

2017 Alpbach Technology Symposium

25 August 2017, Breakout Session 11:
Konflikt, Kooperation oder beides: Wie entsteht Innovation

Abstract

Susanne Michaelis, Officer Environment and Smart Energy, Emerging Security Challenges Division, NATO - North Atlantic Treaty Organization Headquarters, Brussels

NATO Smart Energy – From Conflict to Innovation

The need to improve the energy efficiency in the military (Smart Energy) was brought to the attention of the Alliance in 2011 via the Emerging Security Challenges Division (ESCD). This division was created a year earlier with the mandate to address a growing range of non-traditional risks and challenges through a holistic approach, including civil-military interaction.

Following a series of expert briefings that the ESCD organised to explain the significant risks that the high energy demand in operations present, the Heads of State and Government declared in 2012 "We will improve the energy efficiency of our military forces".

To achieve such a shift in thinking, the "NATO Smart Energy" initiative was launched bringing together a multi-disciplinary stakeholder community to raise awareness, to share information and best practices, to support research and innovation, and to transfer technologies from the civilian to the military sector. To this end, the conference & exhibition "Innovative Energy Solutions for Military Application" (IESMA), which took place in Vilnius for the third time in 2016, has drawn an increasing number of experts from academia, the private and the military sector. IESMA events are supported by NATO's Science for Peace and Security (SPS) Programme.

An important milestone was reached when ESCD integrated a Smart Energy unit in the military exercise "Capable Logistian 2015" that took place in Hungary. Fourteen companies, the German Bundeswehr and the U.S. Army contributed innovative technologies and expertise for efficient energy production, storage, consumption and management. Several prototypes were showcased as integrated components of smart micro grids or as a mobile island power solutions. Furthermore, innovative technologies were used for efficient tent insulation, lights, climate conditioners and water purification. The Smart Energy

unit responded successfully to scenarios, such as main power cuts, diesel contamination and a flood crisis.

The exercise concluded that new standards are needed for more efficient, sustainable, mobile and autonomous capabilities for future multinational military forces.

The next phase of NATO Smart Energy has started under the NATO Smart Defence project "Smart Energy Training and Assessment Camp (SETAC)" that serves as an umbrella to bring willing nations together for advancing best practices and technologies, as well as for developing standards to ensure the innovative technologies will become interoperable.

More information on NATO Smart Energy can be found at www.natolibguides.info/smartergy.