



NATO Foundation
Defense College



The 2019 NATO-Industry Forum

Not Much Sparkle but Some Progress from ACT and Industry

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The Seventh NATO Industry Forum (NIF) was held in Washington, DC on November 13-14. As is well known, the NIF is a periodic event whose purpose is to promote effective interaction between NATO and Industry, Academia, Research Institutions, Think Tanks, etc., and assess incremental progress. It is jointly organized by ACT (the Allied Command of Transformation) and the NATO Defense Investment (DI) Division. Given its location, this year it was co-organized by the US Department of Defense (DoD).

The theme of the NIF 2019 was “Enhanced Decision Making”, the ability to make accurate, informed and timely decisions by taking advantage of new emerging technologies like Big Data Analytics and Artificial Intelligence (AI). The focus, of course, was on military decisions, but some commonality with the civilian sector exists and was acknowledged and discussed during the meeting.

After the official opening and welcome remarks, the Forum was organized in four breakout sessions (BOS) the first day and three Plenary Sessions the second day, which ended with closing remarks.

The BOS were naturally related to the theme of the Forum according to the following topics: 1) Tasking, Collecting, Processing, Exploitation, Dissemination; 2) Leveraging Big Data (Strategic); 3) Operational Awareness and Anticipation; 4) Support to Human Decision-Making. Each BOS was repeated twice so that it was possible to attend two sessions and the audience was also encouraged to wander freely among sessions thus allowing maximum coverage of the material.

On the second day, after the Keynote Speeches, the Plenary Sessions, again related to the Forum theme were: 1) Emerging trends that impact Decision-Making, with panellists and moderator from start-ups in civilian areas and the presence of the Chairman of the Military Committee, 2) The changing information landscape with CEOs as panellists of top military industries and 3) Improving NATO’s defence and deterrent posture, by the use of Enhanced Decision-Making, again with panellists and moderator from CEOs of important military industries and the presence of NATO’s Assistant Secretary General Defence Investment (ASGDI). The closing remarks were given by the US Undersecretary of Defense for Acquisition and Sustainment and by the ASGDI.

The attendance was higher than last year, well over 500 people with a large participation from Industry (40% of the total). It must be noted, however, that the large industrial attendance was also due to the almost simultaneous NIAG Plenary on the 13th and 15th of the month.

Compared to the massive participation of transatlantic CEOs last year, the presence of top managers this year was less impressive but the presence of very young CEOs of start-ups in civilian IT areas was a breath of new and fresh air. The presence of NATO top tier was certainly large and included the Secretary General, the Chairman of the Military Committee, the Supreme Allied Commander Transformation (SACT), the ASGDI and the US National Armament Director (NAD). Two US Undersecretaries of Defense from the US MoD were also present.

In the opening remarks the SACT began by reminding the audience of the importance for the Alliance of the technological base as an integral part of the operational capabilities and the deterrent effect that the Alliance delivers. Thus the need for a close relation with Industry, Academia, Think Tanks, etc. He also mentioned several times the need to “adapt” in relation to the profound change in the environment, including the technological ecosystem. He took the opportunity to explain the ACT approach to facilitate NATO’s adaptation to this new environment through an “Open Innovation” approach and the need for the whole of NATO to adapt its relation with Industry and vice versa.

In the welcoming remarks, the US NAD expressed the Alliance’s continued readiness for cooperation with Industry, but notably repeated a message already heard in the past two years that US industry expects to be allowed to compete for the European Defence Fund.

The BOS of the first day had the scope of allowing a free and constructive dialogue between Industry and NATO on relevant topics of the Forum and future challenges. Each discussion incorporated a “so what for NATO” and a brief analysis of how Industry can help. The sessions were structured with presentations from experts, and moderated by a professional in the style of a compressed one-on-one academic course, in order to give the audience the basic elements of the topic being discussed. Successively the audience was encouraged to interact and challenge the vision of the the experts. The sessions were all well attended (about 200 participants each) also due to the duplication effect, the industrial attendance was large and the discussions were rather extensive. The message that came out of the BOS was of a very active area of research with great potential but all largely “work in progress” with not much available for immediate use. Some of the sessions were recorded and recording will be used to do machine analysis for content, only based on the questions posed. All this done under Chatham House rules with anonymity guaranteed. The difference between issues in civilian and military decision-making was very evident.

The second day started with the Keynote Address of the Secretary General. Some of his main points were very similar to the ones presented at the Forum last year, especially on the impact of NATO for the Defence Industry. He repeated that NATO is likely to shape the Defence Industry in at least three ways: how much Allies spend on defence, what they spend on and how efficiently they spend the money. This time, he added, the good news is that the Allies have delivered five successive years of greater defence spending in real terms, with European Allies and Canada spending \$100 billion more by the next year; and they have pledged to spend 20% of their budget in research, development and new equipment. He also pointed out that, since 2016 the sole NATO Security Investment Program (NSIP) has funded capability packages for more than \$5 billion and this money includes \$1,1 billion for satellite time to enable NATO forces to communicate more securely and quickly (one has to note that space has been approved as the fifth “global common” operational domain at the London Summit of December 3-4). He also touched upon the strong interaction with civilian ICT industry and mentioned the 5G technology and the Internet of Things (IOT) as technology of great relevance also to the military.

The second Keynote Address was given by the US Undersecretary of Defense for Financial Matters who extolled the benefits of cooperation between NATO and Industry, also a capstone for the US DoD, especially for what concerns new technologies and the need for new ideas. To this end the US involves SMIs and Academia extensively, in cooperation with its new Defense Innovation Unit (DIU).

At the end of that Keynote Address the SACT took the floor again commenting on the state of the NIF, pointing out the continuity in successive events (the theme of this year was, for example, an enlargement of one of the BOS of last year). He also mentioned some novelties like the welcome presence of new actors in the defence area, especially start-ups with young people from whom we expect fresh ideas. He stressed again the need to adapt, and in this regard mentioned the recent reorganization of ACT, and the continuing attention and progress in his Command for the roadmap of Emerging and Disruptive Technologies (EDT).

The three Plenary Sessions, all related to the theme of the Forum, were also structured with a moderator who had the task of setting the scene for the debate and at the beginning he engaged only with the panellists, all CEOs of military industry, asking for their views. After this first part he switched to the audience and took questions that were discussed by the panellists. Here again the session developed as planned with a good participation of the attendants. Here again, however, the

conclusion was that although the topics discussed in the BOS had very promising prospects for industry and military, the technology was still in development so that both in the industrial area as well as on the battlefield, not much was available for immediate use. Panel conclusions, however, will help to guide the work of NATO bodies and organizations and Industry. Some notable warnings were voiced by some young panellists that the pace of research in this area should be accelerated because the international competition was, in their words, “up and running”.

The closing remarks were given by the US NAD and by the NATO ASGDI; they both expressed their appreciation for the large participation, both by NATO, Partners and Industry, large, medium and small. They both voiced their feelings that the technologies discussed are showing great potential to bring important benefits both to the military and civil enterprises. In continuity with last year, attention to technology, especially EDT, was reassessed for its relevance and urgency.

On the whole, the Forum was useful to re-state the commitment of the Alliance to find new ways, new areas, and new stakeholders for more effective cooperation with Industry, which can bring relevant contribution to the knowledge and exploitation of new technologies.

The specific issue of the theme, Enhanced Decision Making, was convincingly presented as an area where modern IT has great potential for a compelling cooperation. It was also clear, however, that in spite of the awesome amount of research, especially in the civilian sector, those technologies do not seem to be developed enough to yield results that can be readily used to improve significantly the process of decision making both for industrial and military applications. Thus the feeling of “work on early progress” was present throughout the meeting and may have somewhat dampened the expectations of the attendants.

In reflecting on the structure and content of this 2019 NIF, it seems now clear that the Forum is structured in a way “to provide the audience with opportunities to elevate the continuous dialogue between the Alliance at the highest leadership level” as the SACT put it in his opening speech. Therefore, progress at the operational level must be expected just below the “highest leadership level”, and thus by the operational people, in this case NATO operational substructure especially ACT, DI, Industry and NIAG.

In this regard, the last afternoon of the NIAG Plenary after the closing of the NIF showed some interesting progress. Because of the location of the Plenary in Washington, relatively close to

Norfolk, where ACT has its Headquarters, the second half of the day was devoted to the interaction between ACT and Industry.

After a review of several programs that show an increasing interaction between ACT and Industry (NIAG in particular), two presentations, one from ACT and one from NIAG, were devoted to a report on the last TIDE Spring meeting (Virginia Beach 21-25 October, 2019). Since the TIDE Spring concept is gaining increasing attention from NATO, ACT and Industry, it seemed worthwhile to review here its basic concepts and its significance for the NATO-Industry interaction.

The Think Tank for Information Decision and Execution Sprint, or TIDE Sprint, is one of ACT and NATO's premier think-tank events for promoting innovation and rapidly evolving concepts and specifications, in order to progress, improve and federate interoperability between NATO and Partner Nations, especially in the area of C2 capabilities and IT services.

TIDE Sprint's events, which generally last the best part of a week, are part of an "Interoperability Continuum" that includes the TIDE Hackathon (a kind of contest among competing teams to offer solutions to outstanding NATO problems) and the well-known Coalition Warrior Interoperability Exercise, (CWIX) where equipment from various allied countries are deployed together to assess operational interoperability. In all these events teams are composed of NATO experts from Alliance members and Partner Nations, Governments, Industry and Academic organizations. In the case of C2 and IT capabilities the Interoperability Continuum has the main purpose to include a large number of stakeholders and to provide support to one of the largest NATO projects, the future Federated Mission Network (FMN).

The mode of operation of TIDE Spring and Hackathon is to assemble multinational teams of experts and promote discussion and exchange of competing, but also cooperative solutions, to a series of problems posed mainly by ACT and related to future capabilities. As stated earlier, the Leitmotif is presently the Interoperability Continuum. The theme for the last event in Virginia Beach was, for example, "Interoperability at Time Zero"; i.e., the minimization of interoperability problems when a coalition of Allied and Partner forces is rapidly assembled.

TIDE Sprint has, especially in recent years, been gaining increased acceptance by industry both big and small. The mode of operations allows Industry to become aware, at the initial stage, of the new technologies that NATO thinks of using in the development of future capabilities. The dialogue between military operational people and many actors from the industrial world helps in

understanding the potential and opportunities of new technologies but also problems and limitations. There are, at the moment, 15 technology tracks, or areas of application that represent the technological coordinates that NATO envisions for the development of future capabilities. While this represents a great opportunity for Industry, and also allows NATO to benefit from the industrial expertise, it is sufficiently distant in time from specific applications; therefore it largely eliminates the NATO concern to keep a level field, and avoids giving a privileged position to any specific industry or industrial group.

TIDE Sprint has so far been mostly applied to interoperability but has also been recently used in medicine on the battlefield and for logistic support. It seems certainly a useful tool in the toolbox that NATO is striving to enlarge to increase modes of interaction with Industry in a pre-competitive situation. While the ACT presentation was only a point of situation for the C2 ACT/NIAG community of interest as usually done at TIDE Sprint meetings, the NIAG presentation had also the scope of improving the industry awareness of this tool which seems very useful for upgrading the dialogue with the Alliance in a significant fashion for both parties without the usual concern of creating privileged industrial positions.



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