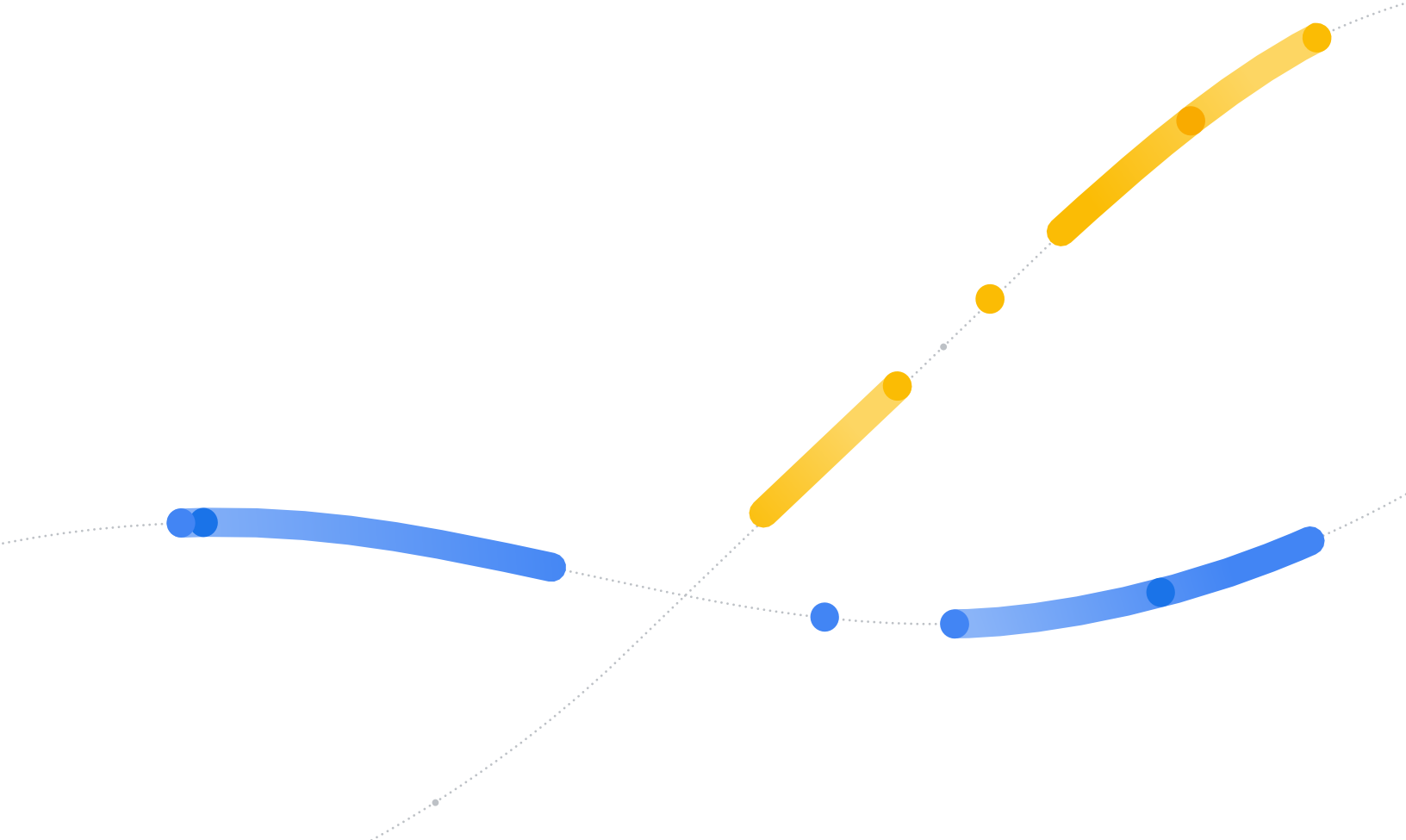
Google

The AI Opportunity Agenda



01 Foreword

02 Introduction

The Promise of Artificial Intelligence

The Challenge of Unlocking the Opportunity of AI

The Need for an Affirmative Policy Vision

03 Investing in AI Infrastructure and Enabling Innovation

Investing in R&D and AI Infrastructure

Pro-Innovation Legal Frameworks

Strong Trade and Investment Policies

04 Building Human Capital and an AI-Empowered Workforce

Modernizing Skilling Programs for the AI Era

Supporting Workers in Transition

05 Promoting Widespread Adoption and Universal Accessibility

Governmental Adoption of AI

Helping Traditional Industries and Small Businesses Use AI

Enabling Regulation

06 Towards an AI Future

Foreword

We stand at a pivotal moment in the development of artificial intelligence. The choices made by governments, industry, and civil society at early stages of technological development shape its trajectory. Now is the time for policymakers and communities to come together on a **comprehensive AI opportunity agenda**, based on common interests across the scientific and research community, workforce and economic priorities, public health, and global development.

Together we must ensure that AI makes lives easier, helps solve complex challenges, and enables us to reach big goals. To date, there has been a strong and appropriate focus on addressing potential future risks from AI. We have seen governments take important steps together with companies and other civil society stakeholders to address and mitigate these risks.

But to fully harness AI's transformative potential for the economy, for health, for the climate, and for human flourishing, we need a broader discussion about steps that governments, companies, and civil society can take to realize AI's promise. We must focus not only on the harms we want to avoid and the risks we want to mitigate, but on the potential we want to achieve.

This paper proposes a three-part agenda for policymakers, companies, and civil society to deliver AI's benefits to as broad a range of people as possible. We have a once-in-a-generation opportunity to strengthen our economies, to create new jobs, and to drive startling breakthroughs in health and science. To achieve this, we must work in partnership to: **1) Invest in AI infrastructure and enable innovation** by supporting research and compute capacity and ensuring legal frameworks support responsible AI growth; **2) Build an AI-empowered workforce** by investing in human capital, education, and training systems; and **3) Promote widespread adoption and universal accessibility** by helping governments, small businesses, and all sectors of the economy adopt and use AI.

A decade from now, we want to have developed AI boldly and responsibly, in partnership with governments, other companies and industries, and civil society. If we get this right together, AI will have helped solve pressing societal issues, advanced our work in fundamental sciences, and created enormous productivity gains across all sectors of the economy. We will make this more likely by investing responsibly in innovation and keeping humans at the center of AI collaboration.

This paper builds on our three-pillar agenda for responsible AI progress – unlocking **opportunity**, promoting **responsibility**, and enhancing **security** – and offers focused recommendations on how policymakers can harness AI to create new scientific and societal opportunities. While countries

and regions around the world may emphasize different elements, we hope this paper will provide an overall blueprint for those who see the promise of AI and want to make it work for their communities.

Introduction

The Promise of Artificial Intelligence

Throughout history, there have been pivotal moments of innovation and technological change that have profoundly impacted the course of human development, shaping the way people live, work, and interact. The development of writing systems allowed humans to communicate and record information over long distances and across time. The invention of the wheel enabled transportation and trade, while the steam engine mechanized production and propelled the growth of cities and new industries.

We stand at a similar moment in history with AI. **AI has the potential to fundamentally change the ways we live, work, and learn**, through its capacity to assist, complement, empower, and inspire people in almost every field of human endeavor. It is already opening up new possibilities by enabling people to communicate across languages and abilities, helping people stay safe with fire and flood forecasting, reducing energy emissions, and improving our ability to detect and treat cancer and other diseases.

Just as the technologies propelling the industrial revolution enabled humans to leverage our physical capabilities more effectively, AI is opening up new ways of thinking, working, and connecting.

Take AlphaFold, Google DeepMind's AI system that uncovered the 3D structure of 200 million proteins – the building blocks of life. That single initiative is accelerating research in nearly every field of biology, speeding up progress on important real-world problems including finding new drugs to treat liver cancer, developing fully effective malaria vaccines and breaking down single-use plastics. The development of the world's first human pangenome reference – a resource that better represents human genetic diversity – will open doors to more inclusive and equitable genetic testing and treatment globally, enabling more accurate diagnoses and development of new therapeutics.

The same AI systems that enable countries to meet major health, climate, and safety goals are also **helping people in more tangible and immediate ways**. For example, when governments harness AI to optimize traffic light patterns, they both help the climate (by cutting down on emissions) and

help everyday people avoid the frustration of being stuck in traffic. Students using an AI-based literacy tool just once a week for a semester showed a 71% gain in their writing skills. And by using an AI model to identify students most at risk of dropping out and providing extra support, one college increased the graduation rate of its seniors from 54% to 86%.

We believe AI can do so much more to help address some of the defining challenges of our time. The possibilities are immense: from addressing major public health challenges to boosting living standards and re-invigorating economies struggling from a lack of productivity growth or demographic challenges. And we're just now scratching the surface of what's possible.

The Challenge of Unlocking the Opportunity of AI

As we've learned from prior waves of technology, these benefits are not automatic. Unless people trust the technology, it will not be adopted at scale. And unless we make responsible choices around the technology, it can create both harm and good.

There is a lot of uncertainty about the impact AI will have on the economy, on the workforce and on society. People are concerned that AI will make mistakes, spread false information, and exacerbate inequality. Governments want to know they can trust AI systems to make good, fair recommendations that reflect human values and act in ways that are helpful to individuals and society.

We need to acknowledge and address that uncertainty. We must be critical, thoughtful, and inquisitive, to understand AI's potential impact and ensure that we can work collectively to maximize potential and minimize harms.

We must also learn from the experience of prior technologies. It is critical to address potential pitfalls and externalities up front, and not just assume that these risks will be resolved on their own. **The AI industry is already taking actionable steps to promote responsibility, security, safety, and accountability** – and policymakers, industry and civil society must govern AI in a way that reflects and advances these goals. As the first company to develop strong AI principles, Google has sought to be a leader in this space – and we have been heartened by how quickly governments and international institutions like the OECD, the UN and G7 have led the way forward as well. Indeed, the fall of 2023 may be remembered as a constitutional moment for AI governance, when governments began to outline the contours of how to regulate AI.

However, even as we embark on major efforts to drive AI security and accountability, we can't lose sight of the incredible opportunities that AI can bring to our societies. **If we want to fully harness AI's transformative potential, we must focus our attention on what we want to achieve, not just what we want to avoid.**

The Need for an Affirmative Policy Vision

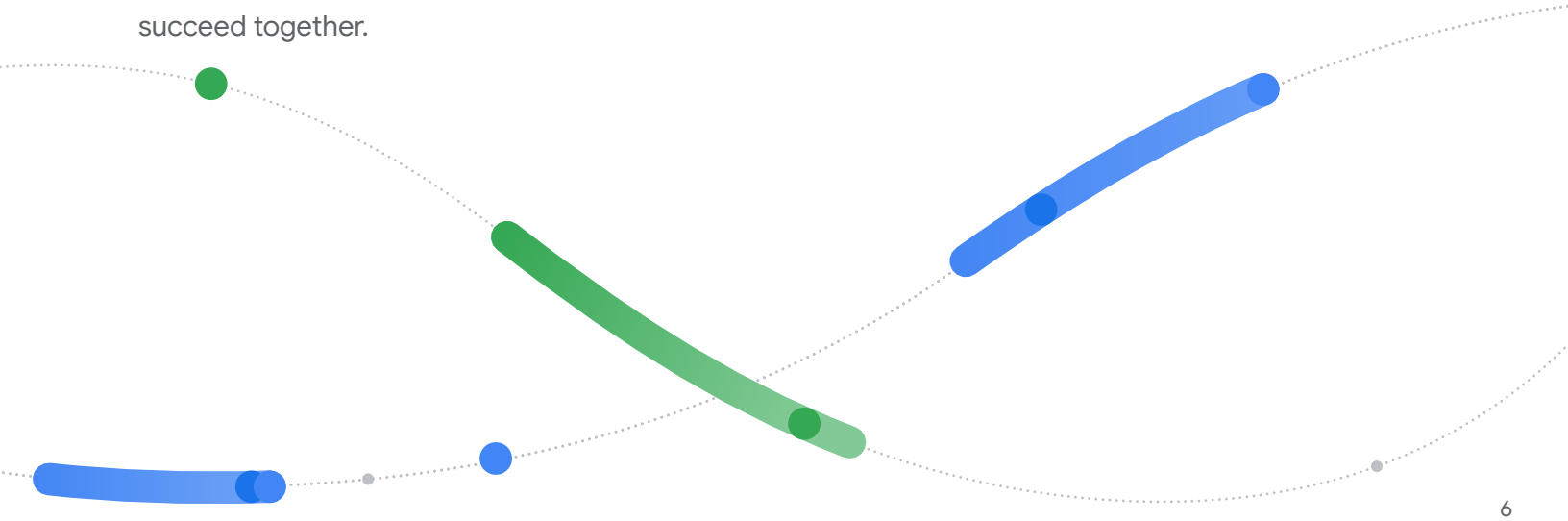
To ensure that everyone can harness AI responsibly and to its fullest potential, companies, governments, and civil society must all come together to:

- **Invest in infrastructure and innovation** – meeting the moment of this technology by investing in AI research and development, digital infrastructure and global compute capacity, and policies to convert ideas and data into new discoveries, products, and services.

- **Build human capital and an AI-empowered workforce** – investing in our people to make sure they can use and benefit from AI, from students to workers, and from small businesses to traditional industries.

- **Promote widespread adoption and universal accessibility** – harnessing AI across governments and all sectors of the society to address major societal and economic challenges and ensure the benefits of AI are widely shared, while adopting a regulatory framework that supports a healthy AI ecosystem.

No single nation, no single industry, and no single company will be able to build the AI future on their own. It will take collaboration and deep engagement – across industry, civil society and government – to find solutions and maximize AI's emergent potential while minimizing its risks. We will only succeed together.



Investing in AI Infrastructure and Enabling Innovation

Building Human Capital and an AI-Empowered Workforce

Promoting Widespread Adoption and Universal Accessibility

Investing in AI Infrastructure and Enabling Innovation

Countries have historically excelled when they support technological change and harness it to improve living standards. For societies to harness the benefits of AI, it is important to have the right policy conditions in place to allow AI to be built and developed:

• Governments and the private sector have a critical role to play in investing in R&D and AI infrastructure, including cloud infrastructure, compute capacity, and data, to ensure that researchers, technologists, and businesses have access to the tools needed to research, build and deploy AI. While countries have been focused on national-level approaches to this challenge, we should also think globally – and ensure that AI innovation is not the domain of only the richest countries and richest cities and regions. Countries should establish a **Global Resource for AI Research (GRAIR)**.

• In addition to investing in AI infrastructure, policymakers must also adopt strategies to enable researchers and innovators to convert ideas and data into new discoveries, products and services. This will require advancing **pro-innovation legal frameworks** that spur dynamism across the entire ecosystem.

• Finally, because AI is by its nature a cross-border technology, individual policy efforts must be tethered to **strong trade and investment policies** that support trusted international collaboration on AI, including cross-border data flows essential to AI development and deployment.

Investing in R&D and AI Infrastructure

Governments can support scientific and technological competitiveness by investing in long-term R&D and standing up new public-private approaches to build out AI infrastructure. Policymakers should tailor these efforts to make AI tools accessible to as many entrepreneurs and scientists as possible, allowing more developers to propel AI technology itself and to leverage AI to accelerate discoveries in other fields. And AI accessibility will also require new strategies to reach the 2.6 billion people today that are not still connected to the internet.

There is no one AI investment strategy that will work for all governments, but one basic formula for success is to invest in basic and applied research and technologies (such as graphics processing units and supercomputers) at a national or regional level – and then to put in place policies encouraging

private sector innovation and product development that builds on top of these foundational initiatives. Such a model can drive innovation leadership by creating a sense of shared responsibility between the public and private sectors for developing AI and other emerging technologies.

The United States has already taken important steps to create such a resource, with the proposed National AI Research Resource; the EU and UK are making major investments in AI compute capacity; and Singapore's National Research Foundation provides funding to anchor national capabilities in AI research. However, we should ensure that academic researchers in a broader range of countries globally, including in the developing world, have access to compute resources – to ensure that they can help advance AI innovation and promote AI research. For this reason, governments should come together to establish a **Global Resource for AI Research** (GRAIR) to ensure that we enable AI research globally.

The GRAIR would serve as a shared AI research resource and clearinghouse to make compute, data, and software resources available to academics, start-ups and small and medium enterprises conducting AI development and research. Beyond providing technical resources, the GRAIR should also provide support for countries at different levels of development to build up domestic AI workforce capabilities, including application developers and researchers.

One model for this work is the Institute for Computer Science, Artificial Intelligence and Technology in Sofia, Bulgaria. Google helped launch this Institute by investing in cloud infrastructure to run high-performance machine learning models, and the Institute worked in partnership with Swiss technology universities to attract leading AI researchers and engineers.

Public-private partnerships may be effective in accelerating research and creating shared resources across the AI ecosystem. Both governments and industry can help support academic and civil society researchers through programs like tech transfer frameworks, fellowships, and direct support for research. These efforts must also broaden the range of participants beyond the usual suspects in academia and industry, reflecting the geographic, linguistic and cultural diversity of national and global communities.

Pro-Innovation Legal Frameworks

AI is too important not to regulate – and too important not to regulate well. At this moment, the challenge faced by all policymakers is **how to govern AI in a way that mitigates risks and potential harms without impeding beneficial innovation.** There is a risk that misaligned and fragmented regulatory approaches will block innovators and governments around the world from harnessing trustworthy and beneficial AI applications to achieve strengthened economies, find cures for cancer, and ensure longer, better lives for billions of people.

Many countries have already embarked on meaningful and coordinated approaches to address AI risks. And there has been remarkable global progress on AI governance – from the G7 Hiroshima Process International Code of Conduct for Organizations Developing Advanced AI Systems to the White House Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence.

But as we improve our collective capacity across industry and governments to address AI risks, we must also turn to the comparably important challenge of building and optimizing policy frameworks that unleash new opportunities from AI.

We believe there are four major universal policies that policymakers should consider to ensure AI researchers and innovators can convert ideas and data into new discoveries, products, and services.

First, as a general principle, given the cross-cutting nature of AI, it is essential that governments avoid siloed approaches to AI regulation. While we need case-specific answers for the unique issues of each sector, it will often be true that a regulatory debate on an issue like data will implicate multiple equities and interests within a government – agencies responsible for privacy, cybersecurity, economic growth, trade, law enforcement, health, and finance all may have a reason to weigh in on the issue. Governments need to **build an interagency apparatus that can effectively represent and balance these competing equities** – leaving a critical element of AI policy to one agency, without weighing trade-offs, risks an overall AI strategy that is misaligned with the public's broader interests.

Second, in terms of substantive rules, a **copyright framework that supports innovation and cumulative creativity – including limitations and exceptions that allow developers to train AI models on publicly available data** – is one strong predictor of whether a country will be a leader on AI. For AI systems to learn from and engage with diverse information sources and datasets, copyright frameworks must allow for broad usage of data inputs. And to ensure that copyright frameworks

achieve these goals, governments must ensure that users, scientists, innovators, researchers, and the creators using these tools are fully represented within the policymaking process.

Third, adopting a **risk-based approach to AI regulation** is crucial to provide clarity to developers, deployers, and regulatory agencies about which uses are disallowed, and to encourage alignment around addressing the most severe concerns related to AI. A risk-based approach also allows regulators to identify which parties (developers, deployers, or users) are most likely to have control over harm prevention and mitigation and therefore should be held accountable.

Finally, policymakers should encourage **privacy and security by design principles** so that individuals' personal data is safeguarded, they are given appropriate notice and controls related to their personal data, and the outputs of AI systems protect individual privacy. At the same time, privacy frameworks should continue to preserve the ability to process publicly available data, while supporting privacy preserving technologies throughout AI systems.

Beyond these substantive areas, governments should also seek to obtain a clear view of the existing regulatory landscape by undertaking holistic audits of regulations relevant to AI across the ecosystem. Such a survey will be helpful to identify both regulatory gaps and areas of regulatory overlap or inconsistency that can impede innovation.

Strong Trade and Investment Policies

Given the cross-border nature of AI, enabling trade and investment frameworks will be essential for the development, deployment, and governance of AI.

One of the most meaningful steps that trade policymakers can take to support responsible AI is by **committing to support trusted cross-border data flows.** Data flows enhance the capability of partners to work together to ensure AI systems are trained on demographically and geographically diverse datasets, which helps mitigate potential bias in these systems and makes them more useful and relevant to users around the world.

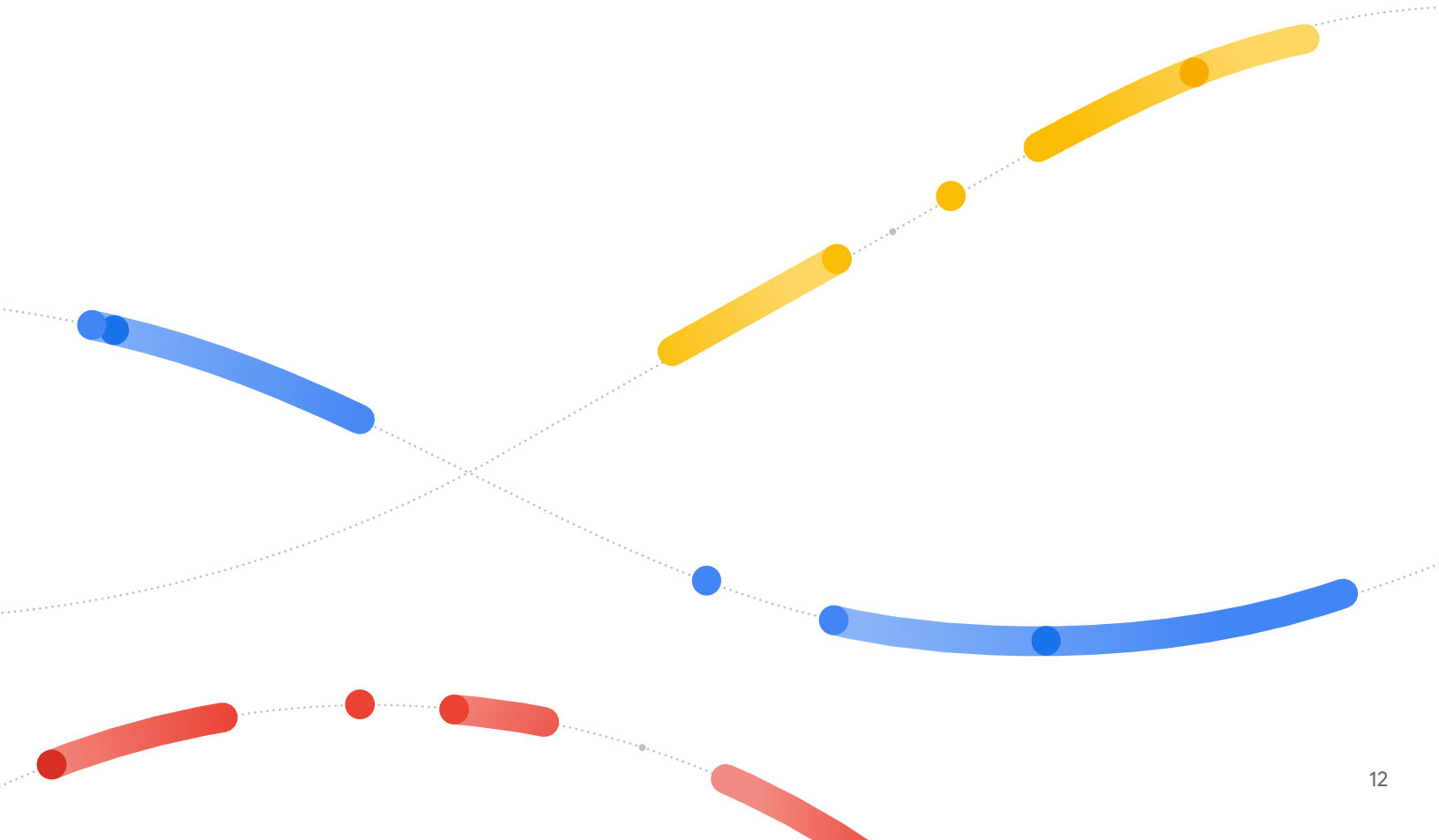
The G7, OECD, ISO, and other international bodies have already developed a series of principles, commitments, and standards on AI that can help guide its safe, secure, and responsible development. Countries like Australia, Chile, New Zealand, Singapore and the UK have pioneered new trade agreements that support international alignment of AI frameworks and facilitate the cross-border use of AI technologies.

However, recent developments indicate a potential departure from data flows and digital rules in upcoming trade agreements and frameworks. Abandoning support for digital trade norms could result in sharp fragmentation between different national AI models, while damaging the ability of countries to cooperate on the development of resilient and interoperable AI systems.

It is urgent to use this moment to **build up, not tear down, key alliances on technology and AI.** This is why we are calling for a renewed focus on AI and digital rules in the Indo-Pacific Economic Framework, at the World Trade Organization, and in other upcoming trade and economic agreements.

In the era of AI, we must connect longstanding trade principles on the free and trusted flow of data, regulatory interoperability, least-trade-restrictive regulation, and non-discrimination to new trade principles such as responsible and ethical standards governing the use of AI and emerging technologies.

The strategic importance of AI should also drive renewed attention to investment strategies, particularly when it comes to building transcontinental AI infrastructure and subsea cables through initiatives like the **Partnership for Global Infrastructure and Investment**. Such initiatives can encourage greater public and private investment in technical infrastructure by conditioning investment on the creation of a stable and predictable policy environment.



Investing in AI Infrastructure and Enabling Innovation

Building Human Capital and an AI-Empowered Workforce

Promoting Widespread Adoption and Universal Accessibility

Building Human Capital and an AI-Empowered Workforce

AI presents immense opportunities to catapult economies forward through increased productivity and economic activity that can benefit everyone. But AI can also be a disruptive force, and it will present unique challenges compared to prior waves of technology that will require new solutions. Given these dual possibilities, the question becomes: **how can policymakers equip the workforce to harness AI** – so that it empowers workers, helps them become more productive, bumps up their expertise level, and makes their skills more valuable? And how can we mitigate any potential risks to the workforce through partnerships between governments, industry, and civil society?

Building an AI-empowered workforce will require a shared vision – and a shared responsibility – across three sets of stakeholders:

- Industry has a critical role to play in **developing new skilling programs** that focus on AI preparedness. But given the transformative impact of AI across all sectors of the economy, individual company efforts will be insufficient – companies will need to stand up new **cross-sectoral AI training partnerships** to ensure workers in all industries are ready to harness AI.

  We commit to update our career certificate programs to focus on AI preparedness, and we commit to build up the cross-sectoral Economic Opportunity Coalition to make AI-driven jobs accessible to more people, while supporting similar initiatives globally.

- Civil society, foundations, and academics must drive new research to understand what has and hasn't worked in the past in terms of worker preparedness for new technologies, and then apply those insights to **ensure lower-wage workers and rural or underserved communities** are at the center of AI workforce programs.

  We commit to supporting this research globally through our Digital Futures Project and applying these insights to prepare the workforce for AI-enabled jobs of the future.

- And most importantly, policymakers must help **scale up AI training programs** so that they reach all communities, while building more effective "trampolines" – to catch workers that are impacted by AI and reskill them so they can quickly bounce back into new and better jobs.

  We believe the "GI Bill for AI" that Senator Cantwell has proposed in the US and Singapore's nationwide AI skilling initiative are strong models for this work globally.

The goal across all of these efforts will be to ensure that AI democratizes access to skills and expertise and **creates a ladder of opportunity** for workers from all backgrounds.

Modernizing Skilling Programs for the AI Era

To tailor policy interventions, **it will be important to understand how AI is both similar to and different from prior waves of technology.** Early research indicates that generative AI may help up-level certain skills, enhance labor productivity, create new occupations, and democratize access to higher paid occupations. But because generative AI can automate non-routine cognitive tasks, it may impact a wider range of tasks and occupations than earlier technologies.

We are still in the process of understanding what kinds of new skills AI-enabled work will require. There are some things we know already – including the importance of workers having basic AI literacy and how eminently human talents like critical thinking, cross-disciplinary problem-solving, effective collaboration, and empathy are likely to increase in value. Industry and governments must adjust existing skilling programs to address those dynamics. But there are other open questions about AI's impact on work that will need further study, such as how AI can best be used to support re-skilling, and how to minimize the risk of "skill atrophy" as routine tasks that previously provided training opportunities for novice employees are increasingly automated. **Companies, civil society, and policymakers will need to constantly evolve skilling programs** to address these questions and manage these transitions.

Education and workforce training programs will become all the more important to help workers and learners apply AI to meet their goals. We need an education and training system that prepares workers to thrive in a dynamic environment and to augment their existing skills and talents with AI. And this must extend beyond the secondary education system – **AI requires a lifelong approach to education** that equips all students and workers with foundational AI skills.

This means treating AI as a core component of our education and professional development systems. We must support educators to update curriculum frameworks, double down on STEM education with an emphasis on AI literacy (while avoiding narrow recommendations like 'learn to code' that may be less relevant if generative AI can cover basic coding skills), and emphasize skills-based learning models, including apprenticeship programs. It also means leveraging AI in the classroom to transform how students learn – providing targeted interventions based on the individual needs and capabilities of different learners, and equipping educators.

Skilling programs will become even more essential, but we need to recognize that the way we work is changing. In a wide variety of occupations, about one-third of tasks will be augmented by AI – meaning that people will need to find new ways to do their jobs in collaboration with AI. **To thrive in the AI era, it will be critical for workers to build a more durable skillset of broader and**

more fundamental competencies. That requires updating and adapting skilling programs across sectors, and building up new public-private partnerships to scale up these programs to reach all workers.

This is a shared responsibility across governments, civil society, and industry. At Google, we have spent the last decade building out digital skilling programs that have reached tens of millions of people. We have built nine career certificate programs with hundreds of thousands of graduates, 75% of whom report a positive outcome (such as a new job, promotion, or raise) within six months of completion. And we have launched a $100 million Career Certificates Fund in the U.S. with the non-profit organization Social Finance[37] to provide wraparound support for learners.

No single employer or policymaker will be able to modernize workforce programs on their own. We are actively collaborating with government leaders, economists, and think tanks to **develop a workforce transition strategy that will identify the policy reforms needed to prepare workers for the new opportunities created by AI**, while also supporting the transition of workers whose roles are becoming less in demand. And we're revamping our digital skilling programs to meet the new workforce demands created by the AI transformation.

Supporting Workers in Transition

AI is already helping democratize access to skills and expertise such as coding, language and writing skills, and promises to enable more people to use productivity strategies that were once the exclusive provenance of workers at the top of the income ladder. By creating more opportunities for more people, AI can help nurses, contractors, teachers, and people in the trades increase their capabilities, supercharge their productivity, and have another arrow in their quiver to get higher pay and better working conditions.

But as we know from history, it's not inevitable that all workers will realize the economic benefits from new technologies. We need strategies for helping workers who are impacted by technologies, and we need to modernize past programs – like trade adjustment assistance – that have been insufficient to prepare displaced workers for the occupations of the future. It's also important to recognize that AI programs must be tailored not only to job seekers, but to all workers who will need essential AI productivity skills.

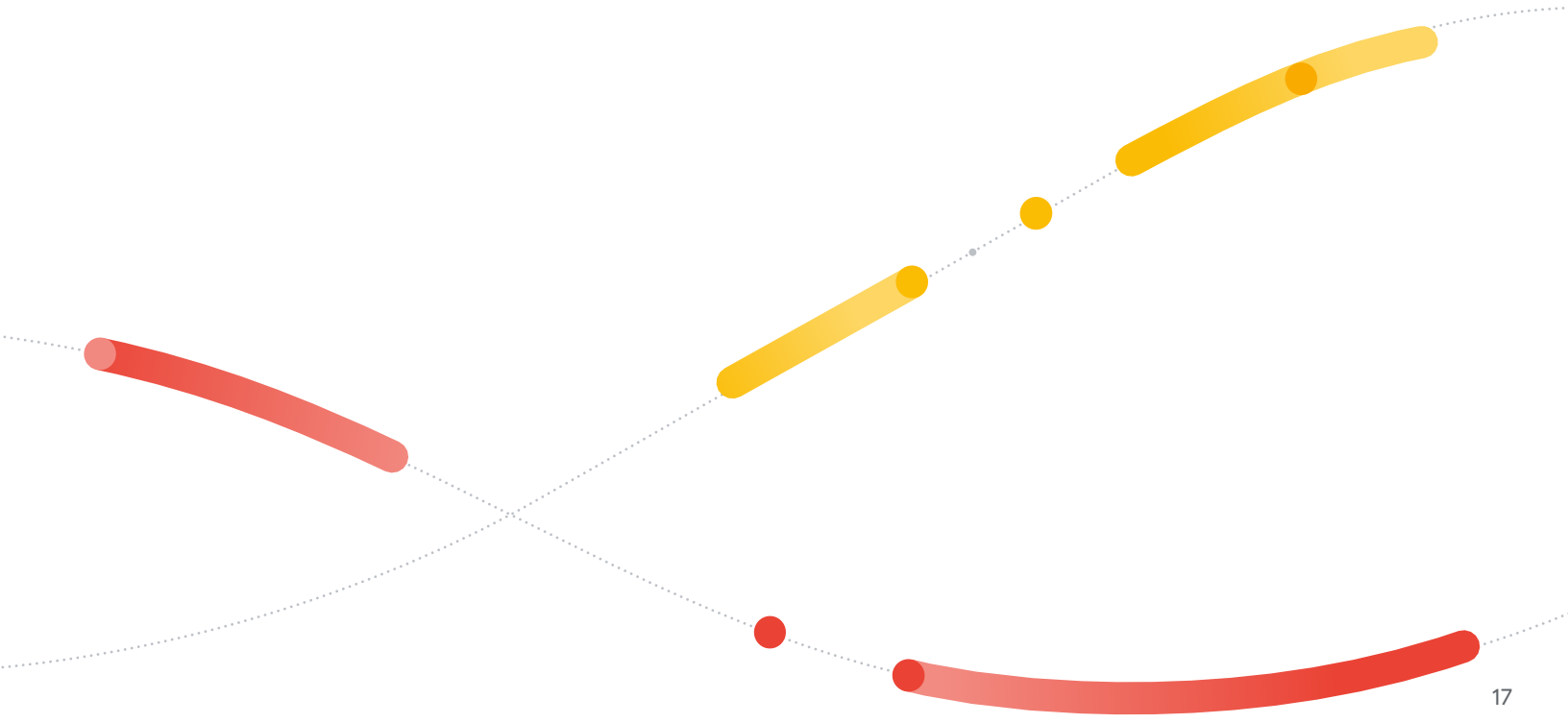
Key steps that policymakers can take to build an AI-empowered workforce and support workers in transition include:

- Establishing a **global AI corps** that would include training and support programs to give workers hands-on experience in applying AI to solve new tasks on the job.

- Encouraging companies that have developed career certificate and apprenticeship programs to work across sectors to develop **more comprehensive cross-sectoral skilling and certificate programs** that reflect the full spectrum of skills needed for an AI-driven future.

- Committing to train new researchers within a short timeline (e.g., 18 months) to **strengthen national AI research capabilities** and increase the local supply of AI talent.

- Promoting access to world-class talent by promoting transparent, flexible **immigration pathways for AI experts.** Developing an **AI adjustment assistance** program to provide support for workers impacted by AI, with a tailored set of skilling options that can adapt to different worker needs in different geographies, and a focus on lower-wage workers and rural or underserved communities.



Investing in AI Infrastructure and Enabling Innovation

Building Human Capital and an AI-Empowered Workforce

Promoting Widespread Adoption and Universal Accessibility

Promoting Widespread Adoption and Universal Accessibility

In addition to building AI and preparing students and workers, we ultimately need to ensure that AI is applied and deployed in a universally accessible and useful way. We must harness AI to **help solve real world problems** – in government buildings, in hospitals, and at kitchen tables. To do this, we have identified three key goals: (1) increase governmental adoption of AI to make people's lives easier and better and address major public priorities; (2) ensure that small businesses and traditional industries are able to adopt AI applications; and (3) regulate AI applications in a way that facilitates their adoption across different industries.

Governmental Adoption of AI

Governments and the publics they serve stand to gain from adopting AI in two ways. First, governments can leverage AI to improve the delivery of services to citizens, which has the additional benefit of familiarizing people with the underlying technologies and building trust that AI can be used in helpful ways. Second, by adopting AI, governments can model a forward-looking approach for their domestic technology sector, and help other sectors understand the importance of AI. The scale of government deployment and investment can ultimately help catalyze a domestic AI ecosystem and, by requiring standards in terms of AI system performance, can also help mature the quality and safety of commercial and enterprise AI products.

To identify the most beneficial uses of AI for their citizens, governments should conduct **national AI opportunity assessments** for public services, particularly in sectors such as health, education, transportation, and other services that most immediately impact people's lives. The first step in such assessments should be to examine existing solutions that are showing promise, such as AI-powered flood forecasting tools in India and Bangladesh. Investing in and scaling up these programs could be one of the **best near-term ways for governments to show progress on AI-enabled solutions** and have a huge impact on people.

As governments, industry, and civil society identify new areas of AI opportunity, they should work together to plan and execute implementation of AI adoption programs in these sectors, and monitor the performance of AI-augmented services to make continuous improvements. Finally, governments can work with industry to leverage cloud computing to ensure the efficiency of these services and the security of their AI systems.

Government agencies should also **identify barriers to the deployment of AI in key sectors and industries**. Procurement roadblocks are often one of the most significant challenges that governments and industries face when it comes to adopting new technologies like AI. To clear these barriers, governments should adopt cloud-first standards to promote the uptake of AI, and adopt transparent procurement rules that encourage fair competition.

Finally, governments will need more AI expertise to effectively harness AI. Policymakers should **build and scale up "in-house" AI skilling for the government IT workforce**; Google took a similar step a few years ago requiring all software engineers to enroll in an internal machine-learning curriculum. Governments should also consider creative ways to bring in **private-sector talent**, such as AI Fellows modeled on the U.S. Presidential Innovation Fellow program and the UK's Government Digital Service. Finally, while every agency will need some AI expertise, governments should consider establishing a centralized resource of experts that can advise agencies across the government.

Helping Traditional Industries and Small Businesses Use AI

Small businesses and traditional industries have too often lagged behind their peers in adoption of innovative technologies. Policymakers and AI developers must work together to develop aggressive outreach strategies to traditional industries and small businesses – who have much to gain from AI adoption in terms of their competitive posture if they are quick to harness and deploy AI. For example, a recent study showed that 91% of small businesses using AI had success in driving revenue, customer outreach and acquisition, or increasing productivity.

However, adopting AI may not be the first priority for harried small business owners or industries that are accustomed to taking a "wait-and-see" approach to new technologies. To address this gap, policymakers in all countries should:

- **Create a national strategy to spur AI adoption across industry** – for example, in the U.S., building on recommendations from the National Artificial Intelligence Advisory Committee to "create a multi-agency task force to develop frameworks for small- and medium-sized organizations to adopt trustworthy AI."

- **Identify priority national sectors that have the highest need and/or the lowest uptake of AI tools**, such as the agriculture, manufacturing, health care, and energy sectors, and work with these sectors on "proof of concept" initiatives to model effective AI deployment.

• **Give small businesses a "digital jumpstart"** through new models of **technical assistance** and engagement, including digital coaches who can help businesses understand and leverage AI to capitalize on new opportunities.

• **Target AI training resources towards small businesses and traditional industries** in underserved communities, including through programs like the Small Business AI Innovation and Commercialization Institutes contemplated in the recent US Executive Order.

• **Improve access to capital**, including by introducing low-interest loan and grant programs designed to support AI-driven transformation.

Enabling Regulation

At the same time, governments need to ensure that their regulatory frameworks empower and don't frustrate small businesses and traditional industries seeking to adopt AI. Without pro-innovation legal frameworks, programs to promote adoption of AI will be running uphill. Regulators should not only ask how they can address risk proportionately; they should consider what regulation will facilitate the adoption of AI, including adoption by small businesses with fewer resources.

To ensure that AI is accessible to all, governments should:

• **Adopt a proportionate, risk-based framework** focused on applications, recognizing that AI is a multi-purpose technology – and regulatory requirements should be calibrated to the particular risk and use case.

• **Ensure parity in expectations between non-AI and AI systems,** recognizing that even imperfect AI systems can improve on existing processes.

• **Promote use of technical standards**, so that where a business is required to show its compliance with a regulation, it can do so by showing adherence to a common standard – rather than having to meet a bespoke requirement.

Towards an AI Future

As governments around the world look to increase the public's trust in AI, policymakers have a critical role to play in developing AI policy frameworks showing that safety, security, innovation, and opportunity go hand-in-hand. We look forward to partnering with governments, industry, and civil society to build an AI-driven future that works for everyone.

Learn more at publicpolicy.google

Google