



How to get the best from civic tech projects

Codifying our learnings

JD Bothma | 20 July 2020

This title turned out much more lofty and ambitious than I intended. I don't mean that this encompasses all kinds of civic tech projects. It doesn't address all the challenges you will encounter on civic tech projects.

So what is this?

At OpenUp, we are always trying to work as effectively as possible. We have tried many different kinds of projects, different arrangements of people, and skill sets.

We each contribute different things based on our backgrounds and skill sets..

We also try to have regular retrospectives throughout a project's life, to reflect as a team and stakeholders, to raise concerns, frustrations and issues, and then try small changes to how we work and see if they address those problems.

What often happens is that the problem goes away - perhaps because the change we made sorted it out. Perhaps because the team is now just aware of it. Or attention has shifted.

To be sustainable, and even scale up, we have noticed the need to make the things we do that we believe are key to effective projects more explicit.

Only when we are explicit about what we are doing, can we be sure to apply those learnings across projects, and even validate that those activities are really the things leading to success.

So this comes out of that effort of looking at a lot of the things our gut says we should be doing, or that have brought us peace when we've introduced them

What's covered

- ▶ • Context: What does OpenUp do?
- Our fears?
- Key considerations
- Tools and approach
- Practical: try our approach
- Recap



**Who is OpenUp?
What do we do?**

“

A South Africa where citizens and government
are empowered to thrive, collaboratively

Vision

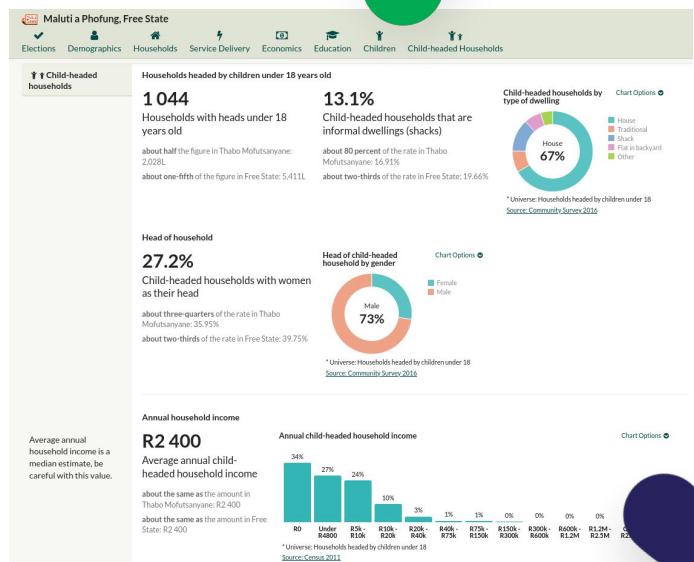
“
OpenUp seeks to empower
people and government,
through data, technology and
innovative-thinking,
to become active agents in
creating positive social change.

Mission

Wazimap

Accessible census data

- Based on CensusReporter
- No clear next step/action



wazimap.co.za/profiles/municipality-FS194-maluti-a-phofung

Municipal Money

Accessible fiscal data

- Contact details for leadership
- Easy to read indicators
- Missing data is data
- Next steps still unclear

058 718 3700
<http://www.map.gov.za>
Sesini Bus Centre
Cnr Motloung & Moremoholo
Phuthaditshwa
9866

MAYOR/EXECUTIVE MAYOR
Mrs MM Mosia
[+ CONTACT DETAILS](#)

MUNICIPAL CHIEF FINANCIAL OFFICER
Mr TF Mopane (Acting)
[+ CONTACT DETAILS](#)

DEPUTY MAYOR/EXECUTIVE MAYOR
Not Available

CHIEF FINANCIAL OFFICER
Mr LME Mahuma (Acting)
[+ CONTACT DETAILS](#)

Contact Details last updated: March 2020

Email municipality

Compare this municipality with another: Type a municipality name or address...

FINANCIAL PERFORMANCE

INCOME

SPENDING

HOUSEHOLD BILLS

RESOURCES

SHARE

TWEET

PRINT PDF



A quick introduction to Municipal Finance

FINANCIAL PERFORMANCE

Audit outcomes

2018
Outstanding
No report available

2017
Outstanding
No report available

2016
Qualified
[Read report](#)

2015
Disclaimer of opinion
[Read report](#)

DID YOU KNOW?
There are 5 types of audit outcomes.
[+ Learn about audit outcomes](#)

SOURCE: [Municipal Audit Reports](#)

Cash Balance July 2017 - June 2018

Not available

[What does this mean?](#)



Cash balance at the end of the financial year.



DID YOU KNOW?
A municipality's cash balance refers to the money in the bank account it can access easily. If a municipality's bank account is in overdraft it has a negative cash balance. Negative cash balances are a sign of serious financial trouble.

municipalmoney.gov.za/profiles/municipality-FS194-maluti-a-phofung/

CodeBridge Youth

Civic participation groups

- Meet where they are
- Opportunity to upskill
- Use existing processes
- In collaboration with municipality

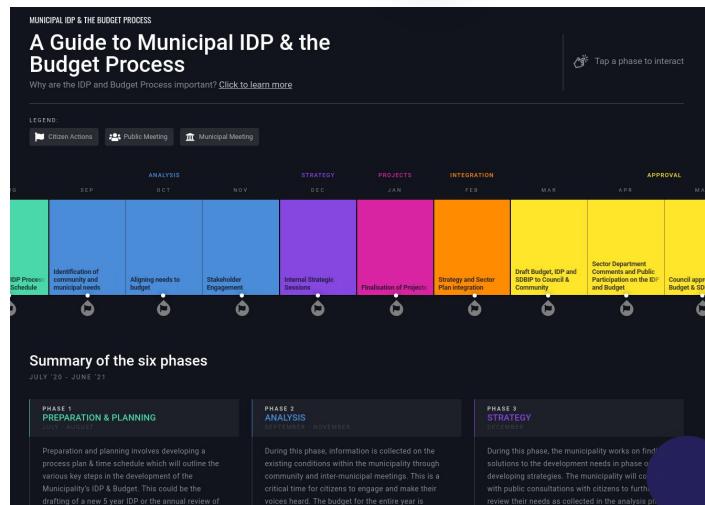
The screenshot shows the CodeBridge Youth website interface. At the top, there's a navigation bar with links for 'ABOUT', 'COMMUNITIES', 'EVENTS', 'CONTACT', and a prominent yellow 'JOIN A COMMUNITY' button. Below the navigation is a banner featuring a map of Matzikama with the text 'Matzikama WESTERN CAPE'. The main content area has a dark background. On the left, there's a section titled 'A safe and prosperous Matzikama' with a 'JOIN US ON SOCIAL MEDIA' link and a blue social media icon. To the right, a paragraph describes Matzikama's challenges and how the municipality is responding. Below this are two buttons: 'JOIN THIS COMMUNITY' (yellow) and 'UPCOMING EVENTS' (white). At the bottom, there's a section titled 'WHY YOU SHOULD JOIN' with three items: a megaphone icon for 'Work with other youth to make your voice heard on issues that matter', a building icon for 'Engage effectively with government to make things happen', and a crown icon for 'Work with others and become a leader in your community'.

codebridgeyouth.org.za/communities/matzikama

Local gov planning

Guide to the process

- Participation opportunities
- Legislated process
- Specific meeting dates?



“

At least, that's where we want to be.

Most projects should be
experiments.

Success is learning

How do we define success?

We are more upset about not knowing **whether** something has the intended effect, or not knowing **why** it does not have the intended effect, than we are about **not seeing the intended effect**.

Because by learning **as quickly as possible what doesn't work**, and perhaps why, we can more quickly **move on and try other things** that would have the intended effect.

To be really honest with you, we're really bad at this.

One reason is that it's very easy to **get caught up** in the concrete everyday objective of the project - getting people to use it, just getting something we think is sufficient out the door.

OpenUp in numbers

Thumb-suck numbers, but gives the ideal

12

Core team
members avg.

3

"internalised"
contractors
avg.

6

Years

60

Projects
(bigger than a
1-off data viz)

2-150 weeks
each

3500

USD on coffee

That might be one person working about 50% for two weeks, to three people working about 70% for three years.

Some of our projects are our own, and funded by grants we apply for.

Some projects are driven by other non profits, and either funded by grants they receive, or that we apply for together.

Some projects are with government, where we bid on a contract they are advertising. And we do that when there is an opportunity to do something in line with our vision, but as a standard service supplier winning a tender with government.

What's covered

- Context: What does OpenUp do?
- ● Our fears?
- Key considerations
- Tools and approach
- Practical: try our approach
- Recap

Fears, concerns, failures

Despite the best intentions

- We do something that **already existed**
- We do something but it's **not used**
- We do something but it doesn't solve the **user's problem**
- We do something but it doesn't meet **our objective**
- We start doing and it becomes **too expensive**
- We start doing and it just **doesn't get finished**
- We just **check the boxes** on the contract
- **We don't know** if anyone's using it or succeeding

These are some of the things we worry might happen, and most of these have happened on one or more projects. We don't want to repeat that.

What's covered

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- Our fears?
- • Key considerations
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Now I'm going to very rapidly touch on about 15 key considerations - things we believe should at least be in the back of someone's mind when working on a project.

You don't need to remember them.

The important thing is that you notice something that you didn't think of before. That you weren't aware was really quite important.

For us, it's still not clear who owns each of these areas. Each team member will have multiple responsibilities. But the first step is just to make explicit that these things exist, and that they are important.

Once I have gone through these considerations we will zoom out a bit, and see how they might be grouped into broad areas of responsibility

It's ok if you use different names for these things.

I'd love to hear what I've missed our, from your experience, what are the key things?

Domain knowledge

Do we know what we're talking about?

Does a partner know?

Technical correctness

Maluti-a-Phofung Local Municipality (Municipal demarcation code: F5194) Annual Financial Statements for the year ended 30 June 2011		2011	2010
Notes to the Annual Financial Statements			
Figures in Rand			
50. Irregular expenditure			
	Details of irregular expenditure – current year		
		Disciplinary steps taken/criminal proceedings	
Over-payment of councillors as a result of overpayments of upper limits to councillors as determined by Remuneration of Public Office Bearers Act no 20 of 1998		To be recovered from the individual councillors	4,314,791

Annual financial statement

Whether the project is about government finances, or about healthcare. Someone has to understand the field.

For example: Perhaps our accountant knows how to read annual financial statements.

Perhaps we do.

But do we understand the consequences for a local government being in a certain financial state? What mechanisms are available to address that?

Can we partner with someone who knows, if we don't?

How will we ensure we are technically correct, and don't mis-represent something subtle but important.

User research

Who's relevant?

Who's realistic?

What motivates them?

What is their goal?

Siya Teacher

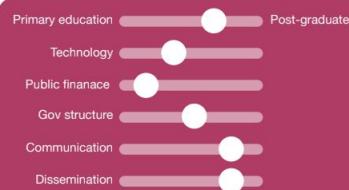
Secondary School Educator
61, Lives in Mtunzini, KwaZulu-Natal



"How can I use this information to help my learners engage with mathematics using real-life examples?"

Siya has been teaching for 40 years and has always felt that it is important to give his learners a practical education that they can use in day-to-day life. He is passionate about education and wants to find new ways to educate his learners. He has 5 children and 8 grandchildren that he asks for help with technology and is keen to use all the tools he can find to improve his ability to educate. He has been married to his wife, Grace, for 43 years.

Education & skills



Friends describe him as



Aspirations

To help his learners to be

Persona poster

The people who would be interacting with whatever interventions we implement in a project - we need to have an idea who they are, what they are trying to achieve, what motivates them to take action, and how they fit into the bigger picture.

It's also good to be explicit about the kinds of users your project is not trying to serve, perhaps because they're just too hard to reach right now.

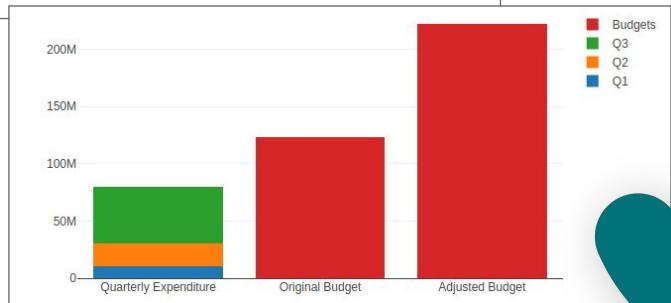
Visual design

Pretty! Usable?

Trust

Consistency

Visual language



Beware different meaning for the same colours

Visual or aesthetic design is not just about your website looking pretty.

It can build trust in your tool for your users, for your client.

It can make interactions with your tool easier.

We almost released a feature where we would use red for bars that really aren't indicating something bad.

But on the core part of the site, we had established that green is good and red is bad.

But there are more subtle issues here as well. My eye isn't as trained as our designer's, but I'd bet the fonts are different. Clearly the spacing between labels are different. And a whole bunch more inconsistencies.

Now these are only charts. There is so much more - how you lay text out.

Some of this stuff might not make a noticeable difference. We haven't measured how much of a difference it makes. But we know there is at least an element of creating trust, when things look slick, or losing it, when things look unprofessional.

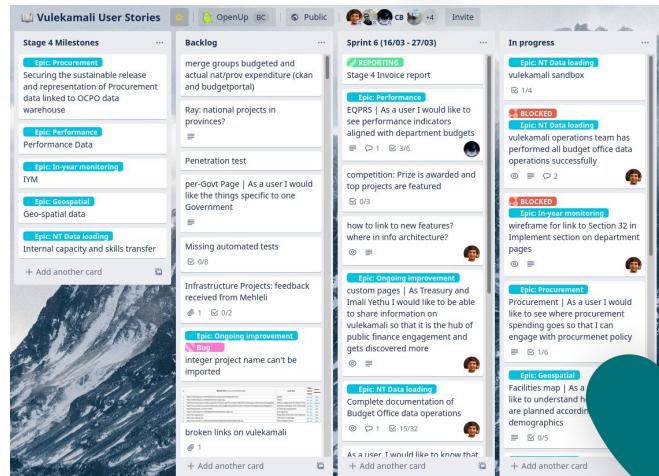
When things aren't consistent, users are constantly figuring out what the things in front of them mean. Instead of learning it once and then only focusing on the things that are actually different features.

Track requirements

What is the priority of this?

Have we delivered that feature?

Do we all have the same idea?



Trello used to capture "User Stories"

When I talk about tracking requirements, I mean actually writing them down, and then keeping them up to date.

What is the highest priority user need? What is not clear yet but might be worth looking at later?

It really helps to have something to point to when discussing a user need. Somewhere you can clarify what we mean by this need. Where you can write a note.

And who is responsible for keeping it up to date? For having the final say in what the scope is of a certain feature? What the priority is between two features?

What is in scope, and for the important things that are out of scope, somewhere to note them.

And then some way of reflecting that addressing this one need or aspect, is more urgent or appropriate for this project, than these other ones. You don't want to lose track of those other ones. You might have time to get to them.

In the end, you can have this wonderful asset of a list of needs identified through engaging with users, which could become the foundation of another project, or another phase.

Administration

Have overspent the budget?

Are you underspending?

Meeting minutes, action items

Are you tracking anything?

	A	B	C
		Rands	Days
1			
2	Daily rate	4,000	1
3	Funding originally available	85,500	21.375
4	Spent	81,000	20.25
5	Funding remaining	4,500	1.125

An incredibly basic comparison of budget and actual spend

Admin is for me the mind-numbingly tedious stuff. But when you realise how it enables the project and organisation to work effectively and sustainably, it becomes a cog in a pretty interesting machine.

It blew my mind when I learned that it can be really problematic if you underspend on a project. It's not just overspending to watch out for.

In management accounting they say **you can't manage what you can't measure**. So if you're not measuring things like **money available** and **time spent each month**, you're probably **not managing that money** effectively.

Compliance

Payment approval

Legal requirements

Grant, Contractual requirements

17	Create portal and API version 3	Updated portal that provides analysis of budget data and CSO datasets
Stage 2: Further data and analysis		
Additional data and analysis		
18	Develop a list of links to local and international economic and demographic data	Obtain sign off from the Steering Committee to add list of links to portal
19	Create links to other local economic and demographic data	Updated portal that provides analysis of budget data, CSO datasets and links to other local economic and demographic data
20	Create link to internationally released economic and demographic data, relevant to data portal	Updated portal that provides analysis of budget data, CSO datasets, links to other local economic and demographic data and links to internationally released economic and demographic data
21	Assess user feedback on version 3	Compile a summary of user feedback and submit to steering committee
22	Based on additional data and user feedback, update API and portal create version 4	Amendments to portal based on user feedback and Steering Committee guidance undertaken
23	Manual developed	Manual developed in collaboration with National Treasury and CSOs, signed off by Steering Committee
24	Civic information drive in 10 locations, based on version 4	Civic information drives arranged in 10 locations

Vulekamali Terms of Reference

While we try to focus 110% on the spirit of the problem we are looking to address, and what would be useful to actual users, you still need to adhere to any contracts on the project.

And legal requirements relevant to the project.

And internal processes of good governance.

Create content

Guides

Tweets

Video scripts

2.1 - Overview

In order to implement Government's procurement plans, and purchase a good or service, a procurement process of some sort must be undertaken.

There are different procurement processes that can be used. The type of procurement process required will depend on the value of the transaction or the type of good or service being acquired.

Every expenditure of public funds must occur in accordance with legislated procedures. However, the legislation will require greater complexity in the procurement process for bigger transactions - because more public money is at risk.

Higher value transactions will require a full bidding process, while lower value transactions will only require the receipt of a few quotations for the purposes of comparing price.

2.2 - The laws governing the tender process

The Constitution - Section 217

In order to implement Government's procurement plans, and purchase a good or service, a procurement process of some sort must be undertaken.

The Public Finance Management Act 1 of 1999

This act regulates financial management, including procurement, at provincial and national levels of government.

The Local Government: Municipal Finance Management Act 56 of 2003 (and Regulations)

This act regulates financial management, including procurement, the municipal level of government.

The Preferential Procurement Policy Framework Act 5 of 2000 (and its Regulations)

This act regulates the use of procurement to achieve certain government policy objectives, for example increased use of local suppliers, or increased use of suppliers with excellent BBBEE credentials.

The procuring entity's supply chain management policy

For extra guidance you could also look at National Treasury Instruction Notes, Circulars and Practice notes

Useful links

[Section 217 of the Constitution](#)

Government

[Public Finance Management Act](#)

PPMA website

[Municipal Finance Management Act 56 of 2003](#)

MFMA website

[Preferential Procurement Policy Framework Act 5 of 2000](#)

Government

Government procurement guide

Someone has to create content. Unless you're lucky enough to be able to copy it from somewhere and use it directly.

Someone has to do research, and find the structure, and compose that into content that fits together. Someone has to gather the correct links to additional resources and put them in the right place.

Someone has to condense information to the right length.

Someone has to write a video script.

Is this going to be a domain expert or a researcher? Is your programmer good at that? What will be most cost effective?

Medium expertise

Can you produce a video?

Can you use twitter effectively?

Can you put a booklet together?

MFMA

The National Treasury has played a pivotal role across government since 1994 and in local government. This initiative has been implemented through the MFMA, which became effective in July 2004. These pieces of legislation have been aligned with the Local Government Structures Act, Systems Act, Property Rates Act and the Municipal Finance Management Act.

National Treasury's primary objective is to support the financial affairs of government, national, provincial and local government. This entails supporting the development of a sound financial management framework for the delivery of services to communities. The medium of delivery includes interventions, manuals, guidance, circulars, web-based tools and hands-on support to municipalities.

To fulfill this responsibility in the local government sector, the National Treasury has developed a phased implementation strategy of financial management reforms around the MFMA, including conditional grants, capacity building, the placement of international advisors with municipalities, the diverse capacity of municipalities, institutional strengthening, budgeting, reporting, transparency and accountability, and working with other departments in national government.

What are the aims of the MFMA?

site:mfma.treasury.gov.za

All Images News

1 result (0,14 seconds)

MFMA website not in Google search results

There's more to publishing information than the words. There's how you use visuals along with words. There are things very particular to the medium.

In this example, I show a government website, which is an incredibly rich resource, but for some reason it just doesn't show up in google search.

If your medium is the web, you need someone who understands publishing to the web!

If you are making a video, someone needs to think how you tell a story with that medium.

Same for a booklet.

Write for the user

Language the user will understand

Technical terms

Definitions

Press Releases - Monthly Press Releases

-  [Publication Dates of Section 32 for 2019/2020](#)
-  [Section 32 Year planner 2018/2019](#)
-  [Section 32 Abbreviations](#)

-  [2020](#)
-  [2019](#)
-  [2018](#)

"Section 32" means "In-year reporting"

You have to use language that the user will understand.

In this screenshot, the national government wrote "**Section 32**" referring to a section of an act which specifies in-year public reporting requirements. How many people know what section 32 refers to? So how effective can this public reporting be?

You want to catch your audience's eye with what they are looking for. What they expect to see. You don't want to scare them away.

At the same time, a lot of the time with civic work, the user will eventually have to use a technical term in their engagement with government.

So you can't act like the technical term doesn't exist. You might need to find a way to make a connection between the technical term and common language for the concept.

Also, if you are trying to help the more specialised audience with the same tool, you should be careful that it isn't so basic that they think this isn't relevant to them.

You need to be consistent on your site - make a decision - are you using the technical terms, are you using common language, and what is the system you use to help the user connect the two?

Technical leadership

What does tech offer?

What is the true cost? Incl Maintenance

How stable, scalable, expandable?

Is it still working?



PAGE NOT FOUND

The page you are looking for does not exist. Maybe try a search?

Search...



Will anyone notice when it's gone?

For us, technical leadership is exploring how tech can help address a problem, and also when no-code or even non-tech things might be more appropriate. And we need to be aware of the hidden costs of writing code and using a lot of technology.

Bad decisions can have a significant cost. In industry, a fairly junior team is often given a massive amount of space to try and learn, but for us doing many small experimental projects, that has just proved unaffordable. So we really prioritise having some senior technical person help make decisions.

They also understand hidden and long term costs, and the efforts needed to keep something running for a long time better than more junior people would.

Implement! Deploy!

Frontend, Backend

```
page_data = Homepage.objects.first()
latest_provincial_year = (
    FinancialYear.objects.filter(spheres__slug="provincial")
    .annotate(num_depts=Count("spheres__governments__departments"))
    .filter(num_depts__gt=0)
    .first()
)

context = {
    "selected_financial_year": None,
    "financial_years": [],
    "selected_tab": "homepage",
    "slug": year.slug,
    "title": "South African Government Budgets %s - vulekamali" % year.slug,
    "description": COMMON_DESCRIPTION + COMMON_DESCRIPTION_ENDING,
    "url_path": year.get_url_path(),
    "navbar": nav_bar.get_items(FinancialYear.get_latest_year().slug),
    "videos": videos,
    "latest_year": year.slug,
    "latest_provincial_year": latest_provincial_year
    and latest_provincial_year.slug,
    "main_heading": page_data.main_heading,
    "sub_heading": page_data.sub_heading,
    "primary_button_label": page_data.primary_button_label,
    "primary_button_url": page_data.primary_button_url,
    "secondary_button_label": page_data.secondary_button_label,
    "secondary_button_url": page_data.secondary_button_url,
    "call_to_action_sub_heading": page_data.call_to_action_sub_heading,
    "call_to_action_heading": page_data.call_to_action_heading,
    "call_to_action_link_label": page_data.call_to_action_link_label,
    "call_to_action_link_url": page_data.call_to_action_link_url,
}

return render(request, "homepage.html", context)
```

Software code

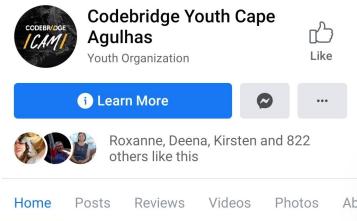
Of course if you do decide to build something new, someone has to build it.

Community management

Respond to feedback

Relate with members

Facilitate discussion



Local community group facebook page

Someone will probably have to talk to users if you have a community, and keep in touch to some extent. Is your software developer able to relate with the intended audience? Who in your team has the time to do this?

If you open that door, there's the risk of putting people off when you don't respond.

Testing, evaluation

Validate assumptions

Did you change anything?

For the better?

Do people complete **their** task?



Paper prototype

"Paperprototype_noProjectDemo" by d_jan is licensed under CC BY 2.0

You can and should check with potential or actual users whether you are on the right track at every stage of the process.

You want to be doing this to discover that you're probably not on the right track, that you're making incorrect assumptions, as early as possible, and minimise waste.

This image shows a paper prototype. You can validate assumptions and test ideas with users with very little actually built.

Paper prototypes have many issues, but if you're careful how you test, you can still gain valuable insight - before you've built anything.

Testing with users is very sensitive to how the test is done - there is a lot of psychology involved. People might want to please you by saying "yes - this would be helpful" and still not use it when it's built. People might want to impress you with their thorough critique, and actually what you had was fine.

Sometimes it's more effective to build something that really works and get it out there.

Regardless of when you test and how, you still ought to get an idea whether you achieved anything.

And you should make an explicit decision about the scope of what you're evaluating.

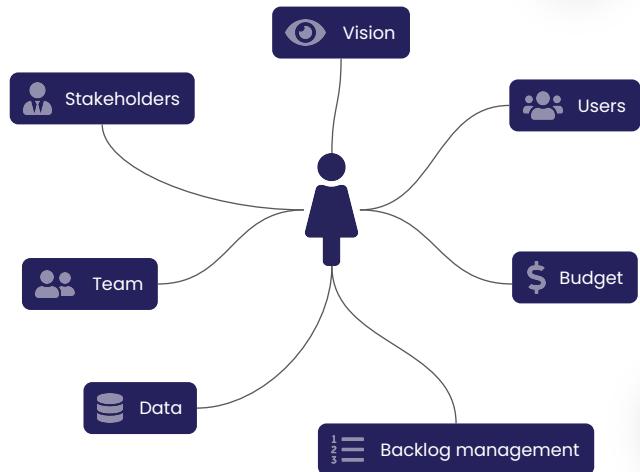
If you're trying to solve a bigger problem, you might want to know that you helped the user along a small part of their journey, but they are still not successful in their overall objective. Which might mean that your tool is a success, but your project is not.

Bring it all together

Lots of information

Lots of decisions

Vision vs reality



Finally, someone has to ensure that all these things are considered in the project context. Someone has to hold the vision, and relate the vision to the reality of how much money and time is available.

Someone has to make overarching decisions of how to get to the vision.

Someone should care that all information in the various pieces of a project are consistent, and that the project evolves in a way that different pieces don't become disjointed



Maybe not individuals

Maybe not experts

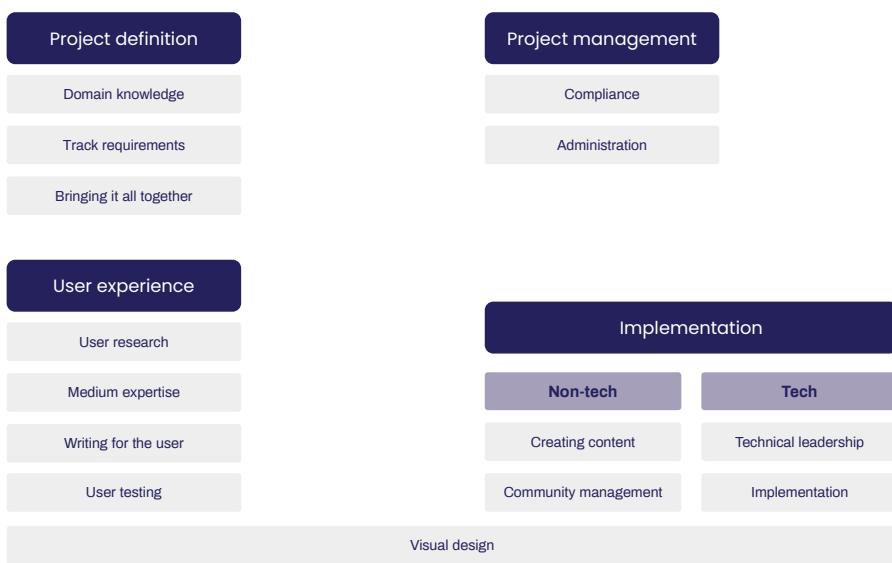
Just know what to consider

These are a lot of considerations.

We certainly don't have one person per thing.

We are certainly not experts in all of them.

But when we are explicit about the fact that these things are important to a project, we can see more easily where the gaps are.



When I tried and group these considerations into something that makes sense to me, where I would go and ask someone to take care of the issue, these are roughly the groups I came up with.

The headings were added after the groups took shape.

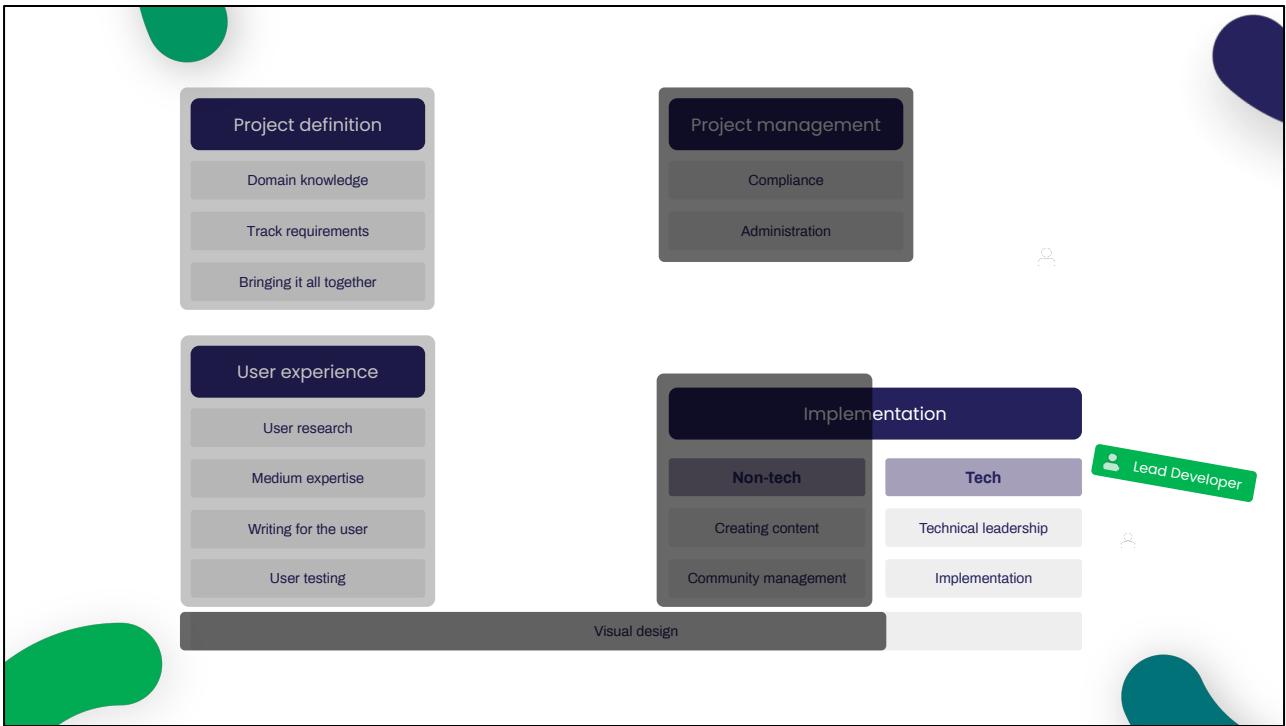
It doesn't matter if you would group things differently. In reality, when we have a team of 2.5 people, the responsibility for these considerations float around a bit, but it helps us to start talking about who would wear a certain hat, who we need to try and bring into the project, and we're going to learn to do ourselves.

By the way, this exercise of grouping a bunch of concepts according to how someone thinks they make sense is called a “card sort” - you can write these items on individual cards or postits, then ask the people who need to operate in the context where these things are relevant how they would arrange them. This allows you to see how you should structure content so that it matches their expectations, rather something that is technically correct, or something that meets your expectations, but not your user's.

There are a couple of reasons why User Experience is not under the implementation heading. It doesn't really fit under tech vs non-tech. It should permeate and perhaps be the connection between project definition and implementation. We realise more and more that it ought to be at the core of projects, while it might be one of the easiest

things to neglect.

The activities that happen under user experience design are incredibly **helpful for making the decisions** that lead to effective projects.



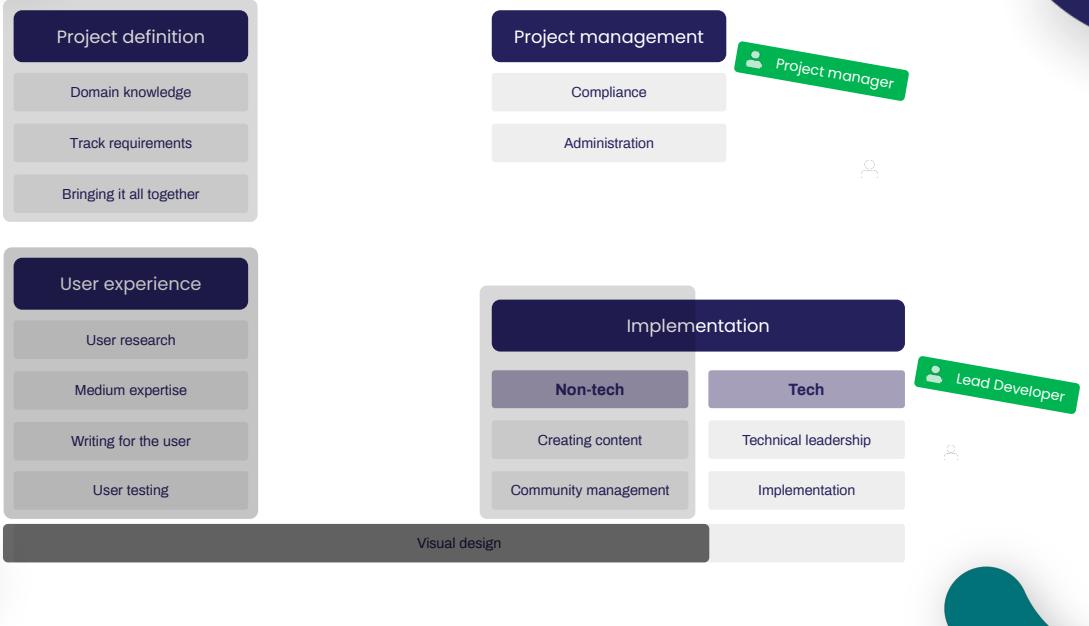
So what has happened to us a lot, is we would stick a developer on a project, thinking this is a smart person. They'll figure it out.

The shading represents the neglect of these considerations.

I made the project definition, user experience and visual design crosses a bit softer than the non-tech and project management crosses, because I like to consider myself a well-rounded developer.

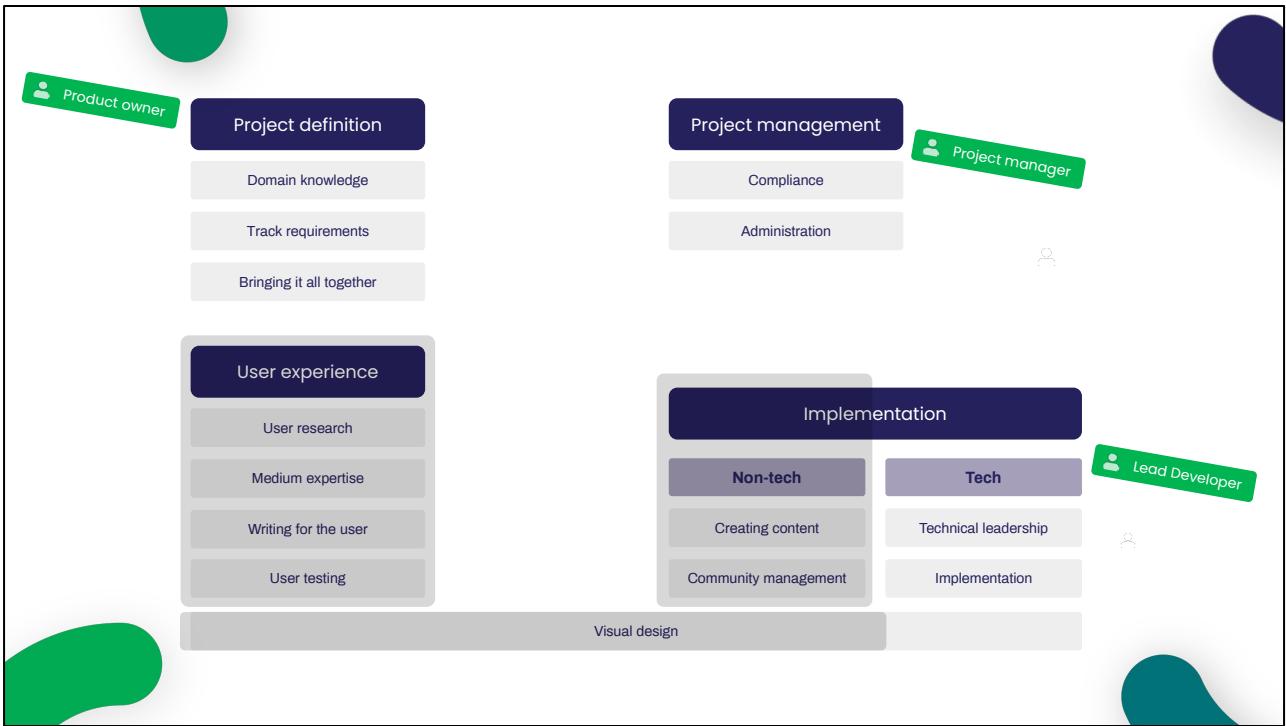
But it's really really hard to switch between the big picture, bringing it all together, and deciding how to structure the data in the database, how to connect this system to that in a robust way. How to handle missing data.

I also made the shade across visual design a bit smaller, since there are tools we non-visual developers can use to make things look pretty without knowing much about design. But it's still pretty bad.



If you add a project manager to the mix, at least that stuff should be taken care of. And now someone is able to hold the big picture while the techie is deep in the details.

Much better, but there are still big gaps.



The name we give to the person responsible for the project vision, bringing everything together, defining the project, is the **Product Owner**.

The term comes from the Scrum methodology which is usually about software products. But really it can be applied to any kind of project. I will talk more about the role in scrum in a moment.

The product owner might be the project manager, but they probably shouldn't be part of the implementing team.

Adding a product owner, you should see more attention coming to the remaining considerations, but unless they possess those skills, and sufficient time, those considerations are not completely solved until they're delegated to someone competent.

Product Owner

A role in the Scrum methodology

- Defines product vision
- Represents user needs
- Maximise value resulting from team's work
- Define deliverables
- Prioritising, ordering deliverables

I will touch more on the scrum methodology at the end, but I want to touch on the fundamentals of what a product owner is. Someone on your team might already be doing these things. We find it helpful to have a name for it.

You don't have to be building a product.

The role is about defining the vision of a project, what you want to achieve, understanding the problem space, and making decisions that maximise the value of work done. That's it. So it applies very much to the civic tech space.

And I know this role exists in other spaces as well. We use scrum because it brings some great approaches for working and communicating effectively inside the team, and with other stakeholders.

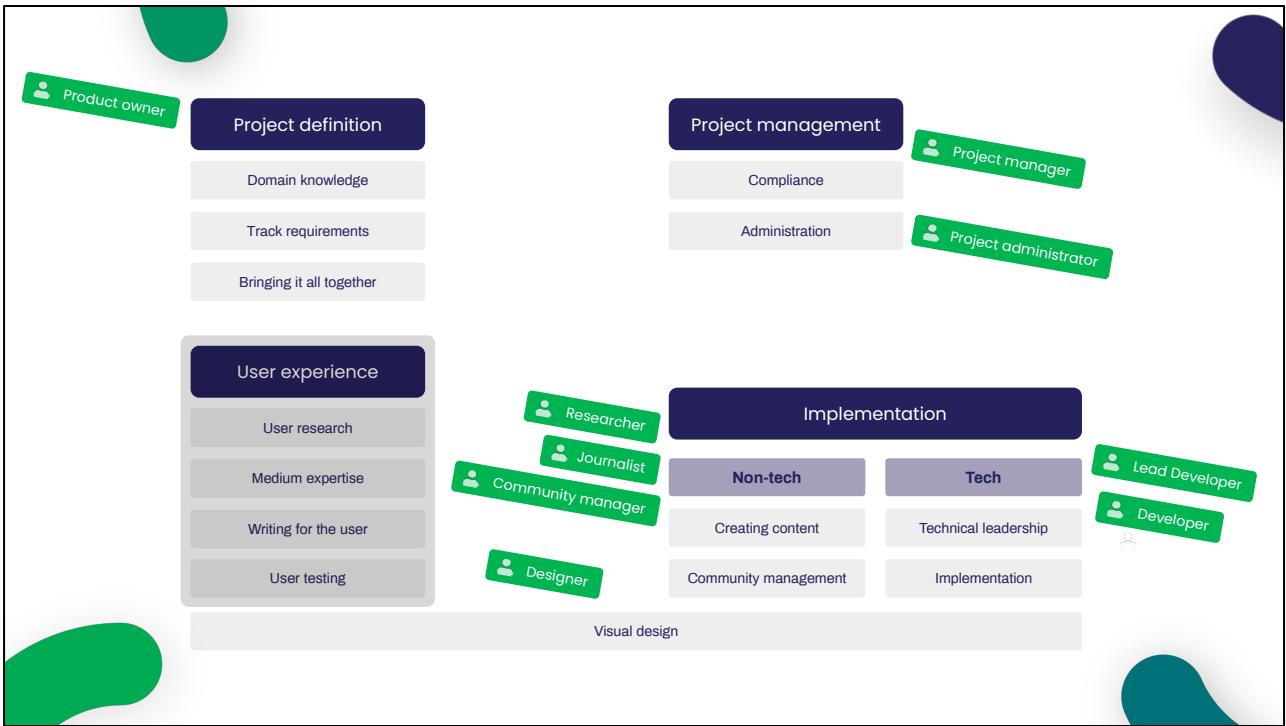
We have seen that some people really struggle with the distinction between a product owner, a project manager, perhaps a boss, or the big cheese. Sometimes ego gets in the way.

Let me tell you, I don't want to be a product owner. You have the ultimate responsibility for maximising the value of the work done. That means it's up to you to ask the right questions, or ensure that the right questions are asked.

The scrum methodology where this role definition comes from is very much about

responsibilities, not hierarchy, and I think you should really embrace that view. As a technical person, I have the responsibility to advise the product owner on the tradeoffs of potential implementation options.

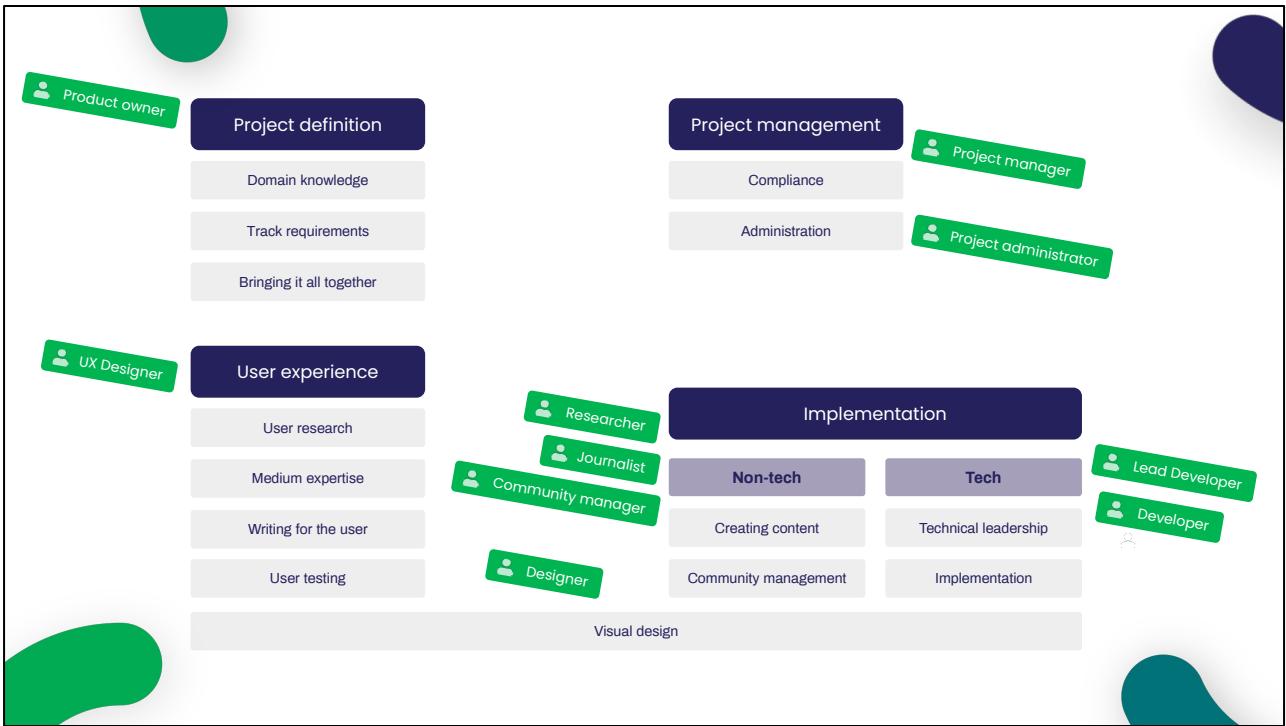
If they take that information and make a bad call, that's on them. While I might stress about them making the right call because I care about the outcome of the project, it's actually liberating to know that that responsibility doesn't rest with me. I should lobby them as accurately and clearly as I can, and then it's up to them. If that's the view the whole team takes, you end up with a much healthier dynamic than when you see the product owner as the boss.



There's usually a range of other non-tech implementation work.

Researchers and journalists have contributed a lot to our projects.

We haven't really had explicit community managers, but we are beginning to do that a little bit, and learning what's needed there.



The person who truly understands user experience is often called a user experience designer.

We have only brought someone like that into a project on a few occasions, sometimes because we had fairly good coverage of that role in the team members, and sometimes out of neglect. On occasion we've realised quite late that there isn't an awareness in the team of this field, and that someone has to pay attention to it, until late in a project

I learned this card sort trick from a user experience designer.

What have I missed?

Your experience

Considerations

•
•

Roles

•
•

What are some considerations or roles I'm missing out here, from your experience?

In the chat or via voice, just say or write "Consideration: ...the thing..." or "Role:the thing..." and I'll add them here



Maybe not individuals

Maybe not experts

Just know what to consider

These are a lot of considerations.

We certainly don't have one person per thing.

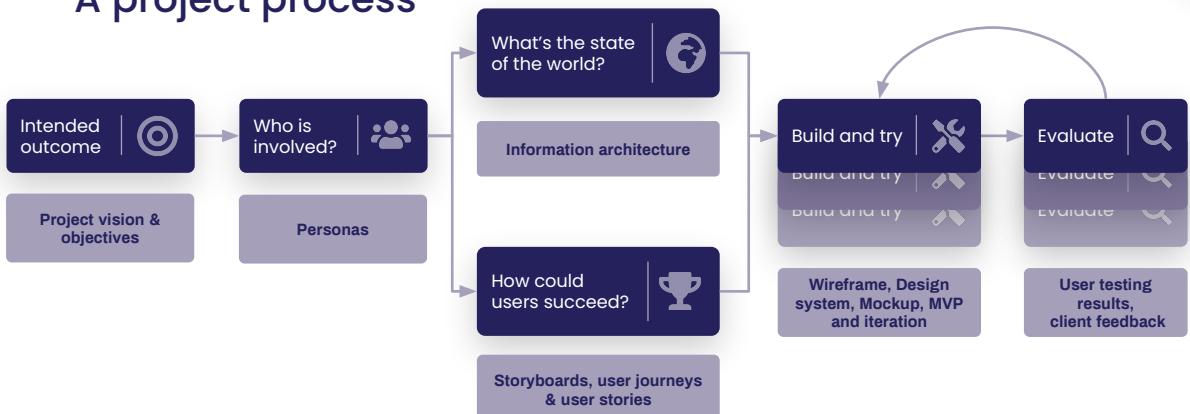
We are certainly not experts in all of them.

But when we are explicit about the fact that these things are important to a project, we can see more easily where the gaps are.

What's covered

- Context: What does OpenUp do?
- Our fears?
- Key considerations
- ▶ ● Tools and approach
- Practical: try our approach
- Recap

A project process



The dark blue represents steps in the process.

I just made up these names as I've been discussing this with my colleagues and trying to document it. There are probably better terms for this, and you're welcome to tell me so later.

This process chart was derived, not invented. It very much represents other standardised approaches to project management. I'm just using it as a vehicle to discuss how things fit together.

The lighter boxes represent outputs, or artifacts, things we produce that we or users can use.

I won't go into detail on how each is produced. Please google the. They are actually technical terms used in the software and user experience design space.

On the next slide I do have some questions that help explore these areas a little bit.

The rough idea here is that you start with clearly defining the intended outcome. You define a project vision and set objectives.

You then look at who the people are that are involved or affected by this vision. Potential users, decision makers, data owners.

Next, you want to understand the state of the world. What already exists to address this problem? What can you build on?

At the same time, and perhaps in conjunction, you can consider how users could succeed - what mechanisms exist to effect change?

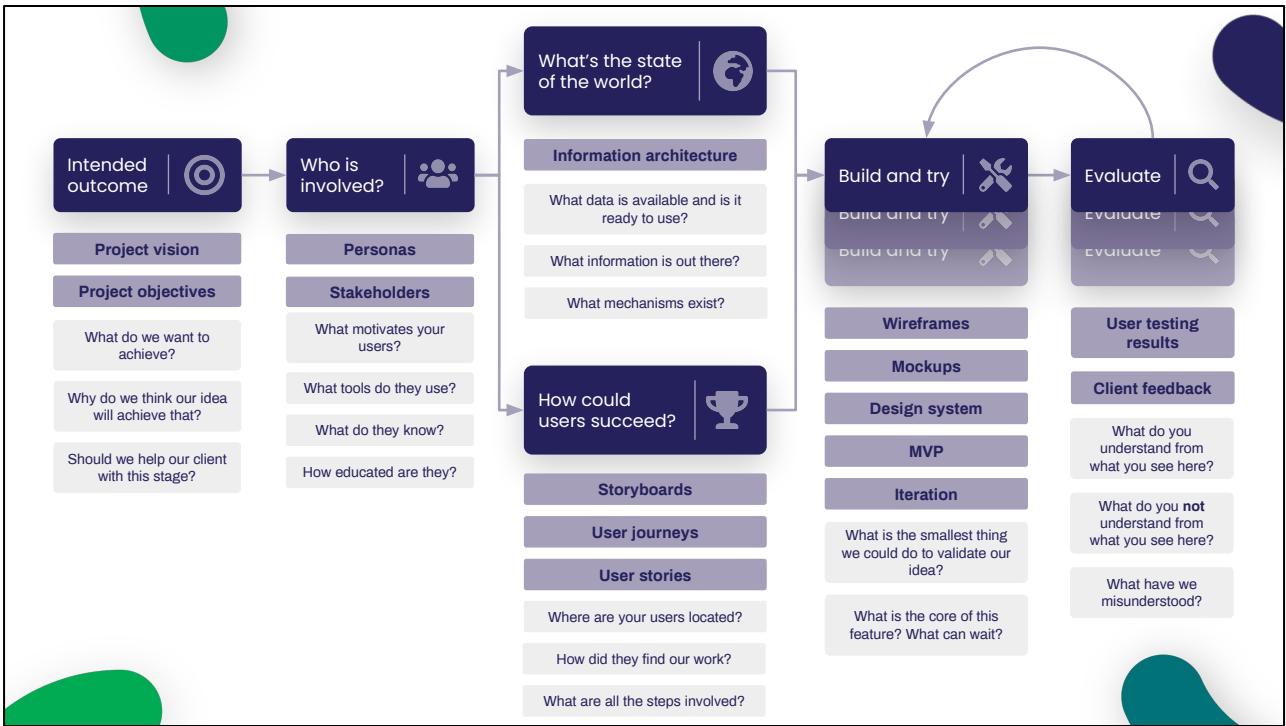
Finally you can build something. Or try doing something. Some basic version of your intervention. And see how well it works. And see if you need to adjust your ideas a bit and try again, or if you can just scale up.

And I don't mean to say you are only speaking to end users at this evaluation step. You should be validating your ideas with people in the real world, outside your bubble, all along the process.

It's also ok to go back and update as you learn. But you should especially have a strong loop of building something small, getting it out to real world users, learning, and building on top of that, on and on and on.

The point here is that it's worth doing some homework first. Giving your project a nice foundation to build on. So you don't have to ask these questions in every build/evaluate iteration.

If the strategic leadership of the organisation is already doing this, but it's not written down, and only half of it is communicated verbally to the project manager taking the project on, it may as well not have happened. And I'll show an example of that in a few minutes.



I want to go through these questions quickly, because they are helpful in a project, and also to understand what we mean by each step.

Of course the degree to which you do this depends on the scale of a project. For a two week project, it might be some notes and/or sketches. You can treat each artifact like a heading in a document.

For a two year project, each deliverable might make more sense as one or more document, documenting background, methodology, and perhaps they're presented in a visually accessible way for the team easily use for reference.

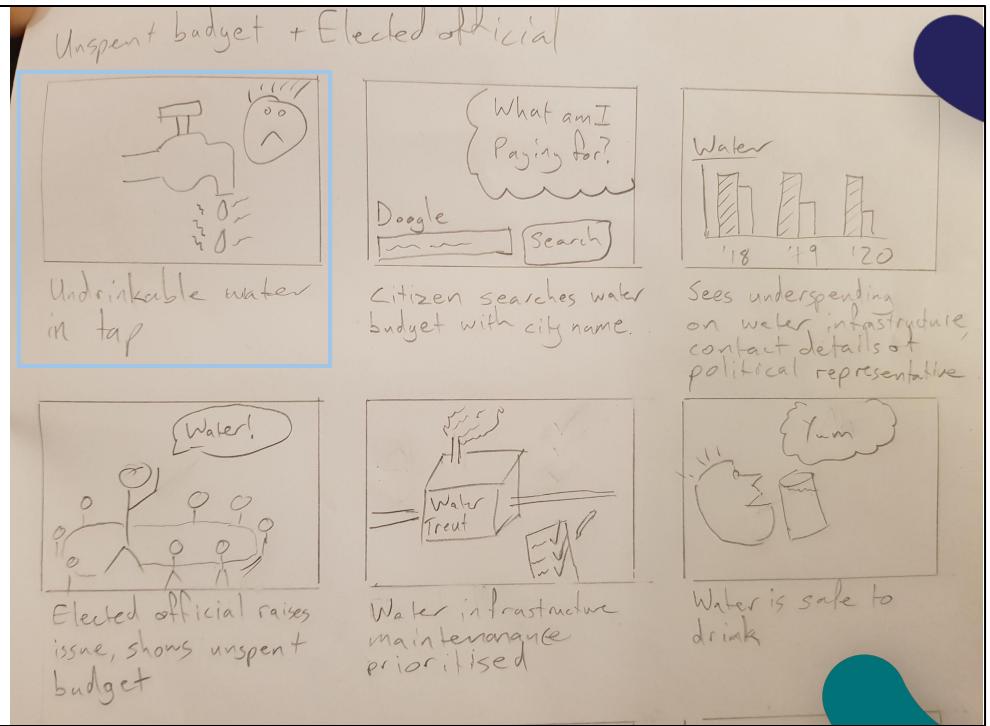


If you come from the NGO or project management world, this probably isn't new to you.

It aligns very well with vision, mission, outcomes, objectives, activities, but with very clear notion of iteration during implementation.

Storyboard

A note about design scope



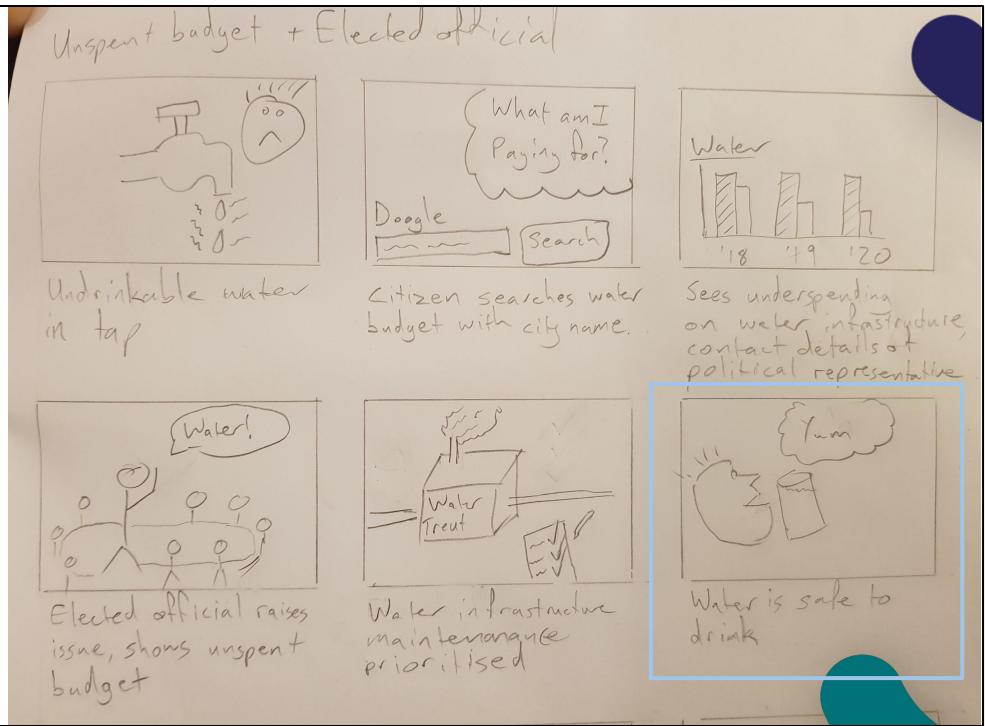
And don't think the scope of this process is just your app idea. I want to quickly introduce storyboarding to nail this issue on scope.

Here we have a storyboard for our local government finance project. Let's go through the frames very quickly.

Start at a trigger event - the water is undrinkable

Storyboard

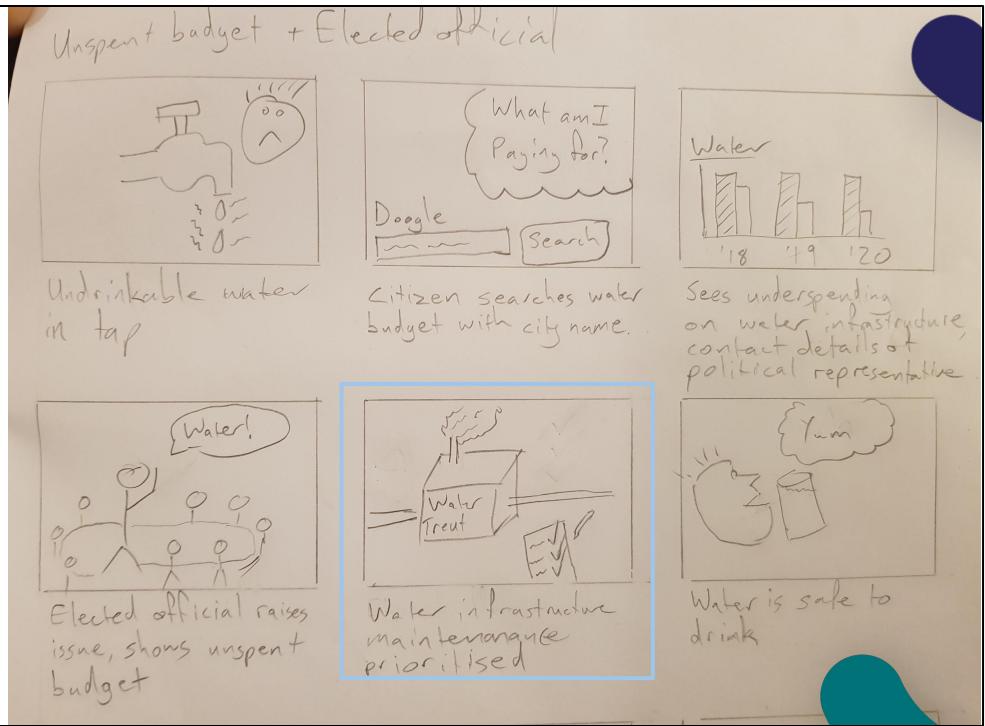
A note about design scope



Ends with a positive outcome - water is drinkable

Storyboard

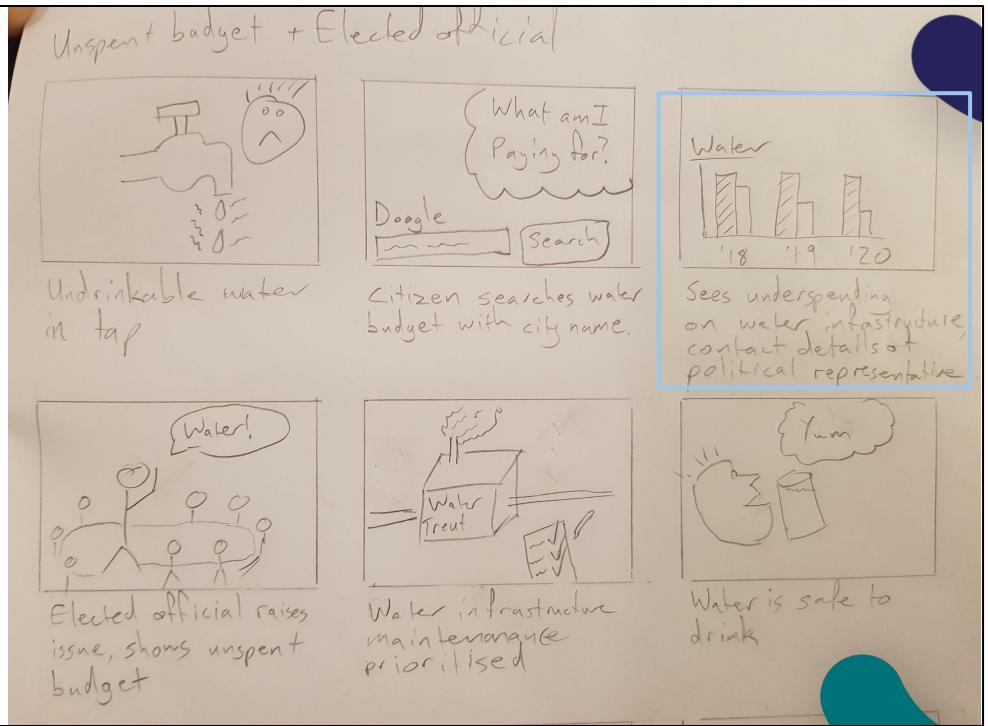
A note about design scope



The issue is water infrastructure in disrepair

Storyboard

A note about design scope

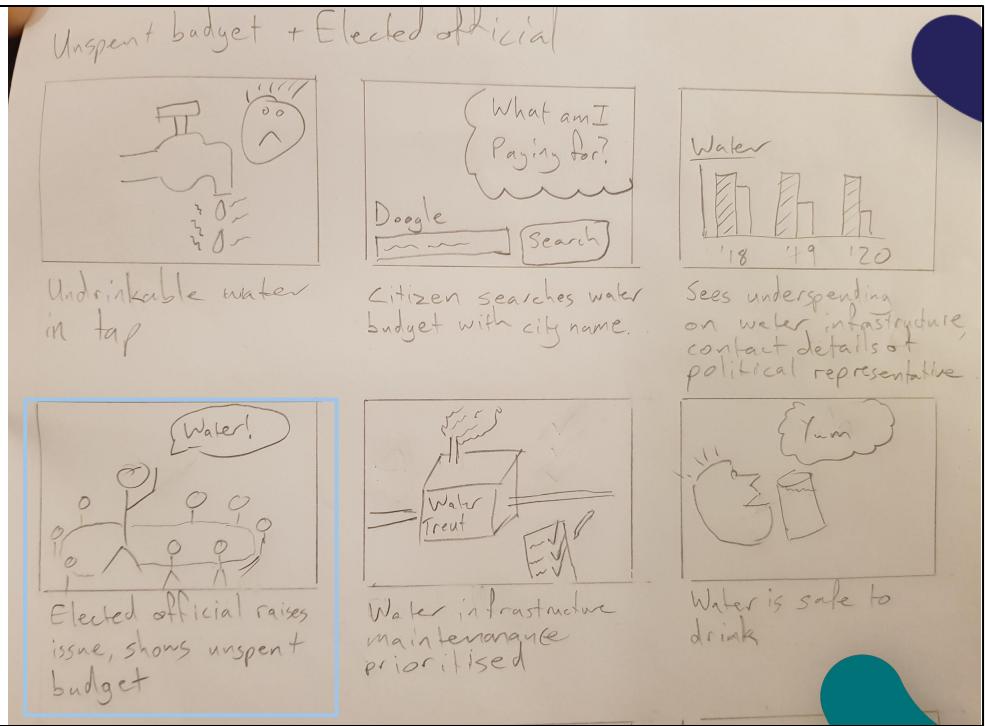


Budget and spending data can show that there is money allocated for this infrastructure but it's not being spent.

The database of local public officials and elected political representatives can show who could be petitioned about the issue.

Storyboard

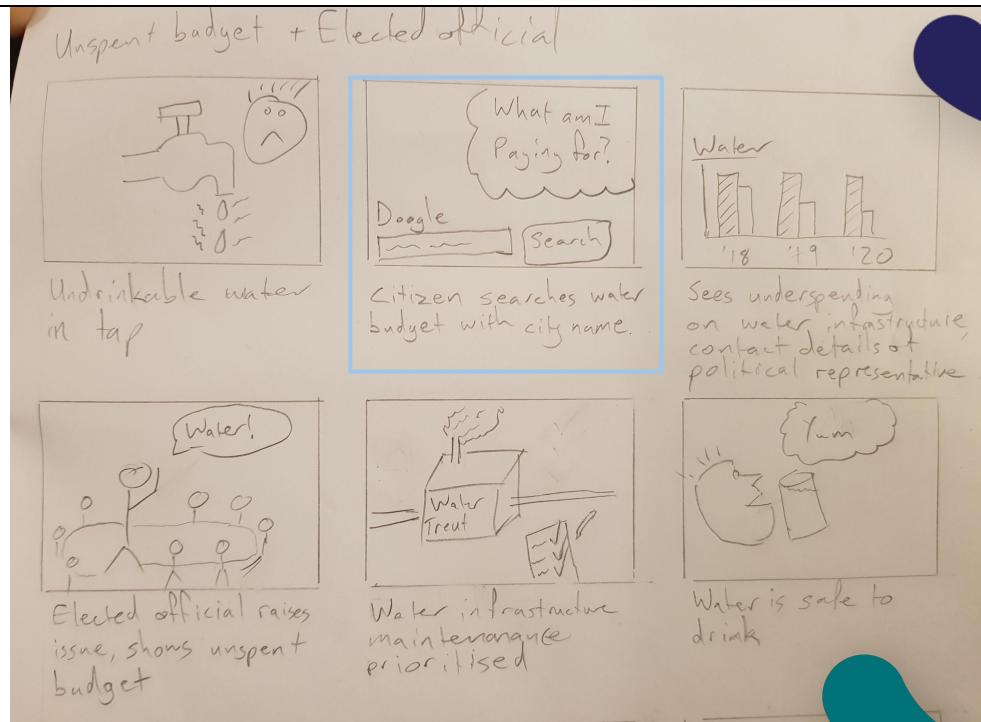
A note about design scope



An elected official who now has data at hand can raise the issue and get to the bottom of the underspending and disrepair

Storyboard

A note about design scope



Remember to think about how users will get in contact with your intervention. This depends on who you are targeting. If it's a web thing, you need to use terms that will lead users to your site via search engines or their networks.

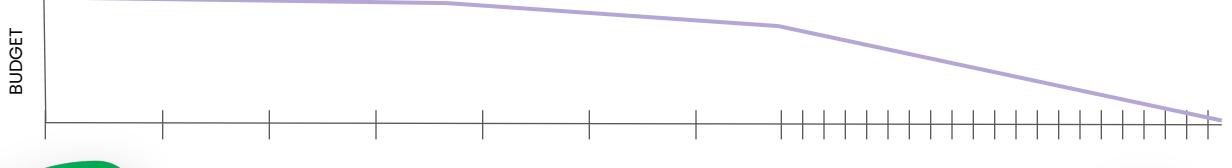
What are the gaps between the trigger event, your intervention, and the positive outcome?

What mechanism exists for the user to take an action that you have some confidence would lead to the successful outcome? What actions do the users need to take? Do they know they exist? Do they know how to use them?

This is why the scope of this way of looking at a project spans right from the problem, through to what success looks like. And your actual direct intervention is just a little step in a series of things that need to happen.

You will benefit from looking at them to make the process as smooth as possible. It's valid to say that you're not going to fix the political process, or internet access. But if all of your ideas are dependent on things around you that don't actually work, you're wasting your time and should look elsewhere.

Time and money

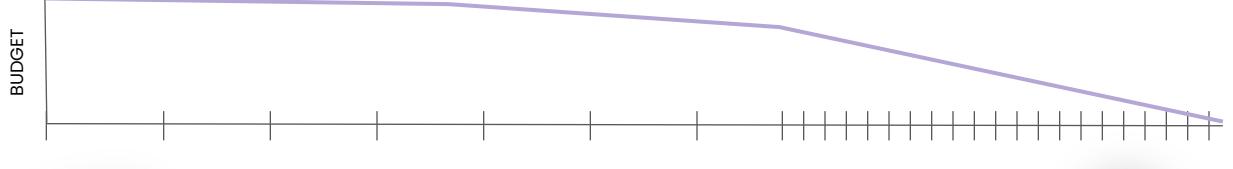


Using our process chart, then,

We can plot the project budget over time, and see that talking and asking questions and doing research costs time and money. The line goes down a little bit

We can see that a number of iterations of building and maybe even evaluating also costs time and money, and we show a compressed time scale here

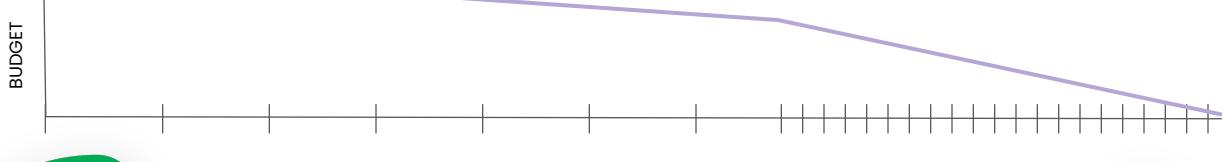
Forgetting evaluation



If you forget evaluation, your budget keeps going down, and maybe you come to the end of your budget and think oh! Let's evaluate and see what we've achieved so we can report on it.

Your time and budget is finished. You can't improve on it. Learning and improvements have to be applied in a different project, or a second phase.

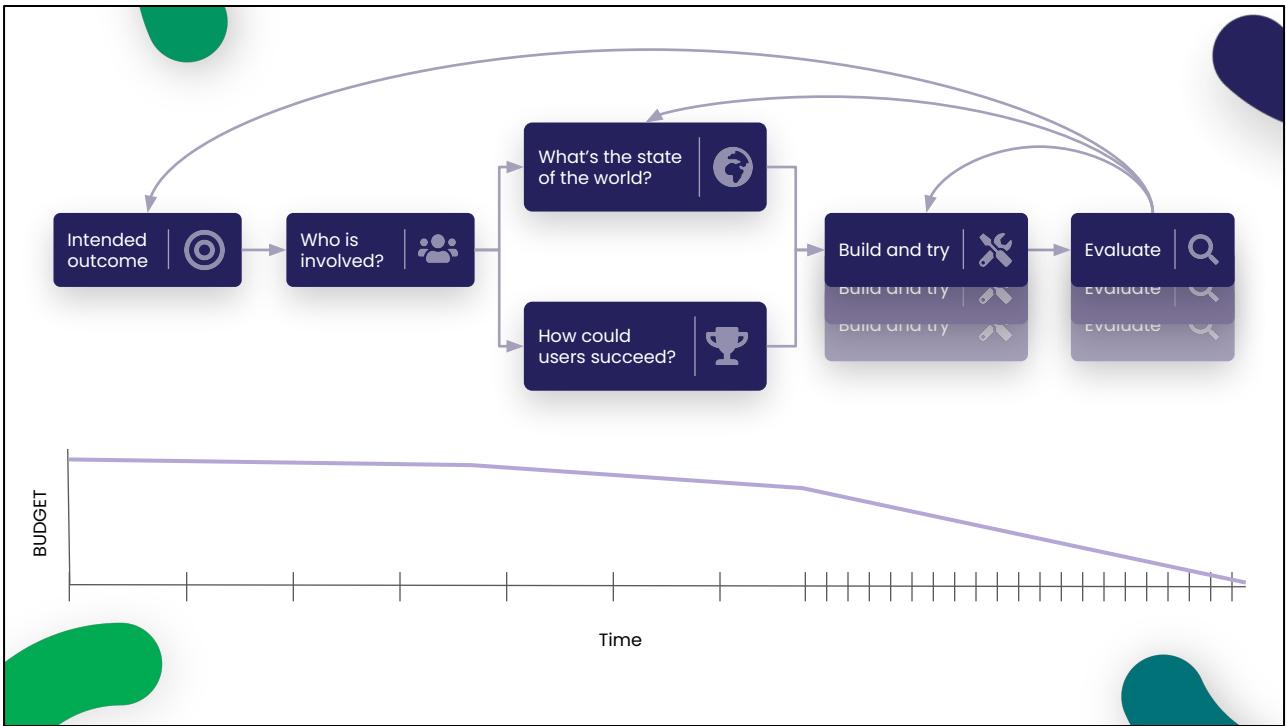
Starting at building



A lot of the time, we want to jump right into building something.

If you have a client, people get so wound up getting contracts written, agreed, signed, clients ask “when can you get something done?” so you start making promises about getting something done in the next few weeks.

Don't forget, the deliverables of the earlier steps are completely valid deliverables. If you write them down clearly, and make them easy to find and understand, they are tangible deliverables that are laying the foundation for working effectively for the remainder of the project. Treat them that way. Let your partners or clients see them that way. Then you don't feel pressure to skip this step and dive into building something when you don't understand the point yet.



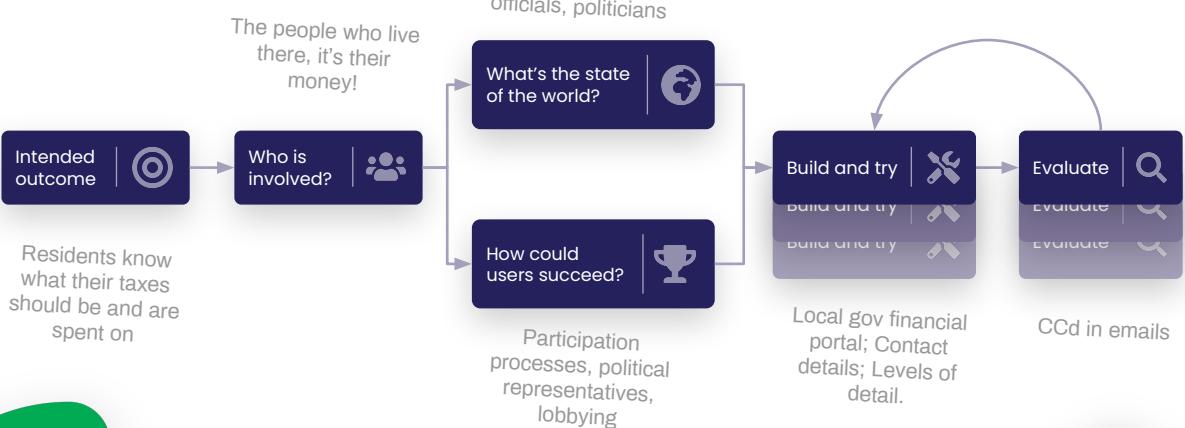
If you skipped over all this initial stuff and you only realise you need it months in, you've got this big jump back, and a lot of budget is already spent.

But you also have to go back if you didn't write things down, and didn't hand it over properly as team members change. People forget what was said in a workshop six months ago.

So please write it down. Print it. Put it on the wall. This is the foundation of your project.

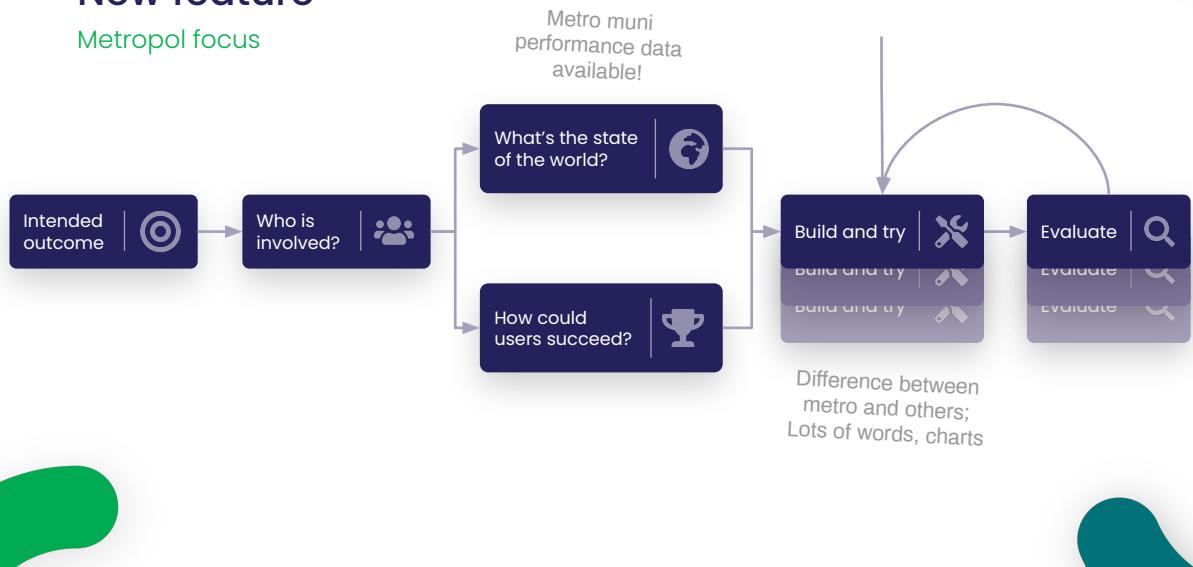
Project example

Municipal financial portal



New feature

Metropol focus



So a few years later, there's a new phase of the project, we're working on a new feature, called "Metro focus" which is as vague to me as it is to you. Someone wants to look at what sets the major cities apart from the rest of the country.

We know there's performance data available for the metropolitan municipalities in the country - exciting new data.

We have some researchers explore what you can tell from this data. What makes metropolitan municipalities different from others? They provide a really interesting analysis.

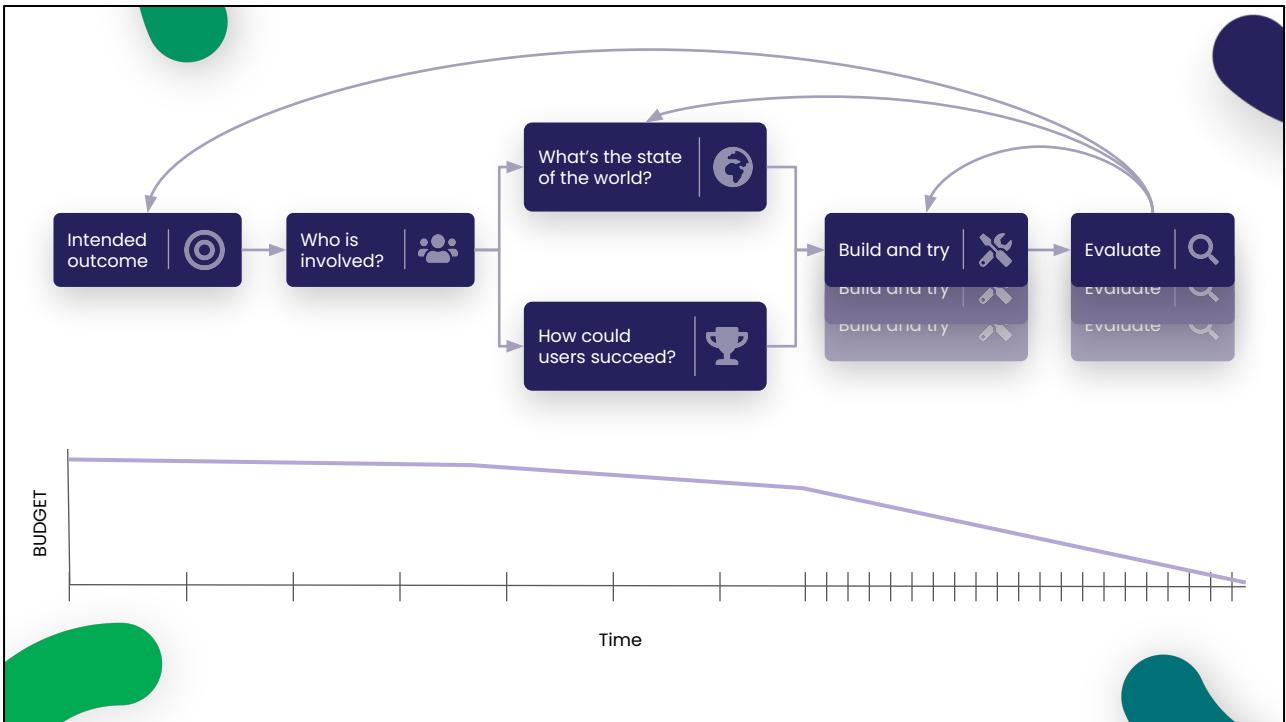
We've built some little indicators and charts to present the data using some designs from another project to save effort.

We just need to think how to present the output from the researchers. Is it just a document? Is it a slightly more interactive page?

Someone asks the question... who is interested in this information? What can they do with it? Will they understand the significance of it?

Are we presenting this to a person of average education level or an expert?

Are we talking 20% of the population or 0.1 % of the population? How much effort should we put into this?

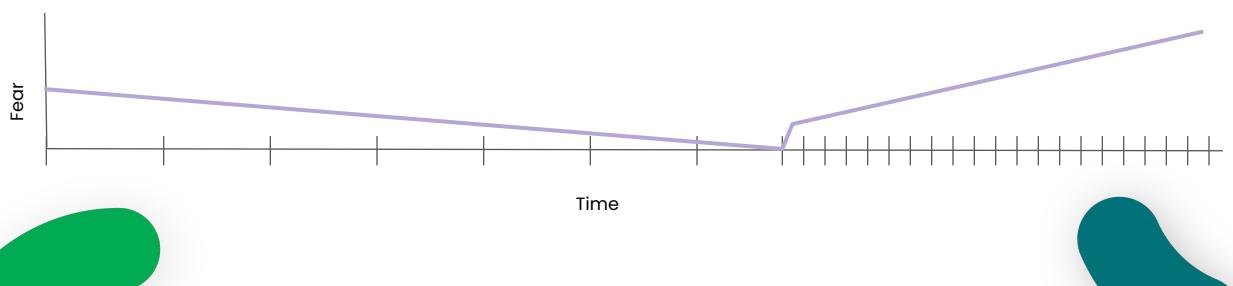


We start to think back... who are the personas again? Did we have personas for this project?

What's the over-arching goal of the project?

While this sort of identity crisis is scary, as we go through those early steps, we actually end up feeling more confident and less stressed than when we started.

Plotting fear



So let's try plotting fear

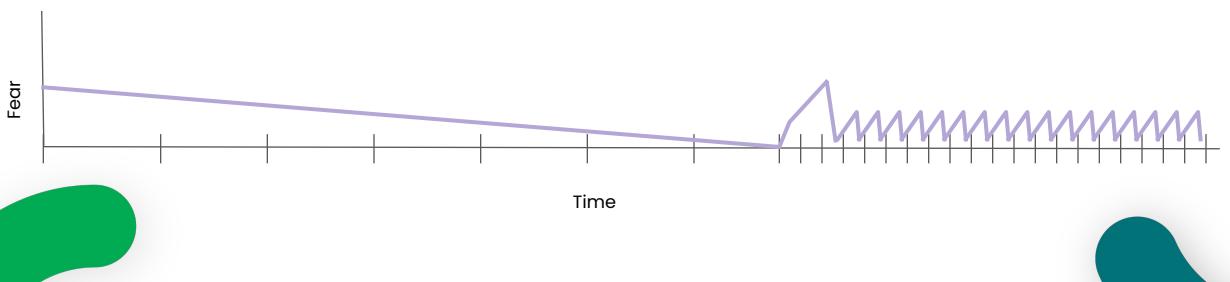
Let's plot fear for a project where you only evaluate at the end.

At the start of the project, the team might have medium fear. A bit of apprehension or scepticism. Of course this is an average for the team.

As you go along learning about the problem space, you gain confidence. You fear the unknown, and you're confident you know stuff.

Then you start putting things out there. You work and work. If you don't assess how well you're doing, and you just keep working, there's this fear that builds - think back to that list of fears at the start - is anyone using it? Are they using it but it's not actually changing the world in any real way? Is our energy going to waste?

Plotting fear



If we evaluate regularly, we can have these little short steps of building something, excitement, apprehension, and feedback, helping you course correct, showing whether you're on track or not.

Even if the feedback is that your tool isn't being used, or that you missed something really important. Now you know where to focus your energy. And you know soon enough you'll see whether that improved matters.

You can bound your team's fear and worries.

“

Even a little bit can teach you a lot!

A lot of testing quickly
generates more data than
you can handle!

How much user testing?

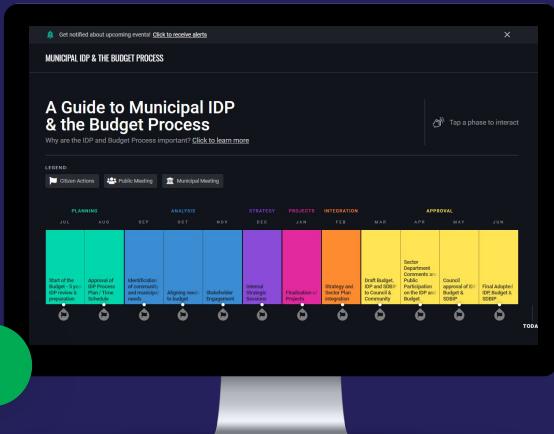
I'm not going to go into how to do user testing, that's a big subject and there's a lot of material on it on youtube, blogs, books, and courses.

Something I do want to touch on is how much user testing you should do.

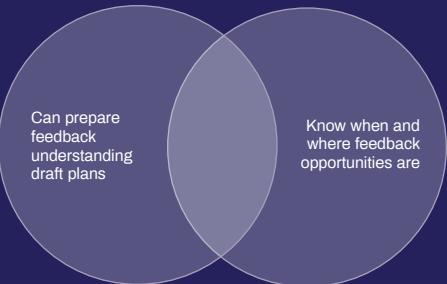
User testing generates a massive amount of data. You can very quickly be overwhelmed and have more than you will ever be able to use. So work smart. While you're thinking about how to make your testing representative, keep focus of what question you want to answer. Even a little bit of testing, a few people here and there, can teach you a lot. You don't have to interview a hundred people every two weeks. And you probably shouldn't, because you'd need a massive and very effective team to put it to good effect.

Focusing on the wrong thing

When/Where vs **How** to participate



People participating in an informed manner



Just a quick example of some conversations that came out of one of our recent attempts at bringing testing back into our process.

We're building this tool to help people understand the local government planning process

We think it looks awesome but realise we've done a lot of work without speaking to users, so we start speaking to users.

One of the things that stand out, some people are unable to find when the opportunities for participation are.

We thought we can't get that information, so we carried on with just unpacking the process. But actually hearing users raise this problem, you have to look at this venn diagram.

There are users who are able to find out when and where opportunities for feedback are

Let's assume our tool makes it understand the process, and the draft plans, and people can make informed comment that would actually be taken into account, because it speaks to the draft plans and the financial reality of the municipality.

If our tool doesn't make it easier to find these opportunities, the number of people participating effectively as a result of our tool is actually very few.

Perhaps their input would have been totally ok without our guide, and we could have

focused all our effort on making the participation events easier to find.

Losing track of the strategy



Actually, it's the muni's tool

Municipality is deploying it

They can provide the data

But then we noticed another issue.

The participation events were actually part of the strategy. The idea wasn't that this tool would just be put online and left there. The idea was that it would be something we would offer to municipalities to make part of their participation efforts. They could embed it on their website, or linked to it.

If a municipality is fundamentally part of where this tool is deployed, we can totally assume that we can get access to that data. Which means the actual participation events should really be part of the tool, and get the appropriate amount of emphasis in the interface.

User testing has not just shown that we were focusing on the wrong place, but also started a discussion that took us back to the strategy that will enable what the users want. That strategy was not handed over properly, which is something we see way too often.

What's covered

- Context: What does OpenUp do?
- Our fears?
- Key considerations
- Tools and approach
- ▶ ● Practical: try our approach
- Recap

Next up, we're going to try the approach on your projects!

Let's try the process!

- In groups
- A group member's project or idea
- Enter some short answers on the workspace
- Help each other
- Use the questions posed

We will assign you to groups and you will get an invitation to join a breakout room with a room number

I will show short URLs for each room's workspace, which will be a google slide that you can all open and edit collaboratively

Please introduce yourselves, and perhaps give an idea of which roles or considerations you represent in your organisation or your projects.

Group n

Your project name



Use the questions, but also help each other, I'm sure you all have

Group feedback

- What stood out most from that exercise?
- Did you identify any gaps in your project foundation?
- Do you have any new concerns about your project?
- Do you have any new confidence in your project?
- Are you planning on changing anything?

I think the best feedback to get when we rejoin is these questions.

It depends a bit on how much time we have left and how many groups we have - if there's time we can actually go through your answers to the process chart and then look at these questions

Workspace URLs

- bit.ly/civicproj1a
- bit.ly/civicproj1b
- ~~bit.ly/civicproj2a~~
- ~~bit.ly/civicproj2b~~
- bit.ly/civicproj2c
- bit.ly/civicproj2d
- bit.ly/civicproj3a
- bit.ly/civicproj3b

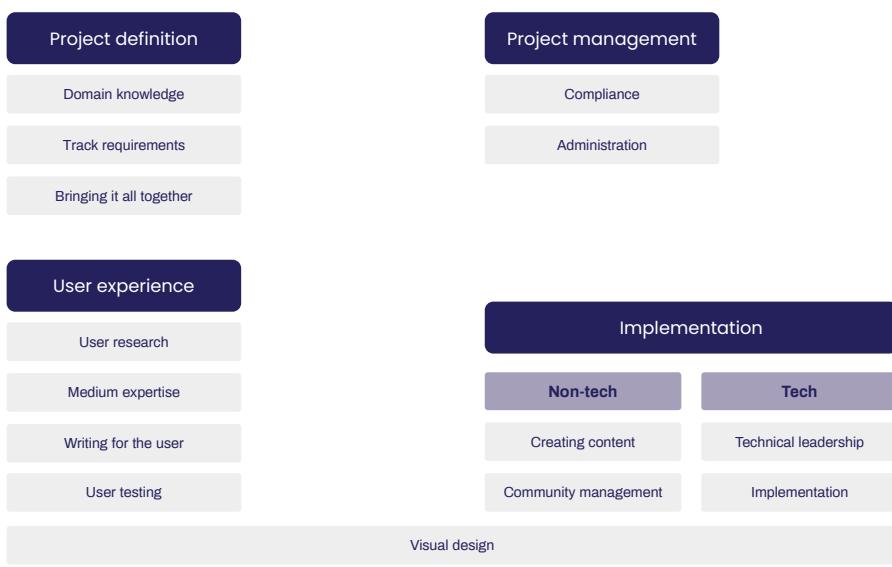
“
Are we leading people
astray?

Any serious mistakes?

I would like to hear from you if you think we are seriously misguided, or that we're leading people away from a good safe path. So during question time, please raise that.

What's covered

- Context: What does OpenUp do?
 - Our fears?
 - Key considerations
 - Tools and approach
 - Practical: try our approach
- • Recap



We looked at a lot of important considerations, whether a project has one person or two, someone should probably be thinking of each of these.

Which of these areas are you neglecting? Who can fill that gap? Do you need to bring someone in? Can someone learn a new skill?

Agile and Scrum

Help is available

- This is the essence of Agile
- Agile: a set of principles
- Scrum: An agile methodology
- Minimise risk
- Maximise user value
- The limitations of humans
- Many great tools (procedures, not websites)
 - Identify assumptions

There is no new thing under the sun.

I've been talking about needs and considerations and roles in a very abstract sense.

You don't have to invent the actual concrete practises. This is the essence of the standard way of working in the software industry, called agile.

Agile is a set of principles. Derived from the commonalities between projects that were successful?

It does not mean you change direction all the time.
It means you are trying and learning all the time.

Scrum is a methodology for applying the agile principles in your project.

As humans, we tend to be bad at handling the sort of complexity that is common in any software project, but especially in civic technology.

Methodologies like Scrum bring tools - procedures and practises - that help deal with our human nature, to identify assumptions, document our decisions, in very easy ways, that don't add a massive administrative burden.

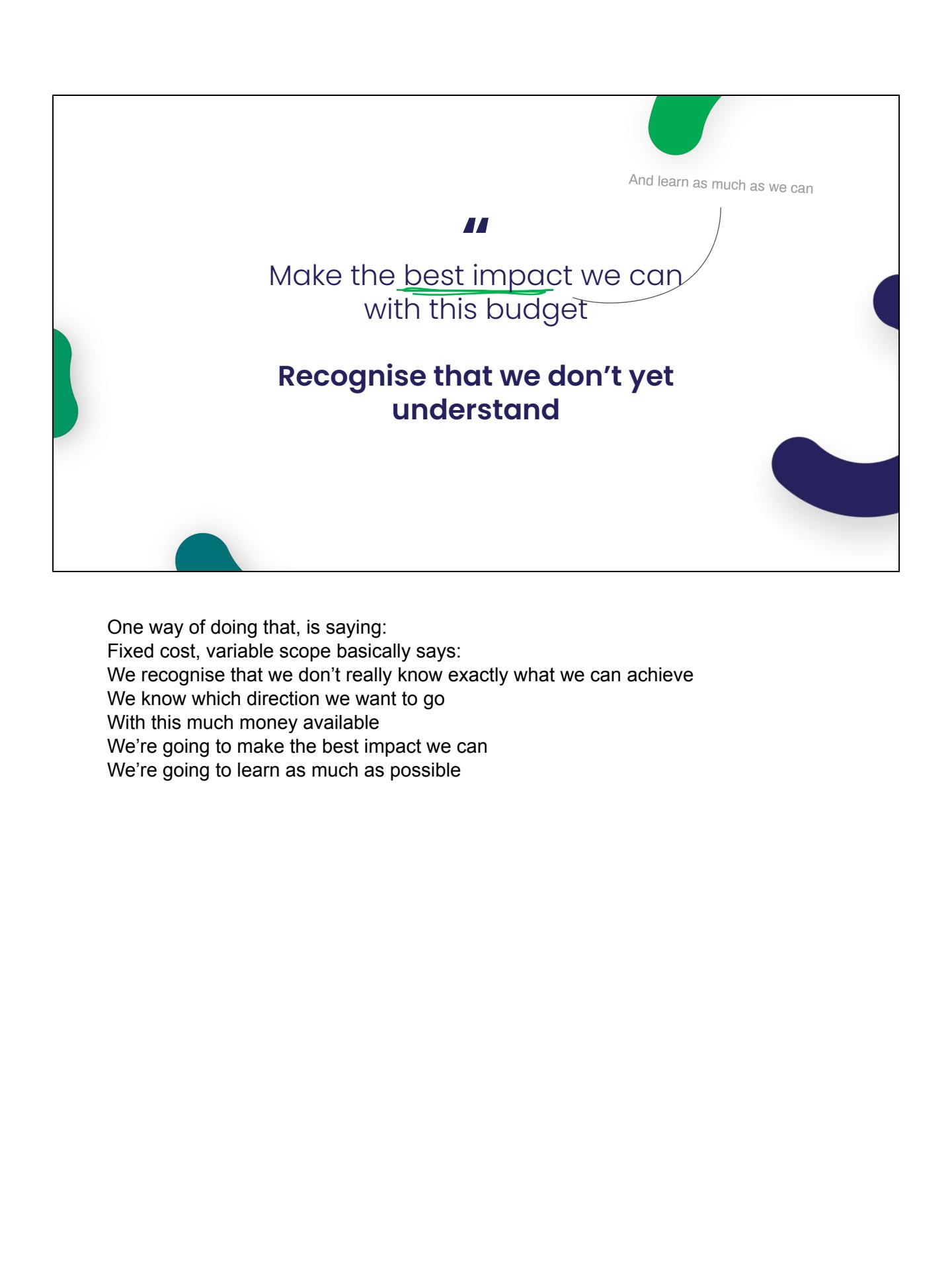
Agile and government

- More control, not less.
- Fixed cost
- Variable scope
- Scope is the thing we don't understand

Agile can work very well with government procurement and projects that need especially tight control.

It's worth having a clear way of helping administrators and decision makers map the agile way of working to supply chain management processes and oversight.

Being able to talk about the artifacts generated, like minuted decisions made by the client in planning meetings, prioritisation of features by the client, is really helpful in helping people in government understand that the flexibility to adapt scope as you learn, does not mean taking on additional risk.



And learn as much as we can

“

Make the best impact we can
with this budget

**Recognise that we don't yet
understand**

One way of doing that, is saying:

Fixed cost, variable scope basically says:

We recognise that we don't really know exactly what we can achieve

We know which direction we want to go

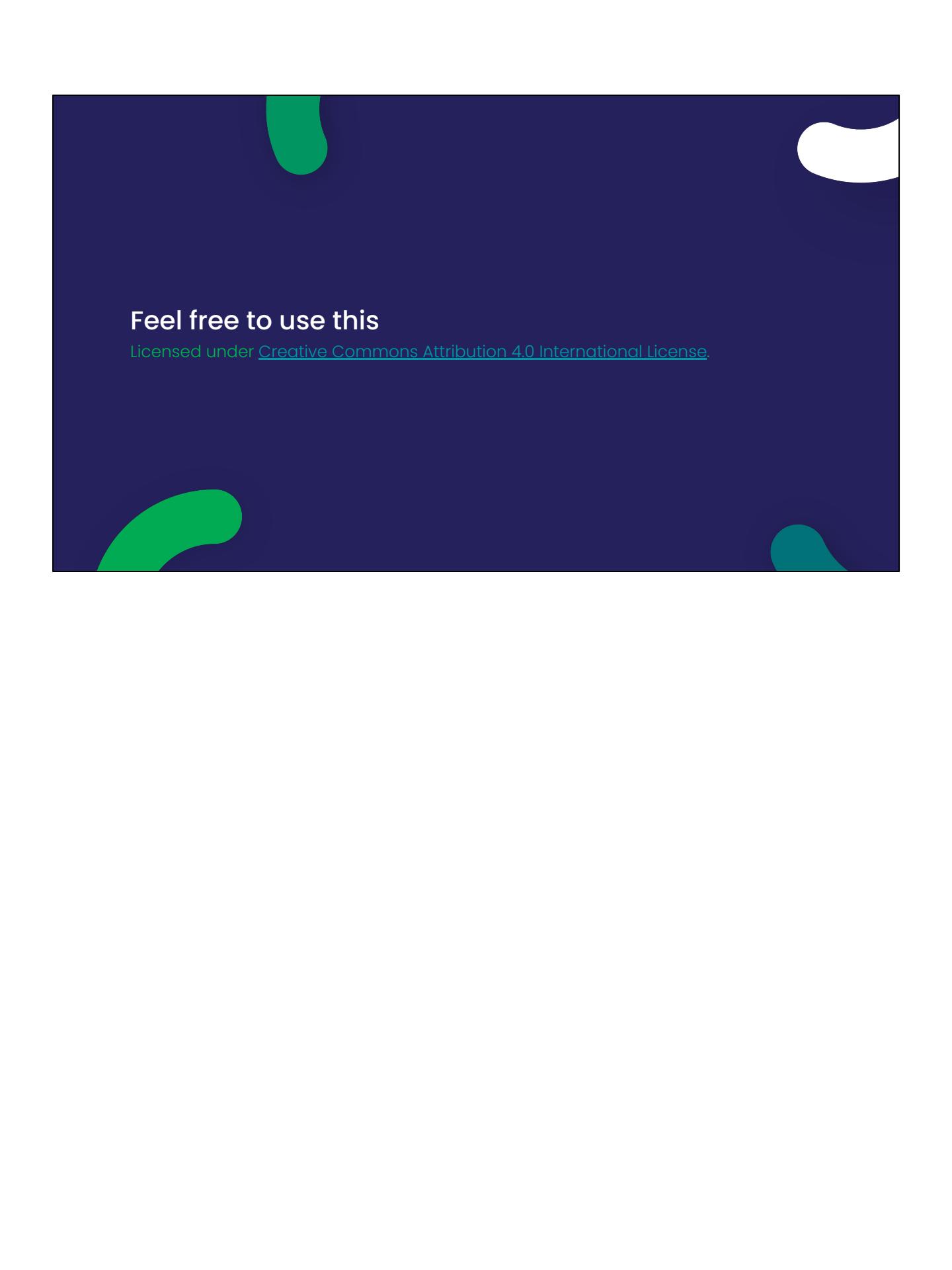
With this much money available

We're going to make the best impact we can

We're going to learn as much as possible

Acknowledgements

- Peter Koen of pondo.co
- Jennifer Walker
- Code for all
- Colleagues



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