
**2020 Review Conference of the Parties
to the Treaty on the Non-Proliferation
of Nuclear Weapons**

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New York, 4–28 January 2022**Scientific and technical expertise supporting national efforts
to advance the Treaty on the Non-Proliferation of Nuclear
Weapons: the Norwegian experience****Working paper submitted by Norway***Summary*

In Norway, a loose-knit, quite informally organized network of scientific and technical experts has developed into a national group of experts on technical questions related to the Treaty on the Non-Proliferation of Nuclear Weapons. Mutual trust and professional independence between the experts and the Ministry of Foreign Affairs have been crucial to the success of this group as advisers to the policymakers. The present working paper describes the practical aspects of forming and utilizing such a group of experts.



I. Introduction

1. In international forums, such as Review Conferences and Preparatory Committee sessions, many topics are highly specialized, requiring skills and knowledge beyond what is directly available in national delegations. The first challenge in this regard is to recognize the potential benefits of involving scientific and technical expertise. The second challenge, and the one that is the main topic of the present working paper, is to identify and develop relevant national resources and make the best use of them.

II. Scientific and technical experts

2. Sometimes, the required scientific and technical expertise is easily and obviously available in specialized research establishments. However, when this is not the case, it is our experience that the necessary professional skills are often available anyway, but may be located in institutions where they are applied to tasks not related to nuclear disarmament and non-proliferation. Relevant expertise may be found, for example, in civilian industry or research, independent foundations, government agencies, government research centres of all kinds and universities. Applicable scientific and technical skills and knowledge exist even in small States, but the people possessing this expertise may be spread across locations and institutions.

3. In Norway, a combination of a bottom-up and a top-down approach has served an advisory function well for years. The focus of the present working paper is the convergence of a group of scientific and technical experts from different institutions supporting the Ministry of Foreign Affairs in issues related to the Non-Proliferation Treaty, that is, nuclear disarmament, nuclear non-proliferation and the peaceful uses of nuclear technology.

4. More than 10 years ago, some of these institutions received occasional individual, short-term grants to carry out specialized studies or other activities for the Ministry of Foreign Affairs. As opportunities for more comprehensive project work emerged,¹ individuals from several institutions saw advantages in closer collaboration and therefore joined efforts in an informal cooperation.

5. At present, this informal convergence of scientific and technical experts from several institutions still exists and continues to carry out work for or on behalf of the Ministry of Foreign Affairs. The box below provides further details on the Norwegian expert group. We believe that the basis for successfully meeting new challenges and opportunities has been to connect people with relevant skills across formal divisions represented by institutions that would not have been able to respond sufficiently on their own. Their combined skills, knowledge and interests have made it possible for Norway to participate actively in international collaboration on disarmament and the non-proliferation of nuclear weapons.

6. Such an advisory group of scientific and technical experts and its formal management may be organized differently in other States. We believe, however, that the basic idea of identifying, combining and applying already available national expertise could be used successfully in a large number of States.

¹ Related to what is now known as the United Kingdom-Norway Initiative, which pertains to nuclear disarmament verification.

Norwegian group of scientific and technical experts on nuclear disarmament and non-proliferation

The group includes a total of 5 to 10 individuals from four institutions:

- (a) Institute for Energy Technology – a former research reactor operator (a foundation);
- (b) NOR SAR – a national data centre for verification of the Comprehensive Nuclear-Test-Ban Treaty (a foundation);
- (c) Norwegian Defence Research Establishment (a governmental institute);
- (d) Norwegian Radiation and Nuclear Safety Authority (the governmental regulator).

The four institutions operate quite differently, and the group has benefited from the wide range of knowledge and experience of its individual members, including with regard to the development and implementation of verification regimes, participation in both real and exercise inspections, International Atomic Energy Agency safeguards inspections and the operation of nuclear facilities, as well as basic studies of nuclear weapon-related issues.

There is no formal agreement between the four institutions spelling out responsibilities, leadership and so on. This is handled in an ad hoc manner between the group members. On a strategic level, tasking is done by the Ministry of Foreign Affairs as the project owner, or comes as a result of suggestions from the group. In this way, suggestions and needs originating in the day-to-day work of the group members increase the Ministry's access to scientific advice in its policymaking. The group members carry out technical work both at home and in international forums under little or no supervision, based on their individual expertise. Coordination between the group members and the Ministry is managed on a strategic level and in accordance with the Government's policy priorities.

It is important to note that the Norwegian network of scientific and technical experts is operational not only in its relations with the Ministry of Foreign Affairs, but also as an independent group of collaborators. The group's relative independence makes it a better adviser to the Ministry by providing unbiased and scientifically based perspectives.

An extra advantage of the formation of this informal network of institutions has been closer contact in general between the institutions and the experts involved.

Funding of the Norwegian expert group is channelled through the nuclear regulator, which ensures that government rules for accounting and reporting are adhered to. Each institution is still responsible for its own budgeting.

7. The many points of interaction between the Ministry of Foreign Affairs and the scientific and technical experts provide a platform for a two-way exchange of views. This breaks up structures and practices that would otherwise leave experts working separately from or in parallel to issues of contemporary and policy relevance. Furthermore, being included in internal policy planning and evaluations by the Ministry has enhanced the group members' understanding of context and policy.

8. Similarly, the exposure of the Ministry of Foreign Affairs to scientific and technical expertise improves policy formulation. This is especially true for topics impacted by the rapid development of technology or in issues of compliance, a topic that itself is an example of the interface between policy and technical aspects. A strategic approach to scientific and technical expertise includes an openness to the value of such expertise and allows it to inform and impact policy thinking.

9. Mutual trust between the parties has been key to the Norwegian experience. This has made it possible for various people from different institutions to work informally together for years. Furthermore, it has simplified the relationship with the project owner, the Ministry of Foreign Affairs, which has refrained from micromanaging the efforts of its advisers. As a general rule, trusted advisers take a higher degree of responsibility for their projects and do a better job. Such long-term cooperation can function only if all participants and participating institutions feel that they benefit professionally over time.

10. The benefits of long-term cooperation cannot be reaped without the means necessary to carry out the work. The Ministry of Foreign Affairs has therefore committed financial resources to keep its external experts sufficiently active and involved over time in order to maintain and further develop their skills. Of course, successful cooperation also requires clear guidance from the Ministry when it comes to defining the goals of the projects and making sure that these goals are in line with the Government's disarmament and non-proliferation policy objectives. This includes the importance of improving the gender balance in national delegations.

11. The Norwegian group of scientific and technical experts has been instrumental to the country's international position on nuclear disarmament verification. It has ensured Norwegian participation in several international collaborations, including the United Kingdom-Norway Initiative (2007–2015), the International Partnership for Nuclear Disarmament Verification (since 2015) and the Quad Nuclear Verification Partnership (since 2015). It has further assisted the Ministry of Foreign Affairs at a number of Non-Proliferation Treaty meetings and during its work chairing the Group of Governmental Experts to consider the role of verification in advancing nuclear disarmament. The expert group has independently organized nuclear verification exercises in Norway for students from many countries.

III. Final remarks

12. Even in States without a substantial nuclear industry, there is most likely scientific and technical expertise available to support relevant authorities in their work on issues related to the Non-Proliferation Treaty.

13. Once identified, the scientific and technical experts must be funded over time to permit mutually beneficial cooperation. Such cooperation provides direction to national efforts related to the Non-Proliferation Treaty, improves dialogue and cooperation with other States and creates a win-win situation for everybody involved.

14. In Norway, a loose-knit, quite informally organized group of experts guided by the Ministry of Foreign Affairs has been successful. This network has developed into a national group of expertise on technical questions related to the Non-Proliferation Treaty. Mutual trust and professional independence in carrying out the work have been key to the successful Norwegian experience.