

SUMMARY

This report summarises the results of Work Package 3 (Tasks 3.1, 3.2 and 3.4) of the INNOVATE project, an international research project supported with funds from the Austrian Climate and Energy Fund. The project was carried out from 2015 to 2018 by researchers from the Wegener Center for Global and Climate Change at the University of Graz (project lead), the Sustainable Europe Research Institute (SERI), the Environment Agency Austria (Umweltbundesamt GmbH) and international partners from Bonn, Oslo and Manchester.

The aim of the INNOVATE project was to analyse Austria's consumption-based greenhouse gas emissions and to design and evaluate possible policy instruments for mitigating them. Compared to the traditional, production-based principle of emissions accounting, consumption-based accounting captures not only the emissions produced on national territory, but rather the total emissions arising along the entire production chain of the goods and services consumed within a country, both nationally and internationally. Thus, policy instruments addressing consumption-based emissions target the global emission consequences of domestic consumer behaviour, which is particularly relevant given today's international production and trade patterns. Accordingly, Austria's emissions using consumption-based accounting are about 50% higher than those recorded using the production-based principle (MUÑOZ and STEININGER, 2015).

In this report, a set of 15 possible policy instruments suitable for mitigating Austrian consumption-based emissions is described and evaluated qualitatively. The instruments address the “hotspot” sectors driving Austrian consumption-based emissions identified in Work Package 1 of the project: construction, mobility and public healthcare (see STEININGER et al., 2018).¹ The design of the policies builds on a survey of international good-practice examples of policy instruments undertaken in Work Package 2 and takes into account Austria's specific circumstances in terms of its economy, demography, housing, transport, welfare and healthcare systems (KAMMERLANDER et al., 2018). The policy instruments are evaluated according to the following criteria: environmental and cost effectiveness, distributional impact, political feasibility and flexibility. Experts from Environment Agency Austria as well as external stakeholders from regional governments, NGOs and other interest groups were involved in designing and evaluating the instruments.

The results of the qualitative evaluation suggest that incentive-based instruments – e.g. a carbon-added tax on construction materials and higher vehicle taxes for emission-intensive cars – as well as instruments targeting infrastructure provision and the healthcare sector are most effective in terms of emissions reduction. The most cost-effective instruments tend to be regulatory – such as an information obligation on vacant dwellings and regulatory changes regarding the healthcare sector – but also incentive-based. Information-based instruments like certification schemes perform best in terms of feasibility and flexibility.

The appraisal of the latter two “soft” evaluation criteria is an advantage of qualitative evaluation methods. On the policies' environmental and cost effectiveness, this study is to be seen as complementary to the quantitative, model-based assessment in Work Package 4 of the INNOVATE project (NABERNEGG et al., 2018), which partly builds on Work Package 3.

¹ <https://www.sciencedirect.com/science/article/pii/S0959378017304508?via%3Dihub>