

Developing data capability as a grantmaker

SmartyGrants
Innovation Lab



SmartyGrants
Software, data science & grantmaking intelligence



an enterprise of:
ourcommunity.com.au
Where not-for-profits go for help

Finding it hard to get started with data?

This framework is your ticket out of the maze.

The problem is familiar: a lack of awareness, skills and resources makes it difficult for grantmakers to embrace opportunities to use data to optimise their operations, automate tasks and personalise their promotions and programs.

Collecting data does not automatically lead to improved organisational efficiency and program effectiveness. These outcomes require a clear focus on data quality, analysis and use, along with relevant training.

This framework reflects our experience working with hundreds of grantmakers across Australia and New Zealand who use SmartyGrants, from small community foundations to larger philanthropic foundations, corporate funders and all levels of government – each keen to understand and measure the impact of their funding programs.

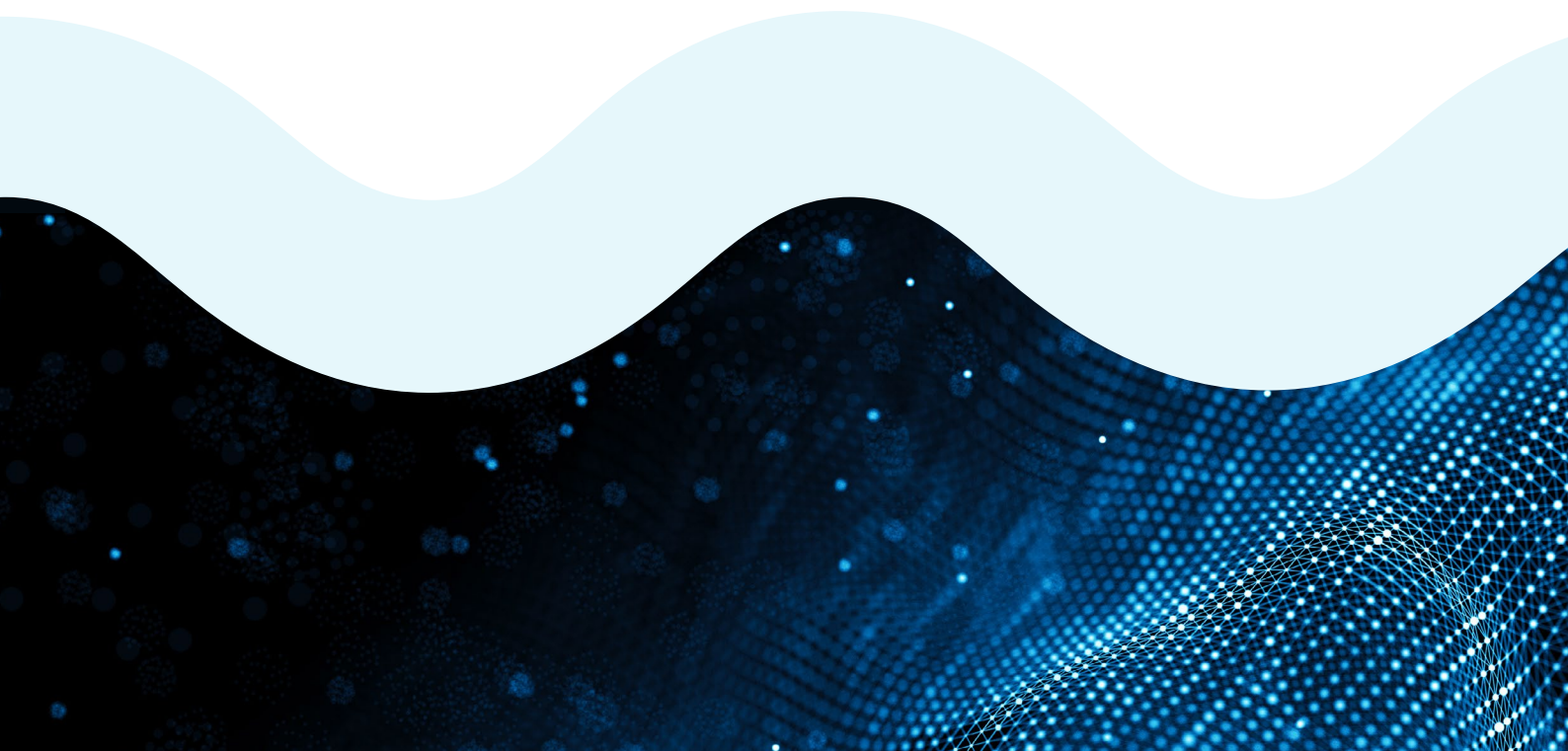
We published a similar framework for not-for-profits (<https://smartygrants.com.au/innovation-lab/resources-not-for-profits/data-capability>) in 2020 as part of a suite of resources to improve the data capability of the social sector, a mission supported by Equity Trustees. But we know it's not just not-for-profits that need help in this area. Grantmakers are also seeking to improve their data capabilities. To support this, we redesigned our framework with grantmakers in mind.

We identified the six types of data that grantmakers most often work with – such as needs, grants, and impact data – and then mapped these onto a hierarchy of what organisations can actually do with the data.

The resulting matrix can help frame an organisation's efforts to identify its strengths and weaknesses, as well as shape its longer-term data strategy and goals.

Of course, creating a data culture and data capabilities is not like turning on a light switch – it takes time, effort and reflection.

We hope this framework will kickstart the conversation in your organisation.



The framework

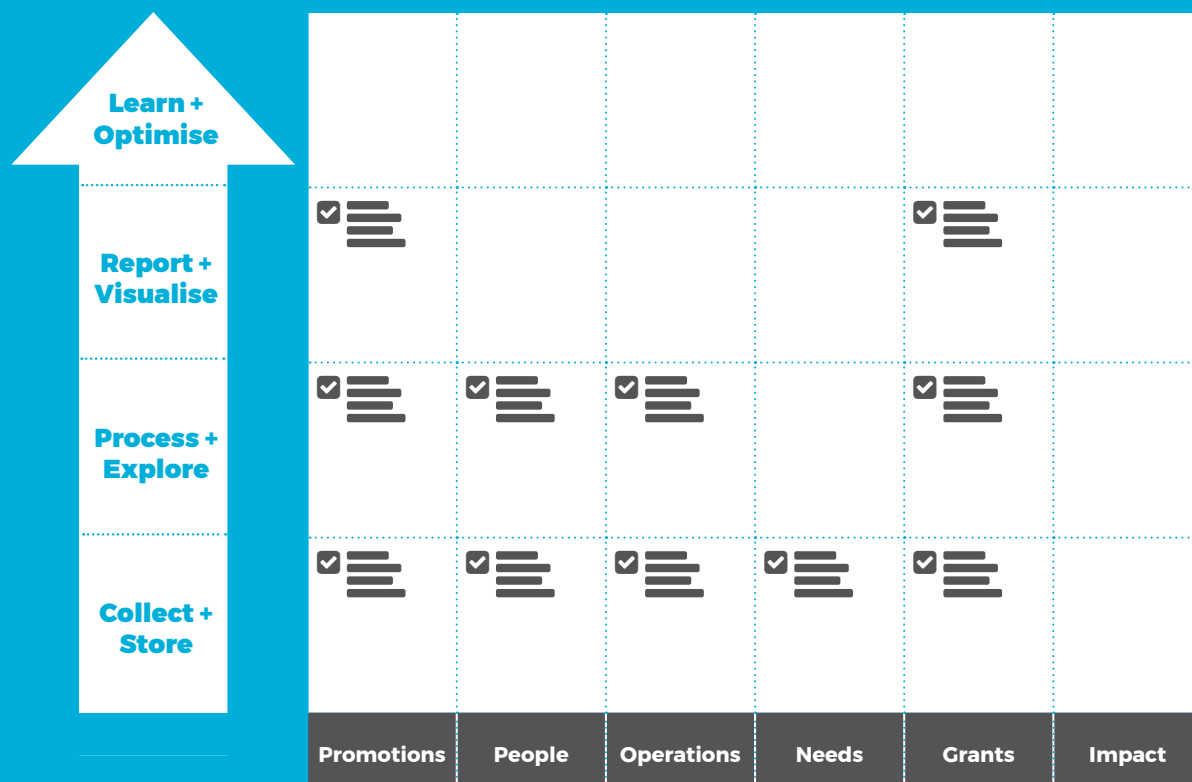
What do we mean when we say data? And what are the implications of its use in your organisation?

Our framework outlines the types of data that usually exist in organisations that administer grants. It shows how funders can maximise their social impact by building the skills and capabilities required to effectively manage their data.

Grantmaking organisations most often work with data that can be grouped into six categories: promotions, people, operations, needs, grants, and impact. These six types of data are represented on the horizontal axis of the framework below.

With each of these types of data, we've looked at what an organisation can **do** with them. The vertical axis represents these activities: collect and store; process and explore; report and visualise; and learn and optimise.

The framework is intended to help frame your thinking and simplify your approaches. In the following pages, we define and describe each aspect of the framework. Later, we provide an example to illustrate how this framework can be used in your organisation.



“The framework shows how funders can maximise their social impact by building the skills and capabilities required to effectively manage their data.”

Common data sources

These data sources serve two broad purposes: the first three kinds of data have the potential to make your organisation more **efficient**, while the last three can make your programs more **effective**.

The six data sources most often used by grantmaking organisations



EFFICIENCY

Greasing the wheels



Promotions

This data refers to activities undertaken to promote your organisation and its programs. It covers data on digital marketing including website traffic, social media, and email campaigns, as well as traditional marketing means like posters, flyers, and community noticeboards. Also under this umbrella are information sessions, training, community consultations, and logistics such as catering and travel.



People

Your organisation's data about people extends beyond your staff to those who your organisation reports to and supports. People data refers to individual stakeholders including applicants, grantees, beneficiaries, assessors and decision-makers, board members, and members of the public, as well as local community groups, peak bodies, and businesses.



Operations

If an organisation were a car, its operations data would be its service logbook. We're talking about data related to contracts, income, expenditure, assets, property, security, privacy, risk and so on.

EFFECTIVENESS

Making a difference



Needs

This category encompasses contextual data related to your organisation's purpose and its mission. Needs data can include public datasets and demographics relevant to targeted groups, and market analysis about changemakers doing similar work. It can also include surveys and requests for support.



Grants

This data pertains to your funding programs. It can cover a wide range of information, from planning and design through to assessment and evaluation. It serves a variety of purposes, including informing improvements and identifying outcomes. Application and acquittal forms and reports are considered grants data, as well as activities, events, logistics, and outputs relating to your grant programs.



Impact

This is information gathered to measure, track, and benchmark your outcomes and impact, and those of your grantees. It includes metrics, indicators, surveys, case studies, and evidence showing changes in knowledge, attitudes, or behaviour. It will inform your organisation's theory of change, and its mission and vision, and will likely be cross-analysed with needs, grants, and people data to ensure your programs remain aligned to your mission.

Battle of the datasets

Quantitative (numbers) or qualitative (words) data: which is more important?

This is a trick question, of course. Both are valuable for building a holistic representation of your organisation's activities and impact. Some stories are best told through statistics, while others come to life when you include a human narrative.

Techniques for analysing text have advanced in leaps and bounds in recent times.

These advancements have opened opportunities to analyse qualitative data at scale; for example, by using automatic labelling and thematic analysis.

But as with any analysis, it pays to collect the data intelligently. Careful design of your application forms in SmartyGrants can make qualitative analysis more straightforward. For example, consider using multiple short specific questions (rather than a single open-ended field) when seeking feedback from applicants or asking about risks and issues they are facing. This mitigates the need to parse and categorise large chunks of text when it comes time for analysis. Note, however, that this approach needs to be balanced against the actual and perceived burden of the form. Only collect data that you will really use!

What can you do with the data?

Now that we've described the different types of data your organisation may be working with, we move on to what you can do with the data.

Your data goals will depend on your objectives, activities, and skillsets. Maslow famously proposed that humans need food and warmth before they are motivated to achieve self-fulfilment. Our framework's vertical axis, represented below, is based on a hierarchy analogous to Maslow's hierarchy of needs. It's essential that you have experience and the right infrastructure in place in the lower rows before you attempt to execute upper-level projects.

What follows are examples of some activities from each level of the pyramid that you might already be doing, and some that you might embark on in the future.

A hierarchy of data-use goals





Collect and store

This level is the foundation of any data initiative. What information is your organisation gathering? Where is it being stored? Is it contained in one central database, or across multiple platforms? If your organisation is large, your data might be siloed. And is it electronic or in hard copy?

As you consider each of these questions, remember that decisions you make at this level will have flow-on effects through the rest of the process. For example, the design of your application forms will determine the quality of the data you collect and analyse. Secure storage of the data will help ensure the privacy of the individuals and organisations who own the data. And transparency throughout the process will ensure the integrity of the data owners is maintained.

Below, as we scale the data-use pyramid, we will use SmartyGrants as an example of a collect-and-store tool.

Developing data capability and finding the right skills

Developing your organisation's data capabilities and projects requires a variety of skills. The Department of the Prime Minister and Cabinet's [Data Skills & Capability Framework](#), designed for use by the Australian Public Service, is a good reference point. The framework identifies five roles that have a place on many data projects. They are data analyst, data scientist, data policy and law expert, data infrastructure engineer, and data architect. This isn't to say that every project will require all of these roles – but the list of roles can provide vocabulary to help you find talent when a project calls for it. Missing from the list is a vital role in any data team – that of subject matter expert. A subject matter expert is just that – an expert on a particular subject. Subject matter experts could include your applicants, grantees, beneficiaries, and other stakeholders involved in the grantmaking process.



Process and explore

Here you're starting to interrogate and sort your data, and perhaps classify it. This step requires getting the data into a useable state (i.e. processing the data), exploring its main characteristics, extracting basic insights, and identifying patterns that may trigger further questions.

If you're looking at data relating to your grants program, questions you might ask include:

- What does our data look like, and what is it telling us?
- What was the applicant submission rate for our most recent round?
- How long does this form typically take to fill in?
- How long did we take to complete the assessment process for this program?
- Are there more applications this year than last?
- Do we receive more enquiries or support requests from some groups than others?
- What percentage of grantees are failing to acquit on time?
- Do we have a hunch about something, but no data to back it up?

Documenting these questions as they arise will help inform the design of future grant rounds and processes. Remember how we said earlier that decisions at each level will affect the next? It's useful to take a holistic overview, keeping all levels in mind as you scale the pyramid to ensure the data you collect is both useful and useable (more on that below).



Report and visualise

At this level, you're starting to paint pictures with your data, such as reports and visualisations that communicate what the data is telling you. If you find yourself regularly asking some of the questions in the previous step, you may benefit from creating reports or visualisations so the information is at your fingertips.

You can aggregate results across your programs, establish benchmarks, compare your results to those of other organisations or trends in the population, and provide context to the insights your data is providing. If you use grant application management software like SmartyGrants, you might be pulling reports and making them into charts and tables that communicate insights to your ministers or grantees or beneficiaries (or just to yourself). These reports would ideally feed into a real-time dashboard – drawing from data sources like SmartyGrants – rather than a point-in-time document. Nevertheless, smaller grantmakers should not disregard basic tools that are accessible to you now. The charts tool in Microsoft Excel, for example, can help convert data into useful charts in very little time.



Learn and optimise

This is where data science really takes off. Here, at the top of the pyramid, you're learning from your data and using it to influence your decisions, make predictions, and drive better practice. You can also use it to streamline manual tasks, making your organisation more efficient.

Some use cases for data science in the grantmaking process:

- **Grant matching:** suggesting applicants from past rounds to approach to apply for future rounds
- **Automated scoring** or short-listing of applications
- **Classification:** both to enhance your reporting and visualisation, and to identify grants related to specific subjects or beneficiary groups
- **Portfolio optimisation:** help select the best grants (or best combination of grants) to fund given a target funding ratio.
- **Automation:** eligibility checks, form-filling, scheduling, and flagging unusual applicant behaviour.

Another goal at this higher level is to learn and improve practice. Well-collected and sensibly processed data can be used to feed statistical models to make predictions about your data, and test theories. Organisations with more advanced data capabilities might conduct text analysis or

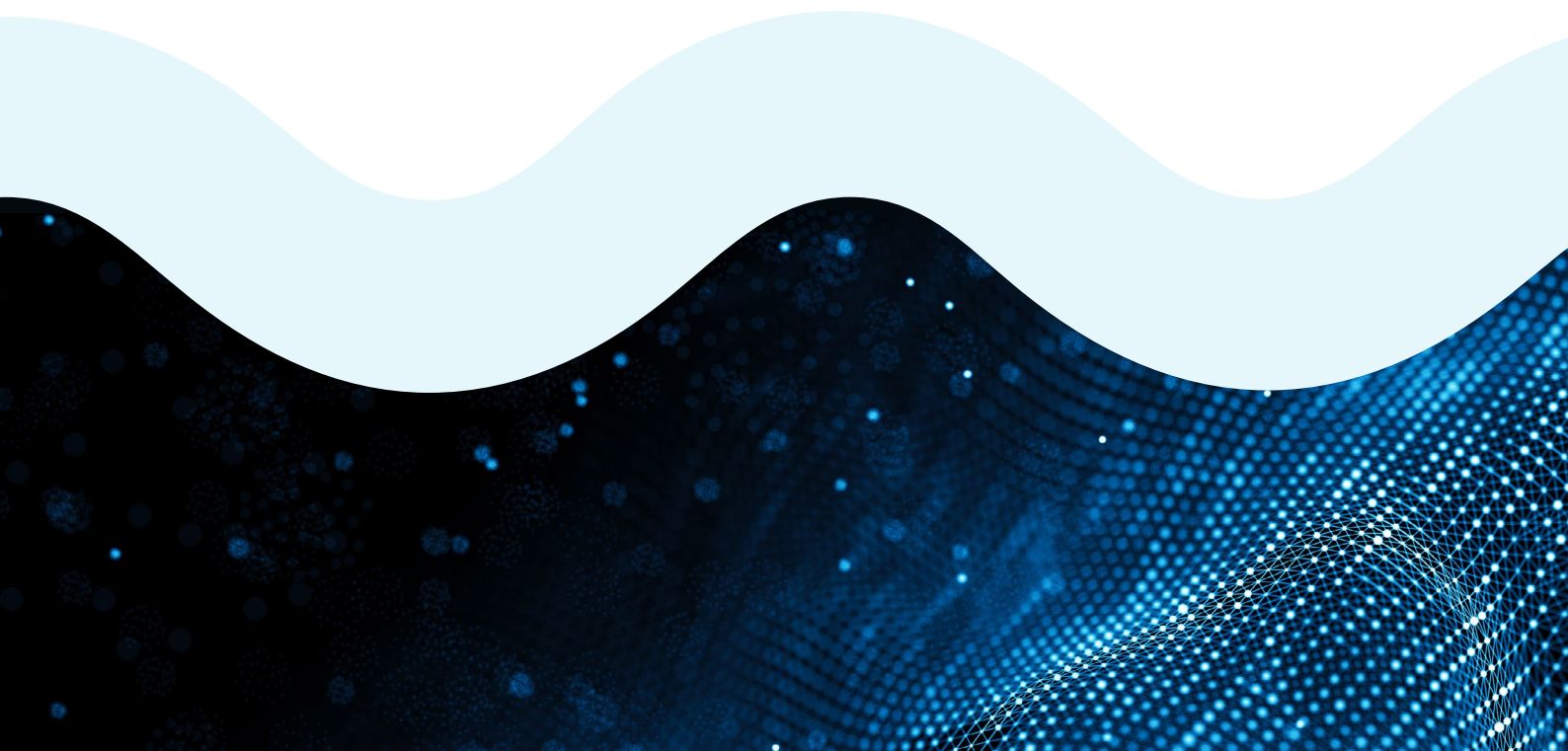
use predictive models to provide recommendations on what to do next (or better). Algorithms can be used to identify patterns by evaluating features of inbound data and grouping them with other similar data for analysis. Personalisation tools can be used to tailor an applicant's experience according to their needs. Having lots of data is helpful here, but quantity is not a panacea: you will need to consider biases in the data, how models will be maintained and how humans will use the models to make decisions.

Useful and useable - what's the difference?

What do we mean when we say 'useful data'? Useful data is data that is being collected for a specific purpose. In the context of a grant application form, this means only asking the questions you need to ask to successfully assess an application. Never ask a question on an application form if you don't know whether or how you will use the answers. Onerous application forms are one of the biggest complaints **heard from grantseekers**.

Meanwhile, useable data is data that has been collected in such a way that it can be analysed effectively. The structure and design of your forms will determine how easily you can process, explore, report on, and visualise the data you have collected. As you reach a higher level of sophistication, any algorithms you use will need to be trained on large datasets of good quality to be used effectively (and ethically). If your data is messy or unstructured, you will find it difficult to execute learn-and-optimize projects.

Get in touch if you have questions about reporting or other data science consulting services SmartyGrants provides for grantmakers.



Scaling the pyramid

To understand the process of scaling the pyramid, imagine your organisation is administering a program via SmartyGrants.



Collect and store

In SmartyGrants, you can design and build application forms from scratch or use form templates that have been refined by grantmaking experts. If you're starting from scratch, SmartyGrants default standard fields (commonly asked questions) can be used for capturing information, or you can create your own fields.

Before you start building your forms, take a moment to think about what you'd like to know about the grant you're administering; then work backwards from that point to capture the right data. For example, if you want to know which types of organisations applied for your grant, you'll have to ask a question that helps sort applicants into types. If you want to know where grantees are located, you'll have to ask for their address in the application form. Our [Grantmaking Toolkit](#) covers the things to consider when establishing a grant program. Topics include identifying roles, desired outcomes, and mission alignment, and what information will need to be collected from applicants to deliver those outcomes.

Once you've built your application form with the above in mind, you're ready to publish the grant round and application form and promote it to your target applicants. As applications are submitted, the application page will list all applications made to your grant round. From there, you can quickly see which stage of the process the application has been assigned to. A typical grant round might include eligibility screening, contracts and payments, assessment, and acquittal. The grant manager can record a decision regarding the success of an application, depending on whether it has been approved, declined or withdrawn, or remains undecided. This is a simple but powerful example of how SmartyGrants can be used as an intelligent and effective collect-and-store tool for your grant programs.

The form builder includes questions to ask your applicants:

The screenshot displays the SmartyGrants form builder interface. On the left, a sidebar shows the form structure: '1: Instructions for Grantmakers' (selected), 'Add Page', 'Add Section', and 'Add Question'. Below this, the current form is titled 'Individual or Organisation Name' and includes fields for 'Text', 'Label', 'Layout' (set to 'Individual or Organisation'), and 'Hint'. The main form area is divided into two sections. The first section, 'Address', includes a text field for 'Enter a location'. The second section, 'Name', includes radio buttons for 'Individual' and 'Organisation', a 'Clear' button, and a 'Organisation Name' field. Below this, there are fields for 'Title', 'First name', and 'Last name'. The third section, 'ABN', includes a text field for 'ABN' and a 'Lookup' button. Below the 'Lookup' button, a message states: 'The ABN provided will be used to look up the following information. Click Lookup above to check that you have entered the ABN correctly.' A table titled 'Information from the Australian Business Register' lists the following information: ABN, Entity name, ABN status, Entity type, Goods & Services Tax (GST), DGR Endorsed, ATO Charity Type, ACNC Registration, Tax Concessions, and Main business location. A 'More information' link is provided next to 'ATO Charity Type'. At the bottom, a note states 'Must be an ABN.'

The application page lists all applications made to your grant round:

Environmental Grants

Rounds

Applications

Forms

Stages

Tasks

Calendar

Files

Applications

Download

Send Mailout

Bulk Action

Run Report

Filter by:

Application

Round

Stage

Decision

Form

Task

Responses

Funding

Payments

Standard Fields

Standard Sections

Contact

Contact Fields

Active filter:

Round = A Greener Future - Sustainability Grants

Clear

Save

Load

Found 11 matching applications

Columns

App No	Stage	Round	Applicant	Decision
ENV18001	Decision Management	A Greener Future - Sustainability Grants	Mr Bucky Barnes	Approved
ENV18002	Decision Management	A Greener Future - Sustainability Grants	Mx Olly Owl	Withdrawn
ENV18003	Decision Management	A Greener Future - Sustainability Grants	Plastic Free Streets	Approved
ENV18004	Eligibility	A Greener Future - Sustainability Grants	John Kurtman	Undecided
ENV18005	Eligibility	A Greener Future - Sustainability Grants	Fawkner Park Redevelopment Organisation	Undecided
ENV18006	Acquittal Management	A Greener Future - Sustainability Grants	Mr Eddie Diaz	Approved
ENV18007	Acquittal Management	A Greener Future - Sustainability Grants	Ms Jensen Wilton	Approved
ENV18008	Decision Management	A Greener Future - Sustainability Grants	Evan Buckley	Undecided
ENV18009	Decision Management	A Greener Future - Sustainability Grants	Melbourne Community Group	Declined
ENV18011	Decision Management	A Greener Future - Sustainability Grants	Kensington Group Pty Ltd	Undecided
ENV18012	Decision Management	A Greener Future - Sustainability Grants	We are Scouts Australia	Undecided



Process and explore

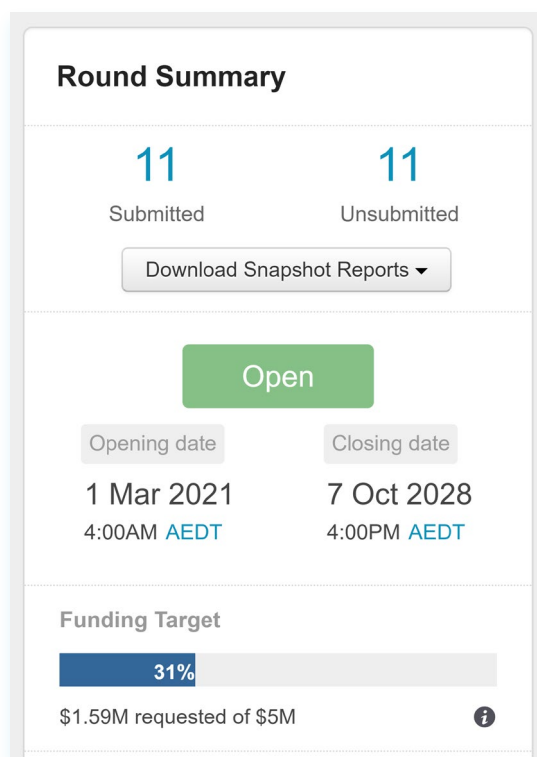
At this stage – as applications are lodged and assessed, money is distributed to successful applicants, and unsuccessful applicants are notified – you might begin processing the applications you’ve received to identify patterns or themes. Though much of the data processing is automated for SmartyGrants users, there is still value in having a human look at (explore) the data and ask intelligent questions. For example:

- Did we receive more applications than last time, or fewer? Why might that be?
- Did we receive significantly more, or fewer, submissions from organisations located in a particular geographical region or from a particular population subgroup? You might explore why this is occurring, and whether you need to target specific areas for future rounds.
- How many unsubmitted applications did we receive? You might ask whether the application process was too onerous, the guidelines unclear, whether there was too much jargon, or whether the forms were hard to understand. Or is there another explanation for the number of unsubmitted applications?
- Did funding requested exceed the amount available? If your program is radically over- or under-subscribed, you may ask whether your outcome goals were too lofty or not ambitious enough, or your eligibility requirements are too tight or too loose, or your budget is too generous or not generous enough for the demand.

Once you get started, you’ll find that the list of questions you can ask to explore your data is limitless – it may help to refer to your outcomes goals to prioritise. It’s at this stage that you might begin to see the value of establishing a good data foundation at the collect-and-store level.

A benefit of the SmartyGrants default standard fields in your application forms is that they belong to a common data structure that can later be used for cross-program reporting. If the data is unstructured and messy it becomes infinitely more difficult to process and explore your data – a bit like comparing apples to oranges.

The SmartyGrants Round Summary page displays key stats relating to a grant round:



Report and visualise

Your next step might be to generate reports or visualisations to evaluate and communicate outcomes. In SmartyGrants, the Round Snapshot Report or live dashboard, which provides information about submission rates, funds requested, geographic location data and more, might suffice to answer your questions. You can also create your own report templates to run reports and extract data on the information you're interested in.

There are additional tools in SmartyGrants to help you visualise and make sense of your grants data. For example, the Maps tool plots project and applicant addresses on a map and within various boundaries (e.g. state, postcode, federal or state electorate, local government area, and remoteness index). Another SmartyGrants tool called the Outcomes Engine can collect outcomes data from grantees and start tracking the impact of your grants immediately.

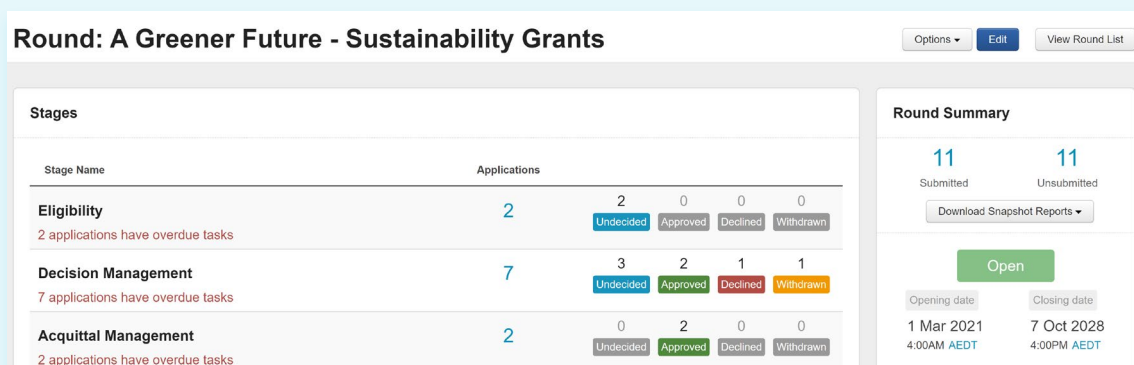
You can create your own reports by porting data from SmartyGrants to Excel, and on into reporting and visualisation tools like Power BI and Tableau, to include pivot tables, charts, and other visualisations that communicate your impact in different ways. You might overlay your data with information from other sources, such as demographic or location data from the Australian Bureau of Statistics, or the UN's Sustainable Development Goals (SDGs).

To design useful reports and dashboards we recommend thinking about these questions:

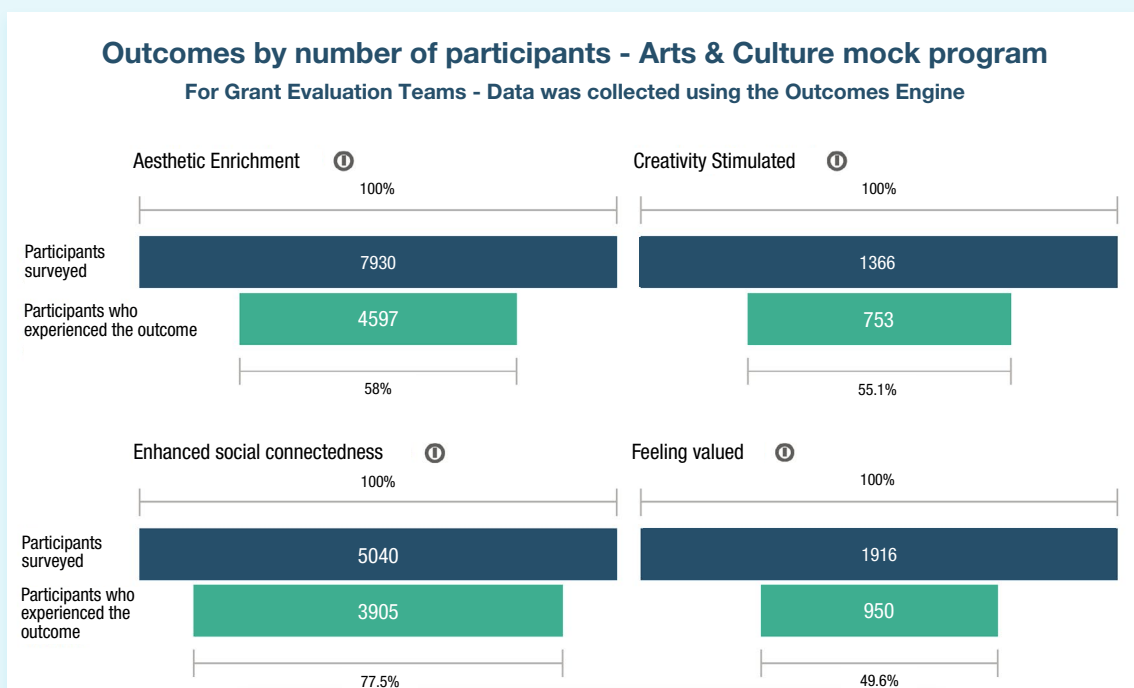
- At what stage(s) of the grants lifecycle will this report or dashboard be used?
- Who is the audience for this report or dashboard?
- What questions is the audience trying to answer?
- What data is needed to answer these questions, and which fields have been used to capture this data?
- How often does the report need to be generated and through which channels will it be shared?

There are a variety of opportunities for visualising and reporting on your grants data, depending on the scope of your project and the skills you have on hand. More data sources will often result in better insights about your program – but remember to only gather information that is useful.

A quick round snapshot is available from your specific Round page:



An example of SmartyGrants Outcomes Engine survey data being connected to a Power BI dashboard to show outcomes for an arts and culture program:



A sample report which includes metrics on the outcome goal ‘Increased participation in arts and culture’ for an arts and culture program, derived from the SmartyGrants Outcomes Engine:



Learn and optimise

You don't have to stop at reporting. At the apex of the pyramid, there are several data science techniques relevant to the grantmaking process. Some can be used to make your grantmaking more effective. You could use the insights into your program as inputs to a model (a tool that can process data and return results), allowing you to learn and predict variables to improve your grantmaking. An example of this is the auto-classification tool CLASSIEfier, which was built by SmartyGrants to process text contained in grant applications and return results about which sectors and beneficiaries are being funded. This helps grantmakers take a bird's-eye view of their grant programs, benchmark against others, identify gaps and imagine ways to improve.

You could also conduct experiments to see what works best. For example, you could run two consecutive grant programs designed slightly differently to see which one receives more (or better) applications. From this you can begin to learn while in the process of doing.

Other techniques can be used to make your organisation more efficient. For example, you could look for ways to optimise your processes. This might involve automating some tasks – including classification, eligibility checks, assessment, shortlisting, and flagging unusual applicant behaviour. The SmartyGrants team is working hard on building some of these data science features into the platform to make advanced analysis more accessible to all grantmakers.

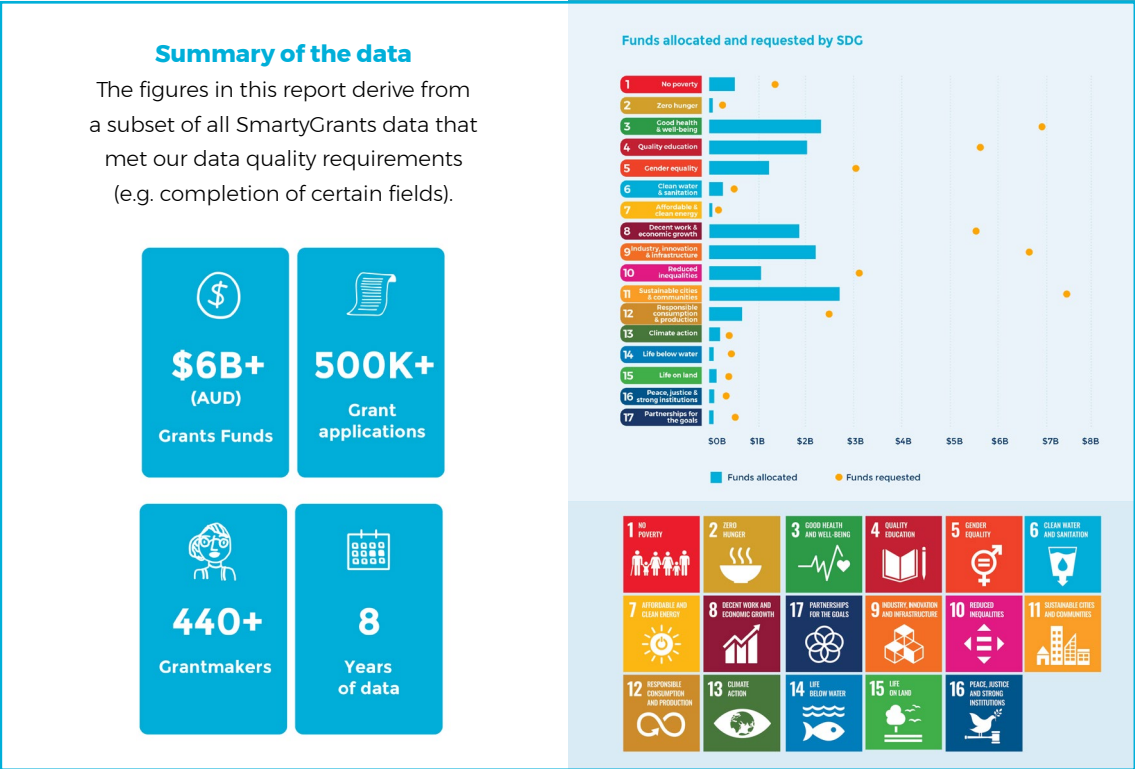
Automated processes can multiply the impact of your grantmaking team by helping you make data-informed decisions. However, remember how we mentioned that lots of data is helpful, but quantity itself is not enough? The quality of the data being fed into models is important too. You will need to consider factors such as biases in the data, how models will be maintained, and the ethical implications (and risks) of using the models to make decisions.

The techniques at the peak of the pyramid – data science – can help us to develop a deep understanding of what the data is telling us. They offer exciting opportunities, but their effective use relies on good data management practices. The functions at the bottom of the pyramid enable the more advanced capabilities higher up.

The CLASSIEfier algorithm works by analysing text in grant applications. In this mock data set, CLASSIEfier has identified subjects and beneficiaries based on analysing text in the project description field:

Project Title	The Brighter Side of Things
Brief Project Description	The local primary school is seeking to brighten up the local streets in their area. They're going to collect and paint rocks with positive messages about their local community. A local artist is coming on board to help the students come up with their ideas for their rocks.
Project Subject	 Community development > Community organising
Project Beneficiaries	 Education status > Primary school students

An analysis of more than 500,000 SmartyGrants applications used the Sustainable Development Goals (SDGs) and the SmartyGrants classification system CLASSIE to separate grants into social sector subject areas and show how the money flowed:



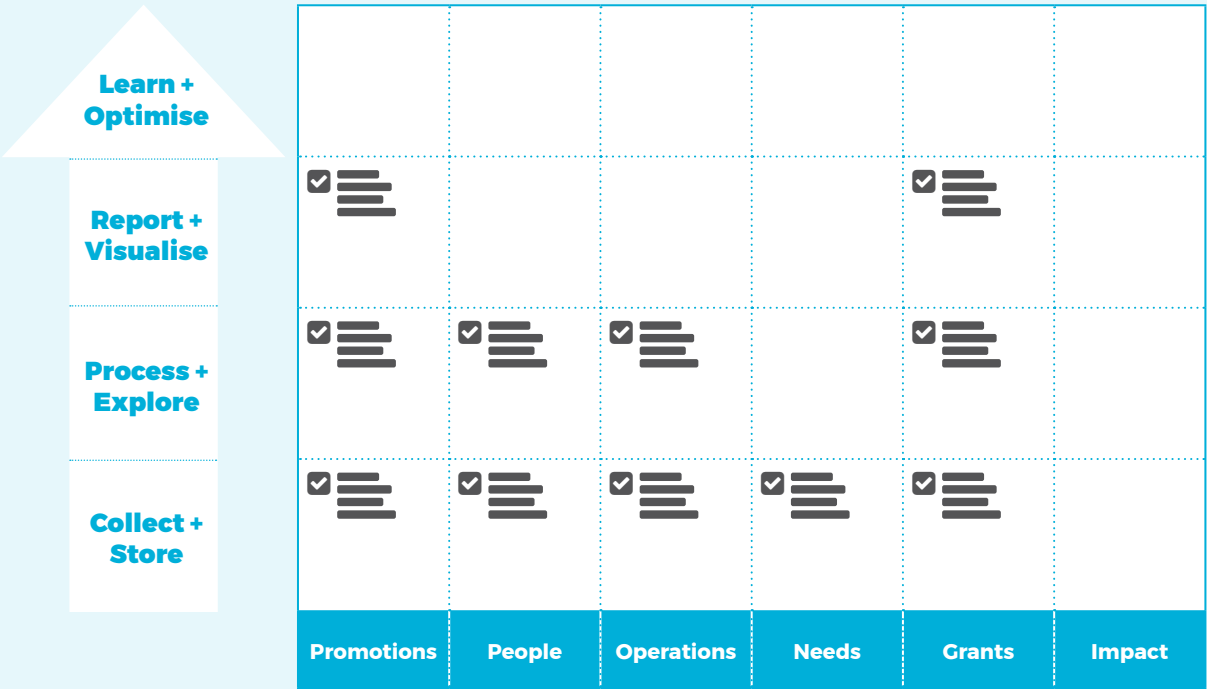
Piecing it all together

How's your organisation tracking? Where do you want to end up?

Our framework brings together information about the kinds of data you might be working with and what you can do with that data. The resulting matrix can be used to start conversations within your organisation.

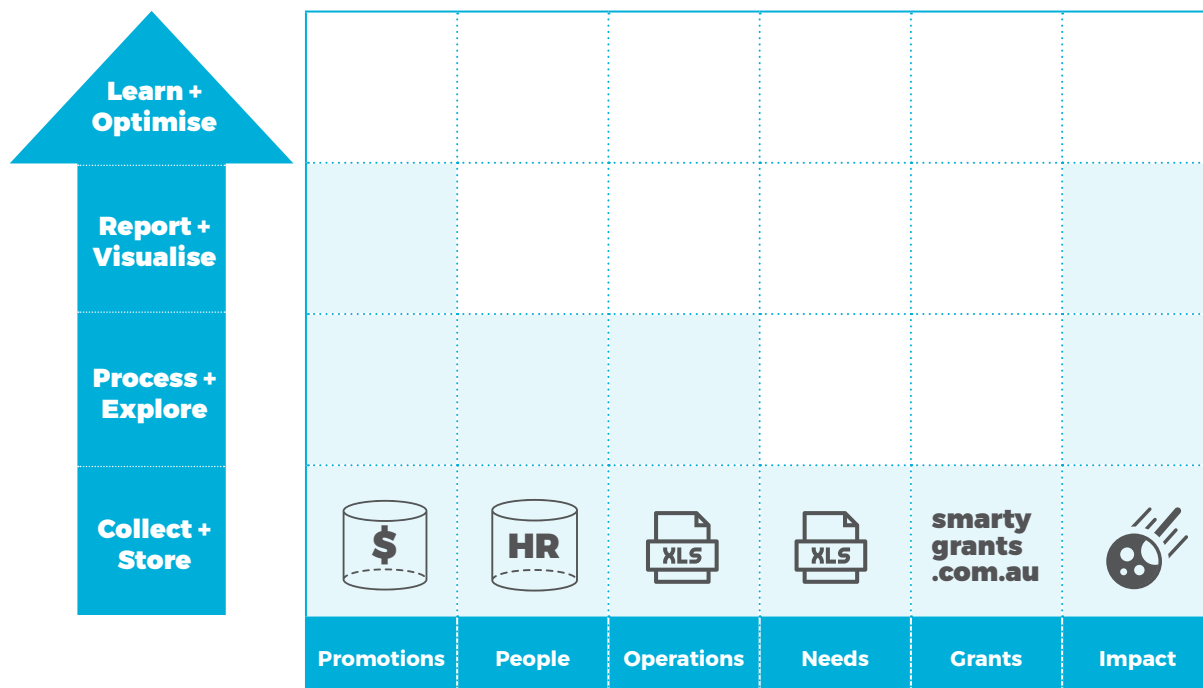
Build a picture

The framework can guide you as you gather information about what your organisation is already doing. These results can form the basis of an assessment of your organisation's maturity in respect to data – and help you to set goals for the future.



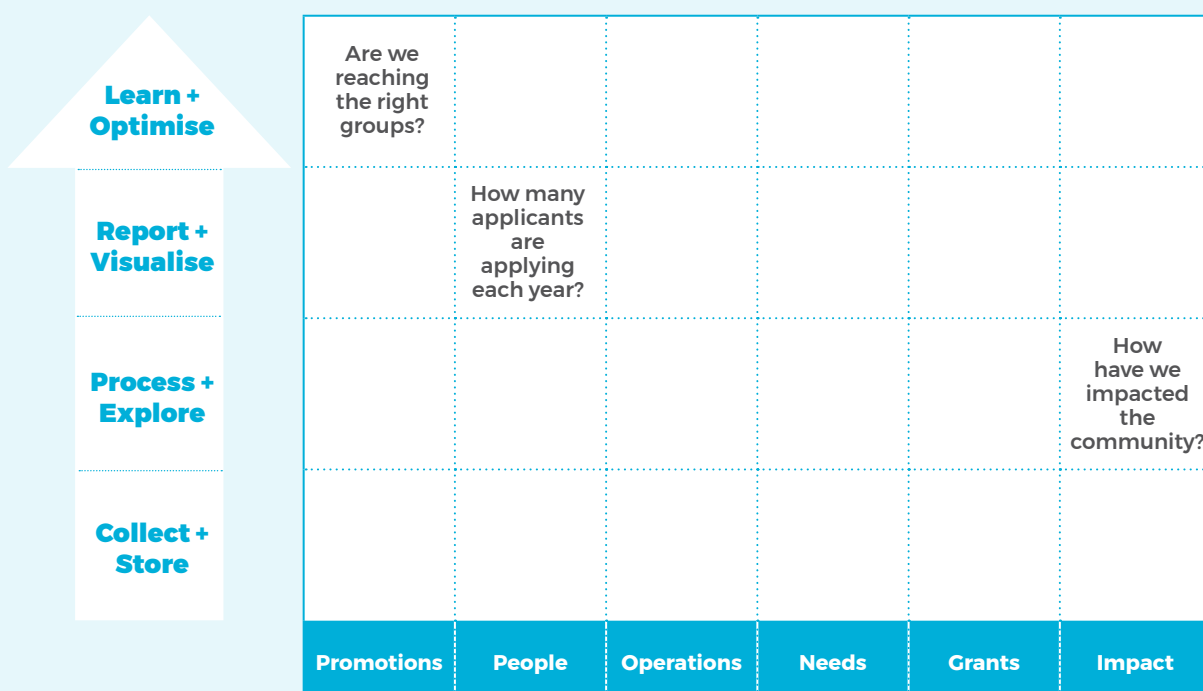
Take a systems approach

You can use the framework to start to look at what systems you have in place. How is your data managed? Who has access? What skills might be required for work on data projects for each area? The ease or difficulty of examining your systems will vary according to the size and type of your organisation.



Frame your thinking

You can also map out what questions you'd like to answer, and what data and data capabilities you'll need to do so. Start by asking simple questions – this will make the process less daunting. More questions will arise as you continue the process.



What's next?

The SmartyGrants team has been promoting best practices in grantmaking for two decades and translating this knowledge into valuable tools for grantmakers to achieve greater impact.

We've produced the [Grantmaking Toolkit](#) to guide grantmakers to success. We host [Grantmaking Intelligence](#), an annual conference for grants professionals, and publish Grants Management Intelligence, a monthly newsletter for grantmakers and funders. We also publish help sheets, white papers and other resources on every stage of the grantmaking process, from planning and design through to evaluation.

We envision this framework as complementary to these tools and resources.

We also provide information on related topics such as data governance (including ethics and cyber security), data handling, and data sharing as we come across it. By pooling data with other organisations in your sector, you may be able to generate better insights than you could on your own, and benchmark yourself against others. And by teaming up with organisations that hold large stores of information, such as cohorts of other funders or government agencies funding similar subjects or beneficiary groups, you may be able to learn more about what's happening in the community you're working with.

We hope that this framework and our other resources de-mystify data concepts for you, and help your organisation use data more effectively.

The SmartyGrants Innovation Lab is where we seed ideas to do old things better or new things first.

Our parent enterprise Our Community's founding aim in 2000 was to build stronger communities through stronger community organisations. Since 2009, SmartyGrants has helped keep the money moving, with billions of dollars now moving into the not-for-profit sector more efficiently.

By forging partnerships with business, government, and philanthropy SmartyGrants has accelerated our impact and increased our reach beyond our home zone of Australia. We're now servicing grantmakers in 42 countries around the world.

Now there's a new currency powering social reform. Data is reshaping our world. New tools allow us to collect, distil, understand, and act on data like never before, hastening the pace of change. We want to make sure the social sector can grasp the possibilities presented by these new tools.

