

Evaluation of SIDN fund's activities 2018-2020



SIDNfonds

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Introduction

Having made our first call for proposals in April 2015, SIDN Fund has now been operating for seven years, supporting more than three hundred projects. Every three years, we evaluate our activities and carefully consider what has been achieved. Are we realising our goals and having the desired impact? Is our approach working, and are there things we could improve? In 2021, we conducted an evaluation of the period 2018 to 2020.



Project organisers, other stakeholders and an external panel were asked for input and feedback. The central recommendation to emerge was that the Fund should continue on the current course. In particular, the programmatic approach adopted in 2019 was seen as promising and worth retaining. A number of points for improvement were also identified, which we fully accept and are committed to addressing in the period ahead.

This report describes our working methods and programmes, the themes we address and the main findings and recommendations to emerge from the evaluation process.





About SIDN Fund

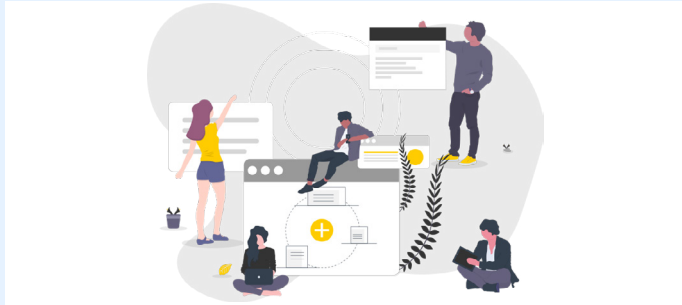
SIDN Fund is a charitable foundation, whose purpose is to increase the internet's value to society. The Fund is committed to helping to build a strong internet for all. We support innovative internet projects with social value that contribute to realisation of one or more of our objectives: strengthening the internet, empowering internet users and promoting 'tech for good'.



The Fund was established by SIDN, but operates as an independent, autonomous organisation. We receive funding from SIDN to enable us to pursue our mission. In addition, our partners sometimes make financial contributions to particular project funding rounds. Our focus is on early-stage funding with a view to securing social impact. Project organisers have a particular need for support in the early stages, which is addressed by relatively few funding providers.

Until the middle of 2019, we sought funding applications mainly by organising 'open' calls for proposals. Following our first three-yearly evaluation (covering the period 2015 to 2017), we concluded that the Fund had quickly been able to firmly establish itself in the field and had succeeded in facilitating a large number of impressive projects. However, it was felt that the supported projects were extremely diverse, which could dilute their impact and reduce the prospects of them proving sustainable. For the period 2018 to 2020, we therefore decided to adopt a new, more focused, programmatic approach, with a view to maximising the impact of our work. We started three programme lines, corresponding to the three elements of our mission, and focused our attention on topics relating to each element. Open calls made way for themed calls, and we began scouting for projects and actively seeking collaboration with strategic partners, including other funding bodies, companies, NGOs, researchers and policymakers. The open application format was retained only for 'Pioneer Projects', i.e. projects currently at a conceptual stage. Since 2019, we have also accepted Pioneer Project applications on a year-round basis.





FILESENDER: SECURE COMMUNICATION OF LARGE FILES

Strengthening the Internet | Open call 2019

WHAT With FileSender, you have full, end-to-end control over who can access your file. And there is no technical limit on the file size. **AIM** The software is already widely used in the higher education sector worldwide. The aim of the funded open-source project was to introduce FileSender to new target groups, enabling anyone to install their own (rebranded) version of FileSender. SIDN Fund contributed to the scope extension and to the development of a GDPR compliance tool for FileSender.

STATUS The project aims have been achieved, despite the coronavirus pandemic adversely affecting project planning and realisation. The software has been published on GitHub. It is difficult for the organisation to accurately measure user numbers. However, a rough estimate suggests that, between the start of 2019 and the end of 2021, FileSender use increased from 104 hosts to 174 hosts. Some (roughly fifty) FileSender environments are educational organisations with which the project organisers have frequent contact. A list is published at <https://filesender.org>



PUBLICROAM: SECURE WI-FI AT PUBLIC VENUES

Strengthening the Internet | Open call 2019

WHAT Publicroam provides secure Wi-Fi access to anyone at public venues, such as government buildings, sports centres, cultural institutions and libraries. Once logged in, you have automatic access to a secure, open Wi-Fi network at all participating venues. **AIM** Publicroam has the potential to succeed by spreading organically. The specific aim of the funded project was to prepare and realise the system's rollout to public libraries. The ambition was to implement Publicroam in fifty libraries and seed organic spread to fifty other organisations. **STATUS** The bureau has helped the project team to make contact with municipal authorities and the Dutch National Library, which is responsible for public libraries in the Netherlands. The rollout of Publicroam is still ongoing, but has been successful to date. By August 2021, 366 venues in the Netherlands were connected to the network and discussions were in progress regarding the implementation of Publicroam at Dutch libraries. <https://publicroam.nl>





Dutch Institute for
Vulnerability
Disclosure

DIVD: THE INTERNET'S VOLUNTARY FIRE BRIGADE

Pioneer Project I Strengthening the Internet 2020

WHAT SIDN Fund made a Pioneer Project grant to kickstart the Dutch Institute for Vulnerability Disclosure (DIVD). **AIM** DIVD aims to make our digital world more secure by scanning the internet for vulnerabilities in digital systems and reporting detected issues, so they can be fixed. DIVD is a voluntary organisation. **STATUS** DIVD has enabled investigators to pool their skills to trace and address vulnerabilities, such as the Citrix server issue that came to light in early 2020. The Institute has also drawn up rules for handling sensitive information and runs training courses for young investigators. DIVD is committed to forging ties with other organisations with vulnerability resolution capabilities. In an interview with SIDN, Chris van 't Hof, the organisation's co-founder and Secretary, explained how the DIVD team is working to make our digital world more secure. Chair Victor Gevers also made global headlines by demonstrating how easy it was to take control of US President Trump's Twitter account. www.divd.nl



HACKSHIELD: CHILDREN BECOME CYBER-COPS

Empowering Internet Users | Open call 2019

WHAT SIDN Fund is a founding partner in HackShield: a very energetic and ambitious project involving an online game designed to make children more cyber-resilient. With support from SIDN Fund, a first version of the game was created and then refined. **AIM** HackShield Future Cyberheroes uses an immersive technique to teach children how cybercrime works, what to do if, for example, their computer is infected with malware, how a webcam can be hacked and what risks are involved with downloading files from the internet. The project team actively collaborates with schools, municipalities and the police. **STATUS** Both projects have been very successful, in terms of reach, media interest, (nominations for) awards, partnerships and follow-up funding. The game is freely available and marketing-free. There are now 125,000 active users and 55,000 accounts have been created. A healthy funding model has also been identified. All Dutch municipalities face the challenge of promoting cyber-security and cyber-awareness. HackShield is an ideal tool for use in that context. Players can now register through their municipalities, of which eighty-nine are now affiliated. HackShield was represented at dozens of events, where the game was drawn to the attention of thousands of adults and children.

www.joinhackshield.nl/





What has been achieved?

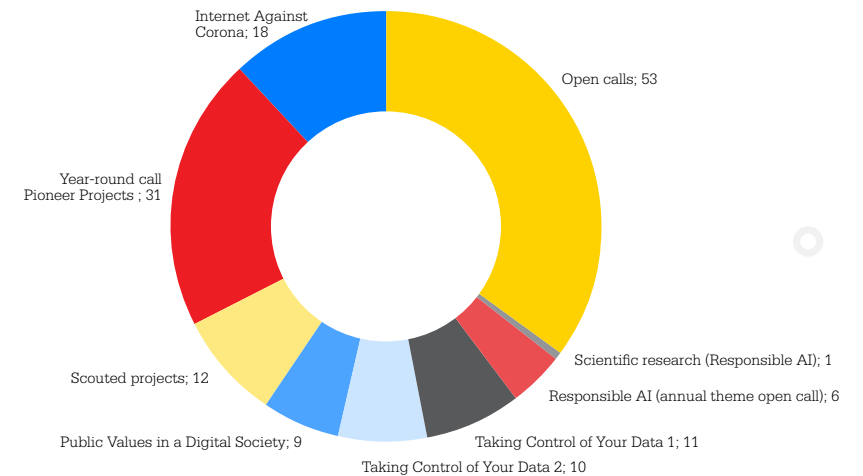
What themes did we cover between 2018 and 2020; what projects did we support and what did those projects achieve? In this chapter, we set out the overall data and then look at the individual calls and supported projects linked to each programme line.



Facts and figures

Between 2018 and 2020, we made ten calls for proposals, six following the new thematic approach. That led to the funding of 151 projects, including scouted and Pioneer Projects.

Figure 1: Distribution of projects & instruments



Until mid-2019, we were still following the old approach, with particular emphasis on Responsible AI. Responsible AI was the annual theme for the open calls and for the academic call.

- Three open calls: spring and autumn 2018 on the annual theme of Responsible AI; spring 2019
- One call for academic research proposals in 2018, on the theme of Responsible AI



After mid-2019, when the new approach was adopted, the focus was on data autonomy and public values. We also responded to the coronavirus pandemic, which took hold in spring 2020:

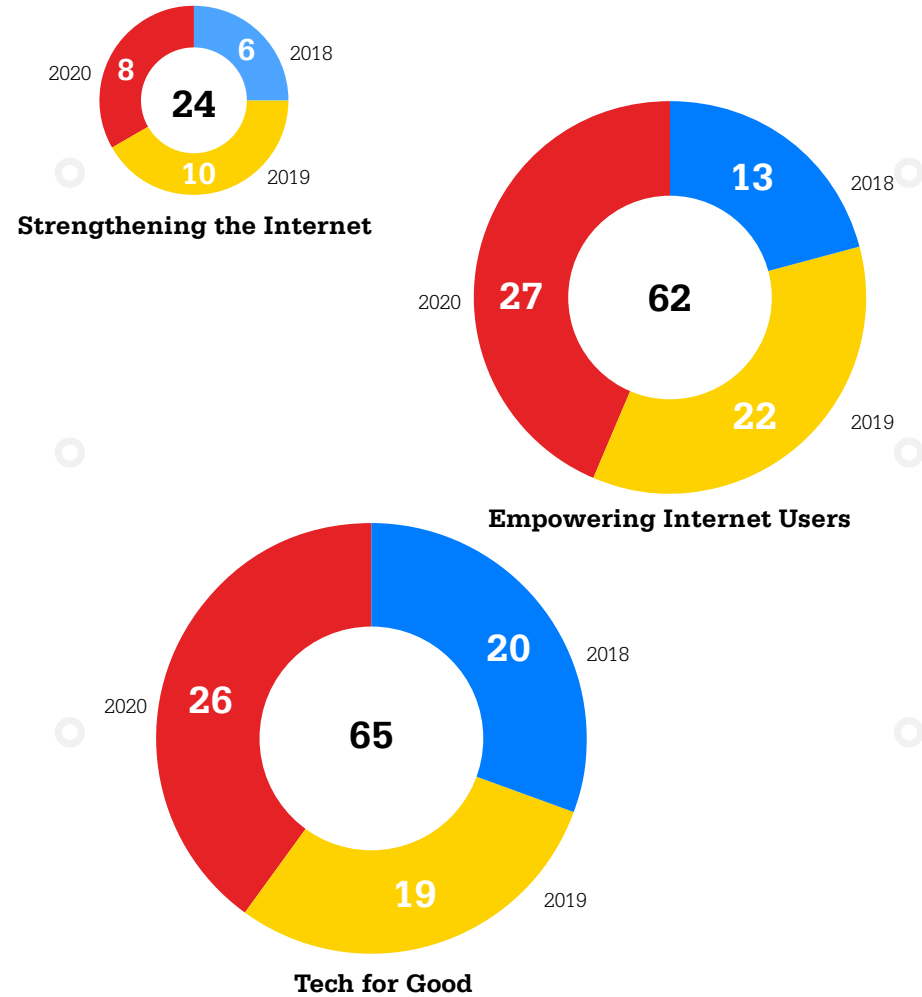
- Four themed calls:
 - Taking Control of Your Data (two calls; 2019, 2020)
 - Public Values in a Digital Society (2019, joint call with the Adessium Foundation)
 - Internet Against Corona (2020, in partnership with the Ministry of the Interior)
- Two year-round calls for Pioneer Projects (2019 and 2020)

Figure 2: Funded projects

2018	223 applications	39 projects	€ 1.472.947,-
2019	209 applications	51 projects	€ 1.840.033,-
2020	205 applications	61 projects	€ 1.753.071,-
total		151 projects	€ 5.066.051,-



Figure 3: Distribution of projects & objectives



The new approach, involving themed calls and scouting, resulted in fewer funding applications but an increase in application quality. That led to the approval rate increasing from 18 per cent in 2018 to 30 per cent in 2020. Looking at the distribution of projects across the three objectives/programme lines, we see that the numbers linked to Empowering Internet Users and Tech for Good were roughly equal, while significantly fewer Strengthening the Internet projects were supported. By way of comparison, we supported a total of 143 projects between 2015 and 2017, with the Tech for Good programme accounting for the largest number (sixty-nine), followed by Strengthening the Internet (forty-six) and Empowering Internet Users (twenty-eight). In the period 2018 to 2020, a total of 151 projects were supported and the total value of the grants awarded was more than five million euros.

Strengthening the Internet

This programme is aligned with the Fund's first objective: to strengthen the internet. In our eyes, a strong internet is an open and free internet that is trustworthy and accessible to all, so that people feel safe to communicate, collaborate and share information with one another. Between 2018 and 2020, we used open calls and scouting to select a total of twenty-four projects for support in recognition of their ability to help make the internet stronger.

Projects recruited by open calls: security and privacy

Until mid-2019, we used open calls to attract project proposals. The approach was used to support mainly alternative, secure and

privacy-friendly applications. Examples include an alternative to WeTransfer for securely sharing large files (*FileSender*), an alternative e-mail application (*ARPA2 Mail and ARPA2 Reservoir*), a digital safe for personal data (*Schluss*), an application for securely signing digital documents (*Digiesign*) and a tool that sheds light on what the cookies on popular websites such as YouTube do (*Open-Source Cookie Database*). Nearly all the applications have since been realised and implemented: software development is complete and the code has been published on GitHub. Schluss in particular attracted a lot of media attention and prize nominations. Generally speaking, however, the applications did not secure the reach we would have hoped. Most also required further development.

Scouted projects: focus on the application layer and upscaling existing projects

In the summer of 2019, we started our Strengthening the Internet programme. Before introducing the programme, we commissioned an external consultant to perform an assessment. The conclusion was that the added value of SIDN Fund lies mainly in:

- A) (Continued) investment in early-stage, open-source development projects, but with greater emphasis on the upscaling of existing projects that are concerned with the internet's application layer and therefore have greater potential impact. That implies shifting the focus from the 'ordinary end user' to intermediaries such as organisations, developers, the open-source community, hosting service providers, registrars and ISPs.
- B) Investment in projects that strengthen the core infrastructure, such as joint anti-abuse projects with industry partners..



Within this programme, we scouted projects and sought to cooperate more with relevant actors, including registrars, hosters and organisations such as DINL, NBIP, the Abuse Coalition, Abuse.io, the Online Child Abuse Expertise Bureau, internet.nl, NLnet and others. We developed a common agenda and started working with our partners on the positioning of good projects, so that solutions can be adopted and deployed more widely. The following projects were scouted:

- **Benchmarking as a tool for gauging internet cleanliness:** This project makes use of automatically gathered real-time information about vulnerabilities in (small) providers' networks to draw network operators' attention to problems and encourage corrective action.
- **Web Application Firewall – DDoS Protection:** This project supplements the existing Anti-DDoS Scrubber. It involves a firewall that enables smaller web hosting forms and registrars without their own networks to benefit from the scrubber's protection.
- **SCART:** This project follows on from the earlier development of process automation software for the Reporting Hotline for Internet Child Pornography. It involves the addition of AI-based image recognition module, and adaptation of the software to make it suitable for use by counterpart organisations in other countries.
- **Nuts:** A consortium of software vendors is developing an open-source infrastructure for data exchange in the health care sector. They are realising a uniform, decentralised protocol and accompanying governance structure. In principle, the concept is suitable for use in any sector where digital data exchange takes place.



- **Cryptify - IRMAseal: user-friendly e-mail encryption:** IRMAseal is a convenient e-mail encryption solution, which combines Identity Based Encryption (IBE) with the IRMA digital identity platform. The intention is for encryption to be made available via a plug-in for existing mail services, such as Microsoft Outlook and Apple Mail.
- **Secure public Wi-Fi for libraries:** Publicroam (a sort of public version of the Eduroam system used in higher education) provides secure Wi-Fi access in public places. Once logged in, you have automatic access everywhere. The supported project involved realising a rollout to public libraries.

In 2020, we also began our collaboration with the Eindhoven Cultural Foundation. As part of the Technician Seeks Designer programme, we invited designers looking to make use of their expertise to team up with technicians on SIDN Fund-supported projects in order to improve the user side of the developed tools and solutions. The resulting collaborations began in 2021.

Empowering Internet Users

This programme is aligned with the Fund's second objective: to contribute to the empowerment of internet users. That object can be supported by, for example, initiatives to increase awareness of how the internet works and the associated opportunities and risks, as well as initiatives that boost the knowledge and skills of internet users, thus enabling them to make responsible use of internet technology and navigate the internet environment freely and safely. In the period 2018 to 2020, we supported a total of sixty-two projects through this programme. The projects were recruited by open calls, scouting focused on inclusion and accessibility, and two calls linked to the theme of Taking Control of Your Data.



Projects recruited by open calls: privacy, education and accessibility

Most of the projects recruited by open calls (prior to summer 2019) were concerned with privacy, education and accessibility. The privacy tool projects included *Privacy Label* (more accessible and understandable privacy statements) and *Fix Your Privacy* (the [fixyourprivacy.nl](https://www.fixyourprivacy.nl) website offers tips and tools for improving your privacy and online security, and attracted 15,000 visitors in its first three weeks). Educational projects supported included *Byte me* (smartphone use and privacy awareness for secondary school students – three thousand students reached), *The Creative Code* (creative programming for upper primary and lower secondary school pupils – 51,400 pupils reached), *HackShield Future Cyber Heroes* (online game designed to improve the cyber-resilience of eight-to-twelve-year-olds – 125,000 players, collaboration with eighty-nine local councils). The project *Live Transcription for People with Hearing Impairments* is a good example of the accessibility projects that were supported: the AmberScript app lets you record and generate live transcriptions of calls and meetings, free of charge. Of those various projects, HackShield Future Cyber Heroes is of particular note. We originally supported HackShield in 2017 as a Pioneer Project. At that stage, it was merely a bright idea for an online game designed to help children avoid falling victim to cybercrime. It has since developed into a very successful initiative, and the project team now has close ties with the police and various local councils.



Taking Control of Your Data projects

We started our Empowering Internet Users programme in the summer of 2019. The programme had two focuses: ‘*data awareness and data autonomy*’ and ‘*inclusion and accessibility*’. The question of whether you could control your data or had to accept being controlled by your data was very topical at that time. Our aims were to help internet users get control of their data (by increasing awareness of third-party data use and providing the means to influence such use) and to promote more responsible ways of dealing with data. In 2019, that led to a call linked to the theme of Taking Control of Your Data, which was repeated in 2020. Proposals were invited for projects aimed at increasing insight and awareness, and for projects involving alternative and data minimisation tools.

Examples of Taking Control of Your Data projects

- **Alternative tools:** *NoGA* (pilot of an alternative to Google Analytics for public organisations); *Solid Drive/Solid-Starter* (prototype of a Solid-based open-source alternative to Google

Drive); *the Privacy Central app and PWA support in Iel app store* (app for analysing and rectifying privacy issues on (Android) smartphones).

- **Awareness:** *Glass Room Plus in Public Libraries* (exhibition of training material, teaching aids and awareness programmes in libraries in Leeuwarden and Amsterdam designed mainly to educate young people about data use and privacy).
- **Data cooperative:** *A Data Cooperative for Medical Data – Putting Citizens in Control* (development of a governance model and ethical guidelines on sharing medical data for research purposes). The ultimate aim is to provide a plug-in for Personal Health Environments.

Scouted projects: accessibility and inclusion

As explained above, one of the focuses of this programme was the accessibility and inclusiveness of digital applications, services, websites and apps. The ongoing digitisation of everyday life – accelerated in 2020 by the coronavirus pandemic – means it's increasingly normal for public services of all kinds to be provided primarily or exclusively via digital portals. It is therefore pertinent to ask whether everyone has equal access to such services. The scouted projects included the following.

- **Accessible Assistance for Voters – Election Compass with Steffie:** an accessible tool linked to the 2021 Dutch parliamentary elections, using the Steffie avatar to present political information in an understandable form. The tool was used by 112,799 unique visitors.
- **Video Accessibility Plugin:** automatically enables subtitling and audio description of online videos, making them more accessible to blind and partially sighted people.

- **TechGrounds Rotterdam and the Soft Skills Programme:** makes IT courses accessible to people in disadvantaged neighbourhoods. Goal is to provide training to get three hundred people into tech-sector jobs or self-employment within three years. The project was affected by the pandemic, but seventy-five people had started by September 2021.

Tech for Good

This programme is aligned with the Fund's third objective: to promote Tech for Good – namely the intelligent, creative and innovative use of the internet to address social issues. In the period 2018 to 2020, we supported a total of sixty-five projects through this programme. The projects were recruited by a combination of open calls with the annual theme of Responsible AI, scouting for disinformation-focused projects, and calls linked to the themes of Public Values in a Digital Society and Internet Against Corona.

Projects recruited by open calls: from health care to digital heritage

Until mid-2019, when we relied mainly on open calls to recruit projects, there was considerable diversity in the supported Tech for Good projects. They included health care projects (*PijnApp* – an app that enables patients to record their post-operative pain levels in their electronic medical records), digital heritage (*web-archiving of 3,500 culturally and historically valuable XS4ALL homepages* from the period 1993 to 2000), Politics (*Poliflw* – an app that helps journalists to follow local politicians), food chain transparency (*Fairtrace* – follow -on from a previously supported project in which blockchain is used to make food supply chains more transparent) and disinformation (*888 zoeker*, which enables



journalists and disinformation researchers to search for ‘hidden’ content in radical YouTube communities).

Responsible AI and AI for Good projects

In 2018, we organised two open calls and an academic research call linked to the annual theme of Responsible AI. Smart algorithms and intelligent devices can closely monitor, interpret, predict and even exert targeted influence over people’s preferences and behaviour. The autonomous nature of the technology (the ability to operate without direct human supervision and control) is a matter of particular concern, necessitating carefully defined parameters and ethical frameworks, also known as ‘Responsible AI’ (RAI). In connection with the annual theme, we supported seven Responsible AI projects (i.e. projects involving justifiable and accountable AI that does not do harm and takes ethical considerations into account), sixteen AI for Good projects (i.e. projects involving AI developed and used specifically for the public good) and one academic research project.

Examples of Responsible AI projects:

- **Moral Agency:** ethical principles and parameters required for progress towards the responsible use of AI in the financial services industry
- **Academic research into child-robot-media interaction:** a joint study by the University of Twente and the Institute for Sound and Vision concerned with the practical, social and ethical parameters for interaction between children and ‘social agents’ or artificial assistants.

Examples of AI for Good projects:

- **Machine learning for personalised, precise prostate cancer treatment:** in collaboration with the AVL Hospital, Pacmed developed software to support decision-making in the treatment of prostate cancer. The model is 88 per cent reliable and is undergoing further testing.
- **Periscope (PERloperative Surgical infeCtiOn PrEdiction):** a pilot with 37,000 LUMC patients, where an algorithm predicts which of them are liable to develop infections following surgery. In the pilot, about 80 per cent of at-risk patients were correctly identified.
- **Using AI to support treatment decisions in mental health:** the Trimbos Institute developed a predictive model for making an interim prognosis regarding the outcome of an ongoing course of treatment to support decision-making about continuation.
- **Tigrinya:** a project involving the digitisation of Tigrinya (a minority language spoken by many Eritrean refugees) to facilitate communication with refugees in the Netherlands. The tool was donated to the non-profit organisation Translators without Borders.

Public Values in a Digital Society projects

Within this programme, we have now adopted a focused approach based on specific themes. The selected themes address topical issues within digital society. Collaboration with other organisations active in the relevant fields is central to our approach. In 2019, for example, we partnered with Adessium Foundation to organise a call linked to the theme of Public Values in a Digital Society. The call addressed the problem of increasing





digitisation threatening the information position of the individual citizen and thus the health of our democracy. Various developments contribute to that problem, including the spread of disinformation, political micro-targeting, filter bubbles, the changing role of traditional, independent information providers (journalism and science) and the growing dependence of news consumers on a number of dominant platforms. We therefore invited proposals for projects that could help to strengthen the information position of the individual citizen. A total of nine projects were selected for support, linked to the themes of politics, online manipulation, news and education.

- **Politics:** *Personal Data for Political Purposes* (research into the situation in the Netherlands with regard to targeted online political campaigns and translation of the Data Detox Kit into Dutch); *Towards a Monitoring of Instagram* (during the 2021 Dutch parliamentary elections, AlgorithmWatch partnered with various media organisations to investigate how politicians use Instagram); *Who's Using Facebook Ads to Win Your Vote?* (research into political advertising on Facebook during the 2021 Dutch parliamentary elections found no evidence that such advertising materially influenced the results).

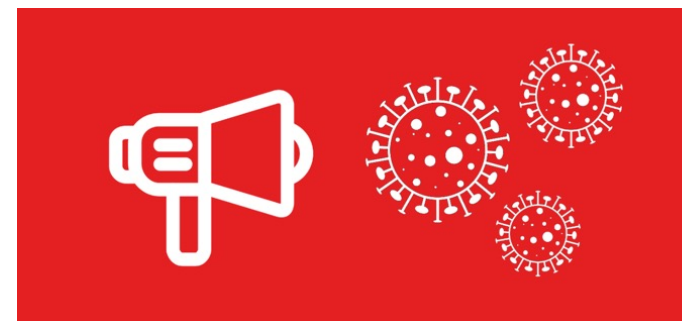
- **Online manipulation:** *A Short Course on Manipulation* (research into manipulation by tech companies and development of an online tool for informing the general public about online manipulation and how to protect oneself against it); *More Power to You! How Social Influencers Can Face Down Hate* (research into online hate campaigns and development of the Online Hate First Aid Kit – a set of tools and strategies to help social change leaders protect themselves against trolling).
- **News:** *Algorithms for Freedom of Expression and a Well-Informed Public* (research and development of a diversity toolkit that news organisations can use to measure and improve the diversity of their news algorithms); *Who would you like to be guided by?* (research into the concept of 'recommendation avatars' that enable people to actively and consciously influence the news recommendations they receive).
- **Education:** *Ethics of Artificial Intelligence, Data and Democracy* (development of learning material for children aged ten to fourteen regarding artificial intelligence and its social implications – viewed about ten thousand times); *Vox Pop Academy vocational secondary school pilot* (intended to facilitate online debate amongst pupils with divergent views, followed in 2020 by creation of a website where the same technology was used to facilitate debate amongst adults prior to Dutch parliamentary elections, which was used by 330,000 people).

Journalist Eva de Valk wrote a series of articles about the projects described above and *what they teach us*. The protection and promotion of public values in a digital society is a complex challenge, for which there is no universally applicable solution.

There is a power imbalance in the current digital environment, creating technical, legal and strategic challenges. Coordinated action against Big Tech, involving legislation and regulation, public pressure and responsible algorithm design is therefore required. In its own way, each of the projects supported through the call contributed to that process.

In 2020, we scouted one further project for this programme line, aligned with the public values projects supported in 2019.

The Fake News as a Virus project involved a survey of fake news, particularly fake news associated with the Dutch parliamentary elections in March 2021. One interesting and unexpected finding was that there was little evidence of fake news or trolling either in the run-up to or following those elections.



Internet Against Corona projects

When the coronavirus pandemic hit in 2020, we changed our plans for the year to reflect the developing situation. Under the banner of 'Internet Against Corona', we invited proposals for projects with the potential to help alleviate the crisis. The scope of the call included initiatives to improve understanding of the pandemic itself and of the medical and non-medical response to it. Applications were also encouraged for projects designed to address the risks created by pandemic-related acceleration of the digital migration – by developing safe and reliable solutions for home-based work, study and everyday living, for example. The call was additionally open to projects concerned with digital rights: how might digital efforts to manage the crisis (e.g. the case reporting system and the corona check app) affect basic human rights? The call was organised in partnership with the Ministry of the Interior. A total of eighteen projects were supported, including two follow-ups to projects already supported through the call. Examples are given below.



- **Working, studying and living securely at home:** *Digital Assistance During the Coronavirus Crisis* (to help vulnerable people access digital resources, Cybersoek distributed 3,500 laptops in Amsterdam and developed an adapted digital skills learning method that was used by 125 people); *IRMA Meet: Online Conferencing with IRMA-based Authentication* (open-source video conferencing solution that enables doctors, lawyers and others to be sure of the identity of the person they are talking to, which worked well, but faced stiff competition from 'the big four' of Microsoft Teams, Google Meet/ Hangouts, Zoom and Webex); *Murldr - The Malicious URL Detector* (detection tool that automatically classifies URLs as legitimate or malicious, which proved 90 per cent accurate with a large dataset, but was unsatisfactory with a small dataset and therefore requires further testing).
- **Understanding and getting to grips with the pandemic:** *Windfall AI Aprio: COVID-19 Care Demand Prediction* (Website where the likely demand for care in each municipality is forecast); *Coronavirus Planner for Hospitals* (model for forecasting coronavirus-related admissions to Dutch hospitals, developed in collaboration with hospitals in the Brabant region); *IC Treatment Support: Using Machine Learning on Observational Data to Support Treatment Decisions about Coronavirus Patients in Intensive Care* (research into COVID-19 IC treatment support based on observational data and machine learning, with the participation of medical experts at thirty-plus hospitals in the COVID Predict consortium, resulting in a methodology and two academic publications); *Crowdience Vice Versa II'll Help The Research* (coronavirus pandemic research on the only citizen science platform in the Netherlands that is readily accessible to the elderly and people with disabilities, yielding results that various health authorities in the Netherlands used to support policy and discussions about continued use of the platform); *CoronAlert* (platform where all

local information about the coronavirus measures is collated and made available to journalists and interested members of the public).

- **Impact on digital rights:** *Building a Monitoring Framework for the Societal, Ethical and Legal Implications of Digital Solutions for Managing the COVID-19 Crisis* (research into how the use of coronavirus-related technology might disadvantage citizens); *Journalistic research into the pandemic, the internet and fundamental rights in Europe* (pan-European investigative journalism project examining the impact of the (digital) response to the pandemic, e.g. the use of case reporting and tracking apps, on citizens' fundamental rights); *Responsible AI and the Coronavirus Pandemic* (project by the Alliance for AI, aimed at encouraging the responsible development and deployment of AI, even during such a crisis).

Figure 4: Project reach - a few examples

Publicroam	366 participating sites offering secure Publicroam Wi-Fi
Fixjeprivacy.nl	15,000 visitors in the first three weeks after launch
The Creative Code	51,400 upper primary and lower secondary pupils involved
HackShield Future Cyber Heroes	125,000 8-12-year-olds reached; collaboration with police and 89 local councils
Accessible voting assistance: Steffie's Election Compass	112,799 users ahead of 2021 parliamentary elections
Election debating site waaromkiesjij.nl	330,000 users ahead of 2021 parliamentary elections
The Green Web Foundation	10 million green hosting checks a day
Kickstart Dutch Institute for Vulnerability Disclosure (DIVD)	Vulnerabilities in thousands of systems resolved





PRIVACY CENTRAL APP: INFO ABOUT THE PRIVACY OF YOUR SMARTPHONE APPS

Empowering Internet Users | Taking Control of Your Data call 2020

WHAT The /e/ Foundation's Privacy Central App makes it easy to check your (Android) smartphone for privacy issues and take action to protect yourself. It sheds light not only on your personal apps, but also on those within your phone's operating system (OS). If, for example, you have a phone running Google's Android, Privacy Central tells you what data about you Google is collecting.

AIM The /e/ Foundation is also realising an alternative, privacy-enabled OS for a mainstream audience and supporting the development of PWAs (progressive web apps) that reduce dependence on Google. **STATUS** The project has been going well so far. Mock-ups, UIs and a prototype of the Privacy Central App have all been produced. The team's work is attracting growing interest from the US and Europe. For example, /e/ has now joined the European Commission's NGI ledger programme. <https://e.foundation>

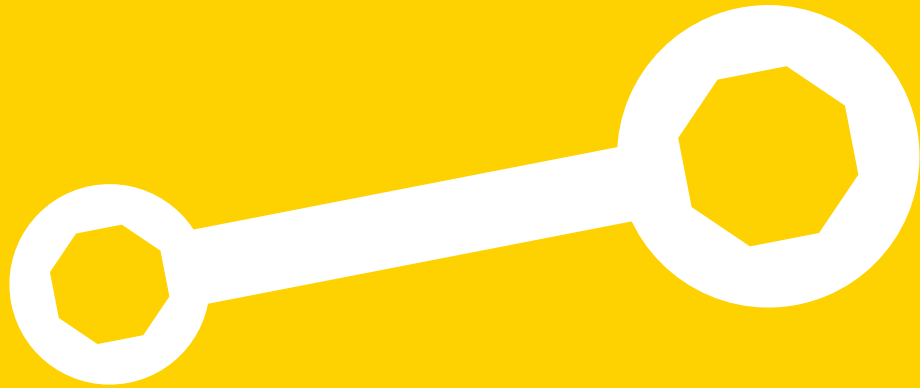


ACCESSIBLE VOTING ASSISTANCE: STEFFIE HELPS VULNERABLE GROUPS

Empowering Internet Users | Scouted project 2020

WHAT The Election Compass with Steffie team has developed an accessible tool to help voters ahead of the 2021 Dutch parliamentary elections. The project is a joint initiative by Steffie Helpt, Leer Zelf Online and Kieskompas. **AIM** To help vulnerable people make informed voting decisions. The web tool provides political information to people with mild mental or functional disabilities in an accessible form. It works like a mainstream voter guide, but the information is easier to understand. The intention is to prevent vulnerable people being excluded from participation in the democratic process or, worse still, casting their votes for candidates who don't reflect their views. **STATUS** Around the time of the elections, the project was covered by national papers, broadcasters and other news media. The project achieved an impressive reach, with the site attracting 112,799 unique visitors. The project consortium intends to develop the Election Compass concept further in time for the Dutch local elections in 2022. Further funding is currently being sought by offering municipal councils the opportunity to add the module to the local guides they provide. <https://kieskompas.steffie.nl/nl/>





Pioneer Projects

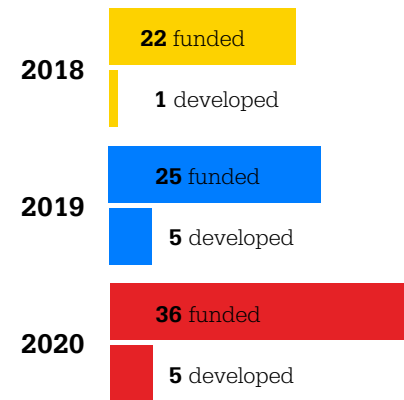
Our Pioneer Project funding mechanism provides grants of up to 10,000 euros to support the development of ideas into demos, pilots or experimental designs. The evaluation of our activities in the period 2015 to 2017 found that the system is well regarded, and that observation was confirmed by the latest evaluation.



Very few other organisations are active in the funding of concept development and (technical) proof-of-concept research. The Pioneer Project system is also useful to the Fund itself, because it serves as a nursery for larger future projects, and because it helps the Fund to remain open to new ideas and thinking. Since 2019, as well as running themed calls for larger projects, we have welcomed Pioneer Project proposals all year round. From 2018 to 2020, a total of eighty-two Pioneer Projects were supported.

Of the sixty-seven Pioneer Projects funded in period 2015 to 2017, nearly half remain active in some way or have developed or been incorporated into larger projects. We regard that as a very good success rate for conceptual innovations. Indeed, across the whole period, the proportion of Pioneer Projects leading to more substantial initiatives has increased. Some of the most eye-catching Pioneer Projects funded between 2018 and 2020 are described below.

Figure 5: Pioneers - funded projects & further development



In 2018, twenty-two Pioneer Projects were supported, including fifteen linked to the year's themes of Responsible AI and AI for Good. Examples include: *AI AI Barbie* (hackathon and public event to encourage debate about 'smart' toys); *AI Will See You Now* (formulation of parameters for the responsible application of AI in medical decision-making); *The Dutch AI Alliance/ALLAI* (platform where all social actors can cooperate on the technical, societal and ethical aspects of the responsible development and use of AI). In the latter case, our relatively modest financial support had considerable impact: ALLAI now has a high national and international profile. In 2020, a follow-up project – *Responsible AI and the Coronavirus Pandemic* – was supported in the context of our Internet Against Corona call.

In 2019, we supported twenty-five Pioneer Projects. Of those, eight were recruited through the Taking Control of Your Data call, where we invited proposals for ideas and projects aimed at giving end users more control over their personal data. Five of the 2019 Pioneer Projects developed into larger initiatives. One of the most notable was the *Publicroam VPN* project, aimed at providing secure Wi-Fi in public venues. The Publicroam Pioneer Project led to two follow-up projects: *Fast and Secure Internet with Publicroam* and *Secure Open Wi-Fi for Libraries*. Publicroam also won the Privacy First Foundation's Privacy Award 2020. The *Don't PSD2 Me Register* Pioneer Project was also followed up by the Don't PSD2 Me project. Don't PSD2 Me is a Privacy First initiative with two aims: realisation of a *Don't PSD2 Me* filter for account numbers from which special personal data can be deduced, and promotion of awareness amongst politicians.



In 2020, thirty-six Pioneer Projects received grants, five in the context of the second Taking Control of Your Data call. At the time of the evaluation, not all the projects had been completed. Strikingly, however, five had already developed into larger, successful (follow-up) projects:

- **The deepfake detection website** led to the **DeepfakeProof plugin for deepfake detection**: an accessible, free tool that lets you check whether a video has been manipulated using deepfake technology.
- **Appt** grew into the **Inaccessible App Reporting Portal** and a scouted project called **App Accessibility Awareness and Training**, involving the development of tools and a reporting portal for users and developers, aimed at making apps more accessible.
- **The Vox Pop Academy Secondary Vocational Pilot** led to **Waaromkiesjij.nl: Democracy Unfiltered – a project centred around** an online platform where you can have an anonymous one-to-one discussion with someone whose political sympathies differ from yours.
- From the **Accessible Video Player** project came the **Video Accessibility Plugin** scouted project, involving development of a free and accessible open-source video player and a plug-in that enables users to watch online videos with their preferred settings automatically enabled, such as subtitling and audio description.
- We kickstarted **DIVD (the Dutch Institute for Vulnerability Disclosure)**, which is now a partner in the **Dutch Security Report Portal** for the receipt and distribution of information about vulnerabilities detected in Dutch organisations' systems.



Other notable and impactful Pioneer Projects supported in 2020 include the *Green Web Foundation*, which encourages transition to a sustainable internet. The Green Web API, which allows users to check whether a website runs on green energy, was improved and extended. The API is used to perform ten million checks a day, and the number is rising all the time. *There was also the Dutch Institute for Vulnerability Disclosure/DIVD Kickstart project*. The Institute is a spinoff of a voluntary consortium of ethical hackers who identify and flag up vulnerabilities, enabling the operators of thousands of systems to improve their security. The group attracted a lot of media attention, formed valuable alliances and generally professionalised their organisation. We also supported a project designed to counter the distribution of *child sexual exploitation material in chat groups*. A mechanism for reporting abusive material was developed, which went live in August 2020, enabling OCAEB to use their expertise to tackle not only website-based sharing, but also sharing via chat services. That project attracted a lot of media attention as well.

Pioneer Projects are projects with the potential to turn good ideas into impactful initiatives, often with relatively modest financial support. Many of the Pioneer Projects we have supported have achieved so much that their impact compares well with larger projects. The Pioneer Project support model therefore makes an important contribution to our work.



AI AI BARBIE: THE SMART TOY DEBATE

Pioneer Project I Empowering Internet Users 2018

WHAT The AI AI Barbie project explores the relationship between parents, children and smart toys **AIM** To encourage debate about the moral implications of smart toys that influence children. **STATUS** A hackathon and a public event were organised with Stefania Druga (MIT), leading to the development of five prototypes at the hackathon. By attracting media attention, including a radio interview and articles in the daily papers FD and NRC, AI AI Barbie has got more people in the Netherlands talking about smart toys. The project has also shown that, by tinkering with AI and programming, people can build a better understanding of how AI works. That in turn increases the opportunities and scope for investigating, questioning and, with user input, co-creating a future characterised not only by smart toys, but also by smart assistants and social robots. Project founders SETUP and Waag plan to continue encouraging public debate and democratising the technology. <https://waag.org/nl/event/ai-ai-barbie>



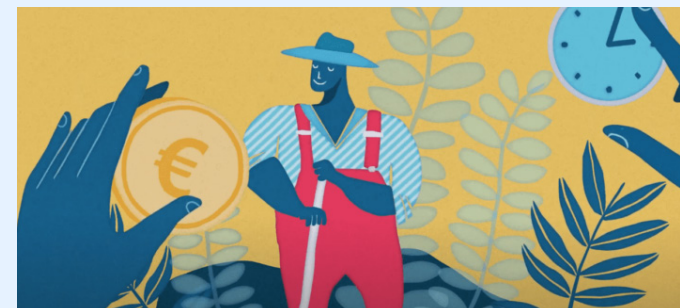


DON'T PSD2 ME: BECAUSE SOME PAYMENTS ARE CONFIDENTIAL

Pioneer Project | Taking Control of Your Data call 2020

WHAT Privacy First is developing PSD2-me-niet ('Don't PSD2 Me!'): a system for filtering account numbers that can reveal special personal data. **AIM** Under PSD2, the new European banking law, consumers will be able to share their payment data with non-banking service providers. However, payment data may disclose more about you than you would really like. It can tell others that you belong to a union or political party, for example, or indicate your medical status, religious views or sexual orientation. Such information can be very useful to credit assessors and data traders. The Don't PSD2 Me! project therefore aims to both offer a solution and flag up the issue to policy-makers. **STATUS** Anticipating evaluation of the PSD2 Directive at the end of 2021, the project team has produced a whitepaper and submitted it as input to the evaluation process. The whitepaper includes a number of proposals for resolution of the Directive's shortcomings. It also explains how special personal data can be detected by reference to a list of the numbers of accounts from which special personal data can be derived. The team have also built an API which can be used to filter data by reference to the list. The API has been incorporated into a service called Gatekeeper for Open Banking, the product of a project that also received a pioneer grant from SIDN Fund in 2019.

<https://psd2meniet.nl>



FAIRTRACE MAKES FOOD SUPPLY CHAINS TRANSPARENT

Tech for Good | Open call 2018

WHAT Fairfood and its partners have previously developed an open, blockchain-based tracing system called Trace, which enables food manufacturers to make their supply chains transparent. In 2018, SIDN Fund supported a follow-up project, in which the tracing platform built for Versteegen Nootmuskaat was adapted for general use. **AIM** Most food supply chains in developing countries, including the coffee, cocoa, coconut and spice chains, lack transparency and are associated with numerous socioeconomic problems, such as poverty, child labour, environmental damage and poor food security. Revealing the origins of food, from farm to fridge, can facilitate action to address such problems and make supply chains more sustainable. **STATUS** Nearly a thousand nutmeg and coffee growers currently use Trace, thirty companies are registered on the platform and five thousand unique visitors have looked at Trace product pages. The project has also been very successful in finding further funding: as well as securing grant income of 500,000 euros a year until the end of 2022, the team has been able to attract commercial contracts worth a similar sum for each of the last two years.

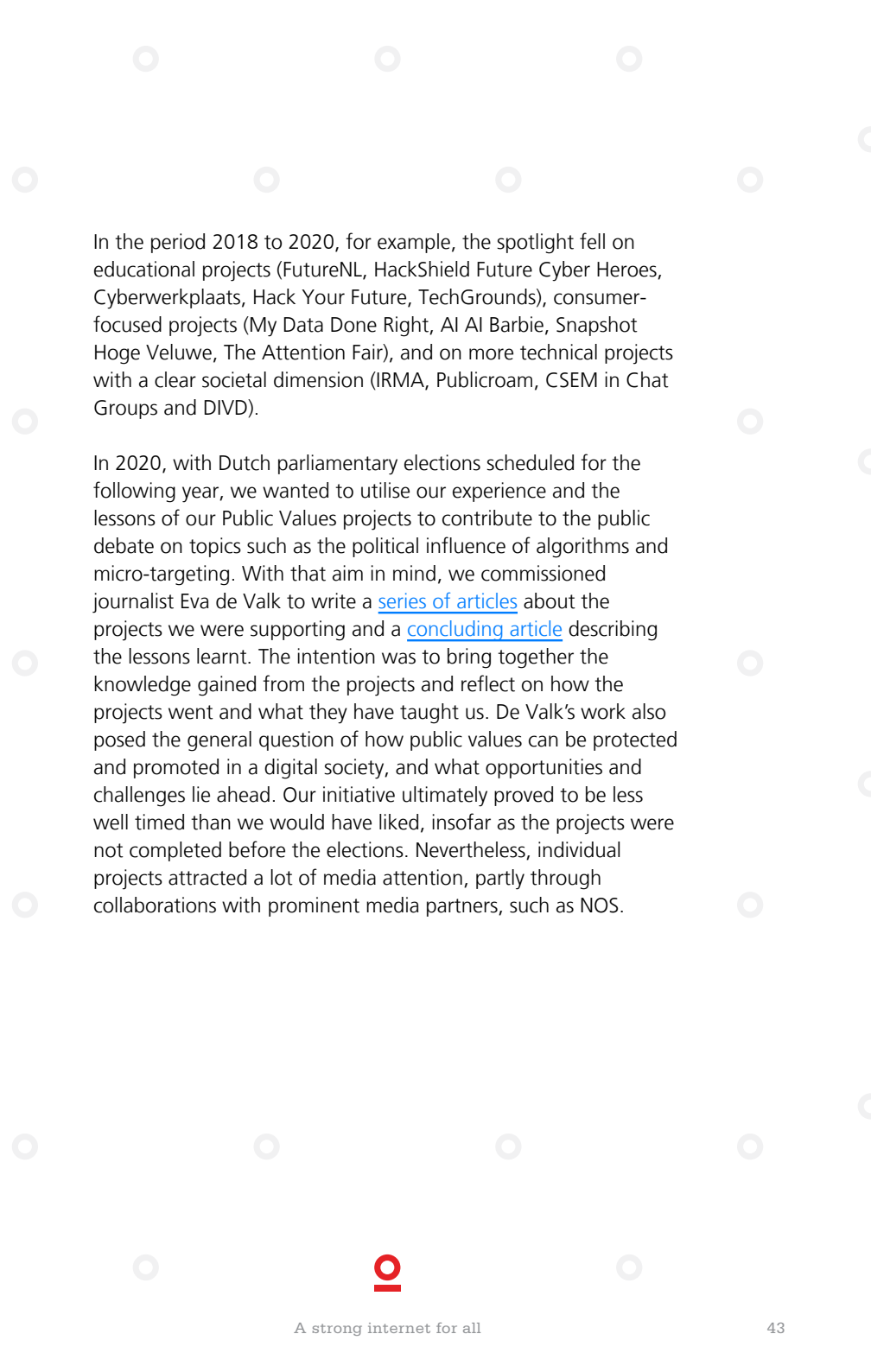
<https://fairfood.nl/oplossingen/trace-blockchain/>





Media attention for supported projects

As indicated, the projects we support often attract media interest. Various projects secured coverage from the national press and broadcasters.



In the period 2018 to 2020, for example, the spotlight fell on educational projects (FutureNL, HackShield Future Cyber Heroes, Cyberwerkplaats, Hack Your Future, TechGrounds), consumer-focused projects (My Data Done Right, AI AI Barbie, Snapshot Hoge Veluwe, The Attention Fair), and on more technical projects with a clear societal dimension (IRMA, Publicroam, CSEM in Chat Groups and DIVD).

In 2020, with Dutch parliamentary elections scheduled for the following year, we wanted to utilise our experience and the lessons of our Public Values projects to contribute to the public debate on topics such as the political influence of algorithms and micro-targeting. With that aim in mind, we commissioned journalist Eva de Valk to write a [series of articles](#) about the projects we were supporting and a [concluding article](#) describing the lessons learnt. The intention was to bring together the knowledge gained from the projects and reflect on how the projects went and what they have taught us. De Valk's work also posed the general question of how public values can be protected and promoted in a digital society, and what opportunities and challenges lie ahead. Our initiative ultimately proved to be less well timed than we would have liked, insofar as the projects were not completed before the elections. Nevertheless, individual projects attracted a lot of media attention, partly through collaborations with prominent media partners, such as NOS.





Projects we supported in the period 2018 to 2020 also secured more than fifty nominations and awards. In 2018, 2019 and 2020, the ISOC Award was given to a project supported by SIDN Fund (respectively Let's Connect, IRMA and Sylk Suit (Sylk Server)). The Dutch Privacy Award went to IRMA in 2018, to Privacy Designer in 2019 and to Publicroam, Nuts and Candle in 2020. Other recognitions included the Brouwer Award for IRMA (2018), the Computable Award for HackShield Future Cyber Heroes (2019), and the My Data Operator Award for Schluss (2020).



We ourselves made various awards in that period. In 2018, we gave SIDN Fund Pioneer Project Prizes to the winners of the Dutch Open Hackathon and the Tech for Good Hackathon, and to the best idea proposed at the Day of the Domain Name. In 2019, we also made the fourth SIDN Fund Internet Thesis Award for the best thesis in the category Internet & Society/Humanities.

SIDN Fund is often asked to contribute to external events, and we treat such invitations as opportunities to showcase the projects we support. In the period 2018 to 2020, we contributed to a total of twenty-six external gatherings, including Hacktalk, the Amsterdam Privacy Conference, the ECP Annual Congress, EuroDIG, MozFest and the talk show Tech for Society.





MORAL AIGENCY: AI IN PRACTICE AT THE VOLKSBANK

Tech for Good | Open call 2018

WHAT In collaboration with the Volksbank, the project team has developed a research-based code of conduct for the use of AI in the financial services industry. **AIM** The use of AI by financial service providers can have major implications for people. It is therefore particularly important that the financial services industry should consider ethical guidelines and take practical steps to improve transparency regarding the use of algorithms. **STATUS** As well as yielding research results and publications (e.g. A Survey of the Legal Parameters for the use of AI in Lending), the project has delivered guidelines for use in the field. The team's AlgoVisie principles (transparency, justification, human escalation, honesty and supervision) have been tested in multiple use cases relating to the banking industry's core activities (home loans, preventive control and fraud detection). On the basis of the findings, tooling and a governance model have been developed and an AI usage group has been set up. An ethical process and ethical governance structure were implemented at the Volksbank in September 2020, and are performing well. The model and the experience gained by the team can also be useful to other organisations inside and outside the financial services sector. The project leader (currently working as Ethics and AI Specialist at the Volksbank) is often asked by other organisations to advise on Responsible AI initiatives. <https://www.joriskrijger.nl>



ONLINE HATE FIRST AID KIT: AN ANTI-TROLLING TOOLKIT

Tech for Good | Public Values call 2019

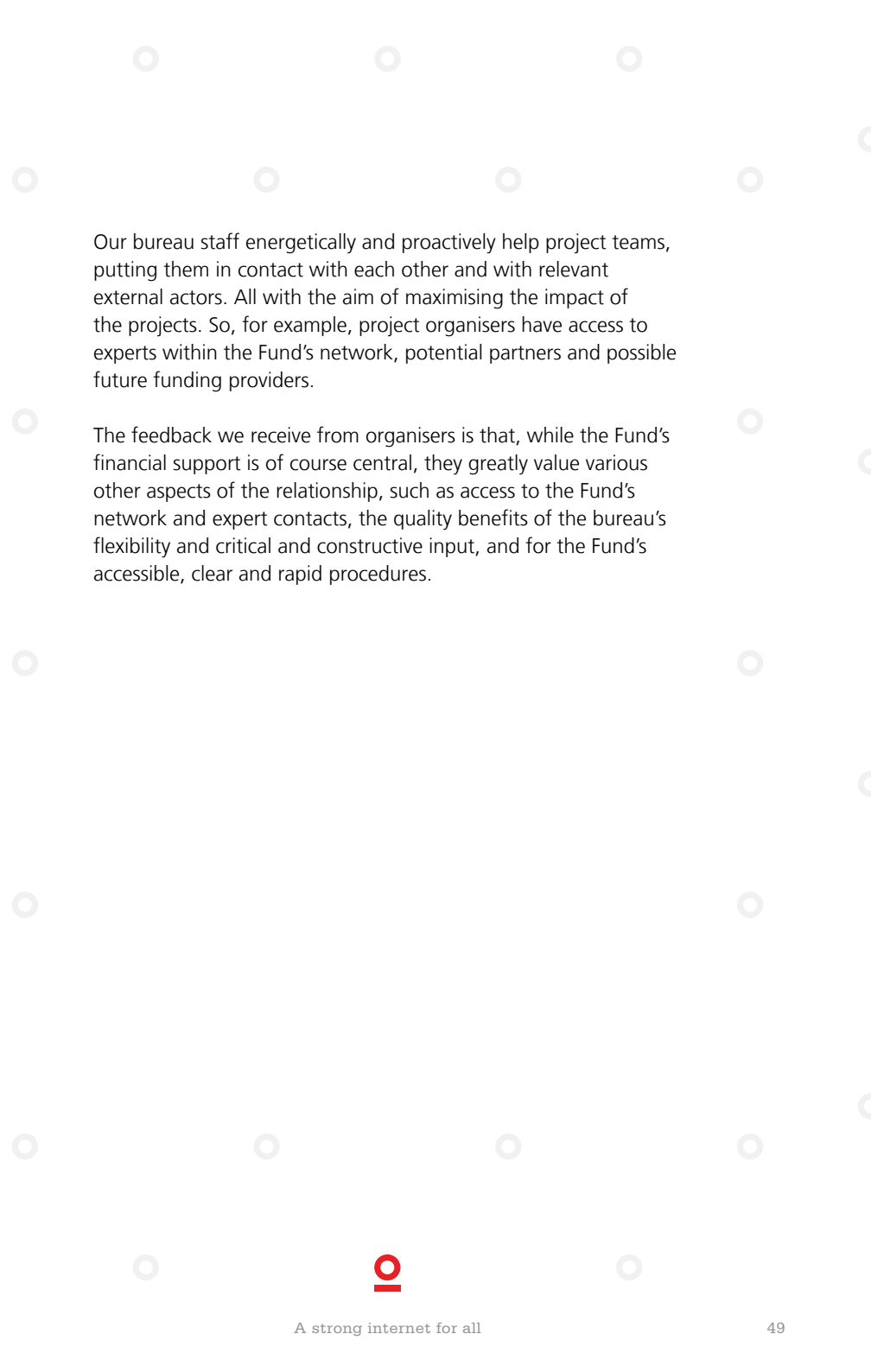
WHAT DeGoedeZaak has developed a universal, user-friendly and practical toolkit that anyone can use to protect themselves against online hate and trolling. **AIM** Anyone who tries to raise an issue or bring about social change – speaking out against Islamophobia, for example, or calling for an end to festive blackface traditions, action on climate change or easier access to contraception – soon finds themselves facing online hate and intimidation. As an activist or campaigner, you need to develop a thick skin to cope with coordinated, hurtful responses and not become discouraged. **STATUS** The project has achieved a great deal and generated considerable publicity. That has helped to encourage debate in the online and offline media about how online hate should be tackled. There have been articles in De Volkskrant, Liliith Magazine, De Nieuws BV, Noordhollands dagblad, Dagblad van het Noorden and the Resilient Government Network (Ministry of the Interior). <https://eerstehulpbijonlinehaat.nl>





SIDN Fund community

The support provided by SIDN Fund is not exclusively financial. Project organisers also have the opportunity to access knowledge networks, attend Fund-organised gatherings and obtain expert advice from the Fund's extensive circle of contacts



Our bureau staff energetically and proactively help project teams, putting them in contact with each other and with relevant external actors. All with the aim of maximising the impact of the projects. So, for example, project organisers have access to experts within the Fund's network, potential partners and possible future funding providers.

The feedback we receive from organisers is that, while the Fund's financial support is of course central, they greatly value various other aspects of the relationship, such as access to the Fund's network and expert contacts, the quality benefits of the bureau's flexibility and critical and constructive input, and for the Fund's accessible, clear and rapid procedures.





CORONAVIRUS PLANNER FOR HOSPITALS

Tech for Good | Internet Against Corona call 2020

WHAT In collaboration with hospitals in the Brabant region, a care planning application has been developed for forecasting coronavirus-related admissions. **AIM** To make a tool available to hospitals, enabling more efficient, data-driven planning of mainstream care that takes account of anticipated peaks in coronavirus-related admissions. Demand forecasting can facilitate the forward planning of routine care services, help care staff prepare for future waves and expedite access to appropriate care. **STATUS** The care planner forecasts the coronavirus-related demand for clinical and IC care for the next six weeks. The reliability of the predictions is linked to the time horizon. They are accurate to within 3 per cent for the first week, and to 15 per cent for the sixth week. National data has been made available on a platform at <https://covidplanner.nl>. Eleven hospitals in North Brabant and the Brabant Acute Care Network have been supplied with regional predictions. The Brabant Acute Care Network has also used the regional predictions for its own weekly pan-institutional tactical planning. The application is now being refined to enable all hospitals to make use of it. The model is to be shared as open-source code and made freely available from covidplanner.nl.



PACT OF THE PANDEMIC ON CITIZENS' FUNDAMENTAL RIGHTS

Tech for Good | Internet Against Corona call 2020

WAT The Coronavirus Pandemic, the Internet and Fundamental Rights in Europe is a pan-European investigative journalism initiative by Reporters Online and The Investigative Desk. **AIM** The project aims to clarify the impact of the (digital) response to the coronavirus pandemic (e.g. the use of case reporting and tracking apps) on citizens' fundamental rights, to highlight problems, and to provide a basis for improvement. **STATUS** An interim evaluation has yielded a publication highlighting the fact that only one in twenty-five cases in Europe has been registered using one of the reporting apps developed, adopted and heralded as central to the pandemic response throughout Europe. The research shows that such apps have been relatively ineffective in Europe. The research findings were reported by NOS, Die Zeit, VRT NWS, Le Monde and on the project's own website. Various other media outlets used the raw data for their own stories, including NU.nl, Tweakers.net, androidworld, NRC, Brussels Times and De Volkskrant (corona liveblog 21 May). The research project aims to generate more such coverage. The research results have been bundled to form a dataset, which is widely available, free of charge. The project team is also working with academic researchers, and expects that the collaboration will yield academic publications as well. <https://investigativedesk.com/nl/een-op-de-tien-besmette-europeanen-meldt-dit-via-een-corona-app/>





Conclusions and recom- mendations: keep going!

We asked our stakeholders and an external panel to review our evaluation. The central recommendation to emerge was that the Fund should continue on its current course.



In particular, the new approach was seen as promising and worth retaining. The other main feature of the advice was that SIDN Fund should pay greater attention to communicating its own story: the vision behind the Fund and the Fund's ambitions in relation to the various themes.

We will, of course, be adopting the panel's recommendations. The main conclusions of the evaluation of 2018 to 2020 are as follows.

- **Strengthening the Internet programme:** The adoption and impact of many open-source projects was adversely affected by difficulty formulating a clear proposition and a sustainable value creation model. Some projects were also less user-friendly than they might have been. Those observations serve to validate our decision to do more scouting in the context of this programme. The scouted projects have the potential to perform better, partly because of the involvement of strong partners with the ability to increase the visibility, reach and impact of the projects. The Technician Seeks Designer initiative started in 2020 also promises to yield more user-friendly outcomes. Our stakeholders have suggested sharpening the focus of the programme. They also advise running themed calls as well as scouting, and publicising everything that has been developed, so that others pick up the applications and take them forward.
- **Empowering Internet Users programme:** The focus on 'data awareness and data-autonomy' and the adoption of stricter criteria for the selection of collaboration partners



(designers, organisations/institutions, end users) were successful. Numerous good projects were recruited, which often achieved extensive reach within relevant target groups and generated an impressive portfolio of universally accessible educational content. The projects that focused on the accessibility and inclusivity of digital applications, services, websites and apps were similarly successful. Our conclusion is therefore that greater focus and cohesion was achieved within this programme line, yielding excellent results. Organisers of the most successful projects indicated that the Fund had played a very valuable and clear 'founding funder' role.

- **Tech for Good programme:** The decision to use themed calls within this programme has worked out well. The fragmentation previously associated with Tech for Good has been replaced by a more focused and coherent programme, improving SIDN Fund's ability to take stock of relevant matters. Results can now be pooled and showcased more effectively to inform public debate, although stakeholders also indicate that much more could yet be achieved. Focusing on specific themes makes it easier to involve experts in the preparation, evaluation or supervision of calls and projects. Another advantage of the themed approach is that it enables more effective knowledge exchange and cooperation amongst projects than is possible in the context of an open call. Furthermore, this programme proved to be an excellent vehicle for collaborations with other funding bodies that were productive in terms of resources, networking and impact.



- **New working method:** Although SIDN Fund's new approach was adopted only in 2019, our conclusion is that it is working well and increasing the focus and cohesion of the Fund's activities. As indicated above, that is particularly true in relation to programme lines 2 and 3. We also note that the quality and success rate of applications has increased in recent years. However, the diversity of applicants warrants attention. In order to realise our mission of helping to build a strong internet for all, the diversity and inclusiveness of the applicant pool should reflect wider society. Unfortunately, that is not yet the case. More could also be done to raise the Fund's profile and communicate its successes.

We are proud of what has been achieved and of the recognition we have received from our project organisers and stakeholders. We therefore intend to continue on our current course, but to devote greater attention to three points. First, more forceful communication of our story, our ambitions and our plans for their realisation. Second, the showcasing of projects results and the positioning of projects so that they thrive and become sustainable. Third, reinforcement of ties with other actors and clearer definition of the position and role that the Fund sees for itself within its networks. In the years ahead, we look forward to supporting further valuable, impactful projects and, through our programmes, helping to build a strong internet for all.



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