Developing Practical Cooperation through Science

Tunisia has been actively engaged within the framework of the NATO Science for Peace and Security (SPS) Programme since 2001.

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 forecasting 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.

TUNISIA

As a Mediterranean Dialogue (MD) Partner, Tunisia is active in the SPS Programme with two ongoing activities. At present, the leading areas for cooperation with Tunisia include CBRN Defence and Security-related Advanced Technology. Below are some examples of ongoing and completed activities led by scientists and experts from Tunisia and NATO member countries under the framework of the NATO SPS Programme.

Cooperative Activities

MARITIME TACTICAL AND OPERATIONAL SIMULATIONS

This Advanced Training Course (ATC) brought together experts from the NATO Science & Technology Organization Centre for Maritime Research and Experimentation (CMRE) and the Ministry of National Defence of Tunisia in two sessions in February and March 2019. The purpose of the ATC was to discuss Modelling & Simulation (M&S) in the maritime domain in response to the needs expressed by the Tunisian Navy to upgrade a maritime simulator currently established at the Naval Base La Goulette. Upgrades to the simulator will be according to state-of-the-art technology and NATO standards, which will guarantee interoperability in this domain. This project was led by experts from Tunisia and Italy [ref. G5595].

www.nato.int/science
CBRN FIRST RESPONDERS LIVE AGENT TRAINING

This ATC enabled first responders to survey, monitor and manage the consequences of a CBRN incident. Organized in 2016, the training was designed to assist nations in improving their civil emergency plans, complement national training systems, and improve cooperation between first responders. The ATC provided a structured, skills-based education and training programme for civilian and military personnel for the detection, identification and decontamination of CBRN agents. Public security will be enhanced through promoting advanced technologies, methodologies and best practices in preparation for potential CBRN threats. This project was led by scientists from Tunisia and the Czech Republic [ref. GS279].

SELF-DECONTAMINATING SMART TEXTILES FOR CHEMICAL WARFARE AGENTS DEGRADATION (CATALEX)

Chemical warfare agents (CWA) continue to constitute a considerable threat, and the decontamination and the protection of civilian population from exposure to hazardous chemicals is an important challenge. This project aims to create easy-to-use, self-decontaminating textiles for effective protection, and with the ability to decompose harmful chemicals, namely those used as warfare agents. The innovative hybrid textiles are also expected to be lighter, more durable and more cost-effective than current protective systems. Through the design and elaboration of smart textiles endowed with self-decontaminating properties based on a photocatalytic nanotechnology, this project contributes to the protection, decontamination and destruction of CWAs. This project was led by scientists from Tunis, France, Portugal and Egypt [ref. G4842].

MULTI-SENSING PLATFORM FOR WARFARE AGENT DETECTION

There is a growing awareness that chemical warfare agents (CWA) pose major threats to populations. Having access to the required skills in surveillance and threat detection has become, as a consequence, a higher priority than ever. In this SPS Multi-Year Project (MYP), subject matter experts from Tunisia worked with Czech Republic, Spain, and the United States to develop an innovative multi-modular sensing approach to overcome some of the limitations encountered in the existent, state-of-the-art warfare agent detectors. The project led to the construction of a portable sensing prototype, capable of detecting traces of CWAs with maximum accuracy in a minimum amount of time. This project highlights the relevance of civil science and technology to ensure the homeland security of NATO and partner countries by developing a rapid and reliable screening instrument to protect citizens from terrorist attacks. In 2015, Professor Adnane Abdelghani, the Tunisian lead scientist and project co-director was awarded the Prize for Best Scientific Researcher by the President of Tunisia. This project was led by experts from Tunisia, Czech Republic, Spain, and the United States [ref. G4511].