a load off your mind

SCIENCE COMMUNICATION LAUNDROMAT



- \* Hello! q'day! salut! ciao! hola! olá! halló! hallå! hei! Kia ora literally means 'qive life' in Te Reo Māori and is a common greeting in Aotearoa New Zealand, where the science communication laundromat originated.
- \* A note on engagement and science communication: we realise these terms mean many things to many people, and part of the process will be to define what they mean to you. For the purposes of this workshop (which comes from a 'public engagement with science and technology' perspective), we are assuming you have some research (scientific or similar) that you want to communicate - probably with non-expert audiences, at some point. If you don't, this might feel like a shirt shrunk in the wash - a bad fit! Talk to us about how we can stretch it into shape for you.

### the laundromat cycle

we are here!

gathering up the laundry pile

sort the laundry

choose the settings

soak + spin



· setting the cycle survey · Name tag? : finding out "Drawing things out; you and your engagement



"scicomm 101" eget it on the garments pegiem up from pts



o'set the sliders and cycle length



(wheel?



### Welcome to your 'a load off your mind' science communication laundromat.

This a space to help you air your thoughts about your engagement project\*, to rinse through any potential issues and make your project fresh and bright.

If we are gathered in person you will also have a washing machine for you or your group to collect its thoughts. If we are online, you'll be sent materials and an online meeting schedule.

You can use this workbook for your own notes and reflections of your time in the laundromat and to take away as a reminder.

The laundromat is structured as a series of activities to get from grey areas to dazzling brightness. We will take you through those in order, with plenty of airing time.

Through the workbook, look out for yellow splodges that mark where you should action something before moving on, like this:

These activities might be carried out in a group, individually, or online in advance.

We'll start with finding out a few things about you and your project. Ready? Let's get this cycle started!



gathering up the laundry pile



This survey is designed to help us tailor kanohi ki te kanohi (face to face) activities to you, your research and engagement project.



What's your research field?





Are there specific things you hope to get out of the laundromat?

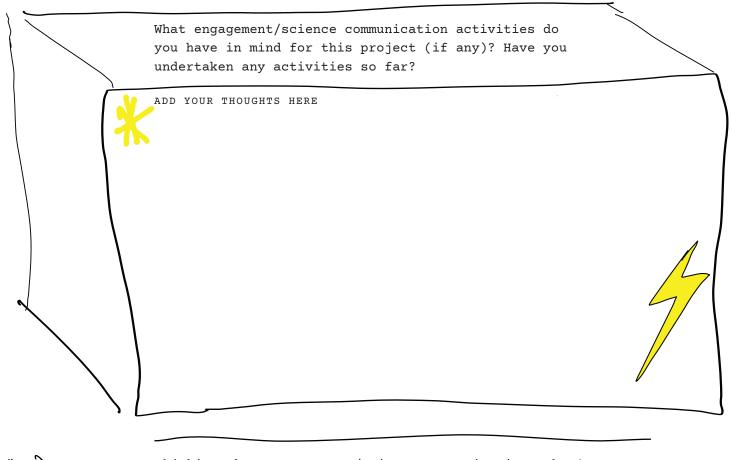
Please briefly detail the project that you would like to develop an engagement or scicomm plan/activities for ('project' can be as specific or loose as you like):

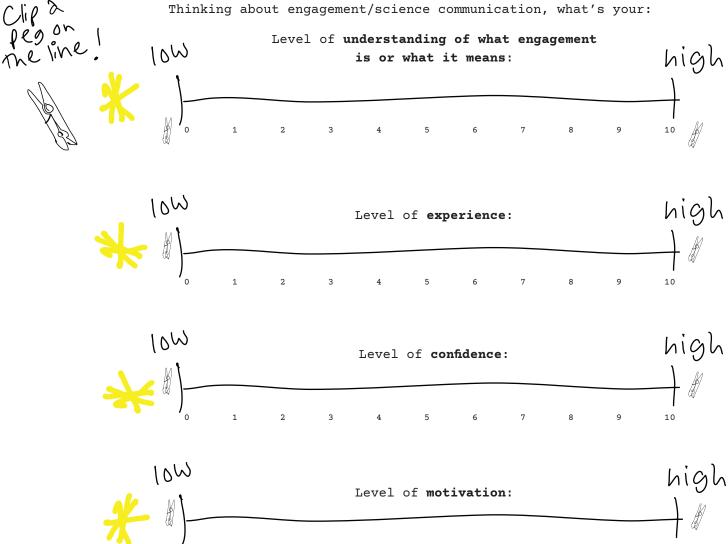
ADD YOUR THOUGHTS HERE

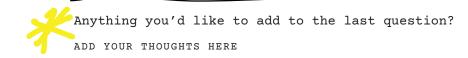
	SETTING THE
Is the project you have in mind associated with:  DELETE AS APPROPRIATE OR ADD YOUR OWN THOUGHTS  your specialist area of research  your discipline more generally  broader science literacy  something else (please expand)	E CYCLE SURVEY
Is your potential engagement project related to an external or larger project or organisation with its own engagement goals?  DELETE AS APPROPRIATE OR ADD YOUR OWN THOUGHTS  Yes, entirely	
Yes, somewhat  No, but it could be  No, definitely not  Not sure	

Expand here on any wider context that your project sits within (optional)

ADD YOUR THOUGHTS HERE









Who are the target audiences for your engagement/science communication activities?

ADD YOUR THOUGHTS HERE



What are the key messages for your engagement/science communication (if you know them at this stage)?

ADD YOUR THOUGHTS HERE



Are there any expectations or commitments (for instance to funders) with regard to engagement/science communication in this project?

ADD YOUR THOUGHTS HERE



Anything else you'd like to add, or questions you'd like answered?

ADD YOUR THOUGHTS HERE

gathering up the laundry pile





'Name tag' is an exercise that is built on a tool called 'One Face Many Facets', developed by Toi Āria - Design for Public Good.

It invites you to think about how you describe and position yourself, 'tagging' from one thing to another. Inspired by the Māori pepeha, which is a way to connect and introduce yourself, it can help position you in your relationships and connections to people and place, and to your interests and values.

Beyond the things you normally share when you meet someone, it welcomes you to think about other aspects of yourself that are personally important in one way or another, but you might not normally stick on a 'name tag'. Perhaps they are things that drive you, or things you have learnt about yourself along the way, or things that have an impact on your life, such as health, or elements of your social situation.

The intent of 'name tag' is to start us off in a reflexive frame of mind. What does that mean? Canfield & Menezes (2020) call reflexivity 'Continuous, critical, and systematic reflection on personal identities' with a view to helping us 'redress inequitable interactions'. Cunliffe (2016) describes it as 'questioning what we, and others, might be taking for granted—what is being said and not said—and examining the impact this has or might have'. Salmon et al. (2017) draw attention to a quality of 'self-questioning, in particular a willingness and ability to question one's own assumptions, how they relate to societal power structures, and how they shape one's actions'.

It might be useful to think about this as taking a look at yourself in a 'mirror' (what are the top-level things you can see or are quickly shared like where you live and work and what your profession is). Then, take a look at yourself taking a look at yourself looking in a mirror. What are the less visible or obvious considerations that have shaped you, personally or societally?

Canfield, K., & Menezes, S. (2020). The State of Inclusive Science Communication: A Landscape Study (p. 77). Metcalf Institute, University of Rhode Island.

Cunliffe, A. L. (2016). "On Becoming a Critically Reflexive Practitioner" Redux: What Does It Mean to Be Reflexive? Journal of Management Education, 40(6), 740-746. doi. org/10.1177/1052562916668919

Salmon, R. A., Priestley, R. K., & Goven, J. (2017). The reflexive scientist: An approach to transforming public engagement. Journal of Environmental Studies and Sciences, 7(1), 53-68. doi. org/10.1007/s13412-015-0274-4

www.toiaria.org

# side 1: face value



Like climbing stairs, start at the bottom



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H							
-							
H							
L							
L							
+							

# side 2: hidden depth



Cut out the 'name tag' and fold it in a concertina, like a staircase. Work your way up the first side of the tags, starting at the bottom (like climbing the stairs). The top side is your 'face value' side. Like a name tag, it's open and visible. The underside is yours to keep hidden, if you prefer. You decide what's a side 1 thing and what's a side 2 thing — there's no right way, but here are some prompts:

#### side 1: face value

What are the more overt parts of how you define yourself? If you're stuck, try asking:

- What do you like to be called?
- Where is 'home'?
- Who is your family?
- What do you do for work, and play?
- What other things would you tell people the first time you met?

#### side 2: hidden depth

Then turn the tags over. These parts can be less visible. You might not want

to share them with people (at least not straight away), but you know they're important to your identity:

- What's your socioeconomic background?
- What inspires you?
- What worries you?
- Where do you sit politically?
- Are class, race, gender, sexuality, disability or health conditions important to your identity?

Salmon et al. (2017) suggest that thinking about the politics of your field of research; institutional context; and personal assumptions are vital to help develop reflexive science communication. As we go through the laundromat process, reflect on how these elements of you shape your research, and your engagement. And, think too about how your audiences bring their own individual, complex version of themselves too (even if you're calling them all 'the general public'!).

gathering up the laundry pile



Now for something that might feel odd...

Pick up a pen or pencil, and on this page, have a go at sketching yourself doing a science communication or engagement activity. This can be an event or activity you ran in the past that you're reflecting on, or one you're planning in the future. The point is to switch out of academic mode and observe yourself, as if from a distance...

- What do you look like as a (science) communicator\*? What are you wearing? Do you have props? Are you comfortable?
- Where and what is your engagement space? Where will this engagement take place? Where are you relative to your audience/participants?
- What does your audience look like? How many are there? Were they invited? Where are they and what are they doing? What are they dressed like?
- How do these things relate to each other?
  Draw the relative positions and interactions
- What are you communicating about?
   Give yourself a speech bubble or other way of showing what the content is...

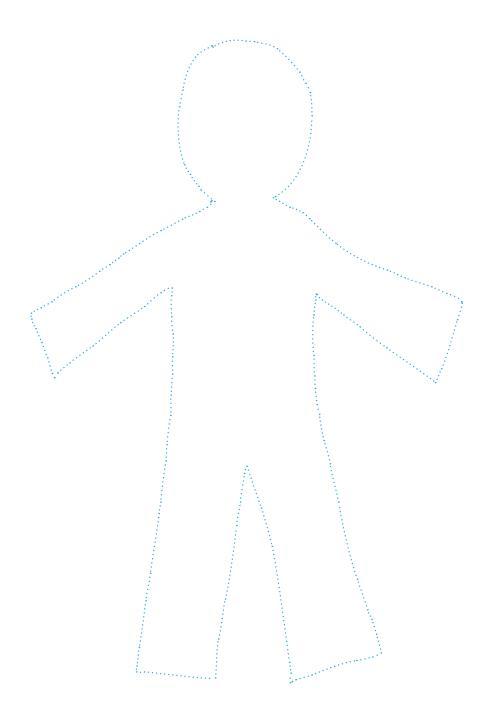
\*or whatever term works for you.

no need to sweat it!

no need to sweat it!

Just scribble, draw or

write - whatever works.



gathering up the laundry pile

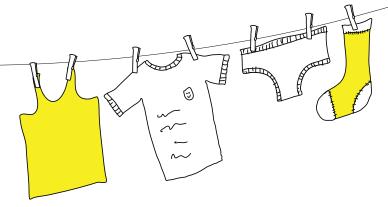
Science communication and public engagement can mean vastly different things to different people. Before we head on into the laundromat, we'd like to know what engagement means to you, just as a one liner, off the top of your head (no Googling required!)



### one down...!

That's the laundry gathered up! Let's hang that up to share and air with your fellow washers and laundromat attendants.

Once you've soaked it all up, we will move on with the cycle!





thoughts and notes

LEFT INTENTIONALLY BLANK FOR YOUR MUSINGS

sort the laundry





This part of the laundromat is to help us iron out a few things and get the water up to temperature: a brief intro into science communication (or whatever term works for you). We'll present this to you face to face, or at least through a screen so we you can ask questions as we go. The slides are here in case you want to annotate them.

The nomenclature in the science communication field crosses over with many others, and the terminology can be unsystematically variable. This will help us at least understand how we each understand engagement!





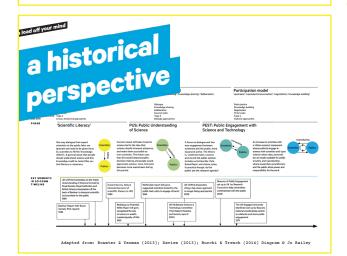
organised, explicit, and intended actions that aim to communicate scientific knowledge, methodology, processes or practices in settings where non-scientists are a recognized part of the audience

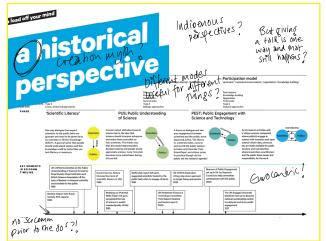
- Horst, Davies & Irwin (2017, p.884)

## what even is engagement?

...intentional, meaningful interactions that provide opportunities for mutual learning between scientists and members of the public

- Nisbet & Marcowitz (2015, p.2)





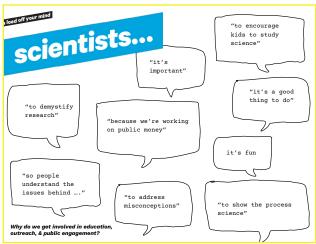
## what's the purpose of scicomm?

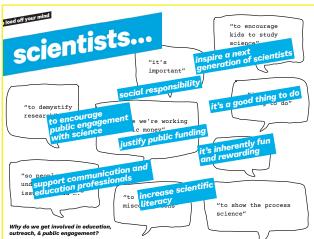
From the perspective of scientists media public(s) policymakers

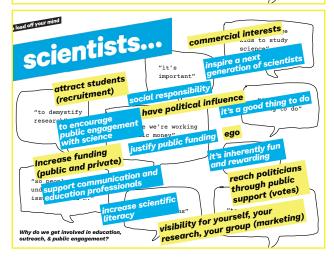
## what's the purpose of scicomm?

From the perspective of scientists

media
public(s)
policymakers

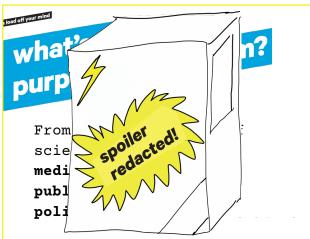


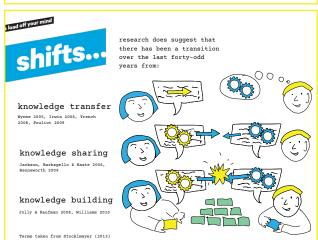




## what's the purpose of scicomm?

From the perspective of scientists media public(s) policymakers







e.g. articles podcasts presentations infographics







One-way transfer of content based on commonly understood laws of nature no impact or action required, little controversy

#### load off your mind knowledge transfer









One-way transfer of content based on commonly understood laws of nature no impact or action required, little controversy







The deficit mindset is an one way communication is assumption that the public important for consensual, have a'deficit' of non-problematic concepts knowledge, and this can be remedied through more science communication one way does not necessarily equal deficit. nature of science

builds 'scientific literacy' and understanding of role &

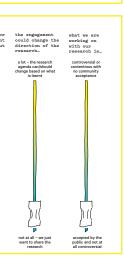
not yet started

Unhelpful framework for communication of controversial issues

no necessary causal progression from more knowledge to more acceptance

#### load off your mind knowledge transfer

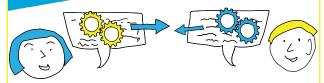
suitable for simple, non-political issues with common frameworks, and requires no change in values, attitudes or behaviour



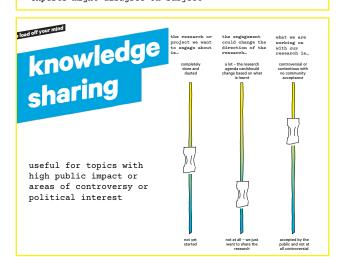


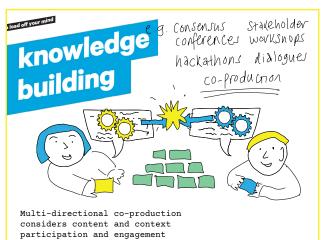


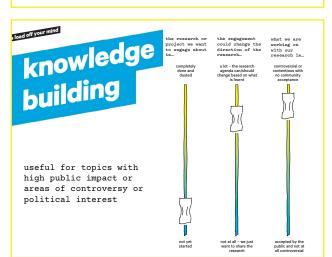
.g. science cafés Stakeholder meetings workshops oames

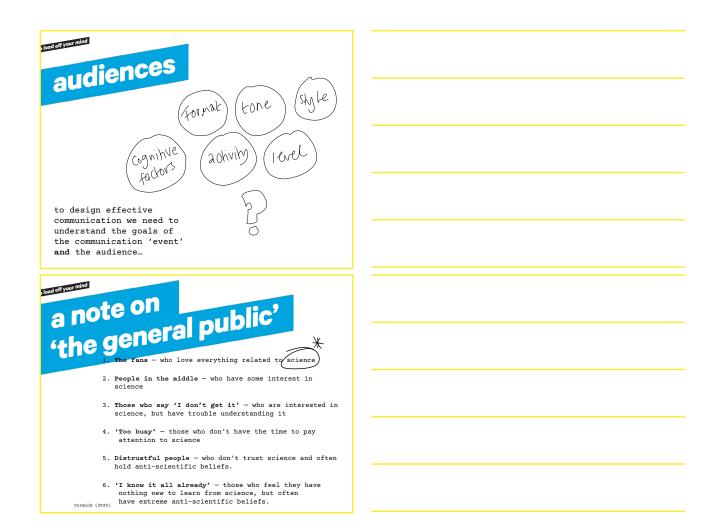


two way discussion negotiation / consultation some consideration of context as well as content experts might disagree on subject



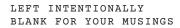






you can find articles referred to in this presentation at laundromat.makinggood.design/references.

The slides and a video walkthrough are under 2.1 at laundromat.makinggood.design/resources.





thoughts and notes

sort the laundry

## get it on the garments peg 'em up prompts



Earlier in the wash we prompted you to think a little about your project and yourself as a science communicator or public engagement facilitator. Now you've had a chance to hear a little bit more about the general direction of the field as recorded in the literature and from your peers, and had some time to soak your ideas we want to set about documenting some of those thoughts as they are now. Using the prompts supplied to help you, try and record things like:

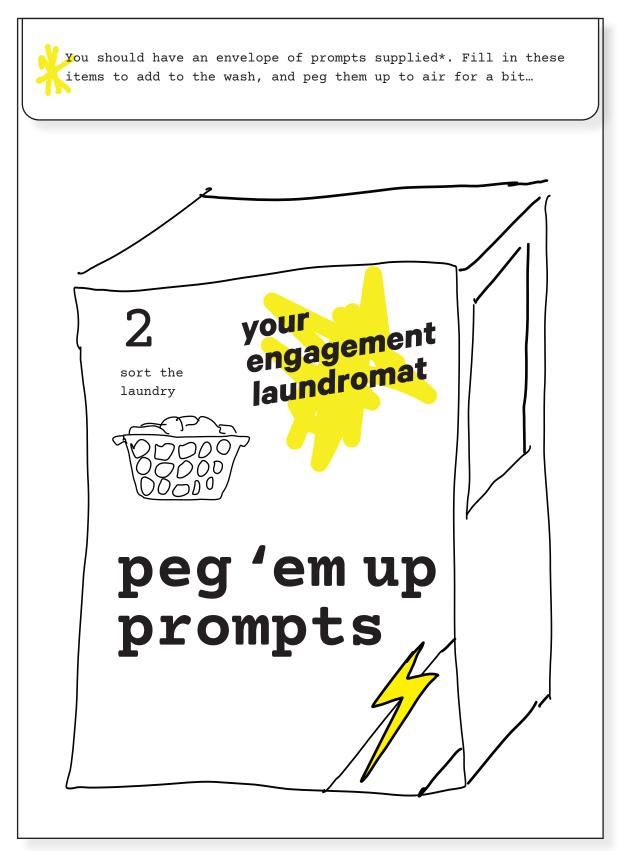
- what is the scicomm or engagement?
- where is it?
- who is it for?
- why are you doing it?
- what resources do you need?
- who are the other people involved?
- where is funding coming from?

Anything you're holding in your mind, jot it down and pin it to the washing machine.



Any time you have a thought you want to come back to during the process, peg it on the line or pile it on your machine for later





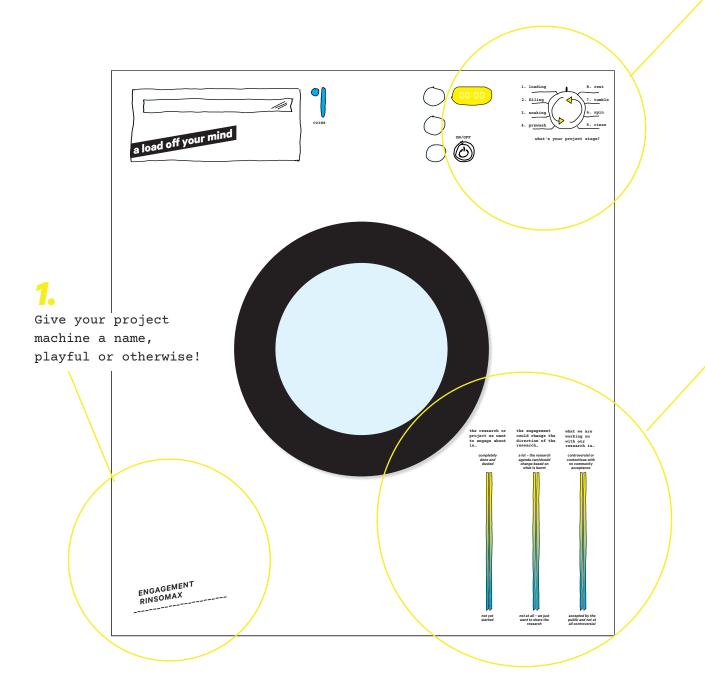
<sup>\*</sup>If the prompts are missing, you can also find them at them under 2.2 at laundromat.makinggood.design/resources/

choose the settings

## set the sliders and cycle length



Now, we're going to consider some of the settings on the machine to help you think about your project further. Here we are thinking about the actual science or **research project** you are hoping to engage about as well as the **engagement** part...



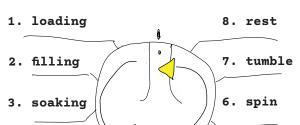
Set the dial to reflect the stage your **engagement** project is at... (some people might be using the laundromat as a catalyst, some might be checking in and reevaluating - both are legitimate). How long do you expect an engagement cycle to take?

early days just thinking!

percolating and planning...

just about to give the first event a go...

prewash



finishing up (and regrouping for another cycle?)

appraising how it went...

doing my first activity

5. rinse



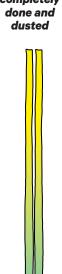
Fill in cycle time in number of days (or, how many days from now until you will be doing your first activity)

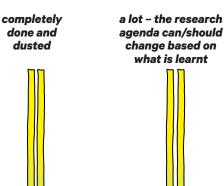
Set these levers to consider your research (the work you are engaging about) in relation to your engagement...

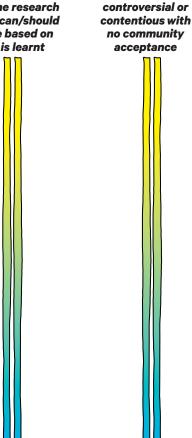
the research or project we want to engage about is...

the engagement could change the direction of the research...

what we are working on with our research is...









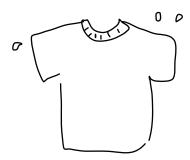
Position a slider on the scale



not at all - we just want to share the research

accepted by the public and not at all controversial

soak + spin



#### DRIVERS + MOTIVATIONS

This section considers funding sources (e.g. mandates on scope or priority as stated in a 'request for proposal'), self-promotion (e.g. what are the ways in which the leader or project team benefit), individual drivers and motivations, whether a given initiative serves the 'greater good' and identifying any political or institutional drivers.

#### PEOPLE + CAPACITY

This element helps to identify who is part of a given project (paid staff, volunteer staff) and how they are supported by both leadership and funding. It also asks what expertise is present, missing, or required, as well as identifying any organisational support mechanisms and capacity-building needs or potential.

#### POWER + FUNDING

The funding element is used to articulate who has (or needs) the power (self, individuals, board, funders, managers, indigenous or tribal groups) and those who have influence, such as cofunders, and whether funding is public, private and/or from an internal institutional source. It is also important for identifying if the funding has any political or policydriven elements, or is mission or research led.



Now we're really rumbling, we want to get to grips with and articulate some of the different drivers and objectives of all parties involved in the public engagement around your research, using a tool originally developed by Salmon & Roop (2019). This is an opportunity to become more transparent and explicit about the 'real' goals of communication activities — the openly declared ones, and the ones that won't ever be in a funding report! — and what 'success' looks like. You can read their paper at laundromat.makinggood.design/references.

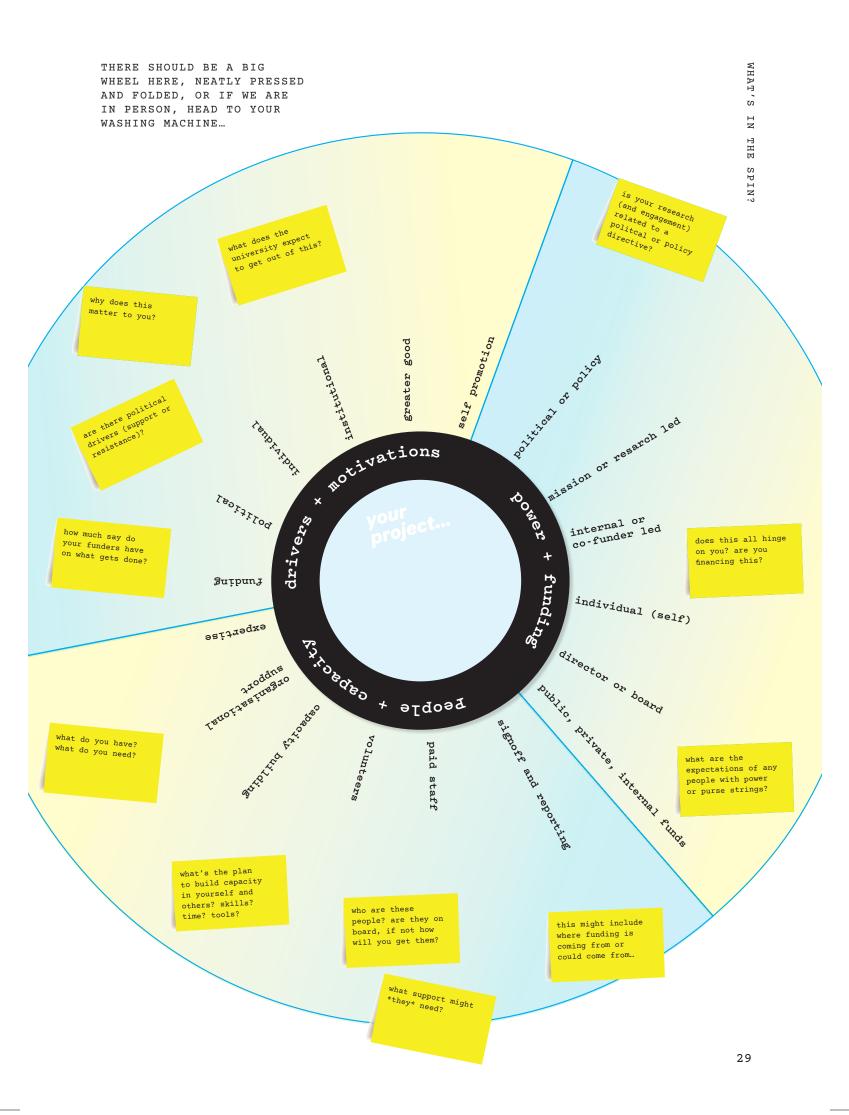
Working around the circle, declare all the issues you can think of related to each of the prompt categories. These are grouped under drivers + motivations, people + capacity and power + funding, but some things may live in more than one section. That's fine, jot them down in both, or wherever makes most sense to you.

Do this in a 'quick and dirty' way, until you have collected as much information as possible for each section. The headings are just think-prompts, they might not be relevant to each project, but just considering the presence or absence of these elements is part of the intended process.

It can be helpful to structure this work around a timer (e.g. 7-10 minutes per section, so that the whole activity takes no more than 30 minutes). You can then give it some soaking time and come back to it for another whizz round...

Salmon, R. A., & Roop, H. A. (2019). Bridging the gap between science communication practice and theory: Reflecting on a decade of practitioner experience using polar outreach case studies to develop a new framework for public engagement design.

Polar Record, 1-14. https://doi.org/10.1017/S0032247418000608



## greater good Lenotauatiant Declare all the issues you can think of related to each of the headers. These are grouped under drivers + mctivations, power + funding and people + capacity, but some things may live in more than one section - that's fine, jot them down in both or wherever makes sense to you. The subheadings are just there as think-prompts, they might not be relevant to every project.

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Roktod so Leokaklod

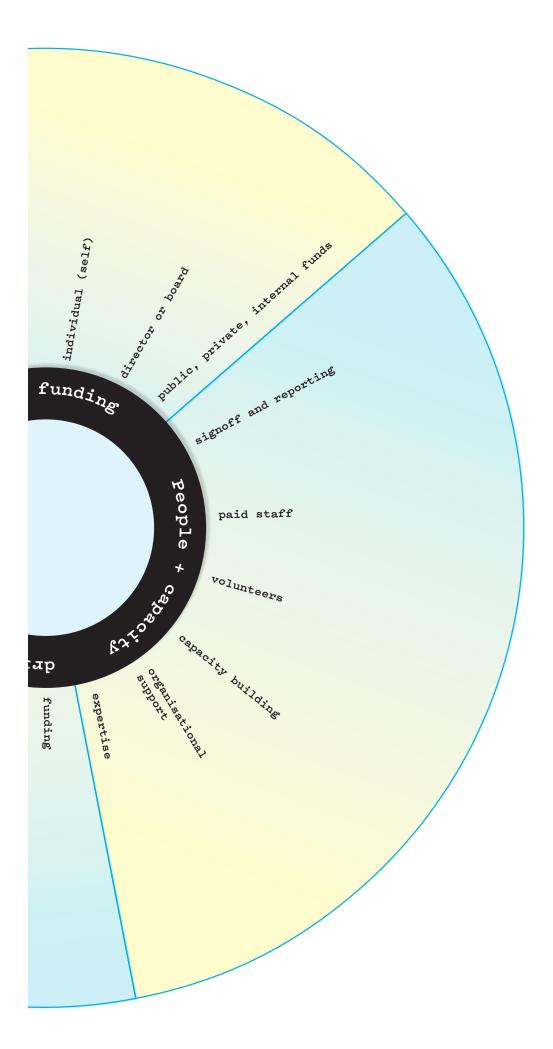
self promotion

internal or co-funder led

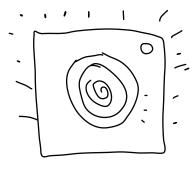
Power

fog xg x wox'yvations

## what's in the spin?



rinse + wring



## who's in the spin? audiences + messages

Now we want to get to grips with the audiences and messages. Who are the people you're doing this for or with? The audiences (or 'publics', or 'users', or 'participants'... there are myriad terms that might be appropriate, so we'll stick to people for now!).

Here's the scenario: imagine you have run your first engagement event or activity, and it was a great success! The next day, the laundromat attendants are 'overhearing' while some people who attended your engagement activity rinse their socks and talk to their friend about going to your activity.

In an **ideal world**, what would the earwigging attendants hear?

Have a go at filling in these 'overheards' for three audiences:

#### Your 'primary' target audience...

This is the main group you want to reach with your engagement. When people ask 'who is it for?' this is the first group you name.

#### a secondary audience...

This might be another key group you want to reach, or someone that unlocks the primary audience.

#### and a 'secret audience'

This might be someone you know you want to be impressed — perhaps they have power or influence in some way? A politician, funder, manager, colleague, idol...? Perhaps this is a 'stealth' audience — an undeclared someone you need to engage with in order to reach someone else. It might even be an audience you expect to be antagonistic or challenging, and you want to deal with alongside the declared audiences.

If you're working in a group, it's likely that your primary audience is shared but you might all have a different 'secret audience'. Use the spaces in this zine workbook to fill in any audiences specific to you.

## person one is...



WHO AM I?

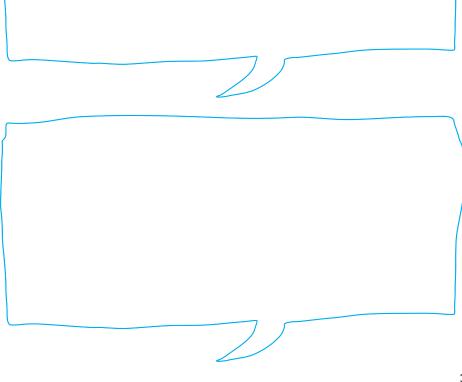
WHAT DO I KNOW ALREADY?

what do they say ....

about why they went?

about the experience

about the things they learnt



## person two is...

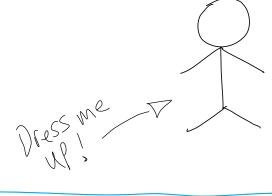


What do they say ....

about why they went?

about the experience

about the things they learnt





What do they say ....

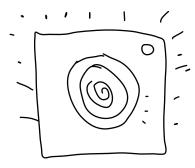
about why they went?

about the experience

about the things they learnt



rinse + wring



## what \*is\* the spin?

#### messages rinse-out

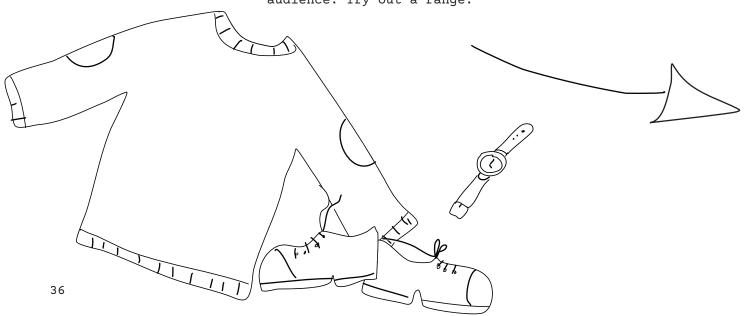
We've looked at the people and what you want them to experience, now we're going to give that another rinse, and touch a little more on the key messages you want those people to absorb.

We'll think about these as outfits. What style would suit the values and interests of your audiences? How can you make an impression quickly? How can you make that memorable?

Unlike writing for an academic audience, this means putting the 'so what?' part upfront rather than covering the background of your field, methods, etc. Identify the most important thing for your audience to know first. This could be a critical finding, why your work is important, areas of focus... It's the eyecatching outer layer.

From there, you can add more: what goes on at each layer of your messaging? How do you bring in increasing levels of detail without relying on technical jargon? What stories, analogies or examples can help? The 'underwear' is the hidden detail that an audience may or may not need to see!

Have a go at identifying and ironing out the layers. Try this for your primary audience first. If it's useful, you can expand to other groups. You will likely find there are multiple messages for each audience. Try out a range.



# your primary audience's first outfit

### eye-catching outerwear

this simple message should cover off the key point you want to convey. It is the most important thing you want your audience to know...

### mid-layer messages

this is the next layer of detail. It expands on why the work might be important or interesting to the audience. It tells them why they should care...

### the underwear

this is an additional level of supporting detail. It might expand the background for the audience or present other research findings...

\*IS\* THE SPIN?



### eye-catching outerwear

this simple message should cover off the key point you want to convey. It is the most important thing you want your audience to know...

### mid-layer messages

this is the next layer of detail. It expands on why the work might be important or interesting to the audience. It tells them why they should care...

### the underwear

this is an additional level of supporting detail. It might expand the background for the audience or present other research findings...

Well done, thoroughly rinsed! Take a moment to think about ways you can find out more about your audiences, to check the assumptions you may have made about their interests, level of expertise or values and motivations.

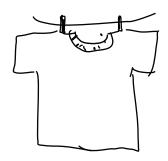
How can you hone the messages for them? How will you test these out to check they are working?



thoughts and notes

LEFT INTENTIONALLY
BLANK FOR YOUR
MUSINGS

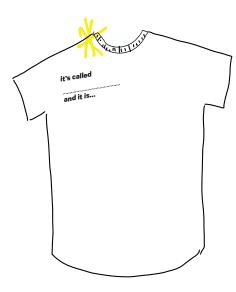
get it dried



It can be helpful to code at this stage, either with coloured stickies, pens or icons, e.g...



ENGAGEMENT ONE-LINER



## hanging out to get it done!

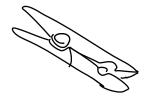
### priorities washing line

At this stage, you've hung out with your thoughts for a while and you've done some rigorous rumbling. The wheel might have shifted dirt you didn't know existed; the levers might have made you think about when you're engaging and how the engagement might shape the research that you do. Now's the time for converting all that agitation into a project plan.

You might have added things to the wash that vary in detail: you'll have denim dungarees and silk socks, and you'll need to manage them all carefully to be successful! Now we can take a step back and try to make some priorities. Going back to your washing line or machine, revisit the thing that you pegged out. Are they all still in the rinse or are some of them no longer clothes you want to wear? Are there things in the survey questions that have changed for you? Has the wheel washed any things to the fore that can translate to actions? Has your engagement 'one liner' changed?

You may have things that are higher level and things that are practical steps to get there. For instance, running an event vs. booking a venue. Clearly both are important! Go through the washing line and translate anything still relevant onto stickies. It can be helpful to colour-code these. For instance, yellow for macro things and blue ones for micro. Or use coloured pens or icons - whatever works. Then go through the rest of the zine workbook to pull out things that may translate to actions.

You should find a large washing line project planner enclosed. Place your stickies on the matrix depending on how important they are, and how pressing they are in terms of timing...



YOU SHOULD HAVE A LARGE FORMAT VERSION OF THIS...

THIS WAY UP!

lower ... damper to conger FURTHER IN THE FUTURE! FURTHER QUITE priorities to the considerations on your washing line the your project planner hand line to the bland washing the man your seek where a project planner hand lambfy beakers but in the (text) quick, drog! NOM MODERATELY IMPORTANT NOT AT ALL IMPORTANT EXTREMELY IMPORTANT IMPORTANT VERY #01820.00008EEEEE 94.9 #01820.00008EEEEE 94.0 #01846-08-8E 00

\*If the large planner is missing, you can also find them at them under stage 6 at laundromat.makinggood.design/resources

\*YOU CAN TAILOR THIS TIME AXIS TO YOUR NEEDS

fold + press





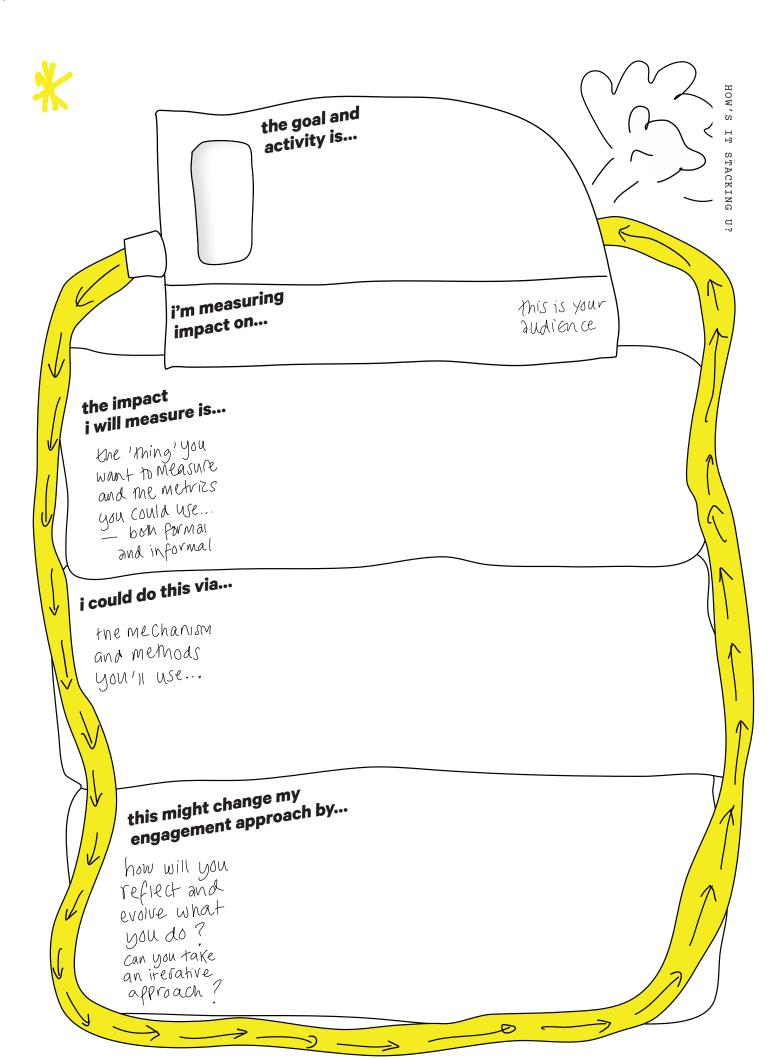
We are nearing the end of the cycle! The only thing we have not ironed out is thinking about how you will evaluate the engagement. Or put another way, what would indicate impact? What are the measures of success? What metrics are there that you could count, measure or survey, or observe more informally? And how can you evaluate impact both on your audience, and on yourself and the other team members?

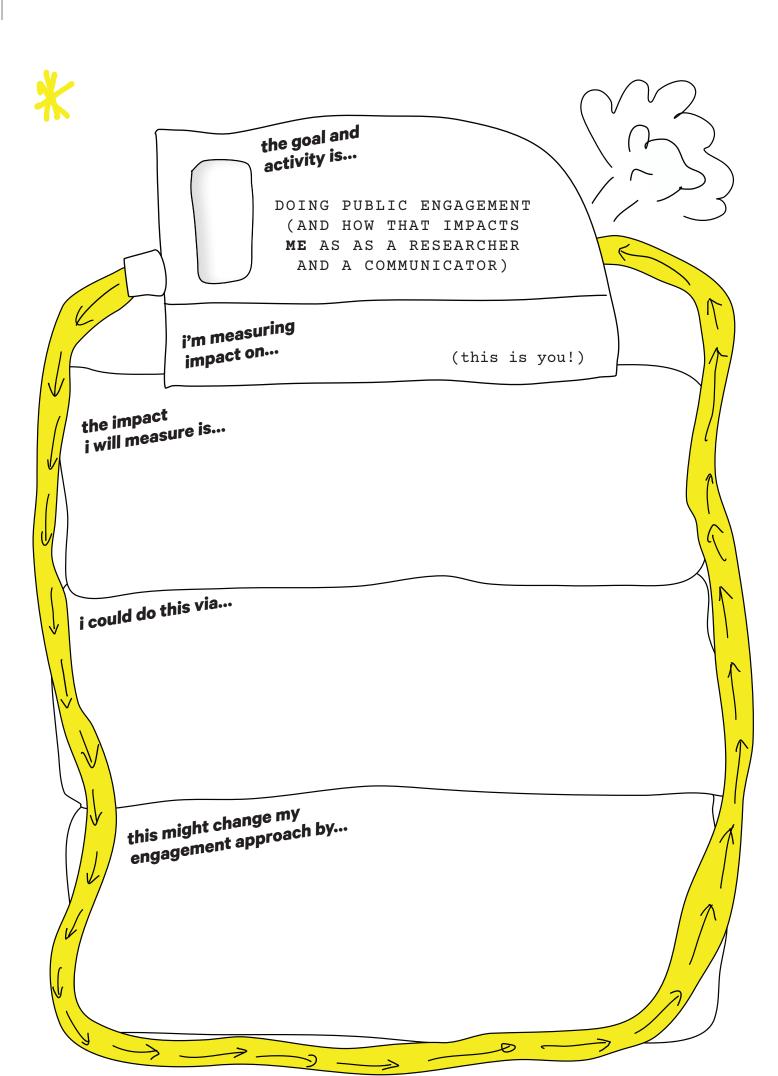
Flip back to the audiences, and the things that you wanted them to get from the engagement experience. Consider how these (possibly quite intangible) things could be translated into things you could measure. Take another look at the wheel, and any expectations from other parties such as funders.

These metrics might include such things as gaining insight into the concerns people have about science (or your research area), making connections between it and everyday life, making more informed decisions using your research area, or other outcomes related to your project goals. Some of these metrics may be immediate (for instance if an event was well-received), whereas some of them may need to be measured over the long term.

Have a go at documenting how you'll evaluate impact for at least your primary audience. Sometimes funders will have specific metrics they want you to use. Are these meeting your needs, as well as theirs? Is there a role or need here to bring in a professional or external evaluator?

And, reflect about the impact on YOU and how you'll actively think about the impact of undertaking public engagement on you as a scientist, researcher or science communicator. In the wheel, did you specify personal motivations? Can you measure if these are being fruitful, and can you check in reflexively on yourself in relation to your engagement, to make sure it's sustainable?

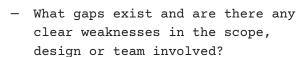






Well done! Take a moment to check that the metrics you have identified meet the expectations of any funding bodies you might have, and that they give you the right tools to shape your engagement in future cycles.

Now we're in the process of neatly folding everything we've learned. Ask yourself:

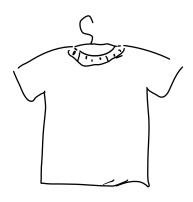


- Are there new partners or collaborators who would help strengthen this initiative?
- Are the mission and goals clear and can they be clearly evaluated or measured?
- Are the purpose, messages and audiences clear?



thoughts and notes

ready to wear





#### next steps

All being well, you're feeling fresh, bright and confident now. You should be able to spin the answers to these things off at 1200rpm:

what

is the project

called?

who

is the target?

where

will it

take place?

what

resources / people do you need to make it happen?

why

is it

important?

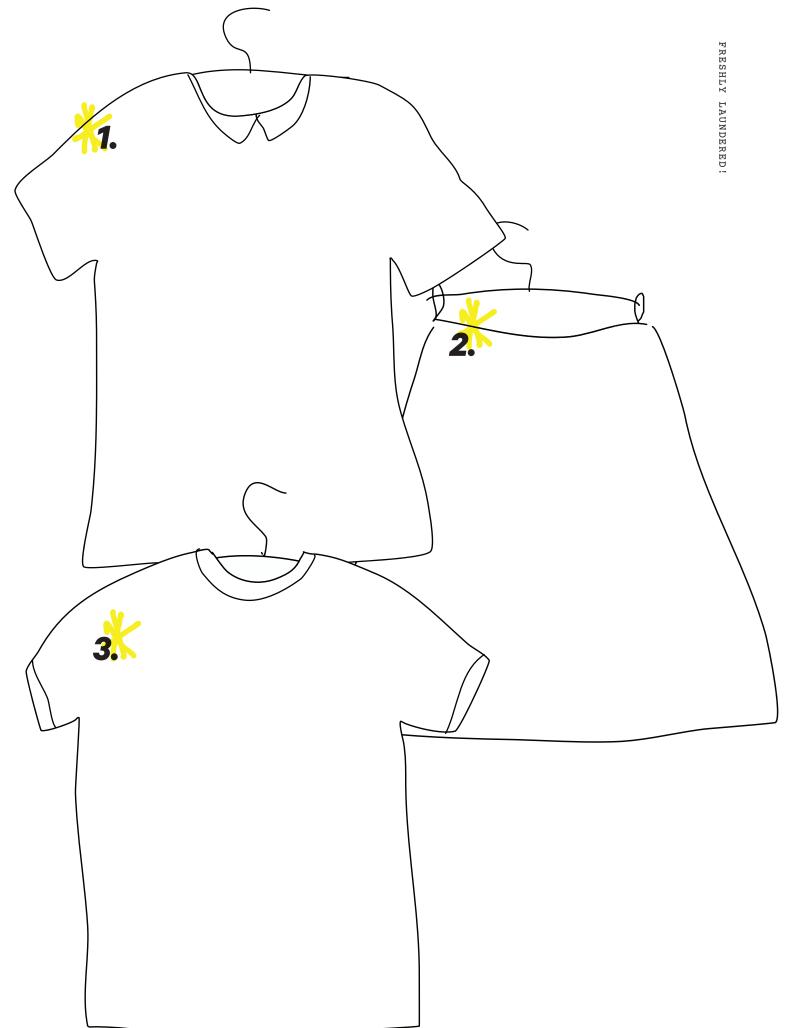
what

are the key messages?

how

will you evaluate?

Now to put you on the spot, tell us the three tangible next steps you're going to take to move forward:

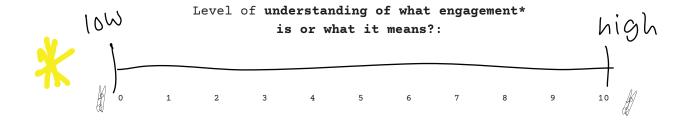


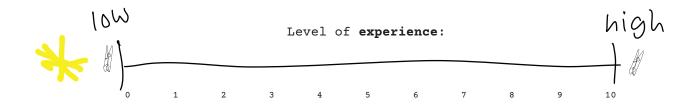
ready to wear

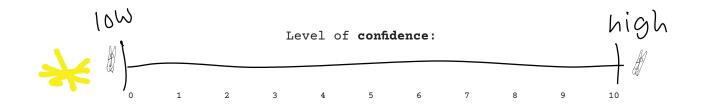
### No doubt you're worn out!

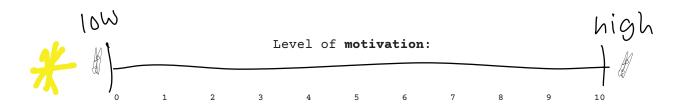
Just one last thing. We're interested to know how you feel now, having gone through the laundromat. Regarding how you feel about engagement/scicomm\*. what's your:

\* You might have a sense by now of what terms sit best with you!









What's changed, if anything? Take a moment to compare these answers to the ones you gave at the start of this process. Has anything changed? If so, in what way?

That's that cycle washed and folded!
We hope this process has helped
you share the load and work out
you share the load and work out
you so forward. Remember,
how to go forward. Remember,
designing science communication,
designing science communication,
is never 'finished' – you
like washing, is never 'finished' – you
might find it useful to check back in
with the exercises down the track,
with the exercises down the track,
to keep things fresh. Kia ora, thank
to keep things fresh. Kia ora, thank
you for engaging with the science
you for engaging with the science



### reading list

Here are some articles that you might find interesting, some of which are referenced in this There is a complete list at:

laundromat.makinggood.design/references

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## thoughts and notes

LEFT INTENTIONALLY BLANK FOR YOUR MUSINGS



Check out the full set of laundromat resources at laundromat.makinggood.design