

What mission-led science communicators and engagement specialists do

This information was compiled by Ceridwyn Roberts as a Fellow of the Office of the Prime Minister's Chief Science Advisor

Creating inclusive, interdisciplinary collaborative teams and including wider stakeholder participation in research projects requires resources. If you're after the most effective impact possible, you should think about involving a science communicator or an engagement specialist in your planning. Think of science communicators and engagement specialists as representatives and advocates for the end-users of the research. Their expertise stems from their specialist skills and ability to bring a wider perspective to bear, one that is not captured by any one organisation or discipline involved in the project.

If you are interested in making a funding application for some mission-led science, it is important to detail your intentions for science communication and engagement and to ring-fence budget for bringing about impact. Mission-led science communicators and engagement (MLSCE) involvement will have most effect if the specialists are involved from funding application through to the project's wrap-up. While requirements will vary, experience from a successful Endeavour-funded project suggests allocating between 3-8 percent of total funding for MLSCE staff. Separate budget will also be required for any major science communications outputs, such as videos, interactive data storytelling, wānanga, etc.

Mission-led science communicators and engagement (MLSCE) work can be split into four different areas:

- Strategy.
- Translation and engagement.
- Support and administration.
- Measurement.

Strategy

Specialists working in communications and engagement can be vital in elevating uptake and impact of research when they are included at a strategic level. At the beginning of project planning, MLSCE specialists can work with scientists to understand what outcomes and impact are intended, including working to craft and hone the mission and values of the project. It is also at this point that they identify the end user of the research and to plan for how they can best be engaged.

MLSCE specialists bring an understanding of the systems in which end-users work to this audience identification. This includes identifying who has the power to make a change with the science, who needs this information to make better decisions, and when this should occur for the greatest impact. Examples of relevant systems include the legislative and political process, curriculum development, commercial funders, media, etc.

Once a project is underway, strategic MLSCE involves:

- keeping the mission and outcomes of the project clear, and front and centre of all external and internal interactions throughout the project;
- helping identify pivot points and changes in end-users and messaging;
- identifying the most appropriate type of material or content for the audience (e.g. podcast, workshop, wānanga, interactive map);
- engaging with end users to evaluate usefulness of the developing science and feeding this into science work plans; and
- managing strategy for approaching sponsors and any commercial partners.

At the end of the project, science communicators should also be able to provide syntheses of the research across disciplines and organisations that are useful for the different end users of the research.

Translation and engagement

A key role of science communicators is translation in multiple directions. At its heart, science communication involves identifying stories of change and (sometimes) triumph that connect to the hearts and minds of everyone involved in the project. Throughout the life cycle of the project MLSCE brings a focus on practical implementation and real-world implications to the science. Ideally, this might inspire non-science audiences to engage with science and, where needed, to be part of (or run) projects.

Science communicators

For science communicators translation may need to be more broadly focused than simply using plain language words on paper. It involves finding appropriate, and sometimes innovative, ways to reach targeted audiences while simultaneously enhancing the uptake and impact of the research. Science communicators act as creative directors for communications materials, so that creative vision and science can mesh into something useful, appealing, and beautiful.

There is a growing need for science communicators to work with and translate complex data for specific audiences. Several of those interviewed mentioned that there is a need for capability building in this area.

Other elements of science communication translation include:

- combatting mis and dis-information;
- bridging gaps when journalists are stretched;
- finding a way to communicate when the topic is 'unsexy' or findings are unpalatable; and
- addressing misleading narratives and ensuring accurate interpretation of findings.

Engagement specialists

The key focus for engagement specialists is ensuring that affected communities are represented within the research and that scientists understand the needs and values of those communities. Facilitating the building of trust in both directions is not something that has an end date. Both science communicators and engagement specialists build audiences and can initiate collaborations or partnerships with other organisations through their understanding of the wider social and research landscape.

Support and administration

Although this aspect of MLSCE is less strategic, there is a considerable amount of skill involved. Key in this area is working to become trusted advisors for researchers. This often involves supporting researchers in expanding their own communication skills (such as rehearsing for media interviews or helping with presentations to policy folk) and helping quiet voices be heard. More practically it also includes:

- communications channel management (e.g. media, social media, websites, newsletters);
- event management;
- project management of and budgeting for content production and delivery; and
- project management of and budgeting for authentic engagement and relationship building.

Measuring and reporting

Elements of measuring and reporting on mission-led science are a focus of science communication and engagement specialists as a project wraps up. Measurement from a MLSCE perspective includes:

- writing reports summarising workshops, wānanga, and stakeholder meetings;
- media monitoring and analysis (including linguistic and attitudinal analysis);
- recording statistics on engagement across the project (both quantitative, e.g. meetings with government, and qualitative, e.g. stories from those affected by the research);
- survey design, analysis, and response at varying stages of the project to identify attitudes, questions, challenges, and impact; and
- writing case studies and research synthesis documents that encompass the lessons or impact of the project.

This list was brainstormed by Ceridwyn Roberts alongside Allannah Robinson (GoodSense), Annabel McAleer (Our Land and Water National Science Challenge), Catherine Kirby (Eco-index), McKayla Holloway (Cawthron Institute), and Caitlin Carew (Resilience to Natures Challenge National Science Challenge).