

The challenge of reducing (micro)plastic emissions

Possible contribution of consumers and recommendations for effective policy interventions

Linda Mederake, Ecologic Institute
Paris, 8 March 2023



An Initiative of the German Federal Ministry
of Education and Research



SPONSORED BY THE

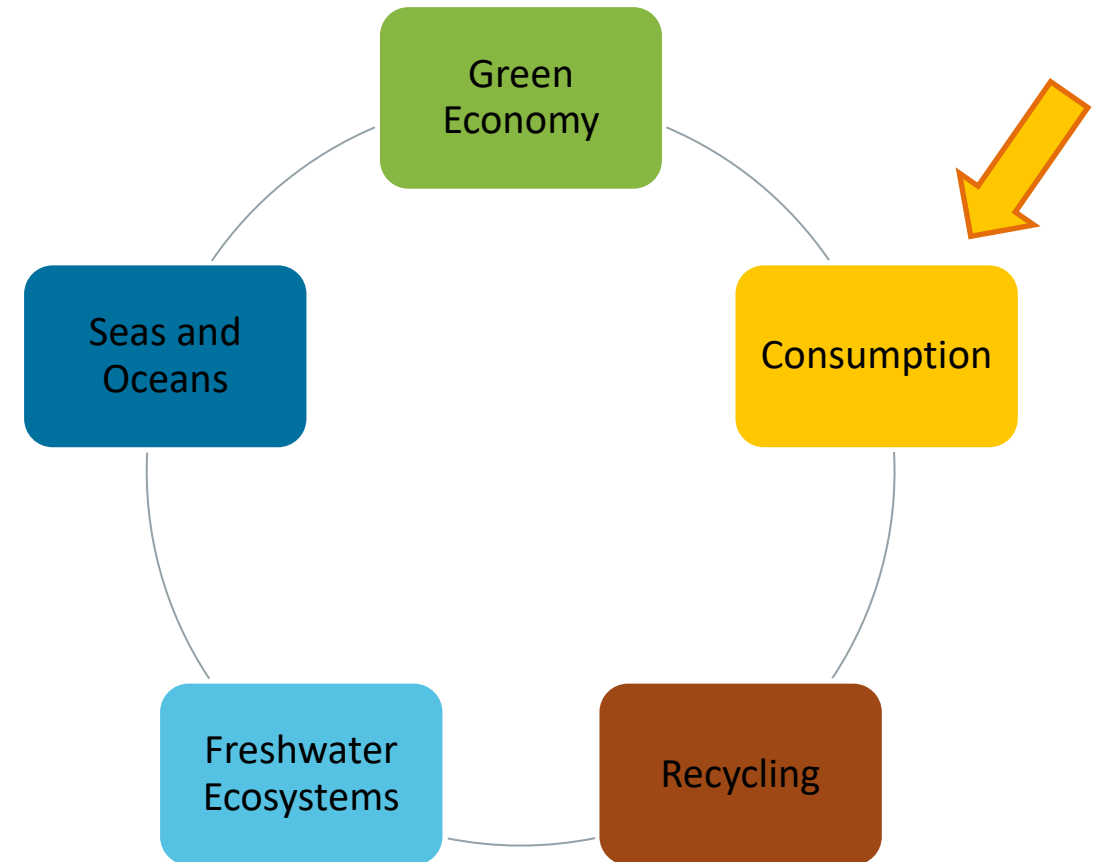


Federal Ministry
of Education
and Research



Research Focus „Plastics in the environment“

- » started in 2017
- » 20 joint research projects
- » funded by the German Federal Ministry of Education and Research
- » focus on:
 - » entry paths, distribution and effects of plastics in the environment
 - » measures to reduce/avoid entries



Media communication and political measures focus on the responsibility of private consumers

for instance,

- » German newspapers appeal to “citizen-consumers” as problem solvers (Schönbauer/Müller 2021)
- » the EU Single-Use Plastics Directive focuses mostly on consumers as the source of pollution (Daskalakis et al. 2022)

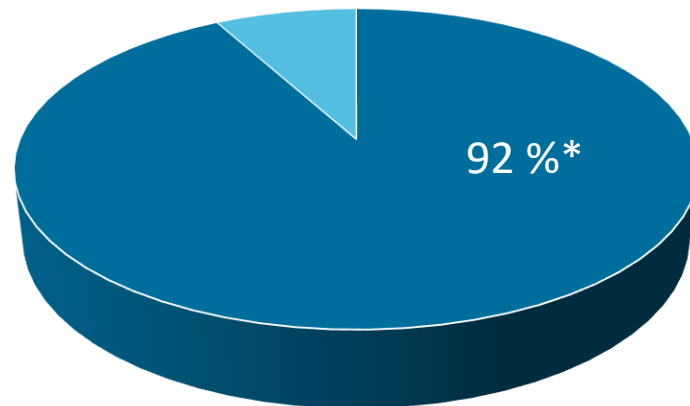


© Jennifer Rahn / Ecologic Institute

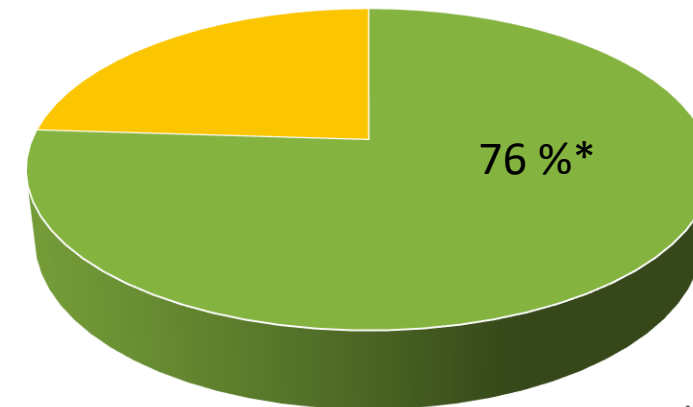
Private consumers perceive (micro)plastics in the environment as a problem

... and are willing to reduce their plastics consumption (e.g. packaging)

plastic waste in the environment is threatening the preservation of our natural livelihoods



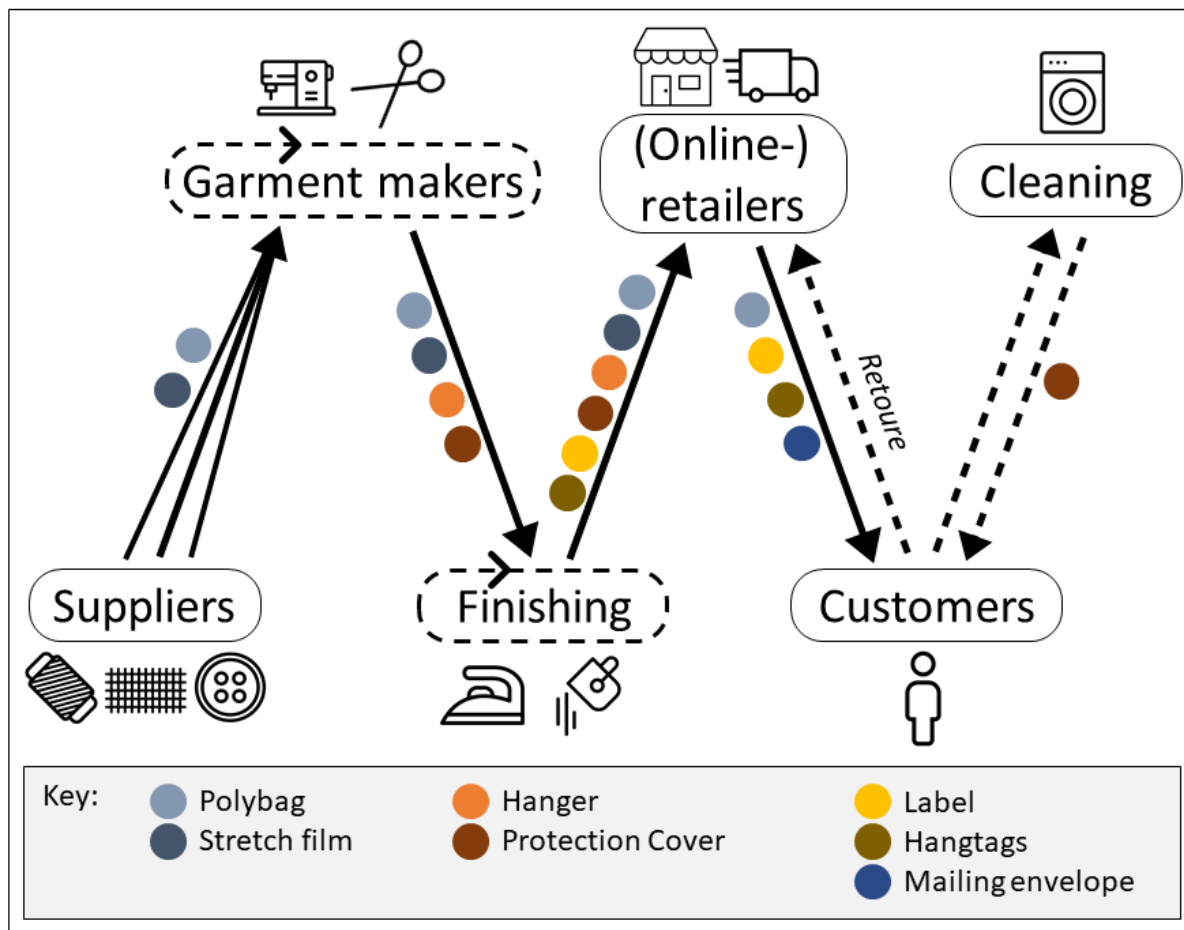
fruits and vegetables should be consistently offered unpackaged



Wiefek et al. 2021a

*sum of "mostly agree" and "completely agree" responses

Consumers scope for action is limited



Photos: © Thomas Decker 2018

Consumers scope for action is limited

- » demand by consumers alone does not sufficiently stimulate companies to reduce plastics and prioritize reuse in their product design

moreover:

- » numerous personal and structural factors keep consumers from reducing their plastics consumption



Korta_L | Fotolia

”

The plastics problem is not the responsibility of individual actors, but of all those who produce, trade, use, recycle and dispose of plastic products and packaging. Beyerl et al. 2022

A paradigm shift is needed

- » focus on the reduction of production and consumption of plastics
- » base the use of plastics on precautionary principles

Key role of the legislator

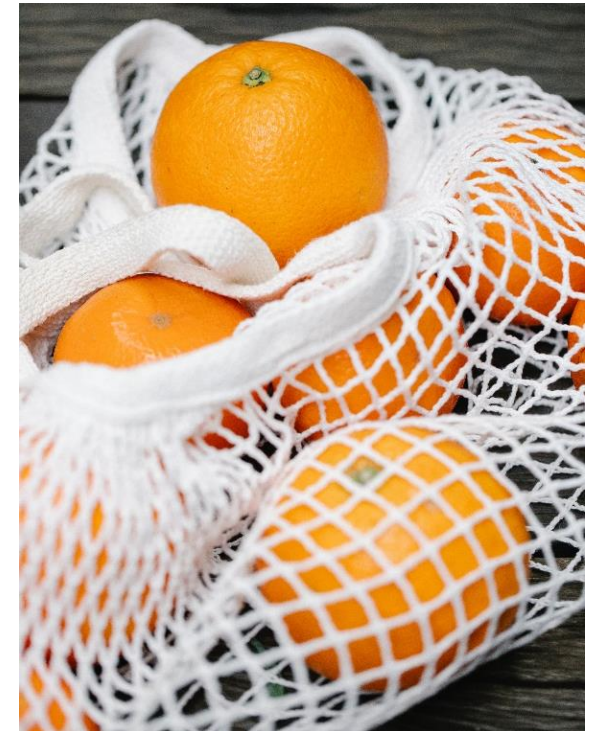
- » create a coordinated, binding, comprehensive legal framework that aims to reduce plastic discharges into the environment
- » coordinate the various initiatives of different actors and integrate them into an overall strategy



Freepik | Flaticon.com

Recommendations for policy interventions

- » ensure environmentally-friendly **materials as well as product and packaging designs**
- » require a **transparent declaration** (e.g., via online portals) of the additives, auxiliary materials and other substances used (including quantities) along the entire product life cycle
- » promote the use of **alternative practices** (e.g., unpackaged goods), **reusable systems, deposit-return systems, and regional socio-ecological supply systems**



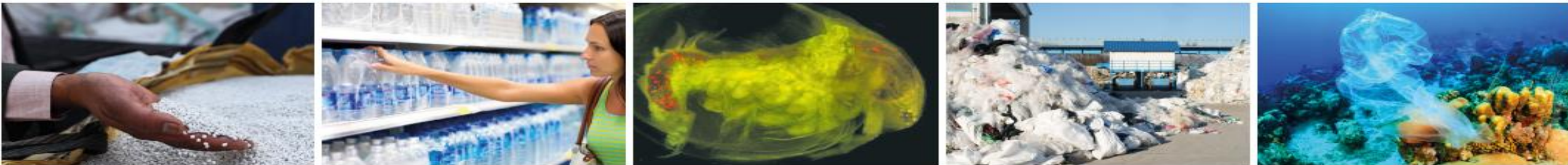
Sarah Chai | Pexels

Collaborative findings and recommendations



References

- » Beyerl, K.; Bogner, F.; Daskalakis, M.; Decker, T.; Hentschel, A.; Hinzmann, M.; Loges, B.; Knoblauch, D.; Mederake, L.; Müller, R.; Rubik, F.; Schweiger, S.; Stieß, I. (2022): Wege zum nachhaltigen Umgang mit Kunststoffen. Kernbotschaften sozialwissenschaftlicher Forschung. GAIA - Ecological Perspectives for Science and Society, 31(1), 51-53. <https://doi.org/10.14512/gaia.31.1.12>.
- » Daskalakis, M.; Kaser, S.; Breitbarth, M.; Hentschel, A. (2022): EU Single-Use Plastics Directive – Contents, deficits and development requirements. Factsheet 19. Available at: <https://bmbf-plastik.de/en/publikation/factsheet-19-eu-einwegkunststoffrichtlinie-inhalte-defizite-und-anforderungen-an-ihre-weiterentwicklung>.
- » Decker, T.; Lippl, M.; Albrecht, S.; Bauer, K. D.; Drechsel, P.; Frommeyer, B.; Habermehl, T.; Heider, D.; Holterbosch, J.; Klaene, K.; Koch, J.; Lorenz, M.; Menrad, K.; Muth, L.; Niedermeier, A.; Sänglerlaub, S.; Scagnetti, C.; Schewe, G.; Tornow, M.; Van den Adel, F.; von Gehlen, K. (2021): Verbraucherreaktionen bei Plastik und dessen Vermeidungsmöglichkeiten am Point of Sale (VerPlaPoS). Abschlussbericht.
- » Hinzmann, M.; Knoblauch, D.; Mederake, L.; Schritt, H.; Stein, U. (eds.) (2022): Key messages of the research focus "Plastics in the Environment". Available at: <https://bmbf-plastik.de/en/Publikation/Kernbotschaften>.
- » Schönbauer, S., & Müller, R. (2021): A Risky Object? How Microplastics Are Represented in the German Media. Science Communication, 43(5), 543–569. <https://doi.org/10.1177/10755470211030519>.
- » Steinhorst, J., & Beyerl, K. (2021): First reduce and reuse, then recycle! Enabling consumers to tackle the plastic crisis – Qualitative expert interviews in Germany. Journal of cleaner production, 313: 127782. <https://doi.org/10.1016/j.jclepro.2021.127782>.
- » Stieß, I.; Raschweski, L.; Sunderer, G. (2023): Everyday Life with Plastics: How to Put Environmental Concern into Practice(s). In: Kramm, Johanna; Völker, Carolin (eds.): Living in the Plastic Age. Perspectives from Humanities, Social Sciences and Environmental Sciences. Campus Verlag: Frankfurt, S. 111-132.
- » Wiefek, J., Michels-Ehrentraut, R., Stolberg, A., & Beyerl, K. (2021a): Strategien zur Reduktion von Lebensmittelverpackungen. Unverpackt-Konzepte, Mehrweg-Systeme und regionale Versorgungsstrukturen als Ansätze zur reduzierten Nutzung von Einweg-Plastikverpackungen. IASS Policy Brief, 2021(3).
- » Wiefek, J., Steinhorst, J., & Beyerl, K. (2021b): Personal and structural factors that influence individual plastic packaging consumption – results from focus group discussions with German consumers. Cleaner and responsible consumption, 3: 100022. <https://doi.org/10.1016/j.clrc.2021.100022>.



Thank you for your attention!

Linda Mederake, Ecologic Institute
linda.mederake@ecologic.eu



An Initiative of the German Federal Ministry
of Education and Research



SPONSORED BY THE



Federal Ministry
of Education
and Research

