Reflections on the structure and organizations of NKS after 2020.

-Discussion paper based on views expressed by the NKS board.

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This discussion paper consists of an introduction, providing background on NKS policy discussions since June 2017, summary of views expressed by NKS board members and their views in full.

Introduction.

The policy discussion on the future structure and direction of NKS (NKS after 2020) began at the **NKS owners and board meetings on 7 and 8 June 2017**.

In February 2017 Eva Simic had distributed the SSM report "Evaluation of the Swedish participation in the Nordic Nuclear Safety Research (NKS) collaboration" by Oxford Research to the board members.

At the NKS board meeting on 8 June 2017 Hjalmar Eriksson from Oxford Research gave comprehensive presentation on the evaluation of the added value for Sweden from participating in NKS.

The report by Oxford, the presentation by Hjalmar and the discussion that followed was the starting point for the discussion on the future structure and direction of NKS in the NKS board.

At the meeting there was also a decision to establish a working group to review and revise the role of the PC's with a deadline for report before the January 2018 board meeting. Nici Bergroth was the chair the working group.

For more information see:

http://www.nks.org/download/styrelsesmoeder/Board meeting 170608/nks-17-05-minutes board meeting 20170703 final.pdf

At the **January 2018 meetings** there were comprehensive agreements at the owners meeting regarding the finances and chair of NKS for the next three years (end of 2020). These agreements provide stability in NKS for the next three years ensuring ample time for a thorough discussion and implementation of NKS future strategy and direction.

There was an extensive discussion on the report from the working group to review and revise the role of the PC's at the board meeting.

The owners and board members had been asked for their reflections on the future of NKS prior to the meeting. On basis of their reflections a discussion document "Proposals and suggestions from reflections over NKS future directions by owners and board members" dated 17 January 2018 had been developed. All proposals and suggestions concerning policy and content of the NKS program in the document were discussed and preliminary conclusions reached for all except three that required more work. The outcome "Conclusions – NKS Board 18 January" was an appendix to the minutes of the meeting.

The remaining three were

Length, number and funding of projects:

Conclusion: Discussion reflected different views within the NKS Board. PC's to develop a discussion paper based on the discussion in consultation with the Chair. Draft paper to be circulated to board for comments in good time before June meeting. Decision at June meeting.

Prioritized areas:

Conclusions: The discussion reflected different views in the Board and that "prioritized areas" are implicit in our evaluation i.e. relevance for end users and mean ranking as well in final ranking. PC's, in consultation with the Chair, to develop a discussion paper taking into account the discussion at the board meeting. Draft paper to be circulated to board for comments in good time before June meeting.

Division between NKS B and NKS R.

Conclusions: The discussion confirmed the growing importance of decommissioning and management of radioactive waste. PC's to develop this issue further before June board meeting.

For more information see:

http://www.nks.org/download/styrelsesmoeder/Board meeting 180118/nks-18-01-minutes board meeting 20180307 rev2.pdf

At the **June 2018** meeting the discussion continued. At the owners meeting 27 June there was a decision to develop a policy document "NKS after 2020".

The discussion at the board meeting on 28 June focused on the preliminary conclusions of the discussions on NKS future direction at the January 2018 board meeting and the remaining three issues. There was a conclusion on all issues.

For more information see:

http://www.nks.org/download/styrelsesmoeder/Board_meeting_180628/nks-18-04-minutes_board_meeting_20180814_final.pdf

At the **January 2019** meeting the discussion focused on the draft policy paper that had been circulated prior to the meeting. On basis of the discussion the draft was revised and circulated to board members for comments. A final draft is expected to be approved at the 2019 June meeting.

There was a decision that the next steps in the discussion on "NKS after 2020" would be to ask owners and board members to give their views on the present structure and organization of NKS and NKS activities including proposals for improvement/change.

This discussion paper is based on the views expressed by board memebers (p.3-5) and is an input to the discussions at the meeting of the NKS owners on 3 June 2019 and the NKS board on 4 June 2019. The full text of the views from NKS board members is in an appendix to this discussion paper, p. 6-12.

In general there is broad support to continue the present structure and organization of NKS. The main proposals for change address the composition and role of the board as well as to establish an Advisory Group.

Summary of views expressed by board members.

NKS Board.

It is proposed that the owners of NKS, appoint one member each to the NKS board. The NKS board is responsible for the NKS business's framework including strategies, budget, finances etc. The NKS board approves the research projects to be funded, based on the recommendation of the PC's after evaluation of applications by the NKS advisory group.

Advisory Group.

There is a proposal to establish an Advisory Group consistsing of one member for each program area nominated by each of the NKS owners and one member for one program area nominated by each of the co-financing organizations. The role of the Advisory Groups is to evaluate proposals for research projects and advise the board on the research program. The chair of NKS is also the chair of the Advisory Group.

Coordination Group

There is strong support for continuation of the coordination group, consisting of PCs, secretariat and chairman, for continued efficiency and progress in the work of NKS.

Secretariat

There is strong support for the NKS Secretariat to continue, in an efficient way, to take care of the administrative issues, including financial issues and the website.

Program Coordinators

The function of Program Coordinators (PCs) is considered to be important and that the function is still needed at an approximate half-time (of a full position) per program. Thus PCs are able to read through and quality assure the project results. The fact that the quality assurance takes place at PCs guarantees a consistent quality. Having the same PC for both NKS-R and NKS-B is not feasible given the broad and at the same time deep expertise that a person would then need to possess. It would also make NKS too vulnerable to changes in staffing.

Time limits:

Time limit for Chai

The issue of time limit for the Chair was raised and it was suggested to discuss if there should be a time limit of 4 +2 years or 4 + 4 years for the Chair and a rotation between the Owners.

Time limit for PC's

The issue of time limits for PC's appointment was raised with a suggestion is to express more clearly the expectation that a PC should stay for three years, and also - to promote rotation and competence building - say that the position can be held for the longest time for five years.

It was also raised that it could be good to discuss how the PC role could be shifted between the countries on a regular basis. The four countries which do not fill the chairman role, could have a schedule how to shift the PC roles between them. For example, the PC-R could alternate between

two of the countries and the PC-B between the other two. Or, there could be a "waiting list" for each of the roles.

Regular meetings:

Flexibility and form of meetings:

Flexibility is recommended so that meetings can be planned in an optimal way.

For all meetings there is a recommendation to consider if the meeting can be a video meeting rather than a face to face meeting.

The NKS board and Advisory Group.

The regular meeting schedule can be as follows:

January

In January there is a board meeting with participation of the Advisory Group, the secretariat and the PC's.

In the joint session the PC's present status of ongoing projects and their recommendations for funding based on evaluation of the proposed projects by the Advisory Group. The board makes a decision following a discussion with the PC's and the Advisory Group. Other topics on the agenda for the joint session may include strategic issues, impact of and future needs of research, emerging technologies and competence building, possible changes in policy documents and the research program for next year, the evaluation process, as well as other issues the participants wish to raise.

Following the joint session the board meets with the Secretariat and the PC's to decide the annual budget and address other financial issues as well as contracts with PC's, chairman and secretariat and other issues the participants wish to raise.

The PCs distribute a status report of ongoing projects and a report with funding recommendations no later than two weeks before the board meeting.

The Secretariat distributes a budget proposal, status of the financial situation and draft contracts no later than two weeks before the board meeting.

Other documents to be addressed need to be distributed two weeks before the meeting.

June

In June, the Board, the PCs and the Secretariat meet to review the annual report, monitor the economy and ongoing projects. Other issues on the agenda may include strategic issues, budget for next year and any other issue raised by board members or issues raised by members of the Advisory Group prior to the meeting.

The PCs distribute to the board and Advisory Group a status report of ongoing projects no later than two weeks before the board meeting. Members of the Advisory Group are invited to send their comments regarding status of ongoing projects before the board meeting and to raise other issues within their remit.

The Secretariat distributes all financial documents to be addressed no later than two weeks before the board meeting.

The coordination group.

The coordination group meets 4 – 6 weeks before a board meeting.

Other meetings.

The NKS chair, in consultation with the NKS board, can call for other meetings as needed.

Other issues.

Rules of procedure:

It is suggested that it could be good to develop a procedure document that clarifies the roles of the various actors, and describes the criteria for their participation – that is, how many participants from each country, from each utility, from each authority etc.

Public governance.

The importance of NKS living up to the standards for good public governance and transparency that apply to public sector in the Nordic countries, demonstrating that funds are spend correctly (i.e. on nuclear safety research) and efficiently (i.e. avoiding excessive costs) is raised as an issue for the NKS board to address since good public governance is included in recently agreed NKS policy

NKS Workshop.

There is a strong recommendation for continuation of the NKS workshops every third year.

Call for proposals.

The process for call for proposals is considered to function well and there is no need for changes.

The evaluation process.

It was commented that researchers (SMM: no information on how many or how often) have commented that the evaluation of the proposals appear to vary strongly between evaluators, even on relatively objective criteria like for instance the contributions from young scientists.

It is therefore suggested to review the evaluation process and possibly provide guidance to the evaluators on how the various criteria should be evaluated."

Appendix: Views from NKS board members

Anneli Hällgren SSM

NKS owners have asked for their views on NKS organization - is there a need to change? The Swedish Radiation Safety Authority has gathered relevant employees for discussion . The most urgent point made is about the board's unclear role. Below are suggestions aimed at clarifying the roles and cooperation of the various actors.

Roles

Board of Directors

The owner group - one representative from each country's most influential authority - becomes the new board with responsibility for the business's framework including strategies, budget, finances etc, and which decision-making rights of course also includes the research projects.

Evaluation panel

Today's board becomes the evaluation panel regarding the research projects and proposes the upcoming research plan to the board. The owner representatives that belongs to the new board do not participate, but are replaced by other owner representatives. There are uncertainties about the number of participants, which actors should be represented and the number of evaluators per country. Here, a discussion and clarification are needed.

Coordination Group

The coordination group, consisting of PCs, secretariat and chairman, continues their coordinating work as today, for continued efficiency and progress in the business.

Secretariat

We appreciate that there is a secretariat to, in an efficient way, ensure the logistics around for example meetings and website. We have experience of other working groups where attempts have been made to cut down the administrative function, with the result that the logistics work poorly and meetings are inefficient.

Program Coordinators

We find the function of Program Coordinators (PCs) important and believe that the function is still needed at an approximate half-time per program. Thus PCs are able to read through and quality assure the project results. The fact that the quality assurance takes place at PCs guarantees a consistent quality. Having the same PC for both NKS-R and NKS-B is not feasible given the broad and at the same time deep expertise that a person would then need to possess. It would also make NKS too vulnerable to changes in staffing.

The year's meeting schedule

January

In January, the board, the coordination group and the evaluation panel meet. The PC:s present the proposal for financing research projects for the coming year, which is based on the input from the evaluation panel, and the board makes decisions. Other topics on the agenda may include strategic

issues that need to be discussed and anchored, uncertainties regarding the evaluation process, etc. The PCs distribute a status report and a report with funding recommendations before the meeting.

June

In June, the Board and the secretariat meets to review the annual report and monitor the economy. Other issues on the agenda might be strategy, budget, overall activities etc as well as a situation update regarding the projects from PCs.

September

In September, the coordination group and maybe the evaluation panel meet before the autumn's calls. The PCs provide and update on ongoing activities. The board receives a written report from the PCs on the progress of the research projects so far.

November

The coordination group meets to prepare for the January board meeting, which includes producing a summary of the input from the evaluation panel and having discussions on preliminary funding recommendations.

Other thoughts

Thoughts that were also aired were the following:

Rules of procedure

Regardless of how the work with the NKS organisation continues, it would be good to develop a procedure document that clarifies the roles of the various actors, and describes the criteria for their participation. Today it is not clear what is the responsibility for NKS for those board members that are not in the owners' group (and are thus not signing any papers). Also, it is not clear which decisions that are made by the board and which decisions are made by the owners' group. If we go for a new structure, we need to discuss for example, which actors are to be represented in the board or in the evaluation panel, and how many from each actor.

Limitations in PC's ordinances

Should there be time limits for PC's appointment? One suggestion is to express more clearly the expectation that a PC should stay for three years, and also - to promote rotation and competence building - say that the position can be held for the longest time for five years. It would also be good to discuss how the PC role could be shifted between the countries on a regular basis. The four countries which do not fill the chairman role, could have a schedule how to shift the PC roles between them. For example, the PC-R could alternate between two of the countries and the PC-B between the other two. Or, there could be a "waiting list" for each of the roles. For consideration of the length of the PC role, we propose such discussions to be held in the owners' group, or at least not on the board as long as the PCs are part of the meeting.

External quality assurance

Do we want to secure the quality by also inviting representatives from European, relevant universities to the evaluation panel?

Secretariat

For consideration of the NKS secretary, we propose that discussions on reductions of the NKS secretariat be held in the owner group, or at least not on the board as long as the secretary is part of the meeting.

Petri Kinnunen VTT

As a contribution to the request made by Sigurdur, I put here my views on the organization and activities:

- the basic organization of the programmes and projects is good. The PCs are good in their work and make good summaries about what is going on.
- now the future organization of the MB is more balanced when the Ministry in Finland gives their role to STUK. According to my understanding now each country has a representative from the authority, industry and research (right?)
 - → I do not see any big changes needed for the organization of the NKS activities.

Then about the activities:

- The seminar is needed every other year. It was also good this time.
- We spend quite a lot time in the MB discussing about the economics of NKS. In my opinion this discussion could be decreased, e.g. from the summer meeting.
- I would like that we discuss more about the impact of the research. As you know in Finland
 the NKS research is strongly linked to SAFIR and KYT programmes. But we should also get to
 know how much the NKS benefits from that work or how much the Finnish programmes
 benefit from the NKS connection. And the same in other countries with their own
 connections.
- Another topic, that I would like us to discuss, is the future needs for research. E.g. the Halden reactor situation in Norway has recently changed the Norwegian needs (I think). In Finland we talk a lot about SMRs, lot about OL3 (which seems to be starting soon eventually),... I know that this discussion may not be appealing to all Nordic countries because of the way the politics towards nuclear have been set, but if we want to discuss about future aspects for the NKS, I think we cannot reject these topics but to see what they may mean to the NKS.
- Thirdly, very many of us are connected to different European forums and platforms. Related to the previous point, understanding the activities in those other forums, even briefly, might be helpful for us to consider our own future in the NKS. So perhaps worth discussing?

These are my thoughts at the moment. In any case the ultimate goal for the NKS is to keep it active and up-to-date.

Mikael Meisner - Vattenfall:

Some general thoughts on organization and activities which also are in line with previous declared positions from the Swedish industry.

The aim of NKS to facilitate and improve Nordic networking in nuclear and radiation safety areas is in line with the expectations of the four supporting organisations (Ringhals, Forsmark, Orskarshamn and SKB) in Sweden. Additional benefits from participating in the NKS network is learning from from specialists in certain areas, that are mainly to be found outside of Sweden. The Swedish industry do not have any major objections to how the executive part of NKS is organised today and are satisifed with the way the owners are handling the management, and is further fine with following the lead of SSM in these matters.

Further, regarding the organizational structure, having two programs (R&B) and a manager for each provides a critical mass of the executive part of NKS. The setup also has the advantage of redundancy, i.e. if one of the program managers suddenly would have to leave, the risk of being left with a non-functional organisation is smaller. We are supportive of keeping the distribution between the R- and the B-program as it is (50/50).

The present process of Call for proposals to decision to fund is sufficiently applicable as is. However, it might be appropriate to make comparisons/benchmarking with the [yearly]research plans of each national authority, in order to understand in what direction each nation is heading towards. I don't know whether this has been the case previous years, but one way of doing this is allowing each authority to make a short summary during the June meeting on present, needed and prioritized research areas taken from each national research plan respectively. The outcome of subsequent discussions during the same meeting could then, if possible, be reflected in the Call for proposals. I guess that such a benchmarking (i.e. having a direct link and coupling between national needs and NKS activities) would also be mutual beneficent for authorities and NKS.

The current model with one-year projects/contracts is fine. Single exceptions might possibly be justified if there is a clear reason to.

If manageable, the current arrangement with a joint NKS-R/B seminar every second year should be continued.

Finally to conclude, we do not see needs for major organizational changes of NKS, but looking forward to continued discussion

Mette Øhlenschlæger SIS:

Brief comments on NKS after 2020 from The Danish Health Authority (DHA) – non-owner and non-funding organization (ikke-tillægsfinansierer)

- NKS is a well-established and important player in Nordic research in the nuclear area.
- In the opinion of the DHA, the basic organization: the secretariat and the PCs is well functioning. The function of the PCs is important and they are doing a tremendous job.
- DHA supports a continuation of the present arrangement with a permanent secretariat, ensuring a harmonized and consistent handling of the tasks laid out by the Owners Group and the NKS Board.

- DHA recommends careful consideration of the present structure and representation within the two fora: the Owners Group and the NKS Board.
- DHA recommends restructuring the NKS into two fora: The Owners Group and a separate Advisory Board.
- DHA strongly advocates for a decision on the participation and role of non-owners as well as non-funders like the DHA in the NKS-Board (or an established Advisory Board).
- In the opinion of the DHA, discussions and reports on NKS-economy should be limited to the Owners Group and discussions on research programs, future needs etc. would be the logical task of an Advisory Board.

Pia Vesterbacka - STUK:

Here are some general thoughts mainly on activities of NKS. Since I am new member I do not have experience on organization and its functioning so much yet.

I have found regularly arranged NKS seminars very useful and good way to keep compact cooperation between Nordic countries and share the common knowledge.

I was very happy that radiation safety was added in the policy paper. Now the area of NKS research covers more wide range of issues and I think is more useful for all Nordic countries. I am personally worried about deep know-how about the radiation protection. This is important area and its deep know-how is needed especially in case of emergency preparedness.

In the last meeting one of the college from Sweden raised up criteria's in evaluation process and comparison between various research projects. I think this is important issue to discuss and if NKS evaluation board has clear criteria's it would be good.

We also discuss about the themes. Would it be useful to emphasise themes in different years. This could be useful if NKS wants to point out issues which are key issues in certain years. Shows also agility of NKS.

Since I have not been evolved in NKS work, I was wondering has NKS research been evaluated regularly, like every five years. During evaluation NKS could get knowledge about the impressiveness of the NKS research. Has NKS SRA (strategic research agenda) or has NKS though that it would need such?

I think Finland do not see needs for big changes in NKS organization.

Anne Liv Rudjord - DSA

"The administrative procedures and management works smoothly. There are no specific comments to the process with the calls for proposals.

However, researchers have commented that the evaluation of the proposals appear to vary strongly between evaluators, even on relatively objective criteria like for instance the contributions from young scientists.

It is therefore suggested to review the evaluation process and possibly provide guidance to the evaluators on how the various criteria should be evaluated."

Carsten Israelson - DEMA

The input from DEMA falls in three parts:

NKS activities

We agree with most board members that the NKS seminars every 3rd year are a success and that we should continue with this activity, so that we plan for the next seminar in 2022.

We also find it relevant to have a broader discussion of future research subjects and the impact of the research from NKS. VTT has mentioned an interest in Finland for SMR and in Denmark there are several small groups working with molten salt reactors. We see a way to broaden the scoop of NKS by adding a new subject which could be called: "Emerging technologies". Furthermore, several board members has mentioned "competence building" (or something similar), which is another wording that we could consider to have more focus on in the future.

However, we should be aware not to move to far away from the original focus of NKS, which is safety research, and thereby possibly scaring away the main funders of the program. Looking at national research focus is an idea that we can support but still with the focus of the NKS main scope: Safety research.

In general, DEMA finds it important that NKS strives to obtain as many relevant applications for projects as possible. This years' relatively small amount of applications is worrisome and we should take steps to ensure more awareness about NKS. Too few applications and hence less competition among the applicants brings a risk of not being able to maintain a high enough scientific standard of NKS projects. A somewhat broader scoop will hopefully bring in more applications and thereby aid to maintain the high level of research. All board members are encouraged to look for new research groups and organization that can submit quality applications for NKS projects.

NKS organization

DEMA agrees with SSM that the roles and division of responsibilities between the owners and the board could be clearer. We support the suggestions by SSM, DSA and DHA with some minor adjustments. A future organization of NKS could look like this:

- The Owner Group (or Board of Directors), one representative from each governmental funding organization, which is DSA, GR, STUK, SSM and DEMA. The Owner Group is responsible for the NKS strategies, budget, finances, contracts with PC's, chairman and secretariat, etc.
- The Evaluation Panel (DEMA has previously suggested the name, Advisory Group) should evaluate proposals and propose research plans. The Panel should consist of what today is called The Board. Owner Group member should, however, also be allowed to serve in the Evaluation Panel. All members of the Evaluation Panel should be approved by The Owner Group. As DSA, we see no need for new members to this group (from outside the Nordic Countries).

- The Coordination Group. More or less as suggested by SSM.

The meeting schedule for the owners and coordinators can be agreed between the members of these groups. Given the relatively few members, video conferencing is effective for smaller meeting, and helps to keep down travel expenses.

The Evaluation Panel probably only needs to meet at the January meeting, when the project proposals are discussed. However, a seminar on evaluation criteria in September 2019 or 2020 could be relevant.

DEMA is also positive towards the proposal by SSM and DSA about fixed term appointment for chairman and PC's. We find that a reasonable amount of rotation is good for the organization and that it should apply for all positions within The Coordination Group.

Standards and practices for NKS administration

We find it paramount that NKS lives up to the standards for good public governance and transparency that apply to public sector institutions in our various countries. Consequently, NKS must, in our view, put in place practices that enables it to demonstrate that funds are spend correctly (i.e. on nuclear safety research) and efficiently (i.e. avoiding excess costs). In this context, we recently agreed that good public governance is part of NKS policy, and DEMA encourage that we follow up on this within The Owner Group.