

Field manual

Scenario building

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Sascha Meinert

etui.

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About the author

Sascha Meinert is a political scientist and, since 2004, head of the Berlin-based Institute for Prospective Analyses (IPA) which promotes the implementation of Scenario Building as a learning tool and instrument for constructive stakeholder participation. Sascha Meinert studied political science, economics and European law. From 1999 to 2005, he worked as a senior research fellow at the Center for Applied Policy Research (CAP) at the University of Munich. During that period, having discovered his passion for systemic and future-oriented learning and analysis tools, he adapted Scenario Building for use in several consulting, strategic planning, and participatory processes. From 2003 to 2009, he was a lecturer at the European School of Governance (EUSG). He has been involved in a wide variety of project contexts with the German Federal Agency for Civic Education (bpb), public foundations, research institutes, and EU-financed projects. Sascha Meinert has authored numerous participatory simulations on different fields of EU policy and Global Governance, learning materials in the field of Education for Sustainable Development (ESD), as well as articles on Scenario Building, anticipation skills, and the role of shared narratives for community building and policy implementation.

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Foreword

In 2008, the ETUI embarked upon a scenario process on the future of labour relations in Europe. The project Worker Participation 2030, which we conducted in co-operation with the Berlin-based Institute for Prospective Analyses and with a group of around 20 experts and practitioners from seven European countries, represented an ambitious task.

Our intention was to set-up an open and creative space for exchanges on the long-term prospects and changing contexts for worker participation, in its various forms, in Europe.

We are currently witnessing tremendous change and discontinuity in the world of work. Scenarios have proven to be particularly helpful in such situations of great uncertainty insofar as they offer guidance in relation to fundamental alternatives. The four scenarios elaborated in the ETUI project¹ show alternative *futures* in which worker participation structures and actors might have to operate in the future, and illustrate possible impacts, consequences and choices. Trade unions and works councils need to prepare themselves for several futures and to be ready for change, including within the organizations to which they belong.

As the concrete answers and paths will look very different in individual countries and sectors, we started using the scenarios to initiate an exchange with practitioners, such as works councillors, trade union officers, European Works Council members or trainers of worker representatives. For this purpose, we used *Anticipation workshops* in which the participants explore the four scenarios, jointly reflect on their implications, and exchange views on strategies and priorities for today. We were deeply impressed by the openness of the participants and their readiness to look for new solutions.

We have been frequently asked in the course of the project where to find a concise, short set of instructions on how to generate scenarios. The ‘Scenario-Building Field Manual’ you are about to read has been compiled in response to this demand and is another element contributing to our general aim of strengthening a culture of long-term thinking in the ‘world of work’. The manual has been written by Sascha Meinert who co-facilitated the *Worker Participation 2030* project and has wide-ranging experience in the design of participatory scenario processes. The manual is targeted at people who want to know more about scenario-building and are considering setting up their own scenario project. It has been designed as a compact and easily accessible overview of the method of scenario building and the different steps entailed in the process. It helps the reader to identify crucial points to consider when preparing and conducting a scenario project.

1. Available in English, German and French at <http://2030.worker-participation.eu>

At the end of the day, organizing a scenario process is probably not something to be learned primarily through reading books about the scenario method (although the manual also provides some literature recommendations for further reading). To a very considerable extent, it requires the readiness to 'learn in flight' by 'simply' daring to do it. Our hope in providing this manual is that it will trigger numerous fruitful learning processes conducted by curious and open-minded people who actively want to shape the future. We hope that you will become as enthusiastic about the scenario approach as we are and look forward to hearing from you about your own experiences.

— *Michael Stollt*

Research officer ETUI, February 2014

1. Changing contexts

*'Scenarios are stories about the future,
but their purpose is to make better decisions in the present.'*

Ged Davis

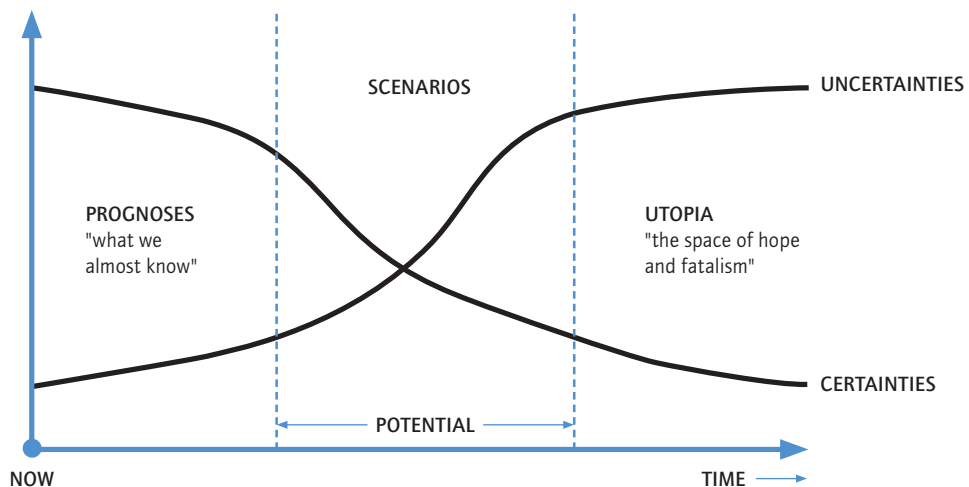
Contexts are changing faster today than in previous times – context itself has become a variable. Scenarios deal with the uncertainty arising from the fact that we don't know in what kind of future today's plans and decisions will unfold. Just as maps help us to find our bearings and move around in space, a set of scenarios can illustrate different possible pathways into the future.

There are different ways to arrive at an image of the future. In 1865, the English scientist William Jevons was worried about the finite availability of domestic coal deposits which he saw as a great threat to his country's status as world power. Today, 150 years later, Great Britain still has significant deposits of coal which, in all likelihood, will never see the light of day. Domestic coal extraction currently contributes less than 7 per cent of British energy consumption, while the Commonwealth lost its role as colonial superpower for altogether different reasons.

Any glance into the future is necessarily tied to imponderables; there is always more than one possible development path – because there is so much that simply cannot be foreseen and because the future will also be shaped by decisions that we still have to be taken. Today, context is changing much faster than in previous times. Who could have forecast, even one year before they happened, the fundamental changes in the Arab World, Fukushima, or the serious problems that have befallen the euro? The future is not an extension of present trends – it is full of surprises. We do not know what the future will look like; we know only that it will be different from today. Moreover, whether we are speaking of the financial and economic crisis, of the depletion of fossil fuels and other non-renewable resources, of global warming, the loss of biodiversity or the increasing lack of drinking water in many regions, the challenges facing humankind are considerable and the prospects often represent cause for concern. Scenario-building has proven to be particularly helpful in situations of great uncertainty and discontinuity. Instead of neglecting these areas of uncertainty, scenarios make them explicit and offer a framework for exploring them with others.

To reflect in terms of scenarios is a tendency inherent in human thought. The neurologist David Ingvar coined the term 'memories of the future' to illustrate the way in which our decisions and actions are closely interwoven with the pictures we conjure up of the future. We anticipate possible *futures* and prepare for them in the present. But our anticipation of alternatives is normally based on very personal assumptions and interests; and all too often our picture of the future is somewhat narrow and short-sighted, lacking both an adequate time horizon and a broad image of existing long-term potentials and risks. For this reason it is important to engage in deeper conversations with others on what the future might hold and what individual or collective actions we can or might take to deal with it. While you can't write the future on your own, you can certainly be involved in shaping it. Moreover, whichever scenario becomes reality, there is always room for manoeuvre in dealing with it.

A scenario is a presentation of a possible future situation in narrative form. As a rule, it also portrays causal relationships, which explain how, from the vantage point of the present, we arrived at that particular future in this particular story ('How might things come to this?'). One important characteristic of the scenario method lies in its explicit inclusion of uncertainties and its comparison of development alternatives that *could* shape the course of events. Scenarios are distinct from prognoses because they do *not* set out to *predict* the future. They are also distinct from utopias (or dystopias), which draw up a *desired* (or feared) future in the absence of any concretely established connections with the present. While prognoses are suitable for questions dealing with the nearer future, in relation to which developments can be 'calculated' with high probability and without major difficulty, utopias deal with the distant future, in relation to which many of today's certainties no longer hold good. Scenarios, however, play themselves out amidst the realities of today and the mid- to long-term uncertainties (see graph below).



Graph inspired by Ulrich Golücke

The scenario method, which originated in the military sphere, was adapted and further developed by various companies and consulting firms in the 1950s and 1960s. The futurist Herman Kahn is seen as the founding father of the scenario method. In the 1950s, he developed this approach for the US Ministry of Defence initially to outline future conflict potentials and later also to look at economic and social questions. Further pioneering work was conducted in the 1970s by the company SHELL and in particular by Pierre Wack who led the company's scenario unit from 1971 to 1981. It was through the report *The Limits of Growth* to the Club of Rome in 1972 that the scenario approach first entered the public consciousness. Based on the System Dynamics Approach of Jay Forrester at MIT, this was the first time that a set of scenarios was discussed with significant public participation. These scenarios were developed through a number of computer-based simulations on the development of global economic and population growth, poverty projections, as well as resource consumption and environmental pollution (and they were often misinterpreted by critics as a prognosis). Over the years, more and more companies and organisations, confronted with the necessity of long-term investment decisions in a rapidly changing market environment, started to utilise scenarios for their strategy developments.

Scenario Building is also a tool for political deliberations, in spheres such as foreign policy, regional planning or decisions on pending long-term infrastructure projects. It can be used for dealing with complex social challenges and conflicts. One example of the latter are the 'Mont Fleur Scenarios', which were developed in South Africa in 1991 and dealt with perspectives on the post-Apartheid co-existence of the different ethnic groups. Many actors participated in their development, which was also accompanied by wide public interest and response. Similar projects

have been carried out in Israel, Colombia, Burundi and other conflict regions. The future-directed and understanding-oriented approach of the scenario method further makes it an effective tool for regional, interdisciplinary or intercultural dialogue projects. Since the 1980s, the scenario method has increasingly been understood as a structured (group-) learning process.

This learning process is directed towards finding one's bearings and moving forward in situations of great uncertainty. It is directed towards developing several – each taken separately – consistent scenarios and, lastly, towards reflecting upon the consequences and options for action deriving from the scenarios. The approach can be modified depending on the goals, resources and participating group of stakeholders involved in the project. Scenario-building usually constitutes a process consisting of an interview phase and several workshops and work phases, where a larger group of participants – with the assistance of a smaller facilitating core team – develops a set of scenarios, which will then be edited by the core team into a final version of the narratives.

In line with these general remarks, Scenario Building processes have a three-fold aim: to broaden the view; to have a frame of reference for orientation and exchange with others; and to be prepared for different future alternatives.

Reasons for engaging in scenario building processes

Scenario building:

- Raises awareness of different future-alternatives, as well as of the possibility that these future-alternatives can be shaped. It also broadens our perceptions of the present and of future opportunities as conscious or unconscious constructions, which have both limiting and empowering potential.
 - Enhances the analysis of issues, situations and trends holistically and in all their complexities, as it encourages systemic thinking at different levels and across different spheres, highlighting linkages, as well as interdependencies in the form of self-reinforcing or limiting feedback loops.
 - Provides a means of thinking prospectively (i.e. with a view to the future) in medium- to long-term timeframes, whereas habitually our learning and thinking are retrospective and our day-to-day decision-making often deals with rather short time horizons. In a fast-changing, fast-paced globalising world, we need increasingly to learn how to anticipate and deal with uncertainties that lie just around the next corner and far beyond.
 - Allows different stakeholders who might be currently confused and dismayed by problems and conflicts 'to take a step back by taking two steps forward'; by looking towards the greater or common good in the future, it allows participants to break out of the straitjacket of today's perceptions and attitudes, opening up the view to long-term interests which might be much closer together than today's protagonists and antagonists believe. Thinking about the future together can develop relationships of trust and mutual understanding between diverse groups of stakeholders.
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2. Setting the stage

A scenario project is composed of different phases and ‘ingredients’. You need a compelling topic and an adequate time horizon for the scenarios. You begin by talking to people and gathering their differing perceptions. You need a group of motivated and curious participants who together create – in one to three (but in most cases two) workshops – a frame of reference and draft scenarios about basic future alternatives. You need a small core team to facilitate the process and to edit the final narratives of the scenarios. And, depending on the aims, the design, the (geographical) composition of the participants, and the duration of the project, some financial resources will also be necessary.

In choosing the underlying **question** of the scenario project some specific aspects should be considered: it must deal with a matter that is really important and at the same time associated with great uncertainty (in relation to which, in other words, it is impossible to give an answer about the direction in which things will develop in the coming years). The envisaged participants should be involved in this future which is open to question; they should have a certain potential impact on it. For trade unions, an important question might be: ‘In what context will our organization, our sector, etc. have to operate in the future?’

All scenarios developed in a scenario project relate to the same **time horizon**. Scenario projects lend themselves particularly for timeframes that are far enough removed from the present to leave room for change, but that do not reach so far into the future that they drift into utopia and thereby lose all relevant connection with the present. The time horizon has to be chosen in relation to the topic. If the question relates to the future of a football club, a company or sector, three seasons or three production cycles might represent a suitable timeframe. For political processes, such as the development of a certain region or the development of multilateral institutions, a timeframe of 20 to 25 years might be more suitable, as here changes happen much more slowly. However, not too much energy and time should be spent on deciding on an appropriate time horizon, for it is the anticipation of the qualitative characteristics of development processes that lies at the centre of scenario creation – and not the exact moment of their realization. A good time horizon for the questions ‘that really matter’ may often be found in practice by shaping the scenario around the world of the participants’ children.

To run a scenario process you need a core team, which facilitates the process, and a certain budget. Normally, the core team members have to be paid, while the participants in the process do not receive a fee or honorarium, but their expenses (for example, travelling costs) should – if possible – be reimbursed. Financial resources are also needed for the workshops in which the scenarios will be elaborated (accommodation, meeting rooms, technical equipment). And if the interviews

carried out at the beginning of the project are to be transcribed or the scenarios published in a printed version, further resources are necessary.

The **core team** of a scenario project normally consists of four small-group facilitators, a scenario editor/writer and a plenary facilitator, who also acts as the project coordinator. The central task of the core team is to facilitate the scenario workshops. Every workshop requires at least one day of preparation by the core team. The tasks of the core team also include organisation and scheduling, identifying and recruiting the participants for the scenario workshops, conducting and analysing interviews, as well as editing the final version of the scenarios. Sometimes a few committed and curious project participants join the core team in this editing process to lend their support to the final elaboration of the scenarios.

The **participants** in a scenario project should be a group of at least 20 to 30 individuals who are really affected by the issue in question. They should be interested, curious and open-minded. And they should bring together different points of view representing a broad range of perspectives on the issues at hand. Initially, they will be interviewed individually by members of the core team. Together, they will develop the scenarios in one to three workshops. Empirically, they are also the most important multipliers of the results (the scenarios) and predestined as active agents for (ex-)change.

While all of the abovementioned resources, manpower and number of involved people empirically contribute to the success of a scenario project, numerous variations are possible, depending on the resources available. At the end of the day, just a handful of truly committed people might suffice to come up with a provocative set of scenarios.

The various steps of scenario creation

After defining the question and the time horizon of the scenario project and planning the schedule, the first step is to conduct qualitative interviews with the participants (and if possible even with a larger and more diverse group of people) to gain a good sense of their diverging mind-sets and expectations. Therefore, the core team prepares a set of open trigger questions. The interviews are confidential; in other words, the information received will be used and made available but neither the identity nor the affiliation of the originator(s) may be revealed ('Chatham House rule'). The interviews should be recorded to make the subsequent analysis easier. They will then be analysed by the core team, and the answers and statements will be clustered into core issues and questions that emerge. A synopsis distilled out of the interviews serves as input for the first scenario workshop.

It is in the workshops that the space in which the participants believe their future will unfold is created. And the scenarios elaborated here are narrative illustrations of the basic alternatives in this time space.

The scenario building process (in the variation presented here) can be divided into six phases:

1. **Approaching** the question and the time horizon of the scenario project;
2. **Identifying** and ranking of **uncertainties** and **givens**;
3. **Describing** the fundamental future **alternatives** (for the two most important and uncertain influencing factors);
4. **Calibrating a 'future compass'** out of the elaborated results;
5. **Plotting scenario narratives** for each quadrant of the compass (basic dynamics, actors, conflicts, story lines and titles);
6. **Reflecting on** the outcomes: implications and **room for manoeuvre**.

In the project workshops the participants create, in a group effort, a common language, a common frame of reference for the future. They identify basic uncertainties, dynamics and chains of causality that will shape this future. They develop rough story lines of the scenarios, which illustrate the fundamental alternatives revealed in this learning process.

The various steps of the process described below take place alternately in small groups (expansive phase of the scenario workshops) and in the plenary group (reflection and bundling the results of the small groups' work). A clear timeframe for the whole working process and a visualisation of each working phase in the room (for example, with flip charts) should give participants orientation from the very beginning.

More often than not, the participants in a scenario-building process are not accustomed to the open learning process of a scenario project.

The tasks of the facilitating core team include therefore:

- creating an atmosphere of trust and openness, in which different opinions are respected (seeking to avoid a dynamic of defending and defensive viewpoints); because scenario projects are always a creative and, for all participants, open dialogue about an uncertain future, the workshops are also held under the Chatham House rule;
- being aware of group dynamics and helping to strengthen trust and dialogue;
- motivating all participants to contribute actively and to ensure that everyone is heard;
- recognising misunderstandings and supporting the group in finding a common language;
- keeping the process going by asking good questions; and
- ensuring that the timeframe for each of the different work phases is observed.

After the workshop phase, the core team – composed of the facilitators of the scenario process, an editor with good story-writing skills, and perhaps supported by a few interested workshop participants – edits the final narratives of the scenarios. This stage normally requires two to four meetings and a lot of deskwork in between.

3. Scenario building

*'By creating these stories you re-perceive reality in a new way,
you create opportunities and you widen your horizon.
We no longer simply endure the future but begin to shape and form it.'*
Ulrich Golüke

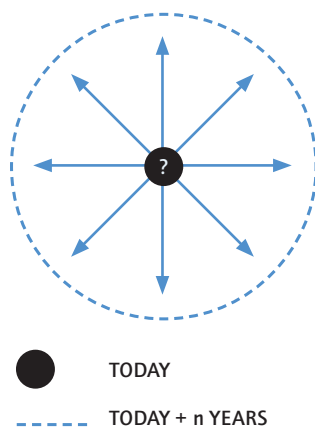
Building scenarios is a creative process and normally it should be a group effort: in the real world too it is true that 'you cannot write the future on your own'. And because the future will be shaped by different mind-sets, actors and interests, scenario projects bring together different people with different perspectives. Scenarios deal with uncertainties and the most compelling task in the process of scenario creation is to identify the really important underlying uncertainties – the 'drivers' of future development – and the different pathways they might take. Once a common frame of reference – a 'future compass' – has been built, the task is to create the scenario narratives that illustrate the alternative future spaces with a story. Finally, the participants explore each of the scenarios, reflecting on their implications for their actions and strategies today.

Step 1 - Approaching the topic and time horizon

A scenario project first needs a clearly defined question and time horizon. And the first task for the participants is to become acquainted with the underlying question and time frame of the project. The goal is to 'have everyone on board' and to establish a common starting point for further exploration.

In many cases, a general frame of reference is already given by the title of the project: for example, 'Managing energy supply in our region in the next two decades' or 'Worker participation in 2030'. In the first workshop, the participants have to fill this general frame of reference with concrete questions and issues for consideration. 'What is this project about?' 'In what way will we be affected?' Themes that are very likely to have a significant influence on the participants' own lives and which at the same time are associated with developments whose outcomes are difficult to assess, are particularly suitable for scenario projects. The more strongly and convincingly the connection or relationship to one's own living conditions can be demonstrated, the higher, as a rule, is the motivation to make an active contribution to elaboration of the scenario.

To approach the time horizon of the project – and given the fact that people are often inclined merely to repeat the 'official future', with a linear extrapolation of current trends or some other version of the denial of possible changes in their minds – a good exercise to get things going is to reflect on changes in the past: for example, if the project concerns a future



horizon of 20 years, you can start a conversation about what changes have taken place over the previous 20 years. To make things more personal, you might also ask the participants (if it is not a youth project) to bring a photo that shows them 20 years ago and to discuss – in small groups – how their personal viewpoints, goals and circumstances have changed in the meantime.

A useful initial input to the topic of the scenario project is a synopsis of the interviews conducted before the first workshop and prepared by the core team. The presentation of core questions and issues should not take more than 20–30 minutes. If it was not possible to conduct interviews in advance – due to time limitations or for organisational reasons – participants' associations in relation to the topic should be ascertained at the beginning of the scenario workshop, for example, through card collections (in other words, some sort of brainstorming exercises between two people or in small groups) that are then clustered accordingly. The more different the future views you obtain in this way, the better.

Step 2 – Identifying major uncertainties (and givens)

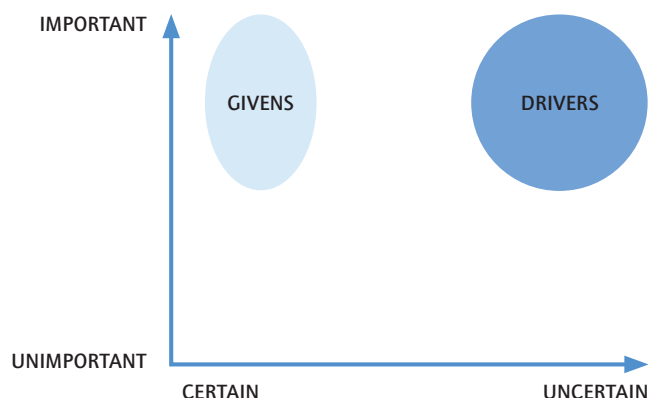
A central – and the most difficult – task in thinking about the future with regard to the scenario project's topic is the identification of central influencing factors. What are the most important, and at the same time the most uncertain, factors that will shape the future of the scenario topic? What will be the main driving forces of development? And what influencing factors might we consider as more or less given for the time horizon envisaged?

For example, market access, economic growth and productivity, as well as ecological capacity and income distribution, could be seen as very important factors in the economic development of a country. If the topic is demographic change, the main factors to be examined could include life expectancy, the birth rate, migration and society's appreciation of maturity and life experience. In small groups, participants collect influencing factors for the future – which they judge very, very important as well as very, very uncertain in their future development.

This is followed (at first in small groups and then in a discussion in the plenary) by a division of the thus identified factors into two categories:

1. How important is the factor?
2. Is the direction of development of the factor for the chosen scenario timeframe already more or less clear or still totally open?

In order to visualise this working step, the following simple schema is suggested. Those factors that, within the chosen timeframe of the underlying time horizon, are seen as important and whose direction of development can also be assumed with a reasonable degree of certainty are defined as **GIVENS**. Factors that can be put into the top right-hand corner of the diagram below, on the other hand, are driving forces whose future direction of development is as yet uncertain. They are called **DRIVERS**.



In theory, an unlimited number of futures are possible. In practice, the range is much narrower. This is because the future cannot develop out of anything but the past. In order to move from the endless range of possibilities to plausible development alternatives, a look at the history of the chosen topic or issue is necessary. How did we get to this point? What were the driving forces and what were the motivations? And therefore what is more or less already given when looking into the future space of the scenario question?

Givens are of major significance for the development of stories about the future because they are important and because the probability that they will actually occur is great. The most important Givens should appear in all scenarios developed during a scenario project. Increasing global environmental pollution and a continuing rise in world population can be seen as ‘Givens’ for the next two decades. Meanwhile, changes in a country’s energy mix are realised rather slowly in the face of the path dependency created by investments made in the past. Examples of this are the – on average – ten-year lifespan of a car, the thirty-to forty-year lifespan of power plants or long-lasting pipelines and distribution networks. Betty Sue Flowers, who has edited the results of numerous scenario processes, gave this category of influencing factors the name ‘TINA’, being short for ‘There Is No Alternative’. TINAs or Givens, in other words, are what, already today, we more or less know for certain about the future. Naturally, however, one aim of scenario projects is to investigate and to question whether factors presumed to be TINAs really do allow of no plausible alternatives.

More important in this working phase is to identify the most important influencing factors whose future development is still very uncertain and therefore extremely hard to judge from today’s standpoint. For the topic ‘The Future Energy Supply in the European Union’, for example, we have to deal with major uncertainties with regard to environmental costs resulting from our (present) energy model. Equally open are the questions of whether energy in 2030 will be cheap or very expensive and whether, by that time, conflicts over resources in the world will have come to a head or not. Closely related to this is the uncertainty with regard to what we can expect from new technologies that are ‘in the pipeline’. For the further elaboration of the scenarios such ‘Drivers’ play an essential role. The scenarios created in the following working phase will become differentiated from one another mainly because of the different development paths of their underlying Drivers.

Influencing factors	High influence (important)	Low influence (unimportant)
DRIVERS Variable (uncertain, open for the period in question)	Differ in each scenario	Are not included in further deliberations
GIVENS Fixed (certain for the period in question)	Defined and fixed for all scenarios	Can be included in further deliberations

The goal of this working phase is the formulation of *two* central Drivers (very important and very uncertain) on which the scenario development will focus from this point onwards. The objective, however, is not to find the ‘best’ notion, but rather to identify some overarching, encompassing concepts under which all the important uncertainties raised by participants can be bundled. Limiting the task to identification of just two Drivers – identified as central by the participants – is necessary in order to achieve a limited, manageable number of scenarios (see below). Theoretically, of course, it would be possible to develop a whole multitude of scenarios, but cognitive psychology has taught us that the human mind cannot handle more than five or six alternatives at any one time.

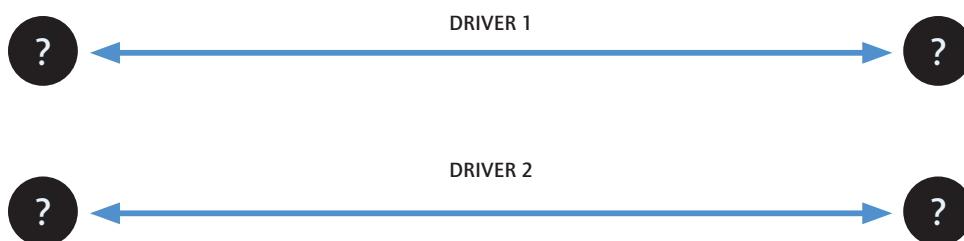
Moreover, a short list is prepared at this point of the most important Givens which we have to take as our vantage point (individual standpoints can also be documented as interventions and be visualised in the room). As a rule, participants have very different mental models and therefore this working phase is usually the most difficult part of a scenario project.

Step 3 - Naming the alternatives

The aim of the third working phase is to formulate, for the two previously identified Drivers (or bundles of Drivers), *different paths*, in other words, possible development outcomes for the chosen timeframe. For this, we also use the development alternatives that we considered in phase two.

Here the task is to consider the different *endpoints* that the two (important and uncertain drivers) might achieve in the envisaged future by identifying two opposing development results for each factor and writing them down on post-it or index cards. The price of oil can be high or low. Or formulated more generally, the availability of energy in the year 2030 can have a very high price or a very low price. The costs in terms of environmental pollution or degradation can be enormous or fairly modest. The two endpoints of an axis must describe alternative development trends which are clearly discernible (for example, 'more expensive' and 'much more expensive' are trends that are not diverging but that merely represent different intensities of the same trend). The aim is also to uncover interrelationships and to establish a concrete reference to real life.

Naming the alternatives for the two most important and at the same time most uncertain Drivers

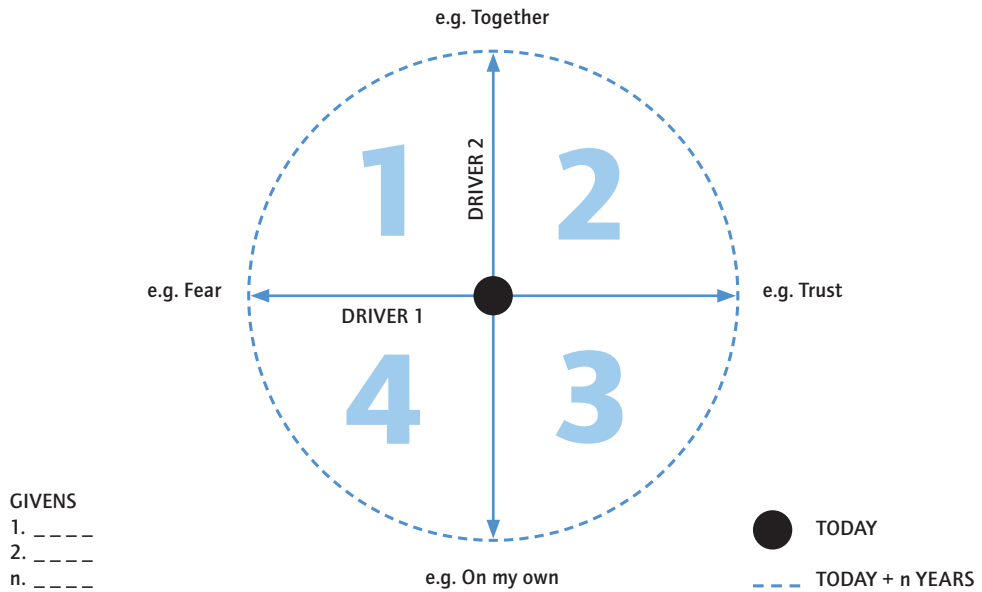


What are the practical consequences if a development goes in this or that direction? This feedback is necessary again and again, so that the scenario development does not lose itself in the realm of abstract considerations. Also important in this context is the question of how this or that development can be dealt with or how people would react to it. In a scenario project that looked at the actors involved in media communications the participants formulated the endpoints in the following way: 'Will the future of the media belong to a *few major players* or *many small players*?' Both options triggered very concrete associations in the participants' lives. Another example: if participants in a scenario project see the 'social cohesion' of a society as a central Driver for its future, two extreme projections (that is, opposing endpoints for the Driver) could be 'Someone is looking after me' and 'I have to do things on my own'. In defining the endpoints of the two Drivers a critical question is: 'Keeping the time horizon of the scenario project in mind, how far do we go?' That means that the participants have to find a consensus on how far the future development might go in one or the other direction with regard to the Driver in question.

Step 4 - Calibrating a future compass (for the time horizon)

Similar to a compass whose North-South and East-West axes enable orientation in geographical space, the Drivers formulated hitherto and their respective projections (end points) can be used as a reference system to navigate the future space of the scenario topic.

In order to create such a 'future compass', the two Drivers are visualised as the axes of a coordinate system with the respective opposing end points serving as direction pointers:



Where the two axes meet is, by definition, the present. If the time horizon for scenario development has been chosen as twenty years, all directions in this diagram point twenty years into the future. From the diagram we can derive *four* different future spaces. It is important that all participants develop a feeling for the differences between these four quadrants, an idea about what their main qualitative characteristics and implications are. To 'calibrate' the quadrants, questions such as 'What sort of car, nutritional habits, which familiar song, which working environment, what kind of wealth distribution, political party, etc. would best fit?' are a good exercise to establish whether or not there exists a common understanding of the four quadrants in the group.

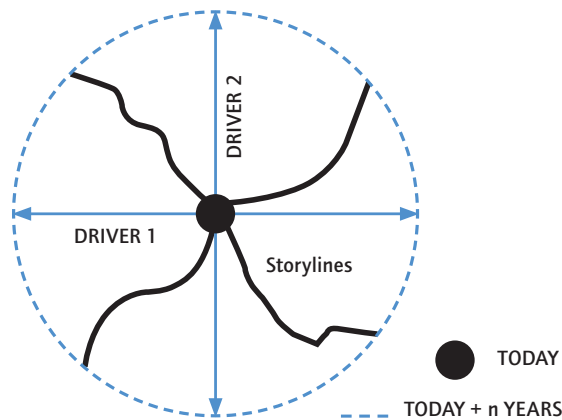
Step 5 - Creating scenario narratives (for each quadrant)

The medium of the scenario method is the story: scenarios are *stories about possible futures*. The aim of the following working process is to develop a scenario for each of the quadrants. This involves developing four stories that juxtapose different alternatives (and their different consequences) and therefore make them comparable.

The functions of a narrative approach are multi-layered: stories serve as individual and social identity shapers. Stories are a form of communication. Complex and ambiguous interconnections, interlinked events and circumstances, can be portrayed through stories in a way that makes it possible to experience them because they represent concrete imaginings that resonate not only intellectually but also emotionally. Stories can be used to support processes of change, as they can uncover and call into question existing patterns of perception, enhance awareness of a topic and increase the motivation for personal participation.

In this work phase the participants are once again divided into small groups. Each small group develops one scenario for one quadrant. The scenarios developed are then presented and discussed in the whole group. Are the scenarios plausible in themselves? Are they new? What is their relevance? Do they incorporate in an appropriate manner the results obtained so far?

Scenarios should have a logical and consistent structure. Good scenarios should be distinguished by the fact that they contain both light and shadow, thereby painting a picture of the future that is differentiated and rich in contrasts. This is, after all, what the present looks like. A participant once expressed this thought in a nutshell: ‘I understood that no matter which scenario would actually become reality, one could do something with the situation.’



Sketch a first story :

- What is the basic dynamic / logic of the scenario?
Tensions, givens, conflicts, solutions, relationships (picking up the results from the previous working steps)
- Storyline (causality, not chronology, keep the eyes on the future)
- Illustrate the development, the actions and their different impacts with concrete examples
- Suitable title

Scenarios have a plot – a *causal* (not chronological!) chain of events that shows how it is that this future that now characterises the quadrant has come into being. At the same time, it should be possible to summarise the basic logic or story line of a scenario in about three sentences. When developing the details, several levels should be highlighted. The cultural, political, economic and social framework of this future should be apparent. How does such a future affect various groups within society? Scenarios also have protagonists, in other words, recognisable, purposeful actors who influence events and react to developments on various levels (shaping actors). These may be, for example, individual persons in their day-to-day lives, NGOs, charismatic political leaders, governments or multilateral organisations.

There is the danger that participants will try to develop the ‘right’ scenario. One key value of the scenario method lies exactly in its anticipation of *diverging but equally plausible* future courses. All scenarios should be developed with the same creativity, intensity and energy. If the timeframe allows for it, all participants should work on at least two to three quadrants/ scenarios. This means that participants go through several rounds and small-group compositions, in turn refining the ‘raw scenarios’ prepared by their predecessors.

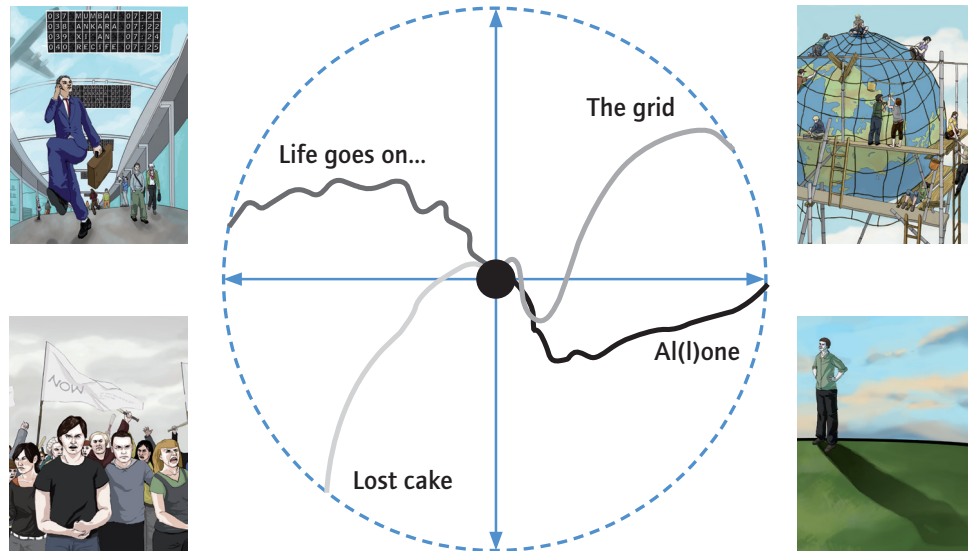
A memorable title should express the basic mood of the scenario in a nutshell. In one scenario project about the future of genetic engineering, one of the scenarios was characterised by consumers’ broad acceptance of genetic engineering and a situation in which genetic modifications were becoming a basic technology for future economic growth. This scenario was given the title ‘BIOTRUST’. Just as in the case of books and films, a good title aids memorability and communication. If a scenario is called ‘BURN OUT’, ‘ICARUS’ or ‘LAME DUCK’, everyone immediately has an inkling of its content.

Step 6 – Reflecting on the outcomes

In the last phase, the participants reflect on the plausibility, relevance and implications of the scenarios developed. They play with various forms of communicating the scenarios to others. And they draw their conclusions on how to prepare for, or even influence, the different alternatives identified in the scenario-building process.

Are the scenarios – in other words, their causal event chains and shaping actors – really plausible? In other words, can one imagine something like that really happening? Or, in the case of participants working with narrative elements, do their analogies and pictures succeed in showing the connections elaborated during the scenario-building process? Are the scenarios novel and demanding? Can one easily narrate them to other people and are they likely to inspire continuing thought on the chosen topic? Apart from all those points, however, the main objective of the reflection phase is – on an individual basis and for the group as a whole – to make a normative judgement and to draw from these fictional scenarios conclusions that are of practical relevance to present demands and real life action.

Example: Worker Participation 2030 – Four scenarios



More information about the scenarios 'Worker Participation 2030 – Four scenarios' can be found on the website:
<http://2030.worker-participation.eu>

Basic characteristics of 'good scenarios'

'The really important part in getting to a good story is the switch from chronology to causality.'
 Ulrich Golüke

A good scenario is:

- **Novel:** The future is not just an extension of the present; it will contain elements of surprise.
- **Multifaceted:** The present is neither one-dimensional nor black and white, so why should one impose such limitations on the future? Every scenario developed in one process should be equally complex, likely and ambiguous.
- **Believable:** A scenario should be surprising and unexpected, but it has to be consistent in itself and logical, showing relationships of interdependency, cause and effect or self-reinforcing back-ward loops (for example, vicious or virtuous circles).
- **Comprehensive:** It should combine trends and developments on several levels and on various issues, as individuals, communities, business and government can all affect and are all affected by social, political, economic and cultural trends and developments.
- **Never right or wrong:** A scenario, by definition, analyses that which has not yet happened: we are projecting, speculating, guessing. So there is no single correct scenario, only potential alternatives, which should be expressed in a logical and consistent manner.

Of course, these characteristics are deeply subjective and always in the eye of the beholder!

4. From scenarios to strategy

'Each of us has a choice to make about how we look at the future. Will we be most effective by trying to adapt to what is happening in the world around us? Or by choosing to participate in shaping the future?'
Adam Kahane

Scenarios offer different ways of approaching the future. One central aim of scenarios is to encourage people to join in discussions about what may happen in the future, the implications of the way things may come to be, and strategies for today to contribute to positive developments.

Explore

The first step is to **explore** the four 'futures' for your concrete context. What are your personal feelings when you listen to the different stories? Which of the scenarios would you consider positive developments, which ones negative?

Try to **find evidence** for the scenarios, for example, events, trends, stories or personal anecdotes, which point to developments in the direction of scenario 1, 2, 3 or 4. Look for examples of *all* four scenarios. Which, in your opinion, is the scenario most likely to happen and why? Do others share your view?

You may also work with a matrix to explore the scenarios with regard to different layers and aspects. Of course, the topics compared can be adapted to the specific interests of the group.

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Society				
Economic development				
Environment				
Technology				
Politics				
Values				
Conflicts				
Chances				
Risks				
...				

Think further

Of course, the scenarios can also be developed further, for example, to explore the consequences of a decision which has to be taken in the rather near future. What would be the implications of a certain decision or action for a company or organisation, your occupational sector or your business model in each of the different scenarios? Where do you see important leverages in each of the scenarios?

Build strategies

Scenarios are not intended to provide immediate advice for action. However, they are extremely useful as a starting point for thinking about and discussing possible strategies in order to be prepared for different futures, both as an individual and as an organisation:

1. **Develop a ‘strategic plan’ for your organisation:** How can you prepare proactively for the implications of the different scenarios? How would you (re)act in the scenarios? How could you contribute to positive developments? How does your organisation have to change today to be well prepared? Try to prioritise the measures.
2. **Develop a ‘success scenario’:** Starting from today, develop an ambitious but achievable positive future for your organisation (or your country) for the time horizon in question.
 - **Step 1:** What would you consider a positive development for the timeframe of the scenarios? Identify several criteria for measuring success.
 - **Step 2:** Identify the leverage points for achieving these goals. What are the key measures needed and which actors need to be involved in what way?
 - **Step 3:** What obstacles have to be overcome on your way (for example, resources, time, power, conflicting interests)? Are your aspirations and measures robust – given the fact that they might evolve in different possible ‘futures’ (the different scenarios elaborated before)?
 - **Step 4:** Write a short story, a ‘road map’, depicting your success scenario (beginning from today), explaining what and why this development happened.
 - **Step 5:** Identify and prioritise measures for today.

Guiding questions for working with scenarios

What if?

For each scenario:

- What does this story mean for you / your organization / your sector?
- What would be the impacts if your environment were to behave / change in this way?
- Risks and dangers? Opportunities and chances?
- How might you / your organization contribute to the outcomes of this scenario?

What could you do?

For each scenario:

- What could you do? - Possible actions and strategies
- How would these options fit into the different scenarios?
- What would be the best strategy for you / your organization to succeed in this scenario?

Being prepared for an uncertain future

- Are your current strategies prepared for the different futures envisioned in the scenarios?
- What is your preferred scenario? Why?
- What could you / your organization do to support your preferred scenario?

Resume

'The best scenarios aren't necessarily the ones that come true; they're the ones that subvert expectations, providing deep insights into the changes happening all around us. The better the scenarios are, the more they penetrate to the deepest possible understanding of the present.'

Nancy Ramsey

The scenario method allows for an open, yet structured, learning process, which strengthens sensitivities in relation to possible future developments and changes. The scenario approach supplies the tools to systematically identify alternatives for the future and to analyse the preconditions for, and consequences of, these alternatives, as well as the possibilities of shaping and influencing them.

The participants, depending on their needs and abilities, take a look into the future and have the opportunity to express their interpretations of reality, their expectations and their uncertainties. This form of learning takes place in a light-hearted format – it is not a forum for discussing 'rocket science'! Building scenarios improves social and communicative exchange and creativity. Generally speaking, participants in this learning process develop a high degree of motivation. They are the actors, the authors of the final outcomes. Scenario projects allow participants to offer their viewpoints in a constructive way, geared to a common understanding of the issues at stake.

Scenarios sensitise people to the broader context and encourage thinking in terms of alternatives. Even though they refer to the future, their significance lies in how they influence the perceptions and actions of the people who developed them or are anticipating them. What is more, as Stuart Brand once put it, 'Thinking in long time horizons inevitably leads to taking responsibility.' Scenario projects encourage the realisation that the future is, in principle, 'shapable'.

Thus, a set of elaborated scenarios serves as an orientation framework and common ground for strategic conversations. Experience shows that dealing with diverging 'futures' frees up energy and interest. 'Can this really happen?' 'What has to be done to ensure that scenario C or D does not become reality?' Alongside the influencing factors that have to be seen as givens, the open factors also make visible those aspects that can be shaped through individual decisions or through decisions on the level of society as a whole.

Scenarios are not prognoses of what will happen in the future. However, by strengthening our ability to anticipate different *futures* and to exchange our opinions on them we become better prepared to perceive changes and to deal with them proactively. After all, Louis Pasteur already knew that 'luck favours the prepared mind'.

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Appendices

Time schedule for a scenario project (example)

The duration of the different phases of the scenario project can be shaped flexibly, depending on the time and resources available. The whole project should have a time span of at least three months and should not last longer than 15 months.

First meeting(s) of the core team

(Clarifying the aims of the project, planning and scheduling the process, preparation of trigger questions for the interviews, organisation of the first workshop)

'Collecting voices'

(Conducting interviews, identification of, and acceptance by, workshop participants, interview analyses and identification of core questions and diverging perceptions)

First scenario workshop

(Programme example see below)

Meeting of the core team

(Reflection and bundling of the results of the first workshop and preparation of the second workshop)

Second scenario workshop

(Programme example, see below)

Editing of the scenarios

(Elaboration of the final narratives of the scenarios)

Publishing and working with the scenarios

(Organisation of meetings/presentations for various groups of stakeholders, various ways of distributing stories, for example, through articles in journals and newspapers, disseminating them on the internet, etc., conducting anticipation workshops for different target groups)

First scenario-workshop (programme example)

Programme	
1st day	
18.30 – 20.00	Welcome & Introduction (aims of the project) Getting to know the group Short self-introductions and description of expectations by participants Some remarks on Scenario Building – WHY and HOW? Synopsis of the interviews (alternative: gathering different perceptions in the room)
20.00	Dinner Informal exchange
2nd day	
8.00 – 9.00	Breakfast
9.00 – 13.00	Short discussion about GIVENS for the two decades ahead in plenary Identification of two KEY UNCERTAINTIES (DRIVERS) in small groups Presentation and discussion of the results in plenary Goal: Consensus about the two most important Uncertainties (DRIVERS) [Coffee breaks as needed]
13.00 – 14.00	Lunch
14.30 – 16.00	Naming the ALTERNATIVES of the two Drivers (possible divergent outcomes for the time horizon) in small groups Presentation and discussion of the results in plenary and arranging the two Drivers as two axes of a cross with described end points Goal: Creating a common FRAME OF REFERENCE with four different future spaces ("Calibrating the 'Future Compass'")
16.00 – 16.30	Coffee break
16.30 – 18.00	Development of first basic STORYLINES for each quadrant in small groups (Basic plot, conflicts and tensions, working title for the scenario, etc.)
19.00	Dinner Informal exchange
3rd day	
8.00 – 9.00	Breakfast
9.00 – 13.00	Presentation and discussion of the story lines in plenary Refining the raw scenarios in reassembled small groups (Implementation of plenary feedback; Causality!) [Coffee breaks individually as needed]
13.00 – 14.00	Lunch
14.00 – 15.00	Searching for title, images, metaphors, 'sounds & features' for each scenario in small groups
15.00 – 15.45	Presentation of the results in plenary
15.45 – 16.00	Short coffee break
16.00 – 16.45	Final plenary gathering Where do we stand with the results of this workshop? 'Homework' and next steps
16.45	End of the workshop

Second scenario-workshop (programme example)

Programme	
1st day	
17.30 – 20.00	Welcome & Introduction (aims & tasks of the workshop) Impulse: the four future spaces elaborated at the 1 st workshop Reflection and Discussion
20.00	Dinner Informal exchange
2nd day	
8.00 – 9.00	Breakfast
9.00 – 11.00	Refining the STORYLINES of the 1 st workshop in reassembled small working groups (i.e. scenario writing: elaborating of causal loops and 'behaviour over time' graphs, title, message and 'mission' of the scenarios)
11.00 – 11.15	Coffee break
11.15 – 13.00	Presentation and discussion of the results in plenary
13.00 – 14.30	Lunch
14.30 – 16.30	Identifying IMPLICATIONS on various levels and contexts in small groups (consequences, restrictions and options of each scenario)
16.30 – 17.00	Coffee break
17.00 – 19.00	Gathering in the plenary (state of progress and feedback) Cont. story development in small groups
20.00	Dinner Informal exchange
3rd day	
8.00 – 9.00	Breakfast
9.00 – 12.30	Presentation of and feedback on the scenarios in plenary Discussion: Do the scenarios cover the basic alternatives of the issue? What's left?
12.30 – 13.30	Lunch
13.30 – 15.00	Weak signals and evidence for the various scenarios in small groups
15.00 – 15.45	Presentation of the results in plenary
15.45 – 16.00	Short coffee break
16.00 – 16.45	Final plenary gathering Where do we stand with the results of this workshop? Next steps
16.45	End of the workshop

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