



Developing Practical Cooperation through Science

Sweden has been actively engaged within the framework of the NATO Science for Peace and Security (SPS) Programme since 1991.

The NATO SPS Programme enables close collaboration on issues of common interest to enhance the security of NATO and partner nations by facilitating international efforts to meet emerging security challenges, supporting NATO-led operations and missions, and advancing early warning and forecast for the prevention of disasters and crises.

The current SPS Key Priorities include:

- Counter-Terrorism;
- Energy Security;
- Cyber Defence;
- Defence against CBRN Agents;
- Environmental Security;
- Security-related Advanced Technology;
- Border and Port Security;
- Human and Social Aspects of Security.

Additionally, the SPS Programme helps to promote *regional security* through scientific cooperation among partners. The programme also helps to *prepare* interested eligible nations for NATO membership. SPS activities often have a high *public diplomacy* value.

SWEDEN

Sweden has been engaged in several activities with the SPS Programme. Currently, the leading areas for cooperation include **Counter-Terrorism and CBRN Defence**. Below are some examples of ongoing and completed projects led by NATO and Swedish scientists and experts under the framework of the NATO SPS Programme.

Cooperative Activities

CRITICAL INFRASTRUCTURE PROTECTION (CIP) AND THE HYBRID WARFARE RELATED-CHALLENGES

The objective of this 2016 Advanced Research Workshop (ARW) was to contribute to the efforts pertaining to the protection of critical infrastructure against major hazards and challenges such as cyber and terrorist attacks on energy supplies, which defy national borders. Specifically, the ARW investigated the emerging security risks facing NATO Member and partner countries in the Nordic area. The workshop:

- established a forum for the exchange of information and best practices between experts in the field of critical infrastructure protection (CIP) from NATO and partner countries;
- fostered cooperation in the area of CIP between NATO, academics as well as public authorities in Allied and partner countries by strengthening a network of experts in the field;
- exemplified the importance of close cooperation in the field of CIP between NATO and partner countries' defence and security relevant institutions through the analysis of consequences of the Ukraine crisis;
- developed a set of tools to deter and defend against adversaries posing risks to critical infrastructure;
- provided concrete recommendations for strengthening the collaboration between NATO and partner countries within the North as well as actors interested in addressing risks to critical infrastructure and preventing the potential consequences of hybrid conflicts. *This workshop was led by experts from Sweden and Belgium* [ref. G5123].

ADVANCED NET ZERO ENERGY WATER AND WASTE TRAINING

The “triple net zero” approach aims at improving the efficiency of the production and consumption of energy, water and solid waste in the military forces. A number of countries, including Sweden have already implemented this approach to their installations and can serve as good examples for lessons learnt. This Advanced Training Course (ATC) proposes to transfer the knowledge gained over the last 2 years in this field to target groups, including military engineers and decision makers to help them better plan, design and integrate innovative technologies in military installations. *This ATC took place in April 2016 in Wiesbaden, Germany, and was jointly led by Germany and Sweden [ref. G5093].*

EVALUATION SUPPORT FOR COUNTERING VIOLENT EXTREMISM AT THE LOCAL LEVEL

Many organisations that implement programmes aimed at countering violent extremism (CVE) do not have the capacity to conduct evaluation activities to judge the success of their programmes. This multi-year project aims to create long-term capacity in CVE evaluation and contribute to the overall effectiveness, transparency and accountability of the CVE programmes. The project will bring together NATO member and partner country experts to design and implement programme evaluations tailored to local contexts and needs. The project also aims to facilitate the integration of scientifically derived knowledge into security policies with the scope of demonstrating that evaluation data can be used both by practitioners and policy makers to improve and further disseminate CVE solutions and best practices. *This multi-year project is led by Harvard T.H. Chan School of Public Health and the Swedish Civil Contingencies Agency (MSB) [ref. G5556].*

HIGH-PRESSURE CRYSTALLOGRAPHY: STATUS ARTIS AND EMERGING OPPORTUNITIES IN CBRN DEFENCE

This 2016 Advanced Study Institute focussed on the theme of crystallography at high pressures, examining and evaluating new opportunities in CBRN defence and other security-related issues. It brought together world experts in high-pressure crystallography research to share and enhance their expertise and to train young participants in state of the art high pressure methods for the early detection, analysis of, and defence from CBRN agents and explosive devices. *This activity was led by experts from Sweden and the United States [ref. G5021].*



CBRNE EXPOSURE ASSESSMENT AND MEDICAL COUNTERMEASURES

This Advanced Research Workshop (ARW), which took place in Lyon in May 2017, aimed at bringing together scientists and experts from academia, government and military working in the field of medical countermeasures against CBRN agents to share information and knowledge and to consider new avenues for research and innovation. Ultimately this resulted in increased collaborative networks and the emergence of new research and development ideas for an adapted and improved CBRN defence. The workshop will primarily be a scientific meeting with limited industry participation, focusing on research and innovation to meet the needs. *This activity was led by experts from Sweden and France [ref. 5350].*



The NATO Science for Peace
and Security Programme

www.nato.int/science