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# APPROACHES AND METHODOLOGY

## PROJECT ELEMENTS

THE PROJECT "IN100YEARS" CONSISTS OF THREE MAIN ELEMENTS.

First, the project is structured around a series of seminars, where leading Danish and international researchers and visionary professionals will expound on the themes of sustainability and growth in the long run. It will be a series of seminars that takes an unusual approach in order to create a new framework for co-creation and development of knowledge and awareness.

Second, a "Core Group" drawn from leading researchers and opinion makers is established with the purpose of assessing whether and how the VELUX foundation might invest in a new center for sustainability and environment in Denmark.

Third, we undertake a dynamic scenario process rooted in the contributions of the seminars participants and the members of Core Group. This process will result in a series of scenarios for sustainable development over the next 100 years.

The four seminars are self contained entities as well as parts of a larger progression of knowledge and inspiration. They function as a base for a clarifying and qualifying the scenarios throughout the process.

On the first seminar we employ the broadest approach and establish a general understanding of the project's core concepts, problems and driving forces.

On seminars 2 and 3 we narrow the focus, while still maintaining the long view. Seminar 2 will be about policy and business development and possible roles of sectors and agents. At the 3rd seminar we look at the role of technology, natural resources and the interaction between them. At the 4<sup>th</sup> and final seminar we explore the humanistic approach in the form of culture, consciousness, worldviews, consumption and so forth.

The project started in February 2011 and continues until spring 2012, and, subject to deliberation, possibly

concluding with a major international conference. Participants will work intensively with developments and driving forces, baseline scenarios and alternative futures will be established, and preferred future scenarios for sustainability and growth will be presented.

## KNOWLEDGE DEVELOPMENT

The purpose of the project is to:

- Constitute an overview of and insight into the important developments and driving forces relevant for long term sustainability and growth
- Establish a series of scenarios for the future of sustainability and growth – possible as well as preferable – that can form the basis for merging the various approaches in the field to a coherent direction for development.
- Create awareness of the long term perspectives for growth and sustainability and the most important changes they imply for society. In the general public, amongst decision makers, in academia and amongst the participants at the seminars.

Futures studies methodology and approaches are the foundation for knowledge development in the project.

## FUTURES STUDIES

"No serious futurist deals in "predictions", writes Alvin Toffler in his book Future Shock.

Since the early 1970s, there has been a remarkable shift within futures studies from focusing on foreseeing and predicting the future to focusing on managing and



“deciding” the future. Today the future is written in the plural – we do not speak of “The future” but of “Futures”.

The change in focus can be described as a shift from what *will* happen to an emphasis on what *can* happen and what one *wants* from the future.

Futures studies is about creating ideas of alternative futures thereby creating a choice of futures. By formulating alternative futures, the comprehension of one’s own conceptions is expanded, and new possibilities and risks appear. We are given the opportunity to choose from a number of possible and probable futures. Within this spectrum of possible and probable futures, one may work with interpretations, weightings, priorities, strategies and most importantly choices.

Many futurists agree that you cannot foresee the future. However, most think it is possible to draw up studies, which can envision future developments. Using appropriate methods and tools, it is possible to give a coherent and convincing description of how a possible course of events might unfold. Valid futures studies will often point to the wider aspects of a potential development and it will not single out concrete events and incidents. In most cases, that is clearly outside the realm of the methods. It is not about what the lottery numbers might be, but whether people will play the lottery at all in the future.

And finally the future is created by actions in the world of today. In this respect, futures studies is given the task of interpreting the history and present in relation to the future. In this way a futurist can be seen as a lawyer defending the diversity and vision of the future – in the present.

Studying the future systematically is a relatively new discipline characterized by a dynamic and wide-ranging methodology. Therefore, it is necessary to specify approaches and methodic foundations of the project. This need for clarity is met by the project’s interactive process design, the involvement of performance art and focus on the very long term.

The project’s methodic foundation is defined by our tradition for working with interdisciplinary approaches and broad perspectives. This might be identified as a European tradition of futures studies, but under the umbrella of integral futures this technique is also widespread in

USA and Australia. The project is also characterized by a unique dialogical structure, and of course the very long term perspective. Traditionally, Futures studies have a 10-30 year scope and the 100 year scope is as such unusual even for futures studies. It is none the less necessary for encompassing the full extent of sustainability, environment and social change.

Below we summarize the most important methodological approaches in the project:

### **BROAD APPROACH**

The future is shaped by technological change, but also by cultural, economic, political, psychological, artistic and social driving forces and changes. It results from the interplay of different angles - individual and psychological as well as collective and systemic. Isolated technological foresights and demographic projections produce one dimensional and simplistic views of the future, which is even more problematic when working with the long term. In the short term, an isolated tendency or economic cycle might make an impact, but in the long run these and many other parameters come together in a broader picture.

### **INTERDISCIPLINARY APPROACH**

It follows from the above that there is a need to employ an interdisciplinary approach. Interdisciplinarity is always important in futures studies, and even more so when the subject carries the weight that ours do. Many contributions are characterized by different disciplines offering separate predictions and foresights. As such, interdisciplinarity in the field of sustainability is a purpose in itself.

### **DEEP APPROACH**

While most futures studies include many disciplines and perspectives there can be a tendency to overlook psychological or individual aspects and focus on outer and social matters. In this project we explicitly involve both the personal and the psychological. Citing futurist Richard Slaughter we work both with what is “out there” in the realm of systemic and structural change and what’s “in here” of individual, personal and conscious change. Performance art, Cultural Studies and spiritual approaches all play a significant role in the project.



## SCENARIOS

Scenarios are alternative images of the future that can inform decisions in the present. It is an approach that is used by decision makers in the public and private sectors, on many levels and in many contexts. There are many types of scenarios, and the choice of scenario depends on its purpose. One can work with many or few, qualitative or quantitative, broad or specific, and long or short term scenarios. Some of the more highly profiled scenarios are developed for the UN and in global corporations. Within the UN the scope of scenario types can be gleaned from such different approaches as the UN's population projections and IPCC's scenarios for the emission of greenhouse gases.

The UN's population projections run to 2100 and consider a medium, a high growth and a low growth scenario. These alternative scenarios represent calculations made in a model with relatively few variables (primarily fertility and mortality) and the best bet based on tendencies in the development so far. They are quantitative and have a limited focus on a single variable: population growth.

*IPCC's scenarios for the emission of greenhouse gases* also run to 2100, but consider 6 so-called families of scenarios for the emission of greenhouse gases. These scenarios build on a model with a larger number of variables such as population growth, economic growth, the input intensity of production, the

composition of energy use by sources etc. In addition to this come more qualitative variables such as the degree of regionalization or globalization of the world economy.

Even more qualitative approaches are found in the private sector, where scenarios are a common tool in the strategic toolbox. An example is the *Global Business Network*, whose scenarios for technology and international development are based on relatively few qualitative variables brought together in four broad, but distinct scenarios. One of the big private actors that work systematically with scenarios is Shell, who also works with a few qualitative scenarios – though they build on mathematics and focus on the global energy markets. They are used to broaden the perspectives of decision makers to include possible developments, and to qualify strategic decisions.

*In100Years* is a project with a broad aim. Growth, development and sustainability are problems that require an open approach, an approach that allows for working with technological and economic growth as well as development in human goals and values. This is ensured by using a broad qualitative approach that can inspire constructive consideration of decisions and paths of development. However, it assumes that they are qualified and well grounded.

The scenario process is a fitting way to include knowledge and ideas from many different sources and engage them in clear and constructive way.

## IMAGINATIVE AND HISTORICAL APPROACH

Futures studies deals with the possibility of that which has never occurred. Imagination, curiosity, and creativity are essential elements in futures studies. Tomorrow isn't like today, and with a continuous rate of change due to technological progress, enormous change can be anticipated in 100 years.

As history is the best available input to the future, it is, at the same time, necessary to have a good understanding of the historic development of the system under investigation. A rule-of-thumb is to look at the subject twice as many years back in time, as we project the subject into the future. The combination of historical knowledge and imagination

is one of the most challenging parts of futures studies.

Some of the preliminary analyses for the project draw lines back to development in the 18<sup>th</sup> or 19<sup>th</sup> century. Types of social, economic and political systems or changes in consciousness are central themes in our work.

## INVOLVING APPROACH

The project spans a year, and in that timeframe more than 200 Danish and foreign researchers, visionary professionals and decision makers from different sectors will have contributed to the development of the project and the scenarios. At the same time we work to involve even more partners through online means or special events at schools.

## SCENARIOS

Our primary method of realizing the purpose put forward earlier is through the enactment of scenarios.

Up to 1970, futures studies and planning were primarily based on traditional extrapolative methods. With the significant societal changes and the growing speed of change, the view of the future and the methods changed too. The future was no longer just an extrapolation of the past. The future was considered uncertain. With this new focus, there was a serious need for developing new techniques. Scenario methods became one of these techniques. Scenarios were first used by the RAND Corporation (Herman Kahn), later by Royal Dutch Shell (Peter Schwartz), and other multinational companies. Today, scenario methods and processes are among the most frequently used methods in the futurist's toolbox. Often scenario processes function as a way to integrate a range of other methods in a futures project.

Scenarios can be defined as "internal coherent descriptions of alternative images of the future". Futurist Joe Coates has defined scenarios as "holistic, integrated images of how the future may evolve" and futurist Hirschorn has the shortest version, which seems to sum it all up quite well. To him scenarios are "histories of the future".

Despite the variety of specific scenario methods used in Futures studies, there is consensus on the main aspects of the method:

- Firstly, scenarios are not predictions of the future. The aim of scenario processes is not to foresee the future, but rather to show how different interpretations of driving forces can lead to different futures.
- Secondly, scenarios are developed to make better decisions in the present about matters that have long-term consequences for the future.

Scenarios are normally prepared in multiples in order to emphasize the possibility of different alternative futures. By setting up several scenarios for the future development, one is delineating a "possibility space", within which the future development is likely to unfold. In this way, simplified, single-dimensional evaluations are avoided.

### APPLICATION

The application of scenario methods is not so much a question of areas or subjects, but more a question of stable or unstable environments. Scenario methods are suited for a changing environment; a society in change or discontinuities; a shift in values or a shift in logic. Given the common assumption that the future is uncertain and unpredictable, scenario methods are applied to more and more areas.

The strength of the scenario method lies in its ability to give an overview of complex situations. It can be both intuitive and analytically based, and takes both important uncertainty and choices into account.

A scenario is a coherent picture of how the future could unfold. Typically, 3-5 scenarios are proposed, and together they draw a map of alternative directions and possibilities.

### SCENARIOS ARE ESPECIALLY FITTING WHEN:

- The subject of analysis is rapidly changing
- There is an ambition or need for new thinking
- There is a wish to create or shape the development, not just accommodate them
- When working with the long term

### SCENARIO STEPS

There are many different ways to construct scenarios: normative, explorative, descriptive, and quantitative amongst others.

The scenario method used in this project couples two fundamental types of scenarios. Explorative and normative scenarios. The process is structured by the following steps;

- Framing: Scoping the project – develop and defining the key terms, problem formulation
- Scanning: Collecting information – systems, qualitative and quantitative research, interviews, historic developments, new research
- Forecasting: Trends, uncertainties, drivers of change. Developing baseline scenario
- Foresight: Challenge the baseline scenario and develop alternative futures
- Visioning: Unfolding the preferred futures and do back casting for ways of realization – starting now
- Planning and action: Strategy, options, agenda setting and acting

The In "in100years" we will start by developing 3-5 scenarios focusing on redefining and for the relationship between sustainability and growth. Then we rework these into one or two preferable scenarios under the heading of "this way, please".

### DYNAMIC SCENARIO PROCESS

The project "in100years" is structured around four seminars each covering different aspects of the long term relationship between growth and sustainability.

On every seminar we assess and test the tentative scenarios, and in this way qualify the scenarios on an ongoing basis. In the end the scenarios will be based on a dynamic process where the scenarios are presented, discussed and improved on the four seminars. As such they will be founded on the contributions of over 200 seminar participants.





Meanwhile, the scenario method and the development of the scenarios contribute to tying together the seminars and giving them a unified direction. The scenarios enrich the many impressions, and create an added value that turns the seminars into more than just a collage of exciting angles and ideas.

## THE SEMINARS

### INDEPENDENT SEMINARS...

On each seminar we introduce a single issue with central importance for the relationship between sustainability and growth to an audience that matches it. The participants will be able to attend a single seminar and still experience a coherent seminar. In this way every seminar is an independently staged event.

### ...INTEGRATED IN A COHERENT PROCESS

Meanwhile the seminars are integrated in the common theme that “in100years” elaborates on in the extended scenario process. Because of this the participants aren’t just attendants in a single event, but members of an ongoing process. They aren’t just passive observers or audience, but active contributors to the work.

The participants will experience this process concretely in their involvement both during the seminars and after.

During the seminars:

- The participants will be presented with the results of the preceding seminars and their predecessors’ work and thoughts (except for seminar one)
- Wall of time (see insert) will be evolving through the seminars.
- Future Mind Tours may have other outputs to be brought forward through the seminars: Collages, quotes etc.

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### WALL OF TIME - FORESIGHTS

*Concept:* To create a foresight of the most important developments for the coming 100 years in different research disciplines.

*Method:* Ask 200 leading researchers, thinkers and visionary professionals to put the most important developments in their field on a common timeline.

*Timeline:* Global and regional development in population, indicated by the demographic progression from 1812-2012 and projections for 2012-2112

*Question to the participants:* “What do you think will be the most significant development in your field in the coming 100 years?”

*Optional signature:* Field of work and name

### WALL OF IMAGES

*Concept:* To create collective images of visions and dreams towards 2112.

*Method:* Ask 200 leading researchers, thinkers and visionary professionals to post a picture or a drawing on the Wall. Together they will form a collective image of the future.

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After the seminar:

- Some of the participants will attend multiple seminars and thereby follow the process rather intensive.
- The majority though, will only attend one seminar. They will subsequently be involved through Delphi studies, surveys and qualitative interviews etc
- IN case the process concludes with a larger conference, it would be natural to invite participants from all the seminars. In that way it would be the collective contribution being put forward here.