

THE SMART DEFENCE CONCEPT – A NEW APPROACH OF COMMON DEFENCE WITHIN NATO

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"I know that in an age of austerity, we cannot spend more. But neither should we spend less. So the answer is to spend better. And to get better value for money. To help nations to preserve capabilities and to deliver new ones. This means we must prioritize, we must specialize, and we must seek multinational solutions. Taken together, this is what I call Smart Defence."

NATO Secretary General, Anders Fogh Rasmussen
30 September 2011

The Smart Defence concept was introduced in the NATO policy in a time when the Alliance is confronted with new challenges generated by the global economic crisis, a lack of balance in the participation of the member states in the financing of common operations, threats coming from states that do not adhere to nuclear non-proliferation treaties, as well as the emergence of new state actors at the global level.

By implementing the Smart Defence concept, the Alliance intends to adapt its own means of generating critical capabilities in accordance with the pooling and sharing paradigm, implemented with the European Union, an initiative that might lead to stronger cooperation between the two organisms and to a more efficient use of shared capabilities.

Bringing to an end successfully the programs based on the Smart Defence concept that are currently unfolding will be a positive example for promoting the idea, as well as a contribution to expanding similar projects within the Alliance.

Key words: smart Defence; pooling and sharing; shared Defence; NATO critical capabilities; AGS System; missile shield.

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1. The context of origin of the *Smart Defence* concept

The origin of the Smart Defence concept is traced at a time when the North Atlantic Alliance preserves a dominant role within the international organisms that manage the security situation at global level, while maintaining a disparity between the different member states (especially a disparity between the USA and its European allies) regarding the contribution (with capabilities and budget) to common operations, a decrease in the defence budgets due to the global economic crisis and, not in the least, an increase in the importance of the emerging powers at the global economic and military level.

In the framework of the NATO Summit in LISBON (Nov. 2010), the representatives of the member countries adopted a new Strategic Concept that defines the basic missions, principles, values and strategic objectives of the Alliance for the next decade. The new Strategic Concept includes three essential missions: collective defence, crisis management and cooperation security¹.

The concept also emphasizes the cohesion of the Alliance, the importance of transatlantic consultations, and the need to embrace a continuous reform process.

Collective Defence implies that NATO members are always ready to support each other against attacks from any foreign aggressor. The crisis management concept hints at the involvement of the Alliance in managing the whole crisis spectrum, in case it contributes to the Euro-Atlantic security, while the cooperation security concept presupposes the active participation of the Alliance to ensure the international security, including through cooperation with other states and organizations.

According to the new Strategic Concept, the Alliance objective in the 2020 horizon is to be able to accomplish these three main duties. In order to do so, it is necessary for the member states to possess the needed capabilities to execute complex common operations, with high impact on the adversary. This implies the existence of flexible, efficient, rapidly deployable military capabilities that the Alliance can use when needed.

The new NATO Strategic Concept requests from the member states to cooperate more in the field of capability development, in order to reduce redundancy

¹ *Strategic Concept For the Defence and Security of The Members of the North Atlantic Treaty Organisation*, Adopted by Heads of State and Government in Lisbon, posted at <http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf>, accessed on 20 JUN 2012

to a minimum the and to maximize cost efficiency, so that the tax-payers get solid security guaranties in accordance with the amount of money invested for defence.²

On the other hand, the new Strategic Concept foresees the transformation of NATO in the field of defence industry cooperation (i.e., a stronger coordination NATO/EU in the field of defence acquisitions).³

In this respect, the Alliance, as an organism, has no control over the international commerce and the control regulations of the exports among the member states. Despite this, whenever possible and through the governments of the member states, NATO promotes the delivery of defence systems and equipment that offer interoperability for the Alliance operations.

The annalists of the Alliance consider NATO the ideal framework for the coordination of development efforts, military know-how and capabilities, by identifying and connecting nations with similar needs that do not have the financial means to create certain capabilities within their own budgets.

The Smart Defence concept was structured at the NATO Summit in CHICAGO (May 2012), when members put on the table the needed measures for the prevention of the transformation of the present financial crisis in a long term security crisis.⁴

The economic crisis of these last few years has affected NATO as well, especially in the contribution of member countries to the Alliance operations. As a general trend, the defence budget of the allies did not decrease, but resulted in great discrepancies within the organization. While Europe dramatically downsized its defence expenditures, the USA had to make considerable efforts in order to maintain NATO's security objectives by increasing its own contributions.

The USA military expenditures in 2011 amounted to 711 bil. USD, a raise compared to 2010 (698 bil. USD), but a 1.2% decrease in real terms⁵ – the first since 1998.⁶

² Idem

³ Ibidem

⁴ Speech of the NATO Deputy Secretary General, Alexander VERSHBOW, at the GLOBSEC Conference in BRATISLAVA in 13 APR 2012. posted at http://www.nato.int/cps/en/natolive/opinions_85984.htm?selectedLocale=en, accessed on 20 JUN 2012

⁵ The decrease is mostly due to the delay of the Congress in passing the Budget for 2011 financial year, which led to a partial accomplishment of the acquisition plans, with expenditures considerably lower than those initially predicted.

⁶ *Recent trends in military expenditure* – Stockholm International Peace Research Institute. Posted at <http://www.sipri.org/research/armaments/milex/resultoutput/trends>, accessed on 21 JUN 2012

The Congress Act adopted in July 2011 contributes to this trend, in the sense that it decreases the planned defence budget of the US for the next 10 years by 487 bil. USD, that will lead to a reduction of the military expenditures over the next years – Fig. 1.

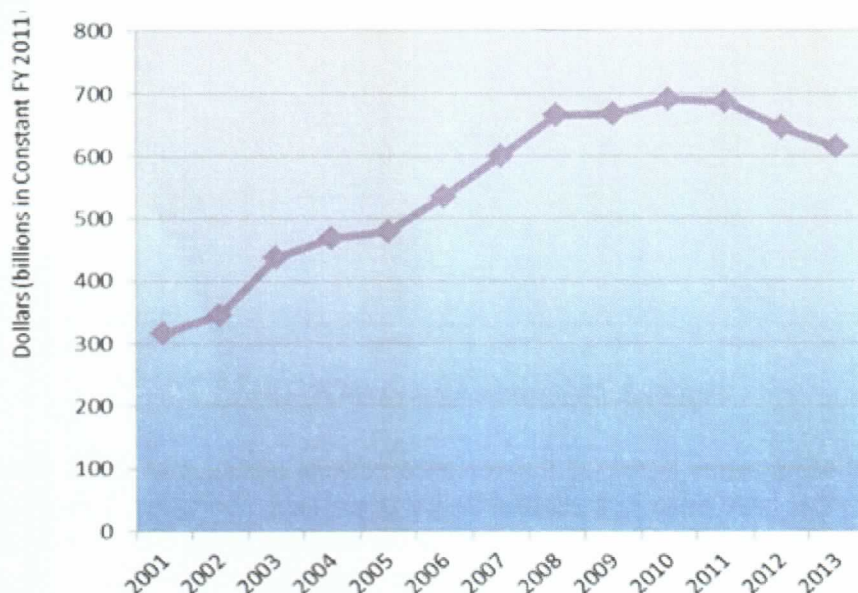


Figure 1. US yearly budget earmarks for defence since 2001⁷

Many European states have imposed many austerity measures, with significant decrease of public expenditures that included the military ones, which led to a bigger discrepancy between the US and the European contributions (Fig. 2). Since 2008, two thirds of the European countries have reduced their defence budgets. The most significant reductions have been implemented in the central European countries, where the economy could no longer support a high budget deficit. 18 European states implemented a reduction of over 10% of the defence budget. The largest reduction was made by Latvia, with 51%, followed by Greece – 28%, Spain – 18%, Italy – 16%, Belgium – 12% and Ireland – 11%.⁸

⁷ US Department of Defence, FY 2013 Budget Request, February 2012, posted at <http://www.globalissues.org/article/75/world-military-spending>, accessed on 21 JUN 2012

⁸ Stockholm International Peace Research Institute - SIPRI

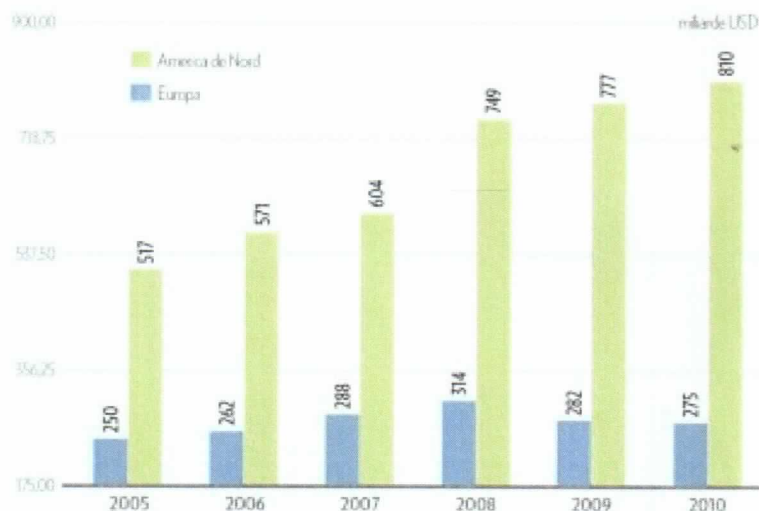


Figure 2. Defence budgets of NATO states⁹

But some states increased their defence budgets starting with 2008. These are states that have been less affected by the crisis, such as Poland, Turkey and Norway. At the same time, the states that have the most significant defence budgets in Europe, such as the UK, Germany and France, have made minor adjustments to their military expenditures (UK 0.6%, France 4% and Germany 1.6%). But these countries also foresee a decrease in military expenditures in the near and medium time range. UK has predicted a 7.5% decrease by 2015 and Germany 10%, also by 2015.¹⁰

In Eastern Europe, Russia continued to increase the budgetary share for defence, with 9.3% more in 2011 than in previous years, which puts Moscow on the third position of the list of the states with the biggest defence budget allocations, after the US and China¹¹.

But Russia plans a significant increase in military spending, with more than 50% by 2014, in order to replace the soviet era military equipment with modern weaponry by 2020.

⁹ http://www.globalissues.org/article/75/world-military-spending_69346/nato-infrunta-criza-cu-smart-defence.html, acceset on 09 JULY 2012

¹⁰ SIPRI

¹¹ Idem

In Asia, the military expenditures of China also continue to rise, with 6.7% in real terms, faster than in 2010, but slower as compared to 2000.¹²

A graphic representation of the defence budget progress in some states, between 2000-2011, is presented in Fig. 3.

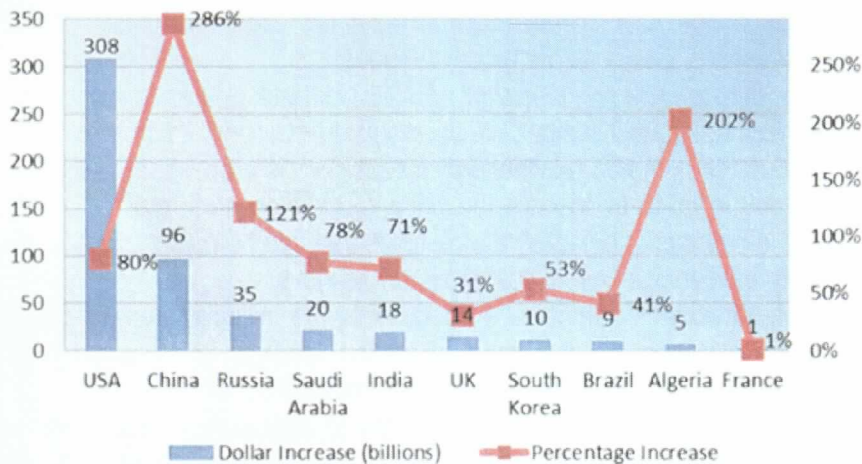


Figure 3. Progress of the defence budgets of some countries in 2000 - 2011¹³

In conclusion, the *Smart Defence* concept was born in a time when new threats and the global economic situation proved that on the medium and long term the US will no longer be able to handle on their own the economic, military and social dimensions of the global security and NATO will have to create a common capability system in order to be able to act jointly, flexibly and efficiently.

2. What is *Smart Defence*

Creating credible and efficient military capabilities at NATO level implies huge financial investments that very few states are able to support in the following time span.

Given the general limitation of defence expenditures at national level, the Alliance needs to implement new policies based on the wise spending of funds allocated to defence, by a more efficient choice of investments and a smart

¹² Ibidem

¹³ SIPRI Military Expenditure Database 2012, posted at <http://milexdata.sipri.org>, accessed on 14 MAY 2012

development of common programs for military capability building. This is the idea that generated the *Smart Defence* concept.

Smart Defence is a new approach to the capability building process NATO needs starting with 2020. This involves, first of all, rethinking the way defence industries of the member states are used in order to adapt their production to the present needs of the Alliance, so that the latter can meet the challenges of the security environment as well as the global changes.

In the *Smart Defence* paradigm, NATO member states prioritize on the capabilities needed by the Alliance¹⁴, to specialize in their best field of expertise and look for solutions to common multinational issues. In this process, the Alliance may act as a mediator, in order to offer the nations the maximum level of assistance available in the process of establishing the fields that can be commonly approached with maximum efficiency, minimal costs and low risk level.

This framework is intended to determine the allied states to pay more attention to the capability building issue within the Alliance, in full accordance with the responsibilities each of them assumed when joining NATO.

Consequently, each nation will be called to spend their resources for the urgent needs of the Alliance and not for what it considers necessary for its own defence. This process implies establishing clear collective priorities, avoiding redundancies and promoting an earthbound task-setting policy, so that, by the end of 2020, the Alliance will own a large selection of capabilities needed for the accomplishment of strategic objectives.

On the other hand, *Smart Defence* is a means for using jointly expensive military equipment. An example is the *Strategic Airlift Capability* (SAC) program NATO implemented in 2008, when several NATO states¹⁵, among which ROMANIA, bought three C-17 Globemaster aircraft which they commonly use for the transfer of troops within the Alliance's strategic level missions.

So the *Smart Defence* concept presupposes the common use and exchange of resources among the allied countries in order to help each other and offer multinational solutions, similar to the *pooling and sharing* initiative that operates

¹⁴ NATO critical capabilities, as highlighted within the LISBON summit in 2010: missile defence, ISR (Intelligence Surveillance and Reconnaissance), maintenance, training and instruction, effective engagement and force protection.

¹⁵ Bulgaria, Estonia, Finland, Hungary, Lithuania, Netherlands, Norway, Poland, Romania, Slovenia, Sweden and USA.

within the European Union¹⁶. One of the objectives is to create better coordination between NATO and EU that could lead in the future to the reinforcement of both organisms and the elimination of the competition for resources between them.

In conclusion, the principles of action of *Smart Defence* are¹⁷:

- **Prioritizing expenditures** – meaning a realistic analysis of what needs to be done immediately in the field of military investments, and what can be postponed or even cancelled.

- **Specializing the allies** – according to this principle, not all allies need to own all military operational capabilities. Some may specialize in the high-level weapon systems they own and focus on developing those to offer to the Alliance.

- **Cooperation among the allies** – presupposes sharing the resources among the NATO member states and common usage and fill-in of military capabilities.

3. Smart Defence – ongoing projects

At this point, NATO has two major ongoing projects, based on the *Smart Defence* concept, i.e., the Allied Ballistic Missile Defence System (ABM) and the Allied Ground Surveillance System (AGS).

The Ballistic Missile Defence System

Building a missile defence system that covers all NATO members was decided within the LISBON Summit (2010).

Also known as the missile shield, this defence system involves the construction, in different EU states, of an integrated missile defence system with the purpose of detecting, chasing, intercepting and destructing offensive enemy missiles. Initially, the shield was conceived as a protection against ballistic intercontinental missiles, with nuclear heads, but it now includes the defence against medium / short range missiles, with conventional heads. The system is based on the cooperation between the NATO member states and offers a security level that the states could not afford individually. Several NATO members are involved in this project. The biggest contribution comes from the US, but some European states

¹⁶ On 30 NOV 2011, the EU members' Defence Ministers Reunion discussed and passed a political engagement regarding the common development of new military capabilities, as well as their common usage, a concept known as "Pooling and Sharing". By "Pooling and Sharing", the EU member states can own collectively certain capabilities that could not be purchased individually. These capabilities are considered critical for the operations under the Common Security and Defence Policy (CSDP), posted at <http://militar.infomondo.ro/tag/pooling-and-sharing>, accessed on 01.07.2012

¹⁷ http://www.incomemagazine.ro/articol_69346/nato-infrunta-criza-cu-smart-defence.html, accessed on 11.05.2012

provide additional elements, such as interceptors or radars, as well as the locations where the pieces of the system are positioned.

The NETHERLANDS announced their intention to install radar systems on four military ships, GERMANY is willing to provide the Patriot interception systems, and TURKEY, SPAIN, ROMANIA and POLAND accepted to host the elements of the US missile defence system. NATO will control and manage the whole system through the Command Centre based in RAMSTEIN, GERMANY (Fig. 4).



Figure 4. Location of the main elements of the ballistic shield¹⁸

The missile defence system is set to function in steps, as follows:

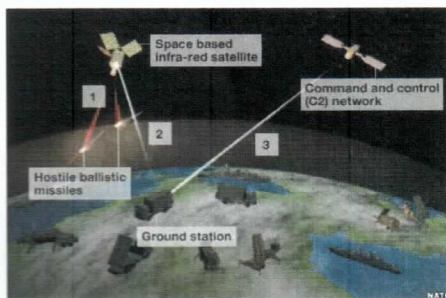
► Phase I – the infrared satellite system detects the signal (heat trace) of the enemy ballistic missile launched on a target on the territory of a NATO country. The information is transmitted to the land stations for processing. The processed information is sent then to the NATO command and control network – Fig. 5.

► Phase II - the NATO command and control network sends the information to the sensor and weapon systems in the area – Fig. 6.

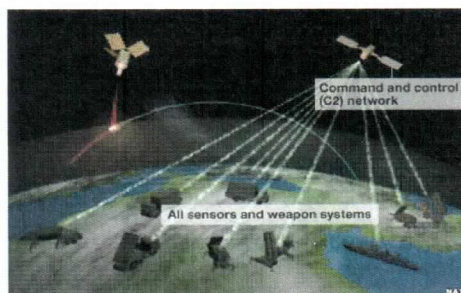
¹⁸ MARCUS Jonathan – *Nato's missile defence shield "up and running"*, posted at <http://www.bbc.co.uk/news/world-europe-18093664>, accessed on 03 JUL 2012

► Phase III - the long range sensors, such as the AN/TPY-2 US high-resolution radars, and the Dutch radars onboard the ADCFs (Air Defence and Command Frigate) continue to chase the missile and to send data to the command system that generates the possible interception and destruction options. The information is in continuous transit between the sensors and the weapon systems. The ideal is for the target to be chased continuously on its trajectory, so that the data offered by the sensors are as accurate as possible – Fig. 7.

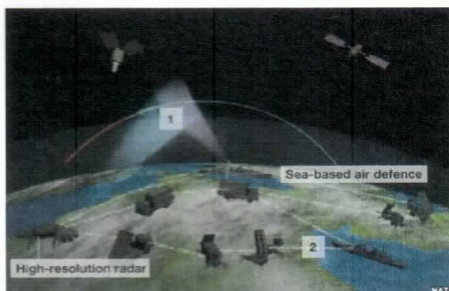
► Phase IV - the command system has the option to shoot down the enemy missile in the upper or lower layers of the atmosphere. The firing systems include the Patriot (German or Dutch) missiles connected to the NATO network – Fig. 8.



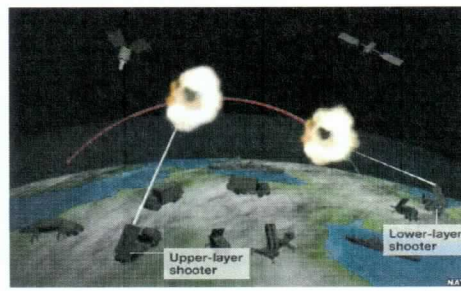
Pic. 5. Function of the missile shield – Phase I¹⁹



Pic. 6. Function of the missile shield – Phase II²⁰



Pic. 7. Function of the missile shield – Phase III²¹



Pic. 8. Function of the missile shield – Phase IV²²

¹⁹ <http://www.bbc.co.uk/news/world-11711042>, accessed on 03 JUL 2012

²⁰ Idem

²¹ Ibidem

²² Ibidem

Regarding the **NATO Alliance Ground Surveillance (AGS) system**, the Alliance intends to offer through it the commanders at all levels access to an image of the field situation as real as possible, in their area of operation. To this purpose, a group of 13 NATO member states²³ intend to acquire five UAVs (*unmanned aerial vehicles*) as well as the command and control systems needed for operating them.

The system will be operational between 2015-2017 and all member states will contribute to maintaining the system operational. The project foresees a high level system that will operate on long term and will be able to ensure high latitude surveillance of an extended area, in any weather or season conditions.

The AGS system will be equipped with high performance sensors that will function continuously, to give an image of the area of interest accurate enough to detect and chase both moving and stationary objects.

The main component of the AGS system is a high altitude, *RQ-4B Block 40 Global Hawk* aerial platform (Fig. 4), made of UAVs with MP-RTIP²⁴ land surveillance radar sensors. The land equipment (that will be covered by European states and CANADA) will offer live data for several end-users in the war area and outside of it, and are supposed to function as an interoperable link between AGS and a large choice of national and NATO ISR systems²⁵.



Figure 4. *RQ-4B Block 40 Global Hawk UAV*²⁶

²³ Bulgaria, Czech Republic, Estonia, Germany, Italy, Latvia, Lithuania, Luxembourg, Norway, Romania, Slovakia, Slovenia and USA.

²⁴ multi-platform radar technology insertion program

²⁵ http://www.nato.int/cps/en/natolive/news_57711.htm, accessed on 05 JULY 2012

²⁶ http://www.nato.int/cps/en/natolive/topics_48892.htm, accessed on 03 JUNE 2012

The base-platform that will operate the AGS system will be installed at Sigonella Air Base in ITALY. The same AB will host two NATO entities: NATO JISR (*Joint Intelligence, Surveillance & Reconnaissance*) capabilities and data processing and a training centre in the field.

As to the NATO AWACS (*Airborne Warning and Control System*) system, destined to the surveillance and monitoring of the allied air space, the AGS will monitor what happens at the ground level and will launch warning elements before, during and, if necessary, after NATO operations.²⁷

Conclusions

Starting with 2008, the Alliance's expenditures have raised continuously, due to ever more extensive operations in Afghanistan, the extension of the KOSOVO mission and the response operations against pirates in the Horn of Africa.

The need for financial support of large scale military operations and the lack of coherent financial solutions at the Alliance level determined the US to take on their own the allocation of the resources needed for these operations. This led to the rapid increase of the difference between the contribution of the US and the European countries to the NATO budget. If in 2005 the European allies' contribution was one third of the Alliance budget, in 2010 it decreased to one fourth.

In this context, NATO's Secretary General, Anders Fogh Rasmussen, had to come up with a new concept for financing common operations. This is how the *Smart Defence* concept came into being, and, once implemented, it is meant to govern all future relations among allies in the field of generating the military capabilities the Alliance needs to achieve its security goals.

On the other hand, an intense dialogue has been initiated between NATO and the EU in order to avoid redundancy in security expenditures on the same segments. Since most NATO countries are also EU members, the two organisations need to coordinate their defence efforts.

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²⁷ Idem

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