

## CITIZENS AS STAKEHOLDERS IN THE CYBERNETIC SYSTEM OF SUSTAINABLE MUNICIPAL ACTION

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**Abstract:** Sustainable communal development is based on a transition process that questions and changes our way of life and production. Citizens can always be identified as stakeholders in the cybernetic system of communal sustainability in the process. Their cybernetic role in the system can be classified as critical. Citizens are part of the complex system of sustainable municipal action. Complex systems cannot be determined, but can be controlled all the better if they react robustly to changes.

**Keywords:** Sustainability, community, citizens.

### **Introduction**

Human livelihoods, which are limited in space and time, pose a challenge to a complex world and to a systemic, multidimensional approach to sustainability. As early as the mid-1980s, a study on the future of the automotive industry, which was not undisputed at the time, was commissioned by the then CEO of Ford Germany, Daniel Goeudevert, to Frederic Vester and the Munich-based SBU GmbH<sup>1</sup>. Using a specially developed bio-cybernetic instrument based on the sensitivity model developed by UNESCO in the 1970s, a system investigation for the “strategies for tomorrow's traffic” was carried out. On the one hand, it was important to leave the path of common company analyzes and jump out of the system in order to be able to look inside from the outside. Another special feature of a systemic model approach is that the goal is not the occurrence of individual events, but rather the knowledge of how the system reacts to the occurrence of an event, i.e. how robust it is. For example, the highest possible punctuality rate in rail traffic is worthless for anyone affected by a delayed or canceled train, since what is more important is how the rail system reacts in the event of a plan deviation, which alternative travel connections can be offered in what time, with what comfort and what financial compensation. The answers to the two fundamental questions of sustainable municipal action.

How should municipal sustainability be managed if one does not recognize the system on which it is based? and

How should municipal sustainability be measured if it cannot be managed?

It can be found, based on the system study on the future of the automotive industry, in a cybernetic model based on the sensitivity analysis for mapping, evaluating, measuring and controlling communal

sustainability. This model is based on different influencing variables – also called variables or stakeholders – which in turn are characterized by different interests and influences (see Fig. 1). The citizens among the municipal stakeholders play a decisive role in the development of municipal sustainability. From the development of more than 2.5 million years we know that every social organization requires rules for the participation of its members. Examples of such rights of participation can be found in the American Declaration of Independence in 1776, the French Revolution in 1789 or the fall of the Berlin Wall in 1989<sup>2</sup>. Citizen participation has been expressed for years in addition to local voting rights in citizens' initiatives and referendums. This creates new opportunities for the local population to participate, which are increasingly displacing the established commitments of associations, parties, churches and trade unions [1: 5].

LOCAL STAKEHOLDER	INTERESTS / GOALS	INFLUENCE / EFFECT
POLITICAL SYSTEM	Reputation	Mandates
	Profiling	Resolutions
	Representation of interests	Personnel policy
	Communal quality of life	Information policy
ADMINISTRATIVE SYSTEM	Reputation	Service instructions
	Profiling	Budget policy
	Budget security	Information policy
	Management control	
CITIZENS	Legal security	Citizens as voters
	Co-Determination	Citizens as customers for municipal services
	Community infrastructure	
	municipal business development	
FINANCIAL ECONOMY	Return expectation	Promotion and refusal policy
	Investment security	Lobbying
	Advocacy	
COMPANIES	Strategic corporate success	Securing the location: business tax
	Municipal infrastructure	Securing the location: jobs
	Municipal business development	
MEDIA	Information	Public
	Opinion forming	Politics

Fig. 1 Stakeholder-Matrix (cf. Saliterer, 2009: 190f.; own representation)<sup>3</sup>

In principle, this development does not contradict the legitimation of the legislature, as long as it is not understood as a substitute function.

Rather, it is the results of a digital and plural information society that make such forms of participation, decision-making and decision-making possible in the first place. This is also an expression of a complex and networked world that is constantly changing.

### **Research subject**

The 17 Sustainable Development Goals of the United Nations express that mankind is in a fundamental systemic process of change in the face of global challenges, in particular the effects associated with climate change. Science knows the term transition for this. This describes a “fundamental structural change in a social (sub) system from one dynamic, stable state of equilibrium to another as a result of economic, cultural, technological, ecological and institutional co-evolution” [1: 103f]. Understood. “The vision of a climate-friendly society, which is based on new, low-carbon mobility, energy generation, economy and lifestyles is contrasted with the life model of industrial modernization [1: 7]. The challenge is to involve the citizen as a stakeholder in this transition process of sustainable communal development in a goal- and result-oriented manner.

### **Results**

It is important to recognize that behind every citizen there is an individual who draws up his own benefit balance. In this respect, citizens' initiatives are only communities of convenience that function as long as the common purpose coincides with the individual benefit balance of the individual citizen. Every citizen individually assesses the usefulness of community tasks differently. This becomes particularly clear in one of the key issues for sustainable development: the energy transition. Its beginnings go back decades and are linked to issues such as environmental pollution, scarcity of resources and the phasing out of nuclear power. These were the trigger for a change in awareness and thus a central prerequisite for the mobilization of comprehensive engagement by social actors. Against this background, the need of citizens to be more involved in local decision-making must be understood [2: 101]. Proof of this are the diverse forms of participation by citizens in committees, advisory boards, initiatives and workshops. The direct financial opportunities for citizens to participate in value creation are also a catalyst for the energy transition and economic prosperity in the municipalities. In 2013, citizens already had a 47% market share of the installed renewable energy capacity in Germany<sup>4</sup>. Citizen investments in rural areas improve incomes and employment opportunities in municipalities and regions<sup>5</sup>. Investments in wind, solar and biogas plants not only contribute to gross value added<sup>6</sup> and to create new permanent jobs at, but can also compensate for disadvantages in the

demographic development<sup>7</sup>. For some citizens, the fact that they are energetic independence has a positive effect on the individual benefit balance. These households supply themselves completely with their own electricity, i.e. they are producer and consumer in one, also known as prosumers. This trend can intensify if the financial framework conditions allow such investments to be made by other parts of the population. After all, in the context of a study, 41% of German citizens expressed the wish to be able to become prosumers<sup>8</sup>.

The emerging civic engagement is based on an intrinsically shaped motivation of like-minded citizens, whose individual benefit balance shows initially a high degree of coverage for the community tasks. But the diversity of actors and interests as well as their consideration in space and time characterize the complexity of a system. The fundamental upheavals associated with large infrastructure projects inevitably meet with different interests and evaluations. Consequently, it cannot be assumed that once a degree of agreement between community interests and individual benefit has been achieved, it must also be given later. "The thesis of the benefit-maximizing voter who, depending on the local proximity to railway lines, highways and theaters, votes in his favor is consistently confirmed" [3: 39]. In the literature, this phenomenon is referred to as the Saint Florian's principle or the Nimby principle (Not in my back yard). An investment that serves the common good can individually be assessed diametrically opposite in its benefit balance by one and the same citizen. The generation of regenerative wind energy and its contribution to climate protection is an individually perceived benefit. However, as soon as the wind power plant required for this is to be built in the immediate vicinity of the affected citizen, the individual benefit becomes an individual loss.

It is known from acceptance research that the individual financial benefit is essential for acceptance<sup>9</sup>. The degree of acceptance also increases with the involvement of citizens in the planning and decision-making processes on site [4: 22].

In the course of the implementation of the goals of the energy turnaround, which are also part of sustainable municipal action, it is becoming apparent that, despite the higher acceptance of renewable energies compared to coal power or nuclear power, considerable resistance from individual citizens and citizens' initiatives is to be expected in municipal location decisions. A case-by-case analysis from project to project and from region to region is essential. Not insignificant is the fact that increasingly polarizing positions can be identified on all "social and political levels, in all socially organized forms and in all socially communicative formats" [1: 6]. Regional issues are not always uninfluenced by general social moods and events. They can even represent

a supra-regional dispute. The opponents of hosting the 2024 Summer Olympics in Hamburg successfully benefited from accompanying circumstances such as the increased risk of terrorism, the exploded construction costs of the Elbphilharmonie or the corruption scandals of international sports organizations. The advantages of a pro-Olympia decision, which would have included the accelerated expansion of the transport and housing infrastructure in a growing city like Hamburg, did not, however, have a decisive effect [5: 38f]. In the scientific literature, in addition to the increase in trust in the values and goals of citizens' initiatives, reference is made to two parallel developments. On the one hand, there is "an increasing mistrust of the population towards the credibility of political decision-makers and institutions" [2: 101]. On the other hand, citizens' initiatives are increasingly "local veto players"<sup>10</sup>. "Studies in the field of the acceptance of renewable energies show that the majority of those questioned (as supporters of an energy transition) can be classified. ... At the same time, the opportune groups are often highly motivated and active people who, as a noisy minority, outshine the silent majority of supporters" [2: 200].

### **Conclusion**

Municipalities are closest to the citizens of all administrative levels and have a decisive influence on sustainable development in the immediate area of life of all their citizens. In this respect, the local government is faced with the challenge of mobilizing the solution-oriented, constructive actors among the citizens and in the citizens' initiatives. Theory and practice do not yet go together here. In a survey of municipal decision-makers on municipal goals, the goal of "promoting citizen participation" came in last place [2: 127]. Citizen participation was viewed critically by the municipal decision-makers surveyed, as there is not always representative citizen participation, citizen participation is costly for the municipal decision-makers, and the results of the participation cannot be implemented due to the budgetary situation. This leads to frustration and disaffection with politics on all sides [6: 135f.]. Sustainable development is a complex challenge that all actors must approach responsibly. The literature speaks of dialogue-oriented participation. This includes citizen forums, future workshops and round tables. On the one hand, these instruments testify to more direct democracy in the local area. On the other hand, the traditional institutions are no longer able to convincingly represent the interests of the citizens. As a conclusion it can be drawn that the citizen as a stakeholder in the complex system of municipal sustainability plays a critical role: He/she has a strong influence on developments, but is also strongly influenced by developments.

## Notes

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