

Welcoming 2011 and its new opportunities for ACT-Industry relations

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The NATO that emerged from last November's Lisbon Summit is one determined to be, in Secretary General Rasmussen's words, more effective, more engaged and more efficient. Increased relationships with our industrial and academic partners are central to all three of these lines for improvement.

Nowhere has the progress we have already made in developing our cooperation been more apparent to me than at Industry Day 2010, last October in Prague. It was exciting to hear all parties attest to the projects that are already underway and to greet the very first participation by the European Defence Agency. We are all truly making great strides in increasing the dialogue between various actors in capability development, and we are looking at more innovation and more cost

-effectiveness as a result.

It was also satisfying to witness the record attendance, which showed that, far from being a hindrance, the current financial situation was a stimulant to more dialogue on innovative solutions. The next Industry Day in London will certainly confirm this, but why wait that long? We are eager to have interested partners take part in other events in the interim, such as the NNEC and Maritime Security conferences this coming spring.

We are now poised to take our cooperation even further – both in depth and in width. Partnerships with industry developed under the Framework For Collaborative Interaction are beginning to truly dig deep into complex and highly relevant fields, such as the exploration of cloud computing, which this newsletter previews.

Simultaneously, we are widening our cooperation by reaching out to new actors. An experiment to



**General Stéphane Abrial,
Supreme Allied Commander
Transformation**

be conducted in May in Tallinn, Estonia, will involve academic partners to an unprecedented degree around the theme of "Countering Hybrid Threats" – a key concept in facing emerging challenges.

I am truly looking forward to seeing these, and so many other, components of our programme of work unfold in 2011, and I am grateful to all those whose trust and collaboration are helping us build a more "effective, engaged and efficient" NATO.



Mr. Adam Sowa, European Defence Agency Deputy Chief Executive for Operations, and Mr. Alain Charneau, Chief Executive Officer of Astrium Space Transportation, provided keynote addresses on the first day of the conference.

ACT INDUSTRY DAY 2010 FOLLOW-UP

This past October the 2010 edition of the annual ACT Industry Day conference was conducted in conjunction with NC3A's Industry event, and emphasized a meaningful message of cooperation, collaboration, and synergy between both institutions. This successful event was marked by the highest level of industry participation in the past four years. Over 350 participants attended from NATO, Nations, EU and Industry, comprising over

two thirds of the total audience, and within this group one third of Industry participation came from North America.

The objectives of Industry Day 2010 were to explore potential synergies in capability development along with advancing the possibilities for future collaboration with both the European Defence Agency (EDA) and Industry.

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The record of the ACT Industry Day 2010 proceedings is available on our Industry Day web portal (www.act.nato.int/industryday), as well as all the speeches and presentations given during the conference.

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Many Industry representatives voiced the importance of engaging directly with senior officials from both ACT and the EDA. It was emphasized that the two organizations need to complement each other and that elimination of all duplication of effort should be a goal, although limited by the current NATO-EU framework. ACT's take-away from this conference is that Industry expects simple, clear and coherent capability requirements to be able to provide more cost-effective and efficient solutions to our forces, and is a strong advocate for more ACT-EDA coordination.

Additionally, the conference provided an opportunity to introduce industry to new topics of potential collaboration under the umbrella of the ACT Framework for Collaborative Interaction (FFCI), which was launched in October 2009 and is now fully implemented.

In anticipation of the new NATO Strategic Concept, the **Cyber Defence working session** raised much interest and was very well attended. The session focused on ACT's Cyber Defence programme of work to establish a focus for the industry participants. The session achieved a clear understanding of what ACT requires from industry and requested collaborative commitment. A number of relationships were established and, since the conference, ACT has engaged with five of the participating organizations to further develop a working relationship. The road ahead includes continued bilateral engagements with additional industrial companies, and the development of the Multinational Cyber Defence Capability Development (MNCD2) initiative (where industry will be invited to participate and conduct an ID 2010-like follow-on forum with respective industry partners, to specify collaborative efforts). The pending NATO Cyber Defence Action Plan will further define opportunities to continue the effort to collaborate with industry.

The **working-session dedicated to Distributed Training and Education (DTE)** was also well received and demonstrated the high-level of interest from industry in this domain, particularly in the area of managed services. It was accepted that such matters lie closer to procurement and implementation than the current exploratory phase. Concentration on problem definition has resulted in a shift since the conference in the focus

of ACT's programme of work with regard to DTE; the emphasis now being placed more on the training implications of the new NATO Command Structure and NATO Strategy, particularly on the scope and content of collective training, rather than developing training tools. The DTE programme will likely concentrate its Industry and Academic coordination with pre-existing NATO groups such as the NATO Modeling and Simulation Group.

The **health-focused workshop** was deemed very successful by ACT Subject Matter Experts who welcomed the opportunity to introduce their topic and communicate on areas of interest. The Health agenda is new on the map of top priorities and ACT's 2010 Industry Day allowed ACT experts to identify appropriate partners in this domain and create a community of interest for future projects. The importance of establishing a community of interest became evident as ACT issued three separate "Invitations For International Bidding" at the end of 2010 and was able to raise the interest of the appropriate industrial experts. For ACT, the next step will be to finalize the assessment of MEDICS (Medical Information and Communication Systems), a synthesis of which will be made available to interested companies (please contact the OCAI).

For NATO Network Enabled Capabilities (**NNEC**) experts, the conference was a real opportunity to reach out to an audience broader than the usual NNEC community. Co-led by ACT, EDA and the Network Centric Operations Industry Consortium (NCOIC), the working-session sent a very positive message on the need and willingness to align priorities between the NATO, European and industry communities. The ID 2010 workshop was also conceived as an opportunity to share with industry the latest NNEC documents and request feedback both on these documents and on the feasibility and availability of required services and products. In this respect, industry input is still welcome and can be routed via the Office for Collaboration with Academia and Industry (OCAI). Finally, ACT experts hope that participation in ACT Industry Day 2010 will also have raised industry's interest in participating in the NNEC conference, which will be held in Helsinki on 5-7 April 2011 (see Upcoming Events on p 5).



FFCI PROJECT:

CLOUD COMPUTING - EXPLORING RISKS AND BENEFITS FOR NATO

Current commercial developments in 'cloud computing', including service-oriented architectures and virtualization, are being widely promoted as a means of making more efficient use of computing resources. The majority of the gains promised are cost savings and increased interoperability: cloud computing approaches offer opportunities to reduce operating costs for information systems, together with increased efficiency and flexibility in the way information is stored, managed and used. This is achieved through shared network-delivered services, both public and private, in which each user sees only the service, as the implementation or infrastructure is managed elsewhere.

Staffs at HQ Supreme Allied Commander Transformation (SACT) who are involved in planning and developing future information systems need to be aware of the prospects and risks associated with investing in cloud computing solutions if ACT is to deliver sound advice to NATO and national authorities.

To this end, HQ SACT's Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Division, with the ACT Office of Security and Capability Engineering Division, recently initiated several related projects that will greatly improve the staff's depth of knowledge about cloud computing. The projects involve information exchange with industry and experimentation that will identify the advantages and disadvantages of using cloud computing approaches in the NATO environment. The results should be beneficial to NATO as a whole.

In October 2010, the NATO Industrial Advisory Group began a high level advisory study for HQ SACT on "Implications of Cloud Computing Developments for NATO Operational Structures". More than 20 companies involved in the development and implementation of cloud computing are participating in this multinational study. The results will represent the combined views of industry across many of the NATO nations.

Through the ACT Framework For Collaborative Interaction (FFCI), several non-procurement collaborative projects have been launched with companies to obtain industry perspectives on cloud computing.



During 2010, IBM held a series of information exchange workshops with HQ SACT staff and it now plans to start more collaborative projects in 2011 that will focus on "on-premise" cloud computing challenges.

The Microsoft Corporation has agreed to conduct technical workshops on cloud computing in early 2011 and has also been exploring some specific applications for cloud solutions to solve capability shortfalls. The current focus for Microsoft collaboration on cloud computing is "off-premise" scenarios.

Several other companies, including Hewlett Packard, Dell, Orange Business Service and others, are currently initiating similar collaborative projects to help HQ SACT address cloud computing issues, through the FFCI initiative.

In addition to the collaborative projects, the C4ISR Division has initiated projects funded as a part of the ACT Programme of Work, which will further contribute to the cloud computing exploration. Several experimentation and development projects will address known challenges related to cloud computing. ACT is experimenting with practical cloud solutions for the consolidation of the former ACT C4I San Diego data centre and the Norfolk-based reference facility located in the C4ISR Technology & Human Factors Branch. The combined data centre will be used to support several activities, including: the Coalition Warrior Interoperability eExercise, eXamination, eXperimentation and eXploration event; Maritime Situational Awareness; Joint Intelligence, Surveillance and Reconnaissance and architecture experimentation.

Industry was also invited to attend a "Tide Sprint" workshop in November 2010, including one discussion on cloud computing that was particularly well supported. Results of the discussions have been published on a collaborative website accessible to participants.

FFCI PROJECT: INDUSTRY AND ACADEMIA INVITED TO PARTICIPATE IN THE COUNTERING HYBRID THREATS GAME

As part of its concept development programme, ACT has conducted a thorough analysis of the emerging security environment and has concluded that the Alliance is no longer confronted with opponents who pose just a single threat, but by actors (state and non-state) able to engage in a complex mix of, potentially simultaneous, hybrid activities (such as insurgency, transnational criminality, terrorism and cyber crime). Accordingly, ACT has developed a draft Capstone Concept entitled “The Military Contribution to Countering Hybrid Threats” (CHT). For the Alliance, the ultimate goal of this enterprise is to align perceptions of Hybrid Threats and the ways and means to counter them.

As a means of developing this concept further, a game/experiment will be conducted from 9 to 13 May 2011 in Tallinn, Estonia. Gathering a potentially broad and diverse range of actors (civilian and military, NATO and non-NATO), the aim of this experiment is to investigate the utility and feasibility of the CHT Concept, and to develop with both military and civilian actors a mutual understanding of potential NATO approaches and responses. One of the objectives is to identify appropriate military contributions within a wider comprehensive approach to countering hybrid threats.

Here, and to ensure a detailed exploration of likely emerging hybrid challenges, Industry and Academia are encouraged to participate as subject matter experts within focused discussion panels. As the recently developed CHT concept itself recognizes the importance of making greater use of partnerships and building better cooperation beyond the NATO borders, it is logical to involve industrial and academic partners in the exploration of this new concept. For ACT, it will be a key forum to develop a comprehensive approach, leveraging expertise lying outside of the Alliance and Nations. For Industry and Academia, it will be a unique opportunity to participate in a NATO game and explore how they can, and should, cooperate with NATO to deal with hybrid threats. The National Defense University, in particular, will be providing substantial support to this experiment, both during the preparation and conduct of the game.

The Office for Collaboration with Academia and Industry (OCAI) will be assisting in recruiting potential subject matter experts, with appropriate industry and academic representatives. Panels will focus on “Cyber, Technology and Economic Security”, “Stabilization, Conflict Prevention and Partnership” and “Global Commons and Resource Security”. Industry representatives are sought that can demonstrate an ability to think globally and provide expertise in specific domains associated with the panel areas. Should your company be interested in learning more about this experiment and exploring potential participation, please contact the OCAI.

INDUSTRY VISITS TO HQ SACT

Industry visits to HQ SACT represent the first step in the FFCI process and are aimed at holding preliminary discussions where both sides present their areas of interest and their ongoing lines of effort. The ensuing dialogue then offers the opportunity to determine shared interests and mutual benefit to further explore one topic and, potentially, start a collaborative project.

Dell

On October 19, 2010, representatives from Dell visited the Headquarters and participated in discussions centered on the C4I-oriented Bi-SC Priority Shortfall Areas (PSAs) list published in 2009. Over several weeks, further discussions with Dell have resulted in concrete proposals for collaborative projects to begin in 2011.

General Dynamics

A 15-member delegation of General Dynamics visited HQ SACT on November 8, 2010. Following a general introductory session, GD delegates met with ACT staff in a series of simultaneous one-on-one sessions. This format allowed in-depth discussions at expert-level on topics such as NATO Network-Enabled Capability (NNEC), Cyber Defense, Health issues and Distributed Training.

Hewlett Packard

HP representatives met on November 23, 2010 with experts from ACT's C4ISR & NNEC division. Mutual interest for further discussion was identified in cyber security, transformational and organizational issues, network applications management and datacenter developments.

MBDA

On November 30, 2010, MBDA CEO, Mr. Antoine Bouvier, Assistant Chief of Staff C4ISR & NNEC, MGEN Willemse, and Assistant Chief of Staff Capability Engineering, BGEN

Fungo, co-led a high-level discussion aimed at identifying areas of mutual interest for collaboration which focused on Missile Defense and ammunition integration. ACT and MBDA are currently exploring possibilities to further discuss Missile Defense, Distributed Networked Battle Labs and Interoperability using the fielding of the Joint Strike Fighter as a test case.

Finmeccanica

ING Raffaele Esposito met on December 10, 2010 with Assistant Chief of Staff Capability Engineering, BGEN Fungo, to discuss and prepare a Finmeccanica visit to be scheduled in 2011. The visit will be at the high management level and will focus on C-IED and MSA issues.

DCNS

DCNS held a meeting with ACT experts via audio-conference on January 14, 2011. Conducted at the expert-level, the discussions focused mainly on maritime issues such as Sea Surveillance/Maritime Information Services and Mine Warfare but also on the Distributed Networked Battle Laboratories (DNBL) and Anti-Ballistic Missile Defense. As a result, DCNS was invited to participate in the upcoming TideSprint event which will be held in April 2011 and to join DNBL either as a service provider or as a customer.

ATOS Origin

On January 24, 2011, a high-level delegation from ATOS Origin visited HQ SACT led by Mr. Gilles Grapinet, Senior Executive Vice President, and LGEN (ret.) Jo Godderij, former Director of the International Military Staff. Following a brief office call with General Abrial, ACT staff invited ATOS Origin representatives to discuss issues pertaining to Cyber Security, Cloud Computing and NNEC.



UPCOMING EVENTS



NATO Network Enabled Capabilities (NNEC) conference

The 2011 NNEC Conference will be held at the Scandic Grand Marina Hotel and Congress Centre in Helsinki, Finland on April 5-7 2011.

The NNEC conference is an annual event which has been sponsored by HQ SACT since 2004. The conference is a major driver to promote NNEC within NATO, the Member Nations, Industry and other stakeholders in the civilian and military environment. This annual conference draws international attention, as witnessed during the 2010 event held in Rome, Italy with participation by more than 460 attendees from 35 countries.

The 2011 NNEC Conference theme is "The comprehensive approach: NNEC as an enabler." Consisting of presentations and discussions over the course of three days, this conference is NATO's platform for a multitude of stakeholders to exchange views, knowledge and opinions in support of this theme.

More information can be found at: <http://www.act.nato.int/events-calendar/seminars-symposia/nneec>.

Maritime Security Conference 2011

The CJOS (Combined Joint Operations from the Sea) and Confined and Shallow Waters (CSW) Centres of Excellence will be co-hosting the Maritime Security Conference 2011 on May 2-5 2011 in Kiel, Germany. The conference will focus on enhancing maritime security and safety cooperation, building relationships, synchronizing plans and policy development, Sharing Data and Infrastructure and promoting good governance.

More information is available at www.cjosmaritimeconference.org.

ACT Industry Day 2011

The ACT Industry Day 2011 will be held at the Grosvenor Hotel in London, United Kingdom on September 12-13 2011.

Supported by the UK Ministry of Defence, the 2011 edition of the annual strategic-level conference will run back to back with DSEi (Defense & Security Equipment International), the world's largest fully integrated defence and security exhibition and should therefore see record attendance.

As preparation of the conference moves on, further information will be made available on our web portal: <http://www.act.nato.int/industryday>.



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