Feedback as a public policy intervention. Comparative analysis and serious game testing of change mechanisms in food waste policies.

The challenges of the Anthropocene create immense pressure for systemic changes in our societies and economies. In order to support this transformation, the science of public policies needs to explore the effectiveness of various strategies for changing the behaviors of individual and collective actors.

Feedback is one of the mechanisms of change. Its value for adapting behaviors of individuals, collective actors, and complex systems has been recognized by research streams in psychology, organizational management, and the classics of social theories and system thinking. Therefore, it is promising to study feedback as the policy tool for changing the behaviors of policy addressees.

This project aims to improve our understanding of feedback used as a policy intervention, and more specifically, its effectiveness in changing behaviors of policy addressees – individual citizens and organizations.

The research will focus on policy interventions related to food waste reduction. That is because: (1) food waste is a policy problem ubiquitous and pressing in all developed countries, generating numerous policy efforts, (2) food waste policies cover a spectrum of individual and collective behaviors of various policy actors, and (3) majority of behaviors related to food waste are of repeatable nature which creates a high potential for studying feedback loops.

The research addresses a series of four questions: Q1: What do interdisciplinary theory and applied research tell us about the properties of effective feedback? Q2: What configuration of feedback properties were important conditions for effective policy interventions on food waste? Q3: How did the change mechanism work in the selected policy interventions on food waste? Q4: Can changes in feedback improve the level of policy compliance?

We will address this set of questions with an innovative combination of methods. First, to identify the conditions that lead to successful food waste policies, we will compare 30 cases of interventions from the US and the European Union. To understand dynamic mechanisms that enabled change among individuals and organizations, we will analyze processes in-depth. Finally, we will use two serious games to test what feedback characteristics work best. We will recreate key change mechanisms identified in studies interventions and run four quasi-experimental sessions with real policy participants in those games.

The research will provide three major outcomes. First, it will advance our understanding of how we can use feedback to improve the individual and collective behaviors in the policy areas important to our societies. Second, research will provide practical illustrations, cases of effective food waste interventions and explain how and why they worked. That would allow for the potential replication of good practices in other contexts. Third, the project will extend our toolbox of policy analysis and design. It will offer methods for comparing policy interventions across countries, and it will promote the use of serious games for safe testing of different options of policy interventions.