits transport users and drives growth, investment and jobs across the UK. In the coming weeks we are publishing our government response to the Future of Transport Regulatory Review consultation which sets out our next steps to remove barriers to innovation in transport technologies. In August 2022 we published the Connected & Automated Mobility 2025 paper, setting out a vision and proposals for realising the societal and commercial benefits of self-driving vehicles.

Recommendation 5 – drones

The government should work with the Civil Aviation Authority (CAA) to establish an operating standard for drones, moving away from relying on operators to prove they are safe.

The government should empower the CAA to better regulate the use of remotely piloted air systems (including drones and unmanned aerial vehicles) beyond visual line of sight. This should include the establishment of publicly owned test sites, developed in partnership with industry and other bodies to meet specific industry needs.

Ofcom/CAA regulation on radio communications should be amended to allow the use of UAVs/Drones/High-altitude platform station (HAPS) systems to act as radio repeaters. This would allow novel applications to provide temporary or permanent radio coverage and ubiquity of service in rural locations, and would benefit consumers in terms of access to high-speed broadband by communication service providers (CSPs).

Response

12. Government believes that drones can provide significant benefits to the UK, and we agree with the recommendations of the report. Through our Department for Transport led Future of Flight programme, we are currently taking forward these recommendations, including through:

12.1 Establishing a Future of Flight Industry Group (FFIG) to ensure Government and industry are working in partnership to unlock the potential on drones. The FFIG will meet for the first time in March and will be co-chaired by the Aviation Minister. The FFIG includes key UK Future of Flight companies including drone operators and will co-create a Future of Flight Plan for publication by the end of the year.

12.2 Working with the CAA to help it focus on developing regulation at pace for new forms of aviation technologies including drones. The report recommends that the CAA establish an operating standard for drones: Whilst safety of drone operations remains paramount, we will encourage the CAA to implement the Specific Operations Risk Assessment (SORA) in the next financial year, a standardised and risk-based approach for classifying specific category drone operations.

12.3 Funding and supporting the Future Flight Challenge which is accelerating the progress of new aviation technologies through funding 17 innovative projects that bring together diverse stakeholders around public good use cases, as well as developing the Future of Flight ecosystem. Example projects include:

12.3.1 CAELUS 2 which aims to showcase the operation of a network of multiple electric drones for the distribution of medical products and medicines across Scotland.

12.3.2 InDePTH which will use drones to regularly survey wide infrastructure estates including ports and highways.

12.4 Government will also work with Ofcom and the CAA, the independent regulators, on considerations for the potential use of UAVs/Drones/HAPs as radio repeaters.

Recommendation 6 – AI as a service

The Information Commissioner's Office (ICO) should update its guidance to clarify when an organisation is a controller, joint controller or processor for processing activities relating to AI as a service (AIaaS). This should include guidance on when providers can reuse personal information for improving their models.

Response

13. Government agrees with this recommendation in principle, whilst recognising that the ICO - an independent regulator with responsibility for this area - is best placed to determine how this recommendation should be taken forwards.

Recommendation 7 – space liability

In line with the Commons Science and Technology Select Committee's recommendation in their report on the UK space strategy and UK satellite infrastructure, government should implement a variable liability approach to granting licences by June 2023.

Response

14. The government recognises the potential in the global space market and value of the Commons Science and Technology Select Committee's work. The government confirms that this recommendation will be considered as a part of a consultation to be led by the Department for Science, Innovation and Technology.

15. In June 2022, the government published the response to a call for evidence on liability limits and insurance requirements for satellite operations and proposed developing a new approach to setting liability limits for satellite operators. The review recommendation was to move to a variable liability limit approach which will reflect an orbital sustainability focus.

16. The government is finalising its proposal on the variable limit approach, having held a number of meetings with the government/industry working group established to develop the approach. This working group consists of representation from satellite

operators, insurers, academics and other space sector specialists, as well as the UK government and the Civil Aviation Authority.

17. The government intends to hold a plenary session with the sector to outline the proposal on the variable limit approach at the end of March, ahead of a formal consultation on this and other liability and insurance matters in June. The intended implementation timeline for the variable limit approach is early 2024, subject to updating the approach based on feedback received through the consultation.

18. The consultation will also include seeking views on viable alternatives to the current approach of operators each taking out their own individual third-party liability insurance policy.

19. These world-first proposals will also be considered alongside the industry-led Space Sustainability mark which is currently being developed. The consultation will seek views on the benefits on insurance premiums of implementing these three ambitious proposals.

20. The consultation will also cover updates on policy developments on a range of issues which influence the variable limit approach and wider orbital sustainability issues.

Recommendation 8 – cyber security

We recommend amending the Computer Misuse Act 1990 to include a statutory public interest defence that would provide stronger legal protections for cyber security researchers and professionals, and would have a catalytic effect on innovation in a sector with considerable growth potential.

Response

21. The government is committed to ensuring that we have the right legislative framework, powers and law enforcement capability to promote a secure and resilient economy and tackle the threat from cyber crime. The Home Office have a consultation live and a programme of work in the pipeline that will enable us to move forwards in considering the merits and potential risks to reform.

Recommendation 9 – broad approach

Government should avoid regulating emerging digital technologies too early, to avoid the risk of stifling innovation. We therefore recommend that the government and regulators should continue to engage with industry on issues around safety, risk and benefits of innovation, and that the government and regulators should rapidly build capability and know-how to enable them to positively shape regulatory frameworks at the right time. Upcoming government strategies, including the Quantum Strategy, Semiconductor Strategy, and the Emerging Technologies Review provide an opportunity for the government to signal its commitment to a strategic, long-term vision to support emerging digital technologies.

Response

22. Government recognises the importance of regulating at the appropriate stage in a technology's life-cycle and, more broadly, the need to set out a long-term strategic vision to support the promotion of emerging technologies, in line with the Government's Plan for Digital Regulation and Digital Strategy. This approach is reflected in our quantum strategy, also published today.

This publication is also available on our website at www.gov.uk/government/publications

Any enquiries regarding this publication should be sent to us at XWHRegulationSprint@go-science.gov.uk