

A Toolkit For **PROCURING RESILIENCE**



Using procurement as an entry point
for innovation to help cities and utilities access
new ideas, new partners, and new resources

Introduction

Procurement innovation may sound like an oxymoron, but the topic has gotten **national attention** in recent years. The processes that governments use to buy everything from office chairs to water treatment plants are increasingly being recognized as a barrier to upgrading aging and failing infrastructure systems and achieving broader climate, equity, and system resilience goals.

The **Procuring Resilience Opportunities** (PRO) project was launched in January 2018 based on the view that procurement can be an entry point for innovation—rather than an obstacle to it—for cities and utilities across the US.

With the generous support of the **Kresge Foundation**, **re:focus partners** and **The Atlas Marketplace** brought together a cohort of seven cities with eight private sector implementing partner organizations to apply three innovative “big city” procurement tools to tackle major water infrastructure challenges in smaller cities.

THE
KRESGE
FOUNDATION



7

Cities

8

Implementing
Partners

3

Innovative
Procurement
Tools

The Goal?

Help small and medium-sized cities access new ideas, new partners, and new resources for their highest priority legacy water system needs by piloting a set of procurement tools already being used with success in big cities

The Outcome

An interactive toolkit that helps city and utility officials make critical early stage procurement decisions for water and resilience challenges—including which “big city” procurement tool is most relevant and how to apply it—for the specific problem the city is addressing, its available resources, and its local capacity for implementation.

Rather than trying to reform procurement processes or change state or federal legislative rules, the PRO Toolkit focuses on ways cities and utilities can immediately work within their current procurement systems to enable better outcomes. The PRO Toolkit was designed to help each of the seven pilot cities and utilities make key decisions that best fit their goals, and most importantly, their capacity.

7

Cities



ANCHORAGE
AK



CAMDEN
NJ



EL PASO
TX



GARY
IN



IMPERIAL BEACH
CA



NORFOLK
VA



PROVIDENCE
RI

8

Implementing Partners



Quantified Ventures



SCAPE



OptiRTC, Inc.



Infrashares



RePipe



Meridiam NA



RISE



120WaterAudit

3

Innovative Procurement Tools



REQUEST FOR IDEAS (RFI)

An open call for ideas and/or information based on one or more challenges put forward by a city or utility.



COMPETITION & CHALLENGE

An open call for solutions based on a bold problem with a specific incentive or prize for one or more winning entries.



PERFORMANCE CONTRACT

A form of agreement where payments are linked to achieving specific pre-stated measurable benchmarks or verified outcomes.

The three key elements of the Toolkit are:

1

PROBLEM FRAMING

Shaping a great problem statement to enable innovation.

It is easy for experts to get caught up in the details of a problem and assume that more specificity is better in any procurement. Not so. Being too prescriptive can limit innovation and discourage solutions that generate wider benefits. The PRO Toolkit takes a different approach to problem framing, and focuses on zooming out (using the [Ansari X-Prize](#) for commercial space flight as an example) to identify target outcomes and then to work backward to define what elements of the problem are most critical to solve.

A

Problem Framing Madlibs

2

TOOL SELECTION

Identifying the tool that best fits the local context.

Often the easiest path through conventional procurement processes is to use Requests for Proposals (RFPs) and Requests for Quotations (RFQs). The benefit of these traditional approaches is that the language and legal framework are tried and tested. This is not a trivial thing in difficult-to-navigate bureaucracies. However, the downside is that many opportunities to improve outcomes are lost right at the beginning of the process. The second building block of the PRO Toolkit focuses on matching cities and utilities to one of three specific “big city” procurement tools—Requests for Ideas (RFIs), design competitions, or performance contracts—and assigning a degree of difficulty that is the best fit for the problem at hand and the resources available.

B

Tool Selection Questionnaire

C

Tool Selection Scorecard

3

PROCUREMENT DEFINITION

Setting the terms for responses and solutions.

The final element of the PRO Toolkit is where many conventional procurement processes start: setting specifications. Based on the results of the Tool Selection Questionnaire and Scorecard, the three PRO procurement tool templates offer clear guidance on what kinds of choices and specification decisions are likely to enable the most effective outcomes and which ones are likely to discourage high-quality responses and innovative ideas or generate difficult-to-assess and hard-to-implement solutions.

D

Request for Ideas Template

F

Performance Contract Template

E

Design Competition & Challenge Template

The Toolkit was piloted in a workshop in May 2018. The workshop was structured to enable city officials to engage with one another and leading private sector innovators in the water sector to explore the implications of different procurement decisions and pathways. In a few short months, the seven PRO pilot cities made extraordinary steps toward reimagining how procurement can enable them to access new ideas, new partners, and new resources to deal with their most pressing water system challenges – including sea level rise, chronic and extreme flooding, shrinking populations and service areas, deferred maintenance, and lead in drinking water.

This report is designed to bring the process, materials, and lessons from the first PRO workshop to the many other cities across the US facing similar challenges and looking for ways to leapfrog to smarter, more resilient, and more equitable solutions.



Why Procurement is a Cornerstone of Resilience

Many cities across the United States are home to legacy infrastructure systems. These older water, transportation, and communications systems are not only poorly suited to current needs, but they are also nearing (or well past) the end of their usable lives after [decades of underinvestment](#) and [deferred maintenance](#).

The motivation for investing in more resilient systems could not be greater. The news is filled with high-profile infrastructure failures—[from massive water main breaks](#) to [catastrophic road and bridge collapses](#). Many mayors have also committed to transformational goals, such as the [Mayor's Climate Pledge](#). But local government resources for transformation are limited at best. City and utility managers are caught in a tug-of-war between prioritizing practical incremental repairs to keep critical services up-and-running, and planning for and investing in more cost-effective long-term capital projects. Both are costly. Both are necessary. In the coming years, more cities and utilities will inevitably be confronted with a stark choice: continue to do short-term fixes or find the resources to make major upgrades and replacements.

As grim as this decision can be from a budget perspective, it is also an opportunity. Cities across the US have a once-in-a-generation chance to shift toward cleaner, greener technologies and build more resilient communities. The simultaneous benefits are undeniable: fewer catastrophic failures (as in Flint, Mich.) and future decades of improved infrastructure performance and environmental, social, and health outcomes.

So how does procurement play into these decisions?

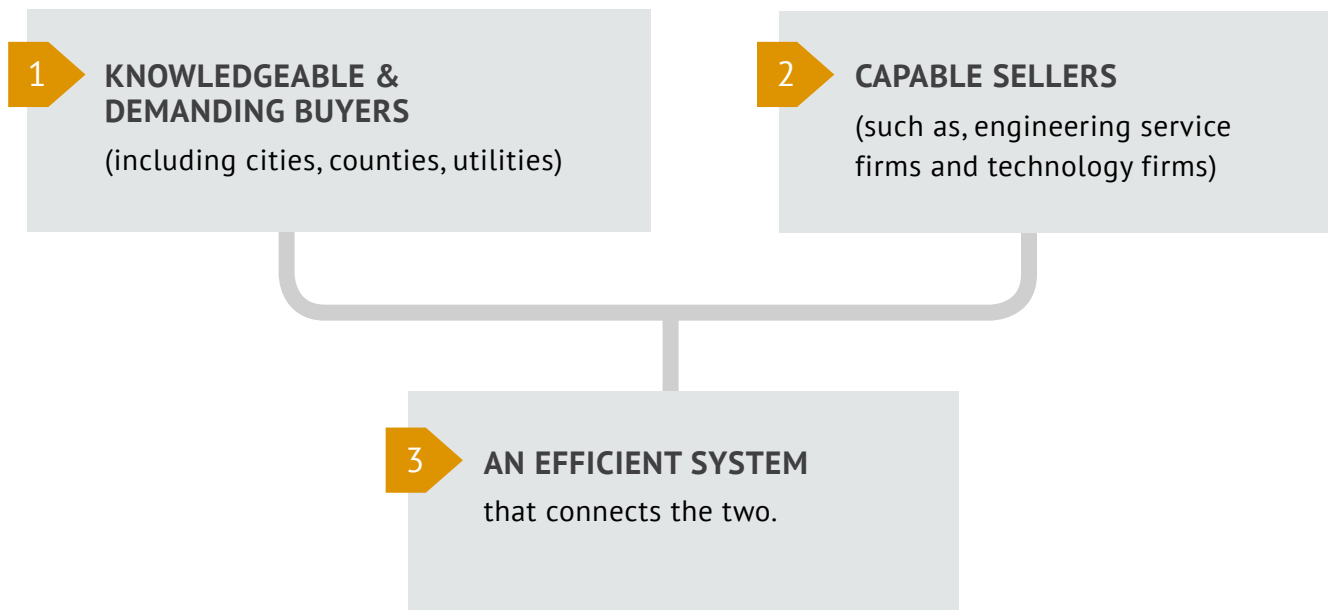
Local procurement processes have the potential to either enable this transition or stymie it completely. Most existing procurement processes make it easiest for governments and public authorities to buy what they already have, provided by companies they've already worked with before.

This bias toward the familiar can keep decision-makers trapped in a 'pieces-and-parts' replacement approach, even when solutions are available that could enable more cost-effective upgrades, replacements, or wholesale transformation. Picture the difference between replacing failing water mains and transitioning to city-wide green infrastructure solutions: the process for buying pipes and repair services is a well-trodden path, while figuring out how to buy and maintain thousands of street trees or miles of porous pavement is often uncharted territory.



The unfortunate consequence of this type of procurement “lock-in” is that every day cities miss opportunities to leapfrog to smarter, more sustainable, and more resilient infrastructure *and* innovative urban solutions simultaneously struggle to scale. This is a solvable problem, but pouring money into developing new technologies or better plans doesn’t necessarily lead to project implementation or better outcomes.

Effective procurement requires three things:

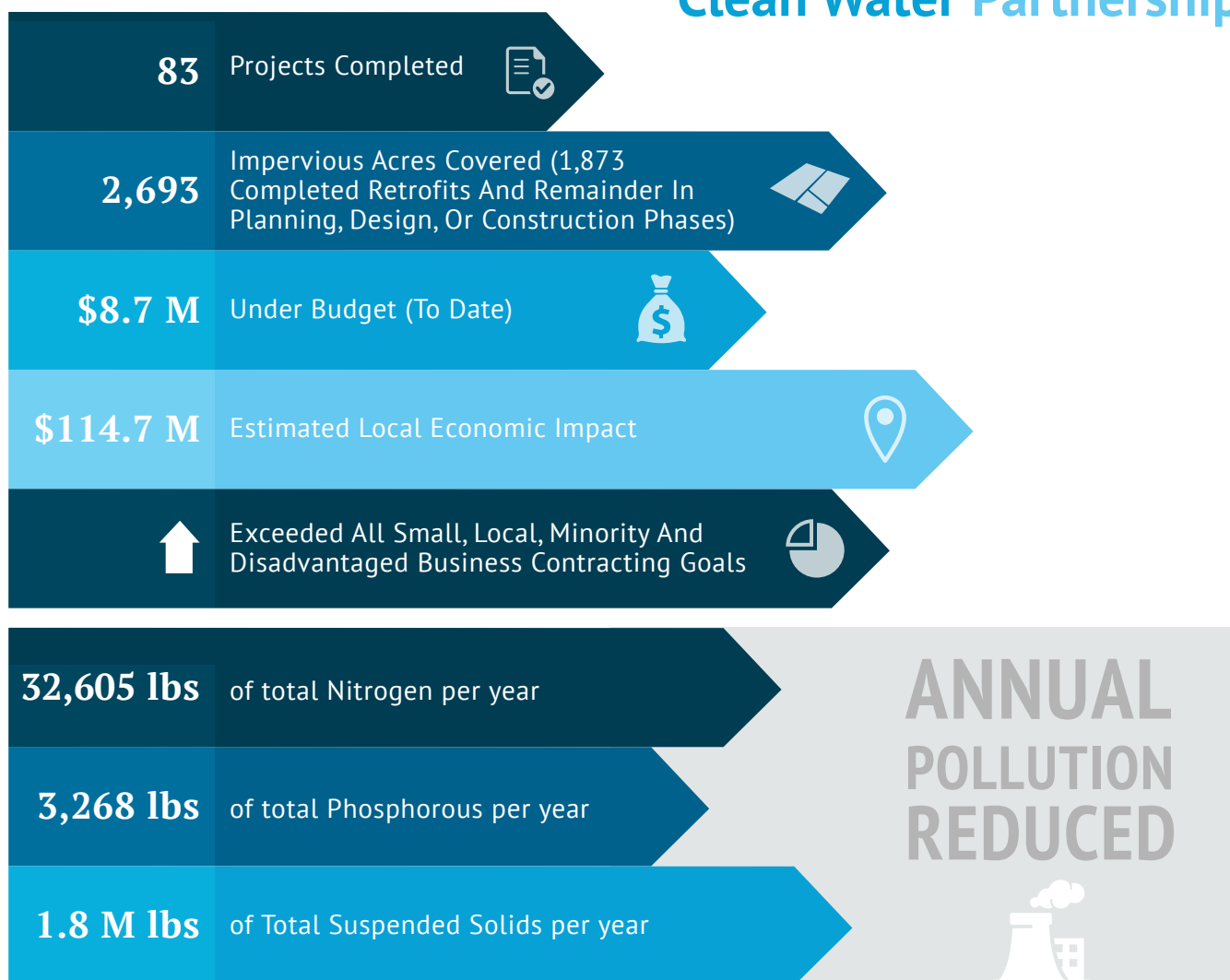


Knowing when and how to shift from the incremental to the transformational is an enormous challenge for **cities of every size**. Bigger cities often have more resources and expertise to dedicate to long-term planning for these transitions. But even smaller cities with fewer resources need the tools to design, procure, and build entirely new types of infrastructure solutions to make progress on big picture goals, including improving water and resource-efficiency, building resilience to climate change, and advancing social equity.

Put simply: cities must be able to buy things differently in order to buy different things.

In recent years, several cities and counties have begun to experiment with how procurement can enable better outcomes. One of the most compelling examples in the water sector is the Prince George’s County’s [Clean Water Partnership](#). This 30-year public-private partnership between the County and the operating engineering firm, Corvias, was launched in 2015 as a performance-based contract. The primary goals of the contract were to significantly improve stormwater management across the county (to meet EPA regulatory compliance requirements) and build a more equitable and diverse local workforce for project implementation. At the outset of the program, the performance objectives were to deliver green stormwater retrofits on 2,000 impervious acres at a cost of no greater than \$100 million within a 3-year term. As of September 2018 the program had achieved:

Prince George’s County Clean Water Partnership



Prince George’s County and Corvias Solutions [Clean Water Partnership](#) Dashboard (Aegis Analytics, accessed September 5, 2018)

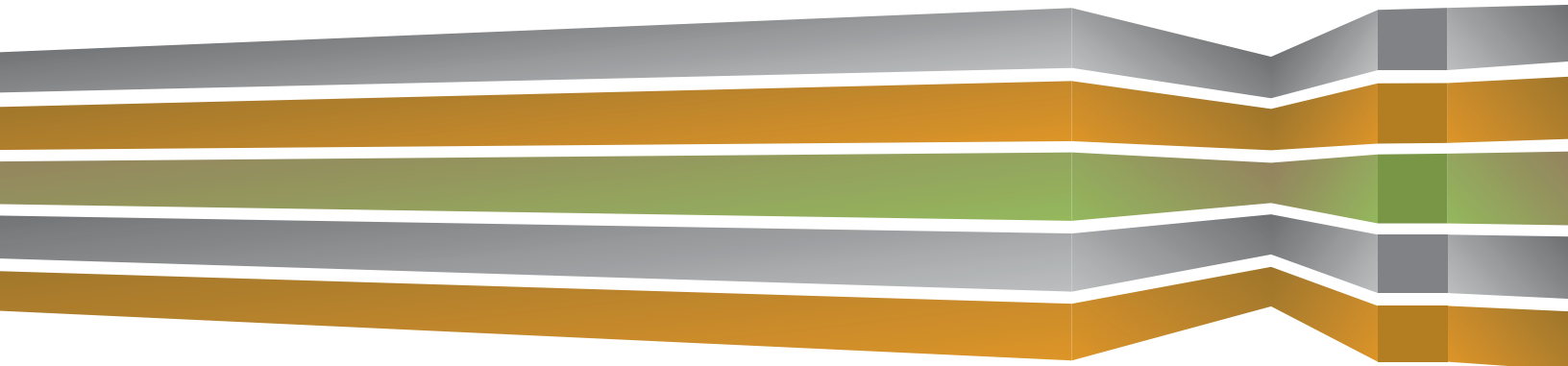
The Clean Water Partnership is a shining example of how procurement innovation can allow local governments to tap into new ideas, new partners, and new resources. The results speak for themselves: Prince George's County met or exceeded all of its economic, social, and environmental objectives on time and under budget. The overarching lesson from this example is that investing in better procurement processes up front can enable better outcomes for taxpayers, residents, and businesses alike in cities across the US. The next section looks at how smaller cities can systematically use similar types of performance contracts and other earlier-stage procurement tools, including Requests for Ideas and Competitions, to jumpstart infrastructure resilience in their own communities.



New Ideas, New Partners, New Resources: A New Way to Think About Procurement

Procurement today is often reactive and *driven by existing resources*. Officials look to current budgets and plans to see what their agency can afford. That may be exactly the right approach when it comes to run of the mill purchases like office supplies.

But the creative solutions required to address big hairy problems—like climate change, enormous deferred maintenance backlogs, and rapidly shrinking service areas—are anything but run of the mill. Ideally, the processes used to procure solutions to these problems should be proactive and *enable cities to find new ideas, new partners, and new resources*. The Clean Water Partnership, among other recent innovative procurements, proves that this is possible.



So what do we really mean when we talk about government procurement?

The term “procurement” encompasses all the steps that governments or public authorities take to obtain goods, like computers and desks, or services, like healthcare or construction of a water treatment plant. The State of Hawaii’s Procurement Office offers a useful example of the full [life-cycle of a typical procurement process](#). The process can be daunting and time-consuming, even for experienced staff and companies who frequently bid on projects.

Given the complexity of most procurement processes, it is easy to make sweeping statements about how government procurement (or government in general) is broken. It’s not. Rather, our procurement systems were designed to meet a narrower set of needs than many government agencies have today. Most long-standing procurement systems were built to be defensive. They were designed to:

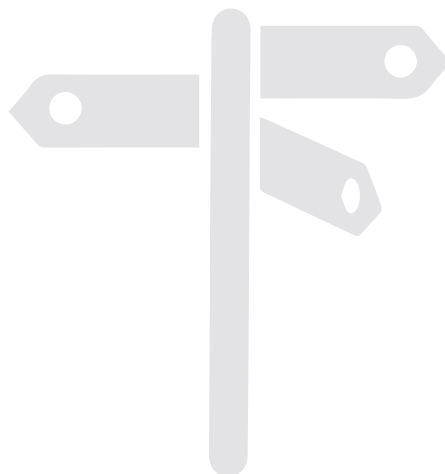
- 1 PROTECT TAXPAYERS FROM FRAUD AND CORRUPTION
- 2 STANDARDIZE PROCESSES TO IMPROVE EFFICIENCY
- 3 PREVENT DISCRIMINATORY PRACTICES

These are still important objectives. We don't want procurement systems that are corrupt, inefficient, or discriminatory. However, focusing on only these defensive priorities makes it challenging to achieve other outcomes that we now expect from government agencies: like having nimble technology systems and services. There are also enormous differences between buying office chairs and transit systems—but cities often use remarkably similar processes to buy and build both. While having standardized processes can improve efficiency in theory, in practice, it often limits effectiveness.

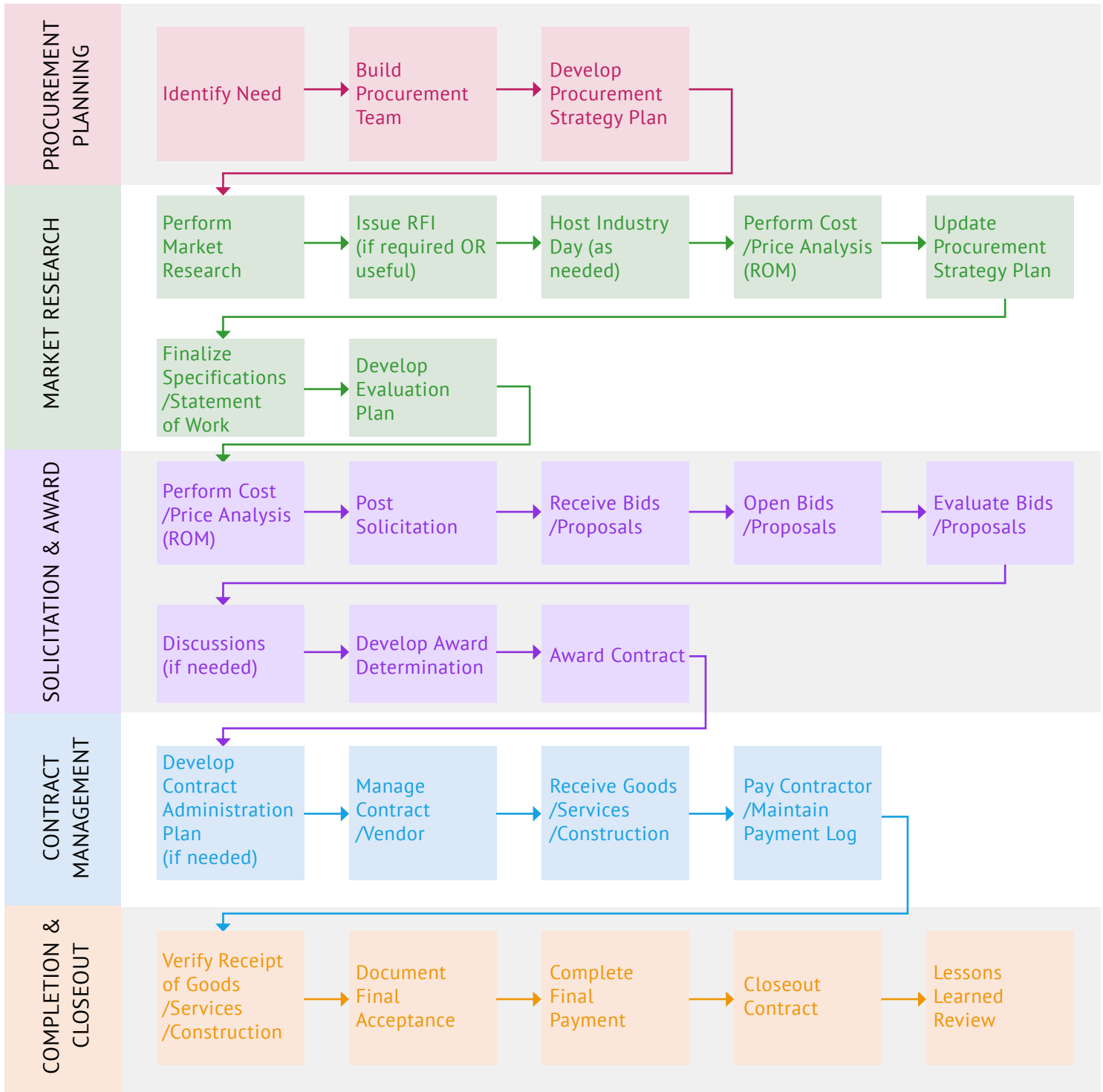
Procurement systems that are primarily defensive are often stumbling blocks—if not outright brick walls—to finding innovative solutions, working with new partners, and iterating to create system-wide improvements over time. These proactive steps are essential for building resilience.

A strong offense is an important part of a good defense. If we don't think about procurement differently, government officials at all levels are inevitably going to find it easier to replace failing infrastructure systems with the same old fixes rather than transitioning to more sustainable systems. That is a terrible outcome for residents, taxpayers, and companies alike. Cities will continue to struggle to solve systemic problems, and private sector innovators will continue to find it hard to engage with cities to deliver better outcomes—*even when solutions are readily available*.

Nowhere is this clearer than in the infrastructure sector. Even when a city knows what it needs and how to get it, public procurement processes are often biased against new, cross-cutting, or resilient solutions.



STATE OF HAWAII PROCUREMENT PROCESS



Introduction to The State Procurement Office: Procurement Wizard (State of Hawaii, 2018).

Why these three tools?

RFIs, Competitions, and Performance Contracts are relatively new procurement tools. All three are more open-ended and outcome-oriented than conventional procurement tools (like RFQs and RFPs), which require the terms of a product or service to be clearly defined at the outset. The result is that each of these tools can generate a range of creative solutions—from the idea generating and data gathering phases of a project through to financing and implementation—and enable cities to tap into different ideas, partners, and resources than they would otherwise normally have at hand.

1

Request For Ideas (RFI)

An open call for ideas and/or information based on one or more challenges put forward by a city or utility.

2

Competition or Challenge

An open call for solutions based on a bold problem with a specific incentive or prize for one or more winning entries.

3

Performance Contract

A form of agreement where payments are linked to achieving specific pre-stated measurable benchmarks or verified outcomes.

It is important to note that there isn't a one-to-one match between these tools and the goals of attracting new ideas, partners, and resources. RFIs can be used to solicit big picture planning input or bring forward specific technology or financing solutions, depending on when they are used in a project design and implementation timeline. They can also be used to gather baseline data or information from potential partners and get feedback on how a city or utility can best structure a public-private partnership. Similarly, design competitions can bring new ideas to the table as well as identify community partners, like the [Resilient By Design Competition](#) did in Marin County. Finally, performance-based contracts can draw forward both new partners and new resources, when they align incentives to capture greater value from better outcomes for multiple parties.

Just as it is possible to develop a bad RFP, it is also possible to have terrible RFIs, Competitions & Challenges, and Performance Contracts that do not generate intended outcomes. Procurement success depends on framing problems well and setting effective procurement terms. That is why the PRO Toolkit offers a guided path through a series of interactive templates to help local officials make smart early-stage procurement decisions and lay the foundations for better long-term climate, equity, and system resilience outcomes.



REQUEST FOR IDEAS (RFI)



COMPETITION & CHALLENGE



PERFORMANCE CONTRACT

	REQUEST FOR IDEAS (RFI)	COMPETITION & CHALLENGE	PERFORMANCE CONTRACT
Generate diverse, creative new ideas	●	●	●
Attract new partners	●	●	●
Bring in new money (e.g. capture resource efficiencies/savings)	○	○	●
Need for wide distribution to reach and attract high-quality applicants	●	●	●
Requires up-front financial resources	○	●	●
Can move directly to contracting	○	●	●
Can generate sustained private sector interest (avoid “vendor fatigue” with unfunded oppty’s)	○	●	●
Has high baseline data requirements	○	○	●
Requires significant technical and/or financial expertise	○	○	●

How to Use the Procuring Resilience Opportunities (PRO) Toolkit

Cities and counties like [Atlanta](#), [Boston](#), [Philadelphia](#), and [Prince George's County](#) have been experimenting with RFIs, competitions and challenges, and performance contracts across a wide variety of sectors and applications. Boston, for example, has spent years developing and refining its [Smart City Playbook](#). Smaller cities rarely have the capacity to experiment in similar ways.

Rather than reinventing the wheel, the PRO Toolkit aims to help local governments across the country quickly jumpstart action by translating these “big city” procurement innovations to smaller cities seeking to tackle high priority local infrastructure resilience challenges. Each element is designed to help time- and budget-constrained local officials start now to address critical infrastructure challenges, including flood, drought, extreme heat, sea-level rise, storms, population changes, and more.

Often money is the greatest obstacle to starting a procurement discussion. The default assumption is that you need to have resources in hand to be able to think about procurement options. The PRO Toolkit is specifically designed to get away from this idea and help city and utility decision makers find practical near-term starting points for procuring new ideas, attracting new partners, and generating new resources. The Toolkit includes the essential building blocks of most every procurement process. Once the full Toolkit is completed, government officials and staff should have a clear set of terms, specifications, and decisions that can be used as the basis for discussion and refinement with internal legal and procurement experts and eventually plugged into local procurement documents with necessary boilerplate legal language.

PROBLEM FRAMING

TOOL SELECTION

PROCUREMENT DEFINITION

A. Problem Framing Madlibs

B. Tool Selection Questionnaire

D. Request for Ideas Template

C. Tool Selection Scorecard

E. Design Competition & Challenge Template

F. Performance Contract Template

Below are some general rules and FAQs for how to use the toolkit:



How do I know which tool to start with?

The PRO tools are designed to be used in order from (1) Problem Framing to (2) Tool Selection to (3) Procurement Definition.

1 PROBLEM FRAMING

A
Start with the Problem Framing Introduction and complete the madlibs

2 TOOL SELECTION

B
Then work through the Tool Selection Questionnaire
C
and Scorecard.

3 PROCUREMENT DEFINITION

D-F
Once you have your score and your level of difficulty, then use the template that matches your score and follow the instructions for your degree of difficulty.



How long will the process take?

We know all local government officials are busy. The PRO toolkit is designed to be easy to use. You can complete a quick pass in less than an hour, but providing really thoughtful and refined responses will take time. We strongly recommend working through the toolkit efficiently and then setting aside time for a dedicated session (do not try to slot this into a standing meeting!) to revisit the materials with colleagues, get feedback, collaboratively edit and refine your responses, and build internal support for taking the next step.

For reference, the PRO pilot cities spent a full day working through the materials with at least 2-3 colleagues from different departments. They also had multiple opportunities across the day to test and refine their ideas with other cities and experienced bidders. This helped all of the cities get direct feedback from peers and leading experts in the field who could point out where specific decisions might discourage submissions or innovative ideas.



What if I don't know the answer to a question?

Don't worry – you don't need to have all the answers. The Toolkit is intended to be a guide to help you get started and figure out how to have a conversation with others in your city. The best problems are ones that allow for cross-cutting solutions and wins in multiple sectors. Talk to your colleagues and work toward mutually satisfying answers.

A big part of the PRO workshop was helping cities anticipate and tackle local barriers to implementation to make sure that ideas from the workshop were robust in the face of potential inertia or outright opposition. The toolkit is specifically designed to enable collaboration. As you work through the Toolkit, tackle these issues head on: engage relevant departments and agencies and get feedback early and often from relevant stakeholders and experienced bidders (within your existing procurement rules, of course).



What do I do when I'm done?

Talk to your favorite procurement colleague and figure out the best way to move forward within your existing local systems!

The next sections provide guidance on how to make the best use of the Toolkit.

Problem Framing: From Setting SPECIFICATIONS to Framing Great Problems

Getting the problem statement right is an essential first step toward procuring innovative, resilient, and cost-effective solutions.

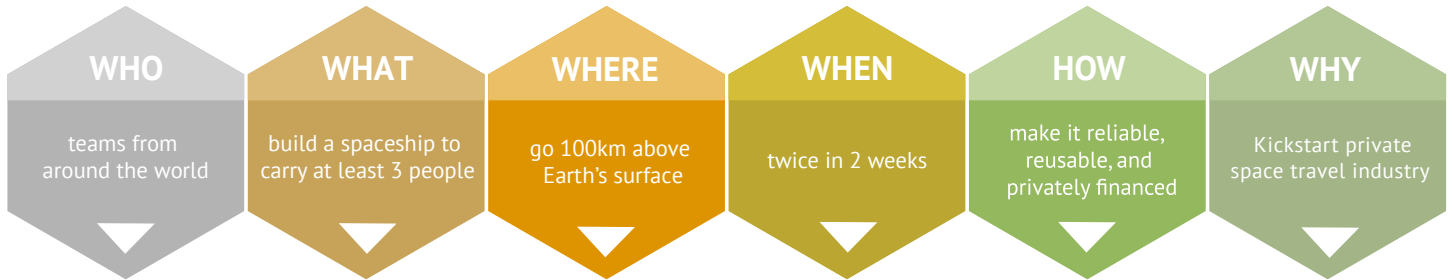
Because procurement is a means to an end, it can be easy to fall into the trap prescribing a specific solution before really thinking through how a problem can best be framed to draw the most innovative solutions. For example, there is a big difference between framing a problem as “our city is seeking to expand green infrastructure” and “we are looking for green stormwater management solutions on public property that can create operating and maintenance savings for our city.” The first is likely to generate ideas that may or may not be practical to implement. The second contains a built-in path to financing and implementation. Similarly, saying that lead pipes must be replaced is very different than a problem statement that focuses on reducing lead exposure from drinking water. The latter allows for a wider set of solutions that can include pipe replacement, but also education, public health interventions, and more.

Framing a problem too broadly (e.g. address climate change) can be just as ineffective as framing one too narrowly (e.g. install solar panels on City Hall).

The **Ansari X Prize** is a great example of how a tightly framed “big hairy problem” can generate practical, scalable results. This prize “challenged teams from around the world to build a reliable, reusable, privately financed, manned spaceship capable of carrying three people to 100 kilometers above the Earth’s surface twice within two weeks.” Its goal was to jumpstart commercial space travel. Unlike a traditional call for bidders to submit proposals for a rocketship designed to meet pre-set specifications, the X-Prize team set clear boundaries that ensured that the winning entry met the ultimate objective—having a spacecraft capable of safe and scalable commercial flight—but left the process open to allow for real innovation.



Consider the difference between the X-PRIZE problem framing and this [NASA procurement life-cycle](#).



The Road to First Flight in 2017

NASA Life Cycle Phases	Approval for Formulation	FORMULATION			Approval for Implementation	IMPLEMENTATION		
Program Life Cycle Phases	Pre-Phase A: Concept Studies	Phase A: Concept & Technology Development	Phase B: Preliminary Design & Technology Completion	Phase C: Final Design & Fabrication	Phase D: System Assembly, Int. & Test, Launch & Checkout	Phase E: Operations & Sustainment	Phase F: Closeout	
Program Life Cycle Gates and Major Events	KDP A ✓	KDP B ✓	KDP C	KDP D	KDP E	KDP F		
				EFT-1 Launch	EM-1 Launch	EM-2 Launch		
Human Space Flight Project Reviews	Mission Concept Review 2011 ✓	System Requirements Review/ System Definition Review 2012 ✓	Preliminary Design Review 2013	Critical Design Review 2015	System Integration Review 2016	Flight Readiness Review 2017		

FOCUSED TOWARD 

- CDR: Critical Design Review
- EM-1: Exploration Mission 1
- EFT-1: Exploration Flight Test 1
- FRR: Flight Readiness Review
- KDP: Key Decision Point
- MCR: Mission Concept Review
- PDR: Preliminary Design Review
- SIR: System Integration Review
- SDR: System Definition Review
- SRR: System Requirements Review

Tool Selection: Finding The Best Fit for IMPLEMENTATION

After carefully framing the problem, the next step in the PRO Toolkit is to identify the procurement pathway and tool that best match both the problem and the available capacity and resources to address it. The Tool Selection Questionnaire consists of six questions to help cities and utilities hone in on the right tool and degree of difficulty.

Below is some general guidance for completing this step in the process:

When completing this questionnaire, focus on the specific problem being addressed.

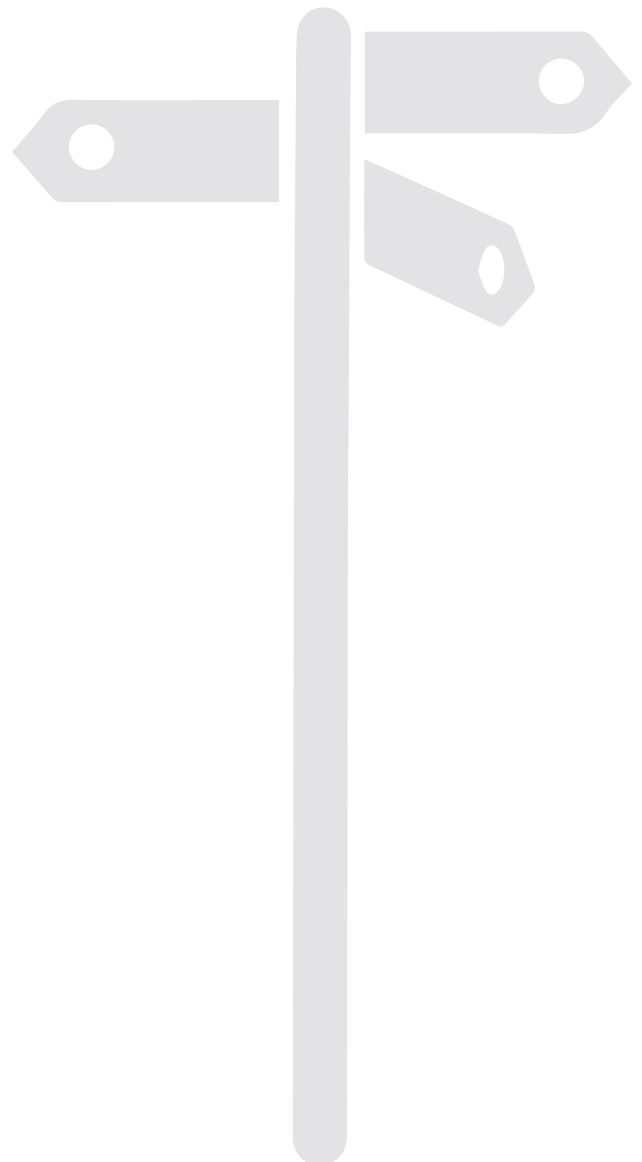
Do not default to the lowest capacity or resource answer. Where possible, stretch for the response you think is achievable. Think beyond your own budget. Are there interdepartmental sources of support that you could recruit? Outside resources (e.g. philanthropic funds)? Thinking this way requires more work up front, but can open up the potential for significantly higher value ideas, partners, and resources at the end.

It can be helpful to have several colleagues in the same department or across departments answer these same questions individually for the problem being considered. Then bring everyone together to compare notes and reconcile responses. This approach can help bring to light data or resources that one individual might be aware of, but that others might not.

Once the questionnaire is complete, tally your results at the bottom of each page and mark the results on the Tool Selection Scorecard to find which tool—RFI, Competition, or Performance Contract— and degree of difficulty are the best fit.

It is important to note that this simple set of questions is intended to steer cities and utilities away from tools that are unlikely to jumpstart near-term progress—getting to solutions within 6-18 months. For example, designing a procurement to solicit highly technical responses that require extensive expert review is unlikely to lead to a near-term win when it would take a long time to hire the relevant internal or external technical experts. Similarly, performance contracting is not a great starting point if a city faces major data gaps. This does not mean that a city should not hire experts or use an RFI or Competition to initiate multi-year data collection efforts to get to an eventual performance contract, only that these are not short-term paths to near-term progress.

Most city and utility officials with broad portfolios will find that the Toolkit draws forward different responses for different types of problems, where varying levels of resources and data are available. The goal of the Toolkit is to help cities and utilities identify and develop procurement options that can be used immediately to address pressing problems.



Procurement Definition: Getting RELEVANT & ACTIONABLE Results

Making procurement design decisions to match the resources, data, and expertise available to address a problem is an important part of getting relevant and actionable responses. The three PRO procurement templates for RFIs, Competitions, and Performance Contracts include detailed instructions for different degrees of difficulty. Each degree of difficulty is associated with increasingly detailed and complex responses. Of the three options, performance contracting is inherently the most complex because of the baseline data and analytical requirements to set the metrics for payment and success. As a result, there is no such thing as an “easy” performance contract.

It is important to note that “easy” does not mean that designing the procurement or defining the terms will be easier. Getting simpler responses that make it easier to evaluate submissions, select winners, and define next steps on the back end of the process can (counter-intuitively) take significantly more work up front. The table on the next page offers some additional context on how to interpret the degree of difficulty markers in the template to get the best responses.



EASY

THE GOAL

Get high-quality ideas/proposals presented at the 50,000-foot level. Limit responses to 5-10 pages each. Seek responses designed to inspire and inform. Know that these submissions are unlikely to include enough info to generate a detailed scope of work for a follow-on contract. Be aware that additional steps are likely required to get to an RFP or contract.

Use as many multiple choice, short-answer questions (with word limits), as possible. Constrain the amount of information to the absolute essentials.

Minimize need for detailed technical and/or financial review in early stage discussions of what ideas might work well. Stick to high-level descriptions.

Maximize the comparability of responses (try to get to apples-to-apples solutions and avoid apple-to-oranges or apples-to-skateboard comparisons).

MEDIUM

THE GOAL

Get high quality ideas at a level of detail that could be the basis for a follow-on procurement decision or near-term contract award. Solicit 10-30 page responses. Set clear limits on attachments and technical documentation.

Put clear boundaries around responses, but solicit specific details and request tightly framed technical information.

Manage the amount of detail received and the format to allow for comparability (e.g. putting ranges around budgets or cost-benefit information so information is provided in comparable formats).

Keep open-ended responses to a minimum.

HARD

THE GOAL

Get actionable submissions that can quickly move into traditional procurement processes and contract award(s). Ask for expansive responses (30+ pages). Encourage extensive appendices, attachments, and supporting documents.

Ask for as much detail as submitters are willing to provide (Note: unless you provide clarity and commitment on next steps, submitters do not have the incentive to send really thoughtful tailored responses. You are more likely to get lots of canned materials and attachments.)

Focus on open-ended responses, do not set strict word/page limits.

Specifically solicit new ideas outside of the proposed scope and suggestions for improvement, or local policy, legal regulatory barriers that would need to be addressed for proposed idea to move forward.

Insights & Lessons

The PRO Workshop brought forward some great general insights and lessons that are important for every city and utility seeking new procurement solutions. Below are our top ten insights and lessons from the process of developing and piloting the PRO Toolkit.

1 Don't Bury The Lede

Traditional RFPs are notoriously long, boring and confusing for potential bidders to navigate. Often the real meat is buried behind dozens of pages of boilerplate text. The best procurements all state their goals up front and outline clear and fairly simple steps for bidders to follow to submit a response.

2 Know What You Don't Want

Saying what you don't want is as important as saying what you do. Boston's Smart City RFI clearly outlines what is off the table.

3 Take A Wide-Angle View

RFIs, Competitions, and Performance Contracts all have the advantage of being results-focused, but solution-agnostic. Focus on solutions that meet the main goal(s), but stay open to even bigger wins and welcome submissions and solutions that create additional benefits.

4 Walk In A Bidder's Shoes

Bidders want to know why they should work with your city. Tell them. Make it compelling for them to put in the up-front time and resources to develop a proposal. Making sure that your ask is attractive to a wide-range of diverse bidders is well worth the up-front effort.

5 Look Beyond Your Budget

Most traditional procurement efforts are only initiated when funds or resources are available. If funds are limited, they also tend to favor lowest up-front cost solutions over outcomes that may have better long-term or life-cycle value. Framing the problem and procurement terms to include alternative finance goals can help draw forward solutions that have built-in business models for implementation.

6

Create A Welcome Mat

Responding to a traditional RFP takes time, resources, deep knowledge of city policies and procedures, and significant capacity. Therefore, large firms with long histories of working with cities are at a distinct advantage – every city has their “usual suspects” of design and engineering firms that tend to respond to any RFP they put out. Open the door for new and non-traditional bidders, by providing easy to navigate background information on your city’s current policies and programs, recent efforts, and available assets to level the playing field for new firms that have not yet worked with the city.

7

Show Your Work

Every bidder wants to work with a city that is an engaged and committed public partner. Transparency is key to building trust. Providing access to open data, planning sessions, and bidding conferences can help bidders better understand your needs and develop higher-quality, more tailored local solutions.

8

Take Down Unnecessary Hurdles

Public procurement rules were designed to protect taxpayer dollars from getting spent unwisely, but sometimes layers of protective rules can become so burdensome that they no longer serve the public interest. Find any rules or procedures that are regularly causing [delays](#) or bottle-necks and look for ways to remove unnecessary hurdles.

9

Get The Word Out

Announce, advertise, and distribute information as early and widely as legally possible. Developing great solutions takes time, and being able to start thinking and crafting an idea well in advance of when a formal procurement is issued improves the quality and diversity of bids.

10

Swing For The Fences

It’s easy to lose sight of the end goal when working through all the details of a procurement process. Make sure your problem framing and your procurement terms stay on track to get you closer to your ideal outcome rather than settling for some interim milestone.

Conclusion

Over the coming years, **cities of every size** will have a once-in-a-generation chance to shift toward cleaner, greener technologies and create more resilient communities. Some will unfortunately be forced to do so reactively after a major disaster, but others will have the opportunity to make proactive changes. In either case, in order to make this leap, cities and utilities must be able to design, procure, and build entirely new systems and solutions, even while existing procurement processes are more likely to steer decision-makers to the same outdated ‘pieces-and-parts’ approach.

The PRO Toolkit aims to give small and medium-sized cities and utilities seeking to build resilience a place to start to get to better outcomes sooner. In the water sector, it is easy to see first hand the difference between asking: “How can my utility get the best value on a new pumping station?” and “What options do we have for reducing flooding in our city?” Both questions could be the starting point for building resilience. They each frame an important problem, but the former presumes a narrow end outcome that limits possible solutions. The latter creates space for game-changing innovations in design, financing, and service delivery.

This subtle shift in how we think about procurement can make the difference between locking into old technologies and systems and bringing new ideas, new partners and new resources to the table to make progress on some of our nation’s most critical infrastructure, climate, equity, and resilience challenges. And that’s why every city should look at procurement as a cornerstone of resilience.



Anchorage, AK CITY SNAPSHOT

WATER UTILITY

Anchorage Water and Wastewater Utility (AWWU)

Population¹

298,192

Poverty Rate¹

6.3%

Average age of water assets²

~36 years

(half their useful lives)

Annual Average Temperature³

37.7° F

2017: 0.5° F above normal

Annual Total Precipitation³

18.7"

2017: 2.1" more

WORKSHOP FOCUS

The City of Anchorage and the Anchorage Water and Wastewater Utility (AWWU) are committed to providing high-quality water and wastewater services to the residents of Anchorage. In recent years, the city and utility have undertaken major efforts to update asset inventories and improve stormwater management. Participants used the PRO Toolkit to explore how procurement innovation could draw forward solutions and partners that can capture system-wide efficiencies and expand the use of green infrastructure.

PRO WORKSHOP PARTICIPANTS

Shaina Kilcoyne | Energy & Sustainability Manager, Solid Waste Service

Scott Wilson | Finance Director, Anchorage Water & Wastewater Utility

Data sources:

1. Population and Poverty data from [DataUSA.io](https://datausa.io) (Accessed: September 21, 2018)
2. [Anchorage Water and Wastewater Organizational Overview](#) (2017)
3. New York Times (Interactive): [How much warmer was your city in 2017?](#)



Camden, NJ CITY SNAPSHOT

WATER UTILITY

[Camden County Municipal Utilities Authority](#) (CCMUA)

Population¹

76,005

Poverty Rate¹

38.4%

Age of water assets²

~30-70 years

(storm and wastewater only)

Annual Average Temperature³

58° F

2017*: 2° F above normal

Annual Total Precipitation³

41.3"

2017*: -0.2" less

WORKSHOP FOCUS

CCMUA has catalyzed a variety of innovative partnerships to improve social and environmental outcomes in the 37 municipalities that it serves, including the City of Camden. The utility has been **recognized** as a leader in the field of green infrastructure for programs like the **Camden SMART** (Stormwater Management and Resource Training) Initiative. The PRO Workshop enabled participants to focus on another critical equity and resilience priority: how to measurably reduce lead exposure from drinking water in schools and homes of vulnerable Camden residents.

PRO WORKSHOP PARTICIPANTS

Andy Kricun | Executive Director, CCMUA

Scott Schrieber | Director of Administrative Operations, CCMUA

Data sources:

1. Population and Poverty data from [DataUSA.io](#) (Accessed: September 21, 2018)
2. [City of Camden Best Management Practices Plan for the Operation and Maintenance of the Combined Sewer, Separate Sanitary Sewer and Separate Stormwater Systems](#) (2015)
3. New York Times (Interactive): [How much warmer was your city in 2017?](#)
**data for Philadelphia, PA as the nearest available city*



El Paso, TX CITY SNAPSHOT

WATER UTILITY

El Paso Water

Population¹
683,088

Poverty Rate¹
22.1%

Average age of water assets²
~60 years
(BEA estimate)

Annual Average Temperature³
68.6° F
2017: 3.9° F above normal

Annual Total Precipitation³
10.1"
2017: 0.9" more

WORKSHOP FOCUS

In February 2018, the City of El Paso released a comprehensive [resilience strategy](#) to address a variety of climate and equity priorities, including extreme heat, drought, flash flooding, and related infrastructure system challenges. Through the PRO Workshop participants explored options for expanding the use of green infrastructure and green water management solutions in ways that create benefits and improvements for ongoing maintenance operations, and ideally, can be paid for through system-wide maintenance savings.

PRO WORKSHOP PARTICIPANTS

Lauren Baldwin | Sustainability Coordinator, City of El Paso

Rebecca Morales | Contract Development Coordinator, City of El Paso

Kevin Smith | Capital Improvements Program Administrator, City of El Paso

Data sources:

1. Population and Poverty data from [DataUSA.io](#) (Accessed: September 21, 2018)
2. Fullerton, Thomas M. Jr.; Monzón, Azucena González; and Walke, Adam G., "Physical Infrastructure and Economic Growth in El Paso: 1976-2009" (2013). [Border Region Modeling Project. 3.](#)
3. New York Times (Interactive): [How much warmer was your city in 2017?](#)



Gary, IN CITY SNAPSHOT

WATER UTILITY

Gary Sanitary District & Indiana American Water

Population¹
77,858

Poverty Rate¹
35.9%

Average age of water assets²
~30-50 years
(state-wide estimate)

Annual Average Temperature³
53° F
2017: 3.6° F above normal

Annual Total Precipitation³
26.3"
2017: -14.4" less

WORKSHOP FOCUS

Under the leadership of Mayor Freeman-Wilson, the City of Gary has pursued a variety of economic development and social and environmental **initiatives** to **revitalize** its post-industrial legacy. Much of the city's infrastructure was designed for a peak population of ~178,000 (in 1960) and is not well suited to meeting the needs of a community less than half that size today. Using the PRO Toolkit, participants explored how performance-based solutions and public-private partnerships could enable the city to improve affordability for vulnerable residents, address deferred maintenance priorities, and help "right-size" storm and wastewater systems over the longer-term.

PRO WORKSHOP PARTICIPANTS

Joe van Dyk | Executive Director, Gary Redevelopment Commission

Karla Henderson | Interim Commerce Director, City of Gary

Brenda Scott-Henry | Director, Green Urbanism, Environmental Affairs, City of Gary

Data sources:

1. Population and Poverty data from [DataUSA.io](https://datausa.io) (Accessed: September 21, 2018)
2. [Evaluation of Indiana's Water Utilities An Analysis of the State's Aging Infrastructure](#) (Indiana Finance Authority, 2016)
3. New York Times (Interactive): [How much warmer was your city in 2017?](#)

Imperial Beach, CA CITY SNAPSHOT



WATER UTILITY

City of Imperial Beach Department of Public Works & [California American Water](#)

Population¹
27,180

Poverty Rate¹
19.5%

Age of water assets²
13-66 years
(oldest pump stations are
15+ years past their useful lives)

Annual Average Temperature³
66.1° F
2017*: 2.5° F above normal

Annual Total Precipitation³
7.9"
2017*: -2.0" less

WORKSHOP FOCUS

The City of Imperial Beach is the southernmost city on the West Coast of the US. As a primarily residential coastal community, the City's main focus is on local economic development and addressing related challenges of tidal flooding, sea-level rise, and cross-border water pollution issues at the US-Mexico border. In recent years, the City has pursued an ambitious program of green stormwater infrastructure and capital improvement projects. Through the PRO Workshop, participants explored how to approach the redevelopment of Seacoast Drive (a major local thoroughfare), in a way that integrates sea-level rise and tidal flooding resilience measures.

PRO WORKSHOP PARTICIPANTS

Steve Dush | Assistant City Manager/Community Development Director, City of Imperial Beach
Chris Helmer | Environmental and Natural Resources Director, City of Imperial Beach

Data sources:

1. Population and Poverty data from [DataUSA.io](#) (Accessed: September 21, 2018)
2. [Sewer Service Charge and Capacity Fee Study: Prepared for City of Imperial Beach](#) (Atkins, 2013)
3. New York Times (Interactive): [How much warmer was your city in 2017?](#)
*data for San Diego, CA as the nearest available city

Norfolk, VA CITY SNAPSHOT



WATER UTILITY

City of Norfolk Utilities Department & Hampton Roads Sanitation District (HRSD)

Population¹
245,724

Poverty Rate¹
21.0%

Water system²
**Major treatment plants
originally built in 1890 and 1920**

Annual Average Temperature³
63.1° F
2017: 2.9° F above normal

Annual Total Precipitation³
49.2"
2017: 2.6" more

WORKSHOP FOCUS

The City of Norfolk is committed to becoming a national leader in **coastal resilience**. Through the PRO Workshop, participants identified options for addressing high-priority climate, resilience and equity challenges, including sea-level rise, tidal flooding, extreme rainfall, storm surge, and land subsidence. Using the Toolkit, the group focused on procurement pathways for attracting cost-effective dynamic flood management solutions for priority redevelopment areas, such as the St. Paul district, that can be replicated and scaled to achieve city and system-wide resilience benefits.

PRO WORKSHOP PARTICIPANTS

Wynter Benda | Chief Deputy City Manager, Infrastructure, Planning, Utilities, City of Norfolk

Richard Broad | Director, Department of Public Works, City of Norfolk

Kristen Lentz | Director of Utilities, City of Norfolk

Data sources:

1. Population and Poverty data from [DataUSA.io](https://datausa.io) (Accessed: September 21, 2018)
2. [City of Norfolk Water Revenue Bonds—History and Overview of the System](#) (Series 2018)
3. New York Times (Interactive): [How much warmer was your city in 2017?](#)



Providence, RI CITY SNAPSHOT

WATER UTILITY

Providence Water

Population¹

178,851

Poverty Rate¹

28.2%

Age of water assets²

10-90 years

Annual Average Temperature³

52.9° F

2017: 1.2° F above normal

Annual Total Precipitation³

48.9"

2017: 1.7" more

WORKSHOP FOCUS

Like many older cities, the City of Providence and Providence Water face a variety of resilience and equity challenges associated with aging assets, including the replacement and upgrading of lead pipes and service lines. In May 2018, the city and utility announced a new 3-year 0%-interest loan program to help residents replace privately-owned lead service lines and fixtures on their properties. Using the PRO Toolkit, workshop participants explored options for enhancing these ongoing efforts, streamlining testing and analytics, and attracting new sources of performance-based funding, including public health resources.

PRO WORKSHOP PARTICIPANTS

Michael Borg | Director of Public Works, City of Providence

Gregg Giasson | Deputy General Manager, Providence Water

Molly Hannon | Purchasing Director, City of Providence

Data sources:

1. Population and Poverty data from [DataUSA.io](https://datausa.io) (Accessed: September 21, 2018)
2. [Providence Water 20-Year Infrastructure Replacement Plan 2016-2035](#) (December 2015)
3. New York Times (Interactive): [How much warmer was your city in 2017?](#)

Problem Statement Madlibs

The **Ansari X Prize** is a great example of a tightly framed problem. This prize “challenged teams from around the world to build a reliable, reusable, privately financed, manned spaceship capable of carrying three people to 100 kilometers above the Earth’s surface twice within two weeks” to jumpstart commercial space travel.

Using this example, consider how you can refine or reframe your city or utility’s target problem to create the space for game-changing solutions while still making sure the results you receive are useful for your end goal. Use the madlibs below as inspiration to define:

1 What is the end goal you are trying to achieve? Make sure you are focusing on a root cause not a symptom of a problem. For example, if your priority is green infrastructure, ask why. To reduce flooding? Add green space?

2 Who benefits if it happens? When? Where? Be as specific as possible.

3 If you get stuck, flip the problem around. Think about why this problem isn’t already being addressed. What (or who) is the main barrier? How can you frame your problem to directly address their concerns?

The _____ is seeking _____ ,
Your City/Utility Name Adjective

_____, _____ solutions to _____
Adjective Adjective Noun/Phrase (Problem)

Noun/Phrase (Problem) con't

in our community and water system for _____
Noun/Phrase

by _____ .
Noun/Phrase



DIRECTION

Circle the number next to each response that best matches your city and/or utility's current situation.

DATA

How much baseline data and/or technical information do you have available about the problem you are trying to solve?

- 1** **VERY LITTLE** – enough to know we have a problem, but not enough to measure how much or what impact specific solutions might have
- 2** **SOME** – we have data on key metrics related to the problem and options for reducing negative impacts, but we still have big data gaps
- 5** **LOTS** – we have historical and current data and have done significant analyses on this problem and potential solutions to date

RESOURCES

Do you have a budget or funding available to address the problem?

- 1** **VERY LITTLE** – we have no budget for this issue or the amount of money we could pull together is tiny compared to the scale of the problem
- 2** **SOME** – we have already dedicated some resources, but the funding available is limited relative to what is needed for full implementation
- 3** **LOTS** – we have significant resources available (or anticipated) and are looking for how get the best value or results for our money



RESOURCES CON'T

How much flexibility do you have to offer non-monetary incentives in your current procurement processes? Consider options like access to demonstration sites, asset and data ownership, etc.

- 1** **VERY LITTLE** – our local and/or state procurement requirements are very rigid and we do not offer any incentives outside of awarding contracts
- 2** **SOME** – we have tried different types of incentives in the past but have reservations about how they could apply to this problem
- 3** **LOTS** – we have experimented with different types of procurement approaches and want to extend that to new problems and challenges

SCORE

Add up the numbers inside all of your circles above.
Note that **LOTS of DATA** is a score of 5!

TOTAL _____



DIRECTION

Circle the letter next to each response that best matches your city and/or utility's current situation.

CAPACITY

What level of staff capacity is available to address this problem?

- L** **LOW** – this is no single person's job or responsibility or it is a small part of a few people's jobs, but there is no clear mandate or leader
- M** **MEDIUM** – there is at least one internal staff person or manager responsible for the issue with clear and respected decision authority
- H** **HIGH** – there is a designated leader responsible for this issue with dedicated staff, resources, and/or time to find/implement solutions

How much internal technical capacity or external technical consultant support do you have access to for resolving this problem?

- L** **LOW** – we have very limited technical staff and/or consultants available to evaluate this problem or proposed solutions
- M** **MEDIUM** – we don't have dedicated technical staff on this problem now but can readily pull in technical staff/consultants, as needed
- H** **HIGH** – we have a technical team dedicated to supporting work on this problem and can easily engage multiple departments as needed



CAPACITY CON'T

What level of legal/finance/procurement expertise is available to your city/utility?

L **LOW** – our staff are stretched thin with day-to-day responsibilities and have limited time/ experience with new initiatives

M **MEDIUM** – we have in-house experts/advisors on hand who could confidently evaluate novel contract terms and structure new deals

H **HIGH** –our legal/finance/procurement team has significant experience with innovative approaches and transactions

SCORE

Count how many of each letter is circled and mark the total on your scoring card.

L _____

M _____

H _____



TOTAL

3 - 5

Request for Ideas

6 - 8

Competition/Challenge

9 - 11

Performance Contract

Your total score from Page B-2 matches the procurement tool that is the best fit for your city/utility and the problem you are trying to solve.

TOTAL

L

EASY

M

MEDIUM

H

HARD

On Page B-4, the letter with the most circles is the level of difficulty that matches your capacity. Follow the instructions associated with the level of difficulty on the right for each building block in your recommended procurement tool template.

TWO IMPORTANT NOTES

- 1 There is no such thing as an easy performance contract. If your total score from page B-2 is > 9 , but you circled L (for low capacity) for the majority of the questions on Pages B-3 and B-4, you'll need to follow the instructions for the Medium level of difficulty or revisit your answers on Pages B-1 and B-2 to make sure they align with your responses to the capacity questions.
- 2 If your city or utility has a wide range of capacities in different departments, and your score was 1 for each level of difficulty, then follow the instructions for the Medium level of difficulty throughout your template.



REQUEST FOR IDEAS / INFORMATION (RFI)

An open call for ideas and/or information based on one or more challenges put forward by a city or utility. The main building blocks of a basic RFI include:

- 1** **PROBLEM STATEMENT**
What we are trying to solve.
- 2** **GOALS**
Why we are trying to solve this problem and by when.
- 3** **INCENTIVE FOR PARTICIPATION**
Why you should send us your ideas.
- 4** **SUBMISSION**
What we want to hear from you.
- 5** **FOLLOW-UP**
How we will use submissions and what's next
(set expectations about any eventual path to procurement).

PROBLEM STATEMENT

Write your one sentence problem statement from your Problem Statement Madlibs (A-1) below.



GOALS

Provide more detail on the challenge/problem that you are soliciting ideas/info to help solve, why, and by when. Use the space below to make notes and outline what you are trying to achieve. Don't prejudge solutions! Think about your success metrics and what kinds of ideas and partners would be most helpful to solving the problem above. The length and level of detail of your summary should set an example for the level of detail you are requesting from submitters. For example, do not provide 20+ pages of context on your city and then expect submitters to describe their idea in 1 page.

EASY

Keep your goals specific and targeted. Description should be ~2-3 paragraphs and set an example for what you want back from submitters for their overview.

MEDIUM

State your problem clearly in 1-2 bolded sentences, and then provide more background information, context, and summary statistics on key metrics.

HARD

Provide a short executive summary and then offer more background in context in well-organized sections with additional links and technical documents, as needed, about your city or utility's operations, history, needs, etc.

NOTES

Expand on your problem statement. What is the specific challenge/problem that you are soliciting ideas/info to help solve? Why (main drivers/priorities)? By when? (e.g. how much urgency is there? Is this a long-term effort or do you need immediate solutions?)

.....

.....

.....

.....

.....



INCENTIVE FOR PARTICIPATION

Provide a brief description/bullets on why a submitter would want to work with your city and/or utility. State clearly what you are bringing to the table and why you are doing an RFI now. Make it exciting! Describe any non-monetary incentives.

EASY

Keep descriptions short and exciting. Set an example for what you want back. Refer to [King County, WA RFI](#).

MEDIUM

Short narrative, bullets on key incentives. See [Boston Smart City RFI](#).

HARD

Do the up-front work to decide what you are offering (funds/incentives) and clearly state if there is a path to procurement. See [Philadelphia Green Acres RFI](#).

NOTES

Area with horizontal dotted lines for notes.



SUBMISSION

Provide simple and clear instructions to submitters. The more specific the questions, the better. Focus on what information will best help you understand, assess, and compare ideas. The key is to only ask for what you can use well. Match the level of detail you ask for to your capacity to evaluate proposals. If you have an intern or a fraction of time of a busy senior executive, you do not want to receive multiple 200-page submissions. However, if you have an eager technical team looking for deep technical innovation, then by all means, ask for tons of supporting documents!

EASY

MEDIUM

HARD

	EASY	MEDIUM	HARD
Summary/Overview	Ask for the elevator pitch. Set a strict word limit.	Encourage creativity, but keep responses comparable and contained (1-3 pages).	Sky's the limit. Encourage wild ideas. No tight word or page limits.
Target Applicants / Eligibility Criteria	Briefly describe your ideal applicant or submitters (e.g. teams, firms, individuals, non-profits, etc.)	+ Bullets on any specific characteristics or qualities you value, e.g. any requirements for specific types or levels of expertise?	+ Any legal or other requirements that would emerge in transitioning to an RFP (e.g. credentials, registrations, vendor approvals).
Firm Qualifications / Relevant Experience	Multiple choice questions, e.g. How many years has your firm been in business? Have you ever operated in this region/market? (Y/N) Names/links to similar recent projects.	+ Optional attachments on firm history, signature projects, and key personnel.	+ Full qualifications document with CVs of key personnel and examples of signature projects and awards. Consider up front how you will compare diverse submissions.
Deployment / Implementation Plan	Word limited short description, encourage bulleted responses	+ Limited narrative response. Ask for relevant details to assess viability	+ Consider breaking down into phases (see Philadelphia Green Acres RFI)



	EASY	MEDIUM	HARD
Stage of Development	Multiple Choice e.g. What stage of development is your proposed idea? - R&D - Pilot - Deployed in 1+ locations - Commercially available	+ Option for short written response (word limit) on deployment history/potential	+ Open-ended written response and attachments on examples of where implemented/in progress
Technical Specifications	N/A	Short fill-in the blank question, e.g. what are your top three metrics of success?	+ Detailed project design specs and relevant supporting documentation
Budget / Business Model or Plan	Short fill-in the blank or multiple choice question to get a sense of scale and viability.	+ Word-limited short answer space to describe who pays, under what conditions, how much	+ Attach a full business plan with anticipated costs, projected value created, and a description of how revenues/benefits will be captured.
Benefits to City/Utility	Multiple choice on range (e.g. \$ value) of anticipated benefits	+ Short narrative description	+ Detailed benefits projections with justifications
Timeframe	Write-in response	Short description	Detailed timeline
Legal Considerations	Multiple choice, check-all-that-apply legal considerations	+ Word-limited short answer space for description of potential barriers	+ Detailed questions, e.g. credentials to provide services for regulated industries
Input—Anything we missed?	N/A	Short answer, open-ended with word limit	Open-ended question: what could we ask/do better?



NOTES

Summary/Overview	
Target Applicants / Eligibility Criteria	
Firm Qualifications / Relevant Experience	
Deployment / Implementation Plan	
Stage of Development	
Technical Specifications	
Budget / Business Model or Plan	
Benefits to City/Utility	
Timeframe	
Legal Considerations	
Input—Anything we missed?	



FOLLOW-UP

Set clear expectations for how you close the RFI process and share results. Describe how you will use and evaluate the information received, what submitters can expect, by when, and what, if any, path to eventual procurement is available. Consider how your choices might change the responses received. For example, companies may not want to submit detailed information about proprietary technologies or methods if submissions are going to be published online.

Remember, responding to an RFI well is a lot of work for a submitter. Lack of clarity about how ideas will be used or shared can discourage submitters and limit the value of participation in future calls for proposals/ideas. You don't want to give the impression that you are just getting free work without a path to engage submitters more meaningfully.

EASY

Focus on what you can do well. Don't overpromise. Set conservative timeframes for evaluation and notification, and manage expectations tightly about next steps.

MEDIUM

Match your review, evaluation, and notification processes and timeframe with the incentive(s) that you are offering. Are there key deadlines to consider?

HARD

Establish a clear process that matches the path to procurement outlined in the Incentives section. Consider relevant financial/budget timeframes for decisions.



NOTES

Notification process

How do you want to notify submitters that their proposals have been received (e.g. auto-response)? How do you want to notify submitters / the public what ideas are being considered for further action (e.g. post all responses publicly / online)?

Process for evaluation/ notification

Decide who reviews responses (e.g. staff, evaluation committee, public jury). Describe how ideas will be evaluated and compared. Set a clear and pragmatic timeframe for both evaluation and notification that can be communicated up front.

Interim steps?

For example, do you want to conduct interviews or do on-site demos?

Setting expectations for what comes next

For submitters, what is the path to procurement (e.g. demonstration opportunities, follow-on RFPs, awards, contracts, etc.)?



COMMUNICATIONS PLAN

Think hard about how you will disseminate your RFI. Posting a procurement on your city's website is not enough. You need develop a thoughtful multi-pronged plan in order to reach a wide range of high-quality submitters and build enthusiasm for your problem and community.

NOTES

Distribution Channels

How will you get your RFI out there to a regional/national/global audience? Media, social media, community meetings, email, events, direct outreach, other options? Be specific about how you will engage each of these channels.

Partners / Amplifiers

Who can help you reach a broader audience and engage more high-quality applicants and submissions? Local partners, regional and national influencers, philanthropies, other supporters?

Online & Social Media Strategy

Who will manage this process? How will you engage with questions and make sure everyone gets relevant information and updates?

Gaps to Fill

Think about who you might be missing and what other options are available to reach them to draw the best possible solutions forward for your city/utility.

Questions? Set a clear point of contact and provide instructions for reaching out.



BOILERPLATE

Request any other missing information, including administrative details, points of contact, legal requirements, and other content in your standard procurements. Where possible, move all boilerplate text to the end of the document, almost like an appendix or reference material. This content should not distract reviewers from focusing on the problem/idea. It should also be easily removed/excerpted to spare reviewers and evaluators from having to slog through repeated text. Make it easy on yourselves to excerpt parts the key parts of submissions and send to appropriate/relevant staff and technical experts for evaluation.

SNAPSHOT

Use all of the decisions and choices you've made in the sections above to fill out the snapshot below. This will serve as the basis for presenting your RFI to relevant colleagues so you can get feedback on what elements of your RFI are likely to encourage (or discourage) great ideas and attract high-quality submitters.

The _____ is seeking innovative ideas & solutions
Your City/Utility Name

to [inform / address / reduce / manage] _____ in _____
Goal Location(s)

by _____. We are calling all _____
Timeframe Ideal Applicants/Submitters

to send your ideas by email to _____ by _____.
Program POC Due Date

[Submitters will [receive / be eligible for] _____]
Non-monetary Incentive (if applicable)

All submissions will be _____
How results will be used/shared

by _____. Questions? We want to hear from you at _____!
Notification Timeframe (e.g. X months) General Contact Email



COMPETITION / CHALLENGE

An open call for solutions based on a bold problem with a specific incentive or prize for one or more winning entries. The main building blocks of a competition include:

- 1 Problem Statement**
What we are trying to achieve.
- 2 Incentive or Prize**
What winners will receive.
- 3 Performance Metrics**
What the key parameters or markers are for success.
- 4 Evaluation Criteria**
How entries will be evaluated, including the process for assessing and reviewing submissions and any interim steps preceding final awards.
- 5 Award Process**
How winner(s) are determined and awards made.

PROBLEM STATEMENT

Write your one sentence problem statement from your Problem Statement Madlibs (A-1) below. Is it ambitious enough to spark interest from innovators in the field? If not, zoom out, be bolder.



INCENTIVE OR PRIZE

First, consider what resources you have available and start with a basic outline of the scale and type of prize you are willing and able to offer. For example, what is the maximum prize (monetary, non-monetary, or a combination) that your city or utility could realistically bring to the table? Don't get stuck on your existing resources. Think broadly about local partners, philanthropies, or companies who would also benefit from finding a solution to this problem that could provide a match or complementary incentive. Gut-check your prize options with relevant colleagues. Make sure your prize options match both your available resources and the scale of the problem you are trying to solve. Both the challenge and the prize have to pass the laugh test to attract serious submissions from teams that are qualified to implement replicable and scalable solutions.

Type of Award(s)

Monetary or non-monetary? What would make someone want to win?

Size of Award(s)

SOLUTION PARAMETERS

Refine your problem statement by adding specific metrics of what a successful solution must achieve or demonstrate. Start with the basic who, what, when, where and why of your prize. Similar to the X-Prize example, keep the parameters straightforward. Set a high bar for success, but avoid jargon. Use plain, easy to understand language to attract the widest range of qualified applicants. Make sure you don't frame your solution set so broadly that there are already tried and tested options available. Similarly, avoid framing so tightly that no possible solution exists, for example, "replace all failing pipes for free."

Think about the additional resources required on top of the total prize/incentive amount to support the staffing needs and evaluation activities for each level of difficulty below.



EASY

Keep the competition timeframe short. Submissions should be “paper solutions” with potential for near-term implementation, replication, and scale up. Refer to the submission requirements in the RFI Template to set submission terms/forms.

MEDIUM

Consider a longer competition that results in multiple small-scale demonstrations or pilots of proposed solutions. Significant up front work will be required to identify and designate demonstration site(s), timeframe for operation, terms of installation and de-installation, and other relevant legal protections.

HARD

Invest in the design of a multi-phase competition with awards at interim points to reach full, working, installed solution(s). Consider what is required in terms of consultant support and/or coordination with relevant agencies/ departments to build, install, and validate solutions over the full timeframe of the competition.

Metric/Marker	Ansari X-Prize	Your Competition / Challenge
Who	Teams from around the world	Who are your ideal applicants? Are there any major eligibility criteria that you want to set (e.g. engineers licensed in the state)?
What	A reliable, reusable, privately financed, manned spacecraft	What would you want applicants to submit (on paper), demonstrate/pilot, or install/build? Set terms of submissions. Think about who bears up-front cost of delivering solutions especially for non-winners, and consider if the cost/risk is in line with the prize/incentive you are offering.
How much/many	Carry a minimum of three people	Set clear and high bars for both performance (min) and cost (max)
Where	100km above the Earth's surface	What locations would want this solution to be applied (e.g. a neighborhood, all schools)?
When / By when / How long	Twice in two weeks	Is there a deadline? How long must a solution work for it to be a success?
Why	To jumpstart the private/commercial spaceflight industry	Consider your goals. Why is this problem/solution important to your community?



NOTES

Who	.....
What	.....
How much/many	.....
Where	.....
When / By when / How long	.....
Why	.....



EVALUATION CRITERIA

Provide simple and clear criteria for how a winner or multiple winners will be selected.

	EASY	MEDIUM	HARD
Performance	Comparative best solution from among all submissions for specific metrics.	Set tiers or multiple thresholds for success. If no solutions qualify, no awards made.	Single parameter / minimum threshold. Awards only made if/ when solution meets threshold.
Cost	Least-cost solution.	Weighted cost- benefit evaluation.	Highest value solution based on public value created (monetary and non-monetary).
Communities Served	Meet pre-defined coverage/service area requirements.	Rank proposals based on how much of a predefined area is served by solution.	Add success metrics tied to specific populations (e.g. low- income households).
Other Benefits Created	Open-ended qualitative responses.	Ask for simple metrics that can be easily compared across submissions.	Request quantitative benefits estimates for comparative evaluation.

NOTES

Performance	
Cost	
Communities Served	
Other Benefits Created	



INCENTIVE OR PRIZE AWARD PROCESS

Set clear expectations of the evaluation and award process. Describe who does the evaluation and how. Consider what happens if you have multiple submissions that all meet the criteria. Who wins? The first to the finish line? Don't leave any room for confusion. Think carefully about how you will work with your procurement and legal teams to execute your challenge effectively.

EASY

Single, one-time award for the first team that meets all evaluation criteria.

MEDIUM

Multiple winners, option for tiered prizes (1st, 2nd, 3rd place) with terms for smaller awards for meeting partial success thresholds.

HARD

Multiple phases of sequenced awards corresponding to pre-defined deliverables and/or tiers of awards based on partial successes, meeting key milestones, or addressing needs in part of a larger service or coverage area.

NOTES

Number of winners

Timeframe for submission(s)

Timeframe for evaluation

.....
Define the terms of submission and state all interim and final deadlines.

.....
Set clear expectations. Do you want a single-track process where all submissions are compared or an open process where rolling submissions considered as they meet all established thresholds?



NOTES CON'T

Timeframe for notification

Interim steps (if any)

Evaluation Committee / Review Board / Jury

Process for announcing winners & making awards

Who will review submissions? What are their qualifications to evaluate/select?
How will communities/residents be engaged?

Consider how public you want the review and award process to be and what would offer the highest value to both submitters and eventual winners.
Ceremony? Publicity/Media? Ribbon-cuttings? Other events?



COMMUNICATIONS PLAN

Think hard about how you will disseminate your competition/challenge. Posting a competition announcement on your city website is not enough. You need to develop a thoughtful multi-pronged plan in order to reach a wide range of high-quality submitters and build enthusiasm for your problem and community.

NOTES

Distribution Channels

Who will review submissions? What are their qualifications to evaluate/select?
How will communities/residents be engaged?

Partners / Amplifiers

Who can help you reach a broader audience and engage more high-quality applicants and submissions? Consider local partners, regional and national influencers, philanthropies and other supporters.

Online & Social Media Strategy

Who will manage this process? How will you engage with questions and make sure everyone gets relevant information and updates?

Gaps to Fill

Think about who you might be missing and what other options are available to reach them to draw the best possible solutions forward for your city/utility.

Questions? Set a clear point of contact and provide instructions for reaching out.



BOILERPLATE

Provide clear information about any legal or technical requirements, especially for installed solutions. For example, do applicants/submitters need to carry insurance to demonstrate solutions? Make sure you are especially clear about liability and intellectual property. Move all boilerplate text to the end of the document, almost like an appendix or reference. This content should not distract reviewers from focusing on the problem/idea. It should also be easily removed/excerpted to spare reviewers and evaluators from having to slog through repeated content in text submissions. Make it easy on yourselves to excerpt parts the key parts of submissions and send to reviewers for evaluation.

SNAPSHOT

Use all of the decisions and choices you've made in the sections above to fill out the snapshot below. This will serve as the basis for discussion with relevant colleagues so you can get feedback on what elements of your competition are likely to encourage (or discourage) great ideas and attract high-quality submitters.

The _____ is offering _____
City/Utility and/or Competition Sponsor's Name Prize/Incentive

to any _____ that can _____
Who / Eligible Applicants What

by _____. The deadline for all submissions is _____.
When Closing Date

The winner(s) of the _____ will be selected by _____.
Name/Brand of Competition Evaluators

for the solution(s) that best delivers _____.
Performance, Cost, and Other Markers of Success

Winners will be announced on _____ and recognized at _____
Competition End Date

_____. Questions? Contact us at _____.
Type of Event General Contact Email



PERFORMANCE CONTRACT

A form of agreement or contract where full or partial payments are linked to achieving specific pre-stated measurable project benchmarks or verified outcomes. The basic building blocks of most performance and outcome-based contracts (e.g. resource-efficiency agreements, Pay-for-Success, Social Impact Bonds, and Environmental Impact Bonds) include:

1 Background & Context

Scope of the problem to be addressed.

2 Partners

Who are the key players required to create/deliver a successful outcome.

3 Performance Metrics

What are the measurable benchmarks that correspond with the quantity and quality of desired outcomes and long-term goals.

4 Verification Process

How performance will be assessed, by whom, and when.

5 Payment Terms

How payments will be made based on performance metrics.

PROBLEM STATEMENT

Write your problem statement from your Problem Statement Madlibs (A-1) below. Where possible, add specific quantitative markers of success to your statement, e.g. reduce X by date Y.

.....

.....

.....

.....



BACKGROUND & CONTEXT

Unlike RFIs or competitions, performance- and outcome-based agreements are rarely initiated solely by cities or utilities. Instead, this procurement path requires significant up-front work and strong relationships with a core group of partners to collaboratively develop and iteratively refine contract terms—this is true even if there are aspects of traditional procurement processes that are used to competitively select service providers. This section should serve as a touchstone for all partners to stay focused on the same goals over time.

Expand on the problem statement written above: describe why you're trying to solve the problem, by when, and what success looks like. Provide essential baseline data (population, current system performance, geography, etc.) as an anchor for considering how to create performance improvements. Describe key stakeholders who need to be involved, including city departments, permitting agencies, community organizations, and others. Use the space below to make notes. Remember there is no such thing as an "easy" performance contract.

MEDIUM

Summarize your problem and desired outcomes clearly in 1-2 bolded sentences, provide more context in a supporting narrative, create a single page table of summary statistics with baseline data on relevant metrics.

HARD

Provide a short executive summary, offer more context in well-organized sections, attach or link to major relevant databases or data sets and technical documents.

NOTES

Expand on your problem statement. Think hard about your success metrics. Consider any data gaps that might limit your ability to set or measure performance over time and options for filling those gaps. Be up-front about potential obstacles early in the process.



PARTNERS

Performance and outcome-based procurements typically involve multiple collaborating organizations with defined roles and responsibilities corresponding to specific contract terms. Consider who the relevant players are in your city/region and what incentives they have to engage in a performance-based agreement with you. Focus on the core team—the essential organizations, funds, and services that you need to get started. Once you have a core team in place, other partners can be recruited directly or solicited competitively.

	PARTNER	ROLE/MOTIVATION	THINGS TO CONSIDER
Core Team	Government Champion / Buyer	Provides the impetus and support for the project & can put up some or all of the up-front capital for implementation	Why are you interested in pursuing this project? What benefits do you expect to create for your city/utility and the communities you serve?
	Up-Front Funder(s)	Support for up-front costs. Ideal sources are philanthropic grants, government funds, or in-kind contributions of technical assistance.	Who else is invested in finding solutions alongside you? Are there partners (foundations, banks, businesses) you could engage to provide up-front financial support?
	Specialist(s) / Consultant(s)	Supports a buyer with technical and process assistance in aligning stakeholders, analyzing data, setting terms & structuring the complete process through the final transaction & evaluation	Who has the data analysis, technical, and financial expertise you need to address the problem you are trying to solve? Are there local experts who could support the effort? Consider national firms, NGOs, academic institutions, or other organizations whose mission aligns with your objectives and think about how you would engage them early in the process.
Optional	Outcome Funder(s)	An Outcome Funder is generally not required for performance contracts where a government buyer commits to covering costs; however, this type of funder can be engaged to support “riskier” pay-for-success projects. Funders can include philanthropies, donors, or corporations.	Who else is invested in finding solutions alongside you and has clear incentives to commit to making final payments for successful outcomes alongside any government funders / buyer(s)?



PARTNERS CON'T ▼

PARTNER	ROLE/MOTIVATION	THINGS TO CONSIDER	
Additional Partners	Project Implementer / Service Provider	On-the-ground implementation partner responsible for delivering service specified by buyer	Who is currently delivering the best-available service associated with your performance goals (e.g. green infrastructure firms, technology firms, others)? How do you want to engage them? Consider what conventional and alternative procurement paths are available (e.g. RFQ/RFP)?
	Evaluator(s) / Verifier(s)	Third-party evaluator with technical expertise to assess outcomes	Who are the most respected and qualified experts to validate that key performance metrics have been met/sustained?
	Investors	Additional source(s) of up-front project capital	Do you want to use private capital? Consider your legal and finance options.



NOTES

Government Champion / Buyer	.....
Up-Front Funder(s)	.....
Specialist(s) / Consultant(s)	.....
Outcome Funder(s)	.....
Project Implementer / Service Provider	.....
Investors	.....



PERFORMANCE METRICS

Identifying relevant metrics and setting simple and clear benchmarks for success is hard. This section is intended to help your city/utility start the process of figuring out which metrics can meaningfully and measurably support your problem framing and goals. Start the process by thinking about where you already have data and what metrics/measures you have used to successfully assess similar existing or ongoing projects. It is important to note that regardless what metrics you identify in this process, significant additional work and analysis will likely be required to refine your metrics and set the appropriate thresholds for performance in collaboration with relevant partners.

	MEDIUM	HARD
Environmental Benefits	Define your service/coverage area and the environmental benefits you are aiming to create (e.g. volume of reduced CSOs, pollution, or flooding at point X). Prioritize metrics based on existing data sources.	+ Consider where you can expand the types of benefits considered and created with strategic data gathering and analysis, e.g. connecting reduced basement flooding to lower mold- related health incidence/costs.
Social Benefits	Identify one or more target populations within your service area (e.g. minority, low-income, unemployed, kids, elderly, etc.) and what improvements you would like to see for that population. Then consider what quantitative metrics are available to characterize those improvements over time.	+ Look for opportunities to align and achieve multiple outcome metrics, such as children’s health improvements and higher school attendance rates, for example, from lead reduction programs
Economic benefits	Identify target areas for cost-savings, resource efficiencies (e.g. reduced leakage/water loss, pumping/electricity costs, downtime/service interruptions).	+ Conduct analyses on historic budgets and system operations data to identify opportunities for capturing additional savings/efficiencies
Other?	N/A	Define what other benefits you would like to create (e.g. workforce development, health improvements). Decide if/how these should fit into broader contract terms (e.g. performance bonuses).



NOTES

Environmental Benefits	
Social Benefits	
Economic Benefits	
Other?	



VERIFICATION PROCESS

Ensure there is a consistent, replicable, and trusted method for verifying project outcomes at all appropriate points in the process. Consider who does evaluations/measurements, how the results are communicated or made public, and the cost and level of difficulty to complete the verification process effectively.

MEDIUM

Integrate verification into the service delivery process and budget (see Prince George’s County Performance Partnership in table below).

HARD

Engage independent, third-party verifiers who can review, spot-check, and validate internal monitoring and evaluation activities and results by partners.

	PG COUNTY PERFORMANCE PARTNERSHIP	YOUR PERFORMANCE CONTRACT
What	Reduce TMDLs to Chesapeake Bay	Consider which metrics should be evaluated, when, and how often over the life of a project.
How much/ many	Amount required to meet MS4 permit requirements	Describe process for assessing if thresholds (or specific performance tiers) were met. What kinds of monitoring tools/equipment will be used and how?
Who	Program Manager (Corvias) responsible for day-to-day operations and monitoring + periodic review by state & federal permitting agencies	Who has the relevant technical expertise to conduct evaluations? What kinds of verifiers are most likely to build trust with investors and other relevant stakeholders (e.g. internal experts versus independent evaluators)?
Where	Prince George’s County, MD – initial area of 2,000 acres	At what points (geographic locations) in the service or coverage area will measurements be taken and/or evaluations conducted.
When / By when / How long	Ongoing monitoring over life of 3-year partnership	How frequently do your key metrics need to be measured over time? Is there an end date or deadline for meeting all performance outcomes?
Why	Protect the Chesapeake Bay, meet EPA Clean Water Act requirements, and make better use of taxpayer dollars for environmental protection and workforce development	Revisit your long-term goals. How will the verification process reinforce if/how you are making progress toward these goals and enable you to communicate the results?



NOTES

Who	.....
What	.....
How much/many	.....
Where	.....
When / By when / How long	.....
Why	.....



PAYMENT TERMS

Describe how funders, investors, and service providers will be paid once outcomes are verified. Consider the total amount (proportion of your anticipated budget) required for each partner or service, consider the timing of payments, including which ones are up-front and which are contingent on outcomes, and the mechanics of how payments will be made consistent with your city/utility's legal and procurement requirements. The degree of difficulty is likely to be driven by legal and procurement requirements more than by internal capacity.

MEDIUM

Minimize the number of contracts required with your city/utility. Consider options for integrating all administrative functions including managing payments to all parties into an administrative specialist's or consultant's scope of work and service fee.

HARD

Contract all partners directly through government champion / buyer and establish individual contracts and payment terms.

EXAMPLE PAYMENT TERMS / OPTIONS

PARTNER	TYPE OF PAYMENT	TOTAL AMOUNT	TERMS
Specialist(s) / Consultant(s)	Fee for service	Pre-negotiated	Regular payment(s) for up-front and ongoing work, plus any transaction related fees
Project Implementer / Service Provider	Fee for service	Pre-negotiated	Up-front and/or ongoing payments to deliver service(s) or implement project for a pre-specified timeframe
Evaluator(s) / Verifier(s)	One-time payment	Pre-negotiated	Payment upon completion of review
Outcome Funder(s)	One-time payment	Based on performance contract terms	Contingent payment based on outcomes
Investors	One-time payment	Based on performance contract terms	Contingent payment based on outcomes



LEGAL FRAMEWORK

Establish a robust legal framework for partnership and contracting that clearly sets out all legal/technical requirements in plain language, including issues of liability, non-performance, and intellectual property. Because these are most likely going to be internal documents negotiated among all the partners and parties in a transaction, rather than public information released with an RFI or Competition, the format is less important than content and clarity.

SNAPSHOT

Use all of the decisions and choices you've made in the sections above to fill out the snapshot below. This will serve as the basis for discussion with relevant colleagues so you can get feedback on what elements of your performance contract are likely to work well and support your desired outcomes, and where you can improve.

The _____ is pleased to announce a new partnership
City/Utility or Champion

with _____, _____, and _____ to [create / generate
Partner Partner Partner

improve / reduce] _____
Primary Intended Outcome(s)

for _____ in _____ by _____ .
Population Served Service Area Target Date

This innovative partnership is designed to deliver _____
Performance, Cost, Other Markers of Success

and _____'s payments will be based on verification of _____
Buyer Performance Metrics

The project will begin on _____ and run for _____
Start Date Timeframe

Results will be made available regularly via _____
Distribution Channel

Questions? We'd love to hear from you. Contact us at _____

