

# Funding for Future

The Effects of a Lightweight and Low-Threshold Funding Instrument for Open-Source Software

A Prototype Fund Handbook

Prototype Fund

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#### **Preface**

#### Dear readers,

We are pleased to present our handbook "Funding for Future: The Effects of a Lightweight and Low-threshold Funding Instrument for Open-Source Software". With this publication, we seek to use the example of open-source software to give an insight into how unbureaucratic funding can work for individuals and small teams and to demonstrate the benefits.

#### We are doing this for several reasons:

- 1. There are many people out there with innovative ideas for the common good. As a rule, they fall through the cracks of classic funding logic if they are not associated with companies or institutions. Yet they are as individuals or interdisciplinary teams our most important resource with their different ideas, backgrounds, experiences, and knowledge. That is why it must be possible to support them directly.
- 2. Open-source software is the most sustainable form of technology development. It ties up fewer resources because existing modules can continue to be used and adapted. This makes it possible to reuse existing software solutions for different needs. For this reason, open source should become the standard in software development (see: "Why Open Source?").
- 3. We want to create a space for experimentation. The classical funding culture is often focused on results and control of these results. Instead, we seek to create an environment where people are given time and space to pursue and explore ideas, as well as have the freedom to make mistakes. In doing so, a path is paved for new developments.

The goal of our funding is not only to produce as many successful open-source applications

as possible, but also to create the basis for an ecosystem of technological projects with added social value in Germany and Europe. We seek to demonstrate and strengthen the innovative potential of society – and by doing so, demonstrate how important it is to develop outside of market constraints and logic, especially in the field of technology. This also involves the principles that we represent as a rather unconventional funding programme: openness, interdisciplinary work, cooperation, flexibility, sustainability, error culture, and people-centeredness. We believe these ingredients are essential for the development of good technologies.

For us, good technologies are technologies of public interest: sustainably accessible open-source projects that place special emphasis on the users, specifically address their problem or decidedly societal problems, and are developed by civil society experts who contribute their skills to the good of society.

The Prototype Fund funding model is unique in the field of technology funding. The handbook can be used as inspiration to set up other funding programmes. Of course, this does not necessarily have to concern open-source software or public interest technology. The funding logic can also be transferred to numerous other fields with added social value.

We hope you find it useful.

## The Aims of This Handbook

The Prototype Fund provides low-threshold funding from public sponsors or the third sector for quality, innovative open-source software. For us, innovation does not only mean developing a completely new technology, but also achieving more impact in terms of social added value through new or newly applied methods. In this way, more people are empowered to use their talents for the common good.

The funding landscape for this purpose has been modest in size so far, as funding programmes are often aimed at companies, the cultural sector, or research institutions and involve complex administrative procedures. With our handbook, we seek to address both funding institutions and organizations that implement funding programmes, and encourage them to:

- Establish lightweight funding schemes that stand out in the funding landscape due to their short funding periods, smaller amounts, and low administrative burden;
- Promote more open-source software in all funded projects with a digital component;
- Explicitly address civil society and thus reach
  a committed target group with great expertise
  that has so far been excluded from many funding
  opportunities.

In the funding cycles we have already completed, we have been able to build up comprehensive expertise on agile funding instruments. To expand this type of initial funding for innovative open-source technologies and to carry it into further areas of the funding landscape, this knowledge – such as the information provided in this handbook – should be shared and offered as advice for the collaborative

processing of social challenges.

This is true in both the national and international context: the analysis of follow-up funding for Prototype Fund projects demonstrates that the open-source scene is already developing across countries. Experiences from the past application cycles of the Prototype Fund have confirmed that many international project teams – and teams from the European region in particular – would like to apply for the funding measure but are currently excluded by the funding conditions. We would therefore like to bring the concept of the Prototype Fund to the European and wider international arena and reach a much larger community of free open-source software developers.

Possible partners for the sponsors are internationally active civil society organizations, foundations, software companies, and political institutions.

Beyond the exchange of expertise, joint projects can be established with new (international) partners. A pan-European funding measure would enable true internationalization in the sense of cross-national funding and a strong network of civil society-driven innovation.

#### What We Do

The Prototype Fund is a lightweight funding programme for innovative open–source software projects. Specifically, project teams are supported with up to € 47,500 or CHF 100,000 in initial funding in a structured, agile programme with multiple learning opportunities.

The existing programmes in Switzerland and Germany provide funding with a focus on major social challenges and concrete creative ideas for solutions. We seek to reach people who bring different competencies to the design of technology. Career changers and self-learners are just as welcome as experienced developers.

In addition to the target group, a special feature of the funding programmes is that they are less bureaucratic and thus also offer access to people who have had no previous contact with public funding. With short funding periods and comparatively small amounts, they also explicitly enable developers to test their ideas as prototypes instead of demanding functioning beta versions as a result.

Funding is therefore not primarily about project results but about the process and enabling people to participate in and actively shape innovation processes. In an open space for experimentation, novel approaches to solving societal challenges can be discussed, developed, and tested. The concrete way in which this goal will be achieved remains open.

Since 2016, the Prototype Fund Germany has been supporting the development of public interest technologies to increase and harness the innovative power of people who have not been traditionally considered in the classic funding model.

In the first two years of its existence, the Prototype Fund Switzerland, founded in 2020, funded opensource projects in the field of political participation. From the third funding cycle onwards, it also opened up to the broader field of public interest technology.

With the exclusive funding of open-source projects, **Open Knowledge is considered an effect mechanism for social innovation.** Both programmes promote the linking of existing technological communities and the connection of similar projects, thus encouraging the creation of new networks.

# Why Fund (Differently)?

The Prototype Fund does not primarily support results or (software) products; rather, it is about people and ecosystems. The free developer scene, which often revolves around unpaid work on open-source projects, should be supported. Numerous valuable user-centered ideas await here, whose developers often attach great importance to security and data protection.

The software is not developed for profit, but out of a demand for secure, sustainable, and effective tools and infrastructures. Dependence on individual large players is thus diminished. At the same time, the achievements of digital civil society are recognised and appreciated, and the free software development ecosystem as a whole is strengthened.

A basic requirement for project funding under the Prototype Fund is the publication of the software source code. The software must therefore be open source.

#### Why Open Source?

Publishing source code makes software more trustworthy, impactful, and sustainable because other people can review it, build on it, and develop it further.

#### Social and Economic Benefits

The openness of open-source software brings many **economic and social advantages**. Firstly, the use of open-source software reduces dependence on

individual profit-oriented providers by providing an alternative offering. In this way, the emergence of technological monopolies and centralization can be prevented and counteracted. Secondly, the transparency of the code and the possibility of code verification by any (qualified) person promotes the discussion of the social benefits of digitization, e.g., in the context of patient records. In the long term, this strengthens trust in the solutions developed. The opportunities to use and further develop the code as well as the feedback from experienced programmers promote both individual competence development and the decentralised development of digital innovation. This strengthens users' responsibility and sovereignty.

#### It is more common than many think

#### Open-source software is not a niche product;

numerous companies use it. Any other model would be almost impossible because many internet servers, most content management systems, numerous browsers, and the most significant internet protocols are operated with open standards and open-sourcesoftware.

#### Open-source software can be freely reused

Publicly accessible source code brings numerous social and economic benefits. It has the nature of a public good: use by an unlimited number of people does not reduce the benefit of other users. The code can be used by companies, individuals, or civil society organizations all over the world –and often even free of charge, depending on the license and purpose of use. It is desirable that public institutions in particular use open software solutions wherever possible

<sup>1.</sup> Here, (Digital) Sovereignty refers to the self-determined use of digital technologies, i.e., the possibility to make an informed choice between different service providers while pursuing one's own needs – such as data protection.

to finance their further development and thus invest in this public good ("public money, public code").

#### Joint and transparent (further) development

The source code of open-source software is usually shared on platforms such as GitHub, GitLab, or Bitbucket. Here, developers, interested parties and experts have an insight into the code and can, for example, check it for gaps in data protection law and report errors and possible improvements or requests to the developers. This feedback is publicly visible, so there is a great incentive to improve the code. In addition, interested parties can fork the software at a certain stage of development, i.e., split off the source code or parts of it, and further develop the application in a desired direction independently of the original developers. This makes open-source software sustainable, resilient, and trustworthy. For the developers themselves, open-source code is comparable to a publicly visible work certificate, increasing their job market chances as their code is validated by the community through use in other projects.

#### Because it pays off

A common misconception is that no money can be made with open-source software and that commercial providers can easily use and monetize the source code for their own applications without giving anything back to the original developers. However, open-source software, like any other type of software, is published under certain licences. These can allow – but also exclude – free reuse for (non-)commercial use or use of the code in "closed" software whose source code is not visible ("proprietarization"). Furthermore, numerous companies are using an open-source software model that offers, for instance, "software as a service", i.e., they distribute the software itself free of charge but sell associated services that

make it easier for customers to use the software and offer further advantages. **Development, maintenance, updates, and further development cost time and resources and should be remunerated accordingly.** 

For the programmers themselves, open-source code is also comparable to a publicly visible job reference and thus increases their chances on the job market, as their code is validated by the community through use in other projects.

### Open Technologies by and for Society

For the Prototype Fund and other players in the digital civil society, certain values are at the core of their work. Technology development should be an open, collaborative, and interdisciplinary process whose results address socially relevant challenges in a human-centered and sustainable way.

In detail, this means that it should be:

- » Open: Technology should not be developed in secret but should be openly accessible as a process as well as in its result (see: "Why Open Source?"). On the one hand, this concerns the source code itself; on the other hand, the use of open standards and data should be emphasised, as this reduces dependencies and promotes interoperability.
- » Collaborative: Competition can have its advantages, but when it comes to developing technologies that significantly determine people's everyday lives and working environments, collaboration should come first. This also applies to deciding whether a certain technology is needed at all or whether it should be used. Contrary to the saying "too many cooks spoil the broth", we firmly

believe that the involvement of many different contributors makes code better and more stable. Nevertheless, there must always be a review process that ensures that only high-quality contributions ultimately make it into the software.

- » Interdisciplinary: Software needs more than just developers. Without designers, thematic experts, or communication specialists, the best code is of no use. That is why interdisciplinary teams should work together as early as possible in the development phase.
- » People-Centered Instead of Profit-Oriented: Technology should serve people and help them overcome problems. It should not be designed to make users lose control over their personal data, for example. Users should be involved early and often in the iterative development of applications.
- » Socially relevant challenges: Technology should not deal with fictitious problems, but focus on the challenges that (many) people and societies as a whole are struggling with – that is why it only makes sense that the software ideas also come from society and are developed in a human-centered way.
- » Sustainable: The wheel does not have to be constantly reinvented. If there is functional code for a specific purpose, it should be able to be reused and developed to save resources and time.

Another focus of our work is to provide societal participation in technology assessment starting in the development process. This is needed when innovations directly affect the reality of people's lives. Participatory technology assessment can only work if there are interfaces between innovation and (civil) society, e.g., the third sector – this is how technology can work for people.

# How Can the Programme Be Implemented?

What exactly should funding that supports and motivates committed people to use their knowledge for public-interest innovation look like? There are different answers to this question depending on who is asking it. Here, we would like to focus on the perspective of the potential funders and those who may potentially implement a funding programme.

#### For Potential Funders

For funding institutions, it is of interest to learn which framework conditions make funding low-threshold and attractive for potential applicants.

The consistently very high numbers of applications – as seen in the case of the German Prototype
Fund since 2016 – demonstrate that a funding environment has been created that is well suited for this type of software development. In addition, we have performed a comprehensive evaluation process and identified further aspects that can contribute to successful funding on behalf of institutions.

- » Short Deadlines: Relatively short timeframes from application to start of funding allow grantees to make rapid progress in developing their ideas and ensure that projects tailored to time-sensitive emergencies, such as the Corona pandemic, remain relevant and can be developed accordingly.
- » Funding Amounts that Replace Salaries: Individuals and small teams need different amounts of funding than companies or institutions. While larger organizations often

have higher administrative expenses that must be co-financed, the salaries of individuals and teams must be wholly or partially replaced or subsidized during the funding period. The funding amount must therefore be paid out accordingly at regular intervals, and the waiting period until the first payment should also be considered. If there is too long a period without income, this will be an insurmountable obstacle for some grantees..

- » Operational Support: Many funding programmes offer not only financial support but also operational support. This can include support in the form of consulting, mentoring, networking, and coaching, which makes a big difference in the success of the project and is especially useful for those who, as lateral entrants, are not yet firmly rooted in their respective sectors.
- » Little Reporting: As a rule, grantees have little capacity and experience for reporting. For this reason, it is advisable to have manageable reporting obligations for funded projects. A good alternative is comprehensive reporting and evaluation by the staff of the funding programme.
- » Flexible Duration: One observation we have made is that the possibility to flexibly adjust the funding period can be a great help for many grantees. In our experience, funded projects often face unforeseen issues that require more time than expected to resolve. As described in the chapter "Why Fund (Differently)?", it is also in the spirit of the ecosystem that developers "give back" by contributing to other software projects (because of dependencies in the implementation of their own idea). If they have to do this without an increase in their funding period, their own project often suffers.
- » General Flexibility: When funding programmes

are set up from scratch, rarely does everything go as planned right from the start. It is therefore best to feature a general flexibility that allows the programme and the funding guidelines to be adapted. In this way, it is possible to react to special needs and unforeseen developments.

### For Potential Funding Programmes

We are passionately committed to our work and draw on expertise from diverse communities as drivers for sustainability. For example, the jury members of the Prototype Fund come from various technical and social science disciplines and have practical knowledge of the needs as well as social and technical challenges in their sectors. Furthermore, the outreach and entire external communication strategy of the programme is designed to address a wide range of target groups. Be it hackspaces, administrations, citizen scientists, or foundations, variety is the spice of life and ensures that software projects with the most diverse participants and focal points receive funding.

Furthermore, the evaluation matrix for the projects is already established in such a way that it helps us to assess how technology can concretely contribute to the common good, not only for the funding period but also beyond.

For the evaluation of the project ideas, particular attention is therefore paid to the following criteria:

- Content orientation;
- Degree of innovation;
- Feasibility (including personal suitability for the implementation of the project and motivation of the applicants);

- Reach and social benefit;
- (Long-term) prospects of success.

# Existing Programmes

There are currently two Prototype Funds in Europe: one in Germany and one in Switzerland. The Swiss fund initially focused solely on civic technology projects, but both programmes now fund projects in the field of public interest technology. They differ in terms of the number of funded projects, the size of the teams, the funding cycle, and the maximum amount of funding.

The following overview is intended to illustrate what is needed for a prototype fund and how the existing programmes are run. For instance, both programmes are characterized by their implementation in close connection with already existing communities in digital civil society. At the same time, it should be made clear that the concrete design can be very open.

#### Case Study: Germany

The Prototype Fund Germany was founded in 2016 as a programme of the Open Knowledge Foundation Germany, modelled on the Knight Foundation programme of the same name in the USA, and funded by the Federal Ministry of Education and Research. It will support innovative and community-oriented open-source software projects in a total of 16 funding cycles until 2025. Approximately €18 million in funding will be distributed over this period. The German Aerospace Centre (Deutsches Luft- und Raumfahrtzentrum, or

DLR) acts as the project management agency. Within the Open Knowledge Foundation, a permanent team of three to five full-time staff is responsible for project management, accompanying research, public relations, administration, and monitoring of the programme.

The approximately 25 projects per cycle proposed for funding by a jury of experts receive up to € 47,500 in start-up funding, as well as coaching, and other consulting and networking services over a period of six months. The coaching sessions cover the areas of UX design, project management, security, and start-up advice. Coaching sessions with a focus on different topics, like communication and leadership are also offered. In addition, regular chats take place between the team and the grantees in various settings. The funding phase ends with a public presentation of the prototypes.

Users are not only consumers of the software but often also experts and developers. It is this intersection that the Prototype Fund addresses, offering the tech-savvy civil society access to the resources and processes they need to contribute their knowledge, ideas, and experience to the common good. Projects in the field of public interest technology are funded. These are technologies that focus on the needs of users and are freely available, sustainably accessible, and adaptable. The main topics are civic technology, data literacy, data security, and software infrastructure.

The Prototype Fund is a funding and research programme. In addition to the supervision of the projects and the community as well as general project management, the accompanying evaluation and monitoring of social development environments are an important focus of its work. Technological trends, cross-disciplinary collaborations, project progress, and general (working) practices in

software development are observed and analyzed.
Furthermore, the impact of the programme
is evaluated in a sustainability study and
recommendations for the (further) development of
funding measures are formulated based on this study.

The Prototype Fund and German Aerospace Centre offer the greatest possible support when it comes to the administrative side of funding so that the recipients can concentrate fully on developing their prototypes. For example, the initial application is far less complex than with traditional public funding. The persons selected for funding receive comprehensive assistance in writing the formal application and accounting. In this way, a lightweight funding instrument is created that allows the funding recipients maximum freedom in the realisation of their project and thus strengthens and supports digital civil society in Germany.

#### Case Study: Switzerland

The funding programme in Switzerland was initially launched in the winter of 2020 as a joint initiative of the non-profit association Opendata.ch, the Swiss offshoot of the Open Knowledge Foundation, and the Stiftung Mercator Schweiz (Mercator Switzerland Foundation). After the three-year pilot phase, other foundations and institutions can now co-fund the Swiss programme and hence benefit from its innovative potential. The Prototype Fund Switzerland has a 70% employment capacity dedicated to programme management, encompassing project management, communication, administration, and programme monitoring.<sup>2</sup>

The Prototype Fund Switzerland supports at least five developers or interdisciplinary project teams with up to CHF 100,000 (2023 approx.

<sup>2.</sup> The personnel costs for setting up and running the first cycle amounted to CHF 100,000.

€ 100,000) per cycle or year.<sup>3</sup> In contrast to the Prototype Fund Germany, this sum is not used to replace the salary of the team members, but to supplement it.

A ten-member jury selects the projects to be funded, considering the diversity of teams and projects in terms of gender, language regions, and topics. During the initial three years, funding was exclusively granted to interdisciplinary teams comprising four or more individuals.

The funding is people-centred. On the one hand, this means that the Prototype Fund Switzerland primarily supports people, and not projects. On the other hand, it means that the programme can be tailored to the needs of the participants. The Prototype Fund Switzerland is a space for experimentation and encourages participants to consciously take risks in order to move forward as quickly as possible, learn in the process, and develop functional and useful technological solutions step by step.

The funding period starts with a kick-off workshop and lasts six months. Before the kick-off workshop, participants define the milestones they wish to achieve during the funding phase. After the kick-off, project teams remain in close contact with the Prototype Fund team and the other project teams throughout the funding phase (peer mentoring).

Part of the funding programme are workshops<sup>4</sup> on topics that all funded projects deal with, such as user testing, communication, data protection law, fundraising, and cyber security. In addition, participants receive up to five hours of individual external coaching, depending on their needs. During the prototyping phase, two internal pre-demo days take place, where the project teams present their interim status to the jury and other invitees and receive feedback.

At the end of the prototyping phase, the projects are presented to the interested public and the media at a Demo Day in the spring of the following year. After the funding programme, nearly half of the funded project teams have been able to find follow-up financing for the further development of their prototypes.<sup>5</sup>

After three funding cycles, the Prototype Fund Switzerland has established itself as an effective instrument for the promotion of public good-oriented technology. Since the areas of "digital sustainability" and "systemic innovation" have gained significant importance, the Prototype Fund will fund two projects per year in the area of sufficiency from 2024 onwards. The goal is to further integrate digital sustainability into the Prototype Fund's methodology, to raise awareness of the topics of sufficiency and the carbon footprint of digitization in the tech community and beyond, and to provide technological support for the transformation to a regenerative society.

From the fourth funding cycle onwards, the programme is also open to other foundations to test hypotheses in the form of prototypes in practice in new or existing subject areas. With digitization as a cross-cutting issue, the programme can be applied to different topics (e.g., sustainability, democracy, diversity) and builds bridges between (open-source) technology and other communities.

This proven programme is a low-threshold gateway to digitization and non-profit, people-centred, open innovation. Through their engagement with the Prototype Fund, companies can foster and acquire committed talent and strengthen sustainability and resilience while positioning themselves as responsible, forward-looking civil society players.

<sup>3.</sup> This means that a total of CHF 500,000 per year is paid out to the funded projects.

<sup>4.</sup> In principle, the coaches were paid, but some waived their remuneration of their own accord.

<sup>5.</sup> Seven out of 16 projects found follow-up financing (as of September 2023).

# Impact and Learnings

The Prototype Fund encourages and challenges by providing an experimental space for non-profit tech projects. Risks can be taken, and inevitable moments of failure can be embraced and shared. We firmly believe that several cycles of experimentation and trial and error are an integral part of the development of innovative solutions. Experimental spaces are particularly relevant in the European context, as an error culture is still not as strongly embraced, as is the case with the USA. Even though many people and institutions support philanthropic projects, the field of technology and innovation faces many challenges and there are hardly any low-threshold funding programmes for emerging, non-profit tech projects.

The Prototype Fund adopts an interdisciplinary and open approach to innovation. We empower people to realise their public good-oriented technology ideas by funding working time and providing support with networking and advice. Over the course of our existence, we have been able to identify numerous points that can determine the success (or lack thereof) of a grant and have learned a tremendous amount that we are eager to share with potential

#### Output

The Prototype Fund's public Demo Days, reports, and general outreach work bring people into contact with innovative technological ideas and concepts and their implications for society. In this way, interest in and understanding of how technologies affect individuals and how individuals can engage in technological development for the common good can be fostered.

The collection and joint publication of the source code of all Prototype Fund projects funded to date also creates a comprehensive codebase with open code for a wide range of social challenges.

#### What have we learned?

The written surveys provided by the recipients of funded projects after the end of the funding period have demonstrated that the funding programme creates added value for the participants that goes beyond the financial support. The programme also provides the participants with opportunities for further training and development. Furthermore, the project leaders appreciate the programme's agile and people-centered approach to responding to the needs of the grantees. This allows participants to better develop their skills by not overexerting themselves in volunteering and thus helps them maintain intrinsic motivation for their projects.

#### Outcome

Moreover, the Prototype Fund generates many results that are not measurable in the classical sense. The potential support from the fund also leads to the transformation of numerous abstract ideas into tangible and feasible concepts.

The programme raises awareness of the open-source model as a non-profit digital tool and important societal debates surrounding technology (like privacy) and thus provides an overall positive contribution. Additionally, it offers new perspectives and opportunities for lifelong learning to those it supports, acts as a model for unbureaucratic support, encourages the processing and accessibility of Open Knowledge, provides valuable resources, and strengthens the innovative power of civil society.

As public interest technologies, the funded projects inherently generate significant value for society.

#### What have we learned?

Structuring the programme with mutual feedback and encouragement has helped the project teams to work continuously and intensively on their projects during the funding period. In doing so, they adopt new perspectives, which are additionally promoted by coaching and discussions with the Prototype Fund team. In some cases, coaching is only requested by the project teams at a late stage or is not deemed necessary. In these cases, the programme also intervenes to point out possible voids with feedback sessions and follow-up questions on user testing. Input on further funding opportunities and funding is also particularly appreciated.

Interdisciplinary teams prove to be the most successful in the application process as well as in project implementation. Other success factors are networks or connections to existing ecosystems, protected spaces for members of underrepresented groups in software development, and opportunities for decentralised international cooperation. In the spirit of the open-source model, an extended funding period is also recommended, during which the grant recipients can repair bugs in existing open-source software and thus return "upstream" in the ecosystem.

# Sustainability and Challenges

One, if not the biggest, challenge in innovation funding is the sustainability of the funded projects. Funding and awarding innovation is tremendously valuable and is, in itself, a worthwhile undertaking. But even the best innovation is of no use to anyone if it loses momentum. The emerging technology must be used - that is where its added social value lies. To ensure this, it is important to offer the projects a public platform and to make the innovation known. On the one hand, this generates users; on the other hand, it also ensures that the code is potentially further used, improved, adapted, and maintained.

There are many ways to enable the projects to continue beyond the funding period. To this end, they can be supported in their search for follow-up funding and in building sustainable structures, e.g., in the form of communities. However, tech communities often already exist, and it is difficult to build up new structures – that is why it is important to familiarize existing communities with the funded projects and form networks with the funded groups. The longer the programme exists, the larger this network of alumni projects becomes, and the stronger the networking in the open-source world.

In the context of sustainability, dependencies on players such as public administrations should not be underestimated. These can infleunce the usability of software, whether it be because the data is (not) made available or the corresponding institutions are not very agile or open to technological innovation. Here, contact must be established and relationships cultivated. On the other hand, technical dependencies are also important to bear in mind. Open-source software in particular is based on existing software components such as libraries, etc. If these are not properly maintained in the long term, these so-called

dependencies often lead to frustration, because additional effort may be required to correct errors. These errors can also harbour security risks.

#### Above all, the Prototype Fund sees itself as a programme from which people should benefit.

That is why the sustainability of a project is not only dependent upon its success and does not just refer to the software: even if a project as such "fails", the developers have learned new skills and strengthened their network in the non-profit sector. This can be a great advantage in a follow-up project and ultimately lead civically engaged people to success. The criteria that determine when a project should be considered a "failure" remain open, as does the question of whether and how a Prototype Fund should intervene in such a case.

What the Prototype Fund as a dedicated innovation funding programme cannot do in its existing form is provide long-term funding for software projects. Once the funding phase is over, the developers can, of course, continue to work on the projects in their free time at their own discretion. In addition, there are various other options: they can either seek follow-up funding from other institutions, turn their project into a community project, build a business model around it, or seek institutional cooperation, e.g., with a university. Providing the participants with this knowledge about further development options and thus paving a path to sustainability is one of the crucial tasks of the programme, but often difficult to accomplish in the short time allotted by the funding.

Another challenge of the programme is to reach new players who are not already part of the "scene" and people from underrepresented groups in software development. An initial obstacle is therefore identifying and developing a programme's own niche: Who needs what kind of funding, and for what kind of project? Here, a target group analysis is recommended to ensure that the funding instrument is truly beneficial.

At its core, the programme promotes sustainability by elevating software projects from voluntary work into a status in which the developers are paid for their work and can thus concentrate fully on their ideas while largely freed from financial or time pressures. Even during the application process itself, rough ideas are concretized, and these ideas can be easily submitted later to other funding programmes if they are not accepted for funding.

## Our Vision for the Future

When we at the Prototype Fund are asked about our vision for the future of technological development, we always answer that we would like to see more participation, sustainable follow-up funding for existing projects, a greater focus on users and, as a result, technologies not being developed as an end in themselves, but because they are needed and help people. The Prototype Fund is a path that leads to this future and can ensure that digitization takes place in the interest of society instead of just following market logic.

We can increase trust in digitization by using opensource software to demonstrate that technology does not have to be a black box developed for the profit of a few companies. In this way, digitization truly reaches and benefits society.

Because this is a big undertaking, we would like to see many more Prototype Funds, Open Technology Funds, Hardware Funds, and Infrastructure Funds. We know that we are not alone in this desire, and we hope that this handbook serves as a tool for you to join us on this journey.

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