

1 **Supplementary Material:**

2 **Further recommended reading**

3 There are diverse approaches for researchers to engage with marine governance. Some of the most common
 4 ones are knowledge co-production and boundary spanning as engaged and participatory approaches to
 5 generate actionable knowledge (Karcher et al., 2024; Mach et al., 2020). The likelihood of having such impact
 6 increases through early two-way engagement and building trusting relationships between researchers and
 7 societal actors like policymakers (Karcher et al., 2022; Martin et al., 2026; Newig et al., 2019). The nature of
 8 such engagement comes with the practical entry barriers addressed in this Commentary.

9 Throughout the perspective we would like to point to further literature resources that give overarching
 10 guidance to ECRs wishing to engage with international science-policy bodies (Lambertucci et al., 2025), the
 11 biodiversity science-policy space (Filyushkina et al., 2022), interdisciplinary research (Kelly et al., 2019),
 12 transdisciplinary marine science (Gómez & Köpsel, 2022; Strand et al., 2022), applied research (Cooke et al.,
 13 2020), and science-policy work in general (Evans & Cvitanovic, 2018; Oliver & Cairney, 2019).

14 More specifically, we recommend a closer look at the following references by FAQ:

FAQ1 (planning ahead for impact)	(Oliver & Cairney, 2019; Reed et al., 2018; https://www.fasttrackimpact.org/i-want-to-plan-my-impact).
FAQ2 (initiating engagement)	(Evans & Cvitanovic, 2018).
FAQ3 (meaningful and ethical engagement)	(Carroll et al., 2020; de Vos & Schwartz, 2022; Reed et al., 2024; Reed & Rudman, 2023; Verschuur et al., 2025).
FAQ4 (identifying appropriate contacts)	(Reed, 2008).
FAQ5 (navigating bias and prejudice)	(Gustavsson et al., 2021; Johannesen, 2025; Kaikkonen et al., 2024; Shellock et al., 2022).
FAQ6 (building credibility)	(Cooke et al., 2020; Cvitanovic et al., 2021; Macher et al., 2021).
FAQ7 (handling power dynamics)	(Dankel et al., 2016; Macher et al., 2021; https://blogs.oregonstate.edu/gemmlab/2019/05/20/should-scientists-engage-in-advocacy/)
FAQ8 (when to change plans).	(Åkerblom, 2026; Sarkki et al., 2015)

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16 **References:**

17 Åkerblom, K. B. (2026). Researchers' roles in co-research: From expert to "adaptive collaborator." *Nordic*

18 *Journal of Innovation in the Public Sector*, 4(1), 1–15. <https://doi.org/10.18261/njips.4.1.4>

19 Carroll, S. R., Garba, I., Figueroa-Rodríguez, O. L., Holbrook, J., Lovett, R., Materechera, S., Parsons, M.,

20 Raseroka, K., Rodriguez-Lonebear, D., Rowe, R., Sara, R., Walker, J. D., Anderson, J., & Hudson, M.

21 (2020). The CARE Principles for Indigenous Data Governance. *Data Science Journal*, 19(1).

22 <https://doi.org/10.5334/dsj-2020-043>

23 Cooke, S. J., Rytwinski, T., Taylor, J. J., Nyboer, E. A., Nguyen, V. M., Bennett, J. R., Young, N., Aitken, S., Auld,

24 G., Lane, J.-F., Prior, K. A., Smokorowski, K. E., Smith, P. A., Jacob, A. L., Browne, D. R., Blais, J. M.,

- 25 Kerr, J. T., Ormeci, B., Alexander, S. M., ... Smol, J. P. (2020). On “success” in applied environmental
26 research—What is it, how can it be achieved, and how does one know when it has been achieved?
27 *ENVIRONMENTAL REVIEWS*, 28(4), 357–372. <https://doi.org/10.1139/er-2020-0045>
- 28 Cvitanovic, C., Shellock, R. J., Mackay, M., van Putten, E. I., Karcher, D. B., Dickey-Collas, M., & Ballesteros, M.
29 (2021). Strategies for building and managing ‘trust’ to enable knowledge exchange at the interface of
30 environmental science and policy. *Environmental Science & Policy*, 123, 179–189.
- 31 Dankel, D. J., Stange, K., & Nielsen, K. N. (2016). What hat are you wearing? On the multiple roles of fishery
32 scientists in the ICES community. *ICES Journal of Marine Science*, 73(2), 209–216.
33 <https://doi.org/10.1093/icesjms/fsv199>
- 34 de Vos, A., & Schwartz, M. W. (2022). Confronting parachute science in conservation. *Conservation Science
35 and Practice*, 4(5), e12681. <https://doi.org/10.1111/csp2.12681>
- 36 Evans, M. C., & Cvitanovic, C. (2018). An introduction to achieving policy impact for early career researchers.
37 *PALGRAVE COMMUNICATIONS*, 4. <https://doi.org/10.1057/s41599-018-0144-2>
- 38 Filyushkina, A., Ryu, H., Kadykalo, A. N., Murali, R., Campagne, C. S., Washbourne, C.-L., Peter, S., Saidi, N.,
39 Sarzynski, T., Fontanella Pisa, P., Ávila-Flores, G., & Amiar, T. (2022). Engaging at the science-policy
40 interface as an early-career researcher: Experiences and perceptions in biodiversity and ecosystem
41 services research. *Ecosystems and People*, 18(1), 397–409.
42 <https://doi.org/10.1080/26395916.2022.2085807>
- 43 Gómez, S., & Köpsel, V. (Eds.). (2022). *Transdisciplinary Marine Research: Bridging Science and Society*.
44 Routledge. <https://doi.org/10.4324/9781003311171>
- 45 Gustavsson, M., White, C. S., Phillipson, J., & Ounanian, K. (Eds.). (2021). *Researching People and the Sea:
46 Methodologies and Traditions*. Springer International Publishing. [https://doi.org/10.1007/978-3-030-
47 59601-9](https://doi.org/10.1007/978-3-030-59601-9)
- 48 Johannesen, E. (2025). Advancing gender equality in international ocean science: Participatory approaches
49 for institutional actions. *Marine Policy*, 171, 106421. <https://doi.org/10.1016/j.marpol.2024.106421>

- 50 Kaikkonen, L., Shellock, R. J., Selim, S. A., Ojwala, R. A., Dias, B. S., Li, S., Addey, C. I., Gianelli, I., Maltby, K. M.,
51 Garcia-Morales, S., Palacios-Abrantes, J., Jiang, S., Albo-Puigserver, M., García Alonso, V. A., Baker, C.
52 A., Bove, C. B., Brodie, S., Dahlet, L. I., Das, J., ... Strand, M. (2024). Fostering diversity, equity, and
53 inclusion in interdisciplinary marine science. *Npj Ocean Sustainability*, 3(1), 49.
54 <https://doi.org/10.1038/s44183-024-00087-1>
- 55 Karcher, D. B., Cvitanovic, C., van Putten, I. E., Colvin, R. M., Armitage, D., Aswani, S., Ballesteros, M., Ban, N.
56 C., Barragán-Paladines, M. J., Bednarek, A., Bell, J. D., Brooks, C. M., Daw, T. M., de la Cruz-Modino,
57 R., Francis, T. B., Fulton, E. A., Hobday, A. J., Holcer, D., Hudson, C., ... Zhang, J. (2022). Lessons from
58 bright-spots for advancing knowledge exchange at the interface of marine science and policy.
59 *Journal of Environmental Management*, 314, 114994.
60 <https://doi.org/10.1016/j.jenvman.2022.114994>
- 61 Karcher, D. B., Tuohy, P., Cooke, S. J., & Cvitanovic, C. (2024). Knowledge exchange at the interface of marine
62 science and policy: A review of progress and research needs. *Ocean & Coastal Management*, 253,
63 107137. <https://doi.org/10.1016/j.ocecoaman.2024.107137>
- 64 Kelly, R., Mackay, M., Nash, K. L., Cvitanovic, C., Allison, E. H., Armitage, D., Bonn, A., Cooke, S. J., Frusher, S.,
65 Fulton, E. A., Halpern, B. S., Lopes, P. F. M., Milner-Gulland, E. J., Peck, M. A., Pecl, G. T., Stephenson,
66 R. L., & Werner, F. (2019). Ten tips for developing interdisciplinary socio-ecological researchers.
67 *Socio-Ecological Practice Research*, 1(2), 149–161. <https://doi.org/10.1007/s42532-019-00018-2>
- 68 Lambertucci, S. A., Frantzeskaki, N., Villasante, S., Wickson, F., Zinngrebe, Y., Reyes-García, V., Bennett, E.,
69 O'Brien, K., Calderón-Contreras, R., Liao, C., Garibaldi, L. A., Shannon, L., Singh, P. K., Smith, P.,
70 Leventon, J., Ley, D., Ricketts, T. H., Hayman, D. T. S., Gosnell, H., ... Agrawal, A. (2025). Supporting
71 researchers' engagement in international science–policy bodies. *Nature Sustainability*, 8(9), 982–
72 985. <https://doi.org/10.1038/s41893-025-01612-x>
- 73 Mach, K. J., Lemos, M. C., Meadow, A. M., Wyborn, C., Klenk, N., Arnott, J. C., Ardoin, N. M., Fieseler, C.,
74 Moss, R. H., Nichols, L., Stults, M., Vaughan, C., & Wong-Parodi, G. (2020). Actionable knowledge and

- 75 the art of engagement. *Current Opinion in Environmental Sustainability, Advancing the Science of*
76 *Actionable Knowledge for Sustainability*, 42, 30–37. <https://doi.org/10.1016/j.cosust.2020.01.002>
- 77 Macher, C., Steins, N. A., Ballesteros, M., Kraan, M., Frangoudes, K., Bailly, D., Bertignac, M., Colloca, F.,
78 Fitzpatrick, M., Garcia, D., Little, R., Mardle, S., Murillas, A., Pawlowski, L., Philippe, M., Prellezo, R.,
79 Sabatella, E., Thébaud, O., & Ulrich, C. (2021). Towards transdisciplinary decision-support processes
80 in fisheries: Experiences and recommendations from a multidisciplinary collective of researchers.
81 *Aquatic Living Resources*, 34, 13. <https://doi.org/10.1051/alr/2021010>
- 82 Martin, P., Amirmohammed, F., Barreto, C., Berger, I., Bissessur, P., Christie, A. P., Donoso, I., Furlan, V.,
83 Grainger, M., Hartup, J., Keith, A. M., Ki, T. L., Luke, S. H., Birgara, E. M. de, Matos, C., Moreno-
84 Martin, A., Moser, V., Ollard, I., Oswald, A. M., ... Oliver, K. (2026). *Factors influencing the use of*
85 *scientific evidence in conservation practice and policy: Insights from a systematic map.*
86 <https://ecoevorxiv.org/repository/view/11644/>
- 87 Newig, J., Jahn, S., Lang, D. J., Kahle, J., & Bergmann, M. (2019). Linking modes of research to their scientific
88 and societal outcomes. Evidence from 81 sustainability-oriented research projects.
89 *ENVIRONMENTAL SCIENCE & POLICY*, 101, 147–155. <https://doi.org/10.1016/j.envsci.2019.08.008>
- 90 Oliver, K., & Cairney, P. (2019). The dos and don'ts of influencing policy: A systematic review of advice to
91 academics. *Palgrave Communications*, 5(1), 21. <https://doi.org/10.1057/s41599-019-0232-y>
- 92 Reed, M. S. (2008). Stakeholder participation for environmental management: A literature review. *Biological*
93 *Conservation*, 141(10), 2417–2431. <https://doi.org/10.1016/j.biocon.2008.07.014>
- 94 Reed, M. S., Bryce, R., & Machen, R. (2018). Pathways to policy impact: A new approach for planning and
95 evidencing research impact. *Evidence & Policy: A Journal of Research, Debate and Practice*, 14(3),
96 431–458. <https://doi.org/10.1332/174426418X15326967547242>
- 97 Reed, M. S., Merkle, B. G., Cook, E. J., Hafferty, C., Hejnowicz, A. P., Holliman, R., Marder, I. D., Pool, U.,
98 Raymond, C. M., Wallen, K. E., Whyte, D., Ballesteros, M., Bhanbhro, S., Borota, S., Brennan, M. L.,
99 Carmen, E., Conway, E. A., Everett, R., Armstrong-Gibbs, F., ... Stroobant, M. (2024). Reimagining the

- 100 language of engagement in a post-stakeholder world. *Sustainability Science*, 19(4), 1481–1490.
- 101 <https://doi.org/10.1007/s11625-024-01496-4>
- 102 Reed, M. S., & Rudman, H. (2023). Re-thinking research impact: Voice, context and power at the interface of
103 science, policy and practice. *Sustainability Science*, 18(2), 967–981. [https://doi.org/10.1007/s11625-](https://doi.org/10.1007/s11625-022-01216-w)
104 022-01216-w
- 105 Sarkki, S., Tinch, R., Niemela, J., Heink, U., Waylen, K., Timaeus, J., Young, J., Watt, A., Nesshoever, C., & van
106 den Hove, S. (2015). Adding `iterativity' to the credibility, relevance, legitimacy: A novel scheme to
107 highlight dynamic aspects of science-policy interfaces. *ENVIRONMENTAL SCIENCE & POLICY*, 54, 505–
108 512. <https://doi.org/10.1016/j.envsci.2015.02.016>
- 109 Shellock, R. J., Cvitanovic, C., Mackay, M., McKinnon, M. C., Blythe, J., Kelly, R., van Putten, I. E., Tuohy, P.,
110 Bailey, M., Begossi, A., Crona, B., Fakoya, K. A., Ferreira, B. P., Ferrer, A. J. G., Frangoudes, K., Gobin,
111 J., Goh, H. C., Haapasaari, P., Hardesty, B. D., ... Wisz, M. S. (2022). Breaking down barriers: The
112 identification of actions to promote gender equality in interdisciplinary marine research institutions.
113 *One Earth*, 5(6), 687–708. <https://doi.org/10.1016/j.oneear.2022.05.006>
- 114 Strand, M., Ortega-Cisneros, K., Niner, H. J., Wahome, M., Bell, J., Currie, J. C., Hamukuaya, H., La Bianca, G.,
115 Lancaster, A. M. S. N., Maseka, N., McDonald, L., McQuaid, K., Samuel, M. M., & Winkler, A. (2022).
116 Transdisciplinarity in transformative ocean governance research—Reflections of early career
117 researchers. *ICES Journal of Marine Science*, 79(8), 2163–2177.
118 <https://doi.org/10.1093/icesjms/fsac165>
- 119 Verschuur, X., Bleijenberg, J., Jurrius, L. H., & Steins, N. A. (2025). An evaluative framework for integrating
120 fishers' experiential knowledge in collaborative research. *ICES Journal of Marine Science*, 82(3),
121 fsaf016. <https://doi.org/10.1093/icesjms/fsaf016>
- 122