

# Vision and Goals - Where do we want to go?

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## Abstract

In the SDGVisionPath project<sup>1</sup> we support stakeholders and experts in constructively linking issues such as economic growth, greenhouse gas emissions and (energy) poverty. For this purpose, we developed system images of how these topics influence each other in order to then jointly formulate visions from which relevant indicators and pathways to achieve them can be derived.

This working paper shows how arts-based methods can be used to support stakeholders in developing visions and goals and presents the outcomes of a workshop held to test the approach of speculative thinking for such an undertaking. The results showed the appropriateness of the methods used as well as the workshop results that were further used in the course of SDGVisionPath.

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<sup>1</sup> <https://sdg.visionpath.at/>

## 1 Background and goals: Theoretical-artistic foundations

This SDGVisionPath working paper presents the goals, methods and results of the second SDGVisionPath workshop which took place on 25.09.2023 at the University of Applied Arts in Vienna. The objective of this participatory workshop (see Palmetshofer et al., 2024 for the general approach applied) was to develop a shared future vision for achieving SDGs 1&10, 8 and 13 in an Austrian context, based on the common system understanding derived in the first SDGVisionPath workshop (see Wretschitsch et al., 2024b). The objectives of the remaining two workshops were to co-create pathways to achieve the vision developed (see Bukowski et al., 2024b) and to identify policy recommendations for realizing the pathways and visions (see Kirchner et al., 2024).

In the first workshop (see Wretschitsch et al., 2024b), the participants had applied the "Causal Loop Diagram" method, based on System Dynamics (Sterman, 2000), to develop a systemic understanding of SDG1&10 (No Poverty & Reduced Inequalities - Indicator: "Energy Poverty Rate"), SDG8 (Decent Work and Economic Growth - Indicators: "job satisfaction" & "real GDP per capita"), and SDG13 (climate action - indicator: "greenhouse gas emissions"). Based on these results, two central focus topics were derived for the second workshop, which served as the basis for the conceptualisation of the second workshop: (1) growth ("beyond growth") and (2) distributive justice.

The fundamental premise of such a transdisciplinary project is to bring together very different people with very different knowledge of their respective practices and that new knowledge can also emerge through this combination in a well-prepared setting (Hadorn et al., 2008). The second workshop presented here thus started with the key question: **"Where do we want to go? - The future we want"**.

Based on these results as well as earlier work on transdisciplinary workshops (Hinterberger and Bukowski, 2024), the second workshop aimed at supporting stakeholders in developing visions for a positive future in line with their own wellbeing as well as within planetary and societal conditions.

Ideally, visions elaborated in a co-creative way (Elmallah et al., 2022; Gray et al., 2024) allow to derive measurable indicators from the goals and targets suggested by stakeholders. The second workshop concentrated on formulating visions and goals, but not on deriving indicators. This has been done afterwards, based on the results of this workshop and a stakeholder survey (see Hinterberger et al., 2024). Here, we thus present and describe the participatory development of visions and goals.

## 2 Method: Future perspectives with the means of art

In this section we describe the most important features regarding the method of speculative thinking and the speculative settings used in the workshop. The approach chosen for this workshop is based on the theory of speculative design according to Anthony Dunne and Fiona Raby (2013). Their approach is based on the use of design as a critically scrutinising medium and practice that explores the effects of new developments and utilizes design as a catalyst for alternative social spaces of imagination. They illustrate this in a list of juxtapositions between classical and speculative design: from problem solving to problem finding; from providing answers to asking questions; from "how the world is" to "how the world could be"; from innovation to provocation (p.7).

The aim was to develop a common vision and goals for a socio-economically just and climate-safe future to achieve SDGs 1&10, 8 and 13 in an Austrian context. In doing so, it was deliberately allowed that the participants think beyond the boundaries of these four SDGs. Art-based methods and different formats were used to stimulate as many different visions as possible.

Building on the results of the first workshop, in which SDGs1&10 (No poverty & less inequality), SDG8 (Decent work and economic growth) and SDG13 (Climate action) were placed in a systemic impact context (see Wretschitsch et al., 2024b), the participants worked in two speculative "future panels" to formulate visions and goals for these systems. Participants were guided through a creative but also concrete programme throughout the day.

To familiarise the participants with this way of thinking, examples from speculative design were presented in the intro of the workshop<sup>2</sup>. One of the aims of speculative design is to challenge hegemonic thinking and dominant ideas of the future by creating alternative futures. In the field of design, this happens in particular through working with materials, processed-based thinking and in our case, applied as speculative design. Engaging in speculative thinking also means entering a state of not-knowing and accepting uncertainty as part of the process. Another important element in speculative thinking is the detachment from the hierarchy of different forms of knowledge such as data, information, knowledge (see Boulding, 1955).

The method makes it possible to develop and discuss completely freely imagined scenarios and more fact-based ideas of the future side by side. By applying speculative thinking, entrenched assumptions can be challenged and the limits of the imaginable can be tested.

Ulrike Payerhofer, Maximilian Muhr and Ronja Janu led the workshop as part of the Transformation Factory, a temporary platform for the development of co-creative methods and transdisciplinary projects at the Art x Science School for Transformation at the University of Applied Arts Vienna. The work was carried out in three stages:

- sub-step 1) Game "The Thing from the Future"
- sub-step 2) Futures Panel - Vision for 2050 and
- sub-step 3) Futures Panel – Goals for 2050

The workshop created a place for participants to explore their ideas and assumptions about the future. The concept of the workshop contained individual and group work settings with a strong emphasis on facilitated arts-based methods fostering a collaborative mode of thinking about the future. The modules in the workshop were specifically developed to contribute to the overall project

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<sup>2</sup> On show were works by students from the "Industrial Design 2" class at the University of Applied Arts, under the direction of Prof. Anab Jain.

goals. For the initial phase/step 1 a speculative game was introduced to enable the participants to get to know each other and stimulate a speculative thinking process. In step 2 the participants were asked to develop a "Vision for 2050" within the speculative context of a future transdisciplinary expert panel, called the "Futures Panel". This step included developing a newspaper supplement for presentation and communication purposes. Step 3 required the derivation of goals from the different visions which at the end of the workshop were condensed to preformulated goals.

The integration of arts-based methods in the transdisciplinary research process builds on the fact that sustainability issues require diverse perspectives across varied disciplines and sectors. This approach includes that different types of knowledge and ways of knowing are considered as integral part of the research design and process (Hadorn et al., 2008; Hoffmann et al., 2017; Vilsmaier et al., 2017). The arts allow participants to express their emotional level and activate sensory experiences to create a more holistic understanding of complex issues (Heinrichs, 2018; Kagan, 2015). Further, arts-based methods are most valuable when deployed for research processes that require participants to "(...) explore, describe, evoke, provoke or unsettle." (Leavy, 2017, p. 191). This in turn shows that arts-based approaches are specifically suited to deal with ambiguity, contradictions and complexity (Kagan, 2015).

## 2.1 Game "Thing from the future"

After the introduction to the speculative thinking approach by showing concrete examples, the next step was to activate speculative thinking in the participants.

For the workshop the team adapted the open-source game "The Thing from the Future" to the context and objectives of the workshop. "The Thing from the Future" is a card game developed by the New York design collective situationlab<sup>3</sup>, in which the players design fictitious objects from the future (short, medium and long-term time periods are possible) along certain categories the participants are asked to imagine and describe things that don't exist yet and thus kick-starting the speculative thinking process. That is exactly what is needed as an entrance point to the process: We have to start thinking about the future in the here and now, imagine it and then make it a reality to a certain extent.

The categories of the game form the context of the respective objects and relate to the type of future (e.g. "technoid future", "sustainable future"), the embedding in a social category (e.g. "law", "remuneration") and the connection to a context of application (e.g. "inequality", "art") (see Figure 1).

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<sup>3</sup> see <https://situationlab.org>

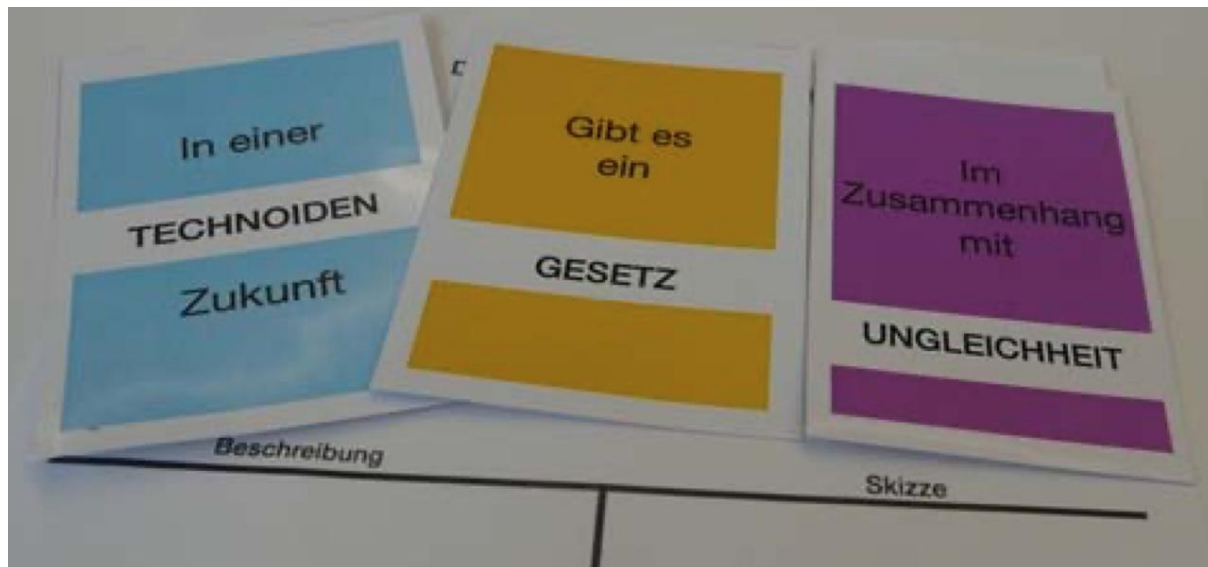


Figure 1: One of the composite tasks for the "Thing from the Future"

New categories were developed for the three sets of cards based on the key topics derived from the first workshop (growth and distributive justice). The participants encountered both familiar and new topics in the game and had to relocate the topics in speculative contexts and invent a "thing from the future" based on the fictitious scenario. Each round of the game was scheduled to last three minutes in order to encourage the rapid, constraint-based generation of ideas, rather than thinking through each idea in depth with the usual logical means in terms of its feasibility. After each round, the participants presented their ideas to their colleagues in the group. After three rounds, the game ended and the results of all groups were collected. This playful exploration of fictitious scenarios was intended to enable the participants to "open up" their thinking about the future so that they could take a more experimental and courageous approach to developing visions in the next step.

## 2.2 Futures Panel – a Vision for 2050

The speculative thinking approach was continued and intensified in the second step.

The "Futures Panel" was designed to connect the diverse participants to a common denominator – a transdisciplinary experts panel founded by a future federal government of Austria – in order to develop (innovative) visions based on given status-quo scenarios (see Figure 2).





Figure 2: Workshop teaser sent out to participants one week before the start.

*"Welcome to the first working session of the Futures Panel!"*

*For too long, the areas of climate and social policy have been played off against each other in Austria, and too much emphasis has been placed on gross domestic product as the only measure of prosperity. Inspired by EU initiatives, the Austrian federal government has now finally recognised its responsibility to see political leitmotifs such as the Paris climate targets not only as a challenge, but also as a unique opportunity on the path to a sustainable future. Eight years to the day after the SDGs were adopted and halfway towards 2030, the Futures Panel, which is worth millions and spans multiple disciplines and political parties, is therefore being launched today. You are all part of this visionary think tank and have the common mission of going beyond existing frameworks and strategies and outlining desirable futures for Austria in 2050. Use your expertise to break free from the contradictions and trade-offs of the present and dare to think the unprecedented. In short: be courageous and sow the seeds of a new culture of sustainability, the fruits of which will make a good life possible for everyone."*

This second part of the workshop included the task to design a newspaper supplement so as not to create a vision that disappears somewhere, but one that can be disseminated and communicated.

At the beginning of step 2 the participants were asked to work individually to imagine their personal vision of 2050 and to draw inspiration from the ideas in the game "The Thing from the Future". The individual visions were then discussed in the group. In these discussions, a variety of ideas and the associated attitudes and values became apparent.

The expert groups of the Futures Panel were then given a brief problem definition based on their table topic (one of the two main topics derived from the first workshop - distributive justice and

“beyond” growth), which served as the basis for developing a common vision. For example, the status-quo scenario on the topic of distributive justice was as follows:

*Austria is one of the top 25 countries in the world in terms of prosperity and has recently improved even further in terms of net disposable household income compared to the EU average. Nevertheless, we face numerous challenges in terms of inequality. Despite the high level of prosperity, net household incomes are subject to strong fluctuations, for example due to excessively high energy prices (triggered by increased energy consumption).*

*Furthermore, wealth is very unequally distributed in Austria as a whole: The richest 5% own 43% of total net wealth. In contrast, 18% of the population (1.5 million people) are at risk of poverty or marginalisation, a quarter of whom are children.*

*Purchasing power is also directly linked to CO2 emissions, both globally and nationally. In this country, greenhouse gas emissions per capita are around 12 times higher for the richest income decile than for the poorest income decile. (...)*

*Austria is a prosperous country, but with great inequality in various areas. What situation will we find ourselves in 2050? Which distribution issues have seen the most change and why? What are your visions for this?*

### 2.3 Futures Panel – Goals for 2050

A hypothetical newspaper supplement for a high-circulation national newspaper in 2050 was chosen as the format for presenting the vision, which the Futures Panel table groups presented in plenary at the end. On the one hand, the newspaper supplement enabled a coherent presentation of several topics, while at the same time the participants were "forced" to condense their visions in a collective process and make them communicable. The development of the supplement further required a high level of negotiation capabilities from the participants as the different views, ideas and opinions about the future varied broadly.

Collage was chosen as the method for creating the newspaper supplement, as individual text and image elements can be combined relatively quickly to form a new whole. The technique encourages experimentation by selecting, sorting and arranging the materials. Collage offers a variety of design and expression possibilities that combine a conscious realisation with the moment of chance. Furthermore, the process of collaging leads through several essential processes of knowledge production on a cognitive and sensory level. Dissolving, connecting and combining initially means initiating a process of research and having to make decisions about the use of certain elements. Transferring the combination of individual parts into a new whole requires the ability to create new connections (Hopf, 2021).

In other words, we sent the participants back and forth between the impossible and the realistic, which requires a productive approach to uncertainty and randomness and creates a large space of possibility in which new things can emerge.

This process is central to the visioning process as well as to the negotiations within the group. Designing the vision in the form of a newspaper supplement requires the participants to put their ideas into a concrete form. The specified format of the newspaper supplement served to support the participants in presenting and communicating the content they had developed.



The future visions and goals from this workshop provide the basis for deriving indicators that can be used to measure the achievement of the vision and for developing pathways in the third workshop to achieve the future vision.

### 3 Results

In this section we present the vision and goals elaborated by the participants' futures panels.

#### 3.1 The Vision of the Futures Panel

The vision developed in step 2 by the participants can be summarised as follows:

*"The Sustainable Development Goals (SDGs) agreed by the global community SDG 1 (no poverty) SDG 8 (decent work and economic growth), SDG 10 (reduced inequalities) and SDG 13 (climate action) are interrelated and should be implemented in such a way that they are compatible with a 'work-life balance' and 'gender justice' as well as the ecological goals 'conservation of biodiversity' and 'conservation of resources in the sense of a circular economy'.*

*To achieve these goals, institutional measures in the area of education (with the aim of 'free access to holistic education' and 'anchoring education for sustainable development'), transparency (with the aim of 'institutionalised monitoring based on a broad selection of indicators and control by a climate audit office') and governance (with the aim of ensuring that 'citizens' councils have decision-making power over trend-setting measures") implemented."*

In this vision, the SDGs 1&10, 8 and 13 are clearly seen as interrelated and should be implemented in such a way that they take into account both further social goals to guarantee sustainable community cohesion and further ecological goals to comply with planetary boundaries.

#### 3.2 The Goals of the Futures Panel

The goals formulated by our stakeholders in step 3 were presented mainly in qualitative terms while still reflecting the aforementioned dimensions of sustainability. Their social goals include a work-life balance, gender equality and the valorisation of care work, which should create space for more personal involvement in the community and for maintaining meaningful relationships.

Ecological goals include the preservation of biodiversity and the conservation of resources in the sense of a circular economy.

These goals can - according to the participants - only be achieved if the following institutional goals are pursued:

- education that produces responsible and critical citizens through free access to holistic education and the anchoring of education for sustainable development,
- increased transparency with regard to the environment, wealth/income and democracy, e.g. through institutionalised monitoring based on a broad selection of social and environmental indicators
- governance in which citizens' councils have decision-making power over landmark measures and a climate audit office monitors compliance with agreed climate targets.

#### 3.3 Focus of the future panels

Two future panels, one with focus on the topic "growth" and one with focus on the topic "distributive justice", each created a "newspaper supplement" in the sense of a positive vision for the future (see section 2). When focusing on distributive justice, the main topics addressed were the

common good, transparency and education. In the newspaper collages designed by the participants, topics such as absolute equality of opportunity, a social net for all cases, health, security, time and nutrition came to light.

In the growth focus area, the main topics addressed were "Beyond Growth" ("Limits to Growth" / "Degrowth" / quality of life beyond growth), climate (neutrality), the circular economy and biodiversity. Specific topics that were depicted in the newspaper collages dealt with "a good life", the common good, Beyond GDP indicators (happiness, satisfaction, common good) and the conscious use of resources.

### 3.4 Concretisation of the goals

After the future panel, the participants were asked to concretise goals that could point the way to the visions outlined in the newspaper collages.

#### **"Distributive justice" group**

For the topic of education, the goals "right to free access to holistic basic education" and "sufficient staff with the necessary expertise" were formulated. It was also discussed which skills and abilities the education system will promote in the future. Specifically, it was argued that "responsible/critical citizens" should be trained.

On the topic of transparency, the participants agreed on making "income and wealth transparency", "political decision-making" and the "social, ethical and environmental impact" of products and services visible in order to create an "intact environment". Transparent "democratic development" (e.g. freedom of speech) was also considered to be a goal in order to create more transparency.

For the participants, the goals for a better common good were the existence of "meaningful relationships", "personal commitment" and "fairness and justice". This requires, above all, a "valorisation of care work", an "adequate healthcare system" and a corresponding "work-life balance".

#### **"Growth" group**

This group focused on compliance with the planetary boundaries and their operational implementation. Important objectives were:

- Monitoring compliance with the planetary boundaries is institutionalised at global and national level.
- The quality of life of societies is measured using a broad selection of indicators
- Political and sustainability education is strongly anchored in all (further) education institutions.
- Citizens' councils have decision-making power over policy measures.
- There is increased engagement in voluntary community activities.
- There is an audit office for sustainable development goals
- Gender-specific differences in terms of working hours, care work, wages and parental leave, management positions are no longer significant.
- Concept of basic needs: Everyone has access to adequate housing, indoor climate, education, healthy food, opportunities to participate.

#### **Merging the vision and goals**

Although the two groups developed visions for the future on different overarching themes (inequality / growth), it was possible to find points of agreement. Figure 3 below illustrates the vision goals developed in the groups. For example, the topic of education was seen in both groups as a prerequisite and a higher priority in the hierarchy - on the one hand as a prerequisite for the creation of transparency and a sustainable community, and on the other hand for a new form of governance. Transparency was also present as an issue in both groups: while transparency played a central role in the vision of the "distributive justice" group, it was discussed in the "growth" group primarily in connection with institutionalised monitoring of planetary boundaries and the installation of a climate audit office. In the "distributive justice" group, it was also emphasised that strengthening transparency goes hand in hand with a major leverage effect. Finally, the topic of community in the sense of voluntary activities or care work was also discussed in both groups. Where this was not explicitly done by the participants, the scientific project team assigned all the objectives mentioned to the topics of education, community, transparency and governance ex-post. In a further step, the project team derived suitable indicators for these goals and conducted a survey to determine the meaningfulness and possible target values for these indicators (Hinterberger et al., 2024).

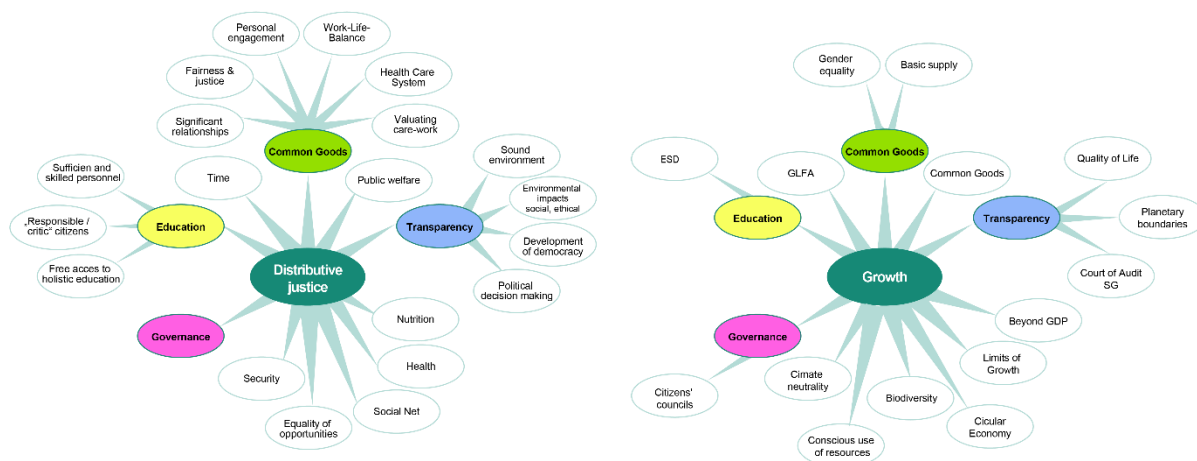


Figure 3: Goals for the groups “distributive justice” and “economic growth”

## 4 Discussion

### 4.1 Caveats

The challenges in the overall concept of the all-day workshop were the heterogeneity of the participants in terms of disciplines and organizations as well as the requirement to formulate goals from a broad vision, which in turn should enable indicators to be derived. In order to link all factors productively, the workshop hosts from the University of Applied Arts Vienna convened the fictitious "Futures Panel" think tank, which acted as an overarching framework and connecting element between the participants throughout the workshop day.

Another challenge was the available time of stakeholders. Although we received many registrations and noted a strong interest in our workshop, we received many last minute cancellations, most of them due to sick leave or last minute work requirements. This left us with only four although very engaging stakeholders. Fortunately, both the survey on indicators (Hinterberger et al., 2024) as well as the third (Bukowski et al., 2024b) and fourth workshop (Kirchner et al., 2024) allowed us to

introduce and discuss the vision with other stakeholders. We received no objections to the derived vision and goals in the other workshops and were able to derive concrete indicators supported by stakeholders due to the survey.

## 4.2 Feedback by participants

The participants found the approach relevant for their work because it emphasized the importance of working in a participatory way. “It would definitely make sense to use such methods in concrete, practical negotiation processes at work” said a participant from Austria’s federal administration.

The representative of a large company liked the format “because very diverse people from different educational backgrounds and organizations came together and took the time to talk about things that initially seem quite uncontroversial. But when you go into more depth, you notice considerable differences, which subsequently also stimulates self-reflection”.

For topics of this kind, which go in the direction of mindset change, it is important to have a few framework conditions and a corresponding amount of time (such as a whole day in this case).

„It would be interesting to apply such methods, which on the one hand offer greater freedom and at the same time can be very efficient, in larger organizations (companies)” said the participant. “I took away that the young participants in particular approached the matter with great knowledge and commitment, which motivates me to continue my involvement and get involved in such events.”

The thread between the first and second workshop was well recognized by the participants.

Also, the stakeholder from an NGO “liked the method, especially because it made it possible to have fruitful discussions with very different opinions. In the end, we succeeded in focusing on what we had in common, namely the goal of satisfying basic needs.” This was ultimately seen as a prerequisite for taking joint action, while the originally formulated differences receded into the background.

He also could “imagine incorporating such methods into daily work.” They help us to move beyond the pure exchange of classic arguments, to endure this, to get closer to each other in terms of content and to meet on a human level, which could help us to achieve common goals.

Another participant valued the variety of solutions from which a colorful common picture can emerge. “I found it exciting how the different ideas were brought together to see how they work together. It was a really exciting workshop and I’m looking forward to seeing how this image develops.” said the representative of a regional agency dealing with renewable energy.

## 5 Conclusion and Outlook

‘Speculative thinking’ proved to be a very productive and creative method for thinking from the present into the future. On the one hand, this created a richer and more robust knowledge base for the project and, on the other hand, the conviction that the participants will bring this knowledge back into their work and life context and thus integrate the content developed back into practice by the participants.

In a further step of this project, the visions and goals developed in the workshop described here were used to develop indicators to measure progress in the direction of the desired future the stakeholders wanted to see for the near and medium term future. In our case, the project team suggested indicators that best measure the achievement of these goals and asked the stakeholders in a review to evaluate their appropriateness and to suggest concrete measurable targets for the vision and goals elaborated in the workshop (Hinterberger et al., 2024). Based on scientifically prepared

information actors themselves should find indicators that best "measure" the achievement of their goals since current indicators are likely to not measure progress appropriately (Zeng et al., 2020).

In a third workshop we used the stakeholders' visions and goals by way of participatory backcasting to co-create pathways (Bukowski et al., 2024b), which were finally used in modeling to qualify and quantify their ideas (Bukowski et al., 2024a; Wretschitsch et al., 2024a).

Combining the results of this project with similar processes on micro and meso levels delivers a basis for further developing a comprehensive methodology of visioning and indicator development with tools from artistic research, systems analysis and participatory indicator development for a broad range of applications (Hinterberger, 2025; Hinterberger and Bukowski, 2024).

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