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Contribution to Panel Discussion

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Robust and rational decision making processes in risk society

Modern society has been called a "risk society" – a society organized in response to risk. According to sociologist Anthony Giddens (1999) it is "a society increasingly preoccupied with the future which generates the notion of risk". The governance of risk has to recognize that the ***concept of risk*** itself is multifaceted and contains many different components. It may have to do with how society protects the individual from unacceptable risks, or how society protects the collective from excessive costs in the form of diseases, a poorer environment, poorer living conditions, economic loss or other harm. The concept of risk also includes how different individuals view risks to themselves and others. For example, an individual may be more inclined to accept greater risks at the personal level than risks imposed from the outside, in other words emotions and values control our perceptions and judgments.

It is therefore necessary that values be weighed into society's decision-making processes. The German sociologist Max Weber (Weber, 1978) distinguished between "value rationality" and "instrumental rationality" where value rationality is behaviour consistent with a particular value position and instrumental or scientific rationality looks at the consequences of various actions and carries out cost-benefit types of assessments. In other words, instrumental rationality is the working methodology of experts and scientists whereas value rationality is the task of politicians. A fully rational decision-making process obviously must include both these types of rationality. Furthermore, a prerequisite for rational decision-making is awareness of all the relevant aspects, which includes not only the factual but also the value-laden issues. Nuclear energy is an example of a technology that introduces risks, but it also reduces other risks, coming from other energy sources. Any kind of energy production has its own ***risk profile*** but energy policy also includes other factors of political nature such as a country's wish to increase its independence in energy supply.

The decision-making context for controversial issues such as nuclear energy is not only set up on the factual basis provided by experts, but also by stakeholder pressure groups, lobbyists and extensive media coverage. The seemingly unlimited availability of information on the Internet and the continuous information flow in media does not make it easy for the layman to

gain insight and clarity. Indeed, we now have unlimited availability of information. If you have a computer and Internet access there are no limits to the quantity of information you can access directly. However the public, supposed to be well informed, is overloaded with information and has little time for quality review and the key problem for the individual is to know which one of the information senders he/she can trust as reliable. The field is open for information senders trying to get access to the attention span of individuals sometimes by using emotional arguments. There is an ***information paradox*** – unlimited access to information in a quantitative way but little chance to bring it into order, or in other words to gain real knowledge.

In this situation it is not possible for the industry or experts to achieve societal acceptance for their solutions by "informing away" public ignorance for example. Another approach to the information paradox having received much attention during the latest decades is to organize different forms of public participation processes. The idea of "deliberative democracy" seems, however, too idealistic for our society. It is supposed that citizens in general think that involvement is worthwhile if they just know that the opportunities exist. Ideally participation will make them develop as individuals and find a more meaningful life. However, as the political scientist David Held puts it (Held, 2002, p 272), "what if they do not wish to participate in the management of social and economic affairs? What if they do not wish to become creatures of democratic reason?" Considering the essentially unlimited amount of information each individual has to manage and the level of stress in our society, Held's concerns seem realistic. On the individual level, there is simply not enough attention span left for such ambitious participation. There is also critique of a more fundamental nature against deliberative democracy, suggesting democratic legitimacy problems (Parkinson, 2003) and inconsistencies between its basic philosophy and participants' own reasons for engaging themselves (Collins and Ison, 2006)

As information is a hopeless approach to "acceptance" in the information flow and as there are both practical and legitimacy problems with participation, we can conclude that there is no simple way out from the information paradox. On the other hand, society must find practical ways to address energy demand and environmental issues, and decisions must be taken. What remains is to organize, perhaps even institutionalize, ways to make the existing decision making processes work better. In a democracy this means decisions by the representative democratic assemblies, sometimes combined with elements of direct democracy such as referenda. The key point here is the quality of the decision making processes. For high quality decisions to take place, there needs to be as much clarity as possible of all aspects; scientific and technical components as well as value-laden aspects. To achieve this, stakeholders with different positions and values are needed for bringing up their arguments to be exposed to public debate. The ultimate aim should be to enhance the awareness of both the decision makers (politicians in energy policies) and the citizens. The idea is that if the awareness in the public equals the awareness of their elected representatives, then democratic accountability should work. If all the crucial arguments are brought up for clarification during a systematic process, and if this is done with full insight from all society there should be good prerequisites for a robust and rational decision making process.

We know who are the stakeholders needed for such a process to take place. Obviously the nuclear industry is the major proponent on the scene, experts in risk assessments are clearly needed, NGOs arguments must be raised and explored, regulators are needed as bodies of critical review and integrity and local communities must have a say for their own future. Not all of these stakeholders have the same interests and most often consensus between them cannot be expected, although some of them may agree to form partnerships to reach common goals. If we want all of them to take part in a common process, the process should allow the participants to maintain their integrity and identity. Regulators, for example, may hesitate to participate in a process with close collaboration as they need to ensure their independence from the licensee. Also NGOs can hesitate to take part in participative processes that have too great a collaborative element as they may feel this can endanger their autonomy. Furthermore, local governments may consider it more important to be independent of the developer during the siting of nuclear establishments.

However, experience (Carlsson et.al. 2001; Hanberger and Mårald, 2009; Vojtechova, 2009) shows that it is possible to form arenas for clarification of the issues involved and also for enhancing the understanding between stakeholders about their arguments and positions, while safeguarding their integrity, thus maintaining their independence in the legal and political decision making processes. From the implementation of the RISCOM Process in Czech Republic (Vojtechova, 2009) this kind of a process where all stakeholders can take part without being committed to find common solutions is called a ***Safe Space***. In the ongoing Euratom Framework project IPPA (http://www.ippaproject.eu/), this approach to public involvement is implemented in the Czech Republic, Slovakia and Poland in the area of nuclear waste management (Andersson et.al., 2011). The awareness of the need for new approaches to participation and openness in this area has led to considerable progress and has "made difference" in several countries. It seems that these achievements may show the way for much knowledge transfer and implementation of methods for clarity and real rationality also in other parts of the nuclear fuel cycle decision making processes.

References

K. Andersson, M. Kojo, J. Pritrsky, Ph. Richardson, V. Sumberova, H.Vojtechova and P. Andersson, Linking ARGONA results about participation and transparency to practical implementation, IPPA Deliverable 6.1 ISBN 978-91-976858-4-9, 2011, http://www.ippaproject.eu/content/project-deliverables

T. Carlsson, K. Hallberg, K. Andersson, C.R. Bråkenhielm and H. Åhagen, The Oskarshamn model for public involvement in the siting of nuclear facilities, VALDOR Symposium, Stockholm, June 2001

K. Collins and R. Ison, Raymond, Dare we jump off Arnstein's ladder? Social learning as a new policy paradigm. In: Proceedings of PATH (Participatory Approaches in Science & Technology) Conference, 4-7 June 2006, Edinburgh.

A. Giddens, “Risk and Responsibility” *Modern Law Review* 62(1): 1-10, 1999

A. Hanberger and G. Mårald, Evaluation of the Transparency programme of the Swedish National Council for Nuclear Waste, Umeå University, Umeå Center for Evaluation Research, December 2009 (in Swedish)

D. Held, *Models of Democracy, Second Edition* (Oxford: Polity Press, 2002)

J. Parkinson, J., Legitimacy Problems in Deliberative Democracy. Political Studies, 51: 180–196. doi: 10.1111/1467-9248.00419, 2003

H. Vojtechova, Evaluation, testing and application of participatory approaches. Application of RISCOM Model in the Czech Republic. EU Contract FP6-036413. ARGONA Deliverable D14, 2009, http://www.argonaproject.eu/project-deliverables.php

M. Weber, *Economy and Society*, eds. G. Roth and C. Wittich.(Berkeley: University of California Press, 1978)