

A blueprint for building university-based boundary organisations that achieve impacts on policy and practice



*The uptake and integration of scientific research into decision-making processes remains a significant challenge. Many research organisations have begun to experiment with novel institutional structures aimed at enhancing the impact of research on policy and practice. Taking Stockholm University's Baltic Eye Project as a case study, **Marie Löff** and **Chris Cvitanovic** present a blueprint for building university-based boundary organisations, setting out the seven key themes to consider. In recognition of research organisations' often constrained fiscal environments, the four most important features are also identified: the inclusion of policy analysts within diverse teams; the establishment of clear goals; the presence of effective leaders; and secure funding.*

Confronting the sustainability challenges of the 21st century requires better integration of new and evolving knowledge into decision-making processes. Science is one form of knowledge that is critical in this regard. However, the uptake and integration of scientific research into decision-making processes remains a significant challenge. Many research organisations have begun experimenting with [novel institutional structures](#) aimed at enhancing the impact of environmental science on policy and practice. The problem is such initiatives are seldom evaluated, and even in cases where evaluations are undertaken, the results are rarely made publicly available. Consequently, there is very little information regarding the organisational features that build, or limit, success, and there remains a lack of empirically grounded guidance to inform other organisations seeking to develop and implement new institutional approaches in this regard.

To this end, together with colleagues from the Stockholm Resilience Centre and Newcastle University, [we recently evaluated](#) the [Baltic Eye Project](#) at Stockholm University, a unique team consisting of researchers from different fields, science communicators, journalists, and policy analysts. The project works collectively to support evidence-informed decision-making relating to the sustainable management of the Baltic Sea environment. Despite only operating for three years, we found that the Baltic Eye Project has already achieved demonstrable impacts on a range of levels, including impacts on policy and practice; impacts to individuals working within the organisation; and impacts to the broader university. Delving deeper into the learnings and experiences of people working within the Baltic Eye Project allows us to identify a "blueprint", providing guidance for other research organisations seeking to achieve greater impact on environmental policy and practice.

A blueprint for building university-based boundary organisations

Our blueprint highlights seven key themes relating to the features of research organisations that aim to enhance the impact of environmental science on policy and practice: (i) Organisational; (ii) Individual; (iii) Financial; (iv) Material; (v) Practical; (vi) Political; and (vii) Social. Here, we provide a summary of these features:



A blueprint fo

University-based boundary organisations that achieve impact



ORGANISATION

Diverse teams
a good culture



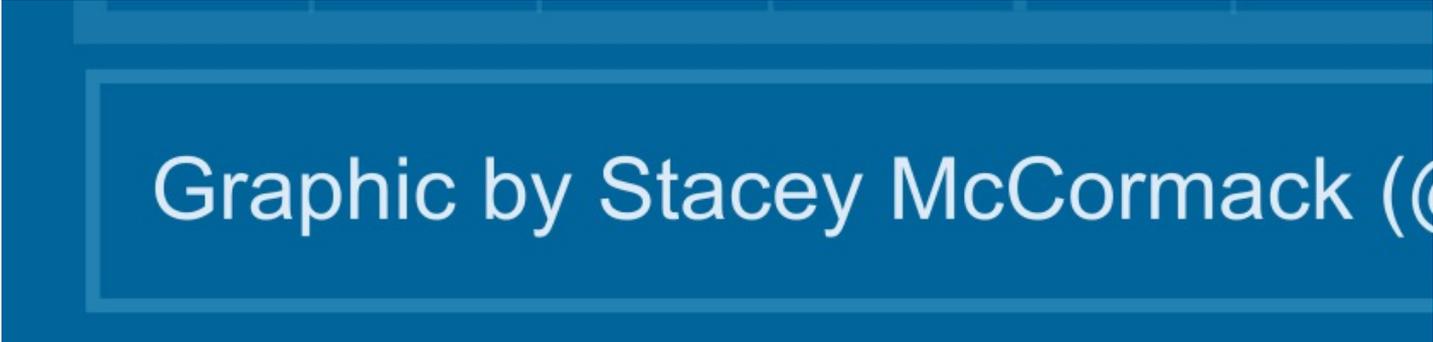
INDIVID

Strong and
open to new
honest and



FINANC

Sufficient, s
funding.



Graphic by Stacey McCormack (@McCormackSA)

Figure 1: Features of environmental research organisations that have impact on policy and practice. This figure is based on that which appeared in the authors' co-written paper, "[Building university-based boundary organisations that facilitate impacts on environmental policy and practice](#)", published in *PLoS: ONE*. Infographic prepared by Stacey McCormack (@McCormackSA) – [click to enlarge](#).

Organisational: university-based boundary organisations should have diverse teams; effective leadership; clear and measurable goals; a good culture; external credibility; and appropriate reward systems (i.e. those that account for stakeholder engagement, not just number of citations).

Individual: individuals within university-based boundary organisations should be collaborative; resilient; self-motivated; open to new ways of doing things; honest; and strong communicators who are capable to fostering strong social networks with diverse stakeholders.

Financial: funding models underpinning university-based boundary organisations should be long-term (minimum five years in recognition of the time needed to achieve impacts); secure; sufficient (to recruit required staff and develop required materials (see below)); and flexible (so as to capitalise on *ad hoc* opportunities as they arise).

Material: university-based boundary organisations should develop publicly available policy briefs with clear recommendations and associated public summaries. They should also develop and maintain an engaging website and strong social media presences (in particular Twitter and Facebook).

Practical: university-based boundary organisations should provide their employees with time and space to try new things, fail, and learn; to think; and to pursue their own interests as an aside to their core work (to help maintain high levels of motivation even when policy engagement is providing difficult).

Political: university-based boundary organisations are most likely to achieve tangible impacts on policy and practice when working on a "hot topic" that is attracting high levels of social, and thus political interest (in the case of the Baltic Eye this is exemplified through their work on microplastics).

Social: university-based boundary organisations need to ensure their employees have opportunities for informal and regular face-to-face engagement with external stakeholders (e.g. via regular organised morning teas).

Four most important features that enhance impact on policy and practice

The "blueprint" above provides guidance for other organisations that want to have impact on policy and practice. However, most research organisations operate in a highly constrained fiscal environment, and the development and implementation of all of these features is unlikely to be achievable. Further, some of the features – such as political capacities – are outside of the control of research organisations. Thus, we asked participants to identify the single most important lesson for having impact on policy and practice, based on their experiences working in the Baltic Eye Project. Doing so identified four features: i) the inclusion of policy analysts within diverse teams; ii) the establishment of clear goals; iii) the presence of effective leaders; and iv) secure funding.

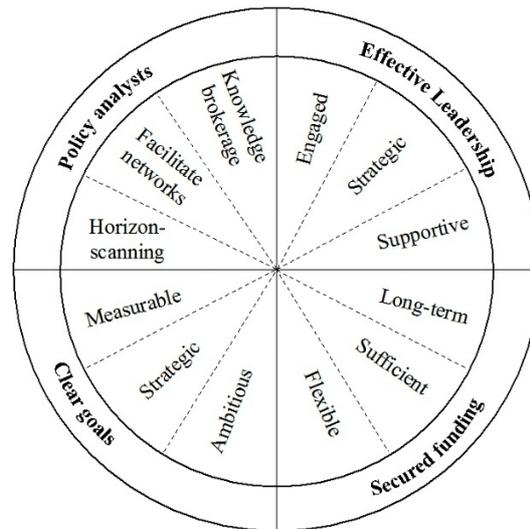


Figure 2: The four most important features of research organisations that increase the impact of environmental science on policy and practice. This figure first appeared in the authors' co-written paper, "[Building university-based boundary organisations that facilitate impacts on environmental policy and practice](#)", published in *PLoS: ONE*, under a [CC BY 4.0](#) license.

Of these, the inclusion of policy analysts – within an already diverse and balanced team of scientists and communicators – was identified most often by the participants of our study. Specifically, participants spoke about the value of having people that understand local, regional, and international environmental policy processes for: i) recognising the science needs of policymakers (i.e. horizon scanning); ii) identifying the most appropriate channel/pathway to influence policy and practice (i.e. matching strategy to context); iii) facilitating knowledge flow among scientists and decision-makers (i.e. knowledge brokerage); iv) training team members in how to most effectively influence policy and practice; and v) facilitating broader and stronger social networks for other teams members.

With respect to goals, participants spoke about the need for them to be ambitious, strategic, and measurable. In regards to leadership, participants discussed the importance of having engaged, supportive, and strategic leaders who helped to establish clear priorities in support of the broader objectives of the team. Finally, secure, flexible, and long-term funding was also identified as one of the most the most important attributes of research organisations hoping to influence policy.

Conclusions

Our evaluation of the Baltic Eye Project at Stockholm University has begun to reveal the key features that need to be present within research institutions that want to have impact on policy and practice. While some of the features identified here may challenge long-standing cultures and processes within research institutions, their implementation will increase the real-world impact of environmental science on policy and practice. Building institutional capacity in this way will be critical if environmental science is to fulfil its societal responsibilities and contribute towards the long-term sustainable management of natural resources underpinning societal wellbeing and prosperity.

*This blog post is based on the authors' co-written article, "[Building university-based boundary organisations that facilitate impacts on environmental policy and practice](#)", published in *PLoS: ONE* (DOI: [10.1371/journal.pone.0203752](#)).*

Note: This article gives the views of the authors, and not the position of the LSE Impact Blog, nor of the London School of Economics. Please review our [comments policy](#) if you have any concerns on posting a comment below.

About the authors

Marie Löf is a Research Scientist in the Baltic Eye project at Stockholm University Baltic Sea Centre, Sweden, focusing on ecotoxicology, microplastics and marine litter. Marie also has a deep interest in science communication and knowledge exchange, both from an applied and a research perspective. Find Marie on Twitter via [@lof_marie](#) or contact her via email at marie.lof@su.se.

Chris Cvitanovic is a Research Scientist and Knowledge Broker at CSIRO, Australia, specialising in knowledge exchange, stakeholder engagement and the governance of marine resources. In doing so Chris draws on almost ten years of experience working at the interface of science and policy for the Australian Government Department of Environment. Find Chris on Twitter [@ChrisCvitanovic](#) or get in touch via email at Christopher.cvitanovic@csiro.au.