



**NATO Foundation**  
*Defense College*



***NATO Industry Relation: The Jury is Still Out***

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# *NATO Industry Relation: The Jury is Still Out*

## **Introduction**

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*The dialogue between NATO and Industry focused on the promotion of an Industrial advisory role in a precompetitive (or non-competitive) mode is over fifty years old. In this period many things have happened: we have seen the creation of organizational structures and procedures, witnessed moments of intense activity, moments of flatness, noteworthy achievements, great expectations, occasional disillusion and crosscurrents of misconceptions and misinterpretations.*

*Certainly we are now in a situation of increased awareness, even at the highest level on both sides (NATO and industry), about the relevance, benefits and opportunities of an “appropriate” relationship. Difficulties, however, still linger, especially on the interpretation of the term “pre-competitive” and on the basic question of “trust”.*

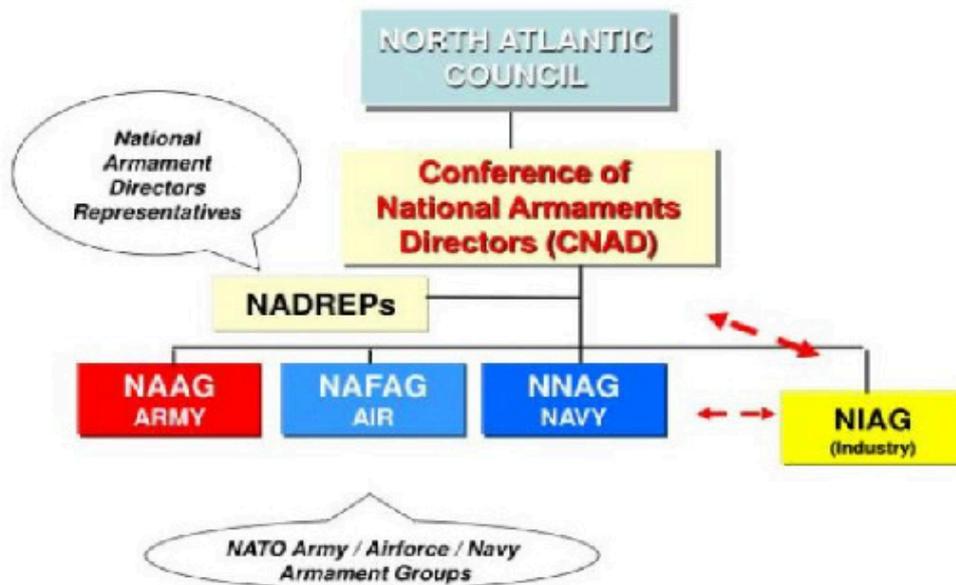
*The purpose of this paper is to present a brief history of the issue, share reflections on the present situation and try to predict difficulties and opportunities for the future.*

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Over fifty years ago a group of defence industrialists, mainly European ones, decided to approach the NATO CNAD (Conference of National Armament Directors) to promote the concept of a NATO body made up of Industrial National Experts with the mission of providing industrial advice to NATO in a precompetitive manner. The scope was to support CNAD activities in the many facets of Transatlantic Armament Cooperation. After a couple of years of negotiations to tune up the concept, the CNAD agreed on the principle and in 1968 created, under its stewardship, the NIAG (NATO Industrial Advisory Group). The golden anniversary of NIAG will thus be celebrated this year in Berlin, next November.

The creation of NIAG was the official recognition at NATO of the importance of maintaining a permanent forum of interaction with industry albeit in a precompetitive mode. In these fifty years NIAG has fulfilled its advisory function by carrying out an annual programme of technical studies to support the activities of the CNAD Armament Groups and, after a later CNAD decision, also other NATO bodies. In addition, a series of High Level Advice activities have been performed, addressing issues of policies of interest to the Alliance. More recently, several other initiatives and additional customers have been added to the NIAG toolbox as will be mentioned later.

Over this period more than 225 studies have been completed on a variety of subjects and for a variety of customers including, besides the CNAD: ACT (Allied Command of Transformation), ESC (Emerging Security Challenges) Division and the then NC3A (NATO Communication and Command and Control Agency, presently NCIA NATO Communication and Information Agency), the Aviation Committee, etc. Important NATO and national programmes have benefitted from the results of those studies: well-known examples are the Horizon and FREMM French-Italian frigates, the multinational NH 90 helicopter, the NATO Ballistic Missile Defense Programme, just to mention a few, but the list could be quite a bit longer. In the “High Level Advice” area, noteworthy examples are the series on TADIC (Transatlantic Defense Industrial Cooperation), NATO interoperability issues, Government Industry Partnership, involvement of Small and Medium Enterprises (SMEs, etc.).



## The position of the NIAG within NATO.

*Source: The NATO Industrial Advisory Group (NIAG) Studies Exploratory Group Briefing.*

An additional mode of operation of NIAG which has been intensified recently is the invited participation to NATO exercises such as Tide Sprint, Unified Vision, Trident Juncture, CWIX, I3X, etc. The role of NIAG and individual nations, has been to participate in the preparation, occasionally in the exercise itself, and the assessment and interpretation of the results.

In order to better focus now on the term “precompetitive” it is important to note that NIAG Industrial Representatives are National Experts nominated by their own countries and do not represent any industry or industrial association, but their nomination is only based on their individual expertise in topics of interest to NATO. Furthermore, they have to abide by a Moral Code that prevents them from possibly taking advantage of a somewhat privileged position due to their participation in NATO affairs.

The Industrial relation to NATO has benefitted industry in several ways: NATO has, for example, in all these years, organised a series of presentations specifically designed for industry in a variety of formats (especially Industry Days supported by Agencies, Commands and the CNAD) etc. Moreover, other tools like the ACT FFCI (Framework for Cooperation with Industry) and COI (Communities of Interest) and more recently the CNAD FNIE (Framework for NATO Industry Engagement), as will be mentioned later, are all tools designed to allow industry to orient its research and development activities in a way to some extent aligned with the Alliance needs and priorities.

In a more scientific and technological vein, industry has also contributed to NATO activities and programmes through another organization created in 1967, also within the CNAD, the NATO Defense Research Group (DRG). Eventually the DRG evolved into Research and Technology Organization (RTO) in 1998, and more recently in the Science and Technology Organization (STO) in 2012. The STO has the mission of “catalysing and leveraging the Nations and NATO SAT investments to push the boundaries of knowledge in order to achieve capability advantages for the Alliance.” Its Cooperative Support Organization (CSO) is organized in six Panels and a Modelling and Simulation Group according to the various technologies that it covers. Industry is however “a minority shareholder” of the STO, which is mainly populated by government experts and to some extent experts from the academia. NIAG and STO enjoy a close relation through several important co-operations sharing technical information and participating in each other’s programmes.

Aside from other informal channels that NATO has maintained in the relation with the industrial world, mainly through several forms of consulting, the NIAG and the Industrial component of the STO have been, for several decades, the only official channels (in the sense that they were both part of NATO) of precompetitive interaction between NATO and Industry.

It is however worth mentioning the existence of another formal Industrial Organization, the Network Centric Operations Industry Consortium (NCOIC), an international non-profit consortium chartered in the United States whose goal is to facilitate the adoption of cross-domain interoperability. It was formed in 2004 and has a variety of members in many countries. It does not only interact with NATO where it has engaged mainly with the NCI but also with other large institutions like the US Federal Aviation Agency (FAA).

Moving closer to our times, an important event happened in 2003, namely the creation of the ACT (the Allied Command of Transformation). This new Command immediately identified its relation with industry and academia as one of its priorities, set up an organization for the outreach to those institutions and, supported by NIAG, created new procedures of interaction (the FFCI mentioned above) and the CD&E (Concept Development and Experimentation), mainly oriented towards industry and academia, started to promote and support several initiatives between ACT, NIAG, STO, etc., focussed on Horizon Scanning for disruptive technologies and the exploitation of new technologies.

In addition, starting in 2004 in Berlin, ACT has been organizing a series of yearly Industry Days in the various capitals of the Alliance, scoping the agenda in accordance to perceived priorities of NATO-industry interaction (interoperability by working together, transformation as a drive to meet new challenges, Distributed Networks Battlelabs, Maritime Information Services, etc.). These fora have increased their relevance over the years, and starting with the Istanbul forum (2013), the event has become a NATO event jointly organized by ACT and the CNAD. The theme, there, was Smart Defense and Connected Forces Initiative). Of particular relevance was the 2016 forum in Brussels where the NATO Secretary General J. Stoltenberg participated and was joined by the CEOs of the most important defence industries of North America and Europe and by the EU High Representative for foreign policy and security Mrs. F. Mogherini and the EU Commissioner for Internal Market E. Bienkowska. Actually it was in that forum that Mrs. Mogherini announced to the audience the new European Defence Action Plan.

An event of great potential interest to industry was the introduction of the NATO Defense Planning Process (NDPP) in 2009. The aim of such process was stated as “to provide harmonization of National and Alliance defence planning activities so that the Alliance has available the forces and capabilities it needs to carry out all its missions and tasks and to fulfil its agreed level of ambition.” Although such process was mainly designed to allocate capability development to individual nations, or group of nations, quite a bit of attention was also given to NATO programmes that would ensure access and use of Global Commons and more generally would be eligible for NATO funding under the “Over and Above” principle. The process, which is designed to be articulated in a four year cycle (we are currently in the second cycle), consists of five self-explanatory steps: 1) Political Guidance, 2) Determine Requirements, 3) Apportionment of Requirements and Setting of Targets, 4) Facilitating and Implementation, 5) Review Results.

The extremely detailed planning model for capabilities development seemed to Industry uniquely amenable to a discussion of how the industry’s role could be formalised and recognised as a useful, perhaps necessary, participation in some of the steps, in particular Step 2 (Determine Requirements), providing precompetitive technical and industrial advice or, in a more vernacular language, provide that “sanity check” that guarantees that the solutions envisioned do not contain a level of ambition not warranted by available or easily obtainable technologies. Many discussions were held formally and informally to ascertain the possible institutional role of industry in the NDPP.

Although one may say that the door is still ajar, no agreement has been reached and the discussions have not borne fruits yet. The discussion on the NDPP has brought, however, a useful distinction between Capability Requirements and System Requirements. While a Capability requires that all components of development are properly planned (DOTMLPF - Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, Interoperability), the System Requirement generally refers to the materiel aspect of a capability. It has then been argued that the industry is better suited in judging about System Requirements where it could be invited to contribute to technological development and ascertaining the art-of-the possible.

It is safe to say, however, that the awareness that it would be beneficial for NATO to more and better involve industry, especially at the beginning of a Capability or better System development, slowly reached the attention of the then Secretary General, A. F. Rasmussen, and then of a summit. At the Chicago Summit of 2012 the final declaration, signed by all heads of State and Government, affirms that “maintaining a Strong Defence Industry in Europe and making the fullest possible use if the potential industrial cooperation across the Atlantic remains an essential condition for developing capabilities needed in 2020 and beyond.” At the Wales Summit of 2014 the final declaration mentions Industry in three different paragraphs reconfirming the importance of a strong relation with a Strong Industry across Europe and North America.

These Summit messages have generated a flurry of activities, increasing the attention and the number of tools in the boxes of NIAG, CNAD, ACT, NCIA, etc. Thus the CNAD has produced the FNIE (Framework for NATO Industry Engagement) with the scope of improving the way NATO engages with industry, followed by implementation measures describing, among other things, the opportunity for industry to enter the NDPP in the Step 4 (Facilitate Implementation).

ACT and NIAG generate the COI to discuss joint activities in several areas of mutual interest: C3 and Sustainment and Logistics are two recent examples. These two documents are indeed a useful framework to describe and discuss many facets of the interaction. Especially noteworthy are the references to an aspect of the interaction, namely that interaction is under the control of the Nations and therefore there is a basic need for trust and transparency, fairness and inclusiveness. Furthermore a specific effort must be made to generate all the possible measures to involved SMEs.

As for the Implementation Measures, the suggestion for the NDPP, as mentioned above, is to involve industry mainly in Step 4 (Facilitate Implementation), even though the FNIE is asking to look at how industry could be further involved in other stages.

Finally, one may also mention that even the NATO Parliamentary Assembly, in preparation for the NATO Brussels Summit of 2018, mentions among the key priorities of the Alliance “to strengthen the European and transatlantic defines technological and industrial base, and encourage defines industrial cooperation.”

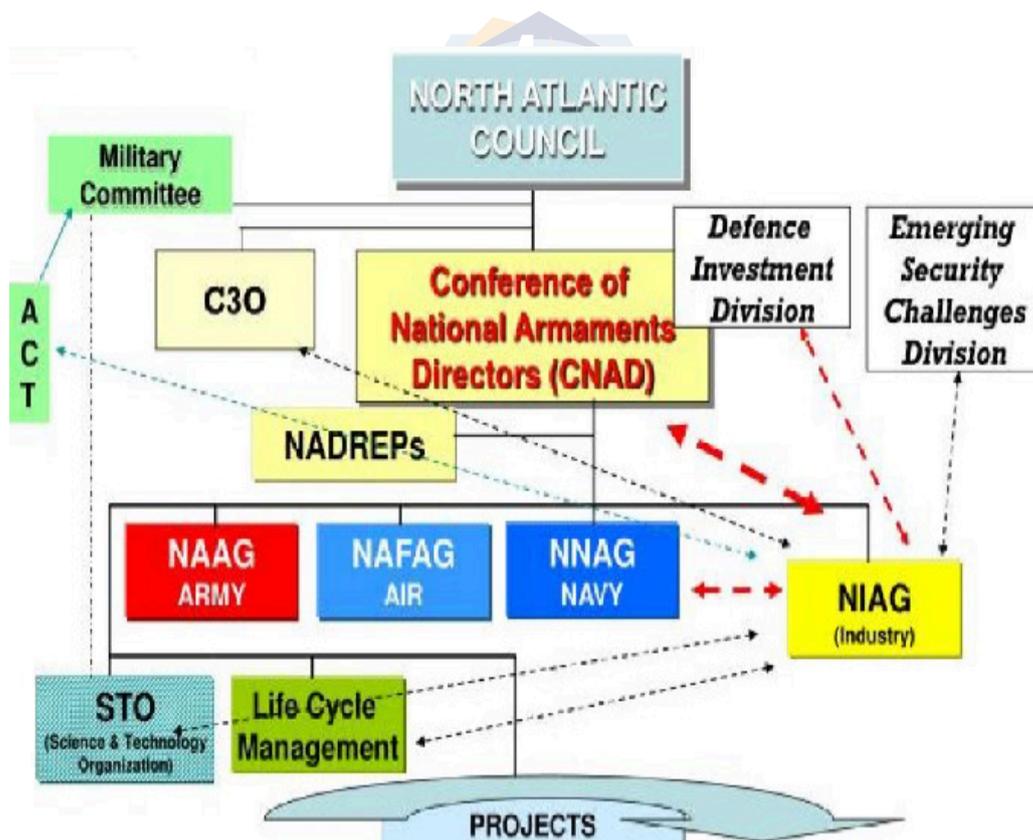
In closing, two rather recent developments are worth mentioning. In order to facilitate a possible early insertion into a specific programme, NIAG has created a special type of Interface Group. There would an Interface to a NATO Programme and not, as is customary, to a NATO Committee.

The first application of this concept has been the creation of NTIIGA (NATO Transatlantic Industry Interface Group to AFSC), i.e. an Industrial Interface to the Allied Future Surveillance and Control, a very large NATO Programme for the eventual replacement of AWACS, and probably an updating of AGS (Allied Ground Surveillance) around 2035. For the CNAD it has been considered a test for the validity of the FNIE. After a couple of years of activity the CNAD and NIAG are presently examining the preliminary results of this test case.

The initial findings do not show a satisfactory level of engagement but quite a bit of effort is being spent in on deriving lessons learned from this important example of engagement. Naturally, the lesson learned after the completion of the analysis will be useful for the future of the AFSC Programme and the similar programmes that may follow. In any event the interaction with the AFSC is still in progress.

A very different situation was experienced by NIAG in the extremely important field of the NATO Cyber issue. A basic NIAG study of 2012 had recommended a NATO Partnership with Industry on Cyber with several details to be explored. After some work based on the NIAG study, the ESC Division (Emerging Security Challenges) decided to implement the NIAG recommendation and established the NICP concept, i.e. a NATO-Industry Cyber Partnership in the framework of the FNIE document. NICP was launched at the Wales Summit in 2014. Soon after, NCIA and ESC jointly announced the implementation of the NICP concept and successively several nations decided to involve national cyber companies of their choice. As of today, fourteen such partnerships have been established and although no analyses of the results seem to be available yet, one can safely say that the NIAG proposal is being implemented and extensively tested. NCIP today is managed by NCIA and governed by the Cyber Defense Committee. The two previous examples clearly indicate that different Alliance activities and programmes require different approaches and may bring uneven results.

## Summary and Conclusions



### The interaction of the NIAG with different NATO bodies.

Source: *The NATO Industrial Advisory Group (NIAG) Studies Exploratory Group Briefing.*

“Our outstretched hand was not always met with the same enthusiasm”. This message was given by a former American chairman of NIAG in his valedictorian speech several years ago and could certainly be a very short summary of the situation. But, of course, as has been mentioned before, matters are a little more complex and varied than that.

To be sure, the historical narrative and the comments on the various events show that the record is chequered and successful and less successful engagements have been alternating. There is no doubt, however, that there is an increasing awareness even at the highest level in both the Alliance and Industry that cooperation at the precompetitive level would be beneficial to both, and that industry should be involved as early as possible in the design and implementation of Systems and Capabilities.

The analysis of the past and present situation is, however, a typical “both sides” story where the points of view of the two sides may be significantly different. For example, the evaluation of the benefits of the engagement concept often yields an asymmetrical evaluation, where each side perceives that the real benefit is mostly on the other side. One may safely say that cooperation has been best in the cultural mode, or purely technical in a general sense, or when focused on policy.

In addition, since NATO is structured in many different organizations, a unified policy of engagement with industry does not seem to exist (the FNIE initiative by the CNAD is trying to accomplish just that) so individual approaches to different organizations have often yielded different reactions.

An additional difference is the type of programme or issue addressed. Engagement in a complex Programme like the AFSC, or trying to look for an Institutional Industrial role in the NDPP implies modes of engagement and associated problems, different from, for example, suggesting a NATO policy for interaction with Industry through Partnership, as has been the case for Cyber.

Alongside the issues mentioned in the previous paragraph, it is appropriate to remember that any type of industrial interaction must be, in the end, approved by the Nations. Here again the level of trust of industry and the interpretation of the concept of “precompetitive” varies from nation to nation with different levels of acceptance. On the industrial side, one must recognize that industry has occasionally been rather disingenuous by not recognizing the basic ambiguity and possible difficulties in accepting the “precompetitive” concept. The vast trove of lessons learned should be used appropriately by NATO and industry in the near future to try to creatively improve the situation since this challenge, if faced, may offer significantly useful results.

Moreover, improving the reciprocal knowledge is also a very useful endeavour. At the national level a dialogue between national NIAG representatives and the relative MoD may produce an important improvement, and on the NATO side, it is hard to believe that after fifty years of existence there is still a need on the part of the Alliance to improve its knowledge of NIAG, its structure, its possibilities and the collection of skills that it brings to the Alliance. Patience and persistence are necessary tools. Changes to mentalities, procedures, processes and organization take time and effort. Time obviously is the main ingredient, therefore it is safe to say that the jury is still out and probably will be out for quite a while. But we remain optimistic on the verdict.

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