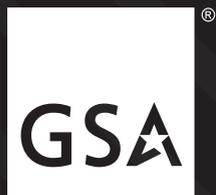


10x Year in Review

FISCAL YEAR 2017



10x

10x is the Office of Investments in GSA's Office of Products and Programs (OPP).

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This annual report looks back at the expected and actual number of projects funded in fiscal year (FY) 2017. It covers lessons learned, results yielded, and insights derived from these projects. It also looks ahead at plans and expectations for FY 2018.

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LETTER FROM THE TEAM

Welcome to the first ever 10x annual report. Whether you are a public servant who has pursued 10x funding for your idea or simply curious to learn about our successes and challenges, this report will offer visibility into our methods, metrics, and model of investing in technology products and services. We strongly believe this model delivers at least ten times (10x) the value of traditional government approaches to technology budgeting and investment.

Fiscal year 2017 marked our first full year of operations under the 10x program. We established the program as a fiscally sound means of helping nurture and develop innovative ideas that by changing the way the federal government implements and scales new products and services. Over the course of our first year, we've learned valuable lessons about how to structure and support the mechanics of an incremental investment fund. We are applying these lessons to inform how we operate going forward. Read on to learn more about where we've been and where we're headed next.

Regards,
Lane Becker, Nico Papafil, Will Cahoe
The 10x team



INTRODUCTION

WHAT IS 10x?

10x is an incremental investment pipeline that lives in GSA's Technology Transformation Services' (TTS) Office of Products and Programs (OPP). We fund products and services that possess groundbreaking ideas or technology with the potential for significant return on investment. Our approach is based on modern venture capital practices and is designed to spend fewer taxpayer dollars while also ensuring that the best products and services get funded.

10x funds internally developed products and services that can scale widely or affect a significant portion of the US population, whether or not the projects are cost-recoverable. We're aiming for 10 times the value of the initial investment to the federal government or the American public, measured through cost savings, improved efficiencies, or scale of impact.

HOW DOES 10x WORK?

10x is the management vehicle for the Digital Services Fund (DSF), a portion of the Federal Citizen Services Fund designated for new, good-for-government products and services. 10x invests these appropriated funds into new ideas with the potential for significant impact across the government. OPP manages these products and services until they are placed in a permanent location, in GSA or elsewhere.

10x is an incremental investment fund inside the federal government, which is a fancy way of saying that we start by giving you a smaller amount of money, with an expectation about what the output of spending that money should be. We use your results from that investment to determine whether or not to give you an additional, larger amount of funding for the next phase of work.

HOW IS 10x DIFFERENT?

The traditional way the government budgets for new technology is to specify a lump sum of money for a project to be spent over a period of months or years. This approach sometimes results in continuing to spend money even after an agency or project lead determines that the project should not continue, simply because the budget already exists.

In contrast, 10x attempts to spend the smallest amount of funding necessary at each stage of a project to determine whether or not it's worth pursuing. Only one or two of every ten projects selected for funding will make their way into design and development work. This iterative approach to investing allows us to save money while ensuring that the products and services we fund meet a real, verifiable need in the federal marketplace.

FY 2017 IN REVIEW

At the onset of FY 2017, the total amount of funding available in the DSF, including the year's appropriation and the budget carryforward from prior years, was **\$13,830,532**.

Over the course of FY 2017, **\$7,517,274** of DSF funds were obligated, including **\$6,162,274** for non 10x-backed projects and **\$1,355,000** for 10x projects.

This resulted in **\$6,313,258** of FY 2017 funds remaining at the end of the year.

These numbers are further detailed in the figures to the right.

10x works with a “no-year” budget, which means the total amount available to use per year is the combination of the funding appropriated for that fiscal year plus unspent funds carried over from the previous fiscal year. This allows 10x-backed projects the ability to cross over fiscal years without any disruption.

In FY 2017, a significant portion of the DSF was used for the 10x process; however, as indicated, funds were also allocated to other projects outside of the process.

| | |
|--|---------------------|
| Total FY17 carryforward <i>(includes funds for login.gov)</i> | \$6,830,532 |
| + Total FY17 appropriation | \$7,000,000 |
| TOTAL FY17 FUNDING | \$13,830,532 |
| - FY17 amount obligated | \$7,517,274 |
| AMOUNT REMAINING | \$6,313,258 |

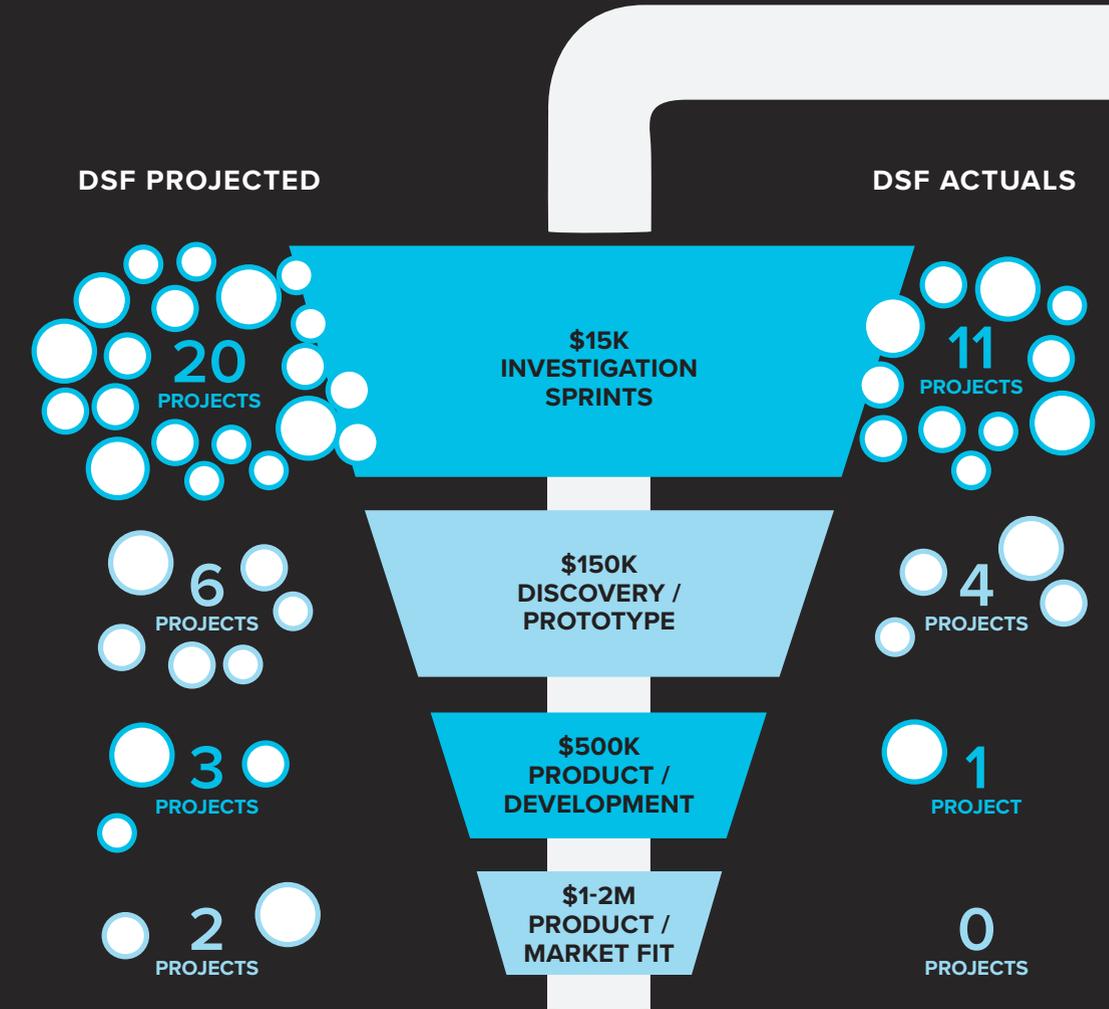
| | | |
|--|---|--------------------|
| <i>Non 10x-backed projects = \$6.16m</i> | Government-wide Research User Library Foundation Engagement | \$19,444 |
| | SSN Replacement Foundation Engagement | \$37,498 |
| | Login.gov | \$5,605,332 |
| | FOIA Front-End Development (DOJ) | \$500,000 |
| <i>10x-backed projects = \$1.36m</i> | ± 10x Incubator (18F) | \$190,000 |
| | ± 10x Incubator (Acq) | \$50,000 |
| | Team Integration System | \$150,000 |
| | Plainlanguage.gov 2.0 | \$150,000 |
| | Project Boise | \$165,000 |
| | Cloud Marketplace | \$650,000 |
| TOTAL AMOUNT | | \$7,517,274 |

* see appendix for full list of project descriptions
± each 10x Incubator agreement funded multiple Phase 1 Investigation Sprints

10x funded 16 projects in FY 2017 using DSF funds and supported an additional five projects funded using non-DSF funding sources, including funding from the White House Office of American Innovation (OAI), the Federal Citizen Services Fund (FCSF), and the GSA Office of Governmentwide Policy (OGP).

| PROJECT | FUNDING LEVEL | FUNDING SOURCE | STATUS |
|---|-----------------|------------------|--|
| Demographic Map of the United States | \$15k | DSF | Cancelled |
| Friendly FAR | \$15k | DSF | Cancelled |
| Expanding Prize Authority | \$15k | DSF | Cancelled |
| Generic Data Validation Platform | \$15k | DSF | Discontinued |
| Improving Gov. Findability: 301 Redirects | \$15k | DSF | Phase 1 ongoing |
| Checklistomania | \$15k | DSF | Completed phase 1; additional funds not requested |
| Fraud and Risk Management | \$15k | DSF | Completed phase 1; additional funds not requested |
| Web Search Outreach | \$15k | DSF | Completed phase 1; additional funds not requested |
| Behavioral Buying | \$15k | DSF | Completed phase 1; additional funds not requested |
| Eligibility and Enrollment | \$15k | DSF | Completed phase 1; advanced to phase 2, FY 2018 start pending |
| Notification Services | \$15k | DSF | Completed phase 1; advanced to phase 2, FY 2018 start pending |
| Federal Grantee Reporting | \$15k | DSF | Completed phase 1; advanced to phase 2, FY 2018 start pending |
| FedRAMP Funding Model | \$15k | FCSF | Completed phase 1; additional funds not requested |
| Automating the ATO Process | \$15k | OAI/FCSF | Completed phase 1; additional funds not requested |
| Sharing ATOs Beyond Cloud Services | \$15k | OAI/FCSF | Completed phase 1; additional funds not requested |
| CIO Council Artificial Intelligence Machine Learning | \$15k | OCIO Council/OGP | Completed phase 1; additional funds not requested |
| CIO Council Artificial Intelligence Help Desk Automation | \$15k | OCIO Council/OGP | Completed phase 1; additional funds not requested |
| Plainlanguage.gov 2.0 | \$15k → \$150k | DSF | Completed phase 1 and 2; additional funds not requested |
| Project Boise: Improving the Authority-to-Operate (ATO) Process | \$15k → \$150k | DSF | Completed phase 1 and 2; did not advance to next funding level |
| Team Integration System | \$150k | DSF | Completed phase 2; did not advance to next funding level |
| Cloud Marketplace | \$150k → \$500k | DSF | Completed phase 2; phase 3 ongoing |

*see appendix for full list of project descriptions

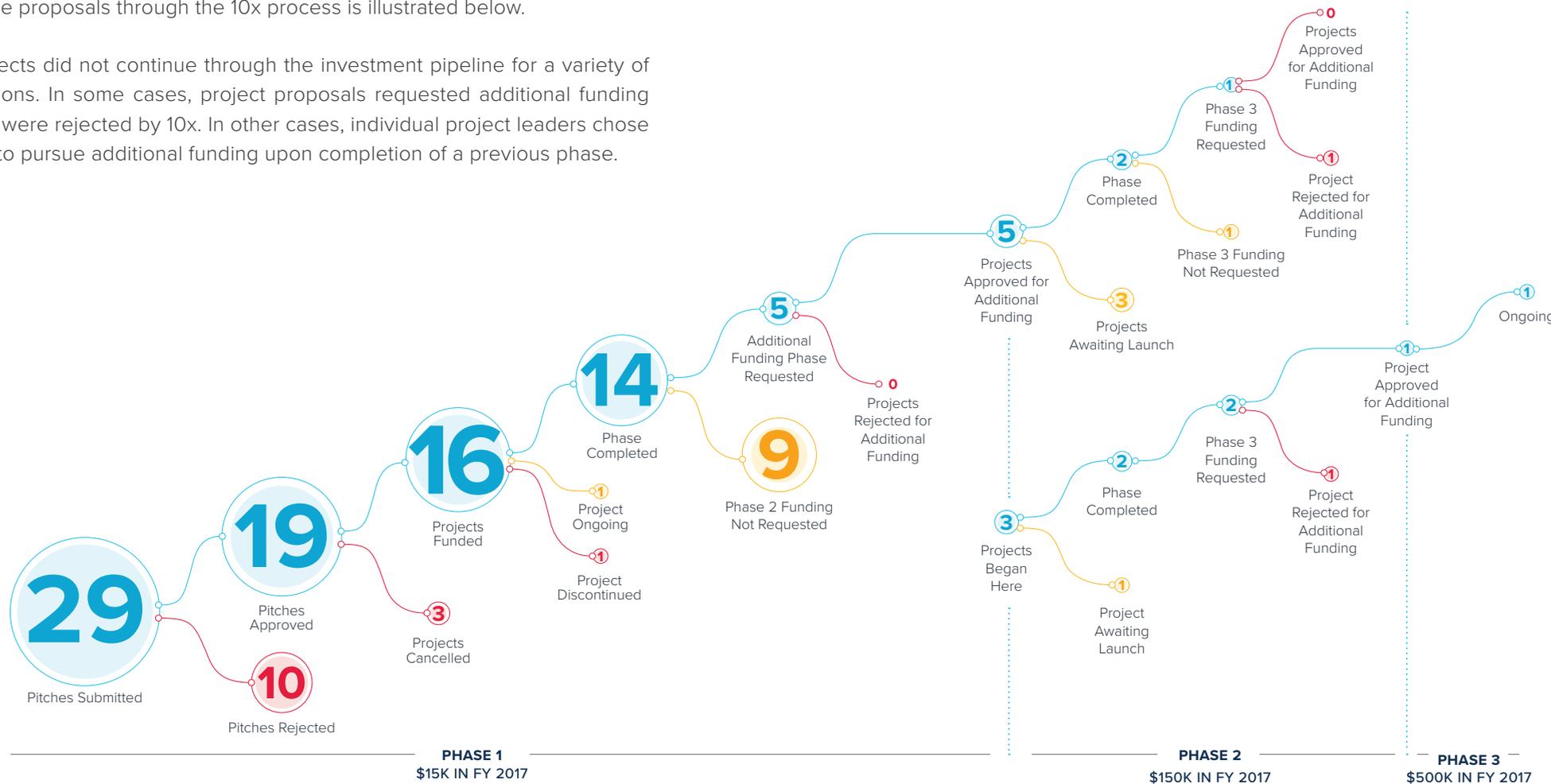


FY 2017 INSIGHTS

HOW DID PROJECTS ADVANCE THROUGH THE FUNDING PHASE?

During FY 2017, 10x accepted project proposals for both phase 1 (Investigation Sprints) and phase 2 (Discovery/Prototype). The journey of these proposals through the 10x process is illustrated below.

Projects did not continue through the investment pipeline for a variety of reasons. In some cases, project proposals requested additional funding and were rejected by 10x. In other cases, individual project leaders chose not to pursue additional funding upon completion of a previous phase.



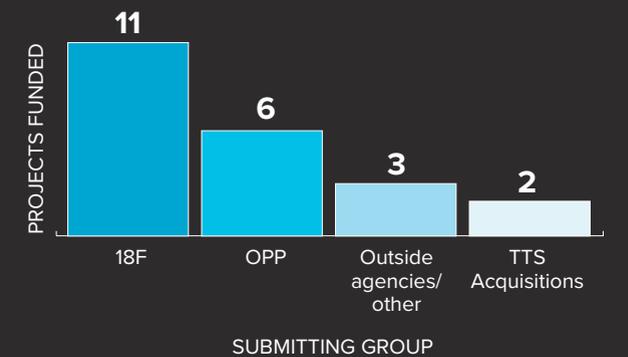
HOW MUCH WAS SPENT AT EACH PHASE OF FUNDING?

The funding amount obligated to each project in the 10x process represents the maximum amount available to be spent on each project. In FY 2017 project leads, on average, sought to keep their expenses in check.

| Phase | Funding amount | Average spent per project (DSF) | Total expensed (DSF) |
|-------|----------------|---------------------------------|----------------------|
| 1 | \$15,000 | \$11,430 | \$102,874 |
| 2 | \$150,000 | \$140,597 | \$562,389 |

WHAT WERE THE SOURCES OF 10x PITCHES?

The chart below details the sources of 10x pitches both within and outside of FAS/TTS, including non-DSF-funded projects.



*see appendix for full list of project descriptions

FY 2017 CASE STUDIES

A number of projects advanced through the 10x process, yielding valuable insights and outcomes. In some cases, these projects advanced to the next phase of funding. In others, they learned lessons that could help inform future work in their focus area. Universally, they returned value to the 10x program.

Take a look at some examples of 10x projects from FY 2017 and the outcomes they achieved.

■ FRAUD/RISK MANAGEMENT

Funded for phase 1 (Investigation Sprint); recommended not to pursue additional funding for phase 2 (Discovery/Prototype).

This project's goal was to determine demand for financial Fraud and Risk Management (FRM) technology within the federal government, and if so, how it could be implemented.

The project lead reached out to agencies to find out if they felt the need for FRM technology, collected and analyzed government reports about FRM technology, sought agencies looking for an FRM or similar technology solution, and analyzed the private sector's view about the market opportunity within government.

The project lead determined that most agencies are still approaching fraud examination manually, and while many agencies are transitioning to an automated approach and some see the potential for advanced FRM technology, it's not a near-term priority. The project lead recommended against pursuing the FRM line of business at this time and revisiting the idea in the future.

■ NOTIFICATION SERVICES

Funded for phase 1 (Investigation Sprint); approved for additional funding for phase 2 (Discovery/Prototype); awaiting launch as of the beginning of FY 2018.

This project sought to determine demand across government for services that utilize SMS and/or email for public notifications, and if so, how best to do it.

The project lead interviewed executives from a number of agencies that regularly interact with the public, including GSA, USCIS, IRS, SSA, and VA. There was clear interest in the service from every agency interviewed, especially for a solution that addressed government IT security and privacy concerns and was competitively priced.

The project lead recommended moving forward to phase 2 (Discovery/Prototype) in order to develop a better understanding of market need. 10x agreed that this kind of shared service is an ideal example of a tool that GSA is positioned to offer to other government agencies. During the next phase, the team will explore ideas for building and testing a prototype of the service.

■ CLOUD MARKETPLACE

Funded for phase 2 (Discovery/Prototype); approved for additional phase 3 funding (Product/Development), ongoing.

The Cloud Marketplace project aims to simplify the process for buying commercial, off-the-shelf software for the government by developing policy, legal, and technical solutions that will allow a centralized marketplace for government to buy software as a service (SaaS) products. The product would allow for reselling and provisioning software across the government, consolidate and reduce procurement labor, ensure compliance of product offerings, and make license management significantly easier.

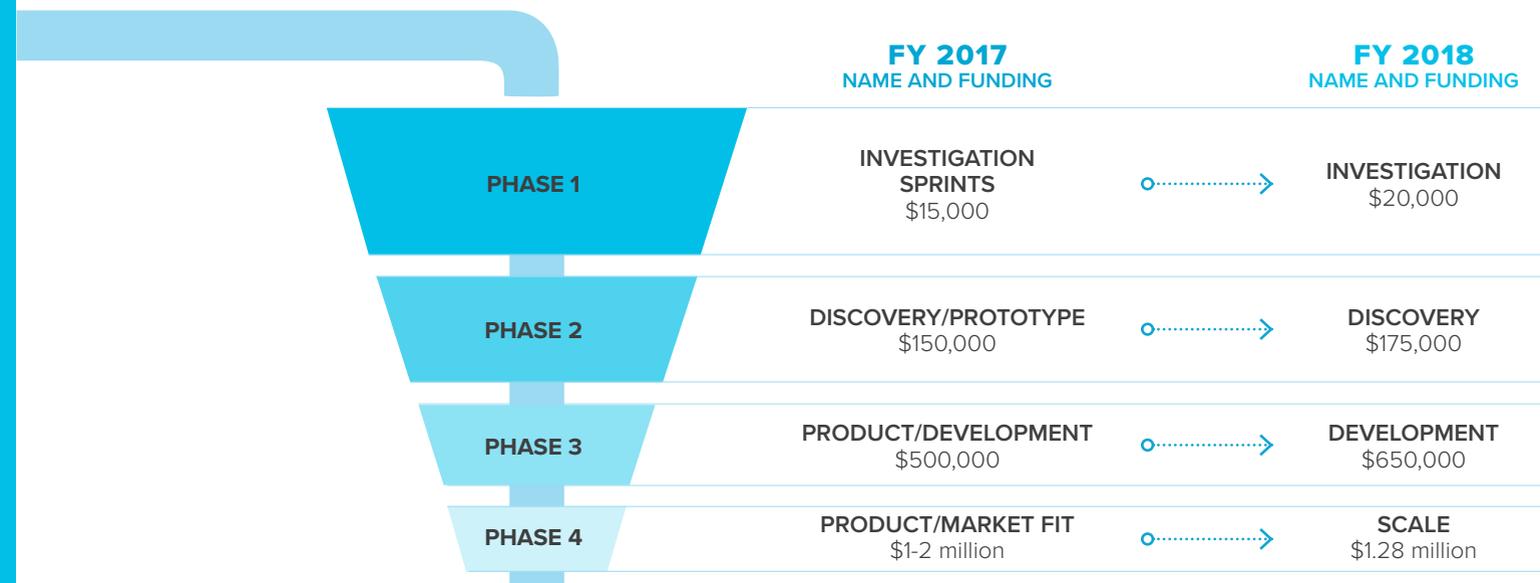
During this phase, the project team identified parameters for choosing a product, located customers with whom to test the offering, and developed a simple prototype to demonstrate how the product could operate. The team also uncovered and outlined the technical and regulatory issues the product would need to address to succeed.

After presenting their findings to the full TTS Program Advisory Board (PAB), the decision was made to continue funding this project into phase 3 (Product/Development). While the PAB and 10x acknowledged that significant market and regulatory barriers remain, the existing team had succeeded in comprehensively outlining those challenges and identifying ideas about how to address them. The benefit to the federal government of successfully launching this product was deemed valuable enough to justify the continued investment risk.

LESSONS LEARNED

While FY 2017 yielded many valuable project outcomes, equally important were the lessons learned that the 10x team will use to improve the process for FY 2018 and beyond.

Based on experiences from FY 2017, the **10x team has adjusted the names and funding levels for each phase to better reflect the work necessary to complete each stage.**



The 10x team also decided to **alter the pitch process for 2018**. In FY 2017, the 10x team accepted direct pitches for both phases 1 and 2. In FY 2018, projects will only be pitched at phase 1. In order to obtain phase 2 funding, projects must have completed phase 1 and demonstrated potential value or impact. Implementing this change will ensure more rigorous and consistent project management and tracking.

The 10x team has also identified **strategies for better preparing project leads for their pitch** at each funding stage by creating a **phased set of expected deliverables**. This new decision-making process includes a clear set of criteria that projects must present in order to advance to the next phase of funding.

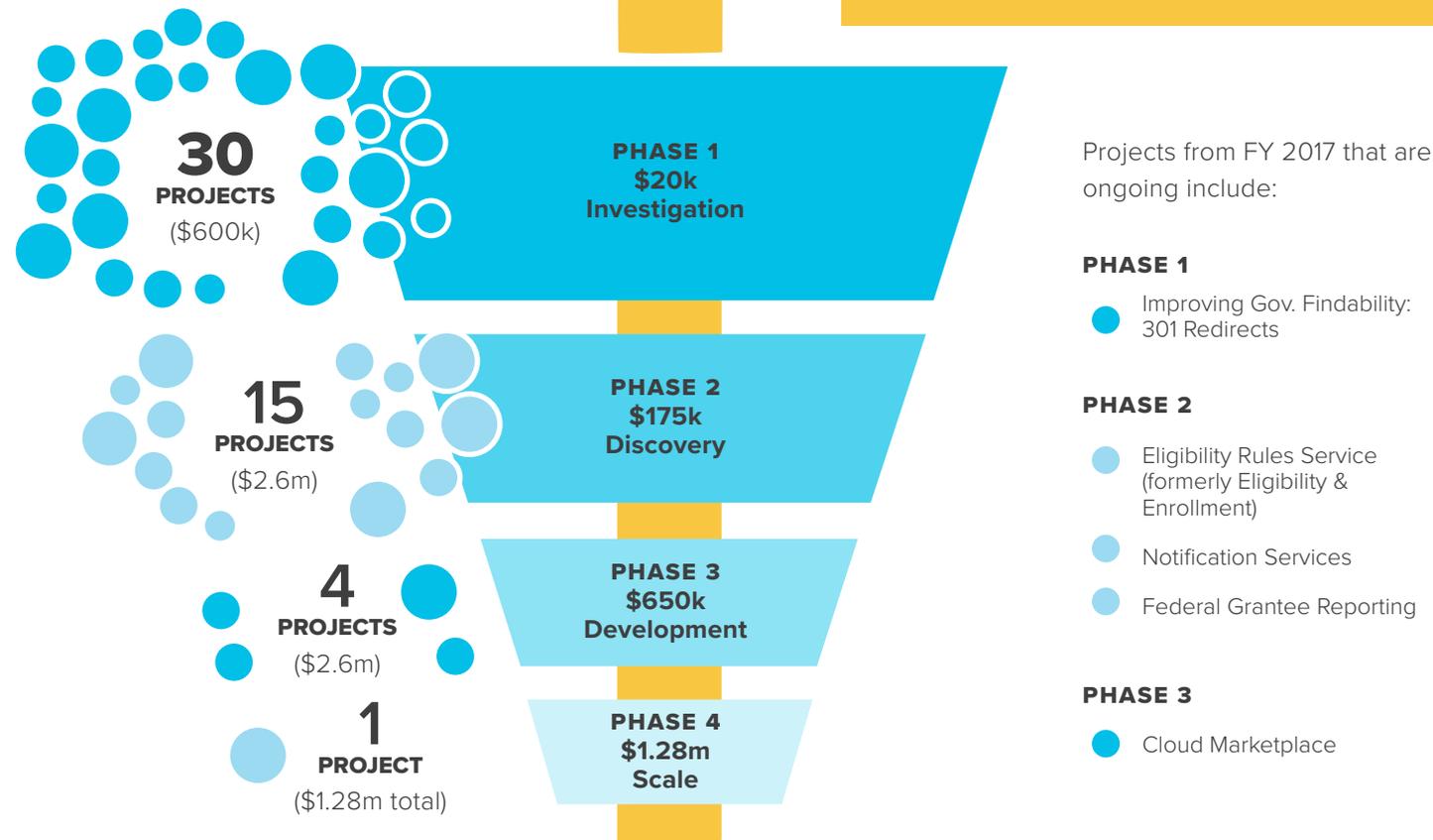
Throughout FY 2017, the 10x team identified **opportunities to make the 10x process more efficient**. The team streamlined the agreement process to expedite the time for legal review and to consolidate phase 1 projects into a single agreement for each service provider. Additionally, the team has determined the proper time frame and staff makeup to allow projects to continue from phase 2 to phase 3 without a pause between phases, which had previously caused challenges with maintaining the same staff throughout a project's lifecycle.

LOOK AHEAD TO 2018

As the 10x team looks ahead to FY 2018, we can see that there is a lot on the horizon.

Several FY 2017 projects are carrying on into the new fiscal year, with some advancing to the next stage of funding and others continuing ongoing work. The 10x team expects that a number of projects will advance from phase 2 to phase 3 in FY 2018, furthering their development and growth. We also expect to have our first ever 10x phase 4 (Scale) project.

The 10x FY 2018 proposed appropriation anticipates a total of \$5.9 million (not including prior year carryforward) across all stages of investment. This figure illustrates the breakdown of how many projects 10x anticipates to execute per funding phase.



The 10x team has been looking at how to **expand the program's reach to a broader set of stakeholders**. The team is expanding the submission process in order to allow us to work more closely with other agencies. This will bring in a broader range of experiences, ideas, and subject matter expertise to inform the development of 10x products and services.

In tandem with this program expansion, the 10x team has been **developing web content and marketing materials**. This work will help us increase awareness of the 10x program and spur interest in project idea submissions from outside TTS.

The team recognizes that there is a need to develop **comprehensive success metrics** to indicate the value that 10x projects bring to the federal government. Developing these will be an ongoing, iterative process throughout FY 2018.

The 10x team is excited to continue our growth in FY 2018. We look forward to aligning 10x projects with the priorities of the new TTS leadership. We are excited to consider even more ideas from federal employees for products and services that will serve agencies and the public for many years to come.

*see appendix for full list of project descriptions

FY 2017 PROJECT APPENDIX

Below is a list of all projects approved for the 10x process in FY 2017, the ongoing or final status of the project, and the reasoning behind the decision whether or not to continue the project.

| Project Name | Project Description | Outcome |
|---|---|---|
| PHASE 1, \$15K | | |
| Demographic Map of the United States | This project will conduct a discovery sprint to better understand the demographic map of the United States for the purposes of developing a method for the government to prove the identity of individuals in order to provide them with online access to government services and benefits. | Cancelled |
| Friendly FAR | TTS will investigate the viability of publishing the Federal Acquisition Regulations in a user-friendly way online, accessible to anyone. This will allow federal users to more efficiently interact with the FAR, saving money across the government and making it easier to interpret and understand regulations. | Cancelled |
| Expanding Prize Authority | A recent update to the American Innovation and Competitiveness Act expanded the government's authority to conduct crowdsourcing and citizen science projects, partner broadly with the private sector and other government entities, and use appropriated funds and solicit outside funds and in-kind services to implement challenges. During this sprint, we will investigate how we might 1) engage our existing community of practice and solver communities to develop an improved platform and 2) create a cadre of challenge and prizes "consultants" to spur further growth and engagement on the platform. | Cancelled |
| Generic Data Validation Platform | TTS will explore creating a generic, customizable data upload platform that agencies can rapidly adapt for their own data collection needs. It will be based on 18F's work on the DATA Act platform prototype, which is used to submit data, validate it, and correct errors. Generalizing the existing DATA Act code into a well-documented, flexible starting point for similar efforts could magnify its impact across government. | Decision was made to potentially move forward if a project lead can be located. |
| Improving Gov Findability: 301 Redirects | TTS will investigate the feasibility of offering to other agencies an affordable, high-quality, hosted-301 redirects solution leveraging recent developments in cloud infrastructure. A possible extension of this investigation would be the feasibility of offering a government-provided content delivery network (CDN) solution. | Ongoing |

| Project Name | Project Description | Outcome |
|-----------------------------------|--|--|
| Checklistomania | Checklistomania is a web application currently used internally at 18F to help newly hired employees manage their onboarding tasks when they join the team. Based on inbound inquiries, TTS has reason to believe there might be value in offering this service to other agencies. This investigation will focus on whether or not making Checklistomania more widely available is a viable option for TTS. | Decision was made to not continue active development of this service without a clear organizational mandate to do so. Exploring adoption of the product by an outside party. |
| Fraud and Risk Management | TTS will investigate the opportunity to use machine learning to scan financial transactions and identify risky data points. TTS has heard the need for better use of machine learning in scanning transactions and other data for red flags, and additional research will help us understand federal needs and present usable findings. | Decision was made to not pursue product development activity in this area at this time, as the government market does not appear to be mature enough in this area yet to support FRM products as a line of business. |
| Web Search Outreach | Government online materials can be hard to find and hard to distinguish from non-authoritative sources. To solve this, TTS will investigate and compare schema.org implementations in a common language like Python and AI/type-based, such as Prolog or Haskell. | Decision was made not to continue this development due to personnel issues. |
| Behavioral Buying | Current government contracting processes and procedures, as organized and divided into different parts of the FAR as well as additional agency supplemental policies, are designed without any empirical evidence. There is hardly any actual study by social scientists into these acquisition procedures and processes in order to determine what is most beneficial not only to achieving the stated goals of these processes and procedures but what is the best way to increase competition, reduce costs, and maximize enjoyment of the process. | Decision was made that the information gathered was valuable and no additional funding is needed from 10x. The Office of Acquisitions will continue to pursue the project internally, in response to the suggested steps that the project team provided in their deck. |
| Eligibility and Enrollment | TTS will investigate how to best use technology to improve public access to government benefits. 18F has been involved with previous activity in this area, working with the United States Digital Service and others. This project will help 18F understand if it should continue this work and, if so, in what areas it should focus its efforts. | Decision was made to continue this project at the \$150k Discovery/Prototype phase. |
| Notification Services | TTS will investigate the opportunity to providing a common solution for government notifications to citizens via email, text message, and other contact methods. Many of the tools that TTS and other agencies build require a notification component, and this project will help TTS understand whether consolidating the ability to send notifications into a shared service available to all agencies would be effective. | Decision was made to continue this project at the \$150k Discovery/Prototype phase. |
| Federal Grantee Reporting | This project is a discovery sprint to identify opportunities to improve the federal grant reporting process by eliminating redundancies and creating efficiencies through improved technology with the goal of generating a prototype that could be adapted across federal programs, increasing federal grant programs' efficacy to those being served as well as taxpayers' return on investment. | Decision was made to continue this project at the \$150k Discovery/Prototype phase. |
| Plainlanguage.gov 2.0 | To explore what it would take to host the Plainlanguage.gov website, re-architect the site's content, implement the U.S. Web Design Standards so the site is accessible and mobile-friendly, and create connections between this community of practice and other content people working in the federal space. | Decision was made to continue this project at the \$150k Discovery/Prototype phase. |

| Project Name | Project Description | Outcome |
|--|--|---|
| Project Boise: Improving the Authority-to-Operate (ATO) Process | TTS will explore the opportunity to develop a set of tooling and products designed to support federal application compliance needs in order to reduce manual effort around compliance, have compliance processes better evaluate the security of systems, provide paths and remove barriers to increasing the security of systems, and improve the visibility of and confidence in the security of government systems. | Decision was made to continue this project at the \$150k Discovery/Prototype phase. |
| FedRAMP Funding Model | TTS will explore creative alternative funding sources for the FedRAMP program. Proposals can identify funding sources, a new business model, or both. A well-articulated research proposal and the resulting guidance should be able to benefit not just FedRAMP but other programs that face similar funding challenges. | Decision was made that the information gathered was valuable and will be published out for others. Future work may involve deeper analysis of each type of funding authority and how they can be applied to future service offerings that might mix appropriated and cost-recoverable models. |
| Automating the ATO Process | TTS will focus on two distinct areas around automating the Authority-to-Operate (ATO) information security process. The first will be to research the landscape of what automation capabilities exist. The second will be to determine which options agencies would actually use and/or need. | Decision was made that the information gathered was valuable and no additional funding is needed from 10x. The team will continue to pursue the project internally, in response to the suggested steps that the project team provided in their report. |
| Sharing ATOs Beyond Cloud Services | TTS will focus on two distinct areas around sharing ATOs between agencies. The first will be to identify the types of ATOs that could be reused and rank them in terms of impact. The second will be to collect ATOs that match the top three most impactful and analyze how well done these ATOs are. | Decision was made that the information gathered was valuable and no additional funding is needed from 10x. The team will continue to pursue the project internally, in response to the suggested steps that the project team provided in their report. |
| CIO Council Artificial Intelligence Machine Learning | TTS will identify potential services or automated processes for agencies to better detect spear phishing attempts and avoid ransomware incidents. | The information gathered was valuable and will inform future work of the CIO Council, and it was determined that no further investment was required at this time. |
| CIO Council Artificial Intelligence Help Desk Automation | TTS will explore what it would take to leverage artificial intelligence (AI) for automated Help Desk applications, identify tools and methods for triaging service requests and inquiries, and explore the possibility of using AI to manage first level/first tier help desk tickets. | The information gathered was valuable and will inform future work of the CIO Council, and it was determined that no further investment was required at this time. |

PHASE 2, \$150K

| | | |
|--|--|--|
| Plainlanguage.gov 2.0 | TTS will audit, update, and re-architect the Plainlanguage.gov website to bring it up to modern design and development standards, ensuring that links work, navigation makes sense to users, and the most useful content is easily accessible. | Ongoing |
| Project Boise: Improving the Authority-to-Operate (ATO) Process | TTS will explore the opportunity to develop a set of tools and products designed to support federal information security compliance needs, making ATOs easier, cheaper, and faster for agencies to perform. | Decision was made not to continue this project at the \$500k Product/Development phase. Although there is a significant amount of work to do in this area, and addressing information security is a priority for TTS, it was unclear whether or not the solution presented by the team was the most important one to address at this time. |

| Project Name | Project Description | Outcome |
|--------------------------------|---|--|
| Team Integration System | The Team Integration System will explore the viability of creating a system that will support the needs of government agencies who are trying to match, deploy, and manage hybrid cross-functional teams. The project will explore technical solutions to the challenge of staff augmentation, allowing for a more efficient method for hiring, embedding, and managing contractors with existing teams of federal employees. | Decision was made not to continue this project at the \$500k Product/Development phase. While this is clearly a pressing concern inside the federal government, it is not in line with current TTS priorities. |
| Cloud Marketplace | <p>TTS will provide agencies with the ability to seamlessly acquire software at a discount. TTS will also provide suppliers with a consolidated, simple way to sell their products to government.</p> <p>The project will explore the opportunity to simplify the buying process by finding technical, policy, and legal solutions to allow a centralized marketplace to buy SaaS products and industry. This approach could consolidate and reduce procurement labor, ensure compliance of product offerings, and make license management significantly easier than current solutions.</p> | Decision was made to continue this project at the \$500k Product/Development phase. |
| PHASE 3, \$500K | | |
| Cloud Marketplace | This project will explore the opportunity to simplify the buying process by finding technical, policy, and legal solutions to allow a centralized marketplace for SaaS products from industry. This approach could consolidate and reduce procurement labor, ensure compliance of product offerings, and make license management significantly easier than current solutions. | Ongoing |

“Give me six hours to chop down a tree
and I will spend the first four sharpening
the axe.”

—*Abraham Lincoln*



10x 10x is the Office
of Investments
in GSA's Office
of Products and
Programs (OPP).