A proposal for a Norwegian Defence Conceptual Framework

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ABSTRACT

In Norway concept development has been living its own life within the Norwegian Defence community, without formalized linkages to the overall capability development process. The increased emphasis on so-called concept-led capability-based development within NATO and a long list of nations has led to an increased focus on concept development also in Norway.

A FFI project[1] was initiated by Norwegian Ministry of Defence in 2006, in recognition of the fact that concept development is and will be an important contribution also for the transformation of Norwegian Defence. The main aspect of this study is the small nation perspective on concept development and how this should be related to the long-term defence planning process.

The Norwegian Defence Concept Framework (NDCF) is proposed by FFI to explain the hierarchy of (developmental) concepts to the Defence community in Norway and establish a link between concepts and capabilities. This common framework allows for consistency and informed participation in concept development potentially by a large number of stakeholders. This paper relates NDCF to a generic enterprise activity life-cycle model, called a model for capability development, where concept development is included as one of the main processes. The descriptions of the main processes in this model constitute the basis for discussing the interfaces and coherence between concept development, long-term planning and acquisition and procurement of defence material. The model is also used in order to express how the Defence communities secure that new concepts are developed according to Best Practices identified through the Lessons Learned process.

[1] FFI project - Methodology of Concept Development (METEK)

1. Introduction

FFI was given the task to outline a Norwegian Defence Conceptual Framework. A project was tasked to survey some relevant nations' way of carrying out concept development, and suggest a framework to improve the military decision-making in Norway [1]. In addition to the survey[2] in [2] FFI has based the proposed NDCF on results from earlier work[3].

The NDCF outlines the governance of concepts according to the following intentions:

- Secure that the need of development activities is identified
- Secure that relevant ideas are developed further to solve *future* missions and tasks
- To ensure the integrity of the framework, secure that the good ideas generated on lower level in the Defence organization, is deeply top-down rooted
- Provide for sufficient resources to be allocated to the development of actual concepts
- Secure concept development is improving the military decision-making.

To be able to satisfy this there is a need for a systematic approach. In addition a framework is necessary to accomplish processes which take care of the institutional competence and memory. This is significant in organizations with rather high turnover of personnel. The paper proposes a framework to establish the provenance (to improve traceability), authority and governance of concepts, and a process to translate concepts to capability.

1.1 Aim

The main aspect of this paper is the small nation perspective on concept development and how this should be related to the overall national capability development, or long-term defence planning, process.

1.2 Scope

Along the road defining the place of concepts within the long-term defence planning process, this paper proposes NDCF. The main elements of the framework are:

Definitions to ensure common understanding of ideas proposed

Concept Hierarchy to describe the connection between different types of (developmental) concepts

Capability Framework to define the Lines of Development and form the superstructure for evaluation of operational effect

Organization and organizational elements clarifying roles and responsibility regarding allocation of resources to the concept development and concept maturity process

Process definitions and process descriptions make sure that concept development is done properly

Management tools like planning tools (and strategic guidance) for priority-setting of developmental activities.

The paper will not go into details on all these elements of the framework. The paper will present a (simplified) process-centric view in order to discuss the challenge of

[2] Ågren Lars, Bjørnsgaard Torolv, Danjord Frank, Rutledal Frode, Stensrud Rune (2006): Survey of military concept development in UK, Canada, Australia, Sweeden, Denmark and Norway, FFI/RAPPORT-2006/03042, (except public access).

[3] FFI Project - Methodology on Experimentation (METEX)

integrating concepts into long-term defence planning.

1.3 Assumptions

This paper makes the following assumptions:

- The NDCF is consistent with evolving joint (high-level) conceptual guidance and policy on CD&E
- The NDCF is consistent with ministry defence planning policy.

NATO Definitions

Concept: Idea of how to solve a problem or create a certain effect, and can encompass the strategic way to achieve an overall effect or more detailed means of achieving a specific effect.

Concept Development: Taking an outline of how to create an effect to a more robust understanding of how to achieve it.

Capability: A capability can be defined as the ability to produce an effect that users of assets or services need to achieve. A capability will consist of one or more functional components: Doctrine, Organization, Training, Materiel, Personnel, Leadership, Facilities and Interoperability (DOTMPLFI).

Capability-Based Planning1: "This method involves a functional analysis of operational requirements. Capabilities are identified based on the tasks required... Once the required capability inventory is defined, the most cost effective and efficient options to satisfy the requirements are sought."[4]

Capability-Based Planning2: "Planning under uncertainty, to provide capabilities suitable for a wide range of modern-day challenges and circumstances while working within an economic framework that necessitates choice."[5]

[4] TTCP Guide to Capability-Based Planning
[5] NATO Handbook in Long Term Defence Planning

2. Survey

The results from an introductory survey on military concept development (CD&E) in Great Britain, Canada, Australia, Sweden, Denmark, The Netherlands and Norway, indicate that some of these countries have chosen to merge their activities of concept development and experimentation (CD&E) in centres. Among the countries which have been part of the survey, this is for instance true for Great Britain, Canada and Sweden. Despite of this trend, the extent of centralization and size of the organisations are variable. Nevertheless there are clear common features:

- The centres are organisationally separated from military operations and force generation
- The centres are deeply top-down rooted and constitute a policy instrument with a common interface to the military services
- The centres cooperate closely with the science and technology (S&T) environment directing basis for identifying the relevant capabilities (joint or combined wise) for future military operations.

The centres have a primary responsibility regarding governance and coordination of development of military concepts (both ways and means as defined in *Figure 5*) according to future needs.

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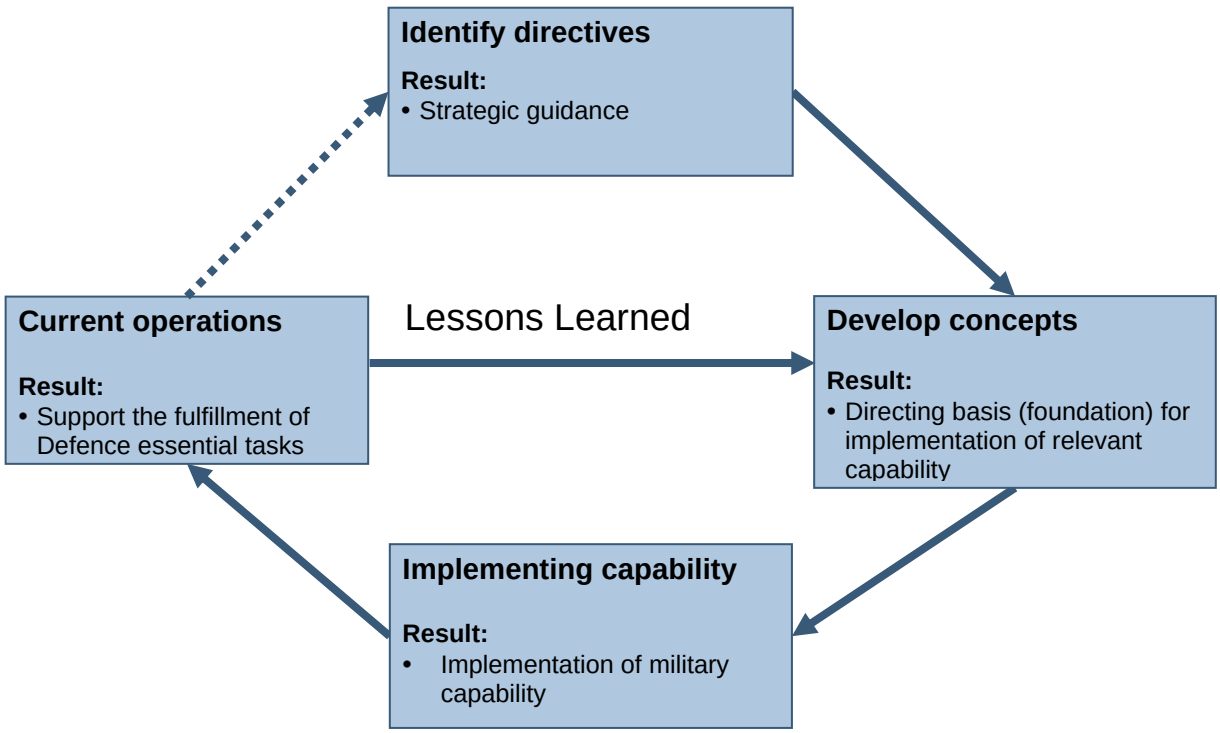

Figure 1 High-level process model for capability development

3. High level process model for capability development

Capability development is about the growth and progress of military capability (Means) which is supposed to keep the Defence operational structure cost-effective in the future. A military concept describes an approach to war fighting (Ways) and the application of a specified capability or groups of capabilities (Means). The enterprise activity life-cycle model defines how and why capability development is connected to concept development. The model is shown in *figure 1*. The model consists of the following main processes:

- *Identification of directives*
- *Develop concepts*
- *Implementing capability*
- *Current operations.*

The descriptions of the main processes in this model constitute the basis for discussing the interfaces and coherence between concept development, long-term planning and acquisition and procurement of defence material. The model is also used in order to explain how the Defence communities secure that new concepts are developed according to Best Practices identified through the Lessons Learned process.

4. Identify directives

The Identification of Directives process defined and illustrated in *Figure 1*, is vital for capability development. Further on, it is decisive that the directives identified are to be regarded as true in the community, and are communicated to the organization. The process implies a clarification of the objectives and responsibilities to the Defence organization. This process may imply that the Defence organization formulates (revise) objectives and responsibilites in a *Strategic guidance* document. These kinds of clarifications are complex and have to allow for a long list of conditions and circumstances. The process may introduce analysis of the Future Environment (Threats, Technology and Trends), Defence policy, Resources, Defence Priorities and Government Guidance. The principal approach to how military power may be applied is expressed in terms of high-level concepts.

An example of this in a Norwegian perspective, is the high-level concept *Styrke og relevans*[6] (Strategic concept for the Norwegian Defence organization) [4] and the *Network Centric Defence Concept*[7] [5] adapted to a Norwegian context. Concepts on this level may be seen as principal ideas which are directing basis (foundation) for implementation of relevant capabilities.

Economics (a balanced budget) and the existing force structure are factors which have impact on and define the (limited) space for further development of capabilities. Government Guidance gives major inputs to the Defence priorities and Identification of Directives (objectives and responsibilites).

The importance of a well defined set of objectives for the Defence organization, is supposed to be central for the Defence way of performing developmental activities. Defining and formulating the set of objectives (Ends) is a part of the Defence

[6] Norwegian MOD (2004): *Strength and relevance* is a Strategic concept for the Norwegian Defence. METEK considers that this concept is more or less defining environment and environmental factors in a given timeframe with impact on future applications of military force, rather than describing Means and Ways of warfighting.

[7] Norwegian Defence Chief of Staff (2003): Defence Studies (Forsvarssjefens militærfaglige utredning), *Norwegian Network Centric Defence Concept.*

planning. A common technique to succeed with this is to generate relevant scenarioes which contributes to deeper understanding for environmental factors which may impact future applications of military force. These scenarioes are important foundation for the testing (validation) of various (developmental) concepts which the Defence organization is working on, as well.

The Defence Studies (process)[8] which are carried out every fourth year, and results in a military advice (the Defence White Paper) to the Norwegian Government, is the most important activity contributing to the clarification and Identification of Directives. The Defence Studies do also carry out developmental tasks. The coherence of Defence planning, and the place of concepts within Defence planning is illustrated later in this paper.

5. Develop Concepts

5.1 Concept Initiation

The emergence of a concept is traditionally the result of an organizational need to solve a new problem (existing or predicted) or to exploit a new opportunity. The paper proposes to use a list of questions to support Concept Initiation. The problems, refined as Master Questions, are initiated from stakeholders across the Norwegian Defence organization. These Master Questions drive a list of issues for concept initiation, development (for developmental concepts still in draft) and revision (for existing analytical and interim concepts) and assist prioritization of staff effort. The generation of Master Questions is shown in *figure 2*. One example of a question on such a list could be about Future Concepts of Command and Control and achievement of decision superiority and rapid effect in battlespace.

[8] Forsvarsstudien (FS)

5.2 Concept Development

The Norwegian Defence organization determines its capability requirements through the analysis of Strategic Guidance provided in the Defence White Paper supported by the Defence Capability Planning Guidance[9]. This analysis can be likened to mission analysis during a military appreciation process. Methods for conducting this analysis include:

- Environmental scanning
- Scenario Planning,
- Scenario Validation,
- Concept Refinement (supported by Methodology from the area of Operational Research, e.g. Problem Structuring Methods and Soft Systems Methodology, discussed in [6]),
- Concept Evaluation (such as using metrics and measures),
- Combat simulation,
- Impact Analysis, and
- Vulnerability analysis.

Staff responsible for developing Norwegian Defence concepts should also consider:

- **Templates**. A generic template has been developed for alignment to a common style and as a guide for content.
- **Use of Expert Teams**. During initial definition and development expert teams will be assembled from across Defence to produce or reject initial concepts for further testing, experimentation and evaluation.
- **Consultation**. In the early stages, consultation will be limited, but expand rapidly as the concept matures. Broad consultation is essential before any form of endorsement is sought.

[9] Strukturutviklingsplanen (SUP)

- **Studies and Experimentation**. The conduct of studies and experimentation, and evaluation within Norwegian Defence, should be applied according to NATO development handbooks. Results from experimentation are one of the principal drivers for concept revision. The Norwegian Defence Joint HQ (CD&E-Steering Board) keeps track of the record and is source of funding for experimentation. As a rule experimentation is performed by the key players that are involved in Concept Development and Experimentation (CD&E) in Norway.

The concept development process creates an evolutionary dynamic that identifies flaws, adapts concepts and ultimately generates consensus and unity of purpose. Ideally, this process takes an untested hypothesis and allows its evolution into a more assertive conclusion. The product of this evolutionary dynamic is concept-led capability based innovation and change that leads to progress.

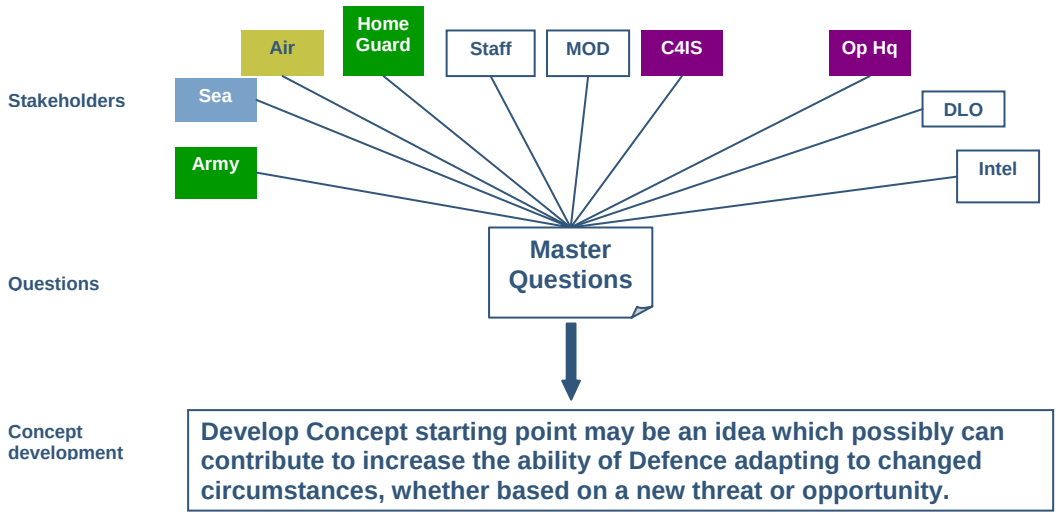

Figure 2 Generation of Master Questions

5.3 Concept hierarchy

The NDCF provides a hierarchy of concepts to ensure that concept development takes place within the context to other emerging concepts. The hierarchy establishes a conceptual critical path for capability development. The proposal for a principal Hierarchy of concepts is shown in *figure 3*. The illustration includes two different terms, i.e. an operating and a functional concept. In this context an *operating concept* is understood as the articulation in broad terms of the application of military art and science within some defined set of parameters. In simplest terms, operating concepts describe how military forces may operate in the future. A functional concept is a description of the performance of a military field of specialization (such as logistics, crisis-action planning, or targeting) within a broader operating context. The term operating concept is purposely chosen over the more common

operational concept in order to avoid possible confusion over the double meaning of operational, which can refer specifically to the operational level of war only, but often also refers generically to any kind of military action. As used here, the term operating concept refers to the articulation in broad terms of the conduct of military action, independent of level of war. Where an operating concept describes operations generally by type, concept of operations (CONOPS) describes a course of action chosen for execution in a specific situation. [10,11]

The NDCF proposal for a hierarchy of concepts is inspired both by an Australian and American concept hierarchy. [12,13]

[10] Set of parameters e.g. Mission type, Operating environment, Force type, Level of war

[11] DART(2002): A Practical Guide for Developing and Writing Military Concepts by J. F. Schmitt.

[12] Australian Government, Department of Defence (2007): NCW Roadmap, Defence Publishing Service (DPS), February 2007

[13] US Joint Operations Concept Family

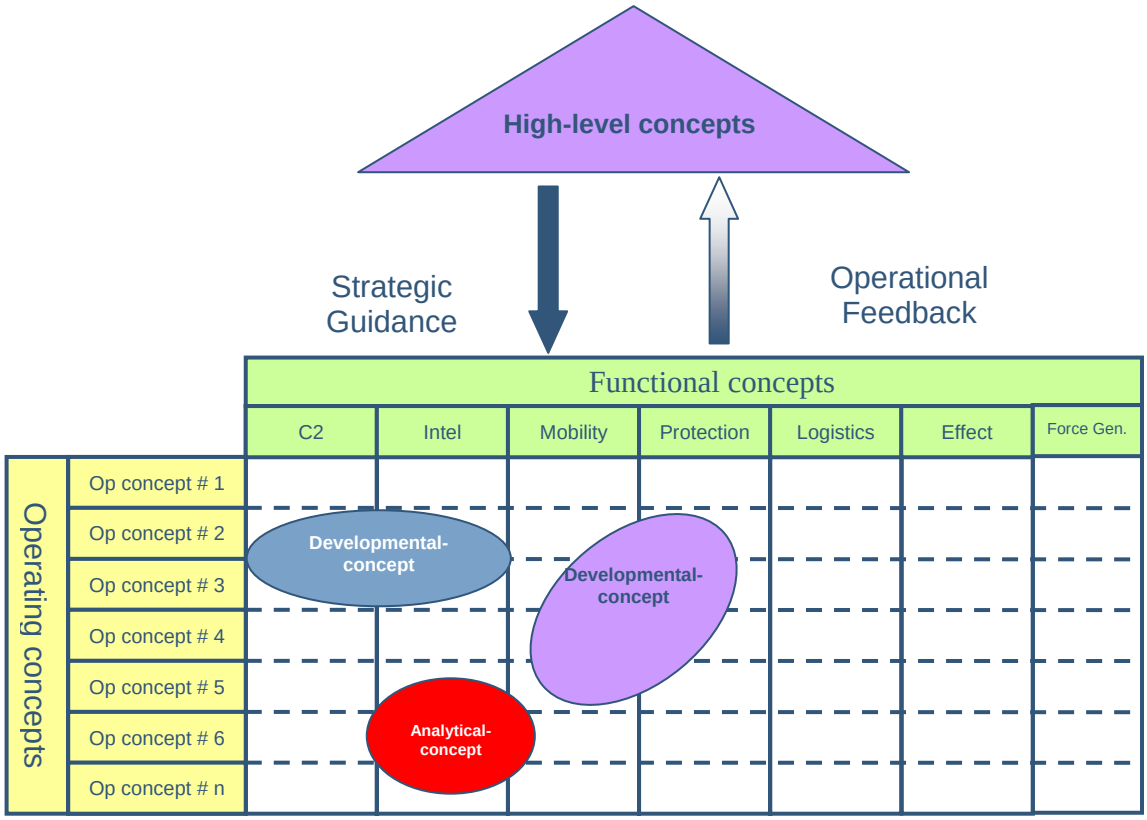

Figure 3 Proposal for a Hierarchy of Concepts

5.4 Capability Framework

A Capability Framework is suggested to define the Lines of Development and form the superstructure for evaluation of operational effect. Some nations and NATO have developed capability frameworks decomposing military operations into a limited number of capability areas.

The proposed Capability Framework for Norwegian Defence in *figure 3 (C2, Intelligence, Mobility, Protection, Logistics and Effect)* is based on the Norwegian Defence Field Functions defined in the Norwegian Defence Doctrine [7] with the extension of *Generation and maintenance of force components*.

The advantage of using the Field Functions as a Defence Capability Framework is that they are well-known in the Defence society and in this manner already are a part of the established definitions. The Field Functions are described in the Norwegian Defence Doctrine[7], and represents functions that are supposed to be important for the current operations. Use of the Field Functions secure that it is coherence between the analytical framework and the concept hierarchy. The disadvantage of using the Field Functions is that they are not easy to separate (decompose) and therefore it is difficult to establish well-defined interfaces

between the Field Functions (according to the nature of compund actions in the battlespace). The importance of the Field Functions and that they are well-known, has been emphasized in the proposal for a Defence Capability Framework.

5.5 Responsibility

CD&E in Norway is supported by a distributed "network-centric" organization coordinated by the National Joint Headquarters (NJHQ). CD&E in Norway is mainly carried out by the Joint BattleLab (NOBLE - Norwegian Battle Lab and Experimentation), the branches of the military services and FFI.

The National Joint Headquarters (NJHQ) is tasked by Chief Of Defence (CHOD) to facilitate and co-ordinate experiments within an operational framework for the Norwegian Armed Forces. This includes, and emphasises, experimentation conducted during exercises. Further, the NJHQ is tasked to gradually resume full responsibility for all joint Concept Development activities. The Norwegian Ministry of Defence (MoD) forms and informs the needs assessment and requirements of the joint Concept Development activities. The link from Identify directives to Development of concepts in *Figure 1*, is however not fully defined in the Defence Organization. The Norwegian Defence organization is a "small" community and is highly adaptable, but there is no unit organizationally separated from military operations or force generation, dedicated and manned to support joint Concept Development activities.

Changes of the organizational model are under consideration. Nevertheless, the High-level process model for capability development is a robust long-term process and short-term changes in terminology, focus or intent should not reduce its efficiency and effectiveness.

6. Implementation of military capability

The process *Implementation of military capability*, is based on the output from the concept development. A capability can be defined as the ability to produce an effect that users of assets or services need to achieve. Common for the output from the *Implementing capability* process is a decision basis – i.e. a plan telling about what, how and when the capability is supposed to be realized. In the Defence procurement system this decision basis corresponds to Conceptual Solution[14] which is regarded the formal output from concept development and input to any acquisition of defense material in Norway [8]. Further on, a Procurement Solution will be developed in accordance to directions given for procurement of military material.

7. Current operations

According to the Norwegian Defence Doctrine [7] the process *Current operations* includes planning and command & control of military operations in peace, crises and conflicts - and in war. In current operations the implemented capability ultimately will be evaluated. This may imply that the output of current operations identifies a need for adjustments i.e. change of directives. The current operations continuously generate feedback to the concept development as well. This feedback is named *Lessons Learned*. A well-functioning Lessons Learned process is an essential contribution to the concept development. It is in the Lessons Learned process the bottom-up ideas are identified. In *Figure 1* this is illustrated by an arrow from *Current operations* to *Develop concepts*. At the same time the model

[14] Norwegian MOD (2005): Directive for acquisition of defence material.

illustrates the possibility that Lessons Learned may bring about changes in the *Identify directives* process.

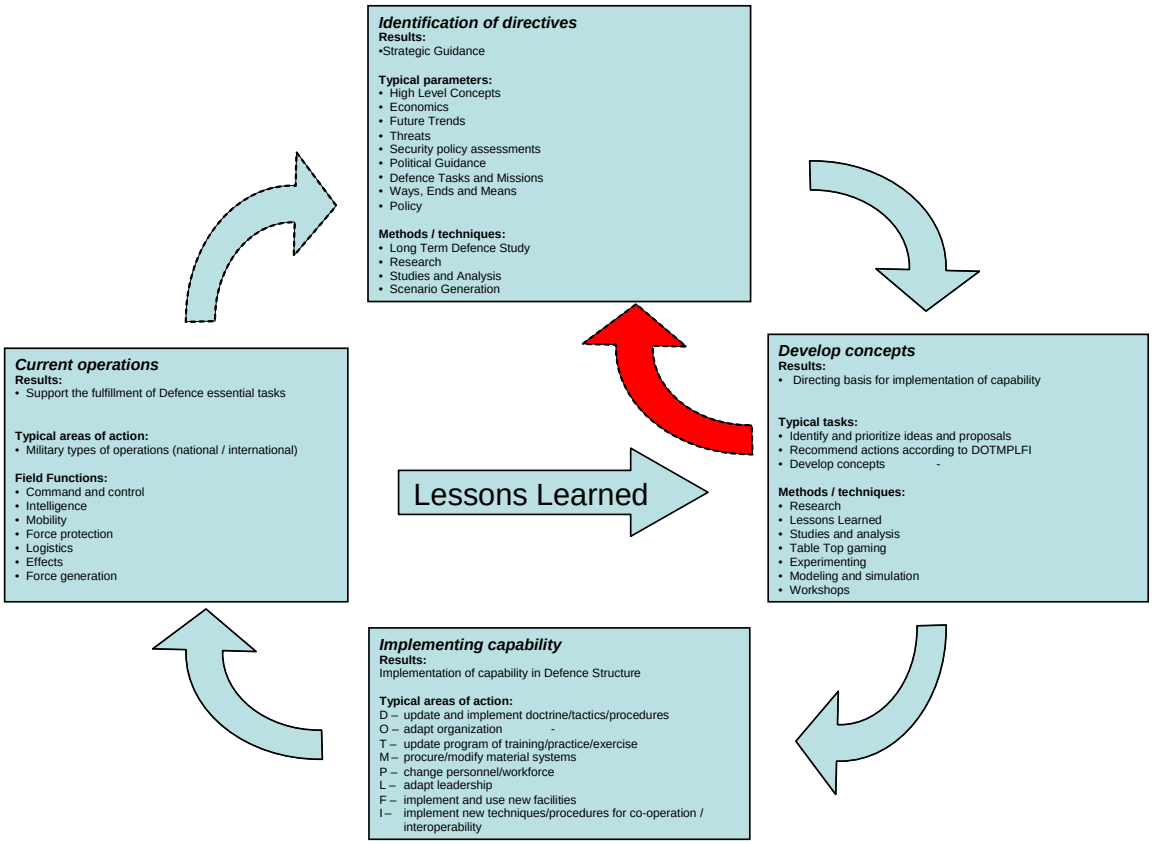

Figure 4 High-level process model of capability development and the place of concepts within long-term defence planning

8. Concept development within the long-term defence planning process

Long-term Defence planning may be defined and stated as a process that investigates possible future operating environments and develops a force structure development plan to best adapt the Defence organization to those environments given a host of constrains, according to [9] and [10].[15] Long-term Defence planning is also a process where activities connected to main Lines of Development are decided i.e. the link to the national capability development which is illustrated in *Figure 4*.

[15] Based on [9] and [10]:

- ”Handbook in Long Term Defence Planning”, NATO Research and Technology Board, Panel on Studies, Analysis and Simulation, 2001
- “Methodology for Long Term Defence Planning”, Dejan Stojkovic and Bjørn Robert Dahl, FFI-rapport 2007/00600.

The Norwegian Defence force structure development plan named Defence Capability Planning Guidance is an output from Norwegian Long-term Defence planning process as well as the ministry budget proposals. The principal aspect of Long-term Defence planning is considered to be the decision-making process provided in the Defence White Paper (results of Norwegian Defence Studies). The Norwegian Defence Studies are regarded important in order to negotiate the trade-off between political ambitions (e.g. fluctuating national political guidance according to up-coming missions and tasks) and what is realistic to achieve given the constraints. The most evident and obvious constraint is a balanced budget (economics) other constraints may be what is considered legally or morally acceptable use of an armed force. Another constraint is the already existing force structure which to a certain extent defines limits for course of action.

Figure 5 gives a general outline of this problem. The approach is based on three main variables which are to be identified to handle Long-term Defence planning, i.e. *Ends*, *Ways* and *Means*.[16]

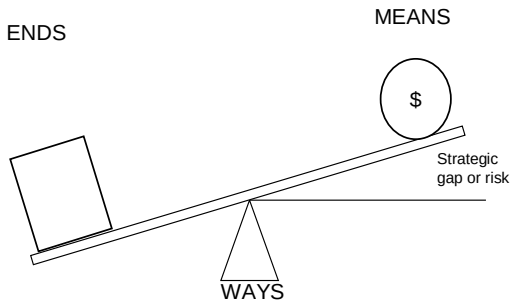

Figure 5 Main variables in Defence planning.

The challenge of the decision-making process is illustrated by a weight where the politically intended aims (*Ends*) must balance with the (military) instruments at hand (*Means*), simultaneously one have to take into account how the armed force is supposed to operate (*Ways*). To balance the weight one will need a certain amount of resources (i.e. money). The figure illustrates that an eventual unbalanced weight will result in a so called Strategic gap, i.e. a gap between established aims (Ends) and what is realistic to achieve with a given Defence structure, and this trade-off has to be taken care of by an appropriate risk handling process.

According to this example Defence planning is about minimizing this risk, and this can principally be done either by adjusting aims, increasing the resources or find more cost-optimal ways to operate (i.e. move the pivoted point to the left in the given illustration). It can be argued that the decision-making process is a discussion primarily about doing more, or at least the same, but preferably to a lower cost. In this way the figure illustrates which critical role and impact concept development may obtain by exploring innovative ways of operations.

The definition of long-term defence planning address the process that investigates possible future operating environments, defines long-term objectives and develops a force structure (development) plan to best adapt the Defence organization to those objectives (and environments) given. To achieve balance between the variables *Ways*, *Ends* and *Means* is in other words the purpose of the long-term Defence planning. Principally, a concept may be regarded as an initiative or outline influencing *Means* and *Ways* in such a way that the balance between the variables is optimal (and at least comfortable).

Norwegian long-term Defence planning is associated with the so called Defence Studies that are carried out to give a military advice to the Norwegian

[16] Based on ”The Military Budgeting Process: An Overview”, Le Roux, 2002

Government every fourth year. The Norwegian Defence Studies are focusing on generating a plan valid for Defence development the next four years period of time. In this context one has an eye for a considerable longer time frame to be able to build the basis for the Defence Studies (and Strategic Plan). According to this, long-term Defence planning is hereby understood as those processes which are carried out to develop Defence in a time frame beyond four years.[17][9].

Changes in the way of performing the Norwegian Defence Studies are under consideration.

Concept development is conducted and is aimed for the future, but the process has no specific time perspective beyond this statement. The concept time frame will be variable and be dependant upon the specific concept to be developed. This implies that concept development is an activity both inside and outside the frame of long-term Defence planning.

In *figure 6* this is illustrated by how concept development can be seen in relation to long-term Defence planning. According to the figure concept development is assumed to take place inside the frame of long-term Defence planning. Simultaneously, it is likely to claim that long-term Defence planning possibly will generate some questions forming basis for concept development (i.e. Master Question List). At last, the generation of high-level concepts may found the basis for long-term Defence planning. *Figure 4* and *figure* 6 illustrate the interaction between long-term Defence planning and concept development (indicated with feedback arrows).

9. The link between concept development and lessons learned

To gain experience, the Defence organization will typically establish techniques, tactics and procedures (TTPs) based on common best practices.[18] Other examples of documents are standard operation procedures (SOP), regulations and rules, educational program based on proposed concepts or revision of existing concepts. New opportunities identified in the Lessons Learned – process should be taken care of by concept development as proposed [11].

Handling of raw data reported from current operations and exchange of military experience is assumed to be executed in a systematic process. A data mapping process following the Defence Lines of Development as proposed in NATO Joint Analysis Handbook [12] is suggested.

Anyway, an objective is to establish a proper interface which makes the results from analysis of Lessons Learned accessible. In this context we address both decision makers and specialists of concept development. It is particularly important and it is emphasized that results from the Lessons Learned process make an essential contribution to concept development. It is in this process the so called bottom-up ideas are identified. This will imply that gained experience is identified in Current operations and need for change is properly

[17] NATO Handbook on Long Term Defence Planning[9], chapter 2-Definition; " The time period associated with "Long term" depends on how long it takes to make changes and varies for each defence sector. Major new materiel developments and investments, and implementation of new capabilities, competencies as well as structural changes, all take long time. Consequently, the appropriate long term time horizon is **10-30 years**. There are exceptions to that rule, notably the fact that no integral NATO planning process looks further ahead than **six to eight years**. "

[18] "Draft on Lessons Learned process in the Norwegian Army" signed by General Major Robert Mood, Chief of Norwegian Army, Akershus 01. January 2007.

identified in Lessons Learned and implemented through concept development.

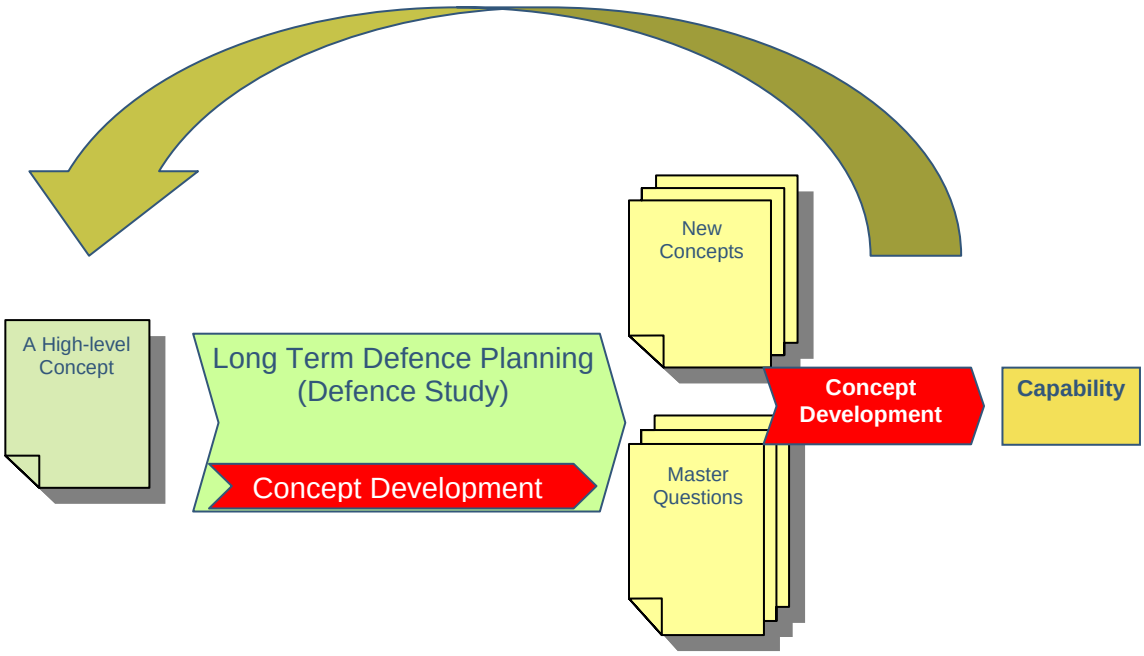

Figure 6 Illustration of the possible place of concepts within the Strategic Planning process of Norwegian MOD

10.Recommendation

The main aspect of this paper is the small nation perspective on concept development and how this should be related to the overall long-term defence planning process.

A fundamental issue in long-term defence planning is the ability to predict how the armed forces may operate in the future in a rational, analytical and systematic way. Such a problem structuring approach provides an opportunity for specialists of concept development to support decision makers by facilitating the creation, development and assessment of robust developmental concepts. Long-term defence planning addresses the process that investigates possible future operating environments, defines long-term objectives and develops a force structure (development) plan to best adapt the Defence organization to those objectives (and environments) given. To achieve balance between the variables *Ways*, *Ends* and *Means* is in other words the purpose of the long-term Defence planning. Principally, a concept may be regarded as an initiative or outline influencing *Means* and *Ways* in such a way that the balance between the variables is optimal.

Norwegian long-term Defence planning is associated with the so called Defence Studies that are carried out to give a military advice to the Norwegian Government every fourth year. Changes in the way of performing the Norwegian Defence Studies are under consideration. The paper recommends integrating concepts into long-term defence planning as a tool for a (possible) change applying for a continuous defence planning process.

Importantly, due to the nature of such decision making, the process provides

insights that provide the basis for further test and evaluation, rather than re-circulation of prescriptive solutions.

11.References

[1] R. Stensrud, F. Rutledal, F. Danjord, J. I. Hellesnes, and T. Bjørnsgaard, "Metode for konseptutvikling," FFI Rapport 2007/01722 (Ugradert), 2007.

[2] Ågren Lars, Bjørnsgaard Torolv, Danjord Frank, Rutledal Frode, and Stensrud Rune, "Kartlegging av militær konsept- og doktrineutvikling i Storbritannia, Canada, Australia, Sverige, Danmark, Nederland og Norge," Forsvarets forskningsinstitutt, Kjeller, FFI/RAPPORT-2006/03042 2006.

[3] NATO Headquarters Supreme Allied Commander Transformation, "Managing Transformation," ACT Directive Number 80-7, 2005.

[4] Forsvarsdepartementet, "Styrke og relevans, Strategisk konsept for Forsvaret," Oslo, Utgitt november 2004 av Forsvarsdepartementet gjeldende for perioden 2005-2008 2004.

[5] Forsvarssjefens militærfaglige utredning (MFU03), "Konsept for nettverksbasert anvendelse av militærmakt," Forsvarets overkommando, Oslo,2003.

[6] P. Willis, P. Dortmans, N. Curtis, and N. Tri, "Army's Concept Framework - Exploiting Concepts as Agents for Change for Land Force Development,"2003.

[7] Forsvarets stabsskole, "Forsvarets fellesoperative doktrine (FFOD)," Forsvarsstaben, Oslo,2007.

[8] Forsvarsdepartementet, "Konsept for fremskaffelse av materielle kapasiteter i forsvarssektoren," Oslo,2005.

[9] NATO Research and Technology Board: Panel On Studies Analysis and Simulation (SAS), "Handbook on Long Term Defense Planning," Research and Technology Organisation (RTO), RTO Technical Report 69, RTO-TR-069 2003.

[10] Stojkovic Dejan and Dahl Bjørn Robert, "Methodology for Long Term Defence Planning," Forsvarets forskningsinstitutt, Kjeller, FFI/RAPPORT/-2007/00600 2007.

[11] Generalinspektøren i Hæren, "Høringsutkast - Konsept for militære erfaringer i Hæren," Akershus Festning,2007.

[12] NATO Joint Analysis and Lessons Learned Center: Eaton J, Redmayne J, and Thordsen M, "Joint Analysis Handbook (2nd Edition)," NATO JALLC,2006.