



# The Oregon Approach to Capability Development

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Former American Secretary of Defence Donald Rumsfeld said during the Gulf War: "You go to war with the army you have, not the army you might want or wish to have at a later time." However, as soldiers, we want the capabilities that we employ in an operation to be precisely those we need, and not those we needed yesterday. It is not for nothing that the core mission of a Defence organisation is to determine and build the best portfolio of capacities that allows flexible and correct answers to future deployment questions. Traditionally, this core process is centrally managed or, at the very least, controlled. Our strategic departments try to form an idea, mental picture(s) of the future, global situation, and possible crises in which we will have to operate as armed forces. The definition of the required capabilities starts the process of acquiring and maintaining these, an expanding process gradually involving more and more departments.

But the statement by Rumsfeld shows that the way the process(es) work(s) does not lead to a satisfactory answer, even for a big army as the Americans. This, at first glance simple process is in 'practical' implementation many times more complex: the future image does not appear to keep up with reality; the long procurement procedures result in non-adapted equipment (who does not remember the Hummers 'armoured' with steel plates?) and devour large parts of the budget leaving too little room to adapt. Doctrine appears not to have evolved fast enough, and 'lessons identified' hardly lead to real 'lessons learned' or improvements.

Given the complex and rapidly changing environment in which the equilibrium between doctrine, organization, training, equipment, leadership, personnel, facilities and interoperability (in short: DOTMLPFI) must be found, it may be called a (small) miracle that capabilities we identify today are indeed tomorrow the 'right' one. Limiting the execution of our core assignment to a small, high performing team seems hopeful for a good result, but "hope is not a method"<sup>2</sup>.

Can we do it differently?

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<sup>1</sup> This article was written in Dutch a few years ago, but never translated in English.

<sup>2</sup> "Hope Is Not a Method" is the title of a book by US Gen Gordon Russell Sullivan.

It is easy to expose the errors of an approach but formulating a counter proposal is a greater challenge. Albert Einstein nicely summarized it with "Insanity: doing the same thing over and over again and expecting different results." We cannot continue to work with the existing system and expect a better result; we need to walk another path to get to another destination. We ask you, our reader, follow us in our reasoning for a few moments and judge our idea at the end.

In our approach, we throw the intrinsically static, strategic plan overboard and replace it with a permanent decision process that starts from the current situation. We embrace the changes that will take place but refuse to make predictions about their nature and extent. Any prediction based on contemporary hypotheses is doomed to be outdated when in contact with the future.

To put this concept into practice, we propose six principles. We will discuss them and confront them with the current way of developing capabilities. This makes the principles more tangible than a boring theoretical explanation.

## **1. Organic order**

This principle eliminates a 'fixed' picture of what the future will look like. After a while, a vision for the future cast in a strategic plan begins to be regarded as the true future. A great deal of energy and time was invested in this plan and it is the result of decisions at the highest level. Therefore, it must be correct. Deviations from it are explained but not studied. We can only conclude that the future does not follow a plan, how brilliant it might be, it more likely will deviate from it. If the future does not like to be captured in a plan, do we then have to wait passively for the future to happen?

Of course not. The key is not to invest in a robust plan, but in the process that determine the future set of capabilities. Spending time developing and improving the process that detects changes and can respond flexibly to these is a much better investment than labouring on a 'better' plan. Developing a good idea of the end goal is secondary to the capacity to adjust smoothly to changes. If a strategic plan leads to a coherent whole, how do you achieve this with a flexible process?

The imagery of the growth of a forest explains this principle well. There is no central forest spirit that tell the trees and scrubs how to grow. Every tree finds its way into the whole and its configuration meets the condition of today. Due to steady growth, it will also meet tomorrow's requirements. Of course, there are trees here and there that are cut off or die. However, compared to an artificial forest, our natural forest is much better adapted to the future.

Let us come back on the assumption of the 'strength' of a plan in maintaining a coherent whole. On paper, this seems to be true, but because the hypotheses of the plan must

be revised after some time, this leads to changes (the truncated trees). The latter causes the coherence to crumble, so that the result is less homogeneous. Do you know a large, coherent organization as a result of the implementation of a strategic plan? We do not.

## **2. Step-by-step growth**

Capacities grow gradually. The development is not a succession of all-encompassing projects, but of a balanced set of initiatives, large and small. The latter are just as important as the former. Large projects that usually involve the acquisition of material for (new) capacities tend to attract more and more resources. The proliferation of programs, budget overruns... combined with the hierarchical power backing up such projects lead to cutting short the necessary support after the acquisition and in the investments in current capacities. The need for smaller projects is increasing, but these are being less and less honoured. Until finally only a new, large project can bring 'salvation', but the means for one are lacking.

How can we put this principle into practice? In a first step, we must determine what a small, medium, or large project means in terms of resources within our organization<sup>3</sup>. After that, the operational and investment budget must be balanced between these groups. Ideally, the same amount of money goes to each group. This means that only a few large, more medium and many small projects are budgeted, so the big ones no longer pose a threat to the smaller projects. Acquisition in balance with maintenance of capacities, innovation in balance with continuous improvement.

## **3. Patterns**

Our planning process is not chaotic. It is structured according certain agreements or patterns. These patterns describe the recurrent core of every solution of a problem in such a way that the core can be applied multiple times without resulting in the same solutions. This pattern is expressed in the form of an instruction. No single pattern stands alone because it is supported by other patterns. The larger patterns in which it is embedded, the patterns of equal size that surround it and the smaller patterns that are part of it. These are good and tested approaches on every level from strategic to the operational and tactical level.

Although a pattern on the lowest level has many similarities with tactical doctrine, the concept of patterns applies to every DOTMLPFI element. After all, a pattern describing the composition of a combat section influences not only the doctrine for that section, but also its transport means.

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<sup>3</sup> Of course, more than three groups can be used too.

Drawing up a manual with recognized patterns is certainly not an easy task. It constitutes bringing together and consolidating the common knowledge that is already present and will be built up in the future. It is probably the biggest challenge in applying this new approach.

#### **4. Research**

Research into the existing informs about the improvements under way and exposes the need for new projects. Active failure detection, whether caused by errors, and the constructive reporting of poor conditions is important to be able to learn lessons and to launch the necessary improvements. This critical research should be duly repeated and where deemed necessary. By excellent research, much more important than a great vision, an organization can anticipate in a very flexible way to changing conditions.

Recognized patterns are the touchstone of the research. It is there where the situation deviates from agreed patterns that research is needed leading to possible improvements. However, this must be done with the necessary scepticism in relation to the patterns themselves.

#### **5. Participation**

The basic idea for a renewed planning process is that the soldiers directly affected by the outcome of the process are best placed to steer it and therefore should be directly involved. In addition to guiding the culture change through awareness and training, it must be structurally such that we mobilize the collective knowledge and experience throughout the entire planning process.

A different division of the available budgets has been proposed above. A possible realization of the participation lies in the allocation of the funds to projects. In the category small projects, battalion commanders investigate components of capacities and tests those against the accepted patterns. When they detect deviations, they should be authorized to propose projects to remedy these.

All proposals will be published on an intranet site so that every commander can see and assess them. Every commander is assigned a 'sum/budget' that he/she can spend on projects. The small projects that have collected enough funds can take off. The initiator must use the collected budget to implement the project and share it with the rest of the community.

This system will sponsor small projects that most respond to the capacities and concerns of the commanders. The sponsors will closely follow the project leader, as they have invested in the project and will exploit the result in a useful way.

Although our view is of a financial nature, this reasoning can also apply to other resources like equipment, person-days, etc.

## **6. Coordination**

"L'union fait la force" (unity equals power) especially in a complex process. Defence organizations need to develop capabilities considering a multitude factors leading to the necessity for a broad spectrum of different projects. This mix of small and large projects as well as the unique planning process must be coordinated. A high-level planning committee can be set up to guide this coordination effort and guard over the application of the principles and the use of patterns. This committee advises the CHOD on the acceptance of certain projects. Members of the committee act as coaches for the various projects so that the implementation of a project does not depend on the experience, or lack of it, of the initiator of lead.

The committee is also responsible for accepting 'dissident projects' that follow the letter but not the spirit of the patterns. The Committee therefore ensures continuous evaluation and for the health of the set of patterns.

### **The Oregon Experiment<sup>4</sup>**

This problem of vision in a complex future is not unique to Defence organizations. With large infrastructure projects, it often happens that, when the last stone is laid and although a team of competent architects drew up the plan, the buildings do not meet the requirements of the users.

The University of Oregon (USA) identified this problem in the early 1970s and wanted to avoid it. It found the answer to the question of how to achieve this in the organic order found in some historic city centres. After all, these centres are the result of centuries of construction by different residents and yet they form harmonious units that meet the needs of the current habitants. Moreover, all that without a central committee that decides on budget and plans.

The builders of Oregon rejected the idea of a central 'master plan' because they were convinced that such a plan would never meet the expectations of the professors and the students once realized. They offered Prof. Christopher Alexander the opportunity to put his ideas about designing and building into practice.

This approach has also been successfully applied outside campus construction. There are examples to be found in an insurance company striking a balance between the

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<sup>4</sup> "The Oregon Experiment" is a book written by Prof. Dr. Alexander and his staff and tells the story of a successful experiment within an infrastructure project of the University of Oregon (USA).

rising costs and the shrinking budgets, software development like Linux, knowledge software like Wikipedia, the planning guidelines of the UN... even within in the art of war this approach is not exceptional. Consider the functioning of the terrorist networks or groups of freedom fighters. Although they attack our democratic values, their function and flexibility are the result of the inputs and improvements of their methods proposed by individuals and local commanders, rather than those initiated by a central management decision of their 'leaders'.

The innovative aspect of this article is therefore not the approach itself, but the proposal to apply it to a main defence process: developing and maintaining capabilities in a participatory manner. We, as authors, think that writing this article is our contribution to improving that process.

Now, it is up to you to judge.