

# Sustainability Impacts and Societal Relevance in Research Proposals – resources and suggested readings

(the following is intended to give an idea of some of the main topics, perspectives and debates, course participants are of course not expected to ‘read their way through’ this list)

## 1. Sustainability impacts in research proposals and policy

Note: Horizon Europe is here given as an example, since EU policy trickles down and informs national research funding policies, but please look at national policy documents and specific evaluation criteria, depending on the research call.

### 1.1 Expressing impacts in proposal writing – “how-to” resources

Summarizing power-points from Horizon Europe webinars:

[Webinar: A successful proposal for Horizon Europe: Scientific-technical excellence is key, but don't forget the other aspects \(21 April 2021\) \(europa.eu\)](#)

Step-by-step advice, pp. 6-11.

Nielsen, C. (2020). How can I enhance, and provide evidence of, the impact of my research? Working Paper, Aalborg University Business School. SSRN.

Do no significant harm EU Taxonomy:

[Do No Significant Harm | Knowledge for policy \(europa.eu\)](#)

[https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021XC0218\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021XC0218(01))

Young Håkansson, S., & Sand, J. (2021). *The Gender Dimension in Research and Innovation*. Swedish Secretariat for Gender Research. University of Gothenburg.

<http://hdl.handle.net/2077/69436>

Campos, A., & Codina, L. (2021). Communication, dissemination and exploitation strategy analysis in Horizon 2020: keys to multiply the impact of European projects. *Prisma Social Journal*. 2021; 32 (1): 293-319.

Ma, L., Luo, J., Feliciani, T., & Shankar, K. (2020). How to evaluate ex ante impact of funding proposals? An analysis of reviewers' comments on impact statements. *Research Evaluation*, 29 (4), 431–440, <https://doi.org/10.1093/reseval/rvaa022>

### 1.2 EU research funding – discussions

de Jong, S. P., & Muhonen, R. (2020). Who benefits from ex ante societal impact evaluation in the European funding arena? A cross-country comparison of societal impact capacity in the social sciences and humanities. *Research Evaluation*, 29(1), 22-33.

Gerber, A., Forsberg, E. M., Shelley-Egan, C., Arias, R., Daimer, S., Dalton, G., ... & Steinhaus, N. (2020). Joint declaration on mainstreaming RRI across Horizon Europe. *Journal of Responsible Innovation*, 7(3), 708-711.

## **2. Approaches to sustainability impact assessment**

### **2.1 Types of assessment tools and frameworks**

Ness, B., Urbel-Piirsalu, E., Anderberg, S., & Olsson, L. (2007). Categorising tools for sustainability assessment. *Ecological Economics*, 60(3), 498-508.

Louder, E., Wyborn, C., Cvitanovic, C., & Bednarek, A. T. (2021). A synthesis of the frameworks available to guide evaluations of research impact at the interface of environmental science, policy and practice. *Environmental Science & Policy*, 116, 258-265.

Nooteboom, S. (2007). Impact assessment procedures for sustainable development: A complexity theory perspective. *Environmental Impact Assessment Review*, 27(7), 645-665.

Shah, M. A. R., Renaud, F. G., Anderson, C. C., Wild, A., Domeneghetti, A., Polderman, A., ... & Zixuan, W. (2020). A review of hydro-meteorological hazard, vulnerability, and risk assessment frameworks and indicators in the context of nature-based solutions. *International Journal of Disaster Risk Reduction*, 50, 101728.

Jafino, B. A., Kwakkel, J. H., & Taebi, B. (2021). Enabling assessment of distributive justice through models for climate change planning: A review of recent advances and a research agenda. *Wiley Interdisciplinary Reviews: Climate Change*, e721.

Huarachi, D. A. R., Piekarski, C. M., Puglieri, F. N., & de Francisco, A. C. (2020). Past and future of Social Life Cycle Assessment: Historical evolution and research trends. *Journal of Cleaner Production*, 121506.

Reed, M. S., Ferre, M., Martin-Ortega, J., Blanche, R., Lawford-Rolfe, R., Dallimer, M., & Holden, J. (2021). Evaluating impact from research: a methodological framework. *Research Policy*, 50(4), 104147.

Fauré, E., Arushanyan, Y., Ekener, E., Miliutenko, S., & Finnveden, G. (2017). Methods for assessing future scenarios from a sustainability perspective. *European Journal of Futures Research*, 5(1), 1-20.

[IAIA The leading global network on impact assessment](#)

### **2.2 Some specific assessment approaches and domains of application**

Derman, W. (2019). Informant interviewing in international social impact assessment. In *Methods for social analysis in developing countries* (pp. 107-124). Routledge.

Faure, G., Blundo-Canto, G., Devaux-Spatarakis, A., Le Guerroué, J. L., Mathé, S., Temple, L., ... & Hainzelin, E. (2020). A participatory method to assess the contribution of agricultural research to societal changes in developing countries. *Research Evaluation*, 29(2), 158-170.

Kuntsman, A., & Rattle, I. (2019). Towards a paradigmatic shift in sustainability studies: a systematic review of peer reviewed literature and future agenda setting to consider environmental (Un) sustainability of digital communication. *Environmental Communication*, 13(5), 567-581.

International Collaboration for Participatory Health Research (ICPHR) (2020) Position Paper 3: Impact in Participatory Health Research. Version: March 2020. Berlin: International Collaboration for Participatory Health Research.

Solar, O. & Irwin, A. (2007, April). *Commission on Social Determinants of Health. A Conceptual Framework for Action on the Social Determinants of Health*. Discussion paper for the Commission on Social Determinants of Health, draft.

Montenegro, R. C., Fragkos, P., Dobbins, A. H., Schmid, D., Pye, S., & Fahl, U. (2021). Beyond the Energy System: Modeling Frameworks Depicting Distributional Impacts for Interdisciplinary Policy Analysis. *Energy Technology*, 9(1), 2000668.

Walzberg, J., Lonca, G., Hanes, R. J., Eberle, A. L., Carpenter, A., & Heath, G. A. (2021). Do we need a new sustainability assessment method for the circular economy? A critical literature review. *Frontiers in Sustainability*, 1, 12.

[Primer to Climate Scenarios \(Links to an external site.\)](#)

### **3. Underlying conceptualisations of sustainability**

#### **3.1 SDGs**

SDG Indicators—SDG Indicators (un.org). Available online: <https://unstats.un.org/sdgs/indicators/database/>

Kastrinos, N., & Weber, K. M. (2020). Sustainable development goals in the research and innovation policy of the European Union. *Technological Forecasting and Social Change*, 157, 120056.

Amos, R., & Lydgate, E. (2020). Trade, transboundary impacts and the implementation of SDG 12. *Sustainability Science*, 15(6), 1699-1710.

Lyytimäki, J., Lonkila, K. M., Furman, E., Korhonen-Kurki, K., & Lähteenoja, S. (2021). Untangling the interactions of sustainability targets: synergies and trade-offs in the Northern European context. *Environment, Development and Sustainability*, 23(3), 3458-3473.

#### **3.2 The notion of sustainable development – history and geopolitical context**

Brundtland, G. (1987). *Our Common Future (The Brundtland Report)*. World Commission on environment and Development. Oxford, United Kingdom: University Press.

Purvis, B., Mao, Y., & Robinson, D. (2019). Three pillars of sustainability: in search of conceptual origins. *Sustainability Science*, 14(3), 681-695.

Luetz, J. M., & Walid, M. (2019). Social responsibility versus sustainable development in United Nations policy documents: a meta-analytical review of key terms in human development reports. In *Social Responsibility and Sustainability* (pp. 301-334). Springer, Cham.

### 3.3 Transition and “transformation”

Geels, F. W. (2005). Processes and patterns in transitions and system innovations: Refining the co-evolutionary multi-level perspective. *Technological Forecasting and Social Change*, 72(6), 681-696.

Fazey, I., Schäpke, N., Caniglia, G., Patterson, J., Hultman, J., Van Mierlo, B., . . . Aldunce, P. (2018). Ten essentials for action-oriented and second order energy transitions, transformations and climate change research. *Energy Research & Social Science*, 40, 54-70.

Pisani-Ferry, J. (2021). 21-20 Climate Policy is Macroeconomic Policy, and the Implications Will Be Significant. 2021. Policy brief. August 2021. Peterson Institute for International Economics. Washington DC.

Blythe, J., Silver, J., Evans, L., Armitage, D., Bennett, N. J., Moore, M. L., ... & Brown, K. (2018). The dark side of transformation: latent risks in contemporary sustainability discourse. *Antipode*, 50(5), 1206-1223.

### 3.4 Planetary boundaries

Lade, S. J., Steffen, W., De Vries, W., Carpenter, S. R., Donges, J. F., Gerten, D., . . . Rockström, J. (2020). Human impacts on planetary boundaries amplified by Earth system interactions. *Nature Sustainability*, 3(2), 119-128.

Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., . . . De Wit, C. A. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223).

### 3.5 Economic approaches

Raworth, K. (2017). *Doughnut economics: seven ways to think like a 21st-century economist*. Chelsea Green Publishing.

Büchs, M., & Koch, M. (2019). Challenges for the degrowth transition: The debate about wellbeing. *Futures*, 105, 155-165.

Schröder, P., Bengtsson, M., Cohen, M., Dewick, P., Hofstetter, J., & Sarkis, J. (2019). Degrowth within—Aligning circular economy and strong sustainability narratives. *Resources, Conservation and Recycling*, 146, 190-191.

## **4. Some ethical issues**

### **4.1 Ethics**

Droz, L. (2021). Distribution of Responsibility for Climate Change within the Milieu. *Philosophies*, 6(3), 62.

Thakur, R. (2020). The United Nations and the North-South Partnership: Connecting the Past to the Future. *Ethics & International Affairs*, 34(3), 305-317.

ALLEA (2017). *The European Code of Conduct for Research Integrity*. Revised Edition. Berlin.

de Albuquerque, J. P., Anderson, L., Calvillo, N., Coaffee, J., Cunha, M. A., Degrossi, L. C., ... & Zipf, A. (2021). The role of data in transformations to sustainability: a critical research agenda. *Current Opinion in Environmental Sustainability*, 49, 153-163.

### **4.2 Human rights and intergenerational justice**

Siew, J. G. (2020). Facing the Future: The Case for A Right to a Healthy Environment for Future Generations under International Law. *Groningen Journal of International Law*, 8(1), 30-47.

Esteves, A. M., Factor, G., Vanclay, F., Götzmann, N., & Moreira, S. (2017). Adapting social impact assessment to address a project's human rights impacts and risks. *Environmental Impact Assessment Review*, 67, 73-87.

### **4.3 Technological optimism and techno-fix**

Dillet, B., & Hatzisavvidou, S. (2021). Beyond technofix: Thinking with Epimetheus in the Anthropocene. *Contemporary Political Theory*, 1-22.

[How Sustainable is High-tech Health Care? - LOW-TECH MAGAZINE \(Links to an external site.\)](#)

### **4.4 Academic institutional culture and researcher constraints**

Reed, M. S., & Fazey, I. (2021). Impact Culture: Transforming How Universities Tackle Twenty First Century Challenges. *Frontiers in Sustainability*, 21.

Lahsen, M., & Turnhout, E. (2021). How norms, needs, and power in science obstruct transformations towards sustainability. *Environmental Research Letters*, 16(2), 025008.

Ross-Hellauer, T., Reichmann, S., Cole, N. L., Fessl, A., Klebel, T., & Pontika, N. (2021, July 8). Dynamics of Cumulative Advantage and Threats to Equity in Open Science - A Scoping Review. SocArXiv (preprint) <https://doi.org/10.31235/osf.io/d5fz7>