The Danish consensus conference model

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Consensus conferences - an introduction

For a number of years the Danish Board of Technology (Teknologiradet, formerly Teknologi-Naen) has contributed to technology assessment using a wide range of different methods, including the consensus conference model. A consensus conference is defined as a method of technology assessment organised as a meeting between an expert panel and a panel consisting of concerned citizens- the lay panel. The lay-panel members assess controversial and technological developments. During the conference they produce a statement in the form of a document which expresses their expectations, concerns and recommendations. The final document is written by ordinary people, and thus does not represent any special interests. It is directed at parliamentarians, other policy makers and decision makers, and the general public. The final document and the experts' contributions are compiled and published in the series of Danish Board of Technology reports. The report is disseminated to the audience, parliamentarians and anyone else who is interested in the topic.

The objective of a consensus conference is to bridge the gap between the general public, experts and politicians, who only rarely have an opportunity to meet. In Denmark the consensus conferences organised by the Danish Board of Technology have stimulated public debate on new technology. The final documents from these conferences have contributed to informing politicians and decision makers on citizens' views of, and attitudes towards, new technology. These conferences aim at an ideal process in which a given topic is elucidated on the basis of the finest available knowledge and discussed by the lay panel in open and unbiased dialogue. The consensus conference ensures that members of the general public, represented on the lay panel and in the audience, and the summoned experts become engaged in a dialogue with one another.

A consensus conference is arranged according to a set of rules. These rules are all well known to both the lay and the expert panels involved in the conference. The background to this is a wish to create an enlightened dialogue between expert and lay panel-on the lay panel's premises. The members of the lay panel draw up the conclusions, not the experts. In the initial stage of the conference process, the lay-panel members are provided with basic information about the topic. They formulate a number of key questions, primarily based on the discussions and the knowledge gained at two preparatory weekends, and through the panel's own preparations by reading basic information on the topic and tracking public debate.

The consensus conference itself usually takes three days and is open to the public. However, for the lay panel the conference involves participating in two preparatory weekends and spending time reading various materials about the topic. The summoned experts are invited to inform the lay panel about the technology and its consequences by answering the key questions, in the form of presentations, on the first day of the conference. Different types of interdisciplinary expertise as well as conflicting expert opinions are juxtaposed. An essential rule is that there is a sharp distinction between experts and lay people, and that the lay panel is composed of citizens that genuinely can be characterised as 'lay'. In other words, they should not have any special knowledge of the topic. Politicians may be in the audience and can participate in the general discussion during the conference.

In this paper, the concept and governing rules of the Danish consensus conference model will be described based on the comprehensive experiences of more than 10 consensus conferences organised by the Danish Board of Technology. The procedures for preparing and holding consensus conferences will be presented, and the disseminating of the conference findings, the different roles of participants in the conference process and the allocation of tasks described. Finally the individual parts of the project and recurrent problems will be discussed.
For further discussion of the Danish consensus conference model please refer to Lars Kluver's paper, this volume.

**Important characteristics of consensus conferences**

Some characteristics of suitable topics for a consensus conference:

- topical
- not too abstract - they can be delimited
- contain conflicts
- call for clarification of objectives and attitudes
- depend on expert contribution for clarification
- necessary knowledge and expertise are available

Consensus conferences are further characterised as follows.

- Experts and the lay panel have roles clearly defined in relation to each other.
- The process is transparent and documented.
- Consensus on attitudes and recommendations in the lay panel is achieved through open discussion

The final document is thus an expression of the extent to which the panel can reach agreement. Minority statements occur only rarely.

**Roles of participants in the consensus conference process**

It is essential to the functioning of the process reflected in a consensus conference that the different participants know their roles and tasks in this process.

**Project management**

The project management consists of a project manager and one secretary. The project manager, who is an employee of the Secretariat of the Danish Board of Technology, usually works on a number of other projects during the preparatory phase of the consensus conference, as does the secretary. As the conference approaches, the manager will ask for assistance from other employees of the Danish Board of Technology as necessary. The project manager is charged with the day-to-day management of the conference organisation. The manager has a multitude of tasks. The most essential are:

- formulating proposals to put before the steering committee.
- recruiting the lay-panel facilitator.
- managing the hearing of interested parties.
- advertising for, and shortlisting the lay-panel members, and replying to all correspondence
- contacting potential experts, and following up the final selection once the programme has been established.
- managing the project finances.
- dealing with the media.
- providing practical assistance in the production of the final document.
- preparation and publication of the final document.
- ensuring that the final document is disseminated and arranging follow-up, such as written material or organising debates

In addition, the project manager co-ordinates meetings and takes minutes; deals with letters and telephone enquiries; distributes material; books accommodation; checks technical equipment for the conference (microphones, etc.); advertises the conference; and delegates practical tasks. A constant service needs to be supplied to the lay panel, the steering committee and the facilitator.
Finally, it is essential to the process that the project manager demonstrates an attitude of openness and receptiveness and in no way influences the attitudes or focus of the lay-panel members. Likewise it is essential to ensure that the secretaries assisting the lay panel in the process of writing the final document do not promote their own views, write their own formulations or influence the course of debate.

The steering committee

The steering committee usually consists of 3-5 people with expert knowledge of the conference topic. The members of the steering committee are selected and assessed by the Board and the project manager. The committee is self-supplementary. The members are selected on the basis of their personal authority, as they are deemed to hold wide or profound knowledge on the subject and have extensive networks in the field. In general, the attitudes of the group members must complement each other, and the range of expertise of steering committee members must provide comprehensive coverage of the subject. In addition, individual Board members or representative(s) from any cooperating organisation (such as the Parliamentary Committee on Science and Technology, the Danish Council of Ethics or the Danish Transport Council) may be asked to join by either the Board or the steering committee. Finally, the project manager is a member of the steering committee. The composition of the steering committee is often detailed in the project description and approved by the Board. The committee may nominate additional members if it finds that composition does not cover all approaches to and aspects of the subject.

The tasks of the steering committee the Danish Board of Technology are to guarantee a fair realisation of the project description so that the widest possible range of relevant aspects are illustrated at the conference

- approve the arrangements of the Secretariat in this respect.
- decide on the title of the conference
- effect any adjustments to the project description and time schedule.
- approve the composition of the lay panel
- ensure that the lay panel is provided with unbiased and adequate introductory material
- draw up a comprehensive list of relevant experts to form the basis of the lay panel's discussions on possible experts.
- effect the final composition of the expert panel
- approve the programme for the conference

In addition, the steering committee may choose to draw up compulsory key questions which they want the lay panel to answer.

The lay panel

The lay panel is made up of interested citizens. Participants are advertised for in 5-6 regional newspapers that provide comprehensive geographical coverage of Denmark, or in a number of national newspapers. Persons interested in participating are invited to apply to the Secretariat by submitting a short (no more than one page) description of themselves, the knowledge they have on the topic and the reason why they wish to participate. On the basis of the submitted applications, a panel of 10-14 lay people is selected. Basically, the panel members are unpaid volunteers but compensation for loss of income is offered by the Board.

The panel is selected so that it is composed of people with varied backgrounds on the basis of a number of socio-demographic criteria: age, gender, education, occupation and area of residence.

It is essential that no member of the lay panel is an expert in the topic or represents special interests in the field. However, when individual lay people are particularly concerned about the topic being debated, they are deemed to have a special interest that is acceptable. This was the case, for instance, in the conference on infertility (October 1993) where many of the lay-panel applicants (65 people, i.e. 49 per cent) suffered from involuntary infertility. The steering committee included two of these lay people in the panel, because they were considered to be affected by the topic as lay people - not as representatives of special interest groups per se.
Finally, physical and mental disabilities may be impediments to participation in the project (the conference and preparatory phases are very hard work and extremely concentrated).

The selection procedure does not ensure that the panel comprises a statistically representative sample of the population, but the panel is selected from interested people in such a way that several attitudes are represented. Although applicants for the lay panel are not explicitly asked to reveal their attitudes, these are usually apparent from their applications.

The expression 'interested citizens', in addition to referring to the interest they have displayed by responding to the advertisement, also means that the selected people will be open and inquisitive in their efforts to reach consensus. This means that the process of achieving this common objective will take priority over convincing the other participants of one's own attitudes - it is not a question of 'winning' or 'losing'.

The lay-panel members are also subject to the requirement that they must be able to be present for the two preparatory weekends and for the period of the conference itself.

The tasks of the lay panel are to:

- gain some basic knowledge of the subject in advance by reading the introductory material and participating in the preparatory weekends.
- draw up the key and sub-questions of the conference.
- formulate a proposal for the composition of the expert panel on the basis of their own discussions and the comprehensive list of experts prepared by the steering committee.
- question the experts at the conference.
- evaluate the received information, and agree on attitudes and any recommendations in relation to the key questions of the conference on the basis of the presentations by the experts and the debate at the conference.
- write the final document of the conference.

*The lay-panel facilitator*

A facilitator is employed to assist the lay panel in its work. The facilitator should, like lay-panel members, be a non-expert, however he/she should be a 'professional' facilitator in the sense that he/she is trained or experienced in communication skills and in how to facilitate co-operation. The facilitator manages the preparatory weekends and chairs the conference.

The facilitator must not have extensive knowledge of the subject of the consensus conference, or have any interest in influencing the decisions of the lay panel. The person must have excellent pedagogic skills, highly developed intuition and a natural ability for persuading a heterogeneous group of people to work together. In addition, energy and physical fitness are important for chairing the conference and assisting in the process of drawing up the final document.

The facilitator is charged with:

- making lay people feel comfortable and persuading them to work together.
- managing the preparatory weekends, including the work of formulating the key questions.
- chairing and managing the conference.
- assisting and steering the lay panel's production of the final document.
- focusing the lay panel's attention on key questions to be answered (so that conclusions in the final document are relevant to the debate and not on aspects that have not been discussed at the conference).
- working closely with the project manager throughout the process.

The facilitator could be compared with the judge in a jury trial: for instance, he/she must maintain the focus of the experts on the lay panel's questions at the conference and assist the panel to find the most direct answers. The facilitator participates only rarely in the meetings of the steering committee because his/her main role is to deal with the lay panel and not with other aspects of the conference organisation.
It is essential that the project manager and the facilitator discuss, in advance, the course of the conference and agree on the working methods that will be used in dealing with the lay panel. For example, it should be agreed that the lay-panel members should work as a team with all members contributing effectively and equally. The choice of working methods has to take this into account.

Furthermore, the degree of control that should be exercised on discussions and how far they should be allowed to proceed should be discussed and agreed upon.

Such discussions may provide useful clarification of the tasks of the facilitator and the project manager, and of pedagogic working methods and attitudes. This process improves confidence in tasks and methods which might prove useful in the pressing atmosphere that arises during the conference process.

**Experts**

The expert panel is selected by the steering committee on the basis of the wishes voiced by the lay people on the first preparatory weekend, the steering committee's own knowledge of the field and the results of a hearing, if one took place.

The term 'expert' is given a wide definition. There are both scientific experts and opinion-focusing experts. Scientific experts correspond to the traditional definition of persons with professional/scientific approaches. Opinion-forming experts may be representatives of interest organisations, people prominent in the arts, etc. In other words, an expert is a person with relevant knowledge exceeding general knowledge.

An expert appropriate for participation in a consensus conference is further characterised by:

- being abreast of the latest knowledge, having a good overview of the topic.
- having good communication skills.
- being receptive in debates.

Of course it is very rare to find persons who fulfills all these characteristics—some sort of weighting must always be effected. But efforts should be made to ensure that the experts constituting the panel collectively cover these criteria. When the panel is being composed, it must be ensured that essential opposing points of view and professional conflicts will emerge and be elucidated at the conference.

The tasks of the experts are: to answer the questions posed to them by means of an oral presentation at the conference; to add to the presentation their own points of view which are not covered by the posed questions (must, however, be within the allotted speaking time); to answer follow-up questions from the lay panel (on the second day of the conference); to be able to attend the entire conference; to produce a paper based on their presentation which will be included with the final document in the final report.

**The course of the conference**

**Organisation and planning**

The planning of a consensus conference is normally initiated about six months prior to the date of the conference. Before the conference, the steering committee meets several times, and the lay panel meets on two preparatory weekends.

**Steering committee**

At its first meeting the steering committee discusses the project from a general point of view. The project manager must communicate the motivation for selecting a consensus conference as a method
for this project, the basic concept of the process, roles, strengths and weaknesses, etc.

The role of the steering committee should be made especially clear. The time schedule will be presented by the project manager for approval. A list of interested parties in the field must be established. In addition, the steering committee must be informed of the Secretariat’s selection of the lay panel facilitator.

Finally, the steering committee sets up the framework of the introductory material which will familiarise the lay panel with the topic of the conference. Such a briefing paper may be compiled by the project manager on the basis of existing literature or it may be produced (externally) in the form of a separate paper of 15-20 pages by a journalist or another appropriate person. The paper will present the subject in general terms and describe the status, development, trends, attitudes, conflicts, etc. in the field. The writing must be unbiased: controversial attitudes should only be reported-objectivity is the aim.

When the introductory material is ready, it is approved by the steering committee (possibly by correspondence rather than a meeting) before it is distributed to the lay panel.

\textit{Hearings of interested parties}

Shortly after the initiation of the project, a hearing is sometimes organised of parties interested in the selected subject. The hearing process provides interested parties (e.g. individuals or companies with extensive knowledge, influence and/or dependence on the field, research institutions, research committees, traditional interest groups, grass-roots organisations) with an opportunity to contribute to the process reflected by a consensus conference. The hearing may either be in writing or in the form of a meeting. -The submitted responses are used as inspiration and an index of ideas for the further work of both the steering committee and the lay panel.

The project description and the introductory material prepared for the lay panel could possibly be used as the basis for the hearing. In the hearing phase the interested parties are invited to propose:

- interesting and essential aspects of and approaches to the subject which should be covered by the conference.
- suitable experts in the field.

\textit{Preparations}

A press release is sent out to announce that the Danish Board of Technology plans to hold a consensus conference and that lay people are invited to apply. Advertisements are placed that provide a short description of the topic of the conference, the duties of the lay panel, and the dates on which it is essential that lay-panel members be present.

At the second meeting of the steering committee, four months before the conference, a number of general circumstances related to the planning of the conference are discussed. Furthermore, a comprehensive list is prepared of experts who could possibly present papers on the subject. This list is drawn up on the basis of the personal recommendations of members of the steering committee and-if a hearing of interested parties was held-the recommendations of the hearing. The final composition of the lay panel must also be approved.

The project manager contacts the relevant experts to inform them that there is a possibility that they might be asked to participate in the conference. They are asked whether they are interested. It is essential during this contact to specify clearly the conditions of participation (answers to clearly specified questions, short presentation, attendance throughout the conference, etc.).

The selected lay people are sent the introductory material on the subject along with a description of the method and course of the conference.
Two to three months before the conference, the first preparatory weekend is held with the lay panel, the facilitator and the project manager. The facilitator is in charge of the weekends.

The objective of the first preparatory weekend is:

- to introduce the lay-panel member, to each other
- to introduce the method and to explain the role of the facilitator.
- to provide the lay panel with information on the topic that may form the basis for drawing up the key questions for the conference. A speaker is invited to give a basic presentation on the topic and answer questions from the panel.
- to formulate the key questions.
- to indicate the type of experts that the lay panel would like to answer questions at the conference.

These objectives are reached through:

the lay-panel members giving a short description of themselves and their reasons for participation. balanced and fair instruction by one or two professionally competent persons, such as teachers or university lecturers, as a supplement to the briefing paper. Enough time must be set aside for questions and discussion; extensive brainstorming sessions where the lay panel members state their expectations, worries and questions in relation to the topic.

The project manager describes the structure of the conference and its practical organisation. The lay panel is informed about the interest of the media. The lay panel is asked not to discuss the subject with the media before the final document has been written, in order to ensure that free and open debate can take place during the process and no one will feel bound by public statements made on previous occasions.

The aspects appearing in discussions and brainstorm sessions form the point of departure for continued discussion on the key questions. Efforts are made during the first weekend to try to delimit the subject matter of the key questions. A decision is taken on a manageable number of questions that should be asked; this is usually around 8-10. In addition, a number of sub-questions are formulated. The lay panel is introduced to the principles of composing an expert panel. Based on this information and the discussions on the key questions, the lay panel specifies the type of experts and opposing views they would like to be represented on the panel. The specifications can be related to considerations such as specific fields of research, different points of view, ethical and aesthetic aspects, etc. Using the comprehensive list of experts drawn up by the steering committee, and taking their own views into account, the lay panel members may also wish to select additional experts to be summoned to the conference. Finally, the lay panel is given the opportunity to propose subjects for the agenda for the second weekend.

At the third meeting of the steering committee, it is informed about the course of the first preparatory weekend and of the questions pinpointed as central by the lay panel. On the basis of this, a prioritised list is drawn up of the experts to present papers at the conference in answer to the individual questions.

Approximately 1–11/2 months ahead of the conference, the second preparatory weekend is held for the lay panel. This weekend is primarily spent on further discussions. Usually there are one or two 4 short presentations based on the wishes expressed by the lay panel at the first weekend-these presentations have often been on ethical and legal aspects of the topic. The key questions are finalised. The facilitator leads the work which alternates between group work and plenary sessions. The lay panel identifies sub-aspects and formulates sub-questions to the key questions. The final wording is approved in plenary sessions. The wording of the key and sub-questions must be finalised before the weekend concludes.

Besides this, the lay panel discusses the types of experts and the list of individuals which has been compiled by the steering committee.

At its fourth meeting the steering committee finalises the composition of the expert panel which usually consists of 12-15 experts. They agree on the conference programme which has been drawn up
by the project manager. In the period leading up to the conference itself, the project manager effects
the selection of experts. The finalised key questions and sub-questions are forwarded to the experts
scheduled to give presentations at the conference.

In the meantime, intense practical preparations will be effected by the Secretariat. Service tasks win
continue to be undertaken for the steering committee, the facilitator and the lay panel by the project
manager.

The conference is advertised and a second press statement is released with more details on content,
time and place, etc. Registrations begin to arrive. A third press release is sent out.

The evening before the first day of the conference, the lay panel meet for the last clarifying discussion
on questions, sharing of new knowledge, etc., and to prepare themselves and relax before the heat is
turned on.

The consensus conference itself

Day 1

The invited experts respond to each of the lay panel's key questions by presenting their answers. These
may take the form of presentation of specific knowledge, highlighting key areas where knowledge is
lacking, or visions of solutions. This process is effected through short presentations (20-30 minutes)
followed by opportunities for the lay panel to ask a few additional questions for clarification. An
individual expert may answer several different questions. If time permits, the experts add to their
presentations important points which they believe the lay panel should consider. Such points would
typically include aspects that were not prepared in advance and areas not covered by other key
questions.

In the course of the day, the conference will hear about 10-15 presentations. This means that the onus
is on the chairman (i.e. the facilitator) to ensure that the experts adhere to their allotted time so that
clarifying questions are allowed for and the time schedule is complied with.

On the evening of the first day the lay panel meets on its own and decides which aspects of the key
questions have been explained well and which areas need further clarification. On this basis, they
compile the questions that should be asked of the experts on the second day, and they decide who is
going to ask them and in which order.

Day 2

The lay panel poses their supplementary questions to the experts for clarification. Additional questions
and answers may possibly be supplied by the audience. On this day the facilitator acting as chairman
plays an important part, because he/she is charged with focusing the attention of the experts on the
questions and repeating them if no clear answer is given.

On the afternoon and evening of the second day the lay panel prepares the final document. Using the
key questions as a basis, argumentative evaluations and recommendations are given by the lay panel
on the measures called for in the various fields covered by the topic.

The writing and discussion of the contents of the final document is often a long and slow process. The
facilitator will need excellent pedagogic and psychological skills to ensure that every member of the
lay panel has a say. The discussion should be halted when a subject is exhausted. To speed up the
process, work is carried out in groups alternating with plenary sessions. The facilitator usually divides
the lay-panel members into groups each dealing with 2-3 related key questions. Each group will be
assisted by a recording secretary. 'ne work of the groups is presented to each other and discussed in
plenary sessions. Everybody has to agree on the results of the evaluations and on the recommendations. The process of reaching this stage may often continue far into the night. At some conferences (e.g. the future of private transport, infertility, both held in 1993) an extra day was added to the process of the writing of the final document. This has to be evaluated on an individual conference basis and often depends on the character and complexity of the topic.

Day 3

The lay panel presents the final document at the conference. The final document should be available by the start of proceedings in sufficient numbers for the participants. First, the lay-panel members read aloud the final document. The experts are then allowed to correct any technical errors and misunderstandings, but they may not alter the actual content.

Finally, the experts and the audience have an opportunity to address questions to and discuss the conclusions with the lay panel.

When the official part of the programme has been concluded, it is essential to allow the media to pose further questions to the lay panel, experts and organisers, for instance at a small press reception.

The final document

The preparation of the final document is a process in which, through an open discussion, every effort is made to attain the greatest consensus between the lay-panel members on the actions to be recommended. Minority opinions should be allowed only when the process reveals very wide differences of opinion. Thus, it should not be possible for individuals to prevent the proposal of solutions.

The process should be effected as argumentation and dialogue on the individual questions rather than negotiations in which wheeling and dealing play a part. In this way, the document becomes ideally an expression of how far the process can go when solutions to the problems are sought through consensus.

Follow-up

Immediately after the conference a preliminary final document is disseminated to the members of the Danish Parliament. The next step is to correct the technical errors in the final document. The document is designed and published in the report series of the Danish Board of Technology. The expert papers from the conference and possibly the briefing paper are included in the final report. In addition, a 'project publication' is written by a journalist or the project manager and published by the Board. This contains a short description of what a consensus conference is, a description of the topic, a list of the lay-panel members, experts and the main conclusions of the conference. It is distributed to parliamentarians and other interested people who wish to receive a summary of the final report and a brief description of the conference.

The role of the media

Consensus conferences usually enjoy excellent coverage by the media. The scenario (asking lay people to evaluate the statements of experts and make recommendations on the applications of technology
within a specific field) has intrinsic interest to the media. But apart from that, the influence of the individual conference depends on the nature of the topic. For example, the conference on the future of private transport (1993) enjoyed general interest, whereas the conference on educational technology (1991) was targeted more specifically. The final document of the conference on infertility (1993) was quoted several times during a debate in Parliament in January 1994. The effect was that Parliament agreed that clinics should register information on different treatments, including the frequency with which they are used and their results, with the Danish National Board of Health.

The influence of the conference, and its effectiveness in focusing attention on the development of a particular technology, is dependent on the general interest shown by the media and the public. For example, a conference is more likely to be effective if its timing coincides with when decisions are to be made in a field. Politicians and decision makers are interested in addressing the problems identified in the final document because the document expresses lay people’s points of view.

Special problems

This section focuses on some of the recurring difficult tasks, traps and problems related to the consensus conference method and procedures.

The pressure of time

Special emphasis is placed on time as a factor in the work of the lay panel, and any problems that may arise in relation to the selection of participants.

The time set aside for the preparation and holding of a conference is pinpointed by many lay-panel members as a recurrent problem. It is evident from experience that when an additional day is allowed for the writing of the final document, the pressure is eased to some extent. Apart from this, lay panels have stated that they lacked time for discussion and that they felt under pressure in the conclusive phase when the last formulations had to be finalised during the writing of the final document.

Irrespective of whether the time allotted for the writing is half a day or 11/2 days, experience shows that the work of the final document cannot be concluded before about 02.00 or 03.00, when it is due to be presented that morning. It appears that this pressure is necessary for the lay-panel members to be sufficiently receptive to compromise, so that formulations can be worded on which they can all agree.

However, it is evident that the insertion of an additional day for the writing will make it possible to extend discussions of complex problems, and it also allows more time for structuring and composing of the final document. There is no indication that a longer period of writing results in longer final documents. Document length depends more on the number of key questions.

Selection of participants

The composition of the steering committee is based on vast experience and studies by the project manager and the Secretariat, in combination with recommendations by the Board. For the project process to be objective, it is essential that a range of attitudes are represented on the steering committee. Consequently, it is important that the project manager gains sufficient insight, during the preparatory work, into the professional environment to be able to gauge this balance of information and interests. The composition of the steering committee is included in the project description which requires approval from the Board. The project manager must be able to motivate the composition of the steering committee.

The facilitator is selected based on the personal recommendation of the Secretariat. It is extremely important that the 'right' person is found, who can work constructively with the project manager.
However, there is a danger that by using this recruitment method, the same person will be appointed time and time again. Suitable people are often very busy, so that finding someone who has time to spare in the planning period may be a problem. Thus, the recruitment of the consultant is one of the very first tasks that the project manager should tackle. The contracting of a professional consultant through a consulting company should be considered. Whether these companies can provide personnel with the necessary qualities remains to be seen, but evidently the wages will be considerably higher than the level we know today. A lasting solution to this problem has not yet been found.

A recurrent question in connection with the holding of consensus conferences is how the lay panel is composed. A frequently asked question is whether it is possible to claim that the panel is representative of the Danish population.

A panel consisting of 14 people can, of course, never be representative in a statistically meaningful sense. The panel represents a collection of people with different personalities, but they all have one thing in common: they wish to discuss the selected subject and to participate in seeking solutions. Even though no one can claim that the panels are representative, it is important to ensure that they reflect the composition of the population as far as possible. However, it has also to be ensured that the lay-panel members participate in a common quest for consensus and do not try to canvass support for their own points of view.

Studies should be carried out to establish whether panels from previous conferences had any special imbalances such as the proportion of private versus public employees or of unemployed people versus people in employment. If such imbalances are found, measures should be taken to establish whether the advertising for lay-panel members should be altered, for instance through media that are targeted more specifically at groups in which there is currently under-representation. Another idea that should be considered is to offer compensation for lost earnings, so that financial considerations are not an obstacle.

It is essential that the procedure for composing the expert panel is made clear to both the steering committee and the lay panel. Ideally, the lay panel should play a more decisive role in the composition of the expert panel, because, although the lay-panel members control the selection of questions, if they have no influence over who will be answering the questions there is a risk that they may feel manipulated by the steering committee and the project management. However, for practical reasons it is not possible to provide the lay-panel members with sufficient knowledge to be able to phrase the questions as well as select the experts in a particular field.

These problems should be acknowledged openly to the lay panel as the reason for the current procedure. Therefore, it is very important that the lay panel's wishes and requirements to the composition of the expert panel are effectively conveyed by the project manager to the steering committee. There is no precedent for what would happen if a lay panel, at the second preparatory weekend, refuses to approve the steering committee's composition of the expert panel.

Originally, the procedure for composing the expert panel gave more influence to the lay panel. When it turned out not to be feasible, frustration resulted in the lay panel. To avoid this, the procedure has been adapted to be more realistic.

It has been suggested that non-Danish-speaking experts could be incorporated in the panel. The advantages related to this should, however, be weighed against the inconvenience caused by the necessity of having an interpreter. However, the inclusion of English-speaking experts in the panel for two previous conferences (on irradiation of food and on mapping the human genome) caused no real problems.

The consensus conference model of the Danish Board of Technology is a fairly complicated method of technology assessment. It involves a range of aspects, considerations and problems. However, for each consensus conference carried out, the Board has been very proud of the achievement. The Board is convinced that the process is fruitful and that it contributes to the general public's and politician's acknowledgement of the necessity for increased understanding of and participation in the debate surrounding new technology.
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