Vienna Transport Policy Simulation

developed in the project:
Resource nexus for transformation to circular, resilient, and liveable cities in the context of climate change (RECREATE)

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The city of Vienna, as well as Austria and the European Union, aims to dramatically decrease their transport-related emissions to fight the climate crisis. There are different visions of how to achieve this ambitious goal: wide introduction of electric vehicles in private transportation, a radical increase of the role of public transport, putting emphasis on shared mobility, or promoting active mobility and making the city more friendly to bicycle and pedestrian traffic. The question of the future of city transportation is also closely connected with ongoing discussion about the role of public space in the city, and how it should be managed. Altogether, these issues create a complex landscape that involves multiple decision-makers, organizations, and concerned citizens.

The policy simulation workshop will engage the participants in discussion about different visions for addressing the issues of decreasing emissions and public space management in Vienna. The participants will debate and decide on fictional yet plausible policy propositions that aim to respond to real problems that the city faces.
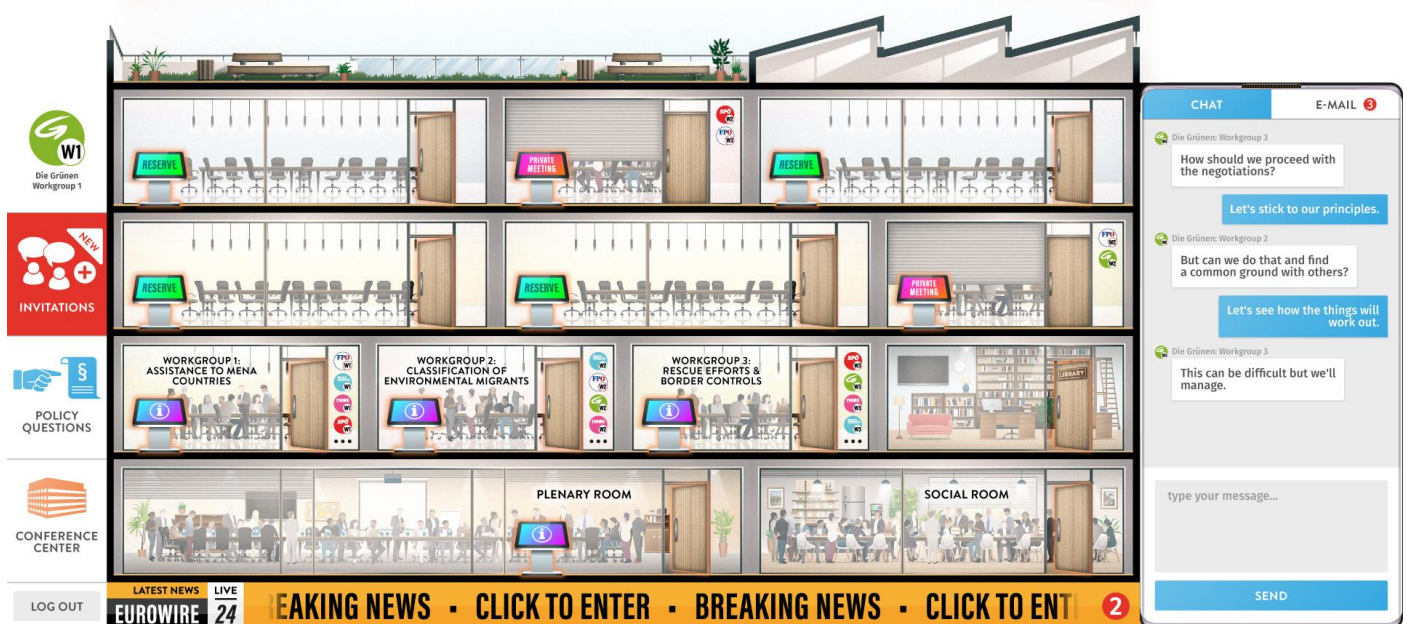
The negotiation process that is the main part of the simulation takes place in a virtual "conference center" as the one presented in the picture. The participants will be able to communicate verbally, as well as use special chat rooms for private negotiations. Using this kind of setting creates a familiar environment for the participants, similar to what they know from real conference and consultation events.
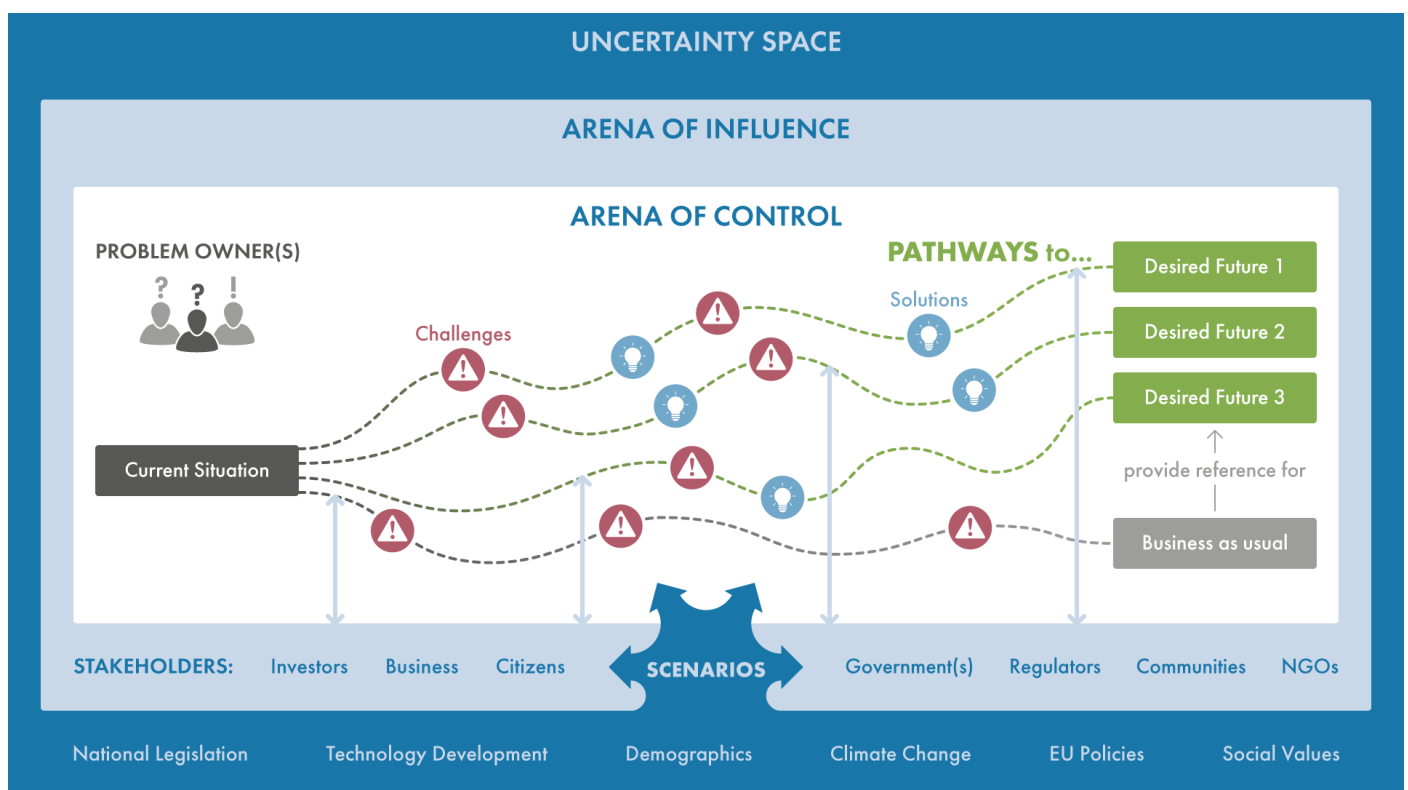

About Policy Simulations

Policy Simulation is an experiential process where a group of participants collectively explore a complex reality. It is "social" because it requires collaboration between real people representing different groups and organizations. We call it a "simulation" because it emulates carefully selected real-world structures and

processes. It is similar to a multi-player serious game, as it uses many game-like mechanics, but it also resembles interactive theatre by being open-ended meaning that the participants do not need to achieve any specific goals.

While taking part in a simulation, participants set goals that they want to achieve ("desired futures"), and then collectively explore possible strategies to reach them. These strategies, also known as pathways, are tested against a range of external scenarios that challenge the goals. This process allows the participants to understand key challenges on the way to their desired futures, as well as to develop solution options that are required to overcome them.

In a Policy Simulation process, we identify three domains (illustrated below). An arena of control is where problem owners can effectively make decisions and develop pathways to their desired futures. Problem owners can range from a small organization to a large country or region, a river basin, or a group of countries (e.g. EU). Problem owners function in a larger context of the arena of influence, where they encounter other important stakeholders. The pathways they develop can both impact and be impacted by stakeholders and their worldviews, decisions, and actions. Finally, these two arenas together function within an even larger uncertainty space, which encompasses a range of external scenarios. To ensure that their pathways are robust to the scenarios, participants look to this space and identify the most important drivers and constraints that translate to various opportunities and threats for the internal arenas.

Policy Simulations can take many different forms - both online and face-to-face, they can use computer models to provide feedback to participants based on their decisions or they can embed participants in a relevant story. Scenario-based policy simulations use an extended narrative layer to confront the participants and the pathways to desired futures that they develop with the external scenarios. They face a carefully crafted series of events. While this storyline unfolds, participants work to respond to the changing situation. The storyline is presented using a series of professionally-made videos, news articles, social media accounts, and other materials, such as maps or infographics. The storyline is created based on available scientific data and consulted with experts from the field

Policy Simulations allow experts and practitioners coming from different backgrounds and holding different worldviews to tap into their own creativity and inventiveness; this way, they find a common ground and reach an agreement on the different aspects of their desired futures. The engaging, interactive form of the

simulation helps them make the most of the different experiences, expertise, and know-how that each of them brings to the table. Many participants often reflect that after taking part in the policy simulation workshop they can see the big picture of the complex system and they understand better the collaboration mechanisms for sustainable innovation. Therefore, policy simulations offer a unique opportunity to confront different perspectives and include them meaningfully in navigating future challenges.

Process Steps

The process of a policy simulation is broken down in detail below. Although it is presented in sequential order, the process is not entirely linear - the elements are fluid and may overlap with each other during a simulation.

PROBLEM

Participants face a complex, real-world challenge that calls for innovative responses and requires the integration of a wide range of data, insights, and tacit knowledge.
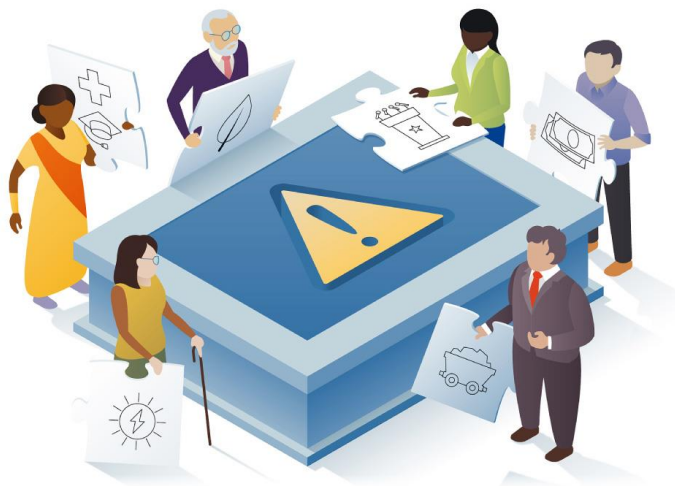
DIFFERENT PERSPECTIVES

The policy simulation provides an accessible, storyline-based representation of the problem and connects stakeholders with diverse backgrounds, values, tasks, and goals. Together, they can explore the issue from a number of perspectives that are carefully built into the backgrounds of the simulation roles.

COMMUNICATION

The unique setting allows participants to present their positions regarding the problem, propose their desired responses to the problem at hand, and negotiate and influence others. This leads to a free exchange of ideas and bridges communication gaps.

COMPLEXITY

Throughout the negotiation process, participants discover the most important variables, identify interconnections, design responses, and test how they will impact other actors and the whole system. In this process, both the problem and the consequences of possible solutions become visible in their entirety.

CREATIVITY

Participants discover their creative potential and go off the beaten track. Abstract ideas become tangible, opening new, original, and inspiring pathways into the unknown.

AGREEMENT

In the safe environment of the simulation, participants are more empathetic, trusting, and inclined towards cooperation. Thus, even if debates become heated, all voices are heard, trade-offs negotiated, and a joint policy response accepted. Even if participants' values differ, a compromise can be reached.

COMMITMENT TO ACTION

After finding a common ground in spite of differences, participants commit to implement their jointly developed strategy and use their experience and knowledge to face real-life challenges.

About the RECREATE project

The aim of the RECREATE project is to identify roles, opportunities, and pathways for cities to foster circular economy:
1. to reduce significantly the energy, water, and material resource uses, and related environmental impacts;
2. to build resilience to ever-increasing uncertainties from globalization and climate changes; and,
3. to become more liveable for growing populations in different urbanization contexts in China and Europe.

The project involves working with the four cities of Beijing, Malmo, Shanghai, and Vienna.

The objectives of this project will be achieved by developing, establishing, and implementing quantitative methods for urban metabolism, and proposing urban resource cycles, to provide foundations for building urban resilience to social, economic, and environmental stress. Through a cross-partner collaboration distributed in the four case-study cities, researchers will apply the methodologies to each other's cities for comparative and synthesized knowledge creation. Integrated solutions will have embedded results from policy exercises and elicited stakeholder shared values which will provide bounds of acceptability for these 'liveable' cities.