

## Concept Development Success by Cultivating Chaos

Looking back at years of developing concepts, the business seems hard and complex. For some odd reason, we tend to believe that making concept and capability development processes more complex with more decision points and more working groups will make them more performant. Yes, it increases the flow of documents and people involved, but it rarely improves the success rate or commitment. Is there another way?

A few years after the turn of the millennium, the Belgian Defence explored the idea of using the concept of a capability in its strategic thinking. This approach was a direct consequence of the transformation wave started in the USA that swept across the European continent. It defined a capability as ‘a structured and coherent set of human, material and immaterial means whose aim is to obtain an effect, i.e. a physical and/or behavioural change in the state of a system<sup>1</sup>.’ This was a definition much in line with what was used throughout the Alliance. But being able to define a capability does not mean you’re able to develop one. The basic idea of the switch to capabilities was to get rid of the old way of modernizing by replacing equipment by newer and more performant hardware, and to move towards considering the best options amongst a wide range of solutions to create the desired effects. Without a new method to develop a capability, the old way of doing things would stay.

### A New Approach

In 2007, after some trial and error, this new method was published in a strategic level directive<sup>2</sup>. The purpose of this directive was ‘to define the process to be used within Defence for developing a coordinated and coherent approach across all ‘Lines of Development’ (LoD) in order to achieve new or transformed capabilities. These capabilities are based on the strategic orientations of the applicable Belgian Defence Strategic Plan and its subsequent Steering Plan and further developed through the cooperation of all Staff Departments (ACOS) and Directorates General (DG). The overall objective of this transformation process

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<sup>1</sup> Interforce (IF) 69 directive with definitions and terms used in the Belgian Armed Forces.

<sup>2</sup> Transformation from Strategic Orientations to Capabilities for Operations ACST-APG-CGEN-SXX-001, 01 March 2007.

is to provide capabilities for operations'. This directive had a transformational punch and its conception was heavily supported by the main players.

The main advantage of this new approach was that it was simple and therefore very powerful. The transformation from the strategic orientations towards an effective capability 'ready to use' in operations was characterized by four consecutive phases: Identification, Development, Implementation and Management.

During these phases, all lines of development had to be kept aligned. These lines are summed up in the acronym DOTMLPFI<sup>3</sup>. This interdisciplinary alignment and the consideration of non-material focused solutions to capabilities gaps, promotes thinking outside the box and creates connections over the organizational silos.

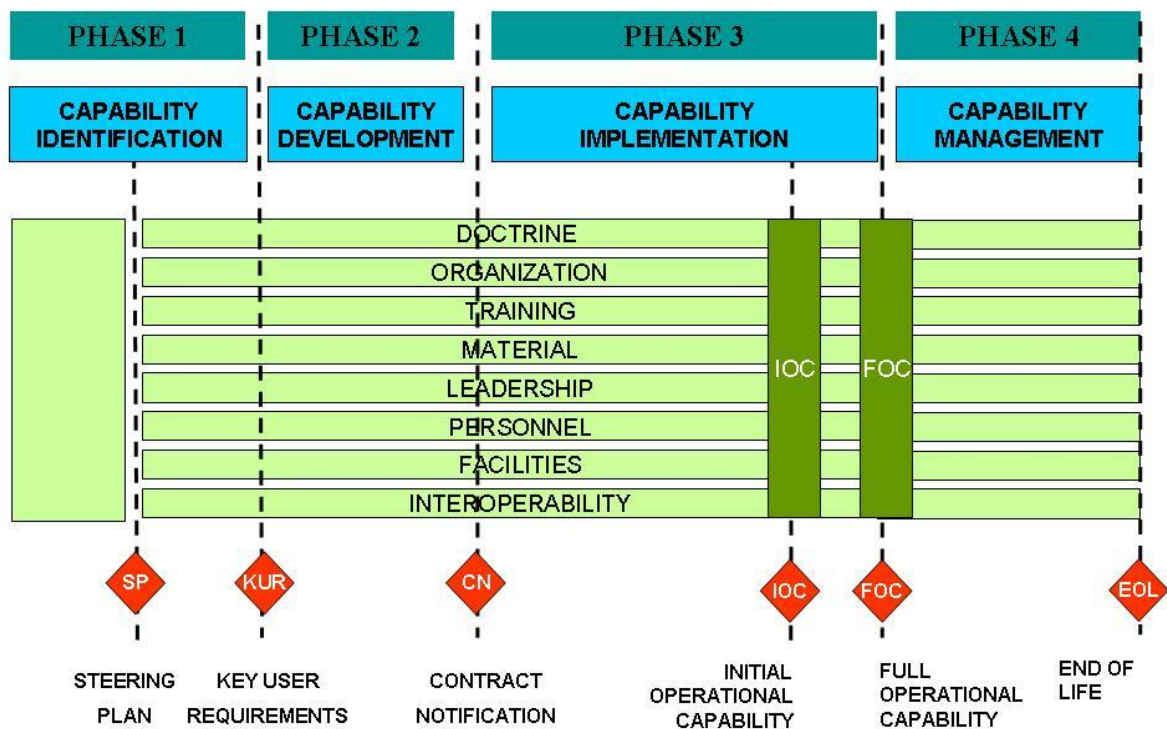


Figure 1: Transformation from Strategic Orientations to Capabilities for Operations

<sup>3</sup> DOTMLPFI = doctrine, organization, training, materiel, leadership, personnel, facilities and interoperability.

Due to the organizational design of the Department of Defence, the process had an added layer of complexity to make sure that the unity of command stayed clear. In every phase the supported and supporting ACOS/DG were clearly expressed.

### Towards Failure

Not for the lack of written and verbal support, the process never reached full potential. Later versions of the directive describing the process added more complexity. Making the process more complex with more decision points and more working groups did increase the flow of documents and people involved, but the success rate and commitment went down.

For an explanation of the causes of this low success rate, we have to zoom into the Capability Identification phase. In this phase ‘the necessary Defence capabilities are identified according to the Strategic Plan. [...] From this Strategic Plan ACOS Strat identifies ways to develop or transform the necessary capabilities. The accepted way is translated in an approved capability concept that provides the necessary information to facilitate the development of the capability’. This was explained in an older directive from 2006<sup>4</sup> and gave guidance on how to develop concepts.

In the 2006 directive, a concept was defined as ‘the formulation of a possible way to reach or to execute something’. This older document was even more transformational and went almost directly to the weak spot of the whole approach.

First, it made the distinction between a transformational and an applied concept. The latter was approved by the Chief of Defence (CHOD) and was an order to be executed. As the former was not for immediate action but for long-term planning, it was not officially approved. Its benefit was that it could serve in the future due to a change in our environment. This differentiation should stimulate creative thinking, as the goal of the identification phase was clearly not limited to get a concept approved, but to prepare options and enhance the proactive preparedness for unpredicted changes in the future.

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<sup>4</sup> ACST-SPS-CGEN-SXX-001 ‘Leidraad voor het ontwikkelen van concepten’, 01 April 2006.

Second, the identification of a concept followed a four-phased approach: discovery, exploration, definition and acceptance. The discovery phase was the simplest as well as the most critical one. It was not only the start of the whole capability development process; it also contained the key to success, or failure. The aim of this first phase was to explore, formulate, capture and assign conceptual ideas. Although ACOS Strat was in the lead of this phase, every person was urged to be part of it. The discovery of conceptual ideas was to be executed during planning activities, through passive observation of the ‘external’ environment or by actively agitating the whole organization. This agitation could be done in a number of ways, e.g. organizing reflection and freewheeling days, holding cross-functional working groups, or attending meetings of non-military organization.

In its final remarks, the 2006 directive recognized the creative nature of this phase. It stated that the expression of conceptual ideas requires ingenuity and intellectual courage. This can only be achieved in an environment of trust and confidence. It stressed that although the process gives the impression of a structured approach, in reality this will not be the case. A great deal of freedom and flexibility is needed.

#### Where Did It Fail?

The Belgian approach to concept and capability development as captured in both directive was certainly not rocket science. Why then did it not work? In addition, why did the discovery phase hold the key to success?

The discovery phase should have led to a chain reaction of ideas. The use of the DOTMLPFI not only needs to stimulate interdisciplinary crossovers, but should lead to a creative process of destruction and construction. As John Boyd explains, ‘to comprehend and cope with our environment we develop mental patterns or concepts of meaning. [...] we destroy and create these patterns to permit us to both shape and be shaped by a changing environment’<sup>5</sup>.

Transformation is continuous change. It means working in constant ambiguity, in a kind of tolerated chaos. What is effective, efficient and affordable today must be changed to stay effective, efficient and affordable tomorrow. The 2006 directive rightly recognized it, but it

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<sup>5</sup> John R. Boyd, ‘Destruction and Creation’, 3 September 19760

was never supported by the needed cultural change. We are by design lazy; we would rather stick to our thought patterns and re-interpret reality than change our thinking<sup>6</sup>.

Designing the process and later complicating it was easy, but changing the culture to support it proved much harder. Or was never fully understood. Without a cultural realignment, the fresh drilled well of ideas soon dried up.

### Cultural Change

A military culture is counterproductive to nurturing a creative environment. The power lays in numbers. One transformational idea is not born out of stubbornness, but out of killing 10,000 ideas. To find the right one, we have to accept 9999 'failures'. Moreover, failures do stand out on a military CV. This acceptance becomes even harder if an idea already passed some hurdles. We prefer to push an idea further through the process, far beyond its life span, than to kill it. Charles Darwin claimed the survival of the fittest, but he did not mean that only one species should survive<sup>7</sup>. No, his law expresses Mother Nature's wisdom that only the combination of creative variations and a severe elimination process leads to good, sustainable results. Why should that law not be applicable to ideas?

In our push for efficiency, we consider killed ideas as pure waste. Edison did not consider his short-lived ideas for a prototype of a lightbulb as failures, but as discoveries of ways how not to do it<sup>8</sup>. Great painters like Rubens or Picasso seldom painted a masterpiece in one try. They needed tons of sketches.

This does not mean that concept development is only about creativity; it demands lots of dull work and tenacity. To turn a good concept into reality, we need rigorous planning and strict control in the later phases. However, our preference for a controlled environment and the

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<sup>6</sup> Kahneman Daniel, 'Thinking, Fast and Slow', New York: Farrar, Straus and Giroux, 15 October 2011.

<sup>7</sup> Darwin Charles R. 'On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life', London: John Murray, 1869 5<sup>th</sup> edition.

<sup>8</sup> Thomas Edison A. "I have not failed. I've just found 10,000 ways that won't work" as quoted in Nathan Furr, 'How Failure Taught Edison to Repeatedly Innovate', Forbes, 9 June 2011.

necessity to spend more time on the 'hard' side of concept development endangers the discovery phase, where creativity is key.

For the successful implementation of concept development, you need a new culture. One that tolerates failures, that finds a balance between chaos and control, that dares to leave the efficiency path in favour of brutal quantity, that acknowledges that the quality of an idea does not relate with the rank of the beholder, ... You need people who introduce big and small changes. People who propose new approaches: champions of change. Also, people who mature and nurture those ideas and turn them into reality, who walk the long distance between idea and application. People who channel the energy, who dare to stand up and constructively question everything and everyone. Without this change, the elaborated development process will run idle.

Before complicating the development process in the urge to 'repair' it, you need to revisit your culture and question its compatibility with the requirements of the discovery phase. If it is not fit for this purpose, you need to spend time and energy to change it. Just acknowledging this, like in the early period in Belgium, is not enough to reach success. Ideas, creativity, and grass do not grow by force but by cultivation.