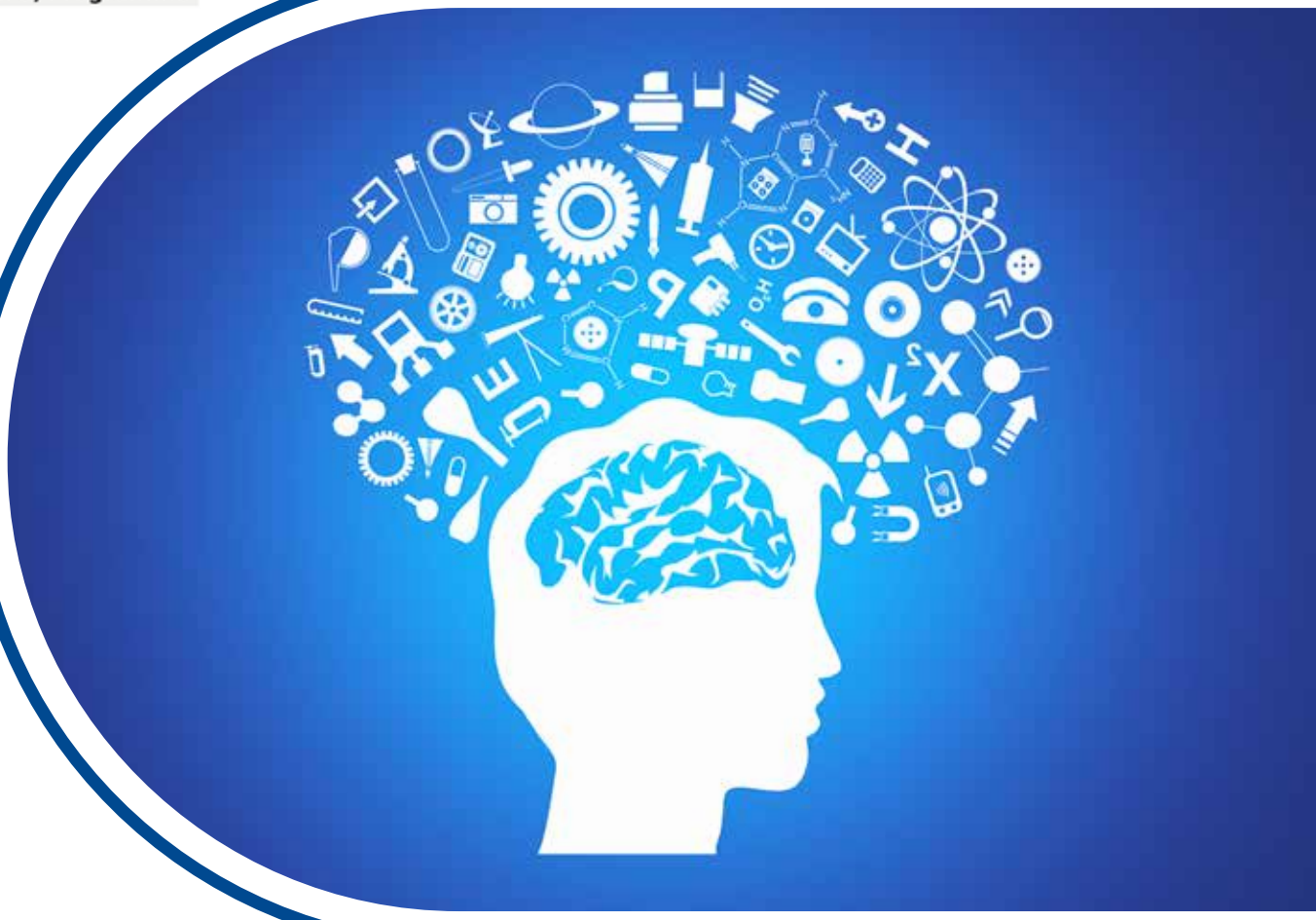
NATO OTAN

Science for Peace and Security (SPS) Programme



SCIENCE FOR PEACE AND SECURITY (SPS) PROGRAMME

Practical Cooperation with Spain

INFORMATION DAY IN SPAIN

13 SEPTEMBER 2023

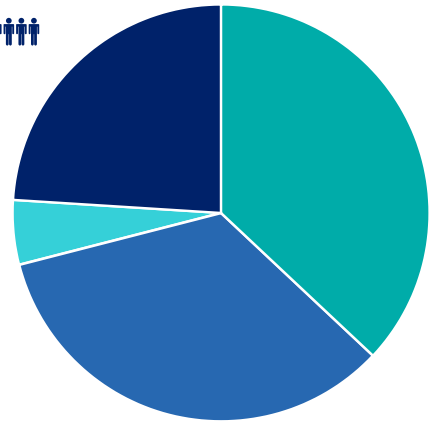
GOBIERNO DE ESPAÑA | MINISTERIO DE ASUNTOS EXTERIORES Y DE COOPERACIÓN | MINISTERIO DE CIENCIA E INNOVACIÓN | MINISTERIO DE DEFENSA

Facts and figures

Since 1982, more than 240 experts from NATO and partner countries have cooperated in the framework of SPS activities led by Spain, as follows:

24 Advanced Study Institutes led by **32 experts**

5 Advanced Training Courses led by **10 experts**



37 Multi-Year Projects led by **150 scientists**

34 Advanced Research Workshops led by **48 experts**

Over the past 40 years, the SPS Programme has facilitated the exchange of more than **485 young scientists** from Spain.

Thanks to the SPS Programme, **17 experts** from Spain have visited scientific establishments in NATO partner countries with the aim of knowledge sharing and exchange of good practices.

49 scientific books

31 NATO and partner countries have cooperated with Spain through SPS activities:

- Albania
- Algeria
- Australia
- Belarus*
- Belgium
- Colombia
- Czech Republic
- Egypt
- Finland
- France
- Georgia
- Germany
- Hungary
- Israel
- Japan
- Jordan
- Republic of Korea
- Lithuania
- Morocco
- North Macedonia
- Poland
- Romania
- Russian Federation*
- Serbia
- Slovakia
- Switzerland
- Tunisia
- Türkiye
- Ukraine
- United Arab Emirates
- United States

*The partnerships with Afghanistan, Belarus and Russia are currently suspended following North Atlantic Council decisions related to the security environment. The activities mentioned here pre-date this decision.

Overview of the SPS practical cooperation with Spain

The NATO Science for Peace and Security (SPS) Programme fosters civil security-related practical cooperation and dialogue between NATO Allies and Partner countries based on scientific research, technological innovation and knowledge sharing. The Programme offers funding, expert advice and support to customised, non-military activities that respond to NATO's strategic objectives. A vast network of universities and institutions across the world are participating in SPS activities, which bring together scientists, experts and policy makers in an effort to address mutual security challenges and contribute to technical and scientific advancement.

As a longstanding NATO Ally, Spain's participation in the SPS Programme dates back to 1982. Since then, Spanish scientists and experts have led more than 100 SPS activities in cooperation with NATO Allies and Partner countries in areas such as Counter-terrorism, Energy Security, Cyber Defence, CBRN Defence, Advanced Technology, and Mine and Unexploded Ordnance Detection and Clearance. These activities have achieved impressive results, expanding the boundaries of scientific knowledge, strengthening professional networks and advancing NATO's strategic agenda by addressing a wide range of emerging security challenges in cooperation with Partners from the South, East and across the Globe.

In the South, Spain has initiated a number of SPS activities with both Mediterranean Dialogue (MD) and Istanbul Cooperation Initiative (ICI) countries, focusing on CBRN Defence and Women, Peace and Security (WPS). For instance, contributing to the NATO Defence and related Security Capacity Building Initiative package for Tunisia, Spanish scientists are currently developing mobile laboratories for the detection of biological and chemical agents in Morocco and Tunisia. In 2020, the project was adapted to include SARS-COV-2 agents in the library of detectable pathogens. Furthermore, in the fight against CBRN agents, Spanish-Israeli collaborations have determined the therapeutic value of the blood-brain barrier permeable drugs AD4 and TXM-peptides in the treatment of severe acute organophosphorus poisoning (OPP), acute acrylamide (ARC) neurotoxicity and acute methylmercury (MeHg) poisoning. They have also identified new therapeutic targets and potential treatments for organophosphorus-induced delayed neuropathy, and have developed a compact portable system for the detection of explosives for use by police and security officers. Broadening the scope of their activities and regional outreach, Spanish experts have also worked together with counterparts from the United Arab Emirates in the implementation of the Advanced Research Workshop 'Enhancing Women's Role in International Countering Violent Extremism Efforts', which took place in November 2017 in Madrid, Spain.

Keeping the focus on the South, for nearly a decade, the SPS Programme has been successfully collaborating with the Counter Improvised Explosive Devices Centre of Excellence (C-IED CoE) in Madrid. The C-IED CoE has been involved in multiple SPS activities, contributing via specialized expertise to the Defence and Related Security Capacity Building (DCB) Initiative packages for Iraq and Jordan, as well as to Advanced Training Courses in Egypt.

Spain's engagement with NATO's European Partners within the framework of the SPS Programme has focused primarily on the field of Advanced Technology and has involved countries such as Finland, North Macedonia and Switzerland. One current Multi-Year Project, initiated in 2022 with Finnish counterparts, is developing low-cost sensors capable of detecting and identifying airborne chemical and biological warfare agents. Two follow-on projects, developed with North Macedonia, are delivering graphene- and polymer-sensing devices based on novel composite materials with improved properties for gas-sensor applications (by application of IR lasers for ablation of graphene/polymer composite materials). Equally important, two SPS projects, completed in cooperation with Switzerland, laid the foundations for an innovative system that identifies intruders and attackers in the electromagnetic space, and developed a new hand-held, battery-powered, low-cost biosensor device to be employed for detecting minute quantities of pathogen and infectious microorganisms, such as E.coli bacteria in contaminated water.

In the current international security context, cooperation with partners in the East is concentrated on expanding the research on material sciences and cyber security. To this end, two advanced technology-related Multi-Year Projects, led by Spanish and Ukrainian scientists, are developing novel materials by combining hard Si3N4 ceramics

with soft and slippery nanoparticles, as well as new semiconductor nanomaterials with predetermined properties to be used as ink in 3D-printing technologies. Moreover, Spanish and Georgian experts are collaborating on a new Cyber Defence project that will develop and implement innovative re-writing mathematical methods for analysing the safety and security of state-of-the-art cyber physical systems (CPSs).

Spain has also championed partnerships with worldwide NATO Partners such as Australia, Colombia, Japan and the Republic of Korea. For example, a novel cable-driven robotic device for exploring and detecting anti-personnel mines and unexploded devices is currently under development by Spanish and Colombian scientists. The device will help Colombian authorities detect and clear anti-personnel mines through the provocation of controlled explosions of the mines. Moreover, hybrid energy systems integrating fuel cells with rechargeable battery technologies were designed by Spanish and Australian researchers looking to deliver improved energy sources for unmanned vehicles. Another Multi-Year Project, developed in conjunction with Japanese scientists, improved the effectiveness of infrared photodetectors with specially designed nanostructures. And cooperation with experts from the Republic of Korea has produced a high-sensitive micro-machined sensor head for the detection of nerve agents as well as a new compact sensor system that can identify electromagnetic signals and their incoming direction on the battlefield using Unmanned Aerial Vehicles (UAVs). This last project was awarded the NATO Science Partnership Prize in security-related advanced technologies in a ceremony marking the 60th Anniversary of the SPS Programme.

This is only a taste of Spain's contributions to the scientific advances made through the SPS Programme in collaboration with a wide variety of NATO partners as well as a hint of what might be possible in the future. And in fact, creating future opportunities for cooperation is why we are here. The purpose of this SPS Information Day is to take a closer look at the SPS Programme: to take stock of the ongoing cooperation with Spain, and to explore potential new activities by engaging with experts and building new networks. As SPS enjoys a high public-diplomacy profile, this event is also an opportunity to reflect on NATO's commitment to cooperative security, the importance of partnerships and the benefit of cooperation.

You are all invited to make use of this event in the best way possible in order to enable fruitful discussions, new ideas and successful collaborations.

About the SPS Programme

The NATO Science for Peace & Security (SPS) Programme enables scientists, experts and officials from NATO Allied and Partner countries to work together to address emerging security challenges and their impacts around the globe. The SPS Programme provides funding and technical advice for security-related activities through four established grant mechanisms: Multi-Year Projects (MYPs), Advanced Research Workshops (ARWs), Advanced Training Courses (ATCs) and Advanced Study Institutes (ASIs). SPS activities are demand-driven, modular and designed to meet the requirements of participating nations and end-users. All SPS activities contribute to the NATO's strategic objectives, have a clear link to security and are shaped by SPS Key Priorities.

The SPS Programme also has a high public diplomacy value for NATO, providing the Alliance with separate, non-military communication channels by bringing together experts from NATO and Partner countries, often in situations or regions where other forms of dialogue, more directly focused on defence and security, are difficult to establish. Accordingly, the Programme allows NATO to become actively involved in such regions, often serving as the first concrete link between NATO and a new partner.

NATO establishes links with the civil scientific community through the SPS Programme and its cooperative activities in security-related fields such as Counter-Terrorism, Cyber Defence, CBRN Defence, Energy Security, Climate Change Security, Advanced Technology (EDTs, Data, AI), Mine and Unexploded Ordnance detection and Clearance, and Human and Social Aspects of Security. Civil actors, including researchers, academics and government experts play an important role in helping the Alliance identify, understand and respond to contemporary vulnerabilities and threats. SPS offers unique ways to engage NATO nations and their Partners in meaningful, practical cooperation resulting in tangible technical and scientific advances.

Since the Programme's inception, it has played a key role in establishing a wide international network of scientists and experts from more than 70 NATO Allies and Partner nations. Every year, approximately 2000 experts participate in SPS activities and help to build capacity in Partner nations: supporting NATO efforts in the fight against terrorism, facilitating the development of security-related advanced technologies and fostering expert networks to address questions related to issues such as cyber defence and the role of women in peace and security. More than 20 Nobel Laureates have been involved in the SPS Programme, a testament to the scientific excellence supported by the SPS Programme. SPS also actively supports young scientists through its activities, broadening their professional network and providing practical opportunities to apply their expertise.

SPS Grant Mechanisms

The SPS Programme supports collaboration through four established grant mechanisms. Interested applicants must develop a collaborative activity that fits within one of these formats.

Multi-Year Projects (MYP)

WHAT
Research and Development (R&D) projects that enable scientists from NATO and Partner nations to collaborate on applied R&D and capacity-building projects that result in new civil-science advancements with practical applications in security and defence fields. MYPs enable participating countries to strengthen networks in scientific communities while building stronger scientific infrastructure in their home countries. Sustainability is ensured through the involvement of end-users, who offer advice and guidance throughout the lifecycle of projects with the aim of taking up and implementing the results. Projects involving more than one NATO and one partner nation are encouraged, as is the participation of young scientists.

DURATION
R&D Projects have an average duration of 24 to 36 months.

BUDGET
NATO funds are provided to cover project-specific costs linked to specific milestones such as scientific equipment, computers, software and training of project personnel and young scientists. Approximately half of the budget may be allocated to equipment; 20% to training and travel; and 15% to stipends for young scientists. These percentages may vary according to the needs of each project. Project budgets usually range between EUR 250,000 – 400,000 over the entire duration of the project.

SPS Events

1

Advanced Training Courses (ATC)

WHAT
Tailor-made, modular courses designed to enable specialists in NATO countries to share their security-related expertise in one of the SPS Key Priority areas. ATCs are not intended to be lecture-driven, but to be intensive, interactive, and practical in nature. These courses contribute to the training of experts in partner nations and enable the formation and strengthening of international expert networks.

DURATION
5-7 working days

TARGET AUDIENCE
20-50 trainees primarily from partner nations. These trainees are chosen on the basis of their qualifications and experience, and the benefit they may draw from the ATC for their future activities.

BUDGET
On average EUR 60,000. The SPS grant covers direct organizational costs, travel, and living expenses of all specialists, and attendance costs of trainees from countries eligible to receive NATO funding.

2

Advanced Research Workshops (ARW)

WHAT
ARWs are advanced-level discussions that provide a platform for experts and scientists from different countries to share their experience and knowledge on security-related topics. These events aim to identify directions for future actions to address contemporary security challenges, and often are the starting points for follow-on activities such as MYPs.

DURATION
2-5 working days.

TARGET AUDIENCE
20-50 participants. It is preferable for the workshop to be held in the partner nation co-leading the event.

BUDGET
Typically EUR 30,000-40,000. The SPS grant is intended to cover direct organizational expenses of the ARW, the travel and living expenses of key speakers, as well as the attendance of non-speakers from NATO member countries and partner nations unable to obtain support from other sources.

3

Advanced Study Institutes (ASI)

WHAT
ASIs are high-level tutorial courses conveying the latest developments in topics of relevance for NATO and the SPS Key Priorities to an advanced-level audience.

DURATION
7-10 working days.

TARGET AUDIENCE
60-80 pre- and post-doctoral level scientists with relevant backgrounds in the subject matter of the course. Young scientists from NATO partner nations are especially encouraged to attend.

BUDGET
On average EUR 60,000. The SPS grant pays for direct organizational costs, travel and living expenses for up to 15 lecturers, and for the attendance of students from countries eligible to receive NATO funding.

SPS Key Priority Areas

All activities funded under the SPS Programme must address one or more of the SPS Key Priorities and have a clear link to security.

1 Facilitate mutually beneficial cooperation on issues of common interest, including international efforts to meet emerging security challenges.

a Counter-Terrorism

- Methods for the protection of critical infrastructure, supplies and personnel;
- Human factors in the defence against terrorism;
- Detection technologies against the terrorist threat of explosive devices and other illicit activities;
- Risk management, best practices and technologies in response to terrorism.

b Energy Security

- Innovative energy solutions for the military; battlefield energy solutions, renewable energy solutions with military applications;
- Energy infrastructure security;
- Maritime aspects of energy security;
- Technological aspects of energy security.

c Cyber Defence

- Critical infrastructure protection, including sharing of best practices, capacity building and policies;
- Support in developing cyber defence capabilities, including new technologies, and support to the construction of information technology infrastructure;
- Cyber defence situation awareness.

d Defence against Chemical, Biological, Radiological, and Nuclear (CBRN) Agents

- Methods and technology to protect against, diagnose effects of, detect, decontaminate, destruct, dispose and contain CBRN agents;
- Risk management and recovery strategies and technologies;
- Medical countermeasures against CBRN agents.

e Environmental Security

- Security issues arising from key environmental and resource constraints, including health risks, climate change, and water;
- Scarcity, and increasing energy needs, which have the potential to significantly affect NATO's planning and operations;
- Disaster forecast and prevention of natural catastrophes;
- Defence-related environmental issues.

2 Enhance support for NATO-led operations and missions.

- Provision of civilian support through SPS Key Priorities;
- Provision of access to information through internet connectivity as in the SILK-Afghanistan Programme;
- Cultural and social aspects in military operations and missions;
- Enhancing cooperation with other international actors.

3 Enhance awareness on security developments including through early warning, with a view to preventing crises.

a Security-related Advanced Technology

- Emerging technologies including nanotechnology, optical technology, micro satellites, metallurgy and the development of Unmanned Aerial Vehicle (UAV) platforms.

b Border and Port Security

- Border and port security technology;
- Cross border communication systems and data fusion;
- Expert advice and assessments of border security needs and best practices.

c Mine and Unexploded Ordnance (UXO) Detection and Clearance

- Development and provision of advanced technologies, methodologies and best practices;
- Solutions to counter improvised explosive devices (IED).

d Human and Social Aspects of Security Related to NATO's Strategic Objectives

4 Any project clearly linked to a threat to security not otherwise defined in these priorities may also be considered for funding under the SPS Programme. Such proposals will be examined for links to NATO's strategic objectives (e.g., hybrid warfare).

How to Apply

Who Can Apply

Applications for funding must be submitted jointly by an expert who is a national of, resident and employed in a NATO member country, and an expert who is a national of, resident and employed in a partner nation. Please find an overview of NATO and partner countries below:

NATO Countries

Albania, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands, the Republic of North Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Türkiye, United Kingdom, United States.

Eligible NATO Partners

Algeria, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bosnia and Herzegovina, Colombia, Egypt, Georgia, Iraq, Ireland, Israel, Japan, Jordan, Kazakhstan, the Republic of Korea, Kuwait, Kyrgyz Republic, Malta, Mauritania, the Republic of Moldova, Mongolia, Morocco, New Zealand, Pakistan, Qatar, Serbia, Sweden (the Invitee), Switzerland, Tajikistan, Tunisia, Turkmenistan, Ukraine, United Arab Emirates, Uzbekistan.

When and how to apply

- SPS accepts applications in line with the SPS grant mechanisms, and in response to calls for proposals advertised on the SPS website. The Programme may publish calls in two formats:
- Open Calls encourage applications addressing any of the SPS Key Priorities.
- Special Calls invite applications addressing specific priorities and themes of particular relevance at the time of publication.als.

Details on how to submit new applications are explained in each call for proposals.

Please consult the NATO SPS website for the latest application deadline schedule.

For queries prior to the submission of an application, potential applicants may contact SPS at: sps.info@hq.nato.int.

Applications for funding should be sent to:

sps.applications@hq.nato.int

Application and Approval Procedure

- At least one NATO Country Expert
- At least one Partner Country Expert must collaborate

- Select a topic (in line with the SPS Key Priorities)
- Select a grant mechanism (MYP, ARW, ATC, ASI)

- Submit your application to the SPS Programme

- Peer review by the Independent Scientific Evaluation Group (ISEG)
- Approval by PCSC (Allied countries)

- After receiving the Award Letter from NATO SPS staff, start your collaboration!

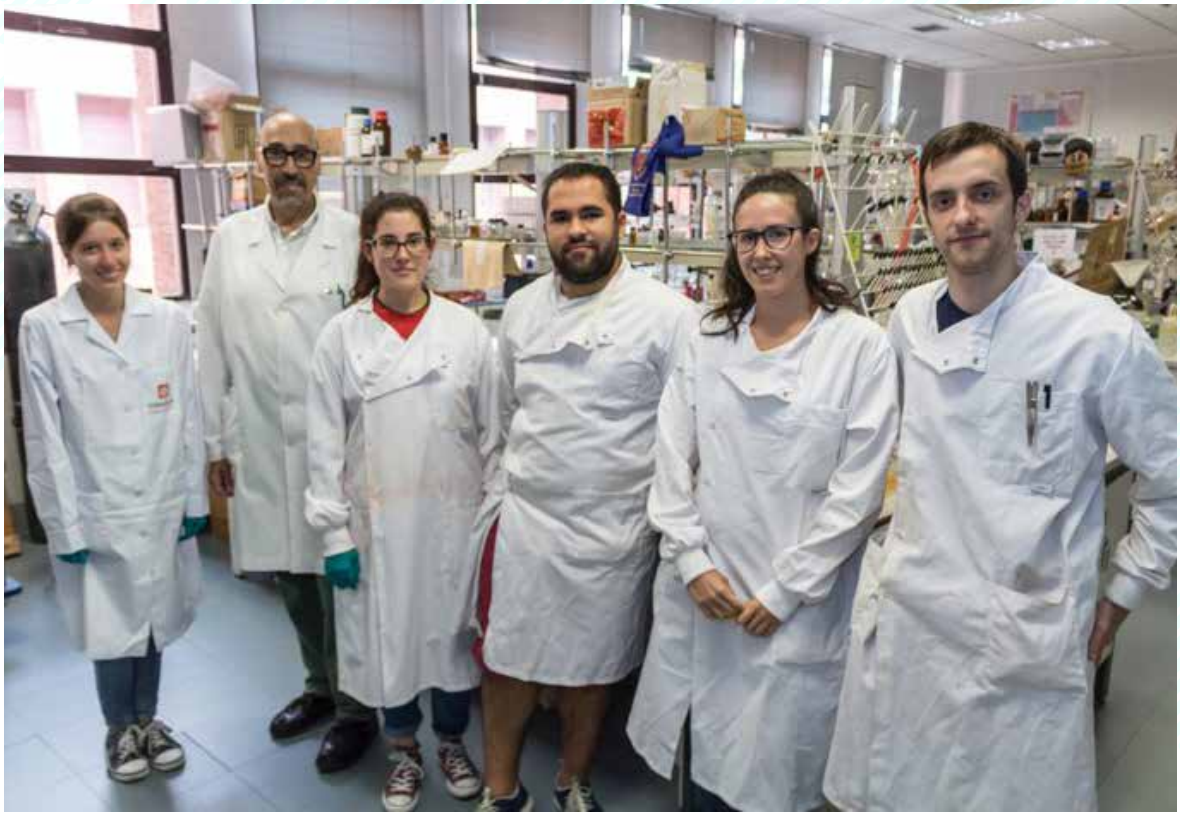
Highlights of SPS activities led by Spain

COUNTER-TERRORISM

COMPLETED

MYP *'Development of New Chemical Sensors and Optical Technologies for Fast and Sensitive Detection of Improvised Explosives'*

Participating countries: *Spain (University of Burgos), Israel (Technion - Israel Institute of Technology).*



Completed in 2022, this Multi-Year Project developed a compact, portable system for the detection of explosives to be used by police and security officers. It combined two independent sensor technologies: a chemical sensor and Multiphoton Electron Extraction Spectroscopy (MEES). The system is able to take measurements from the same sample simultaneously, and provide a robust detection sensitivity while limiting false positive events. As an outcome, the project has provided new knowledge and technology in counter-terrorism, generating new detection technologies against the terrorist threat for explosive devices and other illicit activities.

https://www3.ubu.es/otan

CYBER DEFENCE

NEW

MYP *'Symbolic rewriting methods for safety and security of critical cyber-physical systems'*

Participating countries: *Spain (Universitat Politècnica de València), Georgia (Institute of Applied Mathematics of Tbilisi State University), Norway (University of Oslo), Ukraine (Kherson State University), Romania (West University of Timisoara), Republic of Korea (Pohang University of Science and Technology), France (Université Sorbonne Paris Nord).*

The goal of this Multi-Year Project is to develop and implement innovative and practical rewrite-based mathematical methods for analyzing the safety and security of state-of-the-art cyber-physical systems (CPSs). The project starts from fundamental research on new mathematical methods and will then derive rewriting methods directly applied to real use cases, in fields such as critical infrastructure, nuclear power plants, hardware development, aerospace, avionics and railway systems. The project's innovation will help improve CPS robustness, functionality, time to market and the ability to withstand malicious attacks.

CBRN DEFENCE

MYP *'DIMLAB-Deployable CB Analytical Laboratory. Application of Nano- Bio- Technology'*

ONGOING

Participating countries: *Spain (Association for the Development Education, Law, Training, Art and Security [ADELFAS]), Tunisia (National Institute of Applied Science and Technology of Tunis), Morocco (Faculty of Science, University Mohammed V Rabat).*

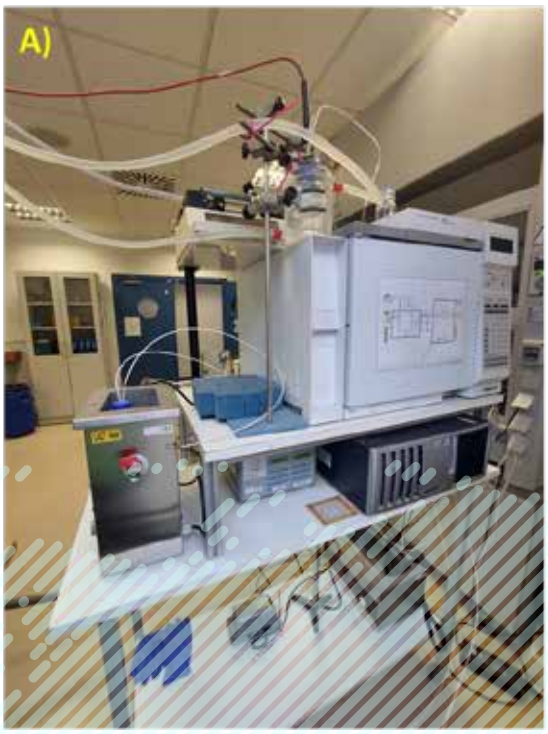
November 2019 marked the official launch of this Multi-Year Project (MYP). Two dual-use (civil and military) deployable laboratories, one chemical and one biological, will be built for Tunisia and Morocco, respectively. The project will focus on the application of nanobiotechnology to develop a fully operational, chemical-biological analytical turnkey solution for the use of academia and national institutions. In 2020, the project has been adapted to include the SARS-COV-2 agent in the library of detectable pathogens. This project is a key component of the SPS contribution to the DCB package for Tunisia, which listed CBRN defence as a priority area of cooperation with NATO in its most recent Individual Partnership and Cooperation Programme.

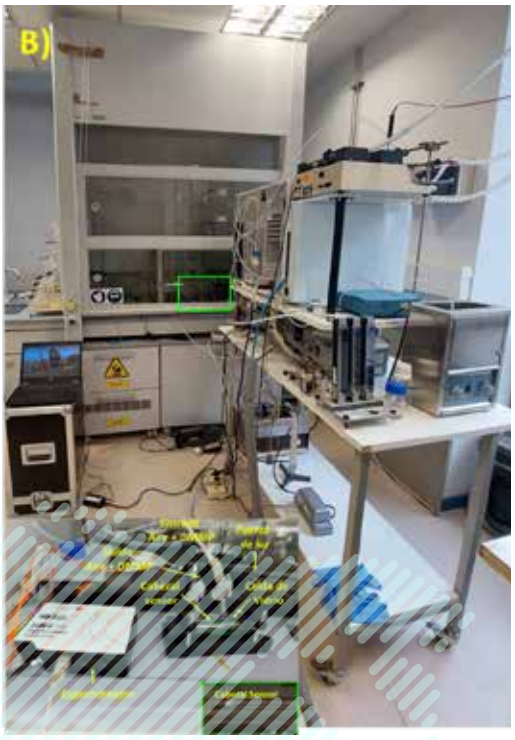
https://www.dimlab-project.net/

COMPLETED

MYP *'Nerve Agent Detection using a Compact Infrared Sensor'*

Participating countries: *Spain (Centre Tecnològic de Telecomunicacions de Catalunya [CTTC]), Republic of Korea (Jeonbuk National University [JBNU]), United States of America (The University of Texas at Dallas [UTD].*





Completed in 2022, this Multi-Year Project (MYP) developed a high-sensitivity micro-machined sensor head for the detection of nerve agents. The sensor head uses state-of-the-art technology, and is integrated in a lightweight 3D-printed package to produce a stand-alone compact sensor with integrated display. The sensor will be delivered to the end user (the Ministry of Defence of Spain) for laboratory testing and further joint-sensor development, for the ultimate deployment of the sensor in unmanned vehicles for wireless, remote monitoring of contaminated sites.

https://www.cttc.cat/project/nerve-agent-detection-using-a-compact-infrared-sensor/

https://www.youtube.com/watch?v=H_eV3c1y_ZQ

ADVANCED TECHNOLOGY

ONGOING

MYP *'Tuned Optical Sensors for Detection and Identification of Airborne Hostile Agents (HOSTITUNOP)'*

Participating countries: ***Spain (Universidad Autónoma de Madrid), Finland (University of Turku), Lithuania (Center for Physical Sciences and Technology).***

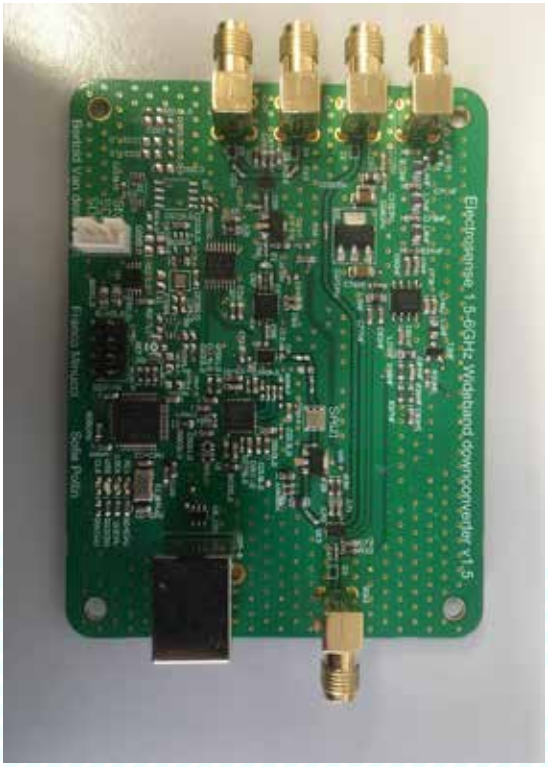
This MYP, launched in September 2020, aims to develop low-cost optical sensors capable of detecting and identifying airborne chemical warfare agents. The project will investigate an optical sensor technology based on the interferential properties of multi-layered nanostructured materials. Cost-effective sensors such as those developed by this project will increase accessibility, allowing sensor to be used in small disposable handheld devices, as well as on Light Detection and Ranging (LiDAR) platforms, which allow for continuous remote sensing and monitoring of the environment for the presence of hostile CBRN agents. For the latter application, high power supercontinuum laser technology will also be investigated. Additionally, it will be possible to develop them into a network of connected devices that, when deployed in large quantities over a conflict area, could provide real-time monitoring and mapping of the area.

https://hostitunop.com

MYP *'Large Scale Collaborative Detection and Location of Threats in the Electromagnetic Space (SOCRATES)'*

COMPLETED

Participating countries: *Spain (IMDEA Networks Institute), Switzerland (Electrosense), Belgium (KU Leuven).*



Completed in 2021, this Multi-Year Project laid down the foundations for an accurate, autonomous, rapid and secure system that identifies intruders and attackers in electromagnetic spaces before a threat becomes serious. The system also learns about the characteristics of the threat (physical layer features) and its geographic location, and provides this information to the appropriate authorities, law enforcement agencies and decision makers. The system was built upon the current Electrosense system, an initiative led by the members of this project, which uses low-cost spectrum sensors. It is the result of joint efforts among the three project partners, who developed novel hardware designs, algorithms and implementations that have converged into a final demonstrator. The results of the project have been pivotal for follow-on initiatives by project members, such as its integration into the 5G ecosystem.

https://www.nato.int/nato_static_fl2014/assets/pdf/2021/12/pdf/2112-sps-flyer-socrates.pdf

https://socrates.networks.imdea.org/

https://networks.imdea.org/protecting-the-spectrum-users-with-internet-of-things/

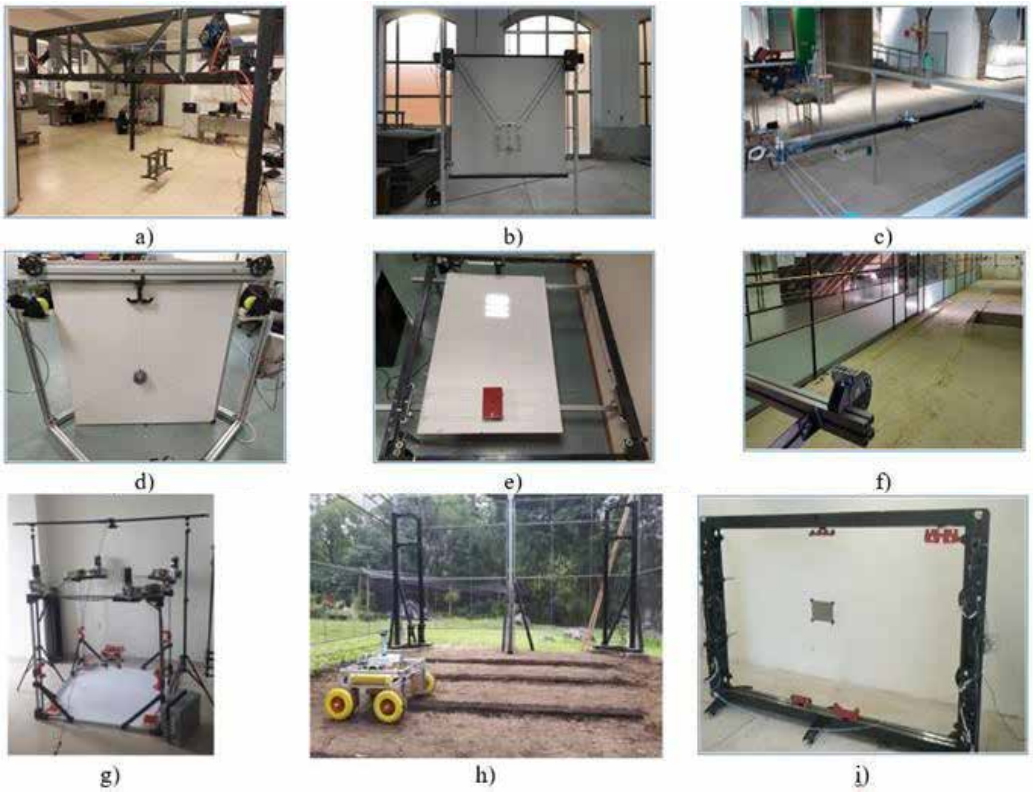
MINE AND UNEXPLOADED ORDNANCE DETECTION AND CLEARANCE

NEW

MYP *'Multi Cable-Driven Robot for Detecting/Detonating Unexploded Mines and Ordnance'*

Participating countries: *Spain (University of Castilla-La Mancha), Colombia (University de Ibagué), Italy (University of Cagliary), Italy (University of Cassino and Southern Lazio) Slovakia (University of Zilina), Spain (Universitat Politècnica de València).*

This Multi-Year Project aims to develop a novel cable-driven robotic device, which sweeps large areas of terrain to detonate and detect anti-personnel mines and unexploded ordnances. The tool of the robotic device will also include a vision system to register its activities. A dedicated software will be developed to manage the digital repository. The registered images will be used to develop an artificial-intelligent application for a premature detection of anti-personnel mines using only computed vision. The device to be developed will support authorities in Colombia to detect and clear anti-personnel mines through controlled detonation of mines.



MYP *'Comprehensive Package for Strengthening Jordanian Counter-IED Capabilities'*

COMPLETED

Participating countries: ***Spain (C-IED COE), Jordan (JAF EOD-IEDD Bn), Ireland (Irish Defence Forces Training Center).***

Following the training courses delivered to the Jordanian Armed Forces in 2015 on counter-IED strategies, the primary goal of this project under the DCB package for Jordan was to bolster its C-IED capabilities and assist in developing a more robust national and operational level programme capable of addressing IED threats. This was achieved through the provision of a comprehensive training package, train-the-trainer programme, and assistance in the implementation of national interagency C-IED doctrines and programmes (IED Lexicon, Reporting, and Lessons Learned programmes). Altogether, 19 iterations of six different training courses and events were completed both in Jordan and abroad with 241 Jordanian military and law enforcement personnel attending the various training events. This four-year project has provided the necessary support to Jordanian Defence and Security Forces to maintain and enhance a flexible, highly-responsive C-IED capability in order to withstand the current and any anticipated future IED threat.

Notes

Notes

Science for Peace and Security (SPS) Programme

Emerging Security Challenges Division (ESCD)

www.nato.int/science

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sps.info@hq.nato.int

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NATO Science for Peace
and Security Programme

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