Interoperability between Alliance members as well as with Alliance partners is crucial. Standardization within NATO has been, by any measure, a 60-year normative success story. My aim in writing this article is to commend the thousands of unnamed contributors to NATO’s standardization efforts, who have worked together coherently for many decades in order to achieve its goals. Within this context, the importance of standardization for NATO is clearly stated in the Strategic Concept adopted at the Lisbon Summit in 2010: “We will preserve and strengthen the common capabilities, standards, structures and funding that bind us together”.

Although the NATO operating environment has changed dramatically from that of the Cold War era and, despite continuing changes today, NATO’s common goal remains unchanged: interoperability. Within NATO we define interoperability as “the ability to act together coherently, effectively and efficiently to achieve Allied tactical, operational and strategic objectives”. Standardization is one way, the most important, to achieve interoperability in accordance with NATO’s policy documents.

NATO views standardization as a process whereby doctrine, as well as tactics, techniques and procedures are developed in harmony. This process enables the Allied nations to operate effectively together while optimising the use of resources. In the end, the aim of standardization is to facilitate interoperability, and thus enhance the Alliance’s operational effectiveness.

**No capability without interoperability**

Interoperability is an integral part of the NATO Defence Planning Process (NDPP) for capability development. The NATO Standardization Agency (NSA) is a key member of the NDPP Task Force on interoperability. The Task Force was created to determine how interoperability requirements can be addressed and how to derive the related standardization tasks necessary to meet these requirements. The NSA manages the dissemination of derived standardization tasks to the appropriate Senior Committees for further development into NATO standards.

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2 The Director of the NSA is a member of one of four governing bodies.
The NSA provides standardization management support to NATO nations in developing, maintaining, publishing and promulgating NATO standards in close cooperation with the International Staff, International Military Staff and the two strategic commands (Allied Command Operations and Allied Command Transformation). These standards are essential in a multinational environment to be able to act together coherently, effectively and efficiently in the pursuit of Allied tactical, operational and strategic objectives. By implementing NATO standards, Alliance forces ensure that they attain the required level of interoperability and optimise the use of resources in the operations, materiel and administrative fields. The NSA consists of 45 personnel working at NATO Headquarters in Brussels. The Director of the NSA is the principal advisor for the Secretary General/ North Atlantic Council (NAC) and the Military Committee (MC) on standardization matters.

**Smart standardization**

Standardization within NATO can be viewed just like any complex system. Remarkably, nations’ strategic commands come together by having the lessons learned from NATO exercises, real-world operations, operational readiness inspections/ evaluations, creating voluntarily the standards, institutionalising them in a Standardization Agreement (STANAG) and making them a habit. This is a 60-year normative success of NATO. We may call this “smart standardization”. In conclusion, the NSA serves as a catalyst for nations’ subject-matter experts (SMEs) to come together and create written standards and definitions according to operational requirements. As NATO standards are promulgated, they become institutionalised within nations and thus become a habit.

Standardization management is a living system, which requires inputs, processes, outputs and feedback. In addition, we can also add to this list quality control (user satisfaction). As seen in the figure below, all components are functional and relevant for NATO.

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3 The NSA is located at NATO Headquarters with a small staff of 18 civilians and 27 military, with an annual budget of €2,600,000.
The use of NATO standards is common in virtually all of the Alliance’s endeavours. The ability of more than 50 troop-contributing nations to have success in NATO-led operations around the globe can be directly attributed to standardization efforts. Without common doctrine, tactics, techniques and procedures, Alliance members and partners would be left wanting for the proper way to employ together operationally. Take for example the safe evacuation of a wounded soldier or civilian through the multinational evacuation chain of role 1 to role 3 medical facilities from different nations within a NATO area of operations. This simply would not be possible without prior agreed standards. In a similar light, air-to-air refuelling, replenishment at sea, and host nations support, would all be haphazard and disjointed if not for the fingerprint of standardization.

NATO shares specific standards externally via its official web page. As we move into the future, more NATO standards will become publically available. This will prove particularly important in the areas of humanitarian assistance and disaster relief. At the moment, the vast majority of NATO’s standards are fully available for Alliance partners. The NATO policy of advocating “the broader use of STANAGs by the Alliance and its Partners” derives from the Lisbon Summit Strategic Concept of 2010.

Other organisations such as the European Union use NATO standards in order not to duplicate national efforts. In a similar light, it is NATO policy that civil standards be used to the maximum extent possible. This helps to ensure interoperability with the civilian community while avoiding duplication of effort. If no suitable civil standard is available, a NATO standard can be developed to meet an interoperability requirement. Within this content, the NSA has established multinational cooperation by signing Technical Cooperation Agreements with 14 civilian standard-developing organisations. These agreements assist NATO and its member nations in the application of civil standards to meet military requirements. This also helps serve the NATO standardization community via benchmarking.

\[4\] Recently there are about 120 shared/ publicly available STANAGs on the NATO website.
Consequence management of natural disasters and similar challenges where military and civilian organisations frequently cooperate are primarily national responsibilities. However, we have frequently seen cases where the impact of a natural or man-made disaster exceeds the stricken nation’s ability to cope with immediate consequences and other nations offer assistance. Recent examples include the super typhoon in the Philippines, earthquakes in Haiti, Turkey, Iran and Pakistan, Hurricane Katrina in the United States, tsunamis affecting multiple nations in the Pacific and Indian Oceans, as well as nuclear accidents in Russia and Japan. Responses to such crises immediately become joint, civil-military and multinational. It is exactly because of these conditions that nations, NATO and other international organisations have developed standards. Standardization enables personnel from different services, agencies/organisations and nations to work together more efficiently and effectively. In such cases, relevant, ready and rehearsed STANAGs can help foster a more rapid, integrated response effort.

**Standardization and partners**

NATO partners within the context of the various partnership programmes (e.g. the Partnership for Peace, Mediterranean Dialogue and Istanbul Cooperation Initiative) have developed a significant interest in NATO standardization. Partner nations view standardization as a means to enhance their integration into the international community, as well as a means to realise the efficient use of resources. A relevant recent example was exercise Bold Monarch 2011. This was the world’s largest multinational submarine rescue exercise. It included, inter alia, the participation of a Russian submarine. Within the context of this live exercise, standardized command and control, training and equipment lead to the rescue and evacuation of 150 survivors within 48 hours.

The NSA facilitates the active involvement of partners in the standardization development process. In 2012 alone, the NSA supported 86 meetings under the auspices of the Military Committee. These meetings included the participation of some 256 subject-matter experts from 32 different partner nations. NSA reserves two Peacetime Establishment posts for staff officers from partner nations to allow them to receive in-depth on-the-job training. At present, these two posts are filled by Sweden and Azerbaijan. In the spirit of the 2010 Lisbon Summit decisions, NSA partner activities have also included technical staff visits to: Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia*, Jordan, Moldova, Montenegro, Serbia and Ukraine, as requested by partner nations.

**Some figures**

The NSA supports the development of operational standards under the auspices of the Military Committee. This includes supporting approximately 120 working fora attended by some 6,000 subject-matter experts from NATO and partner nations. Each of these standards must be kept updated and reviewed every third year or as required.

The NSA website contains the NATO Standardization Document Database (NSDD) in which all 1,200 NATO standards are available for download to registered users. In addition, there are some 8,000 other standardization-related documents available. The NSDD is the main tool for providing the Alliance and its partners with standardization documents. In an average month, some 30,000 standards are downloaded from more than 90 different countries.

*Turkey recognises the Republic of Macedonia with its constitutional name.
Standardized terminology is made available through the NATO terminology database, which is also accessible on the NSA website. The database contains over 15,000 terms and definitions used throughout NATO. The database is going to be made available to the public in the future. This is in progress.

Article 3 of the North Atlantic Treaty is the basis for the development of “collective capacity” within the Alliance. The NSA contributes to this capacity by enabling the optimum use of resources, consensus-based development, preventing duplication of effort, voluntary implementation, and customer focus.

Despite the success of the NSA, significant challenges still remain. But there is always the continuous will to overcome these challenges working shoulder-to-shoulder with other NATO bodies.

As mentioned previously, standardization within NATO is a 60-year normative success of the Alliance and is setting an impressive example to the rest of the world. No matter what form the NSA ultimately is directed to take by NATO’s political authorities in the current reform activities, the standardization community and subject-matter experts will continue the difficult work of standardization development, as their predecessors have done for more than half a century - “Be wise - Standardize!”

Dr Cihangir Akşiş

After a long and varied military career, Dr Cihangir Akşiş (Maj Gen Ret’d TURA) took up office as the Director, NSA on 1 July 2010. He was awarded his PhD in 2012. He is also an alumnus from Course 70 of the NATO Defense College. Dr Akşiş has given many lectures at various universities and official platforms on strategic planning, total quality management and NATO Standardization.

As an author, Dr Akşiş has written three novels published by Dogan Kitap Co, ‘Sarı Sessizlik’, ‘Cigiltepe’ and ‘Savrulus’ and two books on Armed Forces and Total Quality Management, Vol. I and II. He has also written many articles for military magazines such as “Military and Monotony”, “The Relation Between Military and Art”, “Military and Chess” http://www.bluepoint.gen.tr/chess/chess.html, “Military and the Total Quality Management”, etc. Dr Akşiş has had three oil painting exhibitions in Belgium and Turkey. He is married and has two children.