The Alan Turing Institute
**Annual Report 2023–24**

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**Section 1.1
Chair’s report**

I’m delighted to introduce this year’s annual report, which looks back on The Alan Turing Institute’s activities during 2023/2024, another important year in data science and AI.

This has been, and continues to be, a pivotal time for both the Turing and our wider ecosystem. Here in the UK, we have a new government with new priorities for science and technology, and across industry and the public sector the adoption of AI moves at ever greater pace.

As we survey the opportunities ahead of us, it is increasingly clear that, if used responsibly and ethically, the benefits of these powerful technologies will be substantial. AI has the transformative potential to boost productivity, bringing positive impacts to the global economy and improving the efficiency of our resource-stretched public services. This technological revolution will also uncover new ways to tackle pressing challenges like climate change and the health of our population, and to keep us safe from the security threats posed by an ever more volatile world.

For the Turing, this is a time of renewal. Yet, as we transform into an Institute with a more targeted, challenge-led approach to realising the societal benefits of AI, we maintain the same enduring purpose: to make great leaps in data science and AI research in order to change the world for the better.

Notably, in the spring, our primary funding body, the Engineering and Physical Sciences Research Council, awarded us core funding of £100M over the next five years, following the completion of our Quinquennial Review. The review, carried out by a range of eminent experts, provided external endorsement of the Turing’s vision, as well as important steers on how the Institute can build and improve in the coming years.

The Turing also revised its corporate governance with the agreement of our founding university members and welcomed a number of new leaders to drive forward its agenda, including a new CEO, and four new Directors of Science and Innovation – each with a compelling vision of how data science and AI can change the world for the better.

As Chair of the Board, I want to pay tribute to outgoing Institute Director and CEO, Sir Adrian Smith, and our incoming CEO, Dr Jean Innes. Both have helped the Turing chart a path and make its contribution at this time of huge change, as AI has become one of the most important technologies and significant talking points of our time. It has been a real privilege to help steer the Institute and I would like to thank the Board of Trustees and everyone across the Turing community for their insights and expertise.

We are pleased to share this report, which summarises some of the Turing’s science and innovation activity over the last year, the partnerships forged, the diverse voices convened, and the impact made in shaping policy and real-world action.

Dr Douglas Gurr
Chair of the Board of Trustees

**Section 1.2
Our journey**

At this pivotal moment for the Turing, with a new strategy and the mandate provided by a new multi-year funding settlement, we look back, take stock and move forward.

**Establishment and start-up phase**

Founded in 2015, initially as an Institute focused on data science with artificial intelligence added to our remit in 2017, The Alan Turing Institute has emerged as a force for harnessing these technologies for the public good. And as with any experimental endeavour in a rapidly evolving field, our start-up phase saw both successes and challenges.

 The Institute’s achievements have included creating a new discipline (data-centric engineering), becoming a national hub for digital twinning, and developing The Turing Way – an internationally recognised resource for reproducible, ethical and collaborative data science.

Other highlights include the founding of IceNet with British Antarctic Survey which forecasts sea ice in the Arctic, and a partnership with Roche which develops new methods to investigate large, complex clinical and healthcare datasets.

The Turing has acted as a trusted advisor to government, with projects such as a strategic partnership with GCHQ, the Defence Science and Technology Laboratory, the Ministry of Defence and more recently MI5, and a wide range of work to help policy makers, including creating the world’s first and most-cited public sector guidance on AI ethics and explainability, co-produced with the Office for AI and Government Digital Service.

Relevant to the accelerating advancements and widespread proliferation of generative AI, the Turing is working to ensure responsible and ethical use of new technologies, collaborating with the British Standards Institution and National Physical Laboratory on the AI Standards Hub, dedicated to the evolving and international field of standardisation for AI technologies, and shaping the national skills agenda through development of a new AI skills for business framework in partnership with Innovate UK BridgeAI.

**The case for change**

As the Institute developed, alongside an exponential growth in the importance of data science and AI to wider society, it became increasingly clear that the Turing’s best route to achieving impact at scale is to become more focused, concentrating on a smaller number of priorities.

Work began on the creation of a new strategy, ‘Turing 2.0’, and in developing this we acknowledged that the focus since the Institute’s establishment had been more diffuse, sometimes siloed in independent programmes and constrained by short-term core funding.

Turing 2.0 heralded a new approach, more closely coupling our ‘science’ to ‘innovation’ and ensuring an end-to-end system from fundamental research and applied research to end-user impact.

We will do fewer things, pursuing excellence and impact at scale through a focused portfolio of challenge-led science and innovation.

And in all we do, we also recognised the need to ask ourselves “why Turing?”. Our aim must be targeting complex and interdisciplinary problems with the potential for significant scientific and societal benefits, appropriate to our role as a national institute and trusted convener.

**Turing 2.0 strategy**

Last year we published our Turing 2.0 strategy which set the direction of travel on how we will use AI and data science to pursue discoveries that will tackle some of the biggest challenges we face, from climate change, to improving the nation’s health and wellbeing, to ensuring the security of the UK and our allies as well as promoting a fair and equitable digital society and economy.

This must be accompanied by ongoing work on the models, methods and algorithms that will support us in this endeavour.

Large language models and foundation models more broadly have shown immense potential, facilitated by algorithmic advances and performance improvements in the last decade, giving rise to their widespread adoption across a wide variety of sectors. But there are still hurdles to overcome, most notably environmental sustainability, data efficiency, reliability and trustworthiness.

The Turing will explore solutions to ensure real, measurable improvements in performance and trustworthiness. This means developing new AI technology beyond the state of the art, that is not only more capable but also more efficient and reliable.

In line with our mission, we will contribute to building the nation’s AI and data science skills and promote an informed public conversation where everyone can debate the benefits and risks of these technologies.

**Implementing Turing 2.0**

Following the publication of our strategy, we set up a transformation programme to ensure the Institute is well-positioned to deliver on its vision.

A key building block to ensure success was to secure long-term funding, and in April 2024 UKRI awarded our new five-year £100M funding settlement. This is the first multi-year investment we have received since 2015, which will make a significant difference to our ability to make strategic choices for the long term.

We have also revised our corporate governance with agreement of our founding university members, providing us with more autonomy and a greater diversity in board membership representative of the wider ecosystem, recognising our organisational evolution.

We are also reviewing how we operate as the most efficient and effective partner we can be, with a clearly defined role in the ecosystem.

And we have also recently recruited four new directors to lead on crucial areas of challenge-led science and innovation.

Transforming any organisation is a challenging task, with recognition that the Turing for the next five years will look and feel different to the last five years, and we are now moving forward with renewed confidence in our ability to use AI and data science to change the world for the better.

**Looking ahead**

As we move forward, we will complete our transformation into an Institute with fewer priorities but targeting greater impact, coupling science with innovation, and therefore making the greatest contribution possible to the betterment of science and society.

We are committed to playing a convening role, bringing together expertise from across the ecosystem.

Our national reach and remit enables us to support the UK’s strategic needs, economic success and ambitions in AI, and internationally we offer a ‘front door’ to the UK’s world-class data science and AI community for partners around the world.

And we will continue to provide independent, balanced and trusted advice for government, industry and civil society, backed by strong ethical and equitable principles.

Working with our valued collaborators, partners and stakeholders across the national and international AI ecosystems, and beyond, we look forward to working together to make great leaps in the development and use of data science and AI in order to change the world for the better.

**Section 1.3
Research highlights of the year**

“The Turing is a true national centre of research and innovation in data science and AI. And through our convening ability we’re able to carry out research at scale, with a portfolio of work delivered in collaboration with industry, academic and government partners.

My vision for the coming years is to ensure the Turing generates ever greater real-world impact, laser-focused on our challenge-led programmes to generate end-to-end, interdisciplinary pathways that enable impact at scale and major progress against societal challenges.”

Professor Mark Girolami
Chief Scientist, The Alan Turing Institute

**Transforming weather forecasting with AI**

Weather forecasts dictate decisions around the globe, whether that’s our social lives, harvesting times for farmers, government preparation for storms or heatwaves, or the planning of renewable energy resources. Traditional weather forecasting relies primarily on complex numerical weather prediction (NWP) models. These have significantly improved over the past decades, but they use a lot of computing power and are not easily adapted to incorporate the increasingly rich array of data being collected from our atmosphere and oceans.

As such, there is growing interest in AI-based weather forecasting, which promises to be more computationally efficient and provide new ways to boost the accuracy of forecasts. Rather than simulating the physics of the Earth’s atmosphere like NWP models, the AI approach uses machine learning (ML) algorithms trained with vast amounts of observational data to find patterns in how weather systems evolve, and then uses this information to predict future weather conditions. This year, the Turing and the Met Office launched a groundbreaking new partnership to explore how AI can enhance weather forecasting, and the team has already developed a ML-based model for global weather forecasting – called FastNet – that is comparable in accuracy to the Met Office’s current global NWP model at forecasting atmospheric variables including temperature, humidity and pressure.

The team is now hoping to further increase the model’s accuracy and efficiency, possibly by training with output data from the Met Office’s high-resolution UK NWP model. There is also potential to combine AI weather forecasting with traditional techniques to bring out the best of both approaches, which could help to improve, for example, predictions of the extreme weather events that are increasingly threatening lives and livelihoods around the globe.

“AI has the potential to revolutionise how we forecast the weather. Our partnership with the Turing demonstrates how AI can provide accurate forecasts in a fraction of the time of traditional methods.”

Kirstine Dale
Chief AI Officer, Met Office

**Realising personalised healthcare through advanced analytics**

We are all different. This simple truth explains why the same disease can affect different people in different ways, and how the same drug can benefit one patient but not another. Data science and AI can help account for these differences to make treatment recommendations that are tailored to the individual, but only if they are built on the right methods and underlying principles. The Turing’s partnership with global healthcare company Roche, launched in 2021, is now helping establish these key building blocks for personalised healthcare.

Turing-Roche scientists are learning more about patient differences and their implications from large datasets, including Roche-owned datasets containing the details and test results of hundreds of thousands of cancer patients. Through concerted efforts to keep their findings open, this work will inform Roche’s approach to personalised healthcare but also enable other organisations working with large health datasets to tackle common problems such as combining different types of data, dealing with missing data and ensuring AI predictions made using their data are as fair to one patient group as another.

 In December 2023, Turing-Roche researchers published a Nature Medicine paper highlighting the value of an AI technique known as conformal prediction for making nuanced predictions that can guide the complex decisions involved in personalised healthcare. If used to grade a patient’s cancer, for example, conformal prediction could provide not just one answer but a range of possibilities, each with an uncertainty estimate, based on the patient’s unique circumstances and results. Similar approaches could help fine-tune decision-making in biomedical research and drug development.

The partnership is also building an active community around its work, running regular online events to share and discuss findings, and, through a Community Scholar scheme, supporting PhD scientists to engage more broadly about the research, and issues around data science and health.

“At Roche, we recognise the rapidly evolving area of AI as being of key importance to our future success. We highly value our partnership with the Turing, which gives us access to a wide range of cutting­edge experts in this area and supports our development of leading AI expertise.”

Chris Harbron
Expert Statistical Scientist and Advanced Analytics Lead, Roche

**Addressing AI vulnerabilities and misuse in defence and security**

The widespread adoption of sophisticated AI systems presents a serious and growing threat to UK defence and security. This is especially true in the area of ‘subthreshold activity’ – hostile efforts to undermine national security that are below the threshold for military retaliation. For example, generative AI can be used by adversaries to create deepfake imagery aimed at spreading misinformation, and AI systems that support national security are vulnerable to cyber-attacks and hacking.

The Turing’s Defence Artificial Intelligence Research (DARe) centre, established in January 2023 and funded by the Defence Science and Technology Laboratory (Dstl), is now working to understand and mitigate against such threats.

Working alongside The MITRE Corporation, a not-for-profit corporation performing scientific research in the public interest, DARe recently co-published two ‘playbooks’ that overview a formalised and repeatable AI red and blue teaming process that can be adopted by and applied to a wide variety of AI-enabled organisations and systems. AI red teaming is an investigative process that simulates attacks on real-world AI systems to identify vulnerabilities, while AI blue teaming’s objective is to safeguard the system from attacks and minimise any degradation in the system’s baseline functionality and performance. The playbooks make these techniques widely accessible for improving the security of AI systems.

And DARe is now developing novel technical methods to directly defend against misuse and abuse of AI. DARe researchers are creating new techniques for defending against attacks on common AI detectors for Android smartphone malware, in collaboration with King’s College London and University College London. Another DARe project with the University of Strathclyde is exploring the use of mathematical ‘signatures’ to spot suspicious anomalies in images, which may have applications for deepfake detection.

Together, this research promises to improve UK security by creating both practical guidelines and new technical tools for protecting AI systems and detecting AI misuse.

“AI is creating new opportunities for defence and security, but also new vulnerabilities. The Turing’s Defence Artificial Intelligence Research centre is helping us to understand both sides of the coin as we work to keep the UK safe in a fast-changing world.”

Glen Hart
Senior Principal Scientist, Defence Science and Technology Laboratory

**Creating a community of champions for open and responsible data science**

At the Turing, we strive to do data science and AI research that is open, ethical and collaborative, so that the outcomes benefit as many people as possible.

Since 2019, our evolving online handbook The Turing Way has supported national and international data science communities in embedding these best practices into their work. This year, we launched The Turing Way Practitioners Hub – an extension of the project that brings together data science experts from organisations across a wide range of sectors to share and address common challenges in applying the principles set out in The Turing Way.

In June 2023, we welcomed our first cohort of five ‘experts in residence’ from British Antarctic Survey, Genomics England, Office for National Statistics, Energy Systems Catapult and DigiHaul. The participants completed a six-month programme of workshops and training sessions, designed by the Practitioners Hub team to foster knowledge sharing and generate ideas that the participants could take back to their organisations. A key output from the programme was five case study reports exploring the successes, challenges and opportunities associated with the adoption of data science and AI in the participants’ sectors.

Despite the breadth of organisations, the participants discovered shared themes, such as the power of open­source methods and open data to drive innovation, and the nuances in finding a balance between privacy and openness when sensitive data is involved. The participants also highlighted the importance of institutional and executive­level buy-in for the successful adoption of new technologies and open ways of working.

The Turing Way Practitioners Hub, funded by the BridgeAI programme, is planning to welcome its second cohort of experts in autumn 2024.

“The Practitioners Hub has been a huge inspiration in showing how embracing open working methods can boost innovation and collaboration. Our company aims to maximise on these lessons to improve efficiency and reduce carbon emissions in the logistics and transport sector.”

Wenjia Tang
Project participant and Head of Data at DigiHaul

**Helping governments to develop policies that make a difference**

One of the most important roles of any government is to develop policies that will – hopefully – impact people’s lives in a positive way. Choosing exactly which policy strategies to follow, though, is a daunting task. Multiple factors will determine the effectiveness of a policy, such as the efficiency of the country’s government and how the policy interacts with other policies. An intervention to support industrial growth, for example, might negatively impact on one designed to address environmental issues.

Since 2018, the Turing’s policy priority inference (PPI) project, led by Omar Guerrero, has been developing an AI tool that incorporates these complex factors, allowing governments to estimate the outcomes of their policies in a holistic way and make informed decisions about where to invest money and resources. The user inputs historical data on their country’s development indicators, government spending and policy interdependencies, and the computational model then simulates the interactions between policy makers and central government, outputting the potential responses of the development indicators.

The tool has been adopted by governments and organisations around the world, including the State of Mexico and the United Nations Development Programme in Colombia, who are both using it to advise on policies for sustainable development. In the UK, meanwhile, PPI is in the process of being adopted by various local authorities and public health regulators, as well as national government through departments including the Treasury and the Cabinet Office. This year, the team also released a simplified version of its model as a web-based app, which will provide a way for policy makers with no coding knowledge to explore using these techniques in their work.

“This tool is exactly what we need to help governments plan and finance their path to sustainable development. In Colombia, I used it to help the national government understand the potential outcomes of its policies and how best to allocate its budget to move towards its development goals.”

Mauricio Ruiz
Project Coordinator, United Nations Department of Economic and Social Affairs

**Unlocking the benefits of synthetic data in finance**

The financial world is awash with data – data that could help solve financial crimes, make financial services safer and fairer for customers, and enable economists to gain deeper insights into the broader economy. But sharing personal information and transactions between (and even within) financial institutions comes with risks. At the Turing, researchers are working with financial regulators and multinational organisations, including high street bank HSBC and professional services company Accenture, to help them use ‘synthetic data’ to reduce these risks.

In the same way that the tools of generative AI can create text and images, synthetic data generators can create financial data. AI models trained on real-world financial data are capable of generating synthetic datasets that are statistically representative of the real datasets, even if they contain no matching data points. Turing work in this area has produced award-winning tools to help financial organisations ensure their synthetic datasets are low risk – that sensitive information in the original datasets cannot be gleaned from the synthetic versions. These tools are already being used by HSBC to help guarantee the privacy of synthetic data being shared internally, but they are also openly available, meaning they can be adopted and tailored for assuring synthetic data generation methods in other organisations and industries.

In the last year, Turing researchers sat on the Financial Conduct Authority’s Synthetic Data Expert Group, helping to produce a 2024 report outlining key applications of synthetic data in the financial sector.

Meanwhile, a collaboration with the Office for National Statistics led to the release of a synthetic version of one of its confidential census datasets, demonstrating the potential to increase the availability of data that could be valuable for policy design. Future possibilities include connecting health records and tax data, enabling policy makers to understand how people’s health affects their finances.

“The Turing’s tools can support HSBC's ‘Protect, Connect, Unlock’ strategy through the use of synthetic data. By safely sharing synthetic data with the wider analytics community, we can unlock important value from it to improve the services we offer our customers, whilst protecting their personal data.”

Oxana Samko
Innovation Research, HSBC

**Democratising access to digital twin technologies**

From designing digital tools for farming to building an AI air traffic controller, the Turing has a strong track record in digital twins – virtual ‘copies’ of physical systems, providing insights, simulation and decision support. In 2023, it cemented its role as a leader and collaborator in this space with the launch of the Turing Research and Innovation Cluster in Digital Twins (TRIC-DT), set up with £26M of investment to promote wider access to digital twin technologies and realise their benefits across three key areas: infrastructure, health and natural environment.

In the TRIC-DT’s first year, efforts to simulate individual human hearts produced a new, open-source computational tool, ‘AutoEmulate’, which is now being generalised out to speed up simulations across multiple disciplines. Collaboration with medical experts is also helping to shape the design of AI­powered software for building digital twins of patients’ hearts, which could guide clinical decisions. Researchers at Imperial College London used the Turing-created Trustworthy and Ethical Assurance platform to embed ethical practices into the development of this software. The online platform, featured in 2024 government guidance on AI assurance, was recently funded by UKRI’s Bridging Responsible AI Divides programme to extend its use in digital twins.

Internationally, TRIC-DT researchers collaborated with Australia’s national science agency, the Commonwealth Scientific and Industrial Research Organisation, to explore how novel technologies created to draw insights from climate-related data can better support developing countries. Researchers are working with partners in Vietnam, the Philippines and Indonesia to understand the impact of climate hazards on public health and the digital infrastructure and capabilities needed to respond to these challenges.

Meanwhile, the Turing became the host of a new knowledge-­sharing network for digital twins, DTNet+, funded by a £3M UKRI grant. The DTNet+ team is now matchmaking contacts across industry and academia to promote a cross-disciplinary, inclusive network that complements the work of the TRIC-DT.

“The Turing’s Trustworthy and Ethical Assurance platform has been really helpful for us as an introspection exercise. It’s like a big camera for your software development project in terms of fairness and interpretability – it ensures these important aspects are baked into the process, but without interfering with it.”

José Alonso Solís-Lemus
Postdoctoral researcher, Imperial College London

**Demonstrating the power of AI in land use planning**

The UK is facing difficult decisions about how it uses its land. A growing population is putting increasing pressure on housing and transport infrastructure, but urban development needs to be balanced with protecting the environment and ensuring energy and food security. The Turing has been exploring how data science and AI can help planners and policy makers to predict and understand the impacts of their decisions. This year, we worked with the Geospatial Commission (part of the UK government’s Department for Science, Innovation and Technology, DSIT) to trial some pioneering technology in Newcastle, England.

Turing researchers led by Dani Arribas-Bel created DemoLand – a prototype tool that uses a suite of machine learning models to simulate the effect of land use decisions on the population’s quality of life. Newcastle City Council planners fed into the design of the tool, which can be used to explore the potential impacts of different development scenarios (such as converting brownfield land into housing developments or creating new parks around the River Tyne) on four key metrics: air quality, access to jobs and green space, and house prices.

This demonstrator is not currently designed for deployment, but the team is developing it further by incorporating technology based on the large language models that power chatbots such as ChatGPT, which will allow users to ask the tool questions like, for example, “what is the impact of this scenario on air pollution near schools?”.

The researchers are also investigating using satellite imagery to speed up the process of gathering data about current land use. They plan to work with more local authorities to test the tool, with the ultimate aim of seeing data science and AI become an integral part of planning decisions across the country.

“In Newcastle, we require over 1,000 new homes per year until 2030. The success of this pilot project with the Turing has encouraged us to approach city planning in a more data-driven way, not just for predicting the impact of our decisions, but also for explaining them to residents.”

Emma Warneford
Senior Specialist in Planning, Newcastle City Council

**Section 1.4
Partnerships and collaborations**

The Turing works with a wide range of partners to help deliver our mission of changing the world for the better with data science and AI.

Here we present a selection of highlights from the past year. Further partnership achievements are covered in the ‘Research highlights of the year’ section.

**BridgeAI**

The Turing is proud to be a key partner of BridgeAI – a £100M programme funded by Innovate UK that has the mission to drive the adoption of AI across sectors of the UK economy with high growth potential for AI, including transport, construction and the creative industries.

Highlights of BridgeAI’s first year include the Turing’s AI governance team hosting a series of webinars for AI developers and adopters themed around AI standards (attended by around 1,000 people) and the recruitment of 19 Independent Scientific Advisors at the Turing, who will offer expert guidance and mentorship to organisations beginning their AI adoption journey.

BridgeAI has also funded the development of both The Turing Way Practitioners Hub and the AI Skills for Business Competency Framework.

**Data-centric engineering 2.0**

The Turing and Lloyd’s Register Foundation have embarked on the second phase of their partnership to accelerate the real-world impact of data-centric engineering (DCE) research.

Supported by a ten-year, multi-million pound investment from both organisations, phase two of the DCE programme is working across a range of research themes: digital manufacturing, critical infrastructure, marine and maritime, and humanities, social sciences and arts. The partnership seeks to drive the development of data science and AI standards for safety and sustainability, as well as foster knowledge exchange and build connectivity across the DCE community.

During the first phase of the DCE programme, established in 2015, researchers delivered and supported more than 100 projects and secured agreements in countries including Canada, Finland and Australia.

**ADViCE**

AI for Decarbonisation’s Virtual Centre of Excellence (ADViCE) is a new government­funded initiative aimed at the development of innovative AI technologies for decarbonisation applications to support the UK’s transition to net zero. Delivered by the Turing, Digital Catapult and Energy Systems Catapult, ADViCE is convening collaborators from industry, government and academia to advance AI research and products that can aid decarbonisation in four high-emission sectors: agriculture, built environment, energy and manufacturing.

In December 2023, ADViCE published a report identifying seven ‘grand challenges’ where AI could play a significant role in driving the UK’s decarbonisation efforts, including enabling net zero infrastructure, improving manufacturing process efficiency and optimising soil management. An accompanying report assesses the UK’s current research and innovation landscape for AI and decarbonisation.

**Bill & Melinda Gates Foundation**

The Turing and the Bill & Melinda Gates Foundation have renewed their commitment to bolstering trust in national digital identity systems, with the Foundation allocating over $4M for three more years to the Trustworthy digital infrastructure for identity systems programme.

Since its inception in 2020, the programme has developed in-depth knowledge of the vulnerabilities of digital identity systems, contributing to the creation of novel solutions and supporting the rollout of digital IDs across the Global South.

With renewed funding, the team aims to increase the scope of its work to include secure digital payment systems and privacy-preserving data exchange. It will also launch a Digital Identity Cyber Threats Observatory to monitor emerging threats in this space.

**Project Bluebird**

As the skies get busier, Project Bluebird is developing an advanced AI system for air traffic control. A partnership between the Turing, NATS and the University of Exeter, the project aims to help air traffic controllers manage the complexities of their role.

This year, Project Bluebird focused on its probabilistic ‘digital twin’ of the UK’s airspace – a simulation that accurately models the flight paths of aircraft across the UK. This allowed researchers to run the project’s first human-AI trials in summer 2023, in which air traffic controllers and AI agents worked together to process air traffic situations based on historical data. These trials are crucial for allowing the team to assess the digital twin and AI agents, as well as the challenges and requirements of having AI agents working side-by-side with humans.

**DSO National Laboratories**

Our partnership with DSO National Laboratories, now in its fourth year, brings together Singapore’s national defence research agency with experts from the Turing’s defence and security programme and the wider Turing community. The collaboration funds nine projects across three critical areas: counter-terrorism, combatting mis/ disinformation, and improving humanitarian aid and disaster relief efforts.

Research carried out this year includes developing methods for extracting location information from text and visual data posted by ‘citizen journalists’ on social media, with the goal of enabling faster responses to crises such as terrorist attacks. Other projects are investigating how dangerous narratives spread on social media, and how online harms can be detected in ‘low-resource’ languages such as Malay and Tamil.

**Section 1.5
Skills and training**

A core goal of the Turing is to build skills for the future in data science and AI, by providing training, guidance and expertise across sectors and career stages.

**Preparing the AI workforce**

In support of our ambition to accelerate the upskilling of the UK workforce across data science and AI, the Turing this year developed the AI Skills for Business Competency Framework, funded by the Innovate UK BridgeAI programme.

The Framework is aimed at helping organisations to understand the AI skills that their employees need, as well as helping AI training providers to maximise the impact of their workplace training schemes. The Framework defines the competencies required across areas including data protection, data management, problem solving and project evaluation. Ultimately, the goal is to grow the talent pool of AI-literate employees, enhancing the productivity and competitiveness of the UK workforce.

The Framework has already been implemented by DSIT to underpin its Flexible AI Upskilling Fund pilot, which will support SMEs by match-funding AI skills training for their employees. Work is ongoing at the Turing to support employers and training providers with the adoption of the Framework, across industry sectors.

In the same area, the Turing continues to be a member of the Alliance for Data Science Professionals – a group of societies and institutes that works to define and maintain the standards needed to ensure an ethical and well-­governed approach to data science, so that the public, organisations and governments can have confidence in how their data is used. The Alliance has developed certifications for data science professionals, and its ongoing work is informing the accreditation of data science degrees and training courses.

The Turing plays a leading role in developing the Alliance standards, drawing on our data science expertise and knowledge of the practical challenges faced by employers, based on previous policy and labour market intelligence work with the UK government. Recognition for the Alliance came this year in the form of nominations in the ‘education initiative’ and ‘not-for-profit’ categories at the British Data Awards 2024.

Another highlight of the Turing’s year was running a pilot of the Skills Policy Awards. Our Skills team awarded up to £65,000 each to four individuals working to address challenges in the UK’s data skills policy landscape. Aimed at transforming innovative research into tangible policy recommendations, the cohort of awardees worked across themes including improving data science education and strengthening specialist research infrastructure roles.

**Connecting early career researchers**

As part of AI UK 2024, the Turing organised its first Early Career Researchers Connect (ECR Connect) networking event, providing PhD students and postdoctoral researchers with a forum to showcase their data science and AI research and build connections for future collaborations. The event was part of the Turing Connections initiative, which has the goals of equipping early career researchers with the necessary skills to apply their research to real-world challenges, and fostering cross­organisational networks through links with Centres for Doctoral Training across the UK.

Held at the Queen Elizabeth II Centre in London, ECR Connect attracted 106 participants from 39 UK universities. 46% of participants were attending a Turing event for the first time, and 98% were satisfied with the event, praising “the diversity of institutions and themes explored” as well as the “relevant insights about professional development and career transitions” offered during the panel discussion.

**Introducing teenagers to data science and AI**

In July and August 2023, we delivered our first Turing Summer Experience, a work experience programme in London for 16- and 17-year-old A-level students, jointly organised by the Turing’s Widening Participation team and the defence and security research programme. The aim of the initiative was to make careers in data science and AI more appealing and accessible to teenagers from lower income socio-economic backgrounds. Research teams from across the Turing led engaging sessions on topics such as ethics, image recognition, cryptology and large language models.

Feedback was highly positive, with 86% of participants feeling confident they could get a job in data science or AI following the programme, and 84% agreeing that data science careers “are for people like me” (compared to only 46% prior to the programme). The organisers will be running further iterations of the Turing Summer Experience in London, Cardiff and Leeds in summer 2024.

“The presenters...were not only knowledgeable, but also gave excellent advice about future career paths in the industry.”

Turing Summer Experience participant

For more on our equality, diversity and inclusion (EDI) work this year, read our EDI annual report.

**Section 1.6
Working with policy makers**

The Turing works closely with policy makers, regulators and international organisations to advise on the ethics, risks and governance of data science and AI.

**A global approach to AI governance**

In February 2024, UNESCO launched the Global AI Ethics and Governance Observatory, an international collaboration between the Turing, UNESCO, the Patrick J. McGovern Foundation and the UN’s International Telecommunication Union, to address the need for a global approach to ethical governance of AI. Ethics researchers from the Turing’s public policy programme co­developed the platform, including designing its core components and visual identity, and coordinating the involvement of civil society organisations.

The Observatory seeks to promote the operationalisation of AI ethics and governance by bringing together the latest governance initiatives, expert insights and good practices from around the world. It aims to enable partnerships between academic researchers, AI ethics experts, AI practitioners, policy makers and civil society to find solutions to the most urgent ethical challenges posed by AI, with the ultimate goal of building towards an equitable AI landscape for all.

**One year of the AI Standards Hub**

The AI Standards Hub celebrated its first anniversary in October 2023. A partnership between the Turing, the British Standards Institution and the National Physical Laboratory, the Hub aims to advance trustworthy and responsible AI with a focus on the role that standards can play as governance tools and innovation mechanisms.

In its first year, the Hub has built a vibrant and diverse community around AI standards, bringing together industry, government, regulators, consumers, civil society and academia. It has reached 1,500 registered community members, and established the AI Standards Forum for UK Regulators, a working group for over 30 regulatory bodies. Alongside its searchable database covering over 350 AI standards, the Hub hosts a free training platform with seven e-learning modules, as well as multiple blogs and events on many aspects of AI standards and governance.

With a growing userbase and resources, the Hub continues to foster a shared understanding of AI standards and their role in enabling trustworthy AI systems.

**AI’s role in national security decision-making**

The Turing’s Centre for Emerging Technology and Security (CETaS) was this year commissioned by the Joint Intelligence Organisation and GCHQ to conduct research on how AI could support strategic decision-making on national security.

As part of this project, CETaS worked with partners across the UK’s security policy community to test via a tabletop exercise how a group of senior national security decision-makers would respond to AI-based intelligence reporting – the first time such a study has been conducted.

The project report finds that AI has the potential to make transformational improvements in intelligence analysis by supporting analysts to process data more quickly and accurately. However, the researchers also caution that AI could exacerbate known risks in intelligence work such as bias and uncertainty, calling for additional guidance for those using AI within national security decision-making.

“We will carefully consider the findings of this report to inform national security decision-makers to make the best use of AI in their work protecting the country.”

Oliver Dowden
Deputy Prime Minister (2023-2024)

**Investigating gender inequality in AI investment**

The Turing’s Women in data science and AI team works alongside policy makers and industry stakeholders to increase the participation of women in these fields.

This year the team launched two reports analysing gender diversity in AI-focused venture capital investment in the UK. Venture capital plays a crucial role in technological innovation by shaping the growth trajectory of early-stage companies, but the researchers found that female-founded companies account for under 3% of venture capital funding deals involving AI startups. This gender gap is particularly stark in the AI software sector, where only 0.7% of the total capital invested since 2010 has gone towards female-led startups.

The reports provide a number of recommendations for improving access to venture capital funding for women-led AI businesses in the UK, including calling for investors to ringfence capital specifically for female and other underrepresented entrepreneurs.

**Section 1.7
Public engagement**

The Turing engages with the public in a variety of ways, from lectures and events to surveys and collaborative research projects.

**The Turing Lectures**

The Turing partnered with the Royal Institution for a second year to deliver a three-part series on generative AI, with lectures from Turing researchers Mirella Lapata, Mhairi Aitken and Michael Wooldridge.

We extended our reach – welcoming over 1,600 people in-person and online – as well as diversifying our audience. 20% were first-time Turing Lecture attendees, whilst 37% were from non-academic backgrounds.

The three lectures have been viewed over 600,000 times on our YouTube channel, thanks in part to the profile of Michael Wooldridge, who also delivered the 2023 Royal Institution Christmas Lectures.

**London Data Week**

Developed in partnership with the London Office of Technology and Innovation (LOTI), London Data Week invites members of the public to join a week of conversations, exhibits and workshops exploring how we might use data to shape our cities and our lives for the better.

The 2023 instalment saw the Turing, LOTI and the Greater London Authority work with organisations across London – including the Open Data Institute, Royal Statistical Society and Science Gallery London – to host 18 events, from cycling challenges to comedy shows.

Connections made at London Data Week have since sparked new projects, including work by Newham Council to develop fairer data practices. The success of the event has led us to aim for an even more ambitious programme in 2024.

**A barometer for public opinion**

In 2022, the Turing partnered with the Ada Lovelace Institute to carry out a nationwide survey of people’s attitudes towards AI. We asked 4,000 participants questions about 17 key technologies, including facial recognition, tools for assessing cancer risk, chatbots and climate change simulations.

The results, published in a report this year, present a nuanced picture, suggesting that people see clear benefits for some technologies, particularly where they relate to health, science and security, but are concerned about others, such as AI tools for assessing job applications, and autonomous cars and weapons. Overall, 60% of the British public support ‘laws and regulations’ to guide AI’s use. The report’s findings were discussed at a meeting of the All-Party Parliamentary Group on AI in June 2023.

The partnership is now developing a second survey to gauge public opinion amidst the surge in interest in generative AI, and to more closely examine the perspectives of groups that could be negatively impacted by how AI is applied.

**Navigating neurodiversity**

Most autistic people have sensory processing differences that mean they experience the world differently to neurotypical people. The Turing is working to improve understanding of these differences and how they affect autistic people through collaborative work with Autistica, the autism research and campaigning charity, and its networks.

Together with the autistic community, we are developing an online platform, AutSPACEs, for collecting and sharing people’s experiences of sensory differences. As well as enabling autistic users to learn from each other, AutSPACEs can inform scientists’ and neurotypical people’s understanding of autism, and the design of public spaces – like trains or offices – to help make them better suited to neurodiverse societies.

Ethical approval and user testing of the platform have been completed, and Turing researchers recently published a study about their approach to co-creating the platform’s content moderation policy, the findings of which could be valuable to others collaborating with special interest groups.

“AutSPACEs has a way of shaping, evolving and creating opportunities for the many not the few. Together we can make such a difference as we grow, in line with our values and aims, and with the trust that we have developed.”

Otis Smith
AutSPACEs project team member and Facilities Assistant, The Alan Turing Institute

**Listening to children’s views on AI**

Since 2022, the Turing has been engaging with children aged 7 to 12 in schools across Scotland to find out what they think about AI and how they would like to see AI developed in the future.

The project – a collaboration with Children’s Parliament and Scottish AI Alliance – has this year focused on running classroom workshops with decision-makers (including AI developers, educators and NHS doctors) and artists to explore how children can become more involved in shaping AI innovation, policy and governance. In March 2024, the children shared their key messages from the project so far in panel sessions at the Scottish AI Summit in Edinburgh and AI UK 2024 in London.

Alongside this engagement work, the Turing team has been collaborating with the Council of Europe’s Steering Committee for the Rights of the Child to conduct a mapping study of member states’ existing legal frameworks relating to AI and children’s rights.

**Section 1.8
The Turing as a convener**

Our unique position in the data science and AI landscape means that we can bring experts together across academia, industry, government and civil society.

**AI UK 2024**

The Turing’s annual showcase of AI research and innovation returned to London’s Queen Elizabeth II Centre in March 2024. Another jam-packed programme of talks, demonstrations, workshops and fringe events drew delegates from 28 different countries.

Sessions included a discussion on funding for female-led AI startups, with Google DeepMind’s Dorothy Chou, and workshops on sustainable cities and AI safety. We also welcomed the UK government’s Chief Scientific Adviser, Dame Angela McLean, as a keynote speaker.

One new feature of this year’s two-day event was the Turing Hub space, which was designed to facilitate networking and played host to eight ‘Long Table’ sessions for dinner party-style debate centred on AI.

Meanwhile, at PitchFest, researchers pitted their presentation skills against each other, with experimental psychologist Trisevgeni Papakonstantinou taking top honours for her talk ‘Why facts don’t change minds’.

**A growing Turing University Network**

Our Turing University Network now has 65 members from across the UK following an expansion in October 2023. Through Turing-coordinated activity, this network provides a structure for UK universities with an interest in data science and AI to create meaningful connections with the Turing, each other, and the broader data science and AI landscape. We hope to announce a new call for members in late 2024 as we continue to grow the network.

**Over 50 new Turing Fellows**

We also welcomed 51 new Turing Fellows from across our research networks, with expertise spanning areas as diverse as evolutionary studies, human genetics, the future of cities and biodiversity loss. The Turing Fellowship scheme – which has been refreshed to align with the Turing’s strategy – provides the Turing with research excellence to support our three overarching goals, and aims to boost the UK’s data science and AI ecosystem by supporting, retaining and developing the careers of the next generation of world-leading researchers.

**Identifying opportunities for AI in government**

Ensuring policy makers understand the exciting opportunities offered by AI was our goal when we held an event at the House of Lords in February 2024.

 The event, hosted by Baroness Nicola Blackwood-Bate, discussed benefits from increased public sector productivity and better government decision-making through to advancements in weather prediction and life-saving innovations in healthcare. Guests quizzed an expert panel featuring the Minister for AI and Intellectual Property, Met Office Chief Scientist Stephen Belcher, the University of Oxford’s Lionel Tarassenko and the Turing’s Helen Margetts and Andrew Duncan.

Panellists also discussed work carried out by the Turing’s five-year AI for science and government programme, run in partnership with EPSRC through an investment of nearly £40M. The programme’s final report was published at the event, detailing its work to address significant societal challenges through data science and AI.

**Advising on the use of facial recognition in policing**

AI-powered facial recognition technology can help police forces to quickly identify suspects and victims from images, but it also comes with technical, legal and operational risks around validity, bias, privacy and accuracy. Our safe and ethical AI programme, in collaboration with CETaS, has been exploring how this technology can be used in a responsible and proportionate way.

In October 2023, the Turing convened a workshop with the Metropolitan Police on the topic of evaluating the use of live facial recognition, which discussed the importance of considering both technical and legal perspectives when developing guidelines on when and how facial recognition should be used. The findings of this workshop formed the basis of written evidence that we provided to the House of Lords Justice and Home Affairs Committee’s investigation into live facial recognition and policing.

“The Turing’s convening power allows us to bring together experts from diverse backgrounds to develop a holistic picture of how AI can be used responsibly in policing and national security contexts.”

Marion Oswald
Senior Research Associate in Safe and Ethical AI, The Alan Turing Institute

**Joined-up thinking on health research**

Increasing numbers of people live with multiple long-term conditions (MLTC) – chronic, co­occurring health issues. Using AI to understand why certain chronic conditions group together and how to treat them is the focus of the National Institute for Health and Care Research’s AI for multiple long-term conditions (AIM) programme, which brings together academic and public health partners through seven projects, each tackling a specific aspect of this complex topic. Working across these projects, the AIM programme's Research Support Facility (RSF), based at the Turing in conjunction with Swansea University and the University of Edinburgh, is providing data science expertise and community-building efforts to increase collaboration and the sharing of common problems and solutions.

This year, the RSF provided custom data science training for early career AIM researchers, and hosted seminars and a conference for the AIM community. A new partnership with an established patient group is also now opening up dialogue between researchers and people living with MLTC to help explore how AI could improve patients’ lives.

**Section 2
Trustees’ and strategic report**

The financial statements comply with the Charities Act 2022, the Companies Act 2006 and the Statement of Recommended Practice (SORP) applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK (FRS102) effective 1 January 2019 (Charity SORP 2nd Edition).

The Alan Turing Institute (the “Charity”) is a charity registered in England and Wales at the Charity Commission with charity number 1162533. It is a company incorporated in England with company number 09512457 limited by guarantee. The Charity is governed by its Articles of Association dated February 2024 (the “Articles”) and a Joint Venture Agreement with the Members dated February 2024 (the “JVA” and together with the Articles referred to herein as the “Constitutional Documents”).

**Key management personnel**

**Directors/Trustees**

The Directors of the Charity are registered at Companies House. The Directors are also the Trustees of the Charity for the purposes of charitable law and throughout this Report are collectively referred to as the “Trustees”.

The Trustees serving during the relevant year were as follows:

Dr Douglas Gurr (Chair)

Baroness Nicola Blackwood-Bate (retired 31 August 2023)

Professor Frank Kelly

Professor Richard Kenway

Professor Kerry Kirwan

Dr Vanessa Lawrence CB

Professor Thomas Melham

Carina Namih

Professor Geraint Rees (appointed 13 October 2023) replacing Professor Patrick Wolfe (retired 29 September 2023)

Hitesh Thakrar

Dr Neil Viner (retired 31 August 2023)

**Executive Leadership Team (as at 31 March 2024)**

Dr Jean Innes
Chief Executive Officer

Jonathan Atkins
Chief Operating Officer

Professor Mark Girolami
Chief Scientist

Wayne Orr
Interim Director of Finance and Facilities

Clare Randall
Director of People

Emily Teller
Interim Director of Communications and Engagement

**Registered Office**The British Library
96 Euston Road
London, NW1 2DB

**Auditors**Moore Kingston Smith LLP
Chartered Accountants
6th Floor, 9 Appold Street
London, EC2A 2AP

**Bankers**Barclays Bank UK PLC
Leicester
Leicestershire, LE87 2BB

**Solicitors**Bates Wells
10 Queen Street Place
London, EC4R 1BE

Mills & Reeve
24 King William Street
London, EC4R 9AT

**Structure, governance and management**

**Our legal structure**

The Charity was founded in March 2015 as a registered charity and a company limited by guarantee. The Charity is governed by its Articles of Association that were adopted on incorporation on 26 March 2015 and updated on 08 February 2024, and a Joint Venture Agreement with the Founder Members signed on 31 March 2015 and updated on 08 February 2024.

The Constitutional Documents set out the governance of the Charity. The Members have some reserved matters while the Board’s authority is broadly in line with that of the Companies Act.

**Purpose of the Charity and main activities**

As the national institute for data science and artificial intelligence, the charitable objects of the Charity, as set out in its Articles of Association, are:

“The Charitable Object of the Charity is the furtherance of education for the public benefit, particularly through research, knowledge exchange and public engagement, in the fields of data sciences.”

The Charity has power to do anything which furthers its charitable objects.

The Charity is now working towards delivering its new strategy for the next five years. This involves the Charity, amongst other things, providing an end-to-end, interdisciplinary pathway in data science and AI that enables impact at scale and drives major progress against societal challenges. The following four actions have been identified as key to delivering the new strategy:

– Becoming challenge-led: transitioning towards a challenge-led approach to science and innovation, introducing a new focus on translating research excellence into societal impact and broader UK commercial success.

– Advancing foundational research: supporting our challenge-led approach by maintaining and developing the foundations of world-class data science and AI research.

– Targeting skills and talent gaps: reinforcing our existing skills and training programmes and concentrating our efforts to fill gaps in the talent pipeline, encouraging the effective transfer of skills across academia, government and the third sector.

– Providing expert advice: giving trusted advice for the good of society, distilling high-profile, fast-moving and complex developments in data science and AI into research-backed recommendations. We will also enable the use of data science and AI to improve policy-making and the delivery of public services.

The Trustees confirm that they have paid due regard to the Public Benefit Guidance published by the Charity Commission, including the guidance – ‘Public benefit: running a charity (PB2)’, in undertaking their activities.

**Related parties**

The Charity’s Members are the Engineering and Physical Sciences Research Council (“EPSRC”) and the Universities of Cambridge, Edinburgh, Oxford, Warwick, and University College London (“UCL” and collectively the “Members”). The Charity along with the Members have entered into the JVA which establishes, along with the Articles, the basis on which the Charity operates.

The Charity has a wholly owned subsidiary, incorporated in England and registered at Companies House: Turing Innovations Limited, with company number 10015591 (“TIL” and together with the Charity referred to herein as “Turing”). TIL has a minority shareholding in Quaisr Limited, a private limited company with company number 12704209 incorporated in England and registered at Companies House.

**Board composition and responsibilities**

The Charity is governed by its Board of Trustees. The Board was established in accordance with the terms of the Constitutional Documents.

Under the Constitutional Documents, each Founder Member has the right to have one Trustee on the Board. While a Founder Member may nominate a shortlist of individuals subject to the skills requirements of the Board, the Board has the decision-making authority for such appointments.

The Board of Trustees may appoint additional Trustees to the Board who are not from the Founder Members (“Independent Trustees”) through an open and transparent process ensuring the Independent Trustees maintain at least parity of number with the Founder Member-nominated Trustees on the Board.

With regard to decision-making on the Board, in case of deadlock, the Chair of the Board of Trustees, an Independent Trustee, has the casting vote.

The Board of Trustees may, by a supermajority decision, select and appoint an Independent Trustee who acts as Chair of the Board, and may from time to time remove such Independent Trustee by a simple majority decision.

**Organisational management and responsibilities of the Board**

The Charity’s Board of Trustees is responsible for setting the aims and strategic direction of the Charity, approving key policies, monitoring risks, approving the annual budget and expenditure targets, and monitoring actual and forecast financial results.

Trustees meet formally as a Board up to five times a year. In addition, Trustees normally attend up to two away days with the Executive Leadership Team and the Senior Management Group and undertake further meetings as and when needed.

The Executive Leadership Team and the Senior Management Group provide Trustees with regular reports on the Charity’s financial position, current activity, organisational news and significant issues affecting the Charity. The Directors of the subsidiary company also provide the Trustees with regular update reports following their Directors’ meetings.

The Executive Leadership Team, led by the Chief Executive Officer (“CEO”) and supported by the Senior Management Group, is responsible for the day-to-day management of the Turing’s operations and activities. The Executive Leadership Team and the Senior Management Group are also responsible for implementing strategy and corporate policies and reporting on performance to the Board.

**Committees of the Board**

Three formal committees support the Board. Each committee has processes in place for managing any conflicts of interest that arise.

**Audit and Risk Committee (“ARC”)**

ARC is responsible for audit, finance and risk management, as well as reviewing the effectiveness of the Turing’s internal control framework and risk management process, and its compliance with reporting requirements. This also includes matters relating to data protection, cyber security, serious incident management, safeguarding, and health and safety, amongst other things. ARC reports to the main Board on these particulars. It monitors the work of external auditors and receives and reviews audit reports. It monitors the full external audit process and resulting financial statements, including overseeing the terms of appointment of the external auditors.

Membership:
Hitesh Thakrar (Chair)
Professor Kerry Kirwan
Stephane Maikovsky (Independent member/non-Trustee)

**Nomination and Governance Committee (“NomCo”)**

NomCo supports the Board in the recruitment of new Trustees, membership of the committees of the Board, as well as succession planning and reviewing the annual governance report against the Charity Governance Code.

Membership:
Dr Vanessa Lawrence CB (Chair)
Professor Richard Kenway
Professor Thomas Melham

**Remuneration, EDI and People Committee (“REPCo”)**

REPCo advises the Board and oversees the preparation of policies and procedures in respect of salaries, emoluments and conditions of service. In line with these approved policies and procedures, the committee approves the total remuneration package for the Chair of the Charity, the CEO and those senior staff reporting directly to the CEO. The criterion for setting pay is the market rate, taking into account industry standards.

REPCo also has oversight of equality, diversity and inclusion (“EDI”), which includes review and challenge of the EDI strategy and action plan.

Membership:
Carina Namih (Chair)
Professor Frank Kelly
Professor Richard Kenway
Hitesh Thakrar

**Advisory groups**

Other advisory groups are set out below.

The Joint Venture Agreement, during the year and prior to the amendments made in February, included the following two advisory groups:

**Research and Innovation Advisory Committee**

This group advised the Institute Director and Chief Executive on strategic aspects of the Charity’s research and innovation activities, including support with research and training programmes and reporting appropriately to the Charity’s stakeholders. With the changes in the Charity’s Joint Venture Agreement, this group has been stood down whilst we continue to review the appropriate advisory structures to support the delivery of the strategy. This remained under review by the Board of Trustees at the end of the financial year.

**Scientific Advisory Board**

This is intended to be an independent group made up of international experts in academia, industry and government, which provides strategic advice to the Charity’s Board of Trustees and the Executive Leadership Team on the development and implementation of the scientific research strategy. This group was stood down by the Board in 2021-22, with a view to reconstitution after the new strategy was launched in this financial year. This remained under review by the Board of Trustees at the end of the financial year.

Other advisory and liaison groups:

**Strategic Partners Board**

This group advises the Board of Trustees on the content and translation of research generated at the Charity and is intended to collaborate across the Charity and its partners to identify new opportunities.

**Recruitment and appointment of Trustees**

Up until the revisions to the Constitutional Documents in February 2024, NomCo aimed to undertake an open recruitment process, recommending new candidates for appointment when necessary and ensuring appropriate recruitment and succession plans were in place for Independent Trustees. Following the revision of the Constitutional Documents in February 2024, the remit of NomCo was extended to cover the recruitment of all Trustees, including recommending the appointments of successful Founder Member­nominated Trustees to the Board as further described above.

In October 2023, Professor Geraint Rees was appointed as the Founder Member-appointed Trustee for UCL, replacing Professor Patrick Wolfe who had reached the end of his tenure. This appointment followed the process set out in the old 2015 constitutional documents. No further Trustee appointments were made during 2023-24.

Upon appointment, each Trustee completes a declaration of interests form, which is held within a register of interests and is monitored and updated on a regular basis and reviewed annually. Trustee-related party transactions are disclosed in greater detail within the financial statements later in this report. All conflicts are actively managed through early identification of potential areas of conflict and appropriate action taken where necessary.

Each new Trustee undergoes a tailored induction programme, which includes a programme of meetings with the members of the Executive Leadership Team and relevant members of the Senior Management Group and other Trustees. New Trustees are provided with a Trustee Information Pack which includes initial information about the Charity and its work, a copy of the previous year’s Annual Report and accounts, a copy of the Charity’s Articles of Association, a copy of the Joint Venture Agreement, information about their powers as Trustees of the Charity, key corporate policies and a copy of the Charity Commission’s guidance – ‘The essential trustee: what you need to know’. This information is also accessible by the Trustees on the Turing’s Board portal system, and new Trustees are offered an induction on the platform.

**Financial review**

The Charity and its subsidiary Turing Innovations Limited (together referred to as the “Group” in the consolidated financial statements) are funded through grants from Research Councils and from strategic and other partnerships.

Income of £45m (2022-23: £52.5m) has been received during the year of which £20.4m was received from Research Councils (2022-23: £31.2m), £11.4m from strategic research partners and other research partnerships (2022-23: £14.2m), £12.9m from other trading activities and investment income (2022-23: £6.9m), and £0.3m (2022-23: £0.2m) from donations.

Of the £20.4m received from Research Councils, £18.7m was awarded by EPSRC and includes £10m to cover core operating costs for the year 2023-24; £5m to develop AI and digital twins to address the biodiversity and climate crisis; and £3.5m to specific research programme activities including funding for the Turing-sponsored fellowships programme and prosperity partnerships.

The £12.9m of other trading income and investments comprises £10.3m of income generated by Turing Innovations Limited which holds the defence and security commercial partnership; £1.3m of investment income; and a further £1.3m of other trading income.

Expenditure of £53m (2022-23: £47.3m) has been incurred in the year. Grants payable to partner institutions represent 25% of total expenditure (2022-23: 24%). Staff costs represent 55% (2022-23: 48%) of total expenditure, increasing from £22.6m in 2022-23 to £29.1m in 2023-24. The remaining 20% (2022­23:28%) of expenditure covers support costs and other direct costs.

The Group made a deficit of £7.9m (2022-23: surplus of £5.2m). The table below shows the breakdown of the deficit. £8.5m of the deficit was generated by net expenditure incurred on designated project activities, effectively spending income received by EPSRC and other funders from earlier years and utilising reserves set aside for designated purposes. During 2023-24, £5m was funded by designated grants receivable from EPSRC. 2023-24 saw a deficit on operation activities of £0.6m. The deficits were offset by a surplus of £0.2m from restricted partner fund activities and a £1m surplus from Turing Innovations Limited.

Year ended 31 March 2024
All figures are £m
Columns: General Fund, Designated Funds, Restricted Partner Funds, Charity, Turing Innovations Limited, Group

Income 13.8 5.0 15.9 34.7 10.3 45.0

Expenditure 14.5 13.6 15.6 43.6 9.3 53.0

(Deficit)/surplus (0.6) (8.5) 0.24 (8.9) 0.98 (7.9)

Group net assets as at 31 March 2024 are £38.3m (2023: £46.3m).

Fixed assets increased by £1.2m to £2.7m. During the year, £0.5m was spent on computer equipment, £0.2m on fixtures and fittings/ leasehold improvement, and £1.2m on developing our new Enterprise Resource Planning (ERP) tool. The additions were offset by £0.7m of depreciation charges in the year.

Current assets: debtors are £15.1m (2023: £10.6m) and include trade debtors of £5.3m (2023: £4m) representing amounts due from our strategic and commercial partners; and prepayments and accrued income of £9.8m (2023: £6.6m), which includes £6.3m of accrued income from EPSRC. Cash and current asset investments were £34.6m (2023: £50.5m). The high levels are largely due to the upfront nature of cash receipts on many of the Charity’s grant awards. Current asset investments include £5m held in an interest bearing 95-day notice account with Barclays, £19m held in UK Treasury Bills and £5m invested in a Certificate of Deposit.

Creditors: amounts falling due within one year are £14m (2023: £16.2m). Included in this figure are grant creditors of £6.6m which were £1.6m lower than last year, driven by the conclusion of the two Strategic Priorities Fund programmes (AI for Science and Government and Living with Machines). Accruals and deferred income were £4.4m which is £1.4m lower than last year, predominantly driven by a decrease in accrued project expenditure. Trade creditors and other creditors are £0.8m higher than last year.

**Going concern**

The Trustees have assessed whether the use of going concern basis is appropriate and have considered possible events or conditions that might cast significant doubt on the ability of the Charity to continue as a going concern. The Trustees have made this assessment for a period of at least one year from the date of the approval of these financial statements.

In particular, the Trustees have considered the Charity’s forecasts and projections and have taken account of pressures on income. After making enquiries, the Trustees have concluded that there is a reasonable expectation that the Charity has adequate resources to continue in operational existence.

The Charity therefore continues to adopt the going concern basis in preparing its financial statements.

**Fundraising**

The Charity does not engage in fundraising activities with the general public. Costs of raising funds in the financial statements relate to sourcing of new institutional funders.

The Charity does not use third parties to assist with fundraising and the Charity received no complaints in this year regarding its fundraising practices.

**Treasury Management Policy**

Treasury management activity monitors the timing and amounts of cash inflows and outflows, in particular monitoring and tracking those activities that result in significant cash movement.

The Treasury Management Policy is confined to the management of short- to medium-term liquid funds (maximum investment term is 18 months).

Assets are protected by investing with approved counterparties. Investments are risk-­averse and non-speculative, and the Charity places no income reliance on interest earned.

**Grant-making policy**

The Charity’s grants will be subject to outputs being appropriately recorded and assessed.

Data held will be in line with the grant guideline requirements issued by UKRI.

Fundamental principles have been established and adopted by the Charity. These are as follows:

– The Charity will award grants that are in line with the charitable objects of the organisation.

– The Charity intends to assess grants biannually to ensure compliance with the terms of the grant.

– The Charity expects to assess the progress of each grant within three months of the end of the grant period.

**Reserves policy**

The Charity reviews its unrestricted reserves policy each year, taking account of its planned activities and the financial requirements for the forthcoming period. The Trustees believe that the Charity should have access to reserves appropriate to the scale, complexity and risk profile of the Charity.

To cover any shortfall in grants and to maintain the financial viability of the Charity, reserves are currently set at the equivalent of a minimum six months of anticipated operating costs, which amounts to approximately £8.2m as at 31 March 2024.

In August 2023 an award of £10m was made by EPSRC to cover core operating costs for the current financial year. The award includes funding to cover the annual rental costs for leasehold space occupied by the Charity in The British Library’s St. Pancras building.

The Charity’s unrestricted Fund as at 31 March 2024 was £26.5m (2023: £34.1m). This includes £5m (2023: £nil) of funding held to cover future years’ financial commitments; and £1.1m (2023: £1.1m) of funding held to cover capital commitments contracted and capital commitments authorised but not contracted.

Included in general reserves are the following designated funds: £0.8m (2023: £1.2m) for the Charity’s safe and ethical AI programme; £2.3m (2023: £nil) to support a pioneering new initiative in digital twin research and innovation (TRIC-DT); £1.2m (2023: £nil) to fund a collaboration between the Charity and the Met Office; £0.8m (2023: £nil) funding for the Transformation and Strategic Goals Programme to enable the organisational change required to deliver Turing 2.0; and £5.5m (2023: £10.9m) Out of Budget/Cycle Funding whose purpose is to fund research project activities that will allow the Charity to progress its Turing 2.0 vision. This leaves £9.8m of free reserves (2023: £14.1m). The amount in excess of that called for in our reserves policy (as stated above) will be made available to support the Institute’s charitable objectives.

As at 31 March 2024, the Charity holds £10.9m (2023: £10.2m) of restricted reserves.

**Remuneration policy**

The Charity is committed to ensuring a proper balance between paying staff (and others who work for the Charity) fairly to attract and retain the best people for the job with the careful financial management of the charitable funds. REPCo oversees the overall remuneration of staff and specifically that of the Chair, the CEO and those senior managers reporting directly to the CEO. REPCo is also responsible for overseeing general aspects of remuneration within the Charity through oversight of appropriate policies and procedures in respect of salaries, emoluments and conditions of service.

Formal consideration of remuneration matters takes place annually, usually at REPCo’s March and July meetings. However, remuneration matters may also be considered at other meetings if ad hoc issues arise during the year.

Depending on the policies of the Board, REPCo does not have full delegated authority to approve all matters relating to remuneration, and any recommendation or decision requiring such approval must be agreed by the Board.

The Charity discloses all payments to Trustees and the number of staff with a total remuneration of £60,000 and above, in accordance with the Charity Commission’s Statement of Recommended Practice 2019 (SORP).

**Streamlined Energy and Carbon Reporting (SECR)**

Annual energy usage and associated annual greenhouse gas emissions are reported pursuant to the Companies (Directors’ Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 that came into force on 1 April 2019.

The energy use and associated greenhouse gas emissions reported in the table below are for The British Library’s St. Pancras building, in which the Charity occupies 2,305 square metres of space out of a building total of 128,125 square metres. It is not possible to disaggregate our energy usage and emissions from that of the whole building.

The annual reporting period is 1 April to 31 March each year and the energy and carbon emissions are aligned to this period. The electricity and gas consumption figures were compiled by The British Library from invoice records. Emissions per square metre floor area is reported to reflect the energy efficiency of the building.

Breakdown of energy consumption used to calculate emissions (kWh):

Energy 2024 2023 2022

Gas 4,891,068 5,091,507 5,257,272

Purchased electricity 14,244,940 14,729,298 13,070,918

Total energy 19,136,008 19,820,805 18,328,190

Breakdown of emissions associated with the reported energy use (tCO2e):

Emission source 2024 2023 2022

Scope 1

Gas 894.7 929.4 962.9

Scope 2

Purchased electricity 2,949.8 2,848.4 2,775.4

Total gross emissions 3,844.48 3,777.75 3,738.3

Intensity ratio

Tonnes of CO2e per square metre floor area

0.030 0.029 0.029

**Reasonable adjustments policy**

During the year, the Charity maintained its policy of giving full and fair consideration to applications for employment made by disabled people. The Charity is committed to continuing employment and training of employees who become disabled and to the training, career development and promotion of all employees.

**Risk management**

Significant risks to which the Turing is exposed are reported formally to the Audit and Risk Committee and the Boards of both the Charity and TIL via the Turing’s corporate risk register.

The Turing has a formal risk management framework, reviewed by the Audit and Risk Committee and Board during the year, which is embedded within the business and supports the identification and management of risk across the Turing. The Executive Leadership Team and the Senior Management Group are responsible for managing and reporting risks in accordance with the Turing’s Risk Management Policy, while the Trustees retain overall responsibility for risk management of the Charity.

The risk management framework incorporates categories of risk which cover generic areas such as funding and growth, compliance and governance, security and controls, and brand and reputation. The Board seeks to ensure that the risks are mitigated, as far as is reasonably possible, by actions taken by the Executive Leadership Team and the Senior Management Group.

The main risks faced by the Turing are captured on the corporate risk register, which is regularly reviewed by the Board and the Audit and Risk Committee. A summary of the key risks is included here.

**Risk description**Sources of funding for the Turing continued to be under review during the year.

**Risk mitigation**The risk to the long-term funding sustainability of the Turing has been significantly mitigated for the mid-term with the successful conclusion of the quinquennial review (QQR) and the investment of £100m over five years for the Charity.

Prudent financial management of the Turing continues to be a key risk mitigation, enabling it to react to changes in external funding in a controlled manner.

**Risk description**Failure to comply with legal and charity commission requirements such as data protection, serious incident reporting, National Security and Investments Act (NS&I) and export regulations.

**Risk mitigation**Continued to provide the necessary control environment during the year with policies, procedures and guidance documents in place to support the business.

**Risk description**UK AI landscape increasing in complexity.

**Risk mitigation**The vision of the Charity is clear with the focus on delivering against the priorities identified in the strategy.

**Risk description**Transition risk – potential for loss of talent (including staff/researchers) limiting the ability to deliver the strategy.

**Risk mitigation**During 2023-24 the Turing has been transitioning to the strategy of delivering against the grand challenge areas.
This requires a period of change which can often impact on the retention and wellbeing of staff. Support is being provided to staff in terms of regular communications, staff surveys and regular signposting to support services.

**Risk description**Loss of, or inappropriate handling of, the Turing’s data.

**Risk mitigation**Robust security processes in place, both physical and virtual.
Horizon scanning and maintaining awareness of risks from external actors.

**Risk description**AI applications developed by or in partnership with the Turing being used for malicious or unintended purposes.

**Risk mitigation**Strengthened and adequately resourced ethics and research integrity review processes are in place, including the first full year of the research ethics process which is now operational across the business.
Horizon scanning and maintaining awareness of risks from external actors.

**Section 172 Statement**

The Board of Trustees is aware of its duty under s.172 of the Companies Act 2006 to act in the way which it considers, in good faith, would be most likely to promote the success of the Charity for the benefit of its members as a whole.

In this section, you will find examples of how we have considered our stakeholders when making decisions during the year. The Board has a duty to promote the success of the Charity for the benefit of the members, whilst also having due regard for the interests of our colleagues, the success of our relationships with suppliers and customers, and the impact of our activities on the wider community. The considerations of our stakeholder groups are integral to our decision­making. However, where decisions taken may adversely impact a particular stakeholder group, we will always endeavour to treat them fairly.

**1. Members**

**Board considerations**

All Board decisions are made to further the success of the Charity for the long-term benefit of its members and stakeholders.

**Annual report and accounts**

Whilst we have statutory obligations to provide certain information in our annual report, we try to present this in an engaging and understandable way. We also look to enhance our sharing of information during the year through the content made available on the Turing’s website.

**Founder Member approvals**

During the year, the Members were asked to approve certain matters which were reserved to them under the Constitutional Documents. This includes the approval of changes to the Constitutional Documents, which were approved by the Members and implemented in February 2024.

**2. Colleagues**

**Board considerations**

The Trustees receive regular qualitative and quantitative updates on employee matters from the Director of People, who attends Board and Remuneration, EDI and People Committee meetings, including analysis received through employee engagement surveys, regular EDI updates and an annual update on the performance review and performance related pay process. This provides the Board with oversight of the effects our people engagement has on our performance and the continued strength of our culture.

**Equality, diversity and inclusion (EDI)**

The Turing recognises that promoting and embedding EDI in our function as employer, research institute and national body is integral to achieving our mission. Examples of outputs during the year include:

– Turing Advance programme: internal learning and development programme to support progression of those from underrepresented groups.

– Support for the Turing’s four EDI Network Groups.

**Employee remuneration and recruitment**

The Remuneration, EDI and People Committee agreed to implement a cost of living increase for all employees of 3%, to be effective from 1 April 2024.

**3. Customers and suppliers**

**Board considerations**

The Trustees recognise the existence of key external stakeholders both nationally and internationally (general public, Founding Members, university partners, strategic and commercial partners, government agencies, public health bodies, charitable foundations, customers and suppliers).

The Trustees remain committed to effective engagement of all stakeholders and are mindful that the Turing’s success depends on its ability to engage effectively, work together constructively and to take stakeholder views into account when taking decisions.

**Trusted research status with national and international convening power**

The Turing is unique in having the capability to convene the data science community both nationally and internationally. Examples from the year include:

– Launch of the Global AI Ethics and Governance Observatory in association with UNESCO.

– Launch of expanded Turing University Network.

**Training and skills development**

The Turing has continued to improve its training and skills development opportunities. An example from the year:

– BridgeAI programme funded by Innovate UK: the Turing provides independent scientific advice to companies in the transport, construction, agriculture and creative industry sectors who are encountering challenges associated with AI adoption. This includes the delivery of online training tools, advice and bespoke training targeted to the needs of BridgeAI participating organisations.

**Advising the public sector**

The Turing has provided guidance and overseen many research projects dedicated to using data science and AI to inform policy-making and improve public services, as well as building ethical foundations for the use of these technologies in the public sector. An example from the year:

– DemoLand: developing machine learning-based models for urban land management that predict the impacts of large-scale planning and land use changes on the population.

**London Universities Purchasing Consortium (LUPC)**

In 2020, the Charity became a member of the consortium, whose aim is to achieve value for money for its members in their procurement of goods and services.

**Stakeholder liaison meetings**

During the year, the Turing worked closely with its customer stakeholder groups across academia, industry and government, including:

– Strategic Partner Board meetings.

– Regular meetings with UKRI/EPSRC.

– Regular engagement with universities.

– Hosting the fourth annual AI UK showcase.

– Regular liaison with the member representatives including agreeing the changes to the Charity’s Constitutional Documents.

**4. Community and environment**

**Board considerations**

The Trustees fully appreciate the impact the Turing has on the community in which it operates and that this is a critical factor in its ongoing success as the national institute for data science and AI.

**Supporting a trusted public conversation**

The Turing’s Communications and Engagement programme is a contribution to an informed and trusted conversation on data science and AI, an example being the fourth annual AI UK event, hosted by the Turing in March 2024.

**Community collaboration**

One of the Turing’s key contributions is bringing together experts with a range of skills and from an extensive range of disciplines – from the social sciences to theoretical mathematics – to tackle problems collaboratively.

An example is the Turing interest groups (TIGs), in which researchers with mutual interests meet with the aim of sharing knowledge and sparking innovative ideas for future collaborations. There are now 43 TIGs with over 7,000 members (18% of which are internationally based).

**Equality, diversity and inclusion (EDI)**

An example from the year for EDI was the Turing Summer Experience programme which was launched in partnership with our defence and security partners and supported 87 young people, predominantly from lower socio-economic backgrounds, to participate in a week-long immersive data science week.

**Links to industry**

The Turing has a wide variety of active collaborations with organisations in industry, the third sector and government, eight of which are strategic partners – Accenture, Bill & Melinda Gates Foundation, UK Defence and Security (including GCHQ, Dstl and the Ministry of Defence), Lloyd’s Register Foundation, Hoffman La-Roche, Office for National Statistics (ONS), NATS (formerly National Air Traffic Services) and Singapore’s DSO National Laboratories – which are aligned to the Turing’s research programmes.

There are typically around 50 partnerships running from the Charity at any one time, including strategic partnerships and collaborative research project partnerships.

**Ethical and safe use of digital technology**

The Turing continues to make a key contribution through leading the national and global conversation on the ethical, fair and safe use of digital technologies. During the year, this has included as an example the launch of the Global AI Ethics and Governance Observatory in association with UNESCO.

**5. Principal decisions**

Principal decisions are those which are material to the Charity and significant to any of our key stakeholders. In making the following principal decisions, the Board considered the outcome from its stakeholder engagement perspective as well as the need to act fairly between the Members.

**Principal decision 1: Revised Constitutional Documents** (Joint Venture Agreement and Articles of Association)

During the year, the Board of Trustees reviewed and recommended for Member approval updates to the Joint Venture Agreement and Articles of Association, which was a key enabler for the Turing’s strategy. These changes to the Constitutional Documents were approved by the Founder Members and adopted in February 2024.

**Principal decision 2: Appointment of Chief Executive Officer**

The Board of Trustees appointed Dr Jean Innes as the new Chief Executive Officer of the Charity in June 2023. Dr Jean Innes replaced Sir Adrian Smith, who stood down as Institute Director earlier in 2023.

**Principal decision 3: Quinquennial review (QQR) and confirmation of five-year funding stream**

During the year, the Board of Trustees and the Executive Leadership Team and Senior Management Group engaged in the QQR process undertaken by an independently appointed panel on behalf of EPSRC. The outcome of this review was the confirmation of the £100m funding over five years.

 **Principal decision 4: AI for science and government programme**

The Board agreed the need to publicise the outcomes from the five-year AI for science and government programme, which was run in partnership with EPSRC and 200 partners and closed in 2023. This took place with an expert panel event at the House of Lords hosted by former Trustee Baroness Nicola Blackwood-Bate on 21 February 2024, which included discussions on how the government can use revolutionary AI technologies to improve decision-making and policy development to address some of society’s greatest challenges.

**Principal decision 5: Implemented changes to the Charity’s scientific leadership to deliver the grand challenges in the strategy**

The Board, through the delegated authority to the Chief Executive Officer, oversaw the appointment of four new Directors of Science and Innovation to lead the development and delivery of the grand challenge areas, which are central to the Turing’s strategy.

**Charity Governance Code (the “Code”)**

The Code has been developed as an aspirational model to support continuous improvement in governance. The Trustees confirmed in 2019-20 their support for the principles-based approach of the Code, agreeing to undertake an annual internal review of governance practice at the Charity.

 The internal review of governance for 2023-24, which considered current practice, concluded that there had been improvements made during the year through the areas identified in the previous year’s review. These included the following relevant areas of particular focus for this year:

**Introducing the operational and transformation plan to enable the delivery of Turing 2.0**

The transformation plan has been developed during the year and is now in the process of being delivered.

**Delivering the outcomes from the review of the Constitutional Documents**

The Constitutional Documents have been reviewed and updated, with the changes adopted in February 2024. Impacts to policies and procedures are being worked through and updated and form part of the deliverables for 2024-25.

**Concluding the quinquennial review (QQR) process for the provision of longer-term sustainable funding required to support delivery of Turing 2.0**

Announced as part of the 2024 Spring Budget statement was a £100m investment over five years from EPSRC in the Turing to support delivery of the strategy. This was underpinned by the QQR conducted by an independent panel of experts on behalf of EPSRC. The review advised on how to strengthen delivery of the strategy and help to shape the role of the Turing in the future direction of the rapidly evolving AI ecosystem.

**Equality, diversity and inclusion (EDI)**

The Turing recognises that promoting and embedding EDI in our function as employer, research institute and national body is integral to achieving our mission. The ownership for delivery of the EDI strategy and action plan resides with the Executive Leadership Team, with the Remuneration, EDI and People Committee providing oversight and holding the Turing to account for delivery of performance against the plan. Examples of outputs from the Board in the last financial year include the Remuneration, EDI and People Committee receiving the annual report on EDI and the Charity’s gender pay gap report. In 2024-25 the EDI action plan will reach the end of its current three-year timeframe which will result in the need for a refreshed EDI strategy and action plan during the year. This is addressed as an area of focus for 2024-25.

**Areas of focus for 2024-25**

Having undertaken the annual review of the Charity’s governance, when compared with the best practice recommendations of the Code, the Board acknowledges the need to focus on delivering continuous improvements and embedding the good practice that has been put in place during this year. Examples of the activities to be focused on during 2024-25 include:

– Reviewing and refreshing Board and committee membership due to alignment with requirements of the revised Constitutional Documents and good governance practice.

– Reviewing and updating corporate policies to align with updates to the Constitutional Documents.

– Reviewing and updating the EDI strategy and action plan.

– Re-tendering the external audit services.

**Trustees’ responsibilities statement**

The Trustees are responsible for preparing the Trustees’ annual report and financial statements, in accordance with applicable law and regulations.

Company law requires the Trustees to prepare financial statements for each financial year. Under that law, the Trustees have elected to prepare the financial statements in accordance with United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice, GAAP), including FRS 102 – the Financial Reporting Standard applicable in the UK and Ireland. Under company law, the Trustees must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Charity and the result for that year.

In preparing these financial statements, the Trustees are required to:

– Select suitable accounting policies and then apply them consistently.

– Comply with applicable accounting standards, including FRS 102, subject to any material departures disclosed and explained in the financial statements.

– State whether a Statement of Recommended Practice (SORP) applies and has been followed, subject to any material departures which are explained in the financial statements.

– Make judgements and estimates that are reasonable and prudent.

– Prepare the financial statements on a going concern basis, unless it is inappropriate to presume that the charitable company will continue in business.

The Trustees are responsible for keeping adequate accounting records that are sufficient to show and explain the Charity’s transactions, disclose with reasonable accuracy at any time the financial position of the Charity and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Trustees are responsible for the maintenance and integrity of the corporate and financial information included on the Charity’s website.

Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

**Disclosure of information to the auditor**

The Trustees who held office at the date of approval of this Trustees’ annual report confirm that, so far as they are each aware, there is no relevant audit information of which the Charity’s auditor is unaware.

Each Trustee has taken all the steps that they ought to have taken as a Trustee to make themselves aware of any relevant information and to establish that the Charity’s auditor is aware of that information.

**Signatory**

The Trustees’ annual report is approved by the Trustees of the Charity. The strategic report, which forms part of the annual report, is approved by the Trustees in their capacity as directors in company law of the Charity.

Dr Douglas Gurr
Chair of the Board of Trustees
25 July 2024

**Section 3
Financial statements**

**The Alan Turing Institute**(a company limited by guarantee and not having a share capital)

Registered charity number: 1162533
Company number: 09512457

Consolidated financial statements for the year ended 31 March 2024

**Independent auditor’s report to the members of The Alan Turing Institute**

**Opinion**

We have audited the financial statements of The Alan Turing Institute for the year ended 31 March 2024 which comprise the Group Statement of Financial Activities, the Group and parent charitable company balance sheets, the Group Statement of Cash Flows and notes to the financial statements, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

— give a true and fair view of the state of the group’s and the parent charitable company’s affairs as at 31 March 2024 and of the group’s incoming resources and application of resources, including its income and expenditure, for the year then ended;

— have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and

— have been prepared in accordance with the requirements of the Companies Act 2006.

**Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the ‘Auditor’s responsibilities for the audit of the financial statements’ section of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council’s (FRC’s) Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

**Conclusions relating to going concern**

In auditing the financial statements, we have concluded that the Trustees’ use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charitable company’s ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the Trustees with respect to going concern are described in the relevant sections of this report.

**Other information**

The other information comprises the information included in the annual report, other than the financial statements and our auditor’s report thereon. The Trustees are responsible for the other information. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

**Opinions on other matters prescribed by the Companies Act 2006**

In our opinion, based on the work undertaken in the course of the audit:

— the information given in the strategic report and the Trustees’ annual report for the financial year for which the financial statements are prepared is consistent with the financial statements; and

— the strategic report and the Trustees’ annual report have been prepared in accordance with applicable legal requirements.

**Matters on which we are required to report by exception**

In the light of the knowledge and understanding of the group and parent charitable company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the Trustees’ annual report.

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

— the parent charitable company has not kept adequate and sufficient accounting records, or returns adequate for our audit have not been received from branches not visited by us; or

— the parent charitable company’s financial statements are not in agreement with the accounting records and returns; or

— certain disclosures of Trustees’ remuneration specified by law are not made; or

— we have not received all the information and explanations we require for our audit.

**Responsibilities of Trustees**

As explained more fully in the Trustees’ responsibilities statement set out in Section 2, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Trustees are responsible for assessing the group and parent charitable company’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Trustees either intend to liquidate the group or parent charitable company or to cease operations, or have no realistic alternative but to do so.

**Auditor’s responsibilities for the audit of the financial statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK) we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

— Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

— Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the group and parent charitable company’s internal control.

— Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Trustees.

— Conclude on the appropriateness of the Trustees’ use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the group and parent charitable company’s ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor’s report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor’s report. However, future events or conditions may cause the group or parent charitable company to cease to continue as a going concern.

— Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

— Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit report.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

**Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud**

Irregularities, including fraud, are instances of non­compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

The objectives of our audit in respect of fraud, are: to identify and assess the risks of material misstatement of the financial statements due to fraud; to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate responses to those assessed risks; and to respond appropriately to instances of fraud or suspected fraud identified during the audit. However, the primary responsibility for the prevention and detection of fraud rests with both management and those charged with governance of the charitable company.

Our approach was as follows:

 — We obtained an understanding of the legal and regulatory requirements applicable to the charitable company and considered that the most significant are the Companies Act 2006, the Charities Act 2011, the Charity SORP, and UK financial reporting standards as issued by the FRC.

— We obtained an understanding of how the charitable company complies with these requirements by discussions with management and those charged with governance.

— We assessed the risk of material misstatement of the financial statements, including the risk of material misstatement due to fraud and how it might occur, by holding discussions with management and those charged with governance.

— We inquired of management and those charged with governance as to any known instances of non­compliance or suspected non-compliance with laws and regulations.

— Based on this understanding, we designed specific appropriate audit procedures to identify instances of non-compliance with laws and regulations. This included making enquiries of management and those charged with governance and obtaining additional corroborative evidence as required.

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the financial statements. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

**Use of our report**

This report is made solely to the charitable company’s members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the charitable company’s members those matters which we are required to state to them in an auditor’s report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to any party other than the charitable company and charitable company’s members as a body, for our audit work, for this report, or for the opinions we have formed.

Adam Fullerton
Senior Statutory Auditor

For and on behalf of:

Moore Kingston Smith LLP
Statutory Auditor
6th Floor, 9 Appold Street
London, EC2A 2AP

Date: 1 August 2024

[Consolidated Statement of Financial Activities, Balance sheet, Consolidated Statement of Cash Flows and Notes to the financial statements not included in this version]