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3 October 2016 **DOCUMENT** PO(2016)0606 (INV)

To : Permanent Representatives (Council)

From : Secretary General

# IMPROVING THE GOVERNANCE ASPECTS OF THE COMMON FUNDED CAPABILITY DELIVERY PROCESS RESOURCE POLICY AND PLANNING BOARD REPORT & READ-AHEAD PAPER

Please find attached in Annex I a report from the Resource Policy and Planning Board (RPPB) addressing the performance audit report by the International Board of Auditors for NATO (IBAN) on the need to improve NATO's capability package process.

Also attached at Annex II is a Read-Ahead paper on the Warsaw Summit tasking on improving the Governance Aspects of the Common funded Capability Delivery Process, the latter reflecting informal discussions in the Deputies Committee on 29 September. We will address these issues at the informal discussion on this topic in the North Atlantic Council on 5 October 2016.

(Signed) Jens Stoltenberg

2 Annexes

Original: English
1 Appendix

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## IBAN PERFORMANCE AUDIT REPORT TO COUNCIL ON THE NEED TO IMPROVE NATO'S CAPABILITY PACKAGE PROCESS

### Report by the Resource Policy and Planning Board (RPPB)

#### References:

- (a) IBA-AR (2016)05
- (b) IBA-AR (2014)35
- (c) C-M (2015)0043
- (d) PO (2015)0313
- (e) PO (2016)0051
- (f) AC/335-N (2015)0111

#### Introduction

- 1. In its report on the need to improve NATO's Capability Package Process (reference (a)), the International Board of Auditors for NATO (IBAN) asks some challenging questions about the way in which common funded capabilities are delivered. The audit report focusses on the identification of military requirements, their subsequent development and submission while at the same time raising wider governance issues. It makes sense, therefore, to consider the present report complementary to the IBAN's earlier recommendations (reference (b)) on the implementation of capabilities financed through the NATO Security Investment Programme (NSIP). Indeed, the present audit report was commissioned by Council in response to an earlier recommendation (Reference (c)) from the RPPB. The Council considered the earlier IBAN findings on the NSIP and also a joint MC/RPPB report in response to the tasking agreed at the Wales Summit to improve the delivery of common funded capabilities (reference (d)).
- 2. Because the audit observations address fundamental issues of governance and process, the development and implementation of a package of improvement measures will take time and effort, and require careful planning and sequencing: for example, there would be little sense in redesigning data management and handling systems until the underlying process (and hence the information needs of stakeholders) had been resolved.
- 3. The latest audit finding should be seen in the context of other work, in particular:
- 3.1 The improvements in the common funded delivery process agreed with references (c) and (d) and now under implementation under the guidance and direction of the RPPB and MC.
- 3.2 The DPRC-led work on governance (initiated in response to an earlier MC/RPPB recommendation (reference (e).

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#### Aim

4. The aim of this paper is to set out arrangements for the follow up of the IBAN's recommendations, identifying responsible entities and timelines

#### **Background**

5. Central to the IBAN report is the observation that NATO struggles to provide common funded capabilities by the time that the Strategic Commanders need them: completion of the capability package process in full can take 16 years. The IBAN report contains five main findings, and five overarching recommendations, reproduced below for ease of reference:

#### **Audit Findings**

- 5.1 The CP process does not adequately include critical steps needs to develop capabilities, particularly those involving technology, which reduces its effectiveness.
- 5.2 CPs generally do not originate from the NATO defence planning process, which results in ad-hoc work and limits traceability to NATO's agreed capability shortfalls.
- 5.3 The Strategic Commands do not effectively manage their capability requirements work. Insufficient institutional capacity causes an over reliance on external support.
- 5.4 The CP process does not fully incorporate important principles, such as change and risk management. Supporting information systems and processes are also deficient.
- 5.5 Critical elements of governance, including overarching guidance, complete oversight and transparent monitoring and control, are not yet implemented.

#### **Audit Recommendations**

- 6.1 Design a complete process to ensure the delivery of the right capabilities on time. The process should include all capability development activities, traceability to NATO defence and operational planning as well as allow for ongoing prioritisation based on NATO assessments of current and future security needs.
- 6.2 Create elements of a consistent NATO-wide portfolio, programme, and project management approach to address management shortfalls and inconsistencies.
- 6.3 Build institutional capacity by addressing the staffing needs for requirements management in the Strategic Commands.
- 6.4 Improve information management and transparency by rationalising and modernising the processes and information technology used to manage CP work.

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- 6.5 Unify, strengthen and clarify (who, what, when, how, why) governance roles to ensure that capability requirements reflect needs and enable capability delivery as closely as possible to agreed plans.
- 7. The IBAN also recommends the engagement of external national subject matter experts so that the work can take account of national experience and best practice.

#### **Discussion**

- 8. With reference (e) Council accepted the advice of the MC and RPPB that their proposed improvements for capability delivery did not tackle the wider problems caused by an unnecessarily convoluted governance structure. As such, the MC and RPPB suggested that the Council in support of the initiative to reduce by 50% the amount of time needed to deliver common funded capabilities, consider a review of the governance arrangements by the Deputies Committee with its perspective to cover cross-cutting issues.
- 9. As the IBAN report clearly states, the current "tangled web of committees and boards" that has evolved requires consensus decisions in multiple fora, often at cross-purposes with each other for each step of a project. While well intentioned, these multiple decisions and duplication of responsibilities result in a gap in governance, hinder real and clear accountability, hamper the resource committees' ability to address cost growth, and result in significant delays in the actual delivery of common funded capability.
- 10. The first and fifth recommendations are key: changes to governance and process will drive the response to other audit findings. Governance is currently being addressed by the DPRC. The Board also notes that decisions to common funded capability have a political dimension which should be reflected in process and procedure.
- 11. The Board intends to press ahead with the development and implementation of measures to address the weaknesses identified by the IBAN. However care will be needed to ensure that this does not pre-empt decisions that the Council will take based on the outcome of the DPRC deliberations (which are due to be completed in time for the June 2017 Defence Ministers' meeting). It would thus be logical for the RPPB to:
- 11.1 Ensure that work packages or initiatives that might duplicate or interfere with DPRC work on governance are avoided. At the same time, the Board will continue to engage with and support the DPRC as required. In this context the RPPB assumes that, as senior policy committee responsible for the common funded capability process, it will oversee the implementation of the decisions taken by Council as a result of this work.
- 11.2 The Board believes that the recommendations in paragraphs 6.2 and 6.4 should be treated as a priority by the Strategic Commands in developing the comprehensive roadmap. Caution should be exercised in investing further in the 14 different information systems until a way forward has been determined.

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- 11.3 Ensure that the delivery of common funded capabilities currently under implementation is not delayed or otherwise affected adversely in consequence of the action taken to follow up the performance audit.
- 12. The Board is concerned by the effect that constraints on military institutional capacity has on the common funded capability delivery process and considers that the issue could be considered further by the Defence Policy and Planning Committee (DPPC). In this context the Board notes that the DPPC is overseeing a functional assessment of the NATO Command Structure commissioned by Heads of State and Government at the Warsaw Summit. This work should contribute to the early identification and more effective management of military requirements. In the C4ISR domain, requirement definition is not one step in a linear process (initiation, definition, realisation and use) but a more agile development process with more dynamic interaction between requirement setting and implementation phases.
- 13. There are however a number of potential improvements that could be made in the short term. An illustrative (but not exhaustive) list includes:
- 13.1 <u>CIS requirement responsibilities</u> The IBAN is rightly concerned that due to a lack of in-house expertise ACT has become reliant on the NATO Communication and Information Agency (NCIA) to articulate requirements for CIS capabilities and services. Such dependence does not accord with the principles of good governance which require a clear separation between the requirement owner and service provider and, in this context, both organisations are vulnerable to criticism. It is recognised that ACT currently lacks the inhouse expertise to define functional user requirements which then have to be combined with technical requirements that can be used in a contractual relationship with the industry. Without changes to the relevant Peace Establishments it would be necessary for ACT to draw on external assistance but such support in defining use requirements should not be provided via the NCIA but direct with suitably qualified independent companies or consultants. In budgetary terms this should be cost-neutral as it requires only redirection of funding to support other suppliers and should be capable of quick implementation via ACT and NCIA's annual review of customer funded support.
- 13.2 <u>CP review</u> The IBAN notes that the Strategic Commands do not conduct the biannual review of CPs that their process requires. In consequence there is effectively no mechanism through which the military requirements contained in already approved CPs can be reconsidered in the light of changed strategic circumstances. In this context the IBAN notes a SC view that it lacks the authority to undertake such a review. While it is certainly true to say that subordinate entities are not able to overturn decisions (such as CP approval) taken by Council, there is nothing that prevents the SCs from making recommendations where necessary. Indeed, if this were not the case, then new CPs could only be developed if directed by higher authority. There is no apparent reason why these reviews should not be reinstated with immediate effect, although care will be needed to ensure that they do not act as a spur to requirements creep, or create further bureaucratic delay.
- 13.3 <u>Technology Intensive Projects</u> The IBAN noted that technology intensive projects were particularly prone to slippage. Slippage can be due to poor requirements definition,

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poor design of the solution, poorly managed implementation, or as the result of changed user requirements. Given the nature of these capabilities, and the critical contribution they make to the military effectiveness of the Alliance (as well as the significant amount of common funding that they require) it is important that the risk of delay is minimised. Although in some instances further work will be needed to identify and recommend solutions, more immediate benefit could be obtained by the more rigorous application of project management principles, for example by signing off projects only when it is clear that requirements are sufficiently well defined to be implemented without unacceptable risk. Care would, however, be needed to ensure that this did not cut across work on governance. This should foster a more through-life approach to capability management and help ensure that CPs are initiated, submitted, approved, and implemented in time to replace existing capabilities before they reach the end of their effective life.

13.4 Requirement Control & Risk Management
The IBAN has identified a number of areas where the Strategic Commands do not currently comply fully with their own regulations and procedures (including the collection and use of management information) or where controls are weak (for example, in setting and controlling the evolution of requirements, and the identification and mitigation of risk). The Strategic Commands should be invited to draw up an action plan setting out how, when, and by whom these issues might be addressed.

### **Planning Assumptions**

- 14. Without pre-empting the outcome of any of this work, for planning purposes it is assumed that modified processes:
- 14.1 Will be less complex than the current arrangement, outlining clear responsibilities and accountability and removing unnecessary duplication of responsibilities. As the IBAN notes, the response to previous reviews has tended to add layers of bureaucracy and thus exacerbate the problem rather than solve it.
- 14.2 Are designed to be simpler and less manpower intensive to operate.
- 14.3 Will not adversely impact the delivery of capabilities already approved for implementation.
- 14.4 Will form a package that is within the capacity of the organisation to deliver. It would be preferable to deliver a small but focussed and prioritised package of measures than aim higher only to achieve less.
- 15. It is further assumed that nations will not be willing to provide significantly more resource, either to support the review and re-engineering of processes or their subsequent operation.

#### **External Advice**

16. IBAN highlights the potential benefit of external advice. Military common funding accounts for less than 0.3% of total defence expenditure by Allies, from which it follows that

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the vast majority of requirement, programme, and acquisition activity is managed directly by nations. In many cases these processes have been subject to thorough overhaul in recent years as nations have sought to achieve improved capability delivery and better value for their taxpayers. It is in NATO's interest to exploit the lessons that have been hard-won by individual Allies and in this context the expertise provided by the proposed Group of Senior Experts (GSE) that is under discussion in the DPRC should be valuable and the Board stands ready to support the GSE in its work, and respond as directed to recommendations agreed by the Council.

#### **NSIP Performance Audit and Wales Summit Tasking Update**

- 17. The comprehensive set of measures commissioned by Council at references (c) and (d) covered the complete spectrum of the capability delivery process and represent a substantial and coherent effort to improve the delivery of common-funded capabilities.
- 18. As a result, more attention is being paid to agreed timelines, clearer reporting requirements and increased accountability. Better reporting and analysis tools contribute to improved project implementation monitoring and enable better decision-making in dealing with implementation problems or delays. Regular project and CP reviews contribute to increased visibility on the performance of the NSIP, both from a programme and individual project perspective. For all new projects, lessons-learned are applied from the outset to mitigate the risks of delays, higher cost and requirements creep. Further process improvements continue to be initiated and implemented towards better capability delivery while avoiding any measures that have the result of slowing down project implementation.
- 19. It will, however, take time for the full benefit of these changes to become visible in a complex, multi-year programme. The Investment Committee has indicated that the performance results from the implementation of NSIP projects in 2015 and the first half of 2016 do not yet show the visible signs of improvement that nations would have expected. Reasons for this include overoptimistic project implementation planning; insufficiently defined and unstable requirements; and over dependence on one implementation body (the NCIA); as well as the need for time for the new measures to bed in. The Board will provide a separate and more detailed assessment drawing on input to be provided by the Investment Committee, on the NSIP performance in time for the October Defence Ministerial meeting.

#### **Public Disclosure**

20. Noting that the performance audit report is unclassified, the Board expects it to be made available to the public once it has been agreed by Council.

#### Conclusions

21. The RPPB acknowledges the IBAN's findings and recommendations which should be tackled in logical sequence and with due regard to work already under way. The Board further notes that Allied Command Operations, Allied Command Transformation, the International Military Staff, the NATO Office of Resources, and the NATO Communications and Information Agency agreed with the audit recommendations. In its role (mandated by

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Article 15 of the NATO Financial Regulations) the Board will exercise its lead responsibility for audit follow-up, save for the work on governance which is being led by the DPRC with their perspective to cover cross-cutting issues.

- 22. A key element of this governance review should be to simplify decision making and hold implementing entities accountable by determining what decisions need to be made to ensure the appropriate capability is delivered, how it will be resourced and implemented, what entity is appropriate to make each of these decisions and what related advice is needed to inform them.
- 23. Caution will be necessary in order to avoid action that pre-empts or prejudices the outcome of the work on governance which need to be taken into account in the Board's wider response to the audit. Although this will constrain what can sensibly be undertaken in the short term, some near term gains are still possible. It should be possible to separate requirement setting and provider functions, and reinstate a bi-annual CP review process, relatively quickly and without additional resources. There is scope to look at options for enhancing institutional capacity ahead of final decisions on governance and process, and the DPPC could be invited to consider this in the context of the wider functional assessment of the NCS.
- 24. Further work is needed to identify measures to improve the delivery of technology intensive projects, although care is needed to ensure that this does not cut across work on governance. The military importance of these projects, and their cost, underlines the need for this work.
- 25. There is potentially much to be learned by tapping into national experience of improving capability delivery and the Board awaits with interest the advice of the Group of Senior Experts and stands ready to oversee the implementation of Council agreed recommendations.
- 26. Work on data handling and management, and a NATO-wide portfolio, programme and project management approach cannot start in earnest without a clear understanding of the process and governance arrangements that will apply. Preparatory work, for example on better defining the "as is" databases could however proceed.
- 27. An initial roadmap summarising the work to be undertaken, lead responsibilities, and tentative timelines, is attached at Appendix 1. This will be further developed by the International Staff, with input from the Strategic Commands, to cover all IBAN findings for consideration by the Board by 1 December 2016.

#### Recommendations

- 28. The Board recommends that Council:
- 28.1 Notes this report and agrees the conclusions at paragraphs 22 to 28;

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- 28.2 Invites the RPPB to continue its work on improving the delivery of common funded capability;
- 28.3 Notes that the RPPB, as senior policy committee for common funding capability delivery and as the Alliance audit committee, will address all audit observations and recommendations except those on governance aspects which are being taken forward by the DPRC with support from a Group of Senior Experts. This includes *inter alia* work on an "as is" assessment of capability and project management information systems, and continuation of work to improve the delivery of common funded capabilities as already mandated. In addition
- 28.3.1 Invite ACT to explore alternatives to the use of NCIA to advise on the formulation and development of military requirements, and submit proposals with a view to implementation by 31 March, and;
- 28.3.2 Note that the Board intends to undertake further work focussed on the delivery of technology intensive projects, with special focus on capabilities delivered through the NCIA and with a view to the timely and cost-effective planned replacement of existing capabilities as they reach the end of their useful lives, including the appropriate retirement of legacy systems.
- 28.4 Invite the RPPB to continue to support DPRC and GSE work on governance, by providing advice on the opportunities to improve the effectiveness of governance, enhance accountability and reduce overlap and duplication in the delivery of common funded capability.
- 28.5 Invite the DPPC to consider, perhaps in the context of the functional assessment, whether there is a requirement for building institutional capacity in the NCS, addressing *inter alia* the range of skills and expertise needed, the respective roles of the Strategic Commands, and the overall manpower requirements, and submit recommendations for consideration by Council by the time of the June 2017 Defence Ministers' meeting.
- 28.6 Note that a further update on the effectiveness of measures already taken to improve the delivery of common funded capability will be provided by the RPPB in time for the October meeting of Defence Ministers.
- 28.7 Task the RPPB to provide a comprehensive status report to the Council on improvements to common funded capability delivery including addressing the effect of measures agreed in response to IBAN recommendations from both the 2015 and 2016 reports; and provide a full assessment of the outcome of the work by Group of Senior Experts to be established under the DPRC, before the June 2017 Defence Ministers Meeting.
- 28.9 Agree that the IBAN report should be made public in accordance with agreed policy.

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### **INITIAL ROADMAP**

Report para	Measure	Proposed Lead	Target Date	Comment
27	Comprehensive roadmap covering all IBAN findings for consideration by the Board	IS/NOR	1 December 2016	
11	Implementation of Council agreed governance measures	RPPB	To be confirmed, but after March 2017	Contingent on the outcome of the DPRC-led work on governance
13.2	Reinstate bi-annual CP review process	Strategic Commands	31 March 2017	
13.3	Identify measures to improve the delivery of technology intensive projects, initially through a scoping study	RPPB	Scoping work complete by 31 Jan 2017	
13.4	Action plan to improve control of requirements, collection and use of management information, and the identification and mitigation of risk.	Strategic Commands	31 March 2017	
14	Implementation of capability delivery improvement measures from PO(2016)0051	RPPB/MC, supported by the IC	Ongoing, with progress report to be provided by the time of the October DMM	Report based on advice and recommendations from the IC

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Report para	Measure	Proposed Lead	Target Date	Comment
21	Define "as is" information management arrangement to provide a foundation for work to develop a rationalised and more effective system.	RPPB	31 March 2017	
28.4	Support DPRC (and GSE) work on governance, as required	RPPB	Ongoing	With staff support as appropriate
28.3.1	ACT to explore alternatives to the use of NCIA to advise on the formulation and development of military requirements	ACT	31 March 2017	
28.5	Requirement to build institutional capacity within the Strategic Commands to be addressed by DPPC	DPPC	By June 2017 DMM	

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## DPRC TASKING TO IMPROVE THE GOVERNANCE ASPECTS OF THE COMMON FUNDED CAPABILITY DELIVERY PROCESS

#### **READ-AHEAD PAPER**

- 1. Since the 2014 Summit in Wales, Allies have been considering options to improve the delivery of common funded capabilities, mainly through the Resource Policy and Planning Board (RPPB) and the Military Committee (MC). This has resulted in a jointly developed comprehensive Capability Delivery Action Plan, the implementation of which is underway<sup>1</sup>.
- 2. At the Warsaw Summit, Heads of State and Government further tasked the Deputies Committee, supported by relevant experts, to provide recommendations in time for the June 2017 meeting of Defence Ministers on how to improve the governance aspects of the common funded capability delivery process, under Institutional Adaptation.
- 3. In its work, the DPRC will be supported by a Group of Senior Experts (GSE) and it will take due note of related strands of work as well as the recent reports by the IBAN and the RPPB on the need to reform NATO Security Investment Programme governance and the need to improve NATO's capability package process.
- 4. Previous briefings to Council have demonstrated that the NATO governance structure for common funded capability delivery is overly complex and prone to delays resulting in **an average of about 16 years to deliver common funded capabilities.** This is a result of the actions of diverse stakeholders, including policy committees, resource committees, steering committees and project groups, all of which impact cost, scope and schedule. Furthermore, as noted in the IBAN reports, the current process consists of too many steps, unclear ownership/accountability, lack of overarching management, as well as inadequate control procedures for disconnected, undocumented and/or overlapping processes.
- 5. The IBAN reports contend that the root cause of many of the issues lies in poor or lacking governance of the process. Responsible stakeholders are only answerable within their own communities for actions taken during specific phases. The complexity of the current governance environment in which decisions are taken complicates and even undermines NATO's ability to deliver required capabilities on time, as recognised by many NATO stakeholders. Therefore it is critical to get the DPRC tasking right, particularly with respect to the scope of the exercise they are to undertake.
- 6. On 29 September, the Deputies had an informal discussion on the mandate of the GSE. The main conclusion of this discussion was that improvements to governance of common-funded capability delivery should result in timely capability delivery to NATO commanders. Drawing on this conclusion, the draft mandate for the GSE is offered below

<sup>&</sup>lt;sup>1</sup> PO(2016)0051

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for Ambassadors' consideration and comments at the informal meeting on 5 October 2016. The Ambassadors' views will guide further DPRC work on the Terms of Reference of the GSE, which are currently being developed.

The mandate of the GSE is to recommend improvements to governance of commonfunded capability delivery, with the overarching aim to ensure that NATO commanders have the required capabilities when needed. A cross cutting and systemic approach that considers previous findings related to common-funded capability delivery processes will facilitate this aim. This tasking will not impede ongoing and planned development and delivery of common-funded projects, including RAP and VJTF related work.

## Summary note to Council on the need to improve NATO's capability package process

#### **Background and context**

To meet its political ambitions, NATO must develop and deliver capabilities. The NATO Nations themselves conduct most capability development. They also collectively govern common funded capability development representing billions of Euros of investment. In 1992, the Nations agreed an approach to conduct these activities using the NATO Security Investment Programme, referred to as the capability package (CP) process.

NATO is implementing or developing numerous CPs, representing over EUR 11 billion in potential costs. Each CP includes several civil works and/or technology intensive projects. In March 2015, the International Board of Auditors for NATO (IBAN) submitted a report to the North Atlantic Council (Council) on the implementation of these projects. Council subsequently requested that we review how NATO develops requirements for them, which was outside the scope of our previous audit. This report answers Council's request.

#### **Audit objectives**

In accordance with Articles 2 and 14 of the IBAN charter, we submit this performance audit report to Council to assess whether NATO effectively and efficiently manages and governs its activities to set and approve requirements for common funded capabilities. Our specific audit objectives are as follows:

- 1. To what extent does the process to develop and approve requirements support the timely delivery of capabilities in accordance with Alliance needs?
- 2. To what extent does NATO efficiently and effectively manage common funded capability requirements?
- 3. To what extent does NATO's governance ensure an accountable and transparent process?

#### **Audit findings**

As shown in the figure below, the process to develop, approve and implement current NATO CPs will take at least 16 years. As a result, NATO struggles to deliver capabilities in time to meet dates set by its commanders and agreed by the NATO Nations. The available data show that most CPs, on average, are expected to be delivered more than 4 years after the date when the commanders need them. Extended requirement definition time frames are among the sources of these delays.



Source: IBAN analysis of data provided by auditees. We used all available milestone data. See paragraphs 2.1.3-2.1.4.

Shortfalls in process, staffing, technology and governance contribute to this outcome:

- The CP process does not adequately include critical steps needed to develop capabilities, particularly those involving technology, which reduces its effectiveness.
- CPs generally do not originate from the NATO defence planning process, which results in ad-hoc work and limits traceability to NATO's agreed capability shortfalls.
- The Strategic Commands do not effectively manage their capability requirements work. Insufficient institutional capacity also causes overreliance on external support.
- The CP process does not fully incorporate important principles, such as change and risk management. Supporting information systems and processes are also deficient.
- Critical elements of governance, including overarching guidance, complete oversight and transparent monitoring and control, are not yet implemented.

Without a more concerted and coordinated effort across these areas, meaningful improvements to capability delivery will be difficult to achieve. Successfully undertaking such an effort will require stronger, more unified governance. The Nations recognise this, but have not yet agreed any substantial actions.

#### Audit recommendations

To address the shortfalls found in our audit we recommend the following:

- Design a complete process to ensure the delivery of the right capabilities on time.
   The process should include all capability development activities, traceability to NATO defence and operational planning as well as allow for ongoing prioritisation based on NATO assessments of current and future security needs.
- 2. Create elements of a consistent NATO-wide portfolio, programme and project management approach to address management shortfalls and inconsistencies.
- 3. Build institutional capacity by addressing the staffing needs for requirements management in the Strategic Commands.
- 4. Improve information management and transparency by rationalising and modernising the processes and information technology used to manage CP work.
- 5. Unify, strengthen and clarify (who, what, when, how, why) governance roles to ensure that capability requirements reflect needs and enable capability delivery as closely as possible to agreed plans.

As in our previous report on the CP implementation process, we believe that NATO could benefit from engaging a group of external national subject matter experts to deliver more detailed proposals in these areas for Council approval.

In their formal comments, Allied Command Operations, Allied Command Transformation, the International Military Staff, the NATO Office of Resources and the NATO Communications and Information Agency agreed with our recommendations. They also provided comments which we took into account, as appropriate, to strengthen the report.

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24 May 2016

(Final version, including the comments of Allied Command Operations, Allied Command Transformation, the International Military Staff, the NATO Communications and Information Agency and the NATO Office of Resources)

## **International Board of Auditors for NATO**

Performance audit report to Council on the need to improve NATO's capability package process

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## 1. Background

#### 1.1 Overview

- 1.1.1 NATO needs certain capabilities to meet current and future security challenges. Within NATO a capability is defined as: "the ability to perform actions to achieve desired objectives/effects" (PO(2011)0210). One example of a typical capability is the ability to deploy forces. Another is the ability to exchange information between NATO entities. To achieve such capabilities, NATO needs infrastructure, including physical infrastructure and technology intensive communication and information systems. Other than these 'materiel' elements, a capability also includes doctrine, organisation, training, leadership development, personnel, facilities and interoperability (DOTMLPFI). NATO defines capability development in life cycle terms, or "the process from political guidance through requirement identification and the subsequent planning steps, through acquisition, fielding, in-service management and disposal" (PO(2012)0030).
- 1.1.2 Capabilities may be developed individually by the Nations, by a group of Nations, or collectively by all Nations. Individual NATO Nations develop the great majority of the Alliance's capabilities. Compared to national capability development, collective efforts occur on a relatively small scale. Collective capabilities are based on the principle of "common funding". To be eligible for common funding, a capability must be deemed "over" the existing available capability and also "above" reasonable expectations of available national resources. Common funded capabilities relate to one or more NATO resource "pillars":
  - The capital investment needed to enhance and update NATO's assets,
  - the military and civil budgets and
  - NATO's international workforce.

Common funding refers to formal arrangements which have been put in place whereby member Nations, collectively, provide funds to NATO.

1.1.3 The NATO Security Investment Programme (Investment Programme) is a group of capital investments to establish or maintain military capabilities. In 1992, the Nations responded to changes in the resource management environment by restructuring the framework in which the Investment Programme operates. The results of this effort included the establishment of the capability package (CP) process. NATO is currently implementing or developing numerous CPs representing more than EUR 11 billion in common funded expenditure. Nearly half of this amount remains to be spent. We were unable to determine the total number of active CPs because consistent data are not available. NATO implements CPs as individual Investment Programme projects, which together form the materiel elements of a capability. NATO does not use the CP process to develop NATO headquarters capabilities financed through the Civil Budget.

A capability package defines the required capability, compares assets needed against assets available and provides initial information on the projects necessary to achieve the capability, including cost estimates.

- 1.1.4 The CP process has 5 phases, as described in the Bi-Strategic Command Directive 85-1 (Bi-Strategic Command directive), which intends to guide the Strategic Commands' activities and process to manage CPs:
  - (1) Identification and prioritization of requirements
  - (2) Development
  - (3) Approval
  - (4) Implementation
  - (5) Operation
- 1.1.5 The word "requirement" has not been defined consistently within NATO, therefore NATO bodies may understand the term differently. For the purpose of this audit, we define requirements as: the capability needs developed and documented by the Strategic Commands during CP phases 1 and 2 and then approved by governing bodies during phase 3. These requirements underpin the common funded capabilities NATO needs to maintain, improve or develop.
- 1.1.6 NATO policy embeds common funded capability development in the NATO Defence Planning Process (NDPP) (PO(2009)0042). The NDPP aims to develop and deliver forces and associated capabilities to undertake the full spectrum of the Alliance's missions. NATO uses the term "Minimum Capability Requirements" to refer to the full set of capabilities needed to support future missions. Written at a high level, they cover predominantly the medium term. They provide the foundation for capability "targets" set for each NATO Nation and for NATO itself. NATO intends the targets it "apportions" to itself to prompt existing CP validation or new CP development, as necessary. Appendix 3 provides greater detail on the NDPP and its intended linkage to the CP process.

NATO determines its "Minimum Capability Requirement" through a structured process, based on "Political Guidance" agreed by the Nations. Among other things, this guidance incorporates the number, scale and nature of the operations which NATO should be able to conduct, referred to as the Alliance's "Level of Ambition".

- 1.1.7 Many NATO stakeholders are involved in developing, approving and implementing CPs. The process includes the Strategic Commands, NATO International and Military Staffs, NATO agencies, the North Atlantic Council (Council) and subordinate committees and boards and the individual NATO Nations.
- 1.1.8 NATO has two Strategic Commands, Allied Command Operations (ACO) and Allied Command Transformation (ACT). They are the highest level of the NATO Command Structure. In general, ACT has the lead management responsibility to produce CPs containing requirements for common funded capabilities and is responsible for estimating the resources needed to implement the CPs. ACO supports ACT by

contributing user requirements and in some cases maintains lead management responsibility for CPs.

- 1.1.9 Until 1989, NATO capability development through the Investment Programme consisted mainly of civil works infrastructure, implemented by territorial "Host Nations". These types of projects, such as airfield and port enhancements, still comprise important NATO capabilities. However, since the 1990s the majority of NATO's capability investment has shifted towards more technology intensive communication and information system projects implemented by the NATO Communications and Information (NCI) Agency. In the context of capability delivery, the NCI Agency is considered to be a Host Nation. CP projects implemented by the NCI Agency make up nearly 60% of the Investment Programme by financial volume.
- 1.1.10 NATO International and Military staffs work for the NATO Nations. These staffs, particularly in the International Staff's NATO Office of Resources and the International Military Staff's Logistics and Resources division prepare products to support CP decision-making by the Nations. Based on these products, the Nations, through committees and boards, exercise governance over common funded capability delivery.
- 1.1.11 In March 2015, we submitted a report to Council on the implementation of Investment Programme projects (IBA-AR(2014)35). In this report we found that these projects faced significant delays at all implementation milestones. We also cited ongoing work that associated weaknesses in requirements definition with the problems we identified. The requirements phases were outside the scope of that audit. In its response to our report, the Resource Policy and Planning Board (Resource Board) recommended that the Council request us to audit NATO activities to define capability requirements. Council subsequently agreed this recommendation.
- 1.1.12 This current report answers the Council request by identifying factors in the requirements definition phase that are likely to affect the entire capability delivery process, particularly with regards to time and quality.

## 1.2 Audit objectives

- 1.2.1 In accordance with Articles 2 and 14 of the IBAN charter, we submit this performance audit report to Council to assess whether NATO effectively and efficiently manages and governs its activities to define and approve requirements for common funded capabilities. Our specific audit objectives are as follows:
  - 1. To what extent does the process to develop and approve requirements support the timely delivery of capabilities in accordance with Alliance needs?
  - 2. To what extent does NATO effectively and efficiently manage common funded capability requirements?
  - 3. To what extent does NATO's governance ensure an accountable and transparent process?

### 1.3 Audit scope and methodology

- 1.3.1 As a follow-on to our earlier report on Investment Programme project implementation, we audited the process and activities to develop and approve NATO's common funded capability requirements in CPs.
- 1.3.2 To support our findings for all 3 objectives, we developed and sent questionnaires to ACT, ACO, the NCI Agency, the NATO Support and Procurement Agency, the International Military Staff and the NATO Office of Resources to inform our audit planning activities. We received responses from all entities. We assessed the responses, analysed many types of NATO documents and conducted interviews with senior officials in the above-mentioned organisations, NATO Headquarters Defence Investment and Defence Policy and Planning divisions and other staff responsible for requirements definition and management. Using inputs from all of these sources, we created a diagram depicting the requirements definition and management process. This diagram was very comprehensive and too large to show in detail in this report, so only a simplified version is presented here. The diagram was shared with all entities and incorporated their input. We used this work to support our analysis of CP process design and effectiveness. We also assessed minutes from and presentations given at senior-level governance bodies.
- 1.3.3 We selected 6 CPs and 1 capability not associated with one specific CP as examples to further support our findings. We examined 3 primary areas: (1) the requirements development process (2) management of the requirements and (3) governance of the process. We used the examples to conduct detailed walk-throughs with relevant staff. Our intent was to gain a deeper understanding of the process and to support our audit findings based on the sources of information described above. However, these example CPs do not constitute a representative sample. Thus, while the selection was agreed with all auditees as a fair mix of CPs, the results cannot be generalised.
- 1.3.4 To support our assessment of CP process timeliness, we obtained milestone data from ACT's CP database. We also obtained data on project milestones for active CPs from the NATO Office of Resources. These are the same as those agreed by responsible stakeholders and the Nations in January 2016 as the basis for monitoring and controlling project implementation. We combined the data from both sources to develop a complete view of how well the process performs. Appendix 4 presents more detailed results of this analysis. In all instances, we used the information provided by NATO bodies in documents, databases, or by their staffs as-is. We did not assess the validity or reliability of the information or data provided as this was not a separate audit objective.
- 1.3.5 Prior to issuing the report, we shared a draft with the Chiefs of Staff at ACO and ACT, the Director General of the International Military Staff, the General Managers of the NATO Communications and Information and the NATO Support and Procurement Agencies and the Director, NATO Office of Resources. We incorporated comments received into this report, as appropriate. We conducted the audit from October 2015 through April 2016 in accordance with international auditing standards.

## 2. Capability requirement definition process is not effective and efficient

## 2.1 Extended requirement definition time frames contribute to capability delivery delays

2.1.1 The effectiveness and efficiency of activities to define and manage capability requirements can be measured in part by how well the responsible stakeholders deliver solutions needed by NATO military commanders. In our review, we used a measure of time. We analysed data from multiple systems to estimate whether current CPs will be delivered in time to meet NATO operational needs. Our audit scope did not include determining changes in CP cost over time or reviewing whether delivered capabilities met user needs.

#### Overall delays in capability delivery

- 2.1.2 Two separate information systems record CP information. ACT maintains one system, referred to as the Capability Package Management Information System, with some data on CP development and approval. The NATO Office of Resources maintains the other system, referred to as the Common Funded Integrated Resources Information System, which includes some data on CP project implementation.
- 2.1.3 ACT has records for 112 CPs. Of these, 81 include the date by when the Strategic Commanders need the capabilities. In addition, data on the 71 CPs recorded in the Capability Package Management Information System as under implementation include some, but not all, CP development and approval milestones. The Common Funded Integrated Resources Information System includes some, but not all, project implementation milestone information for 66 CPs, each of which have at least some milestones recorded in ACT's system.
- 2.1.4 We made calculations using the available milestone and required delivery date data for the 66 CPs and their projects recorded in both the Capability Package Management Information System and the Common Funded Integrated Resources Information System. As a whole, the data show the time expected/planned to deliver the capabilities required by the Strategic Commands and agreed by the Nations in the Military Committee and the Resource Board.

Figure 1: Average expected/planned delivery time for 66 active CPs with projects currently under implementation



Source: IBAN analysis of ACT and NATO Office of Resources data on current planning.

- 2.1.5 As shown in figure 1, available NATO data predict that for the average CP, at least 16 years will pass between the official start of the Strategic Commands' requirements work and completion of all CP projects currently under implementation by Host Nations. More specifically:
  - The Strategic Commands spent nearly 2 years, on average, to develop current CPs. This number includes the time elapsed between approval of CP initiation by the Bi-Strategic Command CP Board and the Strategic Commanders' submission of the CP to the NATO Headquarters resource and military communities (see Figure 2 below). This is the part of the process during which the Strategic Commands are responsible for defining military requirements. This metric does not include time spent developing capability requirements prior to official CP initiation, which in some cases has been significant. Figure 2 and surrounding text in section 2.2 describe these ad-hoc activities, which lack milestones that would permit measurement.
  - The Military Committee, Resource Board and Council, supported by the NATO Office of Resources and the International Military Staff, spent 16 months, on average, to approve the CPs. The NATO Office of Resources, Host Nations and the Investment Committee (responsible for monitoring and controlling CP project implementation) then took an average of 18 months to produce and approve CP implementation plans. Our prior report assessed these plans, which are intended to guide subsequent implementation of CP projects, and their use.
  - According to current planning data, completion of all CP projects for any given CP will take a further 11 years, on average. Our prior report on Investment Programme project implementation discussed in more detail how problems associated with implementation contribute to delays.
- 2.1.6 As figure 1 shows, NATO will not deliver capabilities when needed by the Strategic Commands. Current planning forecasts that NATO will deliver 51 (77%) of the 66 CPs with active projects an average of 4.4 years after NATO military commanders need them. For these CPs, delays ranged from 90 days to more than 10 years. Because all of these CPs have yet to be delivered, the delays will likely increase over time. The delays have negative operational and financial consequences. They also limit the extent to which the Alliance will meet its Level of Ambition.
- 2.1.7 3 CPs have already met, or are forecast to meet, the dates by when the Strategic Commands need them. 7 CPs do not have a recorded required delivery date. It is not possible to assess the extent of delays using the Strategic Commands' required delivery date data for a further 5 CPs. Appendix 4 describes CP process performance in more detail.

#### Requirements definition contributes to delays

- 2.1.8 Extended requirement definition activities contribute directly to these outcomes. In particular, the First Stage Authorisation milestone, which records the Investment Committee's agreement of CP project detailed scope and cost, is critical for requirement definition. By the time projects reach this milestone, Host Nations should understand the requirements sufficiently to develop specifications. Industry uses these specifications, which are also a kind of requirement, to build the preferred solutions.
- 2.1.9 For First Stage Authorisation, the Common Funded Integrated Resources Information System includes baseline and actual data for 100 (21%) of the 477 projects currently under implementation. Of these projects, over half missed this milestone by over one year. We also observed the following:
  - For the 44 technology intensive projects in this category, the average delay in reaching the First Stage Authorisation milestone is nearly 3 years.
  - Some civil works projects also need additional requirement definition work after CP submission. 11 civil works projects among active CPs missed First Stage Authorisation by over one year, with an average delay of 2 years.
- 2.1.10 Even during capability implementation, insufficient requirement definition contributes to delays. According to a recent review, the need for extended requirements work is one of the main reasons that Host Nations continue to miss project milestones.
- 2.1.11 Available information does not clearly state which aspects of requirement definition cause these delays. However the need to conduct activities beyond those described in the official CP process, as discussed in the following section, is a likely contributing factor. In addition, the management and governance shortfalls discussed in sections 3 and 4 play a role. Unless all relevant activities are properly accounted for in the process and then managed and governed well, NATO will continue to face difficulty delivering capabilities on time.

## 2.2 CP process supports resource planning but lacks elements critical to developing capabilities

2.2.1 Using the Bi-Strategic Command directive as a starting point, we created a diagram of the CP process. Figure 2 provides a simplified view of the steps by which NATO develops, approves and implements capability requirements. Appendix 2 provides further details. Based on our interviews, briefings received and assessment of process guidance, we assessed the extent to which the CP process incorporates activities needed to develop capability requirements that can be implemented as projects.

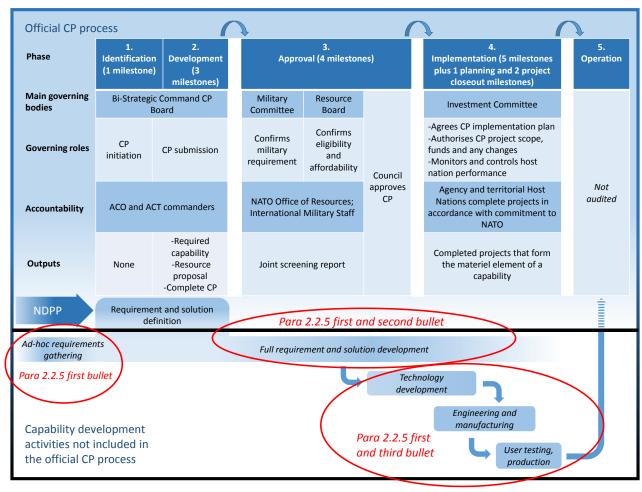


Figure 2: Simplified view of the CP process and activities conducted that are not officially part of the process

Source: IBAN analysis of NATO guidance and ACT information.

- 2.2.2 As summarised in the upper part of figure 2, the official CP process is a set of 14 major milestones, which Appendices 2 and 4 describe in more detail, culminating in the operation of a capability. The Strategic Commands, NATO International Staff and NATO International Military Staff are separately accountable and responsible for various written products at different phases in this process. NATO resource committees, the Military Committee and Council review and approve these products. Host Nations are accountable and responsible for completing and delivering CP projects in accordance with their commitments to NATO as stated in the approved documents.
- 2.2.3 The CP process grew out of the NATO Military Authorities' plan, as approved by the Nations in 1992, to bring forward proposals for commonly-funded activities in the form of CPs. According to the report on the fundamental review of NATO military resource management (C-M(92)16(Revised), the NATO Military Authorities proposed the CP as a tool to directly link military requirements with established force goals. The purpose of the CP was to address resource implications and to include all elements necessary for the Nations to determine eligibility for common funding. Thus, the CP process was implemented primarily to support resource planning in NATO.

- 2.2.4 As such, the fundamental elements of the CP process as indicated in figure 2 represent the Nations' desire for tighter financial management. 9 of the 14 milestones in the official process represent various levels of approval for specific documents. Several of these milestones give the Nations opportunities to provide their views and agree on the resource, military and political aspects of required capabilities. Therefore, as a workflow to better facilitate consultations on how to spend common funded resources, the process is fully in line with the Nations' original intent.
- 2.2.5 However, our audit work shows that the CP process does not constitute a capability development process. In particular, it omits important activities needed to develop requirements and capabilities. The official CP process includes 5 milestones for activities one may associate with capability development. However, we observed disconnects between these milestones and actual capability development activities. The circles drawn in the lower portion of figure 2 highlight these activities, which we illustrate to give an indication of when they occur in the capability development timeline.
  - According to an ACT study, initiation of the majority of existing technology intensive CPs coincided with as many as 4 years of requirement collection and definition activity. This time frame included a year to collect requirements, another year to build a prototype and then two years to validate the prototype and requirements. These activities are not formally built in to the CP process, as figure 2 shows. In addition, the Bi-Strategic Command directive does not describe the wide-ranging role of the specific ACT staff who perform this work. It also lacks a description of the informal sub-processes they use.
  - The CP is supposed to define requirements to the point at which preferred solutions can be identified and costs estimated. However, requirement definition activities often continue after CP submission. As shown in figure 2 and discussed more in section 2.4, requirement and solution development continues during the approval and implementation phases. Because they occur outside the CP process, these activities are more challenging to plan, fund and execute, which contributes to extended time frames and the delays we discuss in section 2.1.
  - The CP process also omits steps that would normally occur after requirement and solution development, particularly for technology intensive capabilities. As shown in figure 2, these include technology development, engineering and manufacturing, and testing and production. To the extent these activities take place, they do so outside of the official process and its governance. Like the requirement definition activities that occur after CP submission, these activities extend the time necessary to deliver a capability and can be a source of implementation delays.
- 2.2.6 The CP process is incomplete in at least 2 other significant respects:
  - The CP process, as described in the Bi-Strategic Command directive, primarily facilitates delivery of the materiel elements of a capability. However, it does not include explicit steps to develop the other capability elements. The Strategic

Commands define requirements in these areas, but typically do so outside of the CP process. As a result, the process itself, and particularly how it was designed and implemented, does not provide sufficient means to ensure that NATO forces are sufficiently led, trained and organised to operate the assets acquired. The Strategic Commands have suggested improvements in this area.

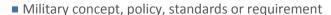
• The process does not include steps to ensure that technology intensive CPs will be initiated, submitted, approved and implemented in time to replace capabilities prior to their end of life. Official CP process guidance does not specifically reference NATO System Life Cycle Management. This makes it more difficult for the Strategic Commands to manage return on investment and monitor and control costs for replacement capabilities. As shown below, replacement or enhanced capabilities, which include many technology intensive requirements, comprise about two-thirds of active CPs recorded in the Capability Package Management Information System, according to ACT.

## 2.3 Capability requirements generally do not originate from NATO defence planning

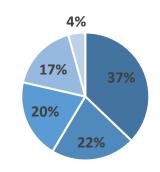
#### **Sources of active CPs**

- 2.3.1 NATO intends to use the NDPP to define its capability needs and priorities. NATO policy considers NDPP outputs as the basis for determining Alliance common funded capability requirements. Through the process of developing collective targets, the Nations intend the NDPP to produce an agreed statement of NATO's ambitions for common funded capabilities. Military Committee policy clearly specifies that CPs should originate from the NDPP (MC 0612). In addition, all requirements in CPs should be traceable to the Minimum Capability Requirements. The policy indicates that requirements identified outside of defence planning, such as through political decisions, are exceptions. We assessed available data on CPs to determine the extent to which they originated from NATO defence planning and examined current CP development activities to determine whether they are connected with the NDPP.
- 2.3.2 NATO information systems do not indicate the source of CP requirements. To obtain source information, CPs must be read individually. Nevertheless, ACT provided information on the sources for 70 of the 112 active CPs recorded in the Capability Package Management Information System. During our audit, ACT did not provide information on the sources of the remaining 42 CPs in this system. Figure 3 shows our assessment of available data on the sources of CPs.

Figure 3: Sources of CP requirements



- Command structure changes or NATO accession
- Strategic concept or political guidance
- Defence Requirements Review
- NATO operation



Source: IBAN analysis of ACT data.

- 2.3.3 None of the 70 CPs with available source information originated directly from the NDPP. Most likely this is due to the fact that the Strategic Commands initiated over one-half of currently active CPs before the Nations agreed the NDPP in 2009. Prior to the NDPP, NATO used a similar process, called the Defence Requirements Review. According to ACT data, only 12 (17%) of the 70 CPs originated from the Defence Requirements Review. These CPs are likely complete. Thus, our work shows that active CPs typically did not originate from NATO defence planning and related outputs such as prioritised shortfalls and Minimum Capability Requirements. As a result, determining CP requirements outside of defence planning is normal practice, rather than the exception as indicated in Military Committee policy.
- 2.3.4 ACO views the NDPP as narrowly focused on requirements for NATO's military forces. The Strategic Commands initiated CPs due to factors other than the needs of NATO forces. For example:
  - Infrastructure requirements originate outside of the NDPP using a geographybased methodology. This methodology relies heavily on ACO operations plans and may be captured directly from NATO operations. As such, these types of CPs are particularly reliant on ACO user requirements.
  - Capability requirements also result from the implementation of new operational concepts such as deployability. Typical sources include concepts, policies and standards. Figure 3 includes requirements originating from such sources together with requirements that do not appear to be traceable to the other sources indicated.
- 2.3.5 The data in Figure 3 also show the impact of NATO's changing footprint. During the years in which the CP process has been in effect, NATO underwent three rounds of enlargement, adding 12 new member Nations. Significant NATO command structure changes accompanied NATO enlargement. For example, in 1997 the Nations agreed to reduce the NATO command structure from 65 headquarters to 20. These changes drove the need for new capabilities, yet were not captured within NATO defence planning.

- 2.3.6 The need to replace systems reaching the end of their life (obsolescence) or upgrade them in response to emerging threats also results in capability requirements. This typically involves replacing existing capabilities, rather than introducing new ones. According to ACT, replacement or enhanced versions of existing capabilities, which include many technology intensive requirements, make up about two-thirds of all CPs recorded in the Capability Package Management Information System. The total number of technology intensive CPs comprises roughly half of all active CPs, according to the same data. As stated in section 2.2, the CP process does not officially account for the steps needed to ensure timely replacement of obsolete capabilities, such as one would find in life cycle management practices. Appendix 4 compares CP process performance for these different types of CPs.
- 2.3.7 Out-of-cycle requirements continue to be necessary because in some cases they are deemed to be too urgent to be addressed by the NDPP. For example, at the September 2014 summit in Wales, Heads of State and Government identified the need for CPs to support the Readiness Action Plan. The Nations agreed this Plan to ensure that the Alliance is ready to respond swiftly and firmly to new security challenges. However, the NDPP cycle called for Minimum Capability Requirements production in April 2016, after the required CP submission dates. As a result, the Strategic Commands had to develop the Readiness Action Plan CPs (including their requirements) outside of the NDPP. This suggests that the NDPP is insufficient to support emerging capability requirements based on new or changed conditions.
- 2.3.8 Recognising that most CPs originate outside the NDPP, an ACT handbook provides informal advice to requirements analysts on potential sources of capability requirements. These sources, shown below, inform ACT's work before and during phase 1 of the CP process. These are in addition to user requirements, which the Bi-Strategic Command directive makes ACO responsible for providing during phase 2 of the CP process.
  - NATO policy,
  - the NATO Strategic Concept,
  - NATO summit declarations,
  - speeches by the Secretary General,
  - Military Committee documents, and
  - enterprise architecture and taxonomies.

Enterprise architecture is the process of translating business vision and strategy into effective change. It does so by creating, communicating and improving the key requirements, principles and models that describe the enterprise's future state and enable its evolution. It is relevant primarily for technology intensive capabilities.

2.3.9 In some cases, such as the Readiness Action Plan, these sources may indicate the broad scope of a required capability. However, declarations, policies, and other high-level potential sources of capability requirements are not requirements documents themselves. They do not provide the type of qualitative and quantitative detail included in

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outputs from defence and operations planning or system life cycle management. Meanwhile, CP process documentation lacks sub-processes to translate these high-level inputs into military requirements that can be implemented. This contributes to the need for ad-hoc work and related challenges as described in section 2.2. The lack of documented sub-processes also weakens the connection to prioritised shortfalls and Minimum Capability Requirements. This limits traceability from the NDPP through to the initial collection of requirements and ultimately the delivery of capabilities.

#### Validation of active CPs

As part of the NDPP, NATO planners develop "targets" for existing and planned capabilities, with priorities and timelines. These include targets recommended to be developed by NATO as a whole, referred to as "collective targets".

- 2.3.10 The sources of CP requirements notwithstanding, validation of existing CPs is part of the NDPP and CP processes. For example, "collective targets," derived through the NDPP, are supposed to guide the Strategic Commands in developing common funded capabilities that NATO needs to maintain, continue working on, or develop anew. In 2013 the Nations did not approve the draft collective targets developed by the Strategic Commands during the first NDPP cycle. Nevertheless, based on the results of a study conducted during the last NDPP cycle, the Strategic Commands validated 52 of the 66 CPs currently under implementation as capabilities to maintain. In general, the remaining CPs were categorised as "under study".
- 2.3.11 The CP process describes a bi-annual review of CPs which is supposed to include an assessment of whether CPs are still valid. We found that this review no longer occurs. Instead, the NATO Office of Resources leads an annual review of CPs and their projects, through which Host Nations present and responsible stakeholders agree the latest milestones. This review primarily focuses on implementation. In our prior report, we found weaknesses in the type of reporting the Strategic Commands provide to support this review.
- 2.3.12 According to ACT, neither the annual review of CPs and projects nor any other mechanism provides the Strategic Commands with the authority to validate whether NATO should continue developing its CPs. To support the annual review, the Strategic Commands conducted a limited assessment of ongoing CPs against current requirements, but did not document a full requirements validation exercise. This increases risk because the strategic environment may change significantly during the time necessary to deliver CPs. For example, recent NATO activity suggests a shift in emphasis from the expeditionary footing characteristic of recent years. Such changes increase the necessity to make hard decisions about what capabilities to develop and by which priority. Without authoritative, through-life review on the validity of CPs by the Strategic Commands, the Nations risk continuing to develop capabilities they no longer need, or need less than other capabilities.

#### Efforts to better join NATO defence planning with the CP process

- 2.3.13 Over the years, the Strategic Commands and other stakeholders have suggested tools to make collective capability development more traceable to defence planning. The Investment Programme manual describes plans intended to capture all elements of the capability development process, identify the totality of the requirement that has to be met to provide capabilities and provide details on specific shortfalls to be met using common funding. However, these plans never materialised.
- 2.3.14 Similar efforts continue. In ACT's response to a recent tasking from Heads of State and Government, the command recommended using new capability and CP plans to improve traceability of CP process inputs to NDPP outputs. The NATO Defence Investment and Policy and Planning divisions are engaged in their own efforts to make improvements, guided by the Capability Development Executive Board. However, it is too early to assess whether any of these efforts will have the intended results.
- 2.3.15 Several obstacles continue to hinder efforts to make improvements in this area. For example:
  - The Secretary General's 2012 end-to-end review of capability delivery found that the NDPP was only one of approximately 20 processes and sub-processes that contribute in some way to capability development. The study concluded that none of these processes are fully coherent.
  - The study also found that the alliance had yet to agree on what its role should be in capability development. In a similar vein, the 2015 ACT handbook for requirements managers and analysts states that NATO still lacks an overarching view of its common funded capability development ambitions.
  - As we found in the cases we reviewed, supported by interviews, there is often no clear hierarchy of definitions, such as for the word "requirement". This limits common understanding. We also found that NATO lacks criteria for what makes a 'good' requirement.

The word "requirement" can have several meanings, but responsible stakeholders have yet to agree on definitions. ACT identified at least 8 different types of requirement. 7 official NATO documents defined at least one of these terms. These documents also include 6 different definitions of the individual or entities responsible for requirements.

### 2.4 Conclusions on the CP process

- The CP process does not ensure delivery of capabilities when the Strategic Commands need them, which has operational consequences. Extended time needed to define requirements contributes to delays.
- The CP process is a tool for the Nations to agree the resource, military and
  political aspects of common funded capabilities and approve projects. It omits
  important activities needed to effectively define requirements and develop
  complete capabilities. This creates the need for ad-hoc work outside of the
  process, which decreases the effectiveness of the process as a whole.
- The Strategic Commands' normal practice is to develop requirements from sources other than defence planning. This contributes to the need for work outside of the official CP process and limits traceability to NATO's agreed capability shortfalls. Fundamental unresolved issues, such as a lack of agreed definitions, makes successful improvements in these areas more difficult.

## 3. Requirements management is weak

## 3.1 The Strategic Commands do not effectively manage their requirements work

#### Roles and responsibilities

- 3.1.1 ACT has overall management responsibility for developing CPs. This includes collecting requirements, initiating CPs (CP process phase 1) and leading the Bi-Strategic Command CP team. Its responsibility also includes writing the resource proposal based on user requirements provided by ACO and other inputs during CP process phase 2.
- 3.1.2 ACO is responsible for contributing to the identification of operational capability requirements. ACO also validates and defines capability requirements in operational terms, which is the lead role during CP development (CP process phase 2). This includes recommending capability delivery dates. The Military Committee agrees these dates and is accountable to ensure they are met. During CP development, ACO "functional" sections (such as communications and information, logistics and intelligence) support ACT by providing coordinated user requirements. A separate section within ACO oversees capability requirements work across ACO functions. ACO is often the end user of assets acquired through CPs.
- 3.1.3 As a whole, the roles and responsibilities as defined in the Bi-Strategic Command directive make clear that ACT and ACO are jointly responsible for developing the scope of the required capabilities and for identifying the assets required for implementation. As such, requirements development and definition involves collective work among ACO and ACT staff.

#### **ACT**

- 3.1.4 Given ACT's overall management role for the phases of the CP process in our audit scope, we assessed how well the command adhered to key management directives. We then performed a limited evaluation, based mainly on data already provided to the Nations, on ACO's organisation and capacity to support ACT-led CP development, including the command's input to requirements definition activities.
- 3.1.5 To manage CP development, we found that ACT formally adopted project and programme management methodologies, based on PRINCE2 and "Managing Successful Programmes". It published relevant directives in 2012 and revised them in 2015. ACT requires its staff to manage CPs using the methodologies described in the directives. We conducted a limited assessment on the extent to which ACT complies with its directives in managing the CPs we selected as examples.
- 3.1.6 Many CPs, including several among those we examined in more detail, were developed many years ago and therefore were not subject to ACT's current regulations. As a result, the majority of active CPs, and the work performed to develop the requirements that underpin them, did not benefit from the rigour that formal project and

programme management tools intend to bring. This includes the identification and mitigation of risk, formal management of requirement changes and quality assurance.

- 3.1.7 We assessed ACT's management of CPs by examining a relevant sample of information contained in ACT's management database. We found that the database did not contain evidence sufficient to demonstrate consistent compliance with ACT directives. For example:
  - 1 capability we reviewed had complete information included. A further 3 CPs included some, but not all, required information.
  - One CP did not have a project entered into the required CP "programme", but we found major elements in other programmes and they seemed well documented.
  - Three CPs (2 of which were initiated before 2014), did not have any information entered. However, one had extensive information stored in another system.
  - Significant risks on specific capabilities presented during interviews with staff and managers were not entered into ACT's database.
- 3.1.8 Finally, we found that ACT has not yet sufficiently used the management information it does collect. For example, the command's senior leadership do not use information in the database to proactively manage risk and monitor progress towards meeting goals. Without using the data, ACT will be unable to effectively mitigate risk and ensure it produces quality outputs, such as well-defined requirements, in time.

#### **ACO**

- 3.1.9 ACO is supposed to lead requirements definition during phase 2 of the CP process. According to the command, ACO subject matter experts make key contributions to developing capability requirements. However, ACO faces challenges which limit its ability to effectively communicate user requirements to ACT during CP development:
  - ACO lacks personnel assigned leadership roles during the phases of the CP process we evaluated. Most officials assigned the Bi-Strategic Command directive lead role to develop capability requirements, referred to as Mission Sponsors, work for ACT. This is in addition to the overall CP coordination role, referred to as the Capability Coordinator, which ACT personnel also typically hold.
  - To ensure capability users are well-represented, the Bi-Strategic Command directive requires ACO to assign a staff member to every CP, referred to as an Operational Coordinator. Due to other priorities, ACO has not done so. According to ACO, 64 CPs lack Operational Coordinators. We cannot determine the percentage of all CPs this number represents because ACO and ACT have different numbers of active CPs.

 ACO has a section responsible for overseeing all ACO input to CP requirements, among other things. This section has 5 posts. According to ACO, this number is insufficient to validate, review and monitor all work associated with ACO capability requirements. This hinders timely inputs by ACO and limits the extent to which ACO can assure the quality of its user requirements.

#### Staffing challenges common to both Strategic Commands

3.1.10 In every interview we held at the Strategic Commands, officials noted staffing challenges as one of the greatest factors limiting effective requirements development. Having the right staff is important because CP development, approval, resourcing and implementation involves a continuous level of effort and complex inputs. The Strategic Command's concerns concentrated on two main issues: lack of continuity due to the military rotational policy and personnel assigned to roles for which they lack skills and experience.

#### Staff rotation

3.1.11 Our audit work validated the remarks on the impact of rotational personnel. A typical CP may go through as many as 4 or 5 rotations of staff because of the time necessary to deliver capabilities at NATO. At ACT, it is rare for a single action officer to see both the beginning and end of the requirements definition process. This significantly hinders management continuity and the development of institutional capacity, which would better position the Strategic Commands to provide quality inputs to capability requirements.

#### Insufficiently skilled and experienced personnel

- 3.1.12 Making insufficiently experienced officials responsible for defining requirements likely contributed to problems experienced in at least one of the CPs we selected as examples. This CP needed a complete re-working of requirements during the approval phase. One explanation provided to us was that the Strategic Command personnel who wrote the requirements did not understand the technology. We previously reported on instances of incompatibility between military personnel skill sets and the job descriptions for the posts to which they were assigned (IBA-AR(2013)0031, IBA-A(2014)0049).
- 3.1.13 We did not validate the extent to which personnel in posts responsible for defining and managing requirements had the necessary skills and experience. However, we did find several factors that limit the Strategic Commands' access to certain skilled personnel. For example, due to a NATO reform initiative, information technology personnel who previously reported to the NATO Command Structure now work for the NCI Agency.

#### Reliance on the NCI Agency

3.1.14 The lack of available subject matter expertise limits both Strategic Commands' ability to independently define requirements for technology intensive capabilities. ACT in particular depends on NCI Agency personnel to provide input during capability

requirement collection, expression, definition and design. For example, over half of the ACT programmes heavily engaged in activities to define requirements for common funded capabilities rely almost entirely on support from the NCI Agency. As a result, NCI Agency products, such as gap assessments, directly inform CP development.

3.1.15 The NCI Agency is also responsible and accountable for implementing CPs. The Agency's charter grants it the privilege of being NATO's principal provider of information technology capabilities and services. Given the Agency's close involvement in CP development, this situation violates Council direction to maintain a clear separation between those who define requirements and those who implement programmes to meet the identified requirements. Officials within the Strategic Commands acknowledge this problem. Efforts are underway to mitigate this issue, but it is too early to determine whether they will allow for proper checks and balances.

### 3.2 NATO struggles to implement good management principles

3.2.1 Effectively managing quality, change, risk, interdependencies and information are important principles. Widely accepted methodologies, such as PRINCE2 for projects and "Managing Successful Programmes" for programmes, prescribe how these principles should be implemented to help organisations achieve results. In this section we assess how well these principles have been incorporated and institutionalised within the CP process.

#### **Quality management**

- 3.2.2 According to best practices in project and programme management, effective quality management includes establishing and measuring agreed acceptance criteria. In particular, requirements should be evaluated against defined criteria to determine whether they are sufficiently developed to proceed to the next phase in the process. A well-defined capability development process should specify these criteria as well as clear roles and responsibilities. Some Nations use a "gate review" by an independent body to serve this purpose in their capability development processes.
- 3.2.3 To date, the CP process has lacked quality acceptance criteria. In line with the purpose of the CP process as discussed in section 2.2, the criteria for developing and approving requirements includes financial, military and political elements. For example, the Bi-Strategic Command directive instructs personnel to define requirements to a level at which that they can be included in a resource proposal. However, it did not address the content of the requirements themselves. A NATO task force on software intensive projects (a particular type of technology intensive requirement) recommended changes in this area. In addition, the latest version of the Bi-Strategic Command directive includes a requirement for all CPs to include operational acceptance criteria. It encourages early definition of these criteria to make requirements measurable and testable. However, it is too early to assess the results of these steps.
- 3.2.4 We found that activities conducted to achieve CP approval milestones did not adequately consider the quality of user requirements. For example, the NATO Office of

Resources and International Military Staff recommended approval of numerous technology intensive CPs, knowing that much more work was needed to determine the scope of projects included in the CPs. The Resource Board, Military Committee and Council all approved the CPs as recommended by NATO staff. Nations gave priority to programming funds for the CPs, with the intent to more fully define requirements at a later time. Inevitably, the additional requirements work needed contributed to delays in implementing these CPs' projects.

#### Change management and control

- 3.2.5 Section 2 shows that developing, approving and implementing CPs takes a long time. Over time, requirements may change, especially those defined in response to a rapidly evolving threat environment or dependent on developing technology. Delays further increase the need for change. Changes to capability requirements should be expediently and consistently managed. Change control provides traceability and ensures that all changes are agreed and the implications assessed by the relevant authority before implementation. As such, clear responsibility and accountability should be defined to ensure that impacts to cost, schedule or dependencies are properly considered.
- 3.2.6 In our assessment, changes in capability requirements may originate from anywhere--from low level decision-making to summit declarations. For example, according to ACO officials, a new NATO cyber defence policy will likely change user requirements for related CPs. Recent NATO studies on technology intensive projects concluded that the CP process does not allow for effective change management. At NATO, several issues hinder the development of formal change management:
  - No agreed definitions exist on what constitutes valid requirement changes, who has the authority to initiate them and at what level approval should be sought.

One important capability we reviewed missed its completion deadline directed by Heads of State and Government. This occurred in part because it was not clear which NATO body was responsible for formally managing a very significant change in requirements, which also originated from Heads of State and Government.

- Responsible stakeholders do not use a common requirements tool to manage changes. For technology intensive capabilities, this would facilitate traceability between the typically few high-level user requirements and the numerous detailed technical specifications needed by industry. Such traceability ensures that the effects of any given change are effectively managed across the spectrum of requirements.
- 3.2.7 Council recently gave the Strategic Commands responsibility to develop and implement a change management process. Council made the Military Committee accountable to consider significant impacts to cost and schedule prior to change approval. However, the Investment Committee is already accountable for authorising changes to project cost and scope. Guidance does not make clear how the Military Committee will exercise accountability since this role is not part of the CP process.

#### Risk management

- 3.2.8 Risk management is the systematic application of procedures to identify, assess and mitigate risks. Requirements definition and management is inherently complex and many factors may hinder CP process effectiveness. Therefore, according to the project and programme management principles we identified, the CP process should include formal risk management procedures.
- 3.2.9 During our audit, we did not identify risk management as an explicit part of the CP process steps we assessed. This is particularly problematic in the context of technology intensive capabilities because they are typically more complex than traditional civil works projects. Recognising this shortfall, ACT identified risk assessment as an area for development including standards and training. ACT expects that the outcome of ongoing work will include the adoption of risk management practices. In addition, ACO implemented Strategic Risk Management for all its activities, including CP development. Most of the risks ACO identified are directly related to CP delivery. ACO conducts risk assessments, such as reporting the effects of delayed capability delivery, as part of its implementation monitoring, which we assessed in our prior report.

#### Interdependency management

3.2.10 CPs can be mutually interdependent, especially when they are technology intensive. Managing interdependencies well across CPs and among projects is a principle and best practice. It relates strongly to the other principles we identified. In particular, interdependencies should be reviewed for impact whenever a dependant CP requirement is going through a change process or has a major risk. However, the Bi-Strategic Command directive does not describe how NATO should manage a group of related CPs or review dependencies. As a result, CPs have historically been managed individually.

NATO's future information technology systems are highly interdependent. Delays in developing a "core" information processing capability affect the other "functional" capabilities designed to improve NATO operations, intelligence and logistics.

3.2.11 More than 7 years after the Nations first recognised weaknesses in this area and 2 years after funding was authorised, the Strategic Commands took action. A Bi-Strategic Command Automated Information Systems Programme Management Office responsible for facilitating the transition to implementation for 6 CPs is currently in the early stages of operation. However, an assessment of any results would be premature. Meanwhile, at least 3 other interdependent technology intensive capabilities continue to lack coordinated management oversight. According to the NCI Agency, this diminished requirements quality and contributed to delays. In addition, without management of interdependencies, delivered solutions may not work together.

### 3.3 NATO information management is not effective

3.3.1 Requirement definition and management includes complex activities and extensive participation by multiple stakeholders. To support approval processes and decision makers, managing information well is critical. Effective information management requires documented, agreed reporting procedures supported by authoritative and validated data accessible by all stakeholders. We assessed whether CP process stakeholders can rely on authoritative data sources and manage information well.

#### No authoritative source of data

- 3.3.2 We found that NATO lacks an authoritative, enterprise-wide source of data to support requirements decision-making activity. We observed the following:
  - Stakeholders responsible for contributing to requirement definition and management use at least 14 different information systems to conduct their work.
  - Some of the systems are accessible to multiple stakeholders. Others do not allow access, requiring personnel to make time-consuming data requests.
  - Some systems overlap in function and purpose. For example, ACT enters the same cost data in two systems. Others store similar information but lack interfaces.
  - The need for manual data entry costs time and adds risk of inaccuracy. As staff do not validate data entered into the systems, this risk increases.
  - NATO's multiple networks contribute to these problems by hindering the effective flow of information between NATO bodies.
- 3.3.3 Given the complexity of the NATO systems and inefficient network environment, many staff conduct their daily work using mainly email, paper and long-outdated information technology. This includes network storage that has limited access rights and no search capabilities. The absence of authoritative data and modern, integrated tools has far-reaching impacts. For example:
  - Basic information, like the number of active CPs, is not consistently recorded.
  - Routine duties cannot be performed efficiently.
  - Advanced analysis, such as in the resource area, cannot be conducted.
  - Sources of information for briefings to the Nations is often not clear.
  - Staff lose valuable time searching for information they need.
  - Corporate information is often duplicated or reinvented.
  - Lack of version control contributes to inefficiency.
  - Complete historical records, such as for the CPs we reviewed, are not available.

#### Lack of effective information management processes

- 3.3.4 We found that NATO does not manage CP information effectively, which also reduces efficiency. The CP process lacks agreed reporting procedures, formats and standards for all involved stakeholders. NATO governance of the CP process, discussed further in section 4, involves many decision-making authorities operating separately. Each body manages information individually. As a result, working-level managers and personnel report the same information in various formats to different stakeholders. In this environment, one ACT staff member responsible for coordinating CP requirements estimated that reporting tasks took 80% of their time, leaving only 20% available for managing CP development.
- 3.3.5 Part of the issue lies in the lack of an implemented enterprise approach at NATO (C-M(2014)0061). According to NATO International Staff and International Military Staff officials, the "NATO Enterprise", which is still only an idea (albeit approved by Council) is composed of many individual bodies which have separate authority on how to manage their information and how they implement supporting technology. Efforts to conduct enterprise-wide improvements to information management are underway. Through these efforts, NATO intends to harmonise and better link its business processes.

### 3.4 Conclusions on management

- ACT does not yet conduct effective programme and project management, including collecting data and using them.
- ACO is responsible for providing operational user requirements during CP development, but has difficulties exercising this role.
- Both Strategic Commands face challenges developing institutional capacity sufficient to effectively manage capability requirements.
- Extensive reliance on the NCI Agency, especially by ACT, does not sufficiently separate those who define requirements from those who implement them.
- Institutionalised management of quality, change and risk is insufficient. NATO also does not effectively manage CP interdependencies.
- The lack of effective information management and supporting tools limits the availability of accurate information and hinders efficient work, while potential improvements are still underway.

## 4. Critical elements of governance are missing

### 4.1 NATO defines elements of governance and accountability

4.1.1 Strong governance is necessary to ensure that stakeholders are answerable for their actions. This requires holding them accountable for these actions and decisions for which they are responsible. As such, governance helps to create transparency and to ensure that all responsible stakeholders do what they are supposed to do. In this section we identify how NATO defines governance.

NATO defines governance as: the provision of the oversight necessary to ensure agreed direction and guidance and processes and procedures are followed (PO(2012)0030).

NATO associates governance with accountability, which it defines as: the process of ensuring that stakeholders, at different levels, are answerable for their activities and decisions, accepting responsibility for their actions and for disclosing results in a transparent manner. Accountability exists when the tasks or functions of the body or individual are subject to oversight, direction or a requirement that they provide reports or justification for their actions and outcomes and that there is appropriate redress when duties and commitments are not met (PO(2015)0052).

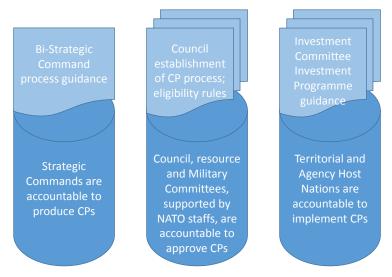
- 4.1.2 In our assessment, NATO's definition of governance contains a strong emphasis on stakeholder compliance with processes and procedures. It identifies the need for agreed processes, procedures, direction and guidance. Stakeholders responsible for conducting the processes and procedures need oversight to enforce effective and efficient performance of their functions.
- 4.1.3 NATO's definition of accountability also includes the element of transparency. Consequently, governing bodies should exercise monitoring and control functions to ensure that responsible bodies disclose results transparently. This is necessary for all stakeholder organisations to have visibility over whether each sufficiently discharges its duties.

## 4.2 No overarching guidance

- 4.2.1 Based on the NATO definition of governance, overarching direction and guidance should ensure that stakeholders responsible for different parts of the process are accountable to each other. We identified relevant NATO guidance documents, assessed their authority and applicability and observed how they influence accountability.
- 4.2.2 The CP process identifies 9 milestones for collecting, defining and approving common funded capability requirements, each of which represents governable activities. Figure 2 in section 2, appendices 2 and 4 describe these in more detail. At NATO, different committees or boards consisting of representatives from the 28 NATO Nations typically govern these activities except for CP production, which the Strategic Commands

govern internally. We found that NATO lacks overarching guidance for how these bodies should oversee accountable staffs or interact with each other. We identified 12 foundational documents that apply to the phases of the CP process we reviewed. Figure 4 summarises CP process accountability and the relevant guiding documents, including for the implementation phase, as reviewed in our prior report.

Figure 4: CP process accountability



Source: IBAN analysis of NATO guiding documents.

- 4.2.3 As shown in figure 4, the Strategic Commands, the resource committees and the Military Committee exercise accountability mostly according to their own policies and procedures. This contributes to a "stove piped", vertical approach to governing the separate phases of the CP process. Stakeholders responsible for requirement collection, development and approval are only answerable within their own community for their actions during specific phases. They do not answer to bodies accountable for other phases or activities. As shown in the figure, the various CP process guiding documents separate accountability between the CP production, approval and implementation phases. This has the following consequences:
  - ACT and ACO are accountable within their chain of command to produce a CP.
     Although the CP is primarily intended to support resource planning, the Strategic
     Commands do not answer to the Resource Board. Their accountability for the CP
     ends after they submit it to the NATO International and International Military
     Staffs. As a result, the Strategic Commands cannot effectively perform key roles
     prescribed in their own directives and terms of reference, such as overseeing
     CPs throughout their life cycle.
  - Likewise, the Strategic Commands do not answer to Host Nations. Host Nations are unable to hold the Strategic Commands accountable to provide requirements that can be realistically implemented. This is because under the CP process, Host Nations do not assume an accountable role until the implementation phase which typically begins 3 years after CP submission.

Conversely, Host Nations do not answer to the Strategic Commands to deliver a
capability that meets their needs. Rather, Host Nations answer to the Investment
Committee, which is mostly concerned with costs. The Strategic Commands also
continue to lack representation on NCI Agency project boards. This problem,
which we first identified in 2013 (IBA-AR(2013)22), further limits Host Nation
accountability.

### 4.3 Oversight is uneven

- 4.3.1 NATO definitions of governance and accountability highlight the importance of oversight. Oversight over the entire CP process is necessary to obtain transparency in the process. In our audit, we reviewed various documents and discussed with responsible stakeholders how governing bodies oversee activities and results.
- 4.3.2 The numerous CP process governing bodies exercise oversight differently depending on the type or content of the activities being overseen. Our audit shows that governance in some communities and process areas is more complete or mature than in others. When assessed NATO-wide, our audit showed that gaps are evident.
- 4.3.3 Among the 7 requirement areas in which NATO develops CPs, governance of Consultation, Command and Control (C3) capabilities is most mature. In this area, the Nations have agreed a strategy and implementation mechanisms.

NATO's "C3 Integrated Master Plan" creates common situational awareness for some C3 capabilities across their lifecycle. It intends to facilitate raising issues and risks to the appropriate decision-making level. A "capability area manager" has been named responsible for coordinating staff efforts in accordance with this plan.

- 4.3.4 However, oversight remains incomplete. For example, these strategy and implementation mechanisms do not cover all C3 capabilities. In particular, the Nations govern highly interdependent, complex and costly Air Command and Control, Ballistic Missile Defence and Air Ground Surveillance requirements separately. In addition, NATO-wide C3 governance only covers 17 CPs. NATO lacks similar governance for CPs in the other 6 common funded capability areas. These separately governed areas comprise most of the Investment Programme by financial volume.
- 4.3.5 To improve governance more broadly across technology intensive capabilities and services, NATO recently agreed a new model. This model describes the roles and responsibilities for 13 bodies with regard to governance of the NCI Agency's activities. It defines 57 total governance functions. We assessed the arrangements described in this model, as stated in C-M(2015)0071, with the previous arrangements stated in the same document. We found the following:
  - The new model increases complexity. For example, it lists 25 new responsibilities and 51 new consultative arrangements. This brings the total consultative

relationships among numerous stakeholders, committees and boards to 85. 19% of the functions have more than 1 responsible entity, which also adds complexity.

- The model lacks detail sufficient for a full connection with the CP process. The
  model stresses roles and responsibilities of various NATO bodies and entities.
  However, in several cases it lacks information on when and how NATO
  committees and boards should exercise these roles and responsibilities.
- The model significantly expands accountability and responsibility in some areas
  without an assessment of the implications. For example, ACT is now accountable
  for defining all NATO technology requirements, not just the Strategic Commands',
  which represents a major expansion in level of effort needed.
- The model splits accountability in several instances. This is because the Nations decided to make separate bodies accountable for different NATO C3 capabilities. Split accountability also results from divisions between the NATO communities responsible for capability resource planning and those responsible for capability content.

## 4.4 NATO does not monitor and control requirements development and approval

- 4.4.1 To ensure transparency, governing bodies need a framework for reporting, monitoring and controlling progress as well as a sound basis for decision making. During our audit, we identified the extent to which it was possible to gain insight and to follow the results produced by the various responsible stakeholders.
- 4.4.2 We found that NATO does not have a comprehensive and overarching mechanism to monitor and control CP development and approval. These phases encompass the activities of numerous responsible and accountable entities. However, none of them have an overarching role like the Investment Committee does for implementation. For example, the Strategic Commands define (but do not consistently track) some milestones. However, they do so only up to the point at which they hand over the CP to NATO Office of Resources and International Military staff, because at that time their accountability for CP development ends.
- 4.4.3 Governing bodies do not have a monitoring and control framework for either the CP development or CP approval phases. For example, for all milestones prior to CP implementation, Strategic Commands' plans and NATO guidance establishes a target for just one of the 9 relevant milestones, production of the CP implementation plan. It is only possible to measure performance against this one milestone:
  - Of all the CP development and approval milestones, the CP implementation plan took the longest: an average of 18 months from Council approval. The agreed target is 3 months. The NATO Office of Resources is responsible for CP implementation planning and relies on input from Host Nations.

• As we found in our report on Investment Programme project implementation, the CP Implementation Plan is not effective. The Investment Committee did not hold Host Nations accountable to meet the milestones these plans contain.

## 4.5 NATO has taken some action to improve governance but underlying structural problems have not yet been addressed

- 4.5.1 We looked retrospectively at NATO's recent efforts to identify CP governance issues and make changes. Remedial actions in connection with identified weaknesses should have begun to be implemented.
- 4.5.2 Repeated assessments of project and capability delivery at NATO identified structural weaknesses that impede the effective exercise of governance. We identified at least 9 such studies, with most concluded after 1999. Most recently, the Nations concluded that the nature of the NATO capability delivery governance environment hinders any real accountability. Our findings continue to support this conclusion. However, the problem needs to be seen in a context beyond what we cover in either this report or our prior report on Investment Programme project implementation. The studies provide such context:
  - NATO bodies that govern capability delivery comprise a "tangled web" of committees and boards. Their responsibilities follow political, security, policy and financial lines. As a result, cost, scope and schedule accountabilities overlap. Responsibilities and accountabilities are not directed towards creating effective, implementable CPs because the CP process consists mainly of consultation procedures, as discussed in section 2.2.
  - In national and private sector systems, appropriately empowered leaders would typically perform many of the roles NATO defined for its governing bodies.
     However, the highly federated and distributed nature of the structure and need for consensus decision-making makes centralised governance and decision-making difficult at NATO.
  - The Nations agreed each element of the governance structure. Over time, the arrangements became intertwined to the extent that they complicate and even undermine the ability to effectively deliver required capabilities.
- 4.5.3 In 2015, the Resource Board and Military Committee accepted a tasking to address these issues and others. However, they concluded that the governance challenge should be seen in its wider context and could not be resolved by those two bodies alone. Therefore, they recommended that the Deputy Permanent Representatives Committee take up the issue. Open issues to be addressed include the following:
  - In this report we show the impact of having a high number of stakeholders responsible and accountable for developing and approving CPs. The Nations may therefore consider how far can/should NATO go in reducing the number of

accountable stakeholders and still be consistent with the principles of public governance.

- Along such lines, other questions to be considered include whether NATO should rationalise the number of committees involved in capability delivery, or re-define the roles and responsibilities of the different committees to streamline and reduce overlap.
- The lack of a single, overarching accountable individual or entity is often cited as a main cause for governance challenges experienced throughout the CP process. To that end, the Nations may reflect on whether having such centralised accountability would help, and if so, who it should be and who would it be accountable to.
- 4.5.4 While the Nations have yet to tackle the underlying structural issues, some stakeholders took steps to strengthen measures previously agreed to improve governance. For example, in 2012 the Nations agreed to the establishment of a senior staff-level capability development coordinating forum, the Capability Development Executive Board. Until recently, this board primarily shared information. However, heightened attention on capability delivery and commitments such as NATO's Readiness Action Plan prompted this board's members to take a stronger role in monitoring and directing internal staff work. For example, this board recently took action to press accountable staff to agree steps needed to meet important deadlines. However, it is too early to determine whether this shift will have a lasting effect beyond the current political priorities.

## 4.6 Conclusions on governance

- Required elements of governance, including guidance, oversight, monitoring and control, are lacking during the phases of the CP process we examined. This limits accountability and contributes to delays in delivering capabilities.
- The underlying shortfalls illustrate a basic paradox. It is commonly recognised
  within NATO that multiple bodies governing one set of functions limits coherent
  action. At the same time, Nations struggle to agree changes other than adding
  new structures and relationships. These include the Capability Development
  Executive Board and more complex governance arrangements for
  communications and information capabilities. Consequently, underlying structural
  problems have not been addressed.

## 5. Conclusions and recommendations

#### 5.1 Conclusions

- 5.1.1 NATO faces significant challenges developing and delivering its capabilities on time. According to current planning, NATO forecasts that nearly 80% of CPs will deliver an average of 4.4 years later than the Strategic Commanders need them. As we reported previously, difficulties during implementation play a significant role. In this report, we found that difficulties experienced during CP development and approval also contribute to delays. For technology intensive requirements in particular, developing CP requirements takes much longer than planned. We found shortfalls in process, management, staffing, technology and governance:
  - The current processes support Nations' planning for common funded resources.
    They omit important activities needed to develop capabilities. To develop
    capability requirements, responsible stakeholders need to conduct work outside
    of the CP process. This hinders effective planning and execution of requirements
    work.
  - CPs generally originate from requirement sources other than defence planning.
    The reasons can be compelling. However, the CP process lacks relevant subprocesses, contributing to the need for ad-hoc work. This also limits traceability to
    NATO's agreed capability shortfalls.
  - The Strategic Commands do not fully adhere to directives and exercise their respective roles, which limits effective management. They also face challenges developing sufficient institutional capacity.
  - The Strategic Commands, and ACT in particular, rely heavily on the NCI Agency to provide inputs to requirement definition. This brings requirement setting and the implementation of programmes too close together.
  - Responsible stakeholders struggle to apply best management practices to address quality, change, risk and interdependencies in their requirements work.
  - Responsible stakeholders lack authoritative data and add inefficiency to the process by not managing information well and by maintaining fragmented and outdated supporting information technology.
  - Shortfalls in guidance, oversight and a fragmented governance structure hinder effective requirements work. Accountability does not cross the boundaries between the military, resource and implementation communities.
- 5.1.2 As our report shows, some responsible stakeholders have taken steps in several of these areas. However, without a more concerted and coordinated effort to address process, management, staffing and technology, meaningful improvements to capability

delivery will be difficult to achieve. Successfully undertaking such an effort will require stronger, more unified governance. Nations recognise the importance of governance to delivering capabilities, but have not yet agreed any substantial actions.

#### 5.2 Recommendations

- 5.2.1 To address the shortfalls our audit found and to make the CP process simpler, more transparent and accountable to the Nations, we recommend the following:
  - Design a complete process to ensure the delivery of the right capabilities on time.
     The process should include all capability development activities, traceability to NATO defence and operational planning as well as allow for ongoing prioritisation based on NATO assessments of current and future security needs.
  - 2. Create the elements of a consistent NATO-wide portfolio, programme and project management approach to address management shortfalls and inconsistencies.
  - 3. Build institutional capacity by addressing the staffing needs for requirements management in the Strategic Commands.
  - 4. Improve information management and transparency by rationalising and modernising the processes and information technology used to manage CP work.
  - 5. Unify, strengthen and clarify (who, what, when, how, why) governance roles to ensure that capability requirements reflect needs and enable capability delivery as closely as possible to agreed plans.
- 5.2.2 As in our previous report on the CP implementation process, we believe that NATO could benefit from engaging a group of external national subject matter experts to deliver more detailed proposals in these areas for Council approval. The proposals should be based on best practices from the Nations.
- 5.2.3 The longer-term recommendations we made in our previous report are still valid: (1) improve accountability, (2) create a more effective governance model, (3) incentivise performance and (4) rationalise structures. The similarities evident among many of our findings in this report and the last suggest that one consistent set of proposals covering the CP process end-to-end would be prudent.
- 5.2.4 Even though it was not part of our audit scope, the IBAN is concerned that the current process is very resource consuming, given its complexity, the number of stakeholders involved and lengthy capability delivery periods. Consequently, we also assume that there is a potential for savings in this area.

## 6. Comments received and the IBAN position

- 6.1 Based on a draft of this report, we received formal and factual comments from the Chiefs of Staff, Allied Command Operations and Allied Command Transformation, the Director General, International Military Staff, the General Managers of the NATO Communications and Information and the Support and Procurement Agencies and the Director, NATO Office of Resources. The NATO Support and Procurement Agency was satisfied with the content of the draft report and did not provide formal comments. We reproduced the full text of the formal comments received in Appendix 5.
- The entities which received and reviewed a draft of our report considered it to be accurate, complete, valid, balanced and useful for NATO to address shortcomings in the capability package process. There is no disagreement with our recommendations. Where appropriate, we amended the report based on the factual comments received during and after the commenting period. We appreciate these comments because they allowed us to further strengthen the report and its message.
- 6.3 We acknowledge, as ACT states in its formal comments, that the CP process is much larger than requirements determination. It includes, for example, the implementation of Investment Programme projects, which we reviewed in our prior report. In the current report, we assess requirements determination activities *in the context of the process that underpins them.* This process, its management and governance all need to be improved to address the shortfalls we identified and to improve capability delivery. In addition, these shortfalls affect not just the early phases of the CP process, but also later ones and ultimately the delivery of capabilities. We believe the report title accurately conveys these conclusions.

APPENDIX 1 ANNEX 2 IBA-AR(2016)05

## **Abbreviations**

ACO Allied Command Operations

ACT Allied Command Transformation

C3 Consultation, Command and Control

Council North Atlantic Council

CP Capability Package

DOTMLPFI Doctrine, organisation, training, materiel, leadership development,

personnel, facilities and interoperability (elements of a capability)

IBAN International Board of Auditors for NATO

NCI Agency NATO Communications and Information Agency

NDPP NATO Defence Planning Process

## **CP** process roles and responsibilities

CP phase	Significant management responsibilities	Significant governance roles
(1) Identification	NATO defence planners develop and prioritise courses of action and collective targets (NDPP steps 2 and 3)	Defence Policy and Planning Committee and Resource Board approve targets.
and prioritisation of requirements	ACT collects requirements from defence planning and other sources and requests CP initiation. ACO provides operational user input (NDPP step 4).	<b>Bi-Strategic Command CP Board</b> <sup>1</sup> approves CP initiation.
(2) Development	ACO defines required capabilities and develops military justification. ACT generally leads the management of overall CP development and makes initial estimates of project scope, cost and schedule.	Bi-Strategic Command CP Board endorses CP requirements and resource proposal. Strategic Commanders endorse CP for submission.
(3) Approval	eligibility and technical soundness and develops CP implementation plans.  International Military Staff ensures that CPs meet NATO military goals and Minimum Military Requirements. <sup>2</sup> NATO Headquarters  C3 Staff screen C3 CPs for C3 policies, standardisation, interoperability, architecture and technical coherence and propose advice to the C3 Board. All staff recommendations are submitted to NATO committees with the Joint Staff Screening Report <sup>3</sup> .	Military Committee confirms requirement and priority. Resource Board determines eligibility and affordability. Council approves CP. C3 Board provides advice on C3 policies, standardisation, interoperability, architecture and technical coherence to the Resource Board, if necessary.
(4) Implementation	NATO Office of Resources screens requests and makes recommendations to the Investment Committee, collects and presents data and certifies project completion.  Host Nations submit fund requests, contract with industry, manage and report on all implementation activity.  Strategic Commands monitor and confirm requirements; assess risk; certify completion.  IBAN certifies expenditure.	Investment Committee agrees CP implementation plan; authorizes project scope, funds and changes; monitors, evaluates and controls Host Nation performance; accepts completed projects that together comprise the material portion of a "delivered capability"; approves payment.
(5) Operation	End user (often ACO) feeds lessons learned during operations, exercises and experimentation into ongoing requirements definition activities.	Not audited

<sup>&</sup>lt;sup>1</sup> This board provides direction and ensures a coherent and co-ordinated approach to the management of all CPs.

<sup>&</sup>lt;sup>2</sup> This is a term used in the NATO resource community to describe the most austere solution to fulfil a capability shortfall. It is measured against criteria and standards where they exist. Where they do not exist, the Minimum Military Requirement is determined using unfettered military judgement.

<sup>&</sup>lt;sup>3</sup> The Joint Staff Screening Report is the basis for agreement by Council.

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## The intended linkage between the CP and NATO Defence Planning Processes

- 1. NATO policy establishes a link between requirements that underpin the CP process and the Alliance's defence planning process<sup>4</sup>. In place since 2009, the NATO Defence Planning Process (NDPP)<sup>5</sup> provides a framework within which national, multilateral and collective defence planning activities can be harmonised to effectively meet agreed capability targets. Through this framework, NATO identifies, develops and delivers the necessary range of forces and associated capabilities to undertake the full spectrum of the Alliance's missions. Most of these capabilities are to be developed by the individual Nations. Common funded capabilities comprise a relatively minor part.
- 2. The NDPP has 5 steps: (1) establish Political Guidance, (2) determine requirements, (3) apportion requirements and set targets, (4) facilitate implementation and (5) review results.
- 3. During NDPP Step 2, a Defence Planning Staff Team<sup>6</sup> led by ACT determines the full set of capabilities NATO needs to support the potential missions it may undertake in the future. Together, these are referred to as Minimum Capability Requirements<sup>7</sup>. They are written in high-level terms and generally cover the medium term. The Defence Planning Staff Team compares these requirements against existing or already planned capabilities (national, multinational or common funded) to produce capability shortfalls. NATO's Strategic Commands approve the requirements and shortfalls and the Defence Policy and Planning Committee<sup>8</sup> notes them.
- 4. In Step 3, the Defence Planning Staff Team defines preliminary courses of action and "target packages" intended to deliver the capabilities required to mitigate the shortfalls. These include targets for individual Nations, groups of Nations or all Nations (NATO). The targets directed towards NATO are referred to as "collective targets". These targets include both capabilities to be maintained, including those in existing CPs, and new capabilities. The Resource Board determines whether these targets are eligible for common funding and affordable. The Defence Policy and Planning Committee decides which targets to forward to Council for submission to Ministers.

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<sup>&</sup>lt;sup>4</sup> In general, defence planning is the political and military process used by Nations to provide the capabilities needed to meet their defence commitments. NATO defence planning takes into account the political, economic, technological and military factors that influence the development of capabilities to implement Alliance strategy.

<sup>&</sup>lt;sup>5</sup> PO(2009)0042.

<sup>&</sup>lt;sup>6</sup> This is a matrixed organisation to support the NDPP, including civilian and military personnel from within the NATO International, International Military and Strategic Command staffs.

<sup>&</sup>lt;sup>7</sup> This is determined through a "structured, comprehensive, transparent and traceable process", based on Political Guidance established during NDPP Step 1. This guidance incorporates the number, scale and nature of the operations which NATO should be able to conduct, referred to as the Alliance's Level of Ambition. Additionally, the Military Committee provides supplementary guidance to the Political Guidance, to guide the Strategic Commanders in their approach to Step 2 of the NDPP.

<sup>8</sup> The Defence Policy and Planning Committee is the senior advisory body to the Council on defence matters concerning the NATO member countries, bringing together the Defence Advisors of the NATO delegations.

APPENDIX 3 ANNEX 2 IBA-AR(2016)05

- 5. For NATO common funding, the main feature of NDPP Step 4 is the CP process. A CP is defined as a combination of national (military and civilian) and NATO funded capital investments, operations and maintenance cost, manpower and other associated costs. Together with military forces and other essential requirements, it enables a NATO Commander to achieve a specific required military capability. NATO developed the CP primarily as a resource tool to plan for medium and long term capital expenditures needed to implement the materiel elements of a capability. The CP process is mostly documented in the Bi-Strategic Command directive on Capability Packages (Bi-Strategic Command Directive 85-1). The CP consists of three parts, which are the Requirements Definition, Consolidated Resource Proposal and other supporting documents as needed.
  - The Requirements Definition section defines the scope of Alliance military requirements that may be fulfilled (wholly or partially) through NATO common funding and/or international manpower. The requirements are to be based on the predominately medium-term targets derived in Steps 1 through 3 of the NDPP, as briefly outlined above.
  - The Consolidated Resource Proposal provides a comparison between the assets that are needed and the assets that are available or expected to become available in the near term. It identifies the required investment, operations and maintenance funding and manpower to satisfy the Requirements Definition.
  - Project Data Sheets are among the most significant supporting documentation in a CP. They elaborate on the Consolidated Resource Proposal with a discussion of the estimated resource requirements including scope, cost (investment, operations and maintenance and manpower) and some milestones. The Project Data Sheets translate required capabilities into different projects, which in turn determine future expenditures.

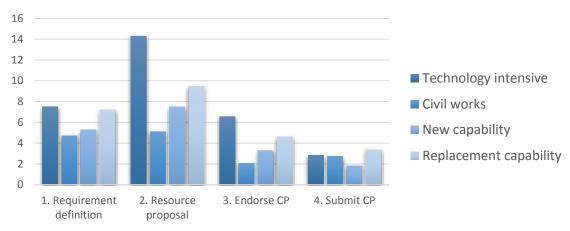
APPENDIX 4 ANNEX 2 IBA-AR(2016)05

## **CP** process performance

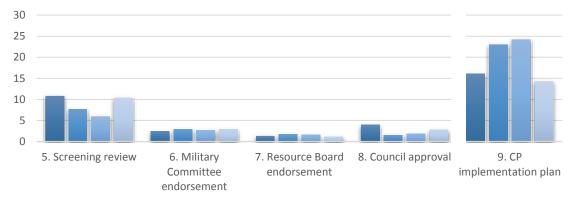
- 1. We assessed available data and current planning for 112 CPs and 477 projects representing 66 CPs currently under implementation. We compared data on different types of CPs, as categorised by ACT, for which we expected to see differences based on our discussions with responsible stakeholders. Specifically, we compared technology intensive CPs with those designed to deliver civil works. We also compared CPs intended to provide new capabilities with those intended to replace or enhance existing capabilities. The graphs on the next page show the results of our assessment. Some observations follow.
- 2. Together, the Strategic Commands, NATO committees and staff and Host Nations will take at least **15.6 years**, on average, to deliver each CP currently under implementation<sup>9</sup>. At 11 years, or 70% of the total capability delivery time, CP implementation is by far the longest phase. All latest CP project completion dates occur in the future. Therefore, based on current performance trends the time needed to deliver the CPs will likely increase.
- 3. CPs and their constituent projects must pass at least 14 milestones. 9 of these milestones are essentially various levels of approval and refinement of planning (milestones 3, 4, 5, 6, 7, 8, 9, 10 and 12). The remaining 5 (milestones 1, 2, 11, 13 and 14) are more substantial milestones that record capability development activities. We did not assess performance in achieving the final 2 milestones in the CP process, Joint Final Inspection and Formal Acceptance and Certificate of Final Financial Acceptance. These are essentially administrative milestones which do not affect the completion or delivery of a CP.
- 4. Together, CP approval and CP implementation planning, during which there is no official further development on the CP or projects themselves, take nearly one-third longer, at 33 months, than CP development itself (at 23 months). Of all milestones, CP implementation planning takes the longest. It is the only milestone for which the CP process sets a target (3 months). All types of CPs significantly exceed this target.
- 5. Technology intensive CPs take longer to develop and implement than civil works CPs, but no significant difference is apparent during the approval and initial planning stages.
- 6. In general, responsible stakeholders take longer to develop and deliver CPs intended to replace or enhance existing capabilities than they do for CPs designed to provide new capabilities.
- 7. For technology intensive CPs, NATO aims to reduce the cycle to 3-4 years from initiation to capability delivery. This is 4-5 times guicker than the current process takes.

<sup>&</sup>lt;sup>9</sup> Time between CP initiation and latest project completion date. We use this calculation as a proxy for Full Operational Capability. Full data are not available for CPs already completed and for several CPs under implementation.

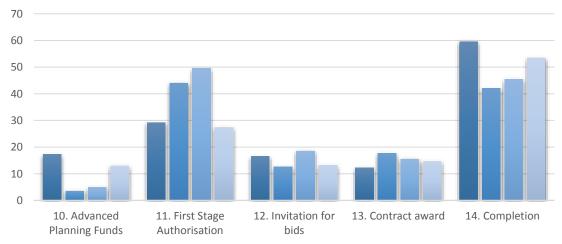
## **CP development--average 23 months**



## CP approval--average 16 months CP implementation planning--average 18 months



## **CP implementation--average 11 years**



Source: IBAN analysis of ACT and NATO Office of Resources data.

# Formal comments received from ACO, ACT, the International Military Staff, the NCI Agency and the NATO Office of Resources

#### NATO UNCLASSIFIED



#### SUPREME HEADQUARTERS ALLIED POWERS EUROPE

#### GRAND QUARTIER GÉNÉRAL DES PUISSANCES ALLIÉES EN EUROPE





Our Ref: SH/JCAP/FCP/16-313783 Tel:
Tel:
NCN:
Date: /9 May 2016 Fax:

TO:

See Distribution

SUBJECT: CHIEF OF STAFF RESPONSE TO INTERNATIONAL BOARD OF

AUDITORS FOR NATO'S REPORT TO COUNCIL ON THE NEED TO

IMPROVE NATO'S CAPABILITY PACKAGE PROCESS

REFERENCE: IBA-A(2016)48, Draft Performance Audit on the Need to Improve NATO's

Capability Package Process, dated 29 April 2016.

- 1. Thank you for providing SHAPE with your Report at the Reference on the need to improve NATO's capability package process. We agree with the majority of the tenets of the report and conclude that this is a very useful document from which to go forward. We have provided detailed comments to the draft report in Annex A. We remain convinced that the desired end-state for ACO remains the delivery of the requested and approved capability projects, on time, in the requested quality, within scope and within the authorized financial ceilings.
- 2. There are, nonetheless, issues where we believe there is a need for factual clarification to aid the reader. Our principle disagreement with the text is contained in paragraph 3.1.9 in Annex 2. You will find that we have offered specific corrections regarding this paragraph which details the ACO structures and responsibilities as they appear in the Bi-SC Directive 85-1.

3. The SHAPE point of contact for this issue is

FOR THE SUPREME ALLIED COMMANDER, EUROPE:

for Alfred C

Alfredo Sona Lot, 52A DC-1 ALDOVICEN

Werner Freers General, DEU A Chief of Staff

APPENDIX 5 ANNEX 2 IBA-AR(2016)05

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## NORTH ATLANTIC TREATY ORGANIZATION ORGANISATION DU TRAITÉ DE L'ATLANTIQUE NORD

HEADQUARTERS, SUPREME ALLIED COMMANDER TRANSFORMATION 7857 BLANDY ROAD, SUITE 100 NORFOLK, VIRGINIA, 23551-2490



7000/TSC MFX 0010/TT-160590/Ser:NU

TO: See Distribution

SUBJECT: FORMAL AND FACTUAL COMMENTS ON THE DRAFT

PERFORMANCE AUDIT ON THE NEED TO IMPROVE NATO'S

CAPABILITY PACKAGE PROCESS-1BA-A(2016)48

DATE: May 2016

REFERENCES: A. IBA-A(2016)48, dated 29 April 2016.

B. Bi-SC Directive 85-1, dated 9 June 2015.

- 1. HQ SACT appreciates the detailed audit of the requirements process for commonfunded capabilities. We have reviewed the Draft Performance Audit (Reference A) and hereby, below, submit our key observations; with the expectation that these will support the need for continued attention to this critical issue by all stakeholders. We also submit our factual comments (Annex A) as requested in the draft report.
- In summary, our key observations are as follows:
  - a. We would like to note the discrepancy between the title of the report and the stated focus of the report; "weaknesses in how NATO defines and manages its requirements for common funded capabilities." While requirements determination is a critical component of Capability Package (CP) development, the CP process is much larger and would require more exhaustive analysis to inform assessment of the entirety of this process.
  - b. We concur, in the main, with the IBAN's findings and recommendations (see further details at Annex A), and acknowledge the pressing need for both immediate and sustained improvement in the following areas:
    - (1) Consistency in definition and understanding of key terms such as "requirement" and "capability".
    - (2) Implementation of recognized project, programme and portfolio management methodologies and best practices: including institutionalising key functions and processes which enhance efficiency and effectiveness such as quality management, change management and risk management.
    - (3) Rationalisation and synchronisation of information and knowledge management (IKM) tools (i.e. databases, archives and repositories) to improve

communication and information sharing throughout the process and capability lifecycle.

- (4) Development and implementation of a requirements management process, as a component of capability development, which addresses not only the central role of the NATO Defence Planning Process (NDPP) but also those political and strategic sources of requirements external to the NDPP.
- (5) Review and possible revision of current processes to emphasize the need for balanced consideration of both resourcing as well as military and political aspects of requirements.
- (6) Development of unambiguous structures for governance and accountability for requirements management.
- 3. We would like to make particular note that, at present, the Strategic Commands lack "institutional capacity" to maintain training, organization and standards necessary to improve the requirements management process. Managing requirements and an effective through-life capability development process demands unique skills which are challenging to develop and maintain as noted in the report. This lack of in-house programme and specialist management expertise increases NATO's reliance on Host Nation and external resources, further exacerbating faults in the requirements management process.
- 4. Should there be any questions, our point of contact is

FOR THE SUPREME ALLIED COMMANDER TRANSFORMATION:

Graham Stacey CB MBE CCMI Air Marshal, GBR AF

Chief of Staff

ANNEX:

A. Factual Comments on the Draft Performance Audit IBA-A(2016)48.

APPENDIX 5 ANNEX 2 IBA-AR(2016)05

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#### INTERNATIONAL MILITARY STAFF

ETAT-MAJOR MILITAIRE INTERNATIONAL



17 May 2016

IMSTAM(L&R)-0019-2016

INTERNATIONAL BOARD OF AUDITORS

## PERFORMANCE AUDIT ON THE NEED TO IMPROVE NATO'S CAPABILITY PACKAGE PROCESS

#### Reference:

- A. IBA-A(2016)48, Draft Performance audit on the need to improve NATO's Capability Package Process – IBA-AR(2016)05, 29 Apr 15.
- Thank you for the opportunity to provide comments to your report. Overall, the IMS finds the report to be valid and complete in regard to the subject matter.
- In Enclosure 1, you will find some factual comments that require addressing in your final report.

J. Gonzalez Brigadier General Deputy Director, L&R International Military Staff for

Trond Karlsen Major General, NOR AF Director, Logistics & Resources International Military Staff

#### Enclosure:

IMS - IBAN Report Comment Matrix.

Copy to: IMS P&C, NHQC3S

Action Officer:

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IMS Control Nr. O16002651

APPENDIX 5 ANNEX 2 IBA-AR(2016)05



NATO UNCLASSIFIED

Office of the General Manager Boulevand Leopold III

B-1110 Brussels, Beigium Telephone.

NCIA/IA/2016/03143 18 May 2016

To Mr Henrik Berg Rasmussen, IBAN Board Member

Subject : Agency response to Draft Performance audit on the needo to

improve NATO's capability package process - IBAN-AR (2016) 05

Reference(s) : IBA-A(2016)48 dated 29 April 2016

Dear Mr Rasmussen,

The NCI Agency welcomes the opportunity to provide comments regarding the validity and completeness of facts as well as identify any fact pertinent to an observation that should be highlighted.

Overall, the NCI Agency believes that the audit provides an accurate and balanced assessment of the current Capability Package (CP) process in NATO. We agree with the recommendations.

Regarding the IBAN recommendations on page 1-2, the NCI Agency firmly believes that it is critical that the requirements and the acceptance criteria are developed together and consistently traced from the NATO Defence Planning Process (NDPP) through CP development process, and through the implementation process.

There is one element of the CP process that is not addressed in the report. The report addresses CPs only in the context of providing new capabilities. Particularly in the technology arena, CPs are needed increasingly to replace obsolete technology as it approaches end of life. There is no process to ensure that CPs will be initiated, submitted, approved, and implemented in a timely manner to replace capabilities prior to end of life. We believe this area warrants inclusion in the report.

Koen Gijsbers General Manager



NATO Communications and Information Agency Agence OTAN d'information et de communication

www.ncia.nato.int

Page 1 of 1



DIRECTOR NATO OFFICE OF RESOURCES

17 May 2016

NOR(DIR)(2016)0078 Ref: IBA-AR(2016)05

Mr. Henrik Berg Rasmussen International Board of Auditors for NATO

Dea Herrick,

Thank you for your letter of 29 April (reference IBA-AR(2016)05) in which you requested the NOR's factual review and comments on the IBAN's draft performance audit of the NATO capability package process.

I very much welcome this audit report. NATO needs to urgently to address shortcomings in the capability package development, approval, and implementation processes if we are to deliver capabilities needed by our military commanders on time, in scope, and in budget – and your report clearly will be an important part of that effort.

The single point of substance in your draft report that I would like to raise concerns the time for CP approval at NATO HQ. If I understand correctly, your assessment on this point is based on the average time between submission of a CP by the Strategic Commands and agreement (in the Investment Committee) of the Package Implementation Plan (PIP). We have no quarrel with the underlying message – that we should do all that we can to reduce approval time – but I believe that a more appropriate metric would be the time taken to secure Council approval. The PIP is not part of the CP approval process and is not a prerequisite for project authorisation in the IC, and therefore would not be appropriate to include the PIP in this metric. You may wish to consider this matter further.

That aside, there are some areas where the draft could be a bit more clear, especially to non-specialists, which would be especially helpful since I expect the final report to attract considerable high level and/or external interest. I attach, at Annex, our suggestions for where clarity might be enhanced.

Best regards,

John F. Aguirre

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-1

North Atlantic Treaty Organisation - Organisation du Traité de l'Atlantique Nord Boulevard Léopold III - B-1110 Bruxelles - Belgique

Tel.: