# EUROPEAN ARTIFICIAL INTELLIGENCE FUND

HOW TO FUND PUBLIC INTEREST WORK AROUND AI IN EUROPE?

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## EXECUTIVE SUMMARY

The European Artificial Intelligence Fund (European Al Fund) is a philanthropic initiative to shape the direction of Al in Europe. The fund's long-term vision is to support an ecosystem of European public interest and civil society organizations (CSO) working on policy and technology, based on a diversity of actors and a plurality of goals that represents society as a whole. Since its inception, the European Al Fund has held two successful funding rounds: an open call for the Policy and Advocacy Core Grant and a selected invite round for the Tech and Covid-19 grant.

#### PURPOSE OF THE REPORT

In a fast-changing AI policy environment, the European AI Fund is taking stock. This report, which is divided into three parts, explores how the European AI Fund can best support and strengthen civil society and public interest organisations in Europe.

Part 1 outlines the state of play of AI and civil society in Europe. The AI Fund's current strategic planning relied on the framework of a *European AI and Society Ecosystem*, which was developed in a 2020 report published by Stiftung Neue Verantwortung. It identifies ten functions that all need to be present in order for the ecosystem to thrive:

- Policy expertise
- Technical expertise
- Investigative expertise
- Strategic litigation expertise
- Expertise in building public interest use cases of AI

- Campaign and outreach expertise
- Research expertise
- Expertise in promoting AI literacy & education
- Sector expertise

A key finding of part 1 is that the framework, in its current form, is too limiting and needs to be revised. It misses key functions, and it also doesn't specify what "core sector functions" or key transversal issues are. This report adds four additional core functions that civil society needs to be able to perform to meaningfully contribute to the AI policy debate:

- Community organising
- Agenda setting
- Building alternative futures
- Bridge building

In addition, this report identifies five transversal issues that cut across AI policy and implementation, and have momentum behind them:

- Equity and anti-discrimination
- Justice, democracy and rule of law
- Climate crisis and sustainability
- Labour rights and consumer protection
- Safeguards and governance regimes

In part 2, interviews conducted with civil society members and academics assess civil society needs and priorities with regards to different ecosystem functions. Investigative expertise and strategic litigation expertise were the most commonly prioritised functions. Research expertise was seen as the third most important function - provided that it has certain characteristics. For example, that it is multi-disciplinary, carried out for specific purposes, such as mapping different Al uses, and showing the consequences of Al or illustrating that it doesn't work. In part 3, findings from interviews conducted with North American and European foundations are used to suggest ways in which the European AI Fund can effectively and strategically structure its funding to appeal to potential new members, as well as learn from their funding strategies.

#### APPROACH

Throughout the report, we emphasise the importance of taking an ecosystem approach. By this we mean that funding comes in the form of long-term support and capacity building rather than short term interventions. Taking an ecosystem approach also means continuously reflecting on who is involved in policy debates and whose voices are missing. The European AI Fund is committed to reflecting proactively on its own role in partnering funders and grantees and ensure that it accurately reflects the diversity of European civil society.

We also found that interviewees saw much duplication of efforts around issues related to AI. Finding ways for donors and grantees to coordinate is very important. This is particularly crucial when technological solutions are built and deployed in one country and then replicated elsewhere. Alongside coordination, it is important for donors to be clear and strategic in what they are looking to fund, to help ensure potential grantees do not waste their time applying for funds that are outside of the funding's scope.

#### CONTEXT

Europe's current strategy on AI is built on the belief that economic progress and social well-being is increasingly dependent on the data economy, which is currently dominated by non-European actors. To ensure that Europe reaps the benefits of new technologies, the European Commission (EC) has made digital transformation a top priority. As part of this, they have developed a European strategy on AI, in which the EC and its Member States become both investors in and regulators of AI.

While many applaud the EC's Artificial Intelligence Act (AIA), its attempt to create the first-ever legal framework on AI, improvement is needed. Prominent civil society actors criticise it for being too vague, containing too many loopholes and omitting several important red lines regarding the potential for mass surveillance and discriminatory practices. In this context, it is of utmost importance that civil society is empowered to participate in the debates. The scale of the EC's investment in AI in the coming years lends extra urgency. Through its Digital Europe and Horizon Europe funding programs, the EC will invest €1 billion per year in AI. In addition, the EC aims to mobilize additional investments from the private sector and its Member States to reach an annual investment of  $\$ 20 billion over the course of this decade.

We have a window of opportunity to empower a truly representative array of new and existing civil society organisations to be present within the debate and shape the future of AI and our European societies.

At the same time, we are moving into a new phase that is less about European policy expertise and more about building coalitions that encompass human rights issues, monitoring and challenging AI implementation, building alternative futures and channelling state investments.

#### RECOMMENDATIONS

- Work on AI and the role civil society should play can and must include larger topics around technology's impact on society. It is hard, if not impossible, to separate them out.
- The European AI Fund should seek to move beyond critiques that merely mitigate harm to support the larger, fundamental questions about how we want our societies to be organised. Against a projected future of climate emergency and mass displacement, this will allow for the proposal of alternative futures that are people and planet by design.
- Sectors that will most likely be impacted by AI in the near future include police, borders, health care, agriculture, energy, transport, finance and consumer products. Critiques that have exposed issues related to the use of AI have required a combination of expertise. The European AI Fund should support civil society organisations (CSOs) with sector expertise to build capacity on the AI public and policy debate, as well as supporting bridge builders between the different actors within the AI and Society Ecosystem.
- The inclusion of equity and anti-discrimination in the public and policy debate on AI harms shows just how important it is to support new voices that bring broader human rights and social justice perspectives to the table. The European AI Fund should continue to support existing voices and actively reach out to new ones who are interested in or already working on transversal issues.
- Ecosystem support (meaning AI as an issue not only for technologists and lawyers, but for society as a whole) must remain at the core of the current strategy of the European AI Fund. Its leadership should continue including it as an explicit long-term funding goal and should encourage its members to adhere to this important strategy in their other programming as well.
- The current strategy of the European AI Fund is building policy capability and stronger connections between digital rights and social justice groups to amplify their voices on a long-term basis. We recommend that funding is targeted to five key areas: 1) Storytelling and investigative efforts that bring the consequences of AI to life for people and affected communities. 2) Alternative positive models for how to use AI democratically. 3) Investing in national-level capacity that takes account of local contexts. 4) Research to test whether claims made about AI are true or false. 5) Bringing transparency and accountability to the use of AI in the public sector.

- Pooled funding can improve coordination between grantees and donors, helping reduce duplication and increasing impact. It also offers the European AI Fund the chance of pursuing strategic risk-taking as a deliberate strategy.
  Fresh and different thinking is likely to be riskier but may also prove to be more impactful where it can provide surprising or well-timed interventions.
- The European AI Fund should continue to support existing voices and actively seek out new voices to join the public and policy AI debate. Increasing the geographical diversity of applications requires active outreach and engagement with traditional CSOs from Eastern and Southern Europe through an approach which combines grant-making and field-building activities.
- Equally, a more representative regional balance in the fund's membership would contribute tangibly to more diverse discussion within the fund and bring important perspectives to the table that would enrich the fund's overall strategic thinking. The fund should actively search for and invite Southern and Eastern European funders to join its ranks, starting with those already reached out to in the past.

## INTRODUCTION

Artificial intelligence (AI) is seen by many as a revolutionary general-purpose technology capable of driving efficiency and productivity in virtually every sector of the economy. This promise has piqued the interest of companies and governments alike, neither of which want to miss out on this next phase of digital transformation. The term AI is a catchall phrase used to describe a wide-ranging set of technologies, most of which apply statistical modelling to find patterns in large data sets and make predictions based on those patterns. As investment in AI rises and its uptake increases, the technology is meeting with increased scrutiny, with civil society raising ethical questions and highlighting the human rights challenges associated with it.

The European Artificial Intelligence Fund (European AI Fund) is a philanthropic initiative to shape the direction of AI in Europe.<sup>1</sup> The fund's long-term vision is to support an ecosystem of European public interest and civil society organisations (CSO) working on policy and technology, based on a diversity of actors and a plurality of goals that represents society as a whole.<sup>2</sup> Since its inception, the European AI Fund has held two successful funding rounds: an open call for the Policy and Advocacy Core Grant and a selected invite round for the Tech and Covid-19 grant.

The objective of the Policy and Advocacy Core Grant is to strengthen existing voices and bring new voices into the AI public and policy debate.<sup>3</sup> The Tech and Covid-19 grant was established as an agile funding response to the pandemic. It provided CSOs with support to continue their monitoring efforts and critique the unilateral turn by European governments towards data-driven technologies, AI and automated decision making (ADM).<sup>4</sup> A total of 24 CSOs and research institutions have been selected for support since 2020.

<sup>&</sup>lt;sup>1</sup> European Al Fund, 2021. Interim Update Report May 2021.

<sup>&</sup>lt;sup>2</sup> European Al Fund, 2021. *supra* note 1

<sup>&</sup>lt;sup>3</sup> European AI Fund, 2021. Policy and Advocacy Core Grant https://europeanaifund.org/what-we-fund/targeted-core-fund-ing/

<sup>&</sup>lt;sup>4</sup> European AI Fund, 2021. Tech and COVID-19 Grant. https://europeanaifund.org/tech-and-covid-19-grant/

In a fast-changing AI policy environment, the European AI Fund is taking stock and this report is part of a reflection on how to best support civil society to become a more prominent voice and effective watchdog within the AI ecosystem. In part 1 we outline the state of play of the European AI and Society Ecosystem according to the framework laid out in the Stiftung Neue Verantwortung's (SNV) 2020 report<sup>5</sup> and answer how the European AI Fund can best support civil society to be a more visible and more effective voice in the debates on AI. The analysis is based on desk research, close readings of AI policy documents, government communications, reports, academic articles, civil society blog posts, news clippings and the fund's own documentation.

Part 2 also draws on the core functions identified in the SNV report. Through a series of interviews conducted with academics and members of civil society, it draws conclusions and poses questions about priority areas for AI and social justice issues. It focuses on which areas are considered top priority and why, which are neglected and what the ongoing consequences might be, and where significant differences in opinion were revealed between respondents and what might be the root of those differences.

Part 3 is based upon interviews with European and North American foundations. The purpose of these interviews was to discover and compare funding areas and strategies which could inform the European AI Fund's own strategies. It also assesses the benefits and drawbacks (perceived and actual) of a pooled fund. In terms of the European foundations, it also provided the opportunity to reach out to potential new members of the fund.

<sup>5</sup> Beining, L., Bihr, P. & Heumann, S., 2020. Towards a European AI & Society Ecosystem: Why we need it and how to empower it to shape Europe's way on AI. Stiftung Neue Verantwortung.

FIEKE JANSEN

## PART 1: MAPPING THE EUROPEAN AI AND SOCIETY ECOSYSTEM

In this part of the report, we will discuss three things. First, we explore the AI and Society Ecosystem framework that has influenced the European AI Fund's approach to funding. Secondly, we will provide an overview of the state of play of AI debates and investment trends in Europe. Thirdly, we will conclude with recommendations on where to go from here in terms of the European AI Fund's future strategies in supporting work on transversal issues and actors who are building alternative futures.

## AN AI AND SOCIETY ECOSYSTEM FRAMEWORK

This section will briefly outline the European AI and Society Ecosystem framework<sup>6</sup> presented by Stiftung Neue Verantwortung (SNV) in 2020, as this has informed the European AI Fund's approach to funding. The term "ecosystem" is used to point to the notion that to work towards a more positive future, counter-power requires a diversity of actors, expertise and approaches that build on top of each other. As such, the framework serves as a starting point for understanding the different roles that need to be filled by civil society in order for it to be a more visible and more effective voice in public and policy debates on AI.

The AI and Society Ecosystem framework builds on the idea that the European Commission (EC) strategy on AI balances their desire to reap the benefits of this next phase in digital transformation while also addressing certain risks associated with it. Industry has a strong voice in these policy debates, which risks skewing Europe's regulatory and investment mandate towards market interests.<sup>7</sup> A truly healthy and balanced AI ecosystem that puts societal interests and values at the centre of a European AI approach requires civil society to have a strong presence and voice within these debates.

The AI and Society Ecosystem framework identifies ten core functions that civil society needs to be able to perform to meaningfully contribute to the AI policy debate:

- Policy expertise
- Technical expertise
- Investigative expertise
- Watchdog expertise
- Strategic litigation expertise
- Expertise in building public interest use cases of AI
- Campaign and outreach expertise

<sup>&</sup>lt;sup>6</sup> Beining, L., Bihr, P. & Heumann, S., 2020. Supra note 5

<sup>&</sup>lt;sup>7</sup> Beining, L., Bihr, P. & Heumann, S., 2020. Supra note 5

- Research expertise
- Expertise in promoting AI literacy & education
- Sector expertise

These ten core functions offer insight into how funders could strengthen civil society efforts and support a healthy AI ecosystem. In its first two funding rounds, the European AI Fund has supported CSOs and research institutions to strengthen six of these ten core functions: policy expertise, technical expertise, watchdog expertise, campaigning and outreach expertise, research expertise, and sector expertise of the ecosystem. Here, sector diversity spans domain experts (i.e. in healthcare, agriculture and policing) and those working on transversal issues (i.e. social and racial justice, labour rights).

It is imperative to rethink what a healthy AI ecosystem looks like. Taking our cue from organisations contributing to social, racial and environmental justice and policy discussions on technology, we have chosen to expand the AI and Society Ecosystem framework by including the following core functions:

- Community organising: civil society in itself is not devoid of power relations, hierarchies and conflicts. As such, it is important to question whose voices are represented in policy discussions on AI and society, and which are missing. Including community organising as a core function in discussion on AI policy will connect lived experiences, harms and community concerns to the AI debate. It will also fold a long history of on-the-ground advocacy and organising into critiques of AI.
- Agenda setting: AI is a catch-all term which describes a broad and diffuse array of technologies. Still, AI has piqued the interest of governments and companies around the world and is seen as the next step in governance, consumer technology and infrastructure. This will impact how we understand issues around racial, environmental, labour and consumer justice. By including agenda-setting as a core function in the ecosystem framework, we draw attention to the actors who are asking the big questions and bringing new issues to the forefront of discussion.
- Building alternative futures: civil society plays a watchdog role in the area of human rights and technology. The primary focus here is on documenting and mitigating harms, and advocating for rules and regulations that constrain state and corporate power. In light

of investments made by government and corporations in AI, it is becoming increasingly important to divert resources away from extractive industries and towards initiatives and infrastructures that are people and planet by design. In the SNV report, this function is characterised as building public interest use cases of AI. By reframing this as building alternative futures, we aim to broaden discussion beyond technological use cases to also include fundamental questions on how we set standards, build community and design policy.

Bridge building: some AI challenges are already central to work on digital rights. They include pervasive state surveillance, manipulation of democracy, profiling of individuals by private companies, and the concentration and monopolisation of power. The emergence of cross-sector issues, like AI and health care, AI and labour, and AI and discrimination, often require sector-specific expertise in addition to technical and digital rights expertise. These connections do not emerge naturally and are led by individuals who are motivated to learn the language, history, framing and actions of other domains. Including the function of bridge-building allows us to understand that civil society is siloed, and that it takes great effort, resources and leadership to work on cross-sector issues.

A final point we want to note is that an ecosystem approach requires long-term support and capacity building rather than short term interventions. Policy debates, technological changes and corporate lobby efforts span timeframes that are often beyond the capacity of most civil society organisations, who have to divide their limited resources across competing, and often pressing, policy issues. In an ecosystem approach, it's important to understand what is needed now, and what will be needed in five years' time.

### THE STATE OF PLAY IN AI POLICY DEBATE

As part of mapping the European AI and society ecosystem, this section will briefly explore the AI context in which civil society operates. It will highlight the key policy developments, investment trends, transversal ethical questions and human rights challenges raised by civil society. The focus on Europe is prompted by the European AI Fund's belief that the EC's ambitious policies, regulations and digital transformation goals could, just like the General Data Protection Regulation (GDPR), shape the European, and to some extent global, AI landscape.<sup>8</sup>

### POLICY DEVELOPMENTS

The European strategy on AI is built on the belief that economic progress and social well-being is increasingly dependent on the data economy, which is currently dominated by non-European actors. To ensure that Europe reaps the benefits of new technologies, the EC has made digital transformation a top priority. As part of this, they have developed a European strategy on AI, in which the EC and its Member States become both investors in and regulators of AI.

Al emerged as a distinct policy area for the European Union during the Jean Claude Juncker presidency<sup>9</sup> (2014-2019) and was handed over to Ursula von der Leyen when she took over as president in 2019. Her commitment to regulating Al in her first 100 days of office sparked intense internal and external lobby efforts to slow down any legislative processes.<sup>10</sup> This succeeded in diminishing legislative commitment to the development of a European Al strategy, and resulted in the publication of a white paper, 'On Artificial Intelligence – a European approach to excellence and trust'.<sup>11</sup> In it, the Commission sets out Europe's policy objectives to promote the uptake of Al and address certain risks associated with it through a regulatory and investment-oriented approach.

<sup>&</sup>lt;sup>8</sup> European AI Fund, 2021. *supra* note 1

<sup>&</sup>lt;sup>9</sup> Niklas, J & Dencik, L., 2020. Working paper: European Artificial Intelligence Policy: Mapping the institutional landscape. https://datajusticeproject.net/wp-content/uploads/sites/30/2020/07/WP\_AI-Policy-in-Europe.pdf

<sup>&</sup>lt;sup>10</sup> De la Baume, M., Bayer, L., Cerulus, L., Delcker, J., Herszenhorn, D.M., Moens, B., Oroschakoff, K., Saeed, S., Scott, M., Tamma, P., and van Dorpe, S., 2020. Von der Leyen's real 100-day challenge: So many promises. So little time. Politico. December 1st, 2019 https://www.politico.eu/article/ursula-von-der-leyen-european-commission-first-100-days-timeline/ "European Commission, 2020. White Paper on Artificial Intelligence–A European Approach to Excellence and Trust, COM(2020) 65 final, Brussels: European Commission.

On the 21<sup>st</sup> of April 2021, the EC launched its proposal for a European approach to regulating AI, also known as the Artificial Intelligence Act (AIA).<sup>12</sup> It proposes providing "AI developers, deployers and users with clear requirements and obligations regarding specific uses of AI. At the same time, the proposal seeks to reduce administrative and financial burdens for business, in particular, small and medium-sized enterprises (SMEs)."<sup>13</sup> The AIA is part of a wider package that aims to strengthen AI uptake, investment and innovation across the EU.

While many applaud the EC's attempt to create the first-ever legal framework on AI, prominent civil society actors criticise it for being too vague and omitting several important red lines outlined by civil society.<sup>14</sup> A key criticism is that in its current shape, the AIA leaves too many loopholes for the mass surveillance and discriminatory practices used by governments and companies, which often have extremely harmful consequences.<sup>15</sup> Civil society called upon the EC to provide additional information, including guidelines on ensuring democratic oversight of uses of AI in the public sector and explanations of how they will establish a well-functioning enforcement mechanism.

<sup>&</sup>lt;sup>12</sup> European Commission, 2021. Proposal for a regulation of the European Parliament and the Council laying down harmonised rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union legislative acts, COM/2021/206 final. Brussels: European Commission

<sup>&</sup>lt;sup>13</sup> European Commission, *supra* note 11

<sup>&</sup>lt;sup>14</sup> Access Now, 2021. EU takes minimal steps to regulate harmful AI systems, must go further to protect fundamental rights. https://www.accessnow.org/eu-minimal-steps-to-regulate-harmful-ai-systems/ (accessed 8.17.21).

<sup>&</sup>lt;sup>15</sup> Chander, S., Jakubowska, E., 2021. EU's AI law needs major changes to prevent discrimination and mass surveillance. European Digital Rights (EDRi). https://edri.org/our-work/eus-ai-law-needs-major-changes-to-prevent-discriminationand-mass-surveillance/ (accessed 8.17.21).

## WHAT'S NEXT?

The EC shared the AIA and inputs from the feedback period<sup>16</sup> with the European Parliament (EP) and the European Council. This initiates a two-prong process. On the 20<sup>th</sup> of September 2021, the EP will announce their timeline and the committee responsible for dealing with and responding to the AIA. Alongside this, Member States are gathering their input to the Council, but it remains unclear when these will be discussed and what their timeline will be for sending their response to the EC.

The EC announced that the second half of 2024 is the earliest the regulation will come into force, with a transitional period starting in the second half of 2022. The transitional period will allow for the development and mandating of standards, and for setting up governance structures and oversight mechanisms. We have to note that the EC's timeline is aspirational and will depend on the timeliness and content of the responses of the EP and the Council. Civil society assumes that both inputs will differ. The EP might push for stricter and wider prohibitions in the AIA, whereas the Council might want to exclude law enforcement applications from it.

In the meantime, the EC will engage with adjacent initiatives, which include draft rules to address liability issues related to new technologies, including artificial intelligence systems, together with the revision of sectoral safety legislation.<sup>17</sup>

<sup>16</sup> European Commission, 2021. Artificial intelligence - ethical and legal requirements. https://ec.europa.eu/info/law/
better-regulation/have-your-say/initiatives/12527-Artificial-intelligence-ethical-and-legal-requirements\_en
<sup>17</sup> Canova, C., Propato, M., 2021. The EU Consultation on the draft AI Regulation: Hurry up and have your say! Dentos.
https://www.dentons.com/en/insights/articles/2021/july/27/the-eu-consultation-on-the-draft-ai-regulation-hurry-up-and-have-your-say (accessed 8.17.21).

## AI INVESTMENT TRENDS

Investment trends shed light on current and future developments in the AI sector. Alongside Venture Capitalist (VC) and Big Tech investments into AI development,<sup>18</sup> the EC, through its Digital Europe and Horizon Europe funding programs, will invest 1 billion euros per year in AI. In addition, the EC aims to mobilise additional investments from the private sector and its Member States to reach an annual investment of 20 billion euros over the course of this decade.<sup>19</sup> These investment areas shed light on the domains that will most likely be impacted by AI in the near future. In this report, we distinguish four European AI growth areas: public sector use, consumer AI, industrial AI and infrastructure.

### PUBLIC SECTOR AI

While recognising that consumer data is predominantly in the hands of non-European actors, the EC is looking towards the public sector as a key producer of tomorrow's data economy. European public institutions sit on a wealth of transport, energy and health data that would allow European research institutions and companies to develop new AI models. This public sector AI will be supported through research and development funding, and the appeal of AI to the public sector should guarantee its uptake. "It is essential that public administrations, hospitals, utility and transport services, financial supervisors, and other areas of public interest rapidly begin to deploy products and services that rely on AI in their activities."<sup>20</sup>

Increased investment in AI goes hand in hand with a rise in the number of pilots in local, national and European contexts. In the municipal context, investment allows for the deployment and piloting of AI in relation to urban development challenges and municipal service provision.<sup>21</sup> Nationally, state institutions are investing in AI pilots within the context of taxes, social welfare, policing and security. Europe's borders have become an investment site for experimental tech-

<sup>&</sup>lt;sup>18</sup> Mou, X., 2019. Artificial Intelligence: Investment Trends and Selected Industry Uses. International Finance Corporation, World Bank Group. https://www.ifc.org/wps/wcm/connect/7898d957-69b5-4727-9226-277e8ae28711/EMCompass-Note-71-Al-Investment-Trends.pdf?MOD=AJPERES&CVID=mR5Jvd6

<sup>&</sup>lt;sup>19</sup> https://digital-strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence

<sup>&</sup>lt;sup>20</sup> European Commission, 2020. *supra* note 11

<sup>&</sup>lt;sup>21</sup> Gemeente Amsterdam, 2020. Algorithm Register. https://algoritmeregister.amsterdam.nl/en/ai-register/. Helsinki, 2020. City of Helsinki AI Resgister. https://ai.hel.fi/en/ai-register/ . Dencik, L., Hintz, A., Redden, J. and Warne, H., 2018. Data Scores as Governance: Investigating uses of citizen scoring in public services. Research Report. Cardiff University. https://datajusticelab.org/wp-content/uploads/2018/12/data-scores-as-governance-project-report2.pdf

nologies that promise to automate certain border security features<sup>22</sup> and security has long been a driver and focus area for technological investments by states.<sup>23</sup> The EC now also considers healthcare and transport to be key industries where AI is "mature enough for large scale deployment."<sup>24</sup>

#### CONSUMER AI

Al is prevalent in consumer technology. (For example, Google maps which dynamically learns traffic patterns, home security, facial recognition to unlock smartphones, search and recommendation engines.) A recurring pattern within the development of consumer Al is that Big Tech uses its vast data infrastructures and financial resources to acquire and build on top of emerging technologies. Take, for example, smart assistants. Building on speaker recognition research, Big Tech has been able to adapt and scale this technological feature, creating a key interface through which people interact with their devices and the internet. We can distinguish between three market investment trends: optimising existing products, like search, home assistance and profiling; expanding further into consumers' homes and bodies, through smart products and wearable health gadgets; extending into industrial consumer products, like automating financial services.

#### INDUSTRIAL AI

Another investment area for the EC is AI in industry. "European industries that both hold a strong global position and are crucial to the next phase of digital transformation is seen as a way to (re)gain access to data infrastructure space."<sup>25</sup> These focus areas stem from the observation that 80% of data analysis happens in centralised cloud infrastructures, a market that is dominated by non-European companies, which limits access to data and computation power for European actors and decreases the state's ability to govern and control it. The emergence of new technology like AI and edge computing offers opportunities to level the playing field as "today most data relates to consumers and tomorrow far more abundant data will come from industry, business and the public sector."<sup>26</sup> The industry for low-power electronics needed for edge computing, health, transport, finances, energy, forestry and space is considered key.

 <sup>&</sup>lt;sup>22</sup> Leufer, D. & Jansen, F., 2020. The EU is funding dystopian Artificial Intelligence projects. Euractiv.com. https://www. euractiv.com/section/digital/opinion/the-eu-is-funding-dystopian-artificial-intelligence-projects/ (accessed 8.27.21).
<sup>23</sup> Mazzucato, M., 2011. The entrepreneurial state. Soundings, 49(49), 131-142. Gates, K. A. (2011). Our biometric future:

Facial recognition technology and the culture of surveillance (Vol. 2). NYU Press.

<sup>&</sup>lt;sup>24</sup> European Commission, 2020. *supra* note 11

<sup>&</sup>lt;sup>25</sup> European Commission, 2020. *supra* note 11

<sup>&</sup>lt;sup>26</sup> European Commission, 2020. *supra* note 11

#### INFRASTRUCTURE OF AI

States and companies alike are investing in the next-generation infrastructures needed to run AI such as the cloud, 5G, edge computing and quantum computing. A number of European flagship projects have great political momentum behind them. In Europe's 5G Action Plan, for example, both the EC and its Member States have identified 5G as a key asset for competing in the global market.<sup>27</sup> On top of national investments, the EC has committed over €700 million to accelerate research and innovation on 5G. It is also a key investment area for the Recovery and Resilience Facility (RRF).<sup>28</sup> Another flagship project is GIAI-X, the EU sovereign cloud project which aims to reduce reliance on US cloud partners. This initiative is aimed at putting in place a secure, sovereign and open data infrastructure which is based on "European values".<sup>29</sup> The Quantum Technologies Flagship project, in which the EC and its Members States are investing in quantum computing, is also prompted by the fear of falling behind its global competitors.<sup>30</sup>

It is important to note that it is primarily European digital rights organisations that are engaging with the public and policy debate on AI. Their work has historically focussed on the implications of technology on privacy, surveillance and human rights. As a result, civil society critiques more naturally align with public sector use of AI and consumer AI. Up to now, there has been less engagement with the industrial sectors and infrastructures that are considered AI investment opportunities.

<sup>27</sup> European Commission, 2021. 5G Action plan. https://digital-strategy.ec.europa.eu/en/policies/5g-action-plan

<sup>28</sup> Through the Recovery and Resilience Facility Europe has made 672.5 billion euros available in loans and grants available to its Member States to mitigate the economic and social impact of the Covid-19 pandemic. 20% should be directed toward investing in Digital Services. European 5G Observatory, 2021. Public Funding of 5G Deployment. https://5gobservatory.eu/public-initiatives/public-funding-of-5g-deployment/

<sup>29</sup> Interview with German Minister of State Dorothee Bär, 2020. We will shape digital transformation on our own terms.

The Federal Government https://www.bundesregierung.de/breg-en/issues/europe/gaia-x-1798486

<sup>30</sup> European Commission, 2021. Quantum. https://digital-strategy.ec.europa.eu/en/policies/quantum

## TRANSVERSAL CONCERNS

The European AI Fund takes the perspective that CSOs are crucial actors in the development of more equitable and trustworthy AI. From the start, it has been the more digitally-oriented CSOs that have been most prominent in public and policy debates on AI, raising issues around privacy, data protection, bias and discrimination.<sup>31</sup> However, increased involvement of other civic voices has broadened our understanding of the challenges associated with AI. We have identified five transversal issues that cut across AI policy and implementation, and have momentum behind them: equity and discrimination; justice, democracy and rule of law; climate crisis and sustainability; labour rights and consumer protection; safeguards and governance regimes.

#### EQUITY AND ANTI-DISCRIMINATION

There are two distinct features in civil society discussions around equity and anti-discrimination: advocating for more equitable AI policy and products, and the uneven power dynamics within civil society. The media, civil society and critical race scholars have exposed how discriminatory practices are perpetuated across a wide range of technologies – from search engines,<sup>32</sup> Facebook advertisements,<sup>33</sup> recommendation engines, recidivism risk scoring,<sup>34</sup> predictive policing algorithms and automated hiring systems.<sup>35</sup> Alongside the Black Live Matter movement, these advocacy efforts have shifted discussion of AI in a direction that is more critical of its potential and impact, and demands a political response that recognises the risks and harms related to the technology. This is an ongoing fight.

There is a growing awareness that within the civil society sector - and the digital rights field more specifically - uneven power dynamics, exclusion and privilege are at play. This requires critical inward reflection on whose voices count in exposing and addressing the social, political and ethical challenges of AI, who gets a seat at the policy table, and who is allowed to shape the future of AI. If civil society does not address this issue it "leaves us with a watchdog that inevitably

<sup>&</sup>lt;sup>31</sup>Niklas, J. & Dencik, L., 2021. What Rights Matter? Examining (the lack of) social rights in EU's AI policy debate. Still to be published.

<sup>&</sup>lt;sup>32</sup> Noble, S. U., 2018. Algorithms of oppression. New York University Press.

<sup>&</sup>lt;sup>33</sup> Gillum, J. & Tobin, A., 2019. Facebook Won't Let Employers, Landlords or Lenders Discriminate in Ads Anymore. Pro-Publica. URL https://www.propublica.org/article/facebook-ads-discrimination-settlement-housing-employment-credit (accessed 3.11.21).

<sup>&</sup>lt;sup>34</sup> OCCRA. 2016. ProPublica report: recidivism risk models are racially biased. https://orcaarisk.com/articles/2016/10/12/ propublica-report-recidivism-risk-models-are-racially-biased (accessed 3.11.21).

<sup>&</sup>lt;sup>35</sup> Sánchez-Monedero, J., Dencik, L., & Edwards, L., 2020. What does it mean to 'solve' the problem of discrimination in hiring? Social, technical and legal perspectives from the UK on automated hiring systems. In Proceedings of the 2020 conference on fairness, accountability, and transparency (pp. 458-468)

will have too many blind spots to properly serve its function for all the communities it is supposed to look out for."<sup>36</sup> A number of initiatives are seeking to address this. They include the Decolonizing Digital Rights<sup>37</sup> initiative spearheaded by EDRi and the Digital Freedom Fund, the Justice Equity and Technology Table,<sup>38</sup> and the Ada Lovelace Institute's Just AI fellowship.<sup>39</sup>

#### JUSTICE, DEMOCRACY AND RULE OF LAW

The impact of AI on European democracy and rule of law has proven an important incentive for the EC to engage with questions around regulation. More specifically, the influence of fake news and misinformation on democracy has dominated mainstream policy debates since the 2016 US election and regained prominence now that disinformation is thriving on the Covid-19 pandemic. The political response has been to call upon internet and social media companies to do more to counter disinformation while avoiding undermining freedom of speech.<sup>40</sup> CSOs have presented a more fundamental critique, arguing that these interventions do not address how "today's AI-powered targeted advertisements can spread misinformation and disinformation."<sup>41</sup> This argument points to the fundamentally flawed logic of the internet's attention economy, in which social media platforms are designed to serve content that keeps users clicking and scrolling. This structure allows misinformation and hate speech to flourish - even while it is placed next to information that is balanced, fair and accurate - as well as directly funding it through the advertising ecosystem.<sup>42</sup>

A less talked about governance issue is how AI will affect access to justice as a principle of the rule of law. "Justice is open to all merely in theory. In reality, access to justice is often limited due to, among other things, structural injustices, inadequate financial resources, lack of knowledge, time-constraints or ineffective remedies."<sup>43</sup> Legal professionals have expressed concerns about how the use of

<sup>&</sup>lt;sup>36</sup> Reventlow, N.J. (2019). Rebuilding the master's house instead of repairing the cracks: why "diversity and inclusion" Medium. https://nanijansenreventlow.medium.com/rebuilding-the-masters-house-instead-of-repairing-the-cracks-why-diversity-and-inclusion-in-3542a0174c48 (accessed 8.27.21).

<sup>&</sup>lt;sup>37</sup> Digital Freedom Fund, 2021. Decolonising. https://digitalfreedomfund.org/decolonising/

<sup>&</sup>lt;sup>38</sup> Justice, Equity and Technology Project, 2021. Justice, Equity and Technology Table. London School of Economics and Political Sciences https://www.lse.ac.uk/justice-equity-technology/Justice-Equity-and-Technology-Table

<sup>&</sup>lt;sup>39</sup> Ada Lovelace Institute, 202. JUST AI Visiting Fellowship https://www.adalovelaceinstitute.org/just-ai/visiting-fellowship/

<sup>&</sup>lt;sup>40</sup> European Parliament, 2019. EU to take action against fake news and foreign electoral interference. https://www. europarl.europa.eu/news/en/press-room/20191007IPR63550/eu-to-take-action-against-fake-news-and-foreign-electoral-interference

<sup>&</sup>lt;sup>41</sup> Kingaby, H., 2020. Climate misinformation: inconvenient truths & convenient untruths. Medium. https://hkingaby84. medium.com/climate-misinformation-inconvenient-truths-convenient-untruths-5d83b6db637c

<sup>&</sup>lt;sup>42</sup> Kingaby, H., 2020. AI and Advertising: A Consumer Perspective. https://www.harrietkingaby.com/reports

<sup>&</sup>lt;sup>43</sup> Ottosson, A., 2020. Accessing Justice in the Age of AI. Digital Freedom Fund https://digitalfreedomfund.org/accessing-justice-in-the-age-of-ai/3/ (9th April, 2020)

Al systems will further undermine individuals' right to access justice and should be recognised as one of the things that limit avenues of redress. The challenges identified are: limited knowledge that one has been subjected to and impacted by Al technologies, difficulty in proving harms that are caused by Al technologies, and the absence of a route for collective action in cases where individual harms are low but systemic harm is high (for example, harms to a group that share specific attributes such as ethnicity, gender, religion or low-income).

#### CLIMATE CRISIS AND SUSTAINABILITY

The internet is the world's largest machine and its environmental impact is a growing topic of concern. Civil society has started to develop a narrative for public and policy discussions. Here it is important to understand AI in relation to its value chain, from the intensification of mineral extraction for devices<sup>44</sup> and increase of e-waste,<sup>45</sup> to the increased energy consumption of AI, specifically in relation to the (continuous) training of systems. Academic researchers found that training a single AI voice model can emit as much carbon as five cars in a life-time.<sup>46</sup> And the environmental impact of the integration of AI within other extractive industries, like the oil industry,<sup>47</sup> has also come under scrutiny. A less talked about element in the discussion of AI and the climate crisis is the acknowl-edgement that these extractive practices come at the expense of communities who are the least responsible.<sup>48</sup>

#### LABOUR RIGHTS AND CONSUMER PROTECTION

Most civil society critique of AI has been directed at the infringement of fundamental human rights, such as the right not to be discriminated against, the right to justice, the right to privacy, and less so on its impact on socio-economic rights and consumer rights. Discussions on socio-economic rights have primarily focused on labour rights and the impact of being managed by AI systems. The most notable examples are in the gig economy. In 2017, the *New York Times* reported on the different ways Uber used behavioural science to influence its drivers,<sup>49</sup>

<sup>&</sup>lt;sup>44</sup> Mitchell, A., 2017. The Social and Environmental Impact of Mobile Phones. Reset. https://en.reset.org/knowledge/ ecological-impact-mobile-phones

<sup>&</sup>lt;sup>45</sup> Giswatch, 2010. Focus on ICYs and environmental sustainability. https://www.giswatch.org/sites/default/files/ gisw2010\_en.pdf

<sup>&</sup>lt;sup>46</sup> Hao, K., 2019. Training a single AI model can emit as much carbon as give cars in their lifetimes: Deep learning has a terrible carbon footprint. Review. https://www.technologyreview.com/2019/06/06/239031/training-a-single-ai-model-can-emit-as-much-carbon-as-five-cars-in-their-lifetimes/

<sup>&</sup>lt;sup>47</sup> Stacki, V., 2020. New Greenpeace Report Exposes Big Tech Connection to Big Oil. Greenpeace https://www.greenpeace.org/usa/news/new-greenpeace-report-exposes-big-tech-connection-to-big-oil/

<sup>&</sup>lt;sup>48</sup> Equinox, 2021. Towards Climate Justice: Rethinking the European Green Deal from a racial justice perspective. Equinox: initiative for racial justice. https://www.equinox-eu.com/wp-content/uploads/2021/06/Towards-Climate-Justice-Equinox.pdf

<sup>&</sup>lt;sup>49</sup> Scheiber, N., 2017. How Uber uses psychological tricks to push its drivers' buttons. The New York Times. https://www. nytimes.com/interactive/2017/04/02/technology/uber-drivers-psychological-tricks.html

while in Italy, the courts ruled against Deliveroo's rider-ranking algorithm, saying it discriminated against riders who took strike action, and ordered the company to pay damages to trade unions.<sup>50</sup> Lesser-known examples include "Amazon spying on its workers in private Facebook groups or using Covid-19 health-tracking technology to keep tabs on at least 340,000 workers [or using] facial recognition of employees working remotely, monitored by smaller employers."<sup>51</sup>

In the domain of consumer AI, the infringement and protection of consumer rights is a transversal issue in the development, deployment and regulation of AI. The European Consumer Organization BEUC criticised the AIA, pointing out that it "does not adequately protect consumers, for example from possible economic harm caused by AI products and services."<sup>52</sup> This is because the AIA focuses narrowly on high-risk AI applications which will leave out many of the AI products that will directly affect consumers.

#### SAFEGUARDS AND GOVERNANCE REGIMES

Finally, it has to be noted that AI discussions have given rise to a policy doctrine of ethical and procedural safeguards. This discussion builds on the belief that AI's "great" potential can be harnessed and its harms mitigated by erecting "fair and transparent" governance regimes that set standards, safeguards and obligations on its development and deployment. Some more liberally-oriented CSOs and academics align with the EC's AIA in calling for soft norms, ethics and minimal government interventions (for example, human rights impact assessments, increased transparency efforts and adequate oversight and enforcement). Others are calling for specific bans on the mass surveillance practices that are already infringing fundamental human rights.<sup>53</sup> Like all debates on technology, it is political. It is imperative for the European AI Fund to remain reflective and understand who is pushing what agenda and why.

<sup>&</sup>lt;sup>50</sup> Lomas, N., 2021. Italian court rules against 'discriminatory' Deliveroo rider-ranking algorithm. TechCrunch. https:// social.techcrunch.com/2021/01/04/italian-court-rules-against-discriminatory-deliveroo-rider-ranking-algorithm/ (accessed 8.29.21).

<sup>&</sup>lt;sup>51</sup>Naranjo, D., 2021. Workplace, public space: workers organising in the age of facial recognition. EDRi. https://edri.org/ our-work/workplace-public-space-workers-organising-in-the-age-of-facial-recognition/ (accessed 22nd June 2021).

<sup>&</sup>lt;sup>52</sup> BEUC, 2021. EU proposal for artificial intelligence law is weak on consumer protection. https://www.beuc.eu/publications/eu-proposal-artificial-intelligence-law-weak-consumer-protection/html

<sup>&</sup>lt;sup>53</sup> EDRi, 2021. Letter to the European Commission to request a ban on biometric mass surveillance. https://edri.org/ wp-content/uploads/2021/04/Letter-from-51-civil-society-organisations-seeking-your-support-for-a-ban-on-biometric-mass-surveillance-practices.pdf

## WHERE TO NEXT

To conclude part I of this report, we will make recommendations on how the European AI Fund can best support civil society to be a more visible and more effective voice in the debates on AI. There are different approaches the European AI Fund can take: it can focus on strengthening the entire AI and Society Ecosystem or it can choose to support key functions, domains or transversal issues that need to be strengthened. From considering the state of play on AI policy and the investment and transversal challenges, there are four distinct approaches open to the European AI Fund.

#### AI POLICY, IMPLEMENTATION AND ENFORCEMENT

The European AI Fund can continue to support existing policy experts in influencing the AI policy debate. Learning from the GDPR, other ecosystem functions become more prominent once the legislative process is in place. It will take combined policy and watchdog expertise to influence Member States' input to the Council and the EP, and to monitor the oversight and enforcement chapter of the AIA.<sup>54</sup> Dedicated campaigns to encourage the EC to ban biometric mass surveillance (like "reclaim your face")<sup>55</sup> will require campaign and outreach expertise, while strategic litigation experts will be needed to clarify the meaning of broadly-defined terminology within the AIA and challenge unlawful implementation.

This approach would require the European AI Fund to continue to support existing and new voices in the public and policy AI debate. A key reflection from the 220 applications received for the open call Policy and Advocacy Core Grant, was that the open call mechanism does not guarantee a truly diverse group of applicants in terms of geographical spread, thematic focus and transversal issues.<sup>56</sup> Increasing the geographical diversity of applications requires active outreach and engagement with traditional CSOs from Eastern and Southern Europe through an approach which combines grant-making and field-building activities. Strategic litigation is covered by other funding programs, such as the Digital Freedom Fund.

<sup>&</sup>lt;sup>54</sup> The governance mechanism should be developed in the transitional period that is expected to start in the second half of 2022.

<sup>&</sup>lt;sup>55</sup> SHARE Foundation, Hermes Center, Bits of Freedom, ARTICLE19, Homo Digitalis and EDRi, 2020. Campaign "Reclaim Your Face" calls for a Ban on Biometric Mass Surveillance. https://edri.org/our-work/campaign-reclaim-your-face-callsfor-a-ban-on-biometric-mass-surveillance/

<sup>&</sup>lt;sup>56</sup> European AI Fund, 2021. Terms of Reference: Identifying funding options for the European AI Fund

#### TRANSVERSAL ISSUES

The inclusion of equity and anti-discrimination measures in the public and policy debate on AI harms shows just how important it is to support new voices that bring broader human rights and social justice perspectives to the table. Further cross-sectoral cooperation can be seen on topics such as AI's impact on access to justice, environment and sustainability and labour rights. These contributions by social and racial justice organisations show that key transversal topics emerge through collaboration between existing and new voices in the AI debate that hold agenda setting, watchdog, research and bridge-building expertise.

This approach would require the European AI Fund to continue to support existing and new voices who are interested in or already working on transversal issues. It is imperative to actively include community voices and organisers in discussions on AI. This will connect top-level policy debates to the lived experience of those negatively impacted by AI and ensure these fundamental critiques do not fade away in the rhythm of political discussion. Investing in individuals, communities and organisations demands a shift in thinking about who to support as well as how to best support the inclusion of societal interest in the AI debate. New voices might have strong community or individual credentials but lack organisational track records.

#### SECTORS IMPACTED BY AI

The EC is encouraging widespread uptake of AI based on the idea that it is a general-purpose technology capable of driving efficiency and productivity in virtually all sectors of the economy. In parallel, market investments are increasingly directed toward consumer services such as finance, industrial AI and AI infrastructures. Sectors that will most likely be impacted by AI in the near-future are police, borders, health care, agriculture, energy, transport, finance and consumer products. Prominent critiques that have exposed issues related to the use of AI in specific sectors<sup>57</sup> have required a combination of sector expertise, research expertise, and at times investigative expertise, technical expertise and watchdog expertise.

<sup>&</sup>lt;sup>57</sup> Liberty, 2020. Liberty wins ground-breaking victory against facial recognition tech. https://www.libertyhumanrights. org.uk/issue/liberty-wins-ground-breaking-victory-against-facial-recognition-tech. Cuisi, F., 2021. Digital contract tracing apps: do they actually work? A review of early evidence. Algoritm Watch. https://algorithmwatch.org/en/analysis-digital-contact-tracing-apps-2021/. Ada Lovelace Institute, 2021. COVID-19 technologies: Examining new data practices and emerging technologies in response to COVID-19 https://www.adalovelaceinstitute.org/our-work/themes/covid-19-technologies/. Quinn, B., 2016. Google given access to healthcare data of up to 1.6 million patients. The Guardian. https:// www.theguardian.com/technology/2017/may/16/google-deepmind-16m-patient-record-deal-inappropriate-data-guardian-royal-free

This approach would require the European AI Fund to support CSOs with sector expertise to build capacity on the AI public and policy debate, as well as supporting bridge builders between the different actors within the AI and society ecosystem. It must be noted that the multitude of sectors that will most likely be impacted by AI means the European AI Fund must choose areas of interest. Sectors could be selected on the basis of their societal impact, as well as the political momentum and investments that are accelerating AI implementation. If the European AI Fund chooses a sectoral approach, it can learn from the successful Tech and Covid-19 grants and remain agile, thereby allowing for a nimble response to unknown AI issues that will emerge in the future.

#### **BUILDERS OF ALTERNATIVE FUTURES**

In light of the government and corporate investments made in AI, it is becoming increasingly important to divert resources from extractive industries to initiatives and infrastructures that are people and planet by design. As such, the final approach we want to highlight is to support the building of alternative futures. The emphasis here should be on more experimental approaches that root themselves in ethical and human rights challenges to create alternative technical, policy and social visions and ideas of what we want AI to look like. Interventions could range from building public interest use cases of AI, implementing people and planet by design technical standards, encouraging community AI, or composing speculative policy. This requires investing in thought leaders, agenda setters and builders of alternative futures who have community and technical expertise.

This approach would require the European AI Fund to engage with a more experimental approach to funding. Many exciting and important ideas emerge from experts who do not have an institutional home. There is a need to support these individuals and emerging organisations that have the ability to set the agenda and steer the conversation. Moving beyond merely mitigating harm to actually building alternative futures requires an interdisciplinary approach that centres on community, and social, environmental and racial justice.

### RECOMMENDATIONS

When we look at the state of play of the AI policy, investment and civil society debate it becomes clear that we are moving into a new phase that is less about European policy expertise and more about building coalitions that encompass human rights issues, monitoring and challenging AI implementation, building alternative futures and channelling state investments. For civil society to be a more visible and more effective voice in public and policy debates on AI, different core functions are needed.

As such, we conclude part I of this report on mapping the European AI and society ecosystem by recommending that the European AI Fund explores future funding strategies that will contribute to building coalitions across CSOs. It should do this by supporting work on transversal issues and supporting actors who are building alternative futures. This will direct the debate towards the more fundamental questions of how we want our societies to be organised and allow for the proposal of alternatives for a future that is people and planet by design.

#### ABOUT THE AUTHOR

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SUSAN MORGAN

PART II: MAPPING FUNDING NEEDS OF THF FUROPFAN AI AND SOCIFTY FCOSYSTFM

EUROPEAN AI FUND

## INTRODUCTION

This section of the report sets out findings from 11 interviews carried out during June 2021 with academics and members of civil society in Europe. Those working on digital rights and social justice issues, as well as those who have been focused on AI for some time and others who are new to it, were included in the interviews. A small majority of interviewees described their work on AI as mature. A further four saw their work as somewhat mature and two organisations were new to the field. Current grantees of the European AI Fund were interviewed as well as non-grantees. The report "Towards a European AI and Society Ecosystem: Why we need it and how to empower it to shape Europe's way on AI" by Stiftung Neue Verantwortung (SNV) was used as the basis of the research to understand the needs present in the European field as the European AI Fund develops its future funding strategy. The report sets out ten core functions crucial to the creation of a strong ecosystem:

- policy expertise
- technical expertise
- investigative expertise
- watchdog expertise
- strategic litigation expertise
- building public use cases of Al
- campaign and outreach expertise
- research expertise
- promoting AI literacy and education
- individual sector expertise

Inevitably there is some overlap in these functions. Interviewees were asked to discuss their own funding and capacity needs as well as their wider observations on the field as a whole. Interviewees offered a number of interesting comments during the interviews, which are included at relevant points below. As the interviews were carried out under the Chatham House rule, the person being quoted is not identified.

## FINDINGS

Of the ten core functions set out in the SNV report there was some consensus on the top priorities, but a few areas of real difference of opinion emerged.

Investigative expertise and strategic litigation expertise were the most commonly prioritised functions, although the utility of strategic litigation expertise was contested, with some expressing concerns that although some highly effective cases are being brought which generate public debate, it is harder to determine whether they create real change in practice. One interviewee talked about their own need for increased applied legal expertise in order to be able to better understand the liability issues associated with AI in practice. Research expertise was seen as the third most important function - provided that it has certain characteristics. For example, that it is multi-disciplinary, carried out for specific purposes, such as mapping different AI uses, and showing the consequences of Al or illustrating that it doesn't work. The next two most important functions were seen by interviewees as the watchdog function and AI literacy and education. The intention behind promoting AI literacy and education is important. It must genuinely be about enabling people to understand AI and be capable of critiquing what is happening rather than merely a trust-building exercise for the use of AI technology. Expertise in building public interest use cases of AI was the most contested of the ten functions, with strong views on either side, centred around whether there is already sufficient investment in it or not. Individual sector expertise was not highlighted by many interviewees as important, however this could also be seen as being covered by investigative expertise. Predictive systems can be used almost anywhere in the economy, for example in fraud detection, loan repayments and disease control.

The three least important areas of expertise according to interviewees were campaigning and outreach expertise, with some seeing this as important but others thinking that quite a lot is already being done. It was surprising that only a few interviewees thought technical expertise was important. This could be explained by it being covered in both the investigative expertise and research functions. Those who were interested in this wanted to know how the tools work, how to identify bias and the tools companies are using. The least mentioned of the ten functions was policy expertise. As building capacity on policy is already a key element of the strategy for the European AI Fund, this function was not specifically raised in the research interview questions but it was proactively mentioned by several interviewees.

There are a number of key findings from the interviews:

- National context is vital and more work needs to be done at a country level.
- Implications and impacts for people must be prioritised. It is essential to make AI visible and real to people. The importance of being able to tell stories in this context was highlighted.
- The use of AI in the public sector was of particular concern, with the transparency and accountability of its use in this setting being a consistent theme.
- Coordination and shared learning for both donors and grantees is vital.
- Capacity building and creating networks are both essential.

Four additional insights came through the research which raised broader questions than those relating directly to the needs of the field and possible future funding strategies:

- (1) Concern was expressed about how imprecisely the term "AI" is used. It is often used to describe systems and processes that are far less sophisticated that the term suggests. This is reflected in the myths that persist around AI, some of which seem to come directly from science fiction. There are two risks associated with this. Firstly, that the technical terminology of AI is sufficiently distracting that the story of how technology is affecting people's everyday lives fails to be adequately told. And secondly, that while attention is focused on AI, many other systems that are less sophisticated, but can have the same type and degree of impact, are rolled out unnoticed.
- (2) A number of people expressed significant concern about the lack of understanding that lawmakers have about AI given the critical decisions they will take in setting the legal and regulatory frameworks that

will govern AI systems in the coming years. There was recognition that this isn't something the European AI Fund can really address, however this lack of expertise does have consequences for the ability of civil society experts to partner effectively with those in decision-making roles.

- (3) There is concern about the persistent over-promising and under-delivery of AI in a variety of different settings.
- (4) Interviewees were also concerned about the under-funding and under-resourcing of national regulatory bodies and the impact this is likely to have on the ability to effectively enforce new regulations when they come into effect.

## THE IMPORTANCE OF THE NATIONAL CONTEXT

The legislative proposals and texts at an EU level regarding AI (from the AI proposals themselves to other proposals such as the Data Governance Act) have attracted significant civil society interest. However, how AI policy and regulations are developing at a national level is underexplored. Many countries have either already adopted their own AI policies and strategies, or they are under discussion. It is important for civil society to be involved in the development phases of these frameworks, and also have the capacity to follow up afterwards and understand how effective the implementation is. The UK and Poland have this expertise, and there is one organisation in Spain and another in Greece. But even in EU countries such as France there is a lack of capacity. It is very difficult to do this kind of work effectively from outside the country.

An important aspect of the national context is the standardisation process which will take place in individual countries through national standardisation bodies which are members of CEN-CENELEC. This is not a process easily open to civil society, however, companies can be involved in particular national efforts if they have a subsidiary in that country. This is a subtle way for lobbying against European values to take place. For example, Huawei is eligible to be involved in the national Belgium standardisation process as it has a subsidiary in Belgium. Standardisation bodies derive their income from company membership fees, and while work on standards isn't glamorous and doesn't have the cache of a court case, it can have a powerful impact on the way in which AI develops.

Nationally-based civil society organisations could be well placed to have a significant input at an EU level through negotiations in the European Council.<sup>58</sup> In this context it is important to recognise that different messaging from civil society groups could have different results in particular countries. For example, messaging about ethics and the responsible use of AI will be seen in the Netherlands as a concern because of the strong focus on innovation but could resonate more strongly in Belgium and Germany. Post-Soviet states such as Estonia have fully embraced the use of technology, which reflects their approach to policy-making within the EU. The position of Germany is central given its power within the EU and the role of its industry. Although now outside the EU, the UK continues to be important as it is setting itself up to be a leader in AI. There is also a geopolitical context to these technologies in Europe. For example, in the Balkans, which is part of China's Belt and Road Initiative, there is widespread access to Chinese technology which is then used by China to inform how their technology is adopted and used in Europe.

National context is also important when considering the second key finding detailed later in this section of the report - that of making AI real to people. Each country will have their own experience of how AI is used and applied because they come to it for different reasons. For example, austerity policies have been a driver for the adoption of technology in the UK, while Germany and the Netherlands are rethinking crime and risk. It is important to understand how tools are used to identify people and data is transferred between agencies within countries. National expertise will be essential for this effort.

It is also important to think about transnational issues (such as border control) where AI could dominate in the coming years and how this will impact particular countries, for example in the context of the climate emergency and the likelihood of much greater numbers of refugees. Because this is out of the scope of the draft EU AI framework, this could produce incentives for countries within the EU to partner with third countries or international organisations not party to EU AI regulations as a way round its restrictions. One interviewee commented that "companies are looking to try and make themselves exempt from the rules." It was also disheartening to hear one interviewee comment that "at an EU level, people from western Europe are more likely to be heard."

<sup>&</sup>lt;sup>58</sup> This is a very similar finding to work completed for Civitates in 2020.

## THE IMPLICATIONS AND IMPACTS FOR PEOPLE MUST BE PRIORITISED

It is important that civil society organisations and citizens understand the implications of AI. The reality is that AI is likely to impact everyone. This underscores the importance of AI not being seen solely as a digital rights issue but rather as one concerning all civil society organisations, which must understand how it changes the nature of their work and impacts the communities they work with. Some traditional civil society organisations working with marginalised groups currently have very little understanding of AI. There is evidence that connections between digital rights groups and other civil society organisations are being made but there is more to be done. This brings its own pressures. One interviewee, reflecting on the resource constraints within such groups, said "digital rights groups need a lot of our time right now which is both good and bad".

As well as more work needing to be done to help civil society organisations understand AI, many citizens are unaware of its implications. Most use technology in their daily lives but this doesn't translate into an understanding of the broader consequences of the roll-out of technology in the next few years - for example, the wide-scale use of biometric surveillance. Citizens don't know how, where and why AI is being adopted, nor what impact it could have on them in their everyday lives and on marginalised groups and communities. In the Balkans, for example, there is a high level of support for the general digital transformation of public administration which results in the development of e-services. But the reality is that the success of these projects hinges on significant changes to how the backend systems operate, and the centralisation of data. These reform processes are often beset with issues to do with how the public and private sectors work together, problems associated with vendor lock-in and also corruption. Further issues include poor information security, a lack of privacy by design and adherence to data protection requirements.

Communication and storytelling skills are needed by many in civil society to bring to life how AI technologies are used across Europe and why it matters. Telling the story of the limitations of AI is also important. Research led by Princeton University and published as the Fragile Families Challenge in the *Proceedings of the National Academies of Science*<sup>59</sup> aimed to predict life outcomes for families in six areas. Despite having a rich dataset and 160 teams of data scientists and

<sup>59</sup> https://hdsr.mitpress.mit.edu/pub/uan1b4m9/release/3

social scientists building statistical and machine learning models, the study was unable to accurately predict life outcomes. If the best modelling is still poor, a powerful case to limit the deployment of AI models could be built.

# THE USE OF AI BY THE PUBLIC SECTOR

The significant impact the public sector has on people's lives, particularly vulnerable and marginalised groups, means the use of AI demands a high degree of transparency and accountability for its deployment. The Fragile Families research mentioned above illustrates the potential dangers of using AI as part of a welfare system when its accuracy may be low. In relation to migrants and undocumented people, we found great concern about the digitisation of borders and the intersection of policing, incarceration and border enforcement. In the Netherlands, police are already using handheld devices to tell them if someone is undocumented. We found concern about the way in which ethnic profiling can be enhanced by AI and we anticipate that in the next decade there will be elevated numbers of refugees due to the climate emergency, meaning these systems will negatively affect increasing numbers of people. Databases that are connected to different parts of a state all increase the risks for vulnerable groups seeking to access services such as healthcare. The free flow of data to agencies such as Interpol creates another avenue for potential harm. One interviewee talked about the need for civil society to "learn how to work with impacted communities in ways that are empowering, ethical and useful." There is concern that while communications about the developments of AI are improving, there is still insufficient work, which really has impact, being done on the implications for people's lives. We also found interviewees were concerned about experimentation by states using AI on marginalised groups that could then be extended to wider society.

One interviewee described the way the AI sector has wedged itself into government and how the health surveillance infrastructure quickly constructed around Covid-19 could be expanded. There is a lot of discussion about the difficulty of getting access to the technological systems behind AI. But one interviewee said the real challenge was actually access to the players themselves to understand "all the ways in which corporations and academic researchers are gaming the system to be less transparent." Several interviewees talked about the wider issue of the political economy and the extent to which growing dependence on private technical infrastructure affects democracy. This is not currently front and centre of the debate, yet it has huge implications for societies. There is a tendency to talk about AI as a technology rather than as an industry in its own right, and there was concern that the debate about AI and democracy had already been lost given the undue focus on innovation and economic growth.

## COORDINATION AND SHARED LEARNING FOR DONORS AND GRANTEES IS VITAL

We found that interviewees saw much duplication of efforts around issues related to AI. Finding ways for donors and grantees to coordinate is very important. This is particularly crucial when technological solutions are built and deployed in one country and then replicated elsewhere. Alongside coordination, we also found that it is important for donors to be clear and strategic in what they are looking to fund, to help ensure potential grantees do not waste their time applying for funds that are outside of the funding's scope.

Pooled funds, like the European AI Fund require coordination. Coordination may also be necessary with other, non-member funds that are working on digital technologies. Given the interconnections between AI and other issues such as privacy, data protection, algorithmic transparency and information security, framing funding merely in terms of AI may be needlessly limiting.

## CAPACITY BUILDING AND NETWORK CREATION IS ESSENTIAL

We found that capacity building will be essential. This is not necessarily just technical capacity but rather the capability of organisations to know how AI will impact their beneficiaries or the communities they work on behalf of.

#### RECOMMENDATIONS

The current strategy of the European AI Fund is building policy capability and stronger connections between digital rights and social justice groups. The need to amplify the voices of social justice groups and increase their capacity to tackle these issues on a consistent, long-term basis was repeated throughout all the interviews. One interviewee commented "the fund should keep doing what it is doing — it has done a good job in supporting non-obvious actors."

Given the relatively early stage that the use of AI in society is currently at, it is not surprising that the overall finding was that all parts of the ecosystem set out by SNV need to be strengthened. However, we do have two specific types of recommendation for the future development of the fund's strategy — one related to where the fund should consider directing its resources and the other about the type of funding offered.

#### WHERE THE FUND SHOULD FOCUS ITS RESOURCES

(1) Invest in storytelling and investigative efforts that bring the consequences of AI to life for people and affected communities

Europe doesn't have the investigative reporting capacity on technology and AI that has emerged in the US through such organisations as The MarkUp. Investigations by journalists into how technology works and the harms it creates or leads to are essential to building strong community groups and empowering affected communities. Likewise, storytelling can bring to life the potential consequences and opportunities for individuals and communities. Drawing separations between issues affecting technology and society is no longer realistic.

#### $\langle \hat{z} \rangle$ Invest in the creation of alternative positive models

We found that although demonstrating harm is important, it is insufficient on its own and civil society also needs to be creating alternative models for how to do things democratically. This is not limited to thinking about public interest technology but should also focus on an alternative to the dominant logic that Al is needed to streamline processes, increase efficiency and reduce costs. Not only is it far from clear that AI delivers these results, this management theory fails to start with the lives of people at its centre. Resources should be devoted to understanding areas where AI is not currently in use. What can be learnt from where AI technology is not being deployed within government and there is less of a role for the private sector? This could be an important point of comparison to help in the development of alternative, positive models and visions. As was said in one interview, "we really need big thinking on a new management theory that challenges the logic and model of AI streamlining processes, making things more efficient and cheaper." This approach also needs to counter anti-China framing and the narrative that Europe is stuck in a race between China and the US.

#### $(\bar{3})$ Invest in national-level capacity

We found strong support in our interviews for the idea of increasing work done at the national level on the impacts of AI. This is relevant to many parts of this report, including being able to investigate the failings of AI and develop alternative models that take into account the local context, the inclusion of civil society in standard setting efforts, and the application of AI in jurisdictions in relation to particular use cases such as policing and migration. It is critically important to ensure that this work is not seen as the preserve of digital rights groups. Many groups are currently underrepresented in conversations about Al, including trade unions and consumer protection groups. While construction of a comprehensive ecosystem across Europe of civil society actors working on these issues is ongoing, there may be opportunities to learn lessons from the establishment of the digital rights field. Compared to civil society actors working on other issues, it is a relatively well funded field at a European level. But at a national level, resources are still constrained and groups thinly stretched. It would be good to explore the reasons behind this as it potentially illustrates the scale of the challenge of creating competency across the ten core functions set out in the SNV report across all European countries. The lessons learned may provide a useful way forward.

## (4) Invest in research to test whether the claims of what technology can do are false

Evidence from research, such as the Fragile Families study mentioned earlier, can be vital in showing where there is no legitimate case for the deployment of AI systems (child welfare is one example).



## Invest in efforts to bring greater transparency and accountability to the use of AI in the public sector

The public sector has a unique influence on people's lives. Efforts to monitor the roll-out of AI systems across Europe should include a focus on the ways in which data is shared between different authorities, and the growing interconnectedness of the public and private sector. This will help with understanding the implications for democratic governance.

#### TYPE OF FUNDING

Longer term funding, rather than relatively short-term project support, was cited by a number of interviewees as a key requirement. This is likely to be particularly important for those organisations that typically work on social justice issues and are looking to address the consequences of AI for their work. One interviewee said that long term support was essential for affected communities that do not have a background in digital issues. This doesn't necessarily need to translate into more funding, but providing funding over an extended period of time affords the opportunity to build an organisation or targeted expertise over time. It is also a practical reality: funding needs to map onto the legislative timetable so that funding isn't lost part way through the policy negotiations.

We found two advantages to a pooled fund:

- Pooled funding can leverage coordination between grantees and their efforts as well as donors to help reduce duplication and increase impact. We heard of examples of poor coordination between donors, leading to duplicated efforts. This is a particular issue in countries where many donors are starting to work, such as Ukraine (this example doesn't specifically relate to AI). Donor coordination also encourages civil society coordination.
- Strategic risk-taking could be a deliberate strategy for the fund. This may be easier to do as part of a group of donors rather than as a single donor acting alone. If the intention is not only to fund well-established groups who are a safe investment but also to provide resources for new groups looking to try out innovative strategies and approaches, risk-taking is both inevitable and necessary. Fresh and different thinking is likely to be riskier but may also prove to be more impactful where it can provide surprising or well-timed interventions. Even with a broad set of donors, it is unrealistic to imagine that the funding available will be even close to that available to the private sector. Surprise and well-timed interventions need to be conscious elements in the strategy of the donor fund.

#### FINAL OBSERVATIONS

One issue that surfaced during the interviews is the urgency of funding activity right now. This is because of the heavy legislative agenda on AI in Europe and the rapidity of AI deployment across the public and private sector. There are two potential consequences of this pressure. Firstly, it leads to the risk that already-established groups will be prioritised for funding over new groups, given that they are more likely to be able to respond rapidly. Secondly, as a consequence, this may narrow the potential for investing in a future that could genuinely be different and more equitable. In summary, acting

swiftly risks an overbroad acceptance that AI will inevitably be widely deployed and could confine questions to how to improve the way AI is deployed rather than the more fundamental ones around whether, in certain circumstances, it should be used at all and whether or not it actually works. Funding needs to be made in ways that simultaneously build capacity quickly and give opportunities to new entrants while asking big, foundational questions about AI, its effectiveness and when and how it should be deployed.

#### ABOUT THE AUTHOR

Susan Morgan has twenty years' experience in the public and private sectors and philanthropy and was the first Executive Director of the Global Network Initiative. The author would like to thank the people who gave their time and insights for this research. JULIA REINHARDT

PART III. MAPPING FXISTING FUNDING STRATEGIES OF OTHFR FOUNDATIONS

## BACKGROUND

In their 2020 report, Stiftung Neue Verantwortung (SNV) stressed three ways that foundations "play a strong role" in the development of an impactful European AI and society ecosystem:

- (1) By "reviewing funding strategies and processes informed by the needs of the ecosystem"
- By "acting as bridge-builders"
- (3) By "reflecting their role inside the ecosystem"

Taking an ecosystem perspective, SNV argues that foundations' funding "should enable civil society actors to become expertise-driven organisations which can effectively drive the AI discourse or develop concrete ideas for the European way on AI."

In order to get a better sense of the funding currently provided by foundations in the field of AI and society, but which are not yet part of the European AI Fund, we interviewed ten foundations based in Europe about their funding strategies and analysed their responses. We were also interested in understanding how their counterparts in the United States fund civil society work around AI, especially given that this topic has been a focal point for US philanthropy for much longer. Interviews with US-based foundations were therefore scheduled at the outset of the mapping process.

The goals of these interviews were:

- To learn from the strategies used by other foundations beyond those participating in the European AI Fund.
- To understand foundations' strategies for funding work in the AI space, which areas they work on, when they started to provide funding, and what funding perspective they espouse.
- To identify which areas receive funding from these organisations.
- To identify if there might be opportunities for attracting funding from other foundations according to the strategic direction the European AI Fund wants to take.

Our method consisted of background research, from existing material from the European AI Fund and earlier contacts in the sector, on other foundations' work strategies. On the basis of our findings, we selected and interviewed the most relevant contacts in the sector via virtual meeting or by email. We are grateful for the time each contact dedicated to our conversations. Many also contributed additional written material. Finally, we analysed and categorised their answers to condense the most important findings for the European AI Fund's leadership.

## SELECTION OF INTERVIEW PARTNERS AND MEETING AGENDA

Background research resulted in the selection of four US-based foundations of particular interest:

John S. and James L. Knight Foundation, Patrick J. McGovern Foundation (particularly its Data and Society work integrated from the former Cloudera Foundation), John D. and Catherine T. MacArthur Foundation, and Open Philanthropy Project.

The following foundations based in Europe (who are not part of the European Al Fund) were subsequently chosen as interviewees: Adessium Foundation, Fondazione Compagnia di San Paolo, Limelight Foundation, Schöpflin Foundation, Sigrid Rausing Trust, Stiftung Mercator Schweiz, and Zeit-Stiftung Ebelin und Gerd Bucerius. In addition, Fondazione Mondo Digitale, Fundación Ciudadana Civio, and X-net, although legally foundations, typically act as grantees rather than funders and were interviewed for the purposes of finding out more about typical funding strategies in their parts of Europe.

In the United States, and in a less characteristic way also in Europe, wealthy private individuals do fund important work in our area, however we did not include these in our interviews as their ambitions and processes usually differ quite starkly from institutionalised foundations. Nor did we include interviews with private companies funding non-profit work in this sector as we do not consider them potential members of the Fund due to potential conflicts of interest. Interviews with relevant persons in the foundations (see list of contacts in Annex 1) that took place in June and July 2021 included questions on:

- The motivation behind adding work in this field to their foundation portfolio.
- Concrete information about the history, budget evolution and characteristics of their foundation's work in this domain, as well as their grantees.
- The experience interviewees had gained from this work.
- Details about measuring the success of their past work.
- Planning for future funding strategies.

Interviewees were also asked about their preferences around pooled funds and their perspectives on collaborating with the European AI Fund's work and its community specifically (for precise interview questions see Annex 2).

## MAPPING OF US FOUNDATIONS

Understanding how US foundations are currently funding civil society work around AI is useful as they have been doing so for longer and in a more pronounced way than funders in Europe. The US philanthropic sector differs quite widely from Europe since tax deduction schemes specifically encourage charitable giving and, given that public welfare is provided at a much lower level than in Europe, many wealthy individuals consider it a civic duty to make substantial donations. Fundraising is therefore much more developed in the US compared to other parts of the world, with a unique sophisticated system in place to promote and navigate giving. Alongside the higher number of foundations and volume of giving in the US comes a more elaborate array of philanthropic causes. In addition, the considerable role played by the technology sector in the US economy has generated an early interest within the philanthropic ecosystem in the impacts of technology, including artificial intelligence, on society.

Several philanthropic funds in the US have already set up programs around AI, or more broadly, the intersection of technology and society. The big push happened around 2017, though some of the first moves were made earlier that decade.

Typically, the US-based foundations interviewed developed their AI-related programming out of existing programs that targeted topics like human rights, journalistic freedom, democracy and participation. Only some of the foundations researched actually use "AI" in the titles of their programs, although their grantees often do. Terms used in foundation programs include "Technology in the Public Interest" (MacArthur Foundation), "Journalism: Technology Innovation" (Knight Foundation), "Data and Society" (Cloudera Foundation, now merged with Patrick J. McGovern Foundation), and "Cyber" (Hewlett Foundation, not interviewed due to their focus on the cybersecurity aspect of AI).

Then again, some foundations feature very explicit program titles, including "Potential Risks from Advanced Artificial Intelligence" (Open Philanthropy Project), "Emergent AI and Society" (Patrick J. McGovern Foundation, pre-merger), or "Trust in Algorithmic Knowledge" (Sloan Foundation, not interviewed due to scheduling issues).

Beyond being mere titles, this first set of designations also demonstrates that the ambition associated with many of these programs is to cover technology policy issues at large, and not only AI. In our interviews, many foundation representatives underlined that this naming strategy was chosen so they have maximum flexibility on their spending and on assigning projects from different strands of the topic to their programs. From their perspective, AI only covered one aspect of technology-related challenges for society, and they did not see it as necessary to focus their programming too narrowly on it. To quote one interviewee, "AI is part of a more complex topic that also includes other aspects of technology governance. What matters across these topics is our willingness to impact policy in order to mitigate technology causing harm to society."

Grants in these areas differ tremendously in the US from one foundation to another. Budgets range between \$3-14 million per year. These program areas are usually among the smaller ones managed by the foundations due to the relative youth of these programs. Most have seen budget increases over the past few years and plan to expand further.

## EVOLUTION OF FUNDING STRATEGIES IN THE UNITED STATES

Most funding in this area began with a focus on research. Still today, this is where a lot of funding goes in the US, due in part to the North American university and research system relying heavily on private funds. Foundations also see the need to push research towards looking at the societal impacts of AI, since industry mostly focuses on financing AI's technical development. Open Philanthropy Project, for instance, is a philanthropic organisation specifically focused on funding research into the potential risks of advanced AI. The three biggest components of their budget are their own fellowship program for machine learning researchers, as well as grants to the Center for Human-Compatible AI at the University of California at Berkeley and Georgetown University's Center for Security and Emerging Technology. Other foundations fund institutional research initiatives on AI, particularly those with a strong focus on applied research that collaborate with industry.

Over the years, most other philanthropic organisations have reduced their focus on funding research. Focus has shifted instead to using the insights gained from research to support societal goals connected to AI. The ecosystem approach has gained ground.

Besides research institutions, funding from US foundations in our domain has benefitted a growing number of non-profit organisations, many founded only recently, which feature AI and its impact on society as their main focus.

The Ethics and Governance in Al Initiative is a good example which illustrates the shift from pure research funding to having a more operational impact (and the combined phases in between). The joint program ran at the Harvard Berkman-Klein Center and the MIT Media Lab as anchor institutions from 2017. It received funding from Knight Foundation, Luminate, Reid Hoffman and the William and Flora Hewlett Foundation. As a combined research effort and philanthropic fund, its goal was "that technologies of automation and machine learning are researched, developed, and deployed in a way which vindicates social values of fairness, human autonomy, and justice." Three domains were defined as most relevant for their work: Al and Justice, Information Quality, and Autonomy and Interaction. It was in these domains that the initiators considered Al would create the most impact. The initiative was completed in 2019 and has helped support many influential endeavours through their initial stages.

From joint efforts like these, Knight Foundation draws on its deep knowledge of the interconnection between journalism, one of their legacy funding areas, and technology. Knight's focus, on the one hand, includes the role of mis- and disinformation that Partnership on AI – an initiative gathering non-profits, academic institutions, and big tech – works on and that other funders also contribute to. They specifically target the threats AI poses to crucial elements of our democracies, above all legitimacy, journalism, and the role of mis- and disinformation including how AI enables it but also could also control it.

On the other hand, in an endeavour to diversify the media landscape, Knight also works on ways local journalists can use AI in their newsrooms to compete with big media (which use AI extensively). Their research shows that local newsrooms have suffered immensely in the past ten to 15 years. This has reduced the number of legitimate sources of information and allowed fake news and social media a bigger role than is healthy for a democratic society. The foundation just started a new funding cycle that dedicates \$3 million to this cause.

MacArthur Foundation funds work on Technology in the Public Interest. While this is their smallest program in terms of budget, it still accounts for more than \$5 million a year. The Foundation's focus is on people and their voice in the AI ecosystem. Their aim is to ensure that those participating in debates around what AI could enable society to achieve and how to avoid its harms are not only computer scientists and lawyers. Instead, they try to complete the ecosystem by helping other parts of society enter these discussions and voice their stances.

Two grantmaking priorities ground this work.

- Developing the capacity of civil society to ensure that the social implications of AI are addressed by advancing efforts that connect research, policy and practice.
- (2) Strengthening civil rights and civil liberties in the digital age by improving the governance of digital technology.

MacArthur Foundation's grants aim to support an ecosystem of people, organisations and networks through core funding. Their guiding principle is to seek to increase diversity, bringing social movements and people with lived experiences of harm to the tech policy debate and making tech a human rights issue. One of their key strategies has been to build up new and nascent organisations, many of which are led by women of colour. The San Francisco-based Partnership on AI, which brings together industry, research and civil society, receives core grants. MacArthur's funding demonstrates efforts in ecosystem-building par excellence. Its next step will be a fellowship program, a "flagship investment in people" that the foundation will begin in autumn 2021. This will be a joint effort with the Ford Foundation and the Social Science Research Council.

The logic behind this strategy of countering imbalances in the societal use and debate of AI resembles that of Knight Foundation, where the goal is to enable local newsrooms to know more about and responsibly use AI in their journalistic work, in order to avoid monopolisation by news giants as a result of their technical deficits.

Institutional learning is another important area for the foundations. Interviewees stated that, through developing grants and convening with grantees, their leadership wanted to get a deep understanding of civil rights and civil liberties challenges in the digital age. This learning also extends horizontally within the organisations: teams that work on digital issues explicitly advise other portfolios in the foundation about intersecting and impacted issues.

These are only a handful of examples, but they showcase the diversity, depth and recent evolution of US funding strategies in the area of technology and society.

## GEOGRAPHIC SCOPE

The foundations we interviewed are based in different parts of the United States. While they fund work across the US (and work in other areas outside of the US) some have a regional or local focus associated with the homes or main business locations of their benefactors - Chicago for MacArthur Foundation and Miami for Knight Foundation, for example. Patrick J. McGovern Foundation is a digital-first organisation. Its Data & Society team is based on the US West Coast but works remotely. Open Philanthropy operates from the tech-heavy San Francisco Bay Area. The geographic scope of AI and society funding by the US foundations interviewed so far focusses only on funding grantees based in the United States.

Only one foundation, MacArthur, explicitly mentioned that they were exploring potential AI-related grantmaking in Europe. The reason mentioned in the interview for this was that Europe was politically very active in establishing rules around technology and that there could be valuable learning and potential synergy built between AI policy related work in the US and what is happening in Europe.

McGovern states that its Data & Society program, integrated only a couple of months ago and in the process of being launched at an increased level, will

"broaden, strengthen, and scale its approach to deliver global impact" by serving up to 100 non-profits. It has not yet specified whether these will include grantees in other countries (see below "Expectations going forward").

## EXPECTATIONS GOING FORWARD

Funding strategies in the AI and society sector are evolving at a fast pace. Although strategies usually take a long-term perspective and budgets are committed years in advance, the US foundations included in this survey have shown quite significant flexibility in adapting their priorities to include topics of rising importance in society.

Racial justice, for example, has influenced philanthropic giving in the United States heavily in recent months, in particular following the public outcry around George Floyd's murder by police in 2020. This trend impacted our domain by also underlining AI's role in scaling bias alongside scaling its societal harms. Among the foundations we interviewed, several had decided to commit founding grants to non-profits like "Black in AI", "Data for Black Lives" and others committed to fighting racial bias in AI. This trend is likely to increase in the coming years. Given AI's impact on biases of any sort, be it based on race, ethnicity, religion, gender, sexual orientation or other factors, it makes sense to support this development in Europe as well. Only with maximum diversity among technologists (and those who study technology's impact) can we hope to achieve an ecosystem that can advise policymakers on as many aspects of technology as possible. All the foundations interviewed mentioned that a healthy discussion of AI's impact on society needed the involvement of a broad range of communities, and that their work was meant to support the building of this ecosystem.

Another trend worth considering is how AI impacts philanthropy itself. As mentioned earlier, philanthropic giving is a larger scale industry in the United States than in other countries. Data is key in identifying donors and relevant causes, so the potential benefit of AI to philanthropy has become a topic of interest for foundations in the US. AI models can analyse, rate and score donor constituents in real-time based on a person's inclination and affinity to donate. AI can connect people with causes that promote generosity. Just like almost any other sector, philanthropy, as well as non-profit work, is changing as AI technology is used. Patrick J. McGovern Foundation reacted to this trend in 2021 by allotting more attention – and a sizable budget – to enabling non-profits to unlock capacity to apply data and AI to maximise their impact. This was made possible through their Data and Society program. Quoting McGovern's president Vilas Dhar, "enabling civil society to access technologies will unlock transformational approaches to many of the world's greatest challenges." This new program, integrated from the former Cloudera Foundation, relies on a \$9 million endowment, and \$3 million of existing grants. McGovern intends to provide technical partnership, access to industry-level expertise, an understanding of non-profits, and meaningful funding to implement data solutions. This could become an important function of granters in any sector and across the board. Our own field should make sure, as McGovern Foundation does, that this enablement also includes a focus on grantees "using AI responsibly", that is to say keeping its limits, intricacies and built-in dangers in mind.

## MAPPING OF EUROPEAN FOUNDATIONS

Among the Europe-based foundations we selected to interview, AI-related work does not follow any generalised pattern. The foundations differ in size, breadth of programming, history and funding priorities. However, we were able to observe some interesting trends:

None of the European foundations interviewed actually use AI in the titles of their programs. Instead, we found AI and technology-related funding under program titles like "Public Interest" (Adessium Foundation), "Impact Innovation" (Fondazione Compagnia di San Paolo), "Human Rights" (Rausing Trust), "Economy & Democracy" (Schöpflin Foundation), "Digitisation and Society" (Stiftung Mercator Switzerland), "Digital Rights" (Bucerius Lab, Zeit-Stiftung).

Funding on work that would be compatible with the European AI Fund's focus can be found in areas that look separate, but actually overlap:

- Focus on "digitisation" (i.e. enabling certain parts of society to responsibly use technology).
- Focus on democracy, digital rights, and the role AI or technology more generally.
- Focus on information/journalism, and how technology impacts these.

There is not much focus yet on topic "fringes", for example the intersection of AI and immigration, AI and crime prevention, AI and agriculture, AI and health

care. Addressing these intersections in a clear manner would be highly attractive to funders not yet used to these perspectives. More outreach and clarification about intended impact and overlapping interests would be beneficial.

Budgets are smaller than in the United States, typically between 1-3 million euros per year. They are often spread across many grantees. This reduces the size of individual grants but at the same time reaches more actors.

Several of the funders have a regional or national focus. None operate outside of Europe within our area of work. Given the profoundly different structure of university funding in Europe, there is much less academic research funding (compared to the US) available from private funders. (Nevertheless, academic research on AI and its impact on society in Europe is strong and comparable in quality to the US.)

## EVOLUTION OF FUNDING STRATEGIES IN EUROPE

As previously mentioned, funding for AI or technology policy has evolved from several funding areas that cover a wide area of work and overlaps with technology. For the German Schöpflin Foundation, for instance, the focus is on counterbalancing undue corporate power in politics and helping build movements in the field. This is done through institutional core grants that support organisations in the long-term (3-10 years) and with individual grants of around 50-200,000 euros per year. Digital rights issues play a role in more or less all the programs as an overarching theme. None of the programs specifically targets AI.

The Rausing Trust, a UK-based philanthropic organisation, supports digital rights issues under their programme defending civic space. It specifically looks at the digital space in the context of freedom of expression, activism and protest. While they do have grantees who work on AI issues, this is not a focus of their work. They provide core funding, so usually support the entirety of a grantee's work.

With a related focus on strong and free information systems in the digital world, Limelight Foundation, which launched very recently in March 2021 in the Netherlands, looks at journalism and non-profits providing independent information and responsibly using and growing their tech dimension. Stiftung Mercator Switzerland, whose "sibling" Stiftung Mercator Germany is a member of the European AI Fund, just started a new five-year strategy. It has set ambitious goals for supporting a wide range of grantees in the areas of self-determination in the digital world, the traceability of algorithms, digital public space (fighting hate speech and dis- and misinformation, presenting alternative platforms) and digital participation. Its approach is deliberately regional. It wants to boost the ecosystem in Switzerland and connect it with neighbouring EU member states.

Germany-based Zeit-Stiftung was one of the early movers. Its digital work started more than six years ago through Bucerius Lab, a deliberately more agile branch of the foundation named after its benefactors. Bucerius Lab works on three areas that are influenced by AI: the future of work, digital rights, and the rural/urban divide in a digital world. The foundation is set to launch a new strategy in 2022.

The northern Italian Fondazione Compagnia di San Paolo is oriented more towards research grants. Their Impact Innovation program in particular has gradually expanded its footprint in the AI space in the last decade. This program aims to tap into the potential of AI to unleash transformative effects on society at large. A new call for proposals titled "AI, Humans and Society" launched in 2020. Beyond its focus on advancing research so that scientific breakthroughs can have a positive impact on economic, social and environmental spheres, it intends to also help a diversified spectrum of local stakeholders (including public bodies and non-profits, for example) to cultivate advanced AI-related competencies so as to give them a competitive edge in their respective sectors.

The Dutch Adessium Foundation works for a stronger, better connected, better coordinated and more diverse digital rights field. They specifically mention creating space for responsible alternatives, and wanting to find out what is needed to build a common narrative. Interestingly, the need to support civil society's voice in the policymaking process centres on Brussels, rather than the national level. Adessium Foundation explicitly points to current EU legislative proposals for the Digital Markets Act and Digital Services Act, in addition to the AI Act, as the essential battlefields for a maximum protection of human rights. Civil society must show up and the foundation wants to prepare its grantees for this. Its approach points to the advantage of European, cross-border work as opposed to strictly national or regional work on technology policy and its impact on society.

## **GEOGRAPHIC SCOPE**

The European AI Fund so far is made up of international, national and regional foundations that are based mainly in northern and western Europe. Although several also work in other parts of the continent, as well as beyond its borders, attaining a regional balance of participating foundations remains a challenge due to the different status and realities of philanthropy in different European countries.

In France, for example, encouraging philanthropic work to achieve societal goals is a rather recent phenomenon and has historically been politically unpopular. This is because it has generally been considered a prime task of the government. It is natural therefore that few non-governmental and non-industry funding in our sector comes from France.

On the other hand, Italy has a very strong philanthropic sector, of similar size to Germany, where several of the fund's members are based, but even more historically established. However, broadly speaking, Italian foundations focus on public welfare and support for marginalised communities, in order to complement governmental services that are often considered insufficient or dysfunctional. In our domain, this means that Italian foundations target equal access to digital tools and focus less on their impact (although interesting new endeavours are beginning in this domain). Italian foundations, like the Fondazione Compagnia di San Paolo that we interviewed, can be critically important partners for the fund with regards to equal access to Al's benefits, a field that many of our partner foundations are also active in.

Given the differing weight and focus of the philanthropic sector across Europe, the regional imbalance of the fund's membership is to some degree expected, but very pronounced. Conversations with Southern European funders (especially from Italy and Spain) have greatly contributed to this report, although it was not possible to schedule all those we wished to contribute. More time needs to be invested in finding interesting partners from those countries, as well as funders from France, Portugal, Greece and Eastern Europe.

## EXPECTATIONS GOING FORWARD

For a lot of funders, the benefits of using AI to achieve positive societal goals need to be spread more widely, and to more underrepresented communities.

Here, the focus is not on using AI for non-profit work or for philanthropy as such, but to raise awareness of its opportunities and get companies and public institutions ready to deploy AI for positive means.

At the same time, there is huge awareness among the European foundations we interviewed that work on AI and society is essential, and that time is running out for civil society to become an effective counterweight to industry in the policymaking process. This is not to say that the trend goes towards funding more "negative" or critical voices only. Rather, it is recognised among funders in Europe that "AI competence" is what civil society needs and that philanthropic organisations must take on the responsibility to cultivate it quickly and at a sufficient scale.

To quote one interviewee, "in all my work on the third sector and its relationship to industry and government, I have never seen an imbalance as huge as the one today in technology. We have a short time window now to help civil society become a competent sparring partner in that field. If we don't hurry helping build up that competence, governments will rely entirely on industry to get the necessary insights for policy making, and that would be fatal for civil rights and our democratic ideals."

#### GROWING THE EUROPEAN AI FUND

Feedback about potentially joining the European AI Fund was a crucial element in conversations with the foundations we interviewed. The findings inform us of several interesting trends that the Fund's leadership can build on:

- All interviewed representatives of foundations are interested in the fund's work and want to stay informed.
- Several exclude membership out of principle because they do not want to participate in pooled funds. Some mainly provide core institutional funding to civil society organisations in the field and feel this would exclude them from joining a pooled fund. Some are simply cautious and want to avoid compromises.
- Others (concretely: Adessium Foundation, Limelight Foundation; potentially: Stiftung Mercator Schweiz) have good experience with pooled

funds and would consider or are actively interested in membership. They are ready for the necessary compromises, and among the arguments in favour of joining the fund is included the chance to reach countries they do not have expertise in with their funding (for instance, Eastern European countries and work on misinformation). They also felt they would greatly benefit from the lessons they would learn through participation in the fund and exchanges with other foundations across Europe and internationally. In addition, joining would enable them to tackle larger projects and gain greater legitimacy.

- Adessium and Limelight Foundation as well as Stiftung Mercator Schweiz also have high expectations for the work produced by the management team at the European AI Fund and would consider membership because the expertise they see in the management team could combine with, or partly even replace, their own expertise.
- Foundation contacts want to see tangible returns for their own grantees and communities from their participation in a pooled fund. They are interested in the potential benefits gained through networking between their grantees and other participants in the fund, and by being able to offer common projects their grantees could apply for that would enrich their grantees' expertise. This would greatly benefit the ecosystem as a whole.
- As a European initiative, the European AI Fund carries the potential of actual cooperation across member states' borders. One interviewee said the ultimate goal for the European AI Fund should be to encourage international teams of grantees from across Europe to apply for common funding, which would constitute an additional asset of fund membership.
- While Fondazione Compagnia di San Paolo has not explicitly expressed interest in joining the European AI Fund within the framework of this survey, we feel that their focus on the benefits of AI for underrepresented communities would be a good fit. Although their current grantees include mostly research institutions, their call for proposals on "AI, Humans and Society" is an ambitious program which demonstrates the value of its network and could give the fund interesting additional insights as well as material and immaterial resources. Fondazione Cariplo, another Italian philanthropic organisation originating in the powerful regional banking sector, was selected as an interesting contact but scheduling issues prevented us from including them in this survey.

#### RECOMMENDATIONS

Since the European AI Fund has "AI" in the title, many assume that this is, or should be, its only focus. It makes sense to underline (to potential members, to grantees, to the public, also to members of the fund) that "work on AI", and the role civil society should play, can (and must) include larger topics around technology's impact on society. It is hard, if not impossible, to separate them out.

Ecosystem support — meaning AI as an issue not only for technologists and lawyers, but for society as a whole — remains of the highest relevance for Europe as well as the United States. Several of the foundations interviewed have set this as an explicit goal. Some mentioned this in their interviews as an important side effect of their networking support. Since this is also at the core of the current strategy of the fund, its leadership should continue including it as an explicit longterm funding goal and encourage members to adhere to this important strategy in their other programming as well.

A more representative regional balance in the fund's membership is not just something that would be nice to have. It would contribute tangibly to more diverse discussion within the fund and bring important perspectives to the table that would enrich the fund's overall strategic thinking. We recommend that the fund actively search for and invite Southern and Eastern European funders to join its ranks, starting with those already reached out to in the past and/or within this survey but who wanted to give the fund some time to develop first. Finally, pooled funds are not for every funder. Participation within a pooled fund must offer added value to individual programming. This could take various forms, including, but not limited to:

- Additional expertise in its management team, so that participating foundations can benefit from learning beyond their concrete own projects.
- Better access to countries or projects that would otherwise be beyond the reach of small funders and their expertise.
- International/European networking for "their" grantees, ideally offering combined grants to support collaboration among grantees.

#### ABOUT THE AUTHOR

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#### ANNEX 1: INTERVIEWED FOUNDATIONS

We owe all of the following people immense appreciation for the time and effort they dedicated to our interviews and the precious analyses and ideas they shared.

In the United States:

John S. and James L. Knight Foundation: Paul Cheung, Director of Journalism and Technology Innovation

John D. and Catherine T. MacArthur Foundation: Eric Sears, Associate Director, Technology in the Public Interest

Open Philanthropy Project: Nick Beckstead, Program Officer

Patrick J. McGovern Foundation (merged with Cloudera Foundation): Claudia Juech, Vice President, Data & Society

In Europe:

Adessium Foundation: Martijn Roos, Program Manager, Public Interest Fondazione Compagnia di San Paolo: Michele Osella, Senior Program Manager, Impact Innovation Department

Fondazione Mondo Digitale: Annaleda Mazzucato, Program Manager, European Project Unit

Fundación Ciudadana Civio: David Cabo, Director

Limelight Foundation: Merel Borger, Director

Sigrid Rausing Trust: Sophie Pollak, Programme Officer for Human Rights

Schöpflin Foundation: Dorothee Vogt, Program Manager "Economy & Democracy"

Stiftung Mercator Schweiz: Torben Stephan, Head of Program "Digitisation and Society"

X-net: Simona Levi, Founder

Zeit-Stiftung Ebelin und Gerd Bucerius: Mirjam Büttner, Interim Head of Bucerius Lab

#### ANNEX 2: INTERVIEW QUESTIONS

Interviewees from different foundations were asked the same questions, nuanced according to their specific characteristics and circumstances.

(1) Understanding your priorities around work on AI:

- a. When did you start working on AI?
- b. What was your motivation in adding this area to your work?
- c. What work does your foundation do related to AI, and digital rights more broadly?
- d. Which non-profits do you support, what are project titles?
- e. Who are the best contacts for that internally in your organisation?
- f. What does successful funding look like for your organisation? And what indicators are you reporting on internally?
- g. What do you hope your funding will accomplish in 2021, and in the next 5 years? How many staff, and how much budget?
- (2) Growth of the fund:
  - a. Could you imagine joining the European AI Fund? What would be ways the Fund could be an asset for you?
  - b. Can you recommend or suggest organisations we should approach about joining the Fund?
  - c. What kinds of partnerships?
- (3) A key motivation for many funds to join was learning about the thematic focus of the European Al Fund, as well as learning from other member foundations. Would you be interested in receiving regular updates from the Fund?