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Enabling the future

European military capabilities 2013-2025: challenges and avenues

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FOREWORD

There are known knowns – things we know that we know. There are known unknowns – that is to say, things that we know we don't know. But there are also unknown unknowns – things we don't know we don't know. (Donald Rumsfeld, 2002)

In late July 2012 the Chairman of the EU Military Committee (CEUMC) contacted the EUISS to explore possible avenues of cooperation in the light of (and the run-up to) the European Council meeting on defence planned for late 2013. Following an informal exchange over summer, the Chiefs of Defence (CHOD) meeting of 31 October invited 'the EUISS to provide the EUMC with the result of its study [on EU military capabilities], including potential thought-provoking options and ideas for the future of European defence cooperation, ahead of the Spring 2013 Chiefs of Defence meeting'.

In carrying out this mandate, the Institute has since tried to turn what clearly appeared as a major challenge into a potential opportunity: an opportunity to discuss openly the successes and shortcomings of the past decade (since the Union started launching its own peace operations); to assess honestly the current state of play; and, especially, to look ahead to what could be achieved over the next decade.

To this end, the EUISS set up a small Task Force of young experts – those who are likely to shape future debates – and focused on a time horizon somewhere in-between the short-term concerns of policy makers and the long-term approaches of policy planners. The year 2025 seemed a plausible benchmark to adopt to stimulate reflection on 'the future of European defence cooperation' and to revisit the evaluation made a few years ago by the European Defence Agency's *Long-Term Vision*.

However, it has proved difficult to assess European military capabilities and defence cooperation in splendid isolation, so to speak: isolation from other, non-military capabilities, as it is increasingly evident that successful peace operations worldwide (not unlike effective 'homeland' security and territorial defence) must now rely on a wide spectrum of tools that go well beyond the traditional remit of defence ministries; and isolation from the debate on and within NATO, a key point of reference for all matters military in and around Europe.

Nevertheless, given the short time available for its completion, this Report could not consider or address the possible plug-in points to non-military capabilities and NATO. Yet a special effort has been made to highlight – starting from the threats and challenges with which Europe is likely to be confronted over the next decade – the various policy options that may be considered (and embraced) by the EU in terms of defence cooperation and which may also end up reinforcing both the Union's overall capacity for external action and the Alliance's combined capabilities.

The avenues mapped in this EUISS Report (the first in the new redesigned format), while to some extent cumulative, are neither mutually exclusive nor exhaustive. They only intend to illustrate possible approaches and methods and float specific ideas that may prove worth exploring, with a view to fostering the debate at European level.

The above quotation, from the former US Defence Secretary, dates back to an age that seems (and feels) long gone now. It has often been derided, especially by netizens all over the world. Yet it encapsulates some truths with which both policy makers and policy planners are familiar. And this Report takes them seriously: its first chapter is devoted to evaluating the current state of play, i.e. the 'known knowns'; the second, on emerging strategic trends, deals with the 'known unknowns'; the third one, on unconventional scenarios and possible wild cards, addresses notably the 'unknown unknowns'; and the fourth chapter tries to formulate some possible equations. Identifying their solution, however, is well beyond the scope of this Report.

Acknowledgements

The Institute is grateful to the CEUMC for this unique opportunity to contribute to a debate that, hopefully, will go beyond the planned European Council in late 2013. Special thanks also go also to all those who – both inside and outside EU institutions – have provided their encouragement, input and feedback to this exercise, especially when ideas were still in the process of being developed.

The members of the Task Force – Sven Biscop (Egmont Institute, Brussels), Fabio Liberti (IRIS, Paris), Christian Mölling (SWP, Berlin), and Tomas Valasek (CEPI, Bratislava) – have played the conflicting but complementary roles of wise men, sparring partners, and devil's advocates remarkably well.

The Institute is particularly indebted to James Rogers (BALTDEFCOL, Tartu) and Andrea Gilli (EUI, Florence) for their patient, assiduous and intensive work in putting together the different pieces of what initially appeared as an intractable puzzle, and in giving this Report the shape it now has: without their commitment and dedication, the EUISS would not have been able to fulfil its initial mandate. And the Institute's junior team (including Elena Zettelmeyer, Hadrien Laurent-Goffinet, Christian Dietrich and Costanza Caputi) has supported and complemented them throughout.

Finally, all members of the Task Force subscribe to the general thrust of the Report without necessarily agreeing with each and every individual statement made in it. Needless to say, the EUISS Director assumes sole responsibility for any possible errors, omissions or shortcomings in the final product.

Antonio Missiroli

Paris, 30 April 2013

EXECUTIVE SUMMARY

In recent decades, a remarkable degree of strategic mobility and military reach, significant social and human capital, and an advanced industrial and scientific base have endowed the European Union with capable and effective armed forces. However, as centuries of European (or Western) dominance are currently giving way to a more multipolar and less governable world system, protecting common 'strategic interests' without adequate military capabilities may become ever more difficult.

Although Europeans remain relatively well-equipped to mobilise the tools needed to tackle potential threats, within the EU there is limited awareness or recognition of the emerging challenges, a basic disinterest in strategic matters, and relatively few voices calling for effective and sustainable armed forces. In addition, the European political and institutional landscape regarding defence and military matters is extremely segmented. It is in this context that this Report seeks to place European military capabilities in a broader perspective and highlight potential avenues for exploration and development over the next decade.

*

With the end of the Cold War, EU countries have implemented a variety of reforms concerning their defence and military structures which have allowed them to adapt to the new international system and its related challenges. Alongside the retirement of Cold War-era equipment and the adoption of new military doctrines and structures, there has been a general shift towards professional, smaller, all-volunteer forces. These reforms have also coincided with the consolidation of security cooperation within the EU itself via new frameworks, culminating with the establishment of the European Defence Agency (EDA) and the European External Action Service (EEAS). With the launch of the Common Foreign and Security Policy (CFSP) and then the Common Security and Defence Policy (CSDP), the EU and its member states – both individually and collectively – have played an increasing role in international affairs, in particular through peacebuilding operations.

Yet due to the wide spectrum and high number of operations, flatlining or decreasing defence budgets (exacerbated by the financial crisis) and still modest deployability levels, the EU's existing military capabilities are increasingly stretched, raising concerns about the sustainability of both current and future commitments. This Report identifies several areas which require continued reform. EU countries still devote excessive resources to personnel and land-based facilities and maintain force structures which include an excess of certain military capabilities. The fragmentation of the EU defence equipment market also needs to be tackled. Furthermore, cross-national coordination, cooperation and integration remain weak, and EU policy itself is spread across distinct and often separate 'boxes' containing tools that

are hard to bring together. Each box has some military implication; but none has an exclusively military dimension.

Failing to act, therefore, means that a mixture of acute budgetary pressures, lack of investment in research and development, and widespread reluctance to make the maintenance of effective armed forces a political priority could cause additional reductions in EU military capacity as well as a potential exodus of the defence industry and a loss of technological leadership. Demilitarisation and deindustrialisation risk going hand-in-hand.

*

These problems and shortfalls are likely to be worsened by a number of current trends. These include the rise of new regional powers and players (particularly in Asia), the US 'pivot', greater globalisation, and developments relating to new weaponry. At the international as well as regional level, a peculiar combination of dynamic instability and systemic interdependence seems bound to characterise the next decade. Europeans have already proved their ability to address post-conflict situations and mount peacebuilding operations. What is less clear, given the relative shrinking of many European militaries, is whether they would be able to respond to potential new challenges which may manifest themselves by 2025 – particularly those driven by the trends identified above.

It is therefore imperative to identify and define the common 'strategic interests' of the Union. Unless Europeans are resigned to becoming ever more dependent and vulnerable, maintaining capable and well-functioning armed forces with extended regional (if not global) reach may have to become a shared goal. This begs the question: what sort of armed forces are Europeans likely to have (and need) by 2025? Moreover, how might Europeans better organise themselves to take part in the new global competition for wealth, influence and power? As there is little hope of any increase in national spending for the foreseeable future, the only solution to counter potential risks is to do more *together*.

*

In order to enhance EU military capabilities, this Report identifies five avenues, which should be understood as cumulative (and not necessarily mutually exclusive) sets of solutions.

Avenue 1 – Implementing **consolidation** to generate military *efficiency*. This suggests a coordinated reduction of redundant and obsolete capabilities to generate immediate and future savings. In order to facilitate this task, member states may consider asking the EEAS and its specialised bodies to undertake, in close cooperation with the EDA, a targeted EU Military Review.

Avenue 2 – Favouring **optimisation** to boost military *effectiveness*. With respect to equipment, the EU member states could devise a framework whereby armed forces cooperate across service lines for the development of future capabilities. A second solution would be introducing a new procurement concept – 'total life-cycle EU-wide management' – for new military capabilities.

Avenue 3 – Promoting **innovation** to enhance military *technology*. Innovation is not only a source of efficiency and effectiveness, but also of technological advancement. This option proposes some tailored solutions to promote innovation, which also include borrowing ideas from funding schemes originally adopted by NATO or proposed by the European Commission in other policy areas.

Avenue 4 – Framing and reinforcing **regionalisation** to bolster operational *width* and *depth*. Targeted (bilateral or mini-lateral) integration could lead to pay-offs in the maintenance and acquisition of a wider spectrum – and, to some extent, greater depth – of military forces. This will especially be the case if these 'islands' of cooperation established by some EU countries with their neighbours or partners can be coordinated at EU level, so as to form an 'archipelago'.

Avenue 5 – Moving towards **integration** to further increase *depth* and elevate *sustainability*. Bringing together the armed forces of member states under an EU-wide force structure would enable Europeans to vastly boost their logistical capacity and undertake the most demanding operations that any future security environment may necessitate. This may require establishing a new 'family' of targeted Headline Goals for 2025 and synchronising national armament programmes and procurement cycles.

*

Despite concerns about the possible loss of national sovereignty that managing and developing military capabilities *together* may entail, this Report argues that Europeans are already losing sovereignty by *not* consolidating, *not* optimising, *not* innovating, *not* regionalising and *not* integrating their military capabilities. Without these joint developments, they risk losing their 'strategic autonomy'. Both action and determination are required in order to create the appropriate enabling mechanisms to combat this eventuality.

As this EUISS Report argues, the 'box' of European military capabilities cannot really be dealt with in splendid isolation. In its current condition, and even more so looking to 2025 and beyond, the spectrum of policy challenges and issues with which it is connected calls for a common, systematic, comprehensive and regular (re)assessment of ends, ways and means which, in turn, calls into play many other 'boxes'. Connecting and coordinating all the relevant policy 'boxes' may indeed require additional political impetus from the highest possible level, as well as continuity over time.

This is where and when the EU comes fully into play. Not only has it proved to be – since the European Coal and Steel Community – an effective framework in which to pool and share 'sovereignty', preserve a degree of 'strategic autonomy', and implement structural change over a long period of time, but it still offers cases of best practice in policy coordination at the highest level, involving different EU institutions as well as national governments and parliaments, from which useful lessons could be drawn and procedures borrowed and adapted.

To this end, the current EU treaties need not necessarily be amended as they are flexible and permissive enough to allow for new dedicated structures for policy coordination in this domain to be set up and tested, bringing together all the relevant political and institutional players, and drawing on existing best practice from other policy domains. In this way, military modernisation could go hand-in-hand with savings and investments across the board – and the continent. Although these processes may be costly, they are arguably far less costly than the price of inaction.

There are various avenues worth considering, but they all require – to different degrees – political decisions at the highest level to match the political rhetoric. Treaty change may still come, but probably at a later stage and after appropriate testing of new schemes and modalities of cooperation and integration at EU level.

I. EUROPEAN MILITARY CAPABILITIES 2013

The difficulty lies not so much in developing new ideas as in escaping from old ones.
(John Maynard Keynes, *The General Theory of Employment, Interest and Money*, 1936)

Contrary to current conventional wisdom and media reports, the European Union as a whole still is, *de facto*, the world's second strongest military 'power', encompassing two nuclear powers, highly effective conventional medium powers, and several smaller states with substantial military capabilities of their own. Thus, the Union has the capacity to be a leading military player in world affairs since – after but along with the US – its member states maintain a high degree of strategic mobility and military reach. However, there are good reasons to be concerned about the immediate as well as the long-term future of European military capabilities.

EU defence in 2013

European military capabilities are certainly impressive. First, European countries enjoy some of the highest levels of GDP (both overall and *per capita*) in the world, significant social and human capital, and an advanced industrial and scientific base. Second, choices made in the past few decades about defence budget allocations, military structures and procurement options have endowed the EU with some of the most capable and effective armed forces in the world. Finally, with the end of the Cold War, European countries have implemented reforms of their defence and military structures allowing them to adapt to the new international system and its related challenges. In particular, they have promoted:

- a general shift to professional, all-volunteer forces and a significant reduction in overall manpower
- the retirement of Cold War-era equipment and its replacement with network-enabled capabilities
- the adoption of new military doctrines and structures, including new concepts for expeditionary and stabilisation operations, and the creation of special forces and joint staffs
- the consolidation of security cooperation within the EU itself via new frameworks such as the European Union Military Staff (EUMS), the European Defence Agency and many others.

Pending issues and ongoing problems

Nevertheless, in the realm of defence and military affairs, the EU also suffers from well-known structural problems and capabilities shortfalls. For one, job considerations seem to be prioritised in many cases when it comes to decisions over military

personnel and defence industrial assets. Moreover, EU countries are still extremely reluctant to cooperate and coordinate, even when the marginal budgetary and operational benefits would be significantly higher than the implied political costs.

For analytical purposes, it is possible to identify at least six main problems begging for solutions.

First, despite some realignment over the past twenty years, Europeans still devote excessive resources to *personnel and land-based facilities*: on average, 55 percent of their military expenditure goes on salaries and pensions, as compared to about 30 percent in the United States. Reforms need to go further in this direction, although the economic crisis renders streamlining traditional welfare provisions and diverting resources towards expeditionary capabilities particularly onerous and unpopular – as the outcome of the Austrian conscription referendum in January 2013 also showed.

Second, EU countries' force structures encompass an *excess of certain military capabilities* in both relative and absolute terms. In fact, the EU as a whole avails itself of capabilities well beyond its needs in such areas as third- and fourth-generation combat aircraft and mechanised fighting vehicles. Manpower is also an issue – although less than a decade ago – as is equipment: for example, the EU has over 5,000 main battle tanks in its arsenal (slightly less than in the US), despite the fact that both modern technology (fire protection, situation awareness and precision-guided munitions) and military operations mean that significantly lower numbers are required.

Third (as the flip side of the previous point), EU countries' force structures suffer from well-known and well-identified *capability shortfalls*, largely stemming from the difficulty they have in adapting to the new paradigms of contemporary military operations: net-centric, coalition and expeditionary warfare. More specifically, European shortfalls exist in those areas to which military 'transformation' assigns particular importance, namely: strategic air- and sea-lift capacities, tactical transport, air-to-air refuelling capabilities; field hospitals and other medical facilities; C4 (command, control, computers and communications) capabilities to coordinate among different services and national contingents; ISTAR (intelligence, surveillance, target acquisition and reconnaissance) capabilities to achieve situation awareness; and precision-guided munitions to ensure effectiveness and minimise collateral damage.

Fourth, the EU *defence equipment market* remains highly fragmented on both the supply and the demand side. Countries with a significant defence industry generally prefer acquiring nationally-manufactured equipment: between 2006 and 2010 cooperative procurement never exceeded, on average, 26 percent of the combined national procurement budgets. Moreover, when cooperation has indeed occurred, it has frequently led to increased costs and overheads, technical problems, and even duplication of industrial facilities. As a result, the EU defence industrial base remains fragmented and characterised by endemic overcapacity across the board, supply chain included.

This is most evident in the defence shipbuilding and land-armament sectors: there are more shipbuilders and shipyards in the EU than in the US, whose naval power is simply unrivalled. On top of that, while Europe has several competing armament programmes in place, it has undertaken little research on future capabilities like fifth and sixth generation aircraft.

Fifth, resources devoted to *research and development* remain limited and are even shrinking. Between 2006 and 2010 the share of national military defence budgets allocated to R&D decreased from five to four percent. Of that, the cooperative component was historically modest (yet again) and declined from 26 to 19 percent over the same period.

Sixth, and last, *cross-national coordination, cooperation and integration* – from research to procurement, from logistics to military force and defence planning – remain overall limited due to a mix of sovereignty concerns, job considerations, lack of political support or appropriate legal frameworks, and bureaucratic stove-piping. Even the 'pooling and sharing' process launched at the EU level in 2010 and coordinated by the European Defence Agency (EDA) has not yet delivered the desired results.

Stretched and constrained

The problems affecting EU armed forces are likely to get worse in the near future, as Europe may be confronted with a wider set of external challenges coupled with persisting (and possibly worsening) internal constraints.

With the end of the Cold War and the launch of the Common Foreign and Security Policy (CFSP) and then the Common Security and Defence Policy (CSDP) as an integral part thereof, the EU and its member states – both individually and collectively – have played an increasing role in international affairs, in particular through their participation in various types of peace-building operations.

In some contingencies, European countries have provided troops or military equipment under their own governments' auspices, mostly as part of 'coalitions of the willing', and occasionally within the framework of the United Nations, NATO and – more recently – also under the EU flag, reaching a peak in 2007-08. These operations differed markedly in their nature and scope: some entailed the provision of military training and assistance, others humanitarian assistance, peacekeeping or even peace-enforcement tasks: all this is now well reflected in art.43 of the Lisbon Treaty (Treaty on the European Union, TEU). Theatres, too, varied significantly, both geographically – from North Africa to the Balkans, from the Middle East to Central and South-East Asia – and functionally, involving e.g. land forces only, air power or, when fighting piracy, naval forces.

Over the past twelve years, in particular, Europeans have also significantly improved their expeditionary forces, both quantitatively and qualitatively. They have done so

individually as well as collectively, under the aegis *inter alia* of the Capability Development Plan carried out at EU level. The Headline Goals 2003 and 2010, and in particular the Battlegroup Concept, reflect this work in progress and testify to the efforts made so far, including the residual gaps and shortfalls that still characterise the overall catalogue of European military forces. As in the case of 'pooling and sharing', however, a net loss of momentum is now evident.

This wide spectrum and high number of operations, combined with flat defence budgets and still modest deployability levels, have increasingly stretched the EU's existing military capabilities, raising concerns about the sustainability of current commitments – let alone new ones. The financial crisis, with its long-term consequences, has further complicated this state of affairs. As a result of the subprime bubble and the ensuing eurozone crisis, most European countries (with few exceptions) have considerably reduced their defence budgets, with cuts spanning between eight and 30 percent in the years 2009-11. Most importantly, further reductions will inevitably occur due to a mix of demographic pressures and budgetary necessities: over the next 20 years, EU countries will have to allocate one percent of their GDP just to repay the debt accumulated during the crisis. With an ageing population and growing social security and healthcare costs, the armed forces remain a likely target for further cuts.

On top of all this, the budget cuts carried out so far have been made without any coordination and consultation among allies. As a result, they have generated cascading effects across and throughout the combined military capabilities of the Union.

In perspective, it is possible to identify at least three waves of consequences:

- *in 3-5 years - 'bonsai' armies*: existing troop formations will increasingly shrink, and so will their capability range. Bigger countries may manage to preserve some sort of full-spectrum capabilities but at the price of decreased sustainability. For smaller ones, entire capabilities will be abandoned. As a result, major functional gaps will emerge, with immediate effects on the overall capacity to launch joint and combined missions.

- *in 5-8 years - defence industrial exodus*: the current and foreseeable financial situation of most EU countries render the launch of new large-scale defence industrial/technological projects highly unlikely. As developments over the past few years show, given the expansion of extra-EU defence markets, Europe-based defence contractors will try to increase their foreign presence through a mix of export, cooperation, joint ventures and acquisitions. EU dependency on non-EU partners and suppliers will inevitably ensue.

- *in 8-12 years - loss of technological leadership*: decreasing R&T funds will impact negatively on Europe's current relative technological edge, rendering the required minimum of 'strategic autonomy' a pipedream. In prospect, this could lead to a *de facto* 'de-industrialisation' of European defence.

Questions:

1. Has European military spending - considered as the algebraic sum of national budgets - reached a plateau, a critical tipping point?

2. How much lower can defence spending drop before some EU member states' armed forces become little more than symbolic forces and 'bonsai' militaries?

3. How dangerous is it when Europe's combined military spending keeps falling while almost all other continents' defence expenditure keeps rising?

Europe's predicament

All these intersecting trends – and the serious negative consequences they might produce – put the EU on the spot. As the CFSP becomes ever more global in scope and outreach and integrated in design, the CSDP is still largely limited to military and civilian 'crisis management' (as defined in art. 43 TEU), although 'peacebuilding' is what it really is about. The CSDP has no direct relation to territorial defence, despite the qualified obligation to mutual aid and assistance in the event of an armed aggression enshrined in art. 42.7 of the treaty. The commitment (art. 42.2) to 'the progressive framing of a common defence policy' is quite vague and has hardly been followed up with action, while 'homeland' security – encompassing *inter alia* cyber security, intelligence sharing, and civilian protection – is dealt with by other EU institutions and agencies.

Nor is the CSDP – now coordinated via the European External Action Service (EEAS) – linked up with (or backed up by) any consistent industrial policy and procurement framework: the only treaty reference to that (namely in art. 346 of the Treaty on the Functioning of the European Union, TFEU) is of a restrictive nature and, at any rate, the limited regulatory powers the Union has in this domain lie with the European Commission. Finally, medium- and long-term investment programmes that are relevant to defence – albeit to varying degrees – are being implemented by and through different bodies, in the Commission or the European Defence Agency (EDA). In other words, EU policy is spread across distinct and often separate 'boxes' – each one with its own internal procedures, bureaucratic structures, funding rules and schemes – with tools that are hard to bring together to generate the desired coherence and synergies. Each box has some military implication; none has an exclusively military dimension.

Furthermore, both the CFSP and the CSDP have to face rising external challenges with declining internal resources: financial and material resources, of course, but also *political* ones – as amply demonstrated by the recent intra-European divisions over the sovereign debt crisis and the persisting lack of mutual trust among EU member

states. The internal constraints, in other words, are not simply economic and budgetary: they include a substantial lack of political will to act in this domain (despite occasional exceptions, as in the case of Libya); a tangible loss of cohesion and ambition among the member states; and, last but not least, a reluctance among citizens and voters to consider 'defence' a policy priority in times of crisis, despite widespread concerns about their 'security'.

This begs the questions: why does Europe still need military capabilities? Why may it need more of them in the future, and what for?

The answers are less difficult to articulate in purely rational than concretely operational terms.

At the international as well as regional level, a peculiar combination of dynamic instability and systemic interdependence seems bound to characterise the next decade. Various scenarios – including those identified below – could materialise, which affect the EU more or less directly, including its citizens' safety and way of life. Unless Europeans are resigned to becoming ever more dependent, vulnerable and dispensable, maintaining capable and well-functioning armed forces with extended regional (if not global) reach may have to become a shared goal. This is all the more important as, in today's (and, even more so, tomorrow's) world, the usual boundaries between territorial defence, 'homeland' security, and neighbourhood stabilisation are likely to blur and become ever fuzzier – thus requiring deeper collaboration across geographical as well as functional borders.

This is also all the more urgent as the US is now not only having to contend with comparable external threats (albeit less close to the American 'homeland' and more global in nature) and internal constraints, but is also likely to shift its strategic focus (or 'pivot') away from Europe. Still, the good news is that Washington now clearly encourages more European and intra-EU cooperation – and even autonomy – on military matters, also as a way to preserve and consolidate NATO.

Defining such 'autonomy' once and for all may be challenging, of course, but it surely entails the ability to assess a crisis situation independently of foreign intelligence (or at least the capacity to evaluate its truthfulness and reliability); the possession and control of the capabilities required to fulfil a given mission; and relative security of supply of the relevant equipment as well as access to the enabling technologies. These elements tend to have a different meaning and different implications for each European country, and in many (if not all) cases they require a certain degree of international cooperation, especially through NATO and, now, also the EU. Organising such cooperation and limiting dependence on the outside world could indeed be medium-term objectives worth pursuing.

Maintaining credible military capabilities and relevant industrial assets, however, is not just about defence policy. First, it may prove marginally more difficult to defend common interests if and when confronted with new international players who are increasing their own overall capabilities: deterrence still matters, as does the ability to back up diplomatic engagement with practical commitment, including military 'forward presence'. And they matter with both potential rivals and traditional partners.

Moreover, the availability of adequate military instruments confers more effectiveness on the non-military ones, as the experience of the 1990s should have abundantly proved; conversely, the utter lack or progressive decline of relevant military means weakens both the ability to prevent conflicts and the capacity to build lasting peace. Military and non-military resources are mutually reinforcing rather than exclusive, and downsizing the former is hardly beneficial to the latter: not only is there no zero-sum logic applicable to peacebuilding, but cuts in one sector risk having negative repercussions in others – and triggering a multiplier effect across the policy board.

Finally, despite some recent setbacks (slimmer national budgets, forced internal consolidation, sharper international competition), the European military industry is still alive and kicking, with renowned expertise and significant shares in global markets. While some cross-border mergers and acquisitions have already occurred, what is still lacking is a comprehensive legal and political framework to reduce duplication and waste and produce better value for money, to allocate investment and mitigate divestment, and to mobilise resources in an efficient and coordinated way.

Over the next few years, acute budgetary pressures and a widespread reluctance to make the maintenance (let alone improvement) of effective military assets and capabilities a political priority may contribute to a general reduction in combined military capacity: outgoing US Secretary of Defence Robert Gates called this, a couple of years ago, the (creeping) 'demilitarisation' of Europe. There is a clear risk that protracted incremental cuts to national military expenditure, especially if conducted in isolation, generate a negative multiplier effect leading to a net collective loss of capabilities.

As there is little hope of any increase in *national* spending for the foreseeable future, the only solution to counter such a risk is to do more together. This may well be the only way not only to maintain core capabilities but also to develop new ones – *together*.

II. STRATEGIC TRENDS AND DEVELOPMENTS 2013-2025

All political thinking for years past has been vitiated in the same way. People can foresee the future only when it coincides with their own wishes, and the most grossly obvious facts can be ignored when they are unwelcome. (George Orwell, *London Letter*, 1945)

It is often said that a week is a long time in politics. The twelve years to 2025 may therefore seem like an eternity. In the previous twelve years a plethora of world-changing events have occurred. Indeed, any such period of time is almost always marked by transformational events. 1980-1992 witnessed several major conflicts, from the South Atlantic to the wider Middle East, as well as the rise and fall of great alliances. 1991-2003 witnessed the end of the Soviet Union, the rise of China, the collapse of Yugoslavia, the Kosovo War, the atrocities of 9/11 and the invasions of Afghanistan and Iraq.

Looking further back in time, the period from 1913-1925 – a century ago – was convulsed by events so profound that they set the pattern for the remainder of the twentieth century, yet few foresaw even a handful of those events at the time. Indeed, far from peering into the future and seeing the darkness of war, many looked forward to the continuance of the *Belle Epoque* – a bright age of European peace and prosperity.

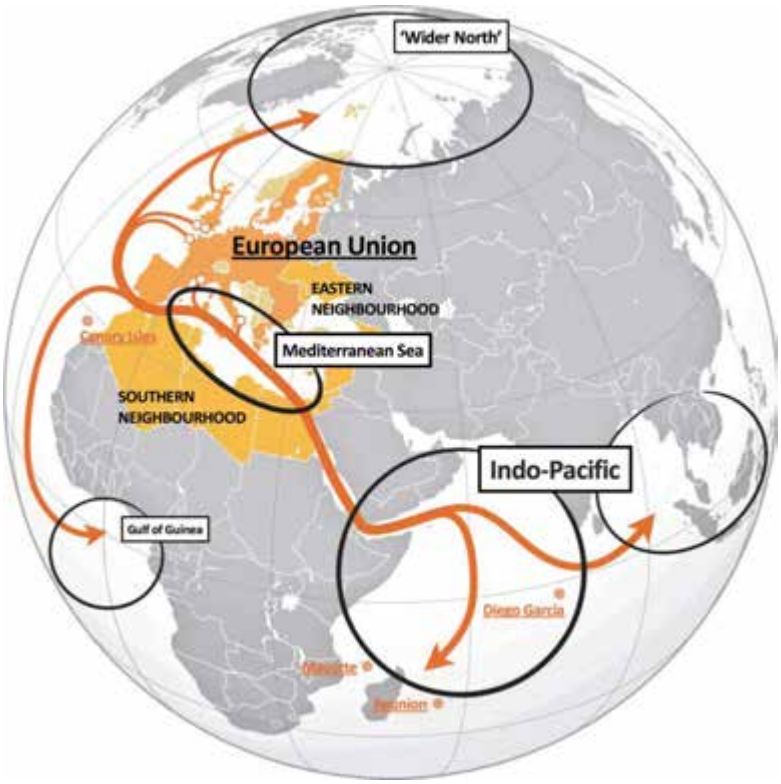
The early 2000s were quite similar. They began with a series of events that many thought would ensure the permanent ascendancy of the European Union and the United States. While the latter was deploying troops throughout the Greater Middle East to crush the Islamist terror threat, the former was launching a new global currency and enlarging and cementing its democratic presence in Eastern Europe through the 'big bang' enlargement and the ensuing neighbourhood policy. This double expansion (functional and geographic) has left the European Union with a growing range of challenges, relating to both its economic and political interests.

The European Union's 'strategic interests'

With the reduction in the traditional threats stemming from invasion or conventional warfare, the *European Security Strategy* (2003) and the *Report on the Implementation of the European Security Strategy* (2008) concentrated on the pressing new security agenda of the post-Cold War era. Nevertheless, EU member states have already been confronted with a mix of both traditional and unconventional hazards, risks and even potential threats, a trend that is likely to continue. These, in turn, are likely to push the EU to reassess its common interests and strategic objectives in a rapidly evolving international environment. As shown in the map on the opposite page, such reassessment will probably apply in particular to the zones of EU privileged interest, namely the Eastern and Southern neighbourhoods; the 'neighbours of the neigh-

bours' (from Mali to Somalia, from the Gulf to Central Asia), and critical sea lanes in the 'Indo-Pacific' (from Suez to Shanghai) and the 'wider North' (around and across the Arctic).

The EU's areas of privileged interest, 2013-25



A tentative checklist of common EU objectives and 'strategic interests' – as mentioned (but not articulated) in art. 26 of the Lisbon Treaty – may well include, along with a peaceful, stable and prosperous neighbourhood:

1. Safeguarding the European 'homeland' from foreign conventional, CBRN or cyber-attacks, as perpetrated by (surrounding or distant) state or non-state actors
2. Securing maritime communication lines and strategic communications infrastructure – including maritime chokepoints, energy transmission pipelines and computer systems (which are all vital for the European economy and way of life) – from blockade or hostile actions
3. Protecting supplies of energy and raw materials in overseas territories and remote lands (including their trading systems) from exploitation or annexation by foreign players, while developing ways to guarantee the 'global commons' by including ever more stakeholders

4. Maintaining regional balances of power(s) which favour European values and requirements, namely through international law and an inclusive multilateral system, starting with the UN Charter and the treaties, regulations and regimes of other key international bodies.

To pursue such objectives and defend such interests effectively, Europeans will need to preserve a minimum of strategic autonomy in key sectors of the European armaments industry in order to maintain (and further develop) the operational and technological capacity to collaborate with allies and partners and to compete (also militarily) with emerging global players.

Three key trends, which are now starting to materialise, are likely to drive such overall reassessment. They include: (1) accelerated globalisation, which will draw zones of instability closer to Europe; (2) the rise of a multipolar and less governable world system; and (3) developments relating to new weaponry, which might have a substantial impact on European armed forces.

Trend 1: Globalisation draws foreign zones of instability closer to the European zone of peace

It is now well known that, during the 1990s and 2000s, globalisation accelerated dramatically, drawing far-flung zones of instability and turmoil within the orbit of the European zone of peace. Distant and peripheral concerns – often involving non-state actors – slowly became threats to Europeans. It was for this reason that the European Defence Agency's *Long-Term Vision* (2006) and *Capabilities Development Plan* (2008) foresaw an international security environment that demanded a lighter, nimbler and more expeditionary military effort from EU member states, moving European military doctrine away from concepts like deterrence, dissuasion and forward presence.

While the EDA's analysis was fundamentally correct at the time, an increasingly volatile and unpredictable neighbourhood has taken shape to the East and South over the past six years. Indeed, all kinds of cross-sector hazards, risks and potential threats may continue to emerge from these regions, with the uprisings in Tunisia and Egypt and the conflicts in Georgia, Libya, Syria and Mali being only the most recent examples. These destabilising developments are likely to continue to materialise, and possibly get worse.

However, the EDA's *Long-Term Vision* and *Capabilities Development Plan* were both compiled at a time when the military spending of China or Russia, for example, was less than either that of France or the United Kingdom. Today, China has raced ahead of both, spending more than the British and French put together, while Russia has also piggy-backed over the EU's main military powers for the first time since the demise of the Soviet regime. By 2025, the rise of these new regional powers may intersect with the cross-sector threats identified by the EDA, particularly as foreign actors interfere and exacerbate volatile regions in their quest for influence and resources.

European Defence Agency, 'An initial long-term vision for European defence capability and capacity needs' (3 October 2006)

The LTV is the EDA's analysis of the trends affecting EU defence interests and capabilities in the near future (2025). The document identifies two key trends:

- the rise of China and the relative demise of the EU's economic global role;
- the growing instability in the EU periphery.

Looking prospectively at 2025, it suggests that EU defence adapts to:

- the changing role of military force: from industrial- to information-age warfare;
- the increasing tempo of technological change that, on the one hand, allows more precision and thus shorter campaigns and lower casualties but that, on the other, may also favour Europe's enemies;
- expeditionary, coalition, and comprehensive warfare aimed more towards stability than 'victory'.

Thus, the LTV recommends four axes for the development of the EU's future force and capabilities:

1. synergy: combined arms-warfare in coordination with non-military forces like NGOs;
2. agility: need for rapid, tailored, deployable reaction from the tactical to the strategic level;
3. selectivity: giving military planners and policy-makers a wide range of options;
4. sustainability: identifying key enablers, like logistic support.

For these reasons, some issues will be central:

(a) knowledge exploitation	(c) manpower balance	(e) industrial policy
(b) interoperability	(d) rapid acquisition	(f) flexibility

Trend 2: A multipolar and less governable world is emerging

The Asian powers' new wealth, industrial muscle and scientific capacity have now begun to reduce the West's relative military edge. From a strategic perspective, the year 2012 was particularly decisive in the sense that, for the first time in centuries, the countries of Asia – spearheaded by China, Russia and South Korea – spent more on their armed forces than those of Europe (see annexes). Likewise, military spending by the countries in the extended European neighbourhood(s) – the crescent-shaped zone extending from Central Asia to Central Africa (notably the 'neighbours of the neighbours'), and incidentally also the area blocking Europeans' access to the Indo-Pacific and the region where they are most likely to intervene – also grew more than at any time in recent history.

Yet this transformation is not just because of the emerging powers' growing economic yield. It is also because Europeans have reduced their military expenditure: ironically, only Greece now spends well above two percent of its gross domestic product on its armed forces, and only Cyprus (along with the UK and France) lies just above the two percent threshold. While European overall defence expenditure has constantly decreased since the end of the Cold War, the latest sharp decline has come after a decade of attempts to increase relative spending and reinvest available resources into weaponry and projection systems to enhance European autonomy, particularly within the EU neighbourhood. European expeditionary capabilities are indeed now far superior to their systems from 12 years ago. Yet they still do not match declared ambitions and have often been strengthened to the detriment of other key enablers.

The financial crisis of 2007-2009 – which led to significant turmoil throughout much of the global financial system and slashed years of growth off the European economy – had a different impact on many countries in South America, the Middle East, and East, South-East and Southern Asia (and to a lesser extent Russia). They have not only continued to grow – this is now happening also with Sub-Saharan Africa – but have even gone from strength to strength. As a result:

(a) China has continued to grow as a regional, even global power

China's phenomenal economic modernisation has transformed the country from the world's sixth largest economy in 2000 to the world's second largest in 2010. By 2020, it is projected to emerge as the world's largest, although living standards will still be considerably lower than in the EU, the US, South Korea or Japan. Nonetheless, China's massive industrial power and growing economic might have made substantial additional resources available to the central government in Beijing to project power out in all directions.

Over the past fifteen years, China has modernised its domestic infrastructure with a construction bonanza of dual carriageways, strategic railways and port installations, linking its peripheral interior fully to the industrialised coastal core for the first time in history. As these communications systems have made the country more integrated, they have extended Chinese sovereignty progressively further over the autonomous western provinces. In turn, this has enabled China's armed forces to focus less on domestic or territorial security and more on upholding Beijing's claims in the East and South China seas – reviving old tensions with neighbours – and even on projecting Chinese influence overseas.

Additionally, China's military spending, which has expanded by as much as 170 percent between 2002 and 2011, has further facilitated the country's increasing external presence and activism. This has not gone unnoticed, either in the Indo-Pacific region itself or in the United States, especially as China's capabilities keep increasing in areas (maritime, cyber and space) where it could come to threaten America's predominance.

(b) The United States has begun to respond to China's rise

Due to a large extent to China's rise, the Obama administration has said quite categorically that the Asian theatre is going to become a top priority for the United States. Consequently, debates have arisen relating to the posture and doctrine needed to facilitate this transformation.

This paves the way for Washington to re-allocate 60 percent of its naval capability towards the Pacific by 2020, leaving only 40 percent to cover the rest of the world. It also facilitates the reinforcement of existing military stations (i.e. on Guam and in South Korea and Japan) and the establishment of new military facilities and operating stations in countries like Australia, which are presently out of China's missiles' range – provided, of course, that military spending at US federal level allows for that in the months and years to come.

It is therefore not unconceivable that, over the coming twelve years, Europeans will be less able to call on Americans to uphold the security of their adjacent regions, let alone their own homeland. Notwithstanding Washington's recent attempts to calm European nerves, the withdrawal of US combat forces from the European theatre and the likely coming unwillingness – even inability – on the Pentagon's part to jeopardise its growing Indo-Pacific military footprint is perhaps the biggest strategic trend Europeans may experience over the next decade.

Questions:

1. If (or as) the balance of power tips in China's favour over the next twelve years, how many more assets and platforms will the US be forced to redeploy in response? How will this affect NATO?

2. How will the United States' changing footprint force Europeans to take greater care of their security and volatile neighbourhood(s) by 2025?

3. As the United States shifts its focus, to what extent will Russia and China (or others) seek to interfere not only with countries in the European neighbourhood(s) but also, potentially, those on the EU border?

Trend 3: A true revolution in military affairs is now occurring

It was often said – during the late 1980s and 1990s – that modern communications systems were leading to a 'revolution in military affairs' (RMA) likely to generate a quicker battlefield tempo and better intelligence. This so-called *revolution* now looks more like an *evolution*. By 2025, however, it is possible that a further (r)evolution in military affairs will be well underway across three key sectors – a fourth one is of course cyber warfare, now much closer to the real word – which may render most existing

weapons systems increasingly vulnerable or simply obsolete. This could have even more far-reaching implications if the biggest world powers invest additional resources into research and development within their military-industrial bases to maintain a strategic edge or to dent a potential opponent's edge – namely, by developing superior systems.

(a) Counter-intervention systems

'Counter-intervention' capabilities are not new. A fort placed at the mouth of a harbour and equipped with big guns was a kind of 'counter-intervention' system: it was built as a defence to prevent hostile naval fleets from pillaging the harbour's stores or from raking them with broadsides. Modern 'counter-intervention' systems utilise defensive and offensive weaponry in the same way, except that they do not include star forts but such forces as conventionally-tipped ballistic missiles and long-range, high-speed cruise missiles at the theatre level; and air-defence missiles, man-portable air-defence systems and point-defence weaponry at the tactical level.

By 2025, these may be integrated together by particular countries to form a 'system of systems' to render all but the most advanced offensive platforms vulnerable. Commonly known in the United States as 'anti-access' and 'area-denial' systems, such weaponry promises to prevent or frustrate the ability of Europeans and Americans to mount operations dedicated to force projection – and it could also become available to weaker powers, through proliferation by large and powerful adversaries.

(b) Remote-controlled weapons systems

These systems include platforms like aircraft, submarines and robotic infantry – commonly but inaccurately (as they are all commanded or controlled from afar) known as either 'unmanned vehicles' or 'drones' – which are already starting to shape operational environments, at least when used by state-based or state-backed actors. These kinds of aircraft take three primary forms: surveillance, targeting and strike, although to date there has been a tendency for them to concentrate on the former two roles. Apart from such aircraft, there is also a potential for the development of advanced underwater systems – for surveillance and attack – as well as robotic infantry and other terrestrial platforms for reconnaissance, mine clearance or even area denial.

By 2025 remote-controlled weapons systems may come to dominate the armed forces of the biggest world powers, particularly those of the United States, which has extensive experience of using such technology for surveillance and air strikes in the Middle East and Central Asia. Europeans have fallen behind with these capabilities; if they do not procure their own systems, they may no longer have the means to fight alongside the Americans (or even other allies). Similarly, other countries such as Russia, China, India and South Korea may have workable and sophisticated remote-controlled aircraft by 2025, which could be proliferated to client states and then be used against Europeans or their partners.

(c) Directed-energy weaponry

Given recent technological advances, the age of the 'death ray' seems to be fast approaching, which promises to end the 'gunpowder age' of the last five centuries, with all the resulting political, social and economic implications. This is because 'death rays' – or directed-energy weaponry – fire at near the speed of light, with pinpoint accuracy that can be readily moderated to direct either non-lethal or potentially immense destructive power against various targets. These systems include microwave rays, plasma beams, and lasers – some of which may already appear on the battlefield by 2025.

While powerful chemical lasers have long been technologically feasible, they could not be produced safely or in a size and weight suitable for military operations. However, recent advances with solid-state lasers – allied with rapid advances in computer processing power, beam frequency modulation and mobile energy supply – may fuse together over the next twelve years to deliver working 'death ray' systems by the mid-2020s. The United States has already experimented with the use of laser guns to ignite and sink small boats and vaporise drones. With additional development, such systems may be capable of point-defence against advanced missiles or even high-speed artillery rounds and further accelerate the process of the robotisation of warfare, with all its legal and ethical implications.

Questions:

1. What kinds of weaponry do Europeans currently have (or will have by 2025) that will allow them to punch through potentially highly advanced counter-intervention systems?

2. Will Europeans have enough (and sufficiently advanced) remote-controlled aircraft and submarines by 2025?

3. How will the implementation of directed-energy weaponry affect both Europeans' defensive and offensive platforms?

In light of these trends, the threats and challenges identified in the *Long-Term Vision* and *Capabilities Development Plan*, pinpointed prior to the financial crisis of 2007-2009, are likely to be intensified by: (i) the rise of new regional powers and players, some with the potential to become competitors of both the EU and the US; (ii) the ongoing (r)evolution in military affairs and its likely operational repercussions; (iii) the ever-widening texture of worldwide webs and trans-national networks (from information flows to organised crime), mostly beyond the reach and control of states, that contribute to making or breaking global security; and (iv) Europe's self-imposed decline in resources – all this well within our lifetimes.

On top of that, far from becoming more benign, the security situation in regions close to the EU is likely to deteriorate further. Not only has the 'Arab Spring' brought,

along with long-overdue democratisation, a high degree of instability and turmoil to North Africa and the Middle East; but the entire 'arc' (or possibly 'crescent') spanning from West to East Africa – up to the Gulf, the Indian Ocean and Central Asia – has also become a major source of security concerns, requiring vigilance and readiness to intervene to prevent conflicts and placate tensions.

Europeans still appear relatively well equipped to mobilise the tools needed to tackle these threats – tools that are not only and not even primarily military but include also diplomacy, development and humanitarian aid, trade and investment: it is indeed their combination that may do the trick, provided the right mix and sequencing are put in place. If doubts exist, they are about the European citizens' willingness to maintain and use those tools at a time when their 'homeland' does not seem threatened and public policies follow other priorities.

It is also worth noting that the type of violent confrontation likely to occur in such an 'extended' neighbourhood may well take the shape of endemic and asymmetric conflict, with opponents resorting to quite primitive and low-tech means that render air and even ground superiority less decisive. This, in turn, could leave Europeans between the rock of new weaponry systems and the hard place of old insurgency tactics. Indeed, more fragile and less predictable neighbourhoods call for an increasingly sophisticated, multi-faceted and adaptable spectrum of capabilities to deal with them. A few decades from now, therefore, historians may look back on the first quarter of the 21st century as an even greater period of transition than those of the recent past: one whereby five centuries of European (or Western) pre-eminence in all fields gave way to a more multipolar and less governable world system, in which defending common 'strategic interests' may turn ever more difficult, especially if other players have increased their resources and outreach.

What sort of armed forces are Europeans then likely to have (and need) by 2025? After all, a new class of aircraft carrier, amphibious assault ship, nuclear submarine, battle tank or combat aircraft not only takes more than a decade to design and produce, but is also expected to last for at least thirty years, and possibly even longer. The margins for devising and launching new programmes are extremely narrow, both economically and politically – and time is not on their side anyway.

Moreover, how might Europeans better organise themselves to take part in the new *global competition* for wealth, influence and power – typically intertwined with an ever higher degree of *systemic interdependence* – which seems now to be taking shape before our eyes?

To some extent, the answer to this question hangs on the kind of scenarios Europeans might be forced (or indeed might want) to confront.

III. POTENTIAL NEW SCENARIOS 2013-2025

Prediction is very difficult – especially about the future. (Niels Bohr)

Scenario planning is not about predicting the future or revealing what the world will be like in ten, twelve or twenty years' time. After all, it only takes a handful of unforeseen political, economic or environmental events – the 'black swans' that have become ever more frequent lately - to change even the best reasoned and most seasoned strategies. Rather, the purpose of scenario planning is to help live with uncertainty and respond more effectively and resiliently to what might happen in the future.

Consequently, what follows is not a comprehensive list of potential threatening situations whereby Europeans might be forced to deploy their armed forces. Europeans have already proved their ability to address post-conflict situations and mount peace-building operations, especially (but not exclusively) in their neighbourhoods. Europeans – individually, bi-, mini- or multi-laterally – may indeed be able to respond to many different challenges, be it the invasion of an overseas territory or low-level instability around the European periphery. What is less clear, given the relative shrinking of many European militaries, is whether they would be able to respond (by themselves or with a little help from their friends and allies) to potential *new* challenges which might manifest themselves by 2025 – particularly those driven by the trends identified in the previous section of this Report.

Matrix 1 (overleaf) provides a snapshot of hypothetical situations by 2025, an environment Europeans may not be currently fully prepared for. This matrix includes:

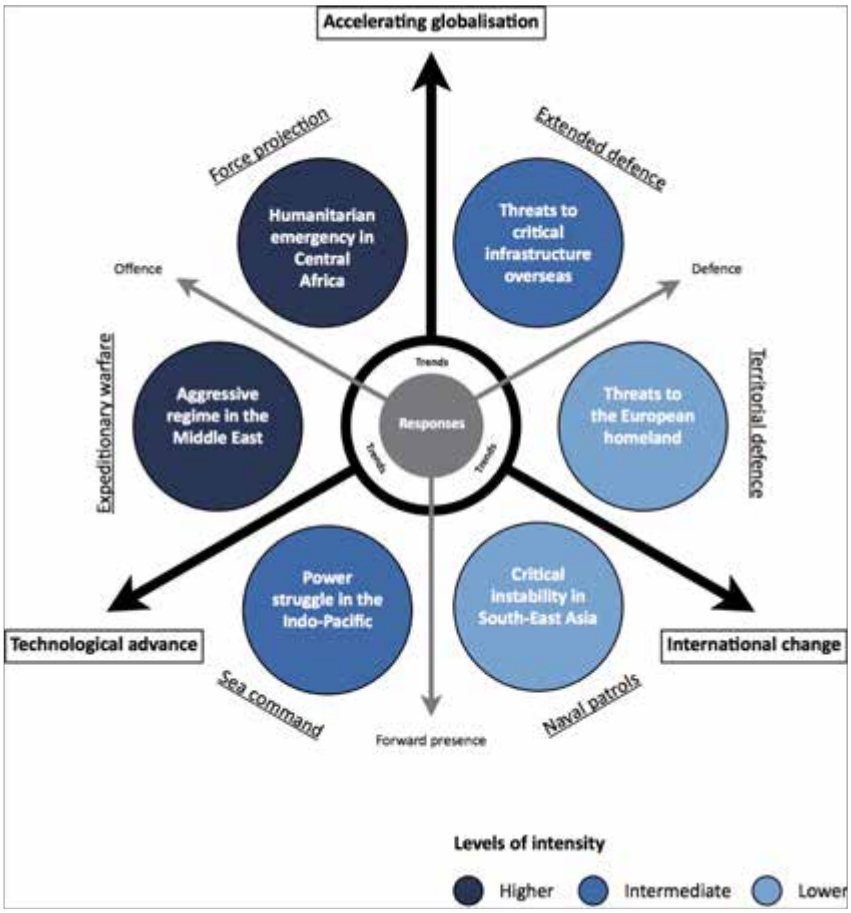
- firstly, a three-pronged axis showing the *trends* (accelerating globalisation, international change and technological innovation) used to imagine what kinds of scenario might occur

- secondly, a number of potential *scenarios* with varying levels of risk/threat intensity, made plausible by the trends themselves

- thirdly, a three-pronged axis depicting the category of potential *responses* which might be undertaken by Europeans, should the scenario become a risk/threat to European interests

- fourthly, a corresponding range of *operations*, which are underlined and presented next to each scenario.

Matrix 1: Trends, scenarios and responses by 2025



The illustrative scenarios and operational responses developed using this Matrix are explained in greater detail below. They are not meant to be(come) drivers of defence planning but just to highlight contingencies Europeans – just like others – may be confronted with over the next twelve years. No matter how far-fetched, unrealistic or 'worst-case' these scenarios may appear now, they do bear some resemblance to past and present situations and build on both the foreseeable effects and unintended consequences that current trends may generate.

These scenarios do not even imply that Europeans necessarily react to (all or any of) them, on their own or as part of broader coalitions. Nor do they deal with the legal or political framework in which action (if any) would take place, or with the numerous other (non-military) capabilities such contingencies would likely call for.

However, given the amount of 'strategic surprises' the international community has had to grapple with over the *past* twelve years – from 9/11 to local insurgencies, from maritime piracy to the 'Arab Spring', from cyber-attacks to commando-type terrorist actions against civilians (in Mumbai or Algeria) – these scenarios may come to constitute a useful mental map to play with and bring along.

Last but not least, they may also constitute a menu of contingencies to be *prevented*, not just responded to – an approach that, in turn, requires maintaining, developing and implementing the means to such an end.

Scenario 1: Threats to the European homeland

Risk/threat: Military modernisation in an increasingly authoritarian country on the EU's periphery gives it the means to threaten European territory. Additionally, ethno-nationalist elements within that country occasionally mount cyber-attacks on some member states. These are sophisticated and coordinated, which implies assistance from the foreign country's intelligence apparatus.

Response: As the ethno-nationalist foreign power has not made any significant move to harm the EU territory, no military effort to repulse invasion is needed. Due to their focus on East Asia, traditional extra-European allies expect Europeans to provide an autonomous defence effort. The European response would therefore need to deter a conventional attack with sufficient *territorial defence* – but without risking escalation – while simultaneously mounting a defence against cyber-attacks.

Potential contingencies: Any European response could lead to rapid armed escalation, but lack of European response could be perceived as political weakness and lack of solidarity, leading also to escalation. To pacify domestic ethno-nationalist elements, an autocratic foreign state may also lash out against third countries in the EU neighbourhood in a deflective confrontation.

Requirements: A European defence effort of this kind would require cyber defences with the capacity to reject or dissipate offensive cyber-strikes from ethno-nationalist foreign criminals or agents. Any effort would also require a higher state of conventional (even nuclear) military preparedness in the event of direct aggression. Sufficient European forces would need to be mobilised to dissuade, but without giving the impression of a potential European preventive or pre-emptive strike against the foreign country's own infrastructure.

Scenario 2: Critical instability in South-East Asia

Risk/threat: The continued rise and expansion of a large and powerful country in East Asia substantially disrupts the regional balance of power. Local players as well as a handful of extra-Asian countries with interests in South-East Asia seek international support in stabilising the region, which is large, diverse and maritime in char-

acter. The EU – as the world's second biggest economy, a major trade partner of many of South-East Asia's economies, and with member states with their own military stations in the region – is called to (and desires) active engagement, particularly with a number of smaller Asian countries deemed critical to European interests.

Response: Geopolitical instability in a large and primarily maritime environment makes a reconfigurable naval footprint necessary to uphold regional confidence through near-permanent *naval patrols*.

Potential contingencies: There are three: first, natural disasters, in the form of a volcanic eruption, a tsunami or a typhoon, which frequently plague the region; second, piracy, which sometimes flares up along shallow waters and busy maritime communication lines; and, third, conflicting maritime claims – as well as sovereignty claims on small islands – which could lead to military conflict.

Requirements: To undertake a potential near-permanent mission, Europeans would need to be able to sustain in theatre (approx. 10,000 km from their homeland), albeit supported by allied facilities in the region, a substantive naval patrol – including frigates – to build confidence and passively deter potential aggression, in coordination with other allied naval forces. Additional larger ships and submarines, as well as an amphibious ship or a helicopter carrier, might also be needed – either on station in the region or within cruising distance – to meet any contingencies, should they materialise.

Scenario 3: Power struggle in the Indo-Pacific

Risk/threat: A power struggle is well underway in the Indo-Pacific region between the area's leading countries. Their policy is to influence local players by providing them with significant economic, political and military support – often proliferating highly advanced 'counter intervention' weaponry – effectively turning them into client states. This re-ignites traditional tensions between them. One particular South Asian country threatens another, leading to confrontation in the Arabian Sea and Strait of Hormuz - which could lead to all-out war.

Response: In partnership with other countries, Europeans would need to be able to ensure that their most critical maritime communication lines remained opened and permanently unimpeded. This would require a *sea command* operation to actively dissuade any confrontation between local powers and to deter against additional foreign involvement.

Potential contingencies: Should a local conflict break out, due to the alliance structures in place in the Indo-Pacific, other larger players could quickly become involved in support of their respective clients, possibly even leading to tactical nuclear escalation.

Requirements: Europeans would need to mobilise a large naval fleet with the means to undertake surveillance and anti-submarine and anti-air warfare, particularly from advanced 'counter-intervention' systems working in concentric circles from the coast. This naval fleet would need to operate almost 5,500 km from their homeland (albeit with substantial support from the ports of local allies and European military stations in Djibouti, Diego Garcia and Abu Dhabi) for at least two months while attempts were made to find a political settlement to ease the situation.

Scenario 4: Humanitarian emergency in Central Africa

Risk/threat: The ethno-political and economic structures of a relatively small unstable country in Central Africa, having been progressively undermined by globalisation and the instability resulting from turmoil in North Africa, collapse. An oppressed minority rises up and protests about living conditions in the capital. The protest expands as additional demands are made by other ethnic groups. Central authority breaks down and the army is called in. Shots are fired and large-scale riots ensue, which the army puts down with lethal force. Security forces begin rounding up minority groups and disposing of them. Europeans are outraged and demand action.

Response: A massacre of this kind requires a humanitarian intervention, initially using *force projection* –involving primarily the enforcement of no-fly zones and possibly air strikes with precision-guided munitions – to destroy assets deemed important by the regime, thus dissuading it from a course of action considered unacceptable by Europeans and others. On top of that, EU citizens in the country need to be evacuated quickly.

Potential contingencies: Given the landlocked character of Central Africa, the ability to carry out long-distance flights is essential. Europeans would be entirely dependent on the goodwill of regional partners, who may not favour European interference in their – or their neighbour's – internal affairs. External players may also side with the regime, even supplying it with arms. Europeans could thus get sucked deeper and deeper into a potentially long-term conflict, which might at some stage make necessary the use of ground troops and armour.

Requirements: European countries' military bases in the region would be crucial to any initial strikes to suppress air defences, enforce no-fly zones and deter the regime. But sufficient air power deployed in theatre – approximately 4,000 km from the European homeland – would be required to maintain air supremacy and mount constant surveillance and rapid tactical strikes if necessary. Additional logistical capabilities would be necessary in the event of ground deployment of troops and delivery of humanitarian aid, which would significantly change the nature and scope of the operation.

Scenario 5: Threats to critical infrastructure overseas

Risk/threat: Having come to power a few years previously in a nearby country long wracked by instability and turmoil, Islamist *jihadis* set up artillery and rocket batteries along the Suez Canal. They demand what they describe as 'taxes' and 'tolls' from passing commercial vessels, cruise liners and oil/gas tankers for use of the canal. Threatening to open fire on any vessel failing to stop and pay the ransom, the *jihadis* announce a deadline for when ships have to start to pay. Insurance premiums go through the roof, with some companies sending their ships around the Cape of Good Hope – with the resulting growth in cost, time and carbon emissions. European shipping corporations, energy companies and businesses demand action.

Response: Europeans would have to conduct air and naval strikes against the *jihadis* to rapidly disable their relatively primitive anti-ship systems in an *extended defence* operation to protect one of their most precious pieces of overseas infrastructure along which almost all of their trade to and from the Middle East and Asia passes.

Potential contingencies: Unfriendly regional powers could proliferate advanced air-defence systems to the *jihadis*. The enemy has situated its assets in civilian areas to try to deflect attacks and threatens to take hostages among Europeans working in the area. The mission may become more complicated and extended if Europeans need to stabilise the region to provide a permanent solution to a problem that could easily occur again.

Requirements: At a minimum range of 600 km from their homeland, Europeans – arguably in cooperation with other interested powers and players – would need to disable the anti-ship artillery and rocket batteries along the banks of the canal using remote-controlled aircraft armed with precision-guided munitions (low explosives), helicopter gunships with chain guns and naval cannon equipped with extended-range and guided shells. Special Forces might also be required for targeting as well as more precise raids against weaponry located deep inside civilian areas.

Scenario 6: Aggressive regime in the Middle East

Risk/threat: An unpredictable but increasingly powerful regime in the wider Middle East conducts its first atomic test. A year later, the regime demonstrates that it has a working and deliverable nuclear capability to a range of 2,500 km: European territory could be directly threatened. The regime, feeling safe under its newfound atomic umbrella, becomes increasingly aggressive, harrying commercial vessels in the Gulf and supporting terrorist *jihadi* organisations throughout the Levant. The situation escalates when the country mounts incursions into a smaller pro-Western neighbour, whose freedom is deemed critical for the security of world energy supply.

Response: Given the severity of the situation and the potential number of actors implicated, any response would likely be international in character. Europeans, however, would be expected to provide a substantial force component for large-scale *expeditionary warfare*, which would need to be backed up with tactical and strategic ballistic missile defences.

Potential contingencies: these would be multiple and potentially multi-faceted, ranging from the aggressive regime's elevated support for *jihadi* terrorist actions to a rogue nuclear strike against European or pro-European targets (possibly using covert means).

Requirements: At a maximim range of 5,500 km from their homeland, Europeans would need a large expeditionary force, backed up by substantive and highly advanced naval and aerospace platforms, capable at operating as a major or leading component of a wider coalition, potentially including military assets from several countries and regional actors. Additionally, tactical level ballistic missile defences might be necessary, stationed in theatre in the Gulf, the Black Sea or the Eastern Mediterranean.

IV. ENDS, WAYS AND MEANS: AVENUES 2013-2025

Pour ce qui est de l'avenir, il ne s'agit pas de le prévoir, mais de le rendre possible. (Antoine de Saint-Exupéry, *Citadelle*, 1948)

The scenarios developed in Chapter III illustrate the possible situations, and related threats, in and against which European countries may need to use military power in the near future. Assuming that Europeans would actually like to respond (in whatever format) to any of these scenarios, they will need to generate detailed plans for each theoretical mission. Operational planning is beyond the means, scope and timescale of this Report, which nonetheless assumes that large-scale conventional threats to the European homeland will remain unlikely for the foreseeable future. Given that many of the threats and challenges to European strategic interests are likely to emanate from overseas, the EU member states can increase their efforts to be able to mount autonomous out-of-area operations without fear of being attacked at their borders (except in relation to cyber and possibly ballistic missile strikes, which would require a specialised response).

In particular, Europeans should focus on improving their ability to temporarily *project* and even permanently *extend* their armed forces into the EU's geographic zones of privileged interest. Again, as the map in Chapter II shows, these regions include the eastern, northern and southern neighbourhoods – the Caucasus, the Wider North, the Middle East and North Africa – and, importantly, the regions bordering with them, from Sub-Saharan Africa to Central Asia and the Indo-Pacific. Consequently, given the predominantly maritime and littoral nature of these regions, Europeans should – at the broadest level – put greater emphasis on maintaining and enhancing their naval and aerospace capabilities, as well as the logistical means to sustain them. At the same time, they should prune back the often excessive manpower in their armies. Most European armies should shrink substantially, becoming smaller but highly mobile, adaptable and technologically advanced forces, which can then be used to amplify European military presence overseas.

As already shown in Chapter III (Matrix 1), in addition to disaster response, stabilisation and peacekeeping missions – not dealt with in this Report, given the extensive experience already accumulated by the EU in this sphere over the past decade – EU armed forces may need to mount the following kinds of military operation by 2025:

- **Forward presence** missions, such as:

    1. Naval patrols to enhance regional confidence, protect trade routes or prevent piracy, such as in the Indo-Pacific region or the Gulf of Guinea
    2. Command of the sea to dissuade foreign aggression during periods of tension.

- **Offensive** missions, such as:

    1. Force projection to stop a civil war in Central Africa or elsewhere
    2. Expeditionary warfare to constrain an aggressive regime in the wider Middle East.

- **Defensive** missions, such as:

    1. Defending against (or better, deterring) cyber and ballistic missile attacks on the European homeland
    2. Protecting overseas territories or critical infrastructure (e.g. the Suez Canal).

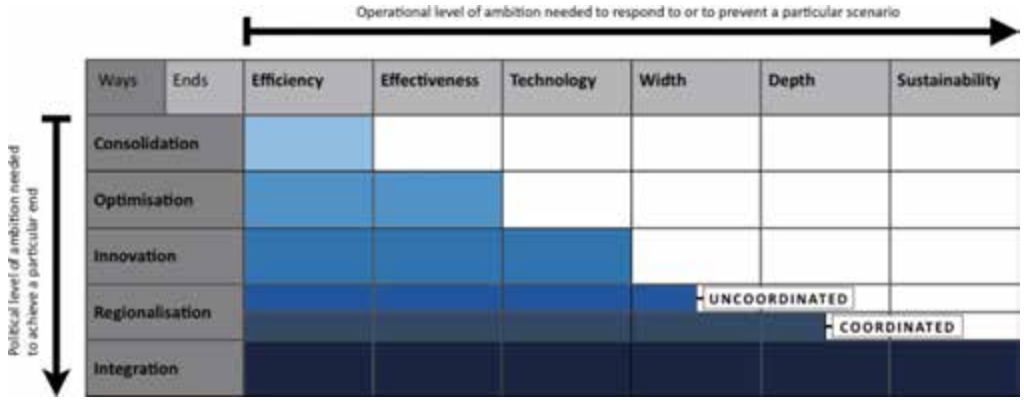
Currently the EU member states are able to conduct some – but not all – of these operations. Even those they could undertake would require significant support from the United States, NATO and other countries, which may not be so forthcoming by 2025 given the changes in East Asia. European governments will need to pin down sooner rather than later what type of missions and operations they want to be able to undertake – alone, in cooperation with other member states, or with other partners (from NATO to local allies in other regions of the world).

With this in mind, the following section proposes an analytical framework to identify potential solutions to current and future capabilities shortfalls within the EU member states, which may hinder Europeans from using military power to support their interests by 2025.

However, it is necessary first to unpack the meaning of 'military capabilities', given that the term can be ambiguous. In this Report, military capabilities are defined as the interlocking components of the armed forces which facilitate specific politico-military objectives, including *defensive, offensive* and *forward presence* operations. Military capabilities therefore include not only equipment and infrastructure but also training, exercises, know-how, doctrine and all those other elements that provide and enhance interoperability.

This description permits the identification of the specific areas where increases in the EU member states' overall military capabilities can be obtained. Self-evidently, the goal of the European countries must not be to achieve growth for its own sake. As discussed in Chapter I, the EU has either sufficient or even too much of some capabilities. In some areas, coordination or integration may just be adequate, while in others innovative, unique or exemplary – and potentially difficult – solutions may be needed.

Matrix 2: Political and operational levels of ambition



This Report has devised an analytical framework – shown in Matrix 2 – which is predicated on a plethora of options related to the member states' political *and* operational levels of ambition, which are required to maintain and/or enhance their level of military capabilities. Before going into detail, however, it is necessary to mention a couple of caveats. Firstly, the development of options and 'avenues' (as they are called in this Report) is more an art than a science: thus, not all possible driving variables or solutions have been taken into account. Secondly, the analytical exercise has put a strong premium on simplicity: this warranted some additional assumptions, including the expectation that, given the current and foreseeable fiscal pressures, the member states' willingness to integrate their military capabilities goes hand-in-hand with their declared ambitions (as the EU) on the world stage. Similarly, the analytical framework is based on the assumption that closer political integration brings about a superior level of military capability in all sectors, thus leading to more rounded armed forces.

This framework uses a set of variables, which affect both the generation of such capabilities and the features of such capabilities. Starting with the *ends*, over the next decade EU member states need to:

- Achieve net savings by increasing their armed forces' **efficiency**
- Enhance their armed forces' **effectiveness**
- Maintain existing – and develop new – **technology** for their armed forces
- Maintain existing armed forces – and improve their capability spectrum or **width**
- Transform – and increase – the **depth** of their armed forces' components
- Ensure their armed forces have sufficient **sustainability** for an anticipated operational tempo and endurance.

A map of possible avenues

From these *ends*, the Report has derived five capability options, or rather avenues, which should be understood as cumulative (not necessarily mutually exclusive) sets of solutions – or *means* – that work around a dominant logic, namely the *way* in which those means can be achieved.

These five avenues include a set of proposals for the main areas composing our definition of military capability: the research and development needed to create new systems; the military-industrial base required to manufacture such systems; the width and depth of the armed forces; and the logistical infrastructure needed to sustain them.

- **Avenue 1** – Implementing **consolidation** to generate military *efficiency*. In times of crisis, restructuring is necessary. Some member states need to achieve net savings from their military expenditure while others must liberate resources from old equipment to allocate to new capabilities development. Thus, the first option suggests a coordinated reduction of redundant and obsolete capabilities to generate immediate and future savings.

- **Avenue 2** – Favouring **optimisation** to boost military (cost-)*effectiveness*. Defence cooperation in Europe has often neglected operational needs, with deleterious economic and commercial (let alone military) consequences. This option suggests giving priority to those needs, through either specialisation among and across military services or procurement procedures that emphasise theatre needs.

- **Avenue 3** – Promoting **innovation** to enhance military *technology*. Innovation is not only a source of efficiency and effectiveness, but also of technological advancement – and thus of more incisive armed forces, as military history abundantly proves. This option proposes relatively simple solutions to promote innovations and thus expand the EU's combined military capabilities.

- **Avenue 4** – Framing and **regionalisation** to bolster *width* and *depth*. Some EU countries seem particularly keen on working with their neighbours, or partners who share a similar approach. Such targeted (bilateral or mini-lateral) integration could lead to payoffs in the maintenance and acquisition of a wider spectrum – and, to some extent, greater depth – of military forces, especially if such 'islands' of cooperation are coordinated at EU level.

- **Avenue 5** – Moving towards **integration** to further increase *depth* and to elevate *sustainability*. Bringing together the member states' armed forces under an EU-wide force structure would create sizeable overall military capabilities, enabling Europeans to vastly boost their logistical capacity, thus allowing them to undertake the most demanding operations that the future security environment could require.

Avenue 1: Consolidating capabilities

Category	Description
Problem	Sector overcapacity and redundancy
Solution	Consolidation
Benefits	Short- and long-term efficiency (savings)
Political framework	EU-level coordination
Proposal(s)	EU Military Review Structural/cohesion funds for easing the transition Exchange mechanism of excess equipment Re-investment schemes
Capabilities	Stable

EU member states suffer from significant redundancies, duplications and excesses in certain military capabilities: most notably, personnel, facilities, and industrial output. This situation is problematic in that it burdens EU military budgets without delivering operational benefits. What is more, it is increasingly unsustainable: the operating costs of excess capabilities are in fact progressively eating up EU military expenditure. These problems have existed for a long time: horizontal, post-Cold War military budget cuts started compromising a situation that has since got worse after the last wave of budget cuts following the 2008-2009 financial crisis.

A solution is urgently needed. The most appropriate response would consist of wide and deep consolidation, namely targeted cuts to the areas where an excess of military capabilities exists. The merit of this solution is that it generates both immediate and long-term savings that member states can arguably reinvest for both capabilities development and fiscal improvement.

Military restructuring occurred after the end of the Cold War. From that example, the EU member states can draw important lessons. It is of utmost importance, first, to conduct a collective inventory of existing military and related industrial capabilities: nobody can decide what to cut if nobody knows exactly what is in stock. Second, the EU member states need to coordinate their actions both to avoid creating further capabilities shortfalls and to address the likely political, economic and social fallouts that such military consolidation will inevitably trigger.

For these reasons, the member states may consider tasking the EEAS to undertake – in close cooperation with the European Defence Agency – a targeted **EU Military Review** and report back to the European Council. Such a review would clearly not aim at becoming a sort of White Paper – whose prescriptive nature would go beyond its initial remit – but could well aim at becoming a Green Paper in its own right.

Specifically, the review process may contemplate:

- *Conducting a stocktaking exercise of existing capabilities*: armed forces, military equipment, logistical infrastructure and military-industrial facilities. This process is necessary for two main reasons. First, the last combined EU-wide assessment occurred over a decade ago along with the formulation of the initial Headline Goals. Second, recent budget cuts within the EU have completely reshaped its military landscape. In capabilities terms, however, there is insufficient knowledge of the current state of play.

- *Identifying reasonable but strict targets for capabilities reduction* over a ten-year period, encompassing both military budget allocations and force structure ratios: EU countries can no longer sustain personnel costs that absorb over 40 percent of their national military budgets. Similarly, EU countries must formulate clear goals with respect to military efficiency and effectiveness (beyond NATO objectives for deployability and sustainability). For example, appropriate parameters for military stations-to-personnel ratios, or joint-to-individual service functions ratios, could be identified.

- *Exploring the possible establishment of an EU 'conversion fund'* to soften the social impact of consolidation, in particular among the military and industrial workforce: for many it will be extremely difficult to find alternative comparable employment (in their geographic areas, at the same salary, or with the same qualifications). In the language of economics, this is a 'common bad' that, in turn, calls for some form of public intervention. A European Coal and Steel Community-like framework for the EU defence industry is therefore required: a common good can in fact be achieved only with the involvement and cooperation of all the stakeholders (*inter alia* industry and armed forces). Member states could discuss with the European Commission the possibility to employ the *structural/cohesion funds* 2014-2020 to alleviate the consequences of the restructuring process, as tentatively done with the so-called Globalisation Adjustment Fund, and to devise a sort of EU-wide 'flexicurity' scheme to support the professional adaptation of skilled personnel made redundant by consolidation processes.

- *Preventing cuts from producing further capability shortfalls*, as happened over the past few years: it is for the member states to decide which institutional framework to use, although several existing institutions already possess a repository of skills, competences and expertise that could certainly help. A dedicated cell tasked with monitoring, coordinating and assisting the military restructuring process may still prove necessary, as some countries will emerge with capabilities to scrap, while others will spot shortages: an exchange network facilitating the transfer and re-allocation of ad-

vanced surplus equipment might be appropriate. The European Defence Agency is the most suitable candidate for such a role, given that it has already adopted a Code of Conduct and that it is creating a government-to-government online marketplace (eQuip) to this end.

- *Envisaging reinvestment schemes for future capabilities*: the consolidation process can (and indeed should) generate significant short- and long-term savings. It is essential that such savings be re-invested (if not in their entirety, at least in significant portions: a sort of 'golden share'?) in the cooperative development of new capabilities. These could in turn be matched or topped up with additional funding from other sources, be it the 'Horizon 2020' programme or new tailored schemes funded through the European Investment Bank (EIB). To this end, yet again, the EEAS and the EDA could jointly pin down a number of priority schemes that would benefit from the reallocation of savings with a view to preserving EU-wide technological skills in key areas of military production; launching technological demonstrators to broaden current expertise; and supply start-up funding for new common programmes.

Avenue 2: Optimising capabilities

Category	Description
Problem	Capabilities stagnation
Solution	Technological change Smart cooperation Best practice
Benefits	Savings Superior capabilities Better (though limited) cooperation
Political framework	EU-level cooperation and coordination.
Proposal(s)	From armaments cooperation to inter-service specialisation Total-life EU-wide capabilities procurement
Capabilities	Moderate increase

Historically, EU military cooperation has delivered mixed results. The main reason is that EU countries have often given priority to political, industrial and economic issues rather than operational needs. As a result, collaborative procurement programmes have often been affected by time-delays and cost overruns and provided

equipment not completely able to match operational needs. By the same token, multinational military formations have been unable, in many circumstances, to provide real capabilities or added value – apart from the political or symbolic.

This situation is no longer sustainable. Two main solutions may be explored: first, with respect to equipment and force structures, the EU member states could promote and strengthen armed forces cooperation along service lines (Navy with Navy, Army with Army, Air Force with Air Force) for the development of future weapon systems. This would not only further consolidate Europe's military 'power': it could also promote innovation.

The second solution concerns capabilities in broader terms: drawing from established, but not widely adopted, procurement practices, a new concept – 'total life-cycle EU-wide management' – for the development of future military capabilities could be embraced. Such a concept computes savings and costs from EU cooperation into procurement decisions and thus fosters further EU-wide collaboration and efficiency.

Both solutions could be pursued by involving the EEAS and the EDA and by associating also, when useful, relevant services in the European Commission.

- *From (armaments) cooperation to armed forces specialisation, leading to complementarity and inter-changeability at EU level*

With respect to defence cooperation, European countries must take into consideration three different aspects:

1. At EU level, individual military services have an outstanding record of cooperation: despite their national differences, EU armed forces share in fact common values, practices, and doctrines - and they are used to operating in similar theatres
2. Member states can count on professional, competent and skilled military services possessing outstanding operational, doctrinal and technical expertise, which is essential to identify and formulate capability requirements and military specifications
3. Technology evolves, often opening up unexpected opportunities allowing both cost-savings and higher capabilities. Understanding such technological opportunities in advance is particularly challenging.

EU member states could try and exploit the interaction among these three drivers to develop future military capabilities: this would involve strengthening and promoting cooperation along military services lines (e.g. Navy with Navy, Army with Army, Air Force with Air Force). This would help military services streamline their practices, codes and doctrines and thus, more generally, increase their combined capabilities as a result of higher interoperability and mutual cooperation. Second, this process

would contribute to highlight – through peer review – the potential pros and cons of the different military concepts, thus helping EU governments to determine what is necessary and appropriate (and what not) for delivering future military capabilities. Finally, this can create doctrinal and industrial innovation and 'poles' of excellence.

An area where EU member states could employ armed forces cooperation along service lines is, for instance, *remote-controlled aircrafts* (RCAs), for surveillance and possibly also combat. European countries have long discussed the possibility of launching their own RCA programmes, and their armed forces have funds available to this end. In essence, EU countries face a dilemma: they can launch either a single multi-role RCA programme, suitable for different theatres, or a number of different theatre-specific programmes. In the former case, the programme's total cost would be bigger, but the larger economies of scale would reduce the average cost of each platform. In the latter case, the different programmes' total costs would be smaller, but platforms' average costs could be higher. Armed forces' cooperation along services lines may be a valuable option in this domain: first, nobody has established a dominant doctrine for the employment of RCAs yet. By leaving the various services room for manoeuvre, EU countries can help them approach this goal and discover strengths and weaknesses. Second, in the age of modular industrial processes, the risk of superior costs (deriving from a plurality of programmes) may be addressed through the definition of common architectures and the agreement of common industrial standards. Third, this freedom can allow military services across the EU to identify common parameters for their future RCAs (stealth or endurance, agility or payload, speed or range) and thus lead to a stronger European defence industrial base. All this would not entail duplication of programmes, just different initial concepts.

- *Total life-cycle EU-wide management: factoring savings from cooperation*

Quite often, EU military cooperation programmes lack an economic case: their final costs are in fact higher than national-only solutions. Conversely, national solutions often end up absorbing significant resources because the member states do not explore possible avenues to achieve savings through cooperative frameworks (including common training, maintenance, and sharing of platforms).

A new procurement approach may deserve to be considered, namely 'total life-cycle EU-wide management'. This partially draws from both the experience of some member states and the insights of the EDA Code of Conduct: specifically, it consists in taking procurement decisions that consider not only acquisition costs but also operation and maintenance expenses over a platform's life-cycle. For example, this management technique would highlight the possible savings that up-front investments may deliver by reducing labour costs over the life of a platform. Both private and public organisations have been employing these procedures for some time, and with remarkable results. However, not all European countries' military procurement agencies do. This principle might have to be broadened anyway: specifically, EU-wide

considerations could also be included. This means that, when procuring new capabilities, member states should factor in the savings or the extra-costs deriving from the adoption of *common* platforms already (or about to be) used within the EU. The question should thus be, for example: by adopting a platform (e.g. a mechanised fighting vehicle or a corvette) already in use in another member state, how many resources can be saved through common training and maintenance? Alternatively, how much are common standards and interoperable military off-the-shelf products going to affect a platform's modernisation costs?

This approach also highlights possible avenues the member states could explore to either achieve further savings or increase existing capabilities without significant additional investment:

1. Conduct more frequent multinational staff exercises across the whole chain of command to enhance mutual understanding and interoperability
2. Pursue common training solutions where and when still possible: C4ISTAR, standardisation and certification are areas where, given the costs, the benefits would be highest
3. Promote the adoption of common standards and, when possible, military and commercial off-the-shelf products.

Avenue 3: Innovating capabilities

Category	Description
Problem	Preserving/developing technological edge
Solution	Stimulate innovation Strengthen research and technology
Benefits	Savings Superior capabilities Synergies
Political framework	EU-level cooperation/coordination Public-private partnerships
Proposal(s)	Dual-use R & T in innovative areas Small and medium enterprises
Capabilities	Significant increase

Innovation is a central component of the development of military capabilities. It permits increased military effectiveness, operational efficiency and it also often widens the capability spectrum. There are several types of innovation. At the most basic level, some innovation makes it possible to carry out existing tasks at lower costs and with different solutions. On the other side of the spectrum, innovation can dramatically revolutionise business procedures. Fostering innovation, however, requires political and administrative support as well as adequate financial incentives. To facilitate all this, and following up on suggestions already illustrated in Avenue 2, a few specific ideas could be explored:

- *Call for capabilities for CSDP missions*

Some EU missions so far have dealt with new, uncommon or asymmetrical threats. On occasion, EU armed forces did not possess the most suitable equipment: for example, for conducting counter-piracy operations, EU maritime forces opted to send larger warships (destroyers and frigates), their only surface combatants able to sustain medium-to-long range and endurance out-of-area operations. However, these platforms are not only extremely expensive to operate but, more importantly, were not designed for such missions. By launching calls for capabilities for future CSDP missions through the EEAS, the EU could stimulate the development of innovative, cost-effective and generally more appropriate solutions – although this may require a review of the current modalities for funding military operations.

- *Research funds for small and medium enterprises*

Seminal innovations of the past decade like the RQ-1 *Predator* remote-controlled aircraft or the Joint Direct Attack Munition (JDAM) were produced by small companies. This is because, in the age of modularity, small and medium-sized enterprises may have the right repository of technical skills to deliver high-quality and original products, while they are also interested in relatively small markets, which the prime contractors do not consider. By establishing or strengthening independent cells that fund innovation research from small and medium-sized enterprises, the EU and its member states could promote the development of innovative and cost-effective solutions. Since many countries have already established such cells, it is of utmost importance to share their best practices. The European Defence Agency could work to facilitate this coordinating effort, in close cooperation with the relevant services of the European Commission.

- *Demonstrators to fight bureaucratic inertia*

Bureaucracies sometimes neglect certain innovations. Churchill and De Gaulle were able to grasp in advance the revolutionary implications of some technologies – the tank, for example – while the military bureaucracies of the time were often of different opinions. These problems have not disappeared: former US Secretary of Defence,

Robert Gates, fought a hard battle against the US Air Force to impose a higher acquisition of remote-controlled aircraft. Conversely, the private sector may sometimes need to be brought up to date and speed on new technologies (often dual-use) that may be needed soon in the defence realm, in order to be better equipped to respond to future public calls. To tackle these dynamics, a stronger emphasis on technological demonstrators may be necessary – a domain in which *ad hoc* funded public-private partnerships could prove extremely useful, considering also their initially limited costs.

- *Strengthening R & T and promoting ground-breaking technologies*

Promoting innovation is not only about addressing tactical, operational or strategic challenges. Technological innovation can also radically disrupt existing ways of doing business, in military but also civilian affairs. The invention of the combustion engine, the aeroplane and radio certainly revolutionised warfare, as did penicillin: however, they first reshaped the way society and the economy worked. Similar considerations are likely to apply today when the technologies that may affect warfare over the next decade or so do not derive from military research: emerging technologies associated with automation (robotics); communications; additive manufacturing (3D-printing); new materials; direct-energy weapons; and alternative technologies (green sources), are among the most notable examples. Yet the military can work – as it has in the past – as an excellent incubator. Although armed forces did not invent the combustion engine, the aeroplane or radio, they were instrumental in improving such devices or extending their use in other sectors. The member states and their armed forces thus have a vested interest in ensuring a competitive military-industrial base, able to pioneer new technologies, and should support the EU to invest more and better – through the EU research budget proper as well as innovative financing schemes (which may include the European Investment Bank).

Concerning *new* capabilities, in fact, their planning, implementation and future management could take useful inspiration from the funding and management arrangements adopted years ago by NATO for its AWACS fleet, on the one hand, or from the so-called 'project bonds' recently proposed by the European Commission for major infrastructure programmes, on the other.

NATO's *AWACS* (Airborne Warning and Control System) fleet is indeed a successful case of common capabilities procured, upgraded and operated through a supranational body. The acquisition of the aircraft occurred through joint funding, a pre-structured form of multi-national financing, which takes into consideration adjusted *per capita* GDP of the 18 participating NATO members. The cost-sharing agreement was based on considerations regarding expected benefits from the programme (industry participation in the programme) and timing of payment (upfront or delayed over years). The Operations and Support programme for when the AWACS are employed in a collectively approved mission is commonly funded by all 28 NATO members, and

two *ad hoc* bodies are responsible for the management of the programme. Personnel costs are borne by the providing nation for the military part, but crews are multinational (and undergo common training) and two dedicated common bases host them (in Germany and the UK) – without prejudice to the right of individual NATO members (starting with the US) to acquire and manage their own AWACS aircraft.

For their part, '*project bonds*' – as proposed by Commission President Barroso on a number of occasions since 2011 – are designed to facilitate the financing of large-scale infrastructure programmes through credit enhancement provided by the European Investment Bank (EIB). Accordingly, each project's debt would be separated into a senior and a subordinate tranche: the latter would be provided by the EIB and supported by the Commission for up to 20 percent of the total debt issued. This, in turn, could take the form of either a loan given to the company in charge of the project or a contingent credit line in case the generated revenues are insufficient. EIB involvement improves credit quality of senior bonds and thus facilitates their placement. The project company would typically be set up as a public-private partnership in charge of building, financing and operating the programme.

Both models – one real and tested, the other virtual but promising – present advantages and incentives that could be worth translating, with all the adjustments that may prove necessary, into new EU capability development schemes.

Avenue 4: Regionalising capabilities

Category	Description
Problem	Lack of coordination between intra-EU regional clusters Insufficient width of military capabilities
Solution	Reinforcing bilateral and regional cooperation Coordinating regional cooperation at EU level Providing EU-level solutions reinforcing regional endeavours
Benefits	Savings Wider spectrum of capabilities, particularly expeditionary forces Limited political consequences
Political framework	Bilateral or regional cooperation with EU oversight

Proposal(s)	EU coordination of various clusters of cooperation EU Combined Littoral Fleet EU Military Airlift System Common policy on use of military facilities
Capabilities	Substantial increase

Over the past few years, alongside efforts to boost military cooperation at the European level, particular European countries have started to work together, forming 'islands' or clusters of military cooperation – what might be defined as the 'regionalisation of military capabilities'. Currently these 'islands' include, in no particular order:

- Nordic Defence Cooperation – between Denmark, Finland, Iceland, Norway and Sweden, to pool and share capabilities
- Benelux Defence Cooperation – particularly strong in the maritime and air sectors between Belgium and the Netherlands; relatively old but renewed in April 2012
- Visegrad Group – between the Czech Republic, Hungary, Poland and Slovakia, leading to a combined battle-group and military exercises;Central European Roundtable on Defence Cooperation – between Austria, Croatia, the Czech Republic, Hungary, Slovakia and Slovenia, to pool and share capabilities
- British-Dutch Amphibious Force – long-standing initiative between the Netherlands and the United Kingdom
- Baltic Defence Cooperation – between Estonia, Latvia and Lithuania, which has led to the development of the Baltic Naval Squadron as well as the Baltic Defence College, providing intermediate and higher level professional military education to their respective armed forces and civil servants, including those of their partners and allies.

While these clusters show promise – achieving substantial concrete results in some cases – some analysts and commentators have been most attracted by the collaboration between France and the UK. During the Lancaster House Summit (2010), Britain and France agreed to:

1. Ensure the interoperability of aircraft carriers
2. Develop future remote-controlled surveillance and combat aircraft
3. Cooperate on nuclear weapons research
4. Collaborate on the development of anti-sea mine technologies
5. Form a Combined Joint Expeditionary Force by 2016, to fight at the highest levels of intensity, for long periods and at great distance.

London and Paris have already made some progress: the crises in Libya (2011) and to a lesser extent Mali (2013) have provided ample opportunity for the two allies to

work together in very close coordination as well as identify capabilities shortfalls. Likewise, military exercises between the British and French navies in the Mediterranean during autumn 2012 were undertaken to pave the way for the creation of the Combined Joint Expeditionary Force. As such, British-French cooperation could lead to robust and highly capable armed forces, with the mass, means and reach to act effectively within the extended European neighbourhood. However, of all the 'islands' or clusters mentioned so far, this is also the one that is least considered and presented as being part of a broader European (let alone EU) framework.

As it stands, in fact, the regionalisation of military cooperation has remained relatively uncoordinated at the European level. It has been pursued bilaterally or mini-laterally (at any rate, autonomously) by particular groups of European countries sharing similar geographic settings or political interests. Equally, the level of cooperation within each island (or cluster) has varied dramatically, ranging from limited *ad hoc* cooperation to the pooling of professional military education at specific levels and comprehensive collaboration, including the creation of expeditionary forces. Consequently, such regionalisation has been seen at times as potentially undermining wider efforts to foster military cooperation at EU level – but occasionally also as stemming from frustration with the EU itself. Indeed, uncoordinated regionalisation could create several problems of its own:

- If not pursued carefully, it could derail efforts at EU level to maintain and enhance European military capabilities, possibly leading to lopsided and disjoined armed forces
- It could further entrench unequal burden-sharing, leaving some EU countries to do the heavy lifting, while others take advantage of the security the heavy-lifters provide
- Some forms of regionalisation could become increasingly narrow, leading to the development of capabilities primarily for defence as opposed to expeditionary warfare, and only in relation to the local vicinity.

However, while regionalised cooperation does not come without risk, it should not be seen as retrograde or mutually exclusive in relation to efforts to enhance military capabilities at the European level. Indeed, as opposed to islands of cooperation, the different types of regionalisation could be coordinated through the European Union to form an 'archipelago' (or template) of cooperation, taking on a functional dimension. Therefore, as regionalisation is likely to continue for the foreseeable future, it should be actively encouraged, so long as efforts are made to coordinate it – through specific guidelines and tentative deadlines – at the European level.

This could well represent the *second (and superior) stage* of the **EU Military Review** exercise proposed for Avenue 1, thus upgrading its mandate from making a common *inventory* to drawing a common *trajectory* (i.e. closer to what a White Paper might be) at least for some specific capabilities, thus potentially leading to synergies and/or regional burden-sharing at EU level. Regionalised cooperation could take on a delib-

erate functional dynamics, leading to different but mutually reinforcing military capabilities. Bearing in mind the rise of new threats and challenges, capabilities-based planning (e.g. making outputs drive inputs and not the other way around) could be adopted – but with a twist. As some of the member states are unwilling to use armed force in certain roles, a division of labour (geographic, or functional, or both) could be instituted. This can help both reduce stockpiles and identify commonalities among platforms, thus delivering significant savings across the board. Since not all countries have sufficient resources to adopt such practices, groups of countries – either coordinated by existing EU bodies or not – could proceed in cooperation.

Still, the regionalisation of military capabilities – even if coordinated – may not be able to increase, by itself, the width or spectrum of European armed forces. Regionalisation may need to be complemented by the **Europeanisation** – in and by itself a higher form of regionalisation – of some specific kinds of military capability, particularly against threats that are likely to affect all Europeans in a uniform way by 2025. A proliferation in marine piracy and illegal trafficking along the EU's maritime communication lines; terrorist actions (including hostage-taking) at offshore and onshore industrial facilities; natural or man-made disasters (or even civil wars) in neighbouring countries, requiring a swift evacuation of EU citizens – let alone the various contingencies presented in the six illustrative scenarios from Chapter III of this Report – could strike at any time. European countries could thus agree to generate common capabilities – 'common' in the sense that they would be developed and managed cooperatively, but with no obligation for each and every member state to join in – to complement and reinforce their regional endeavours.

These could, for example, take the shape of the following innovations and initiatives:

- *Combined EU Littoral Fleet*

Modelled on the US or Japanese coast guards, this standing EU maritime capability would be able to undertake regional and global littoral operations to interdict and clamp down on criminals like pirates or drug and human traffickers near (or on) the EU's maritime communication lines, but also to provide technical surveillance, training and capacity-building as well as humanitarian assistance in shallow waters. In support of European navies, it could also provide disaster response as well as European forward presence during times of tension in regional trouble spots.

Under the auspices of the EEAS and in cooperation with such EU agencies as Frontex and the SatCen, this fleet could be initially formed under direct EU command from participating member states, using their corvettes or coastal patrol craft, but would eventually evolve into a fleet of purpose-built and uniform global cutters and remote-controlled aircraft for long-endurance maritime surveillance. The EU Littoral Fleet would relieve European navies of 'humdrum' activities, preventing the waste-

ful use of expensive frigates, destroyers and landing platforms for lighter and less-demanding missions, thereby making them available for what they were designed for – expeditionary and forward presence operations.

- *EU Military Airlift System*

Since 2010 the European Air Transport Command (EATC) has allowed its participating countries to reduce their transport flights by exploiting other member states' spare capacities. Without touching upon European countries' sovereignty, in fact, the EATC model has increased their combined airlift capabilities through a simple coordination mechanism. Accordingly, each participating EU member state contributes with its own fleet that keeps serving national goals. However, the EATC manages incoming information about countries' transport needs and allows them to reduce missions (and emissions) when spare capabilities are available.

Comparable solutions could be pursued in other areas like combat air patrol and situational awareness, as these tasks require expensive equipment, are costly to carry out, and provide benefits to a number of countries. Through relatively simple agreements, such countries can thus ensure that, in the event of a crisis, those unwilling to participate in agreed operations cover and protect the participating countries – in a display of solidarity as well as '*mutualisation*' – by dealing with potential threats to their airspace.

- *Common policy on military installations and logistical supply*

If any two member states participate in the same military operation; share the same intelligence; and fight alongside one another, it is not clear why their logistics need to be separated. Recent military operations in the EU's southern neighbourhood have witnessed the forward deployment of some northern and western European expeditionary forces to member states on the Union's southern periphery, often at great cost. During the intervention in Libya, after sending detachments of their combat aircraft to their assigned forward operating bases, most European armed forces followed by transporting their stockpiles of ordnance and support supplies on a weekly basis.

The European Defence Agency could undertake a detailed analysis to ascertain how detachments of these member states' militaries could be forwardly deployed on a permanent basis – for humanitarian as well as combat purposes – to the EU eastern and southern proximities, making them 'always ready' to mount a rapid response to crises in the neighbourhood as well as deter conflict through their very presence. In addition, and in support, it could also develop a blueprint for transforming a few existing installations into **EU logistical hubs**, which would support all member states' armed forces when undertaking operations. This would simultaneously save time, resources and money when those forces need to be deployed on operations. Given that the increase of the northern and western EU member states' militaries would provide their

hosts with substantial additional revenue through financial input into their local or regional economies, a system of remuneration and compensation may need to be discussed and developed. Yet again, the EDA is already carrying out exploratory work in this direction, and could well be encouraged to provide tentative action plans.

Avenue 5: Integrating capabilities

Category	Description
Problem	Insufficient depth/endurance of existing EU capabilities Lack of military capability for 2025 scenarios Entrenched lopsided burden sharing
Solution	Systemic military integration at European level
Benefits	Significant long-term savings Advanced capabilities, including larger expeditionary forces Sizeable military capacity for overseas presence and intervention, territorial defence and deterrence
Political framework	EU institutions
Proposals	New Headline Goal(s) 2025 Synchronisation of planning and procurement cycles Standardisation of equipment
Capabilities	Vast increase

While coordinated templates for regional military cooperation may provide the means to maintain a number of military capabilities, they will not provide the means to address some of the more severe contingencies Europeans may be forced to deal with by 2025, particularly if two or more threats emerge simultaneously. Besides, this does not allow for adequate burden-sharing among Europeans, leaving some member states with a disproportionate share of the burden while others do less or even 'free ride'. The creation of military capabilities to generate and sustain EU expeditionary forces, and a global maritime and air presence, offers the most effective (and cost-effective) means to achieve such a posture. Even more so today, it would provide Europeans with a sizeable combined military apparatus and all the political benefits that such a collective capability brings. Indeed, by 2025, it may be the most effective solution, unless Europeans aim to leave the management of the world to others – who are unlikely to protect Europe's 'strategic interests'.

Since the creation of the European Security and Defence Policy (ESDP) in 1999, there have been several attempts to integrate European military capabilities, especially through the Headline Goals 2003 and 2010. The record so far is mixed. However, the core objective – European forces' ability to fight autonomously, even thousands of kilometres from the European homeland, at a high intensity, and sustained by a credible military-industrial base – was and remains desirable. An ability to partake in long-endurance maritime and territorial presence operations (like those around the Horn of Africa) has also risen in importance, while the need for greater European 'strategic autonomy' grows by the day. To remain *relatively* capable in the twenty- first century – that is to say, to be able to *deter, prevent and* (when required) *respond* – European armed forces need to become more integrated.

To provide their forces with greater military depth and endurance, therefore, Europeans may have to consider – beyond the still controversial issue of setting up EU-own planning headquarters – establishing *a new 'family' of* ***Headline Goals for 2025*** to address the operational challenges and develop the capabilities sketchily illustrated in Matrix 1 and more systematically described in other sections of this Report, namely:

– maritime forward presence
– expeditionary/offensive force projection;
– extended/territorial defence (including cyber defence).

Over the next decade or so, European countries will have to replace – or start thinking about replacing – a good part of their equipment, including conventional (and nuclear) submarines, naval destroyers and frigates, main battle tanks, combat aircraft, observation satellites, and other items. The history of both commercial and military products shows that the same companies are very rarely able to maintain their technological leadership for more than a generation. This chimes and rhymes with a traditional problem of EU procurement: the simultaneous development of several competing types of equipment is often coupled with a subsequent lack of funds for their future replacement. If the member states keep proceeding along these lines, they risk fatally damaging their armament industries. For these very reasons, when procuring new equipment, EU member states may explore new frameworks that, while guaranteeing industrial returns to their 'national' industry, would also foster a competitive defence industrial base at EU level.

Possible paths could include:

- promoting a gradual *synchronisation of national armament programmes and procurement cycles*: such alignment would have no costs nor would it infringe 'sovereignty'
- such convergence, in turn, would make it possible to launch *common/simultaneous calls for equipment at EU level*, bringing in line also the production cycles of defence industry
- these would present European industrialists with the option to *partner (or not) for bids* at EU level

- these would also facilitate (if not require) the *gradual adoption of open architectures and common standards* for future armaments programmes.

In order to offset the likely negative economic and social fallout of such streamlined, more competitive procurement practice on the perspective 'losers', it is perhaps conceivable to:

- design contracts that, mainly through modular approaches, favour granting the role of subcontractors to those 'national' companies or cross-national consortia that are unsuccessful in their bids
- alternatively, or simultaneously, launch prototype programmes for future generation equipment so as to preserve (and redirect) those companies' high-end industrial know-how.

Finally, also as a possible *second (and superior) stage* in the development of the **EU logistical hubs** mentioned as part of Avenue 4, EU-level synchronisation of procurement and standardisation of equipment could generate not only lower budgetary costs (through better economies of scale and market competition) but also lower logistical burdens. To date, in fact, European countries have been unable to rely on each other for repair, maintenance, and spare parts, with negative effects on the effectiveness and sustainability of military operations. By contrast, common calls, architectures and standards would produce long-term savings, increase interoperability and, yet again, foster solidarity and '*mutualisation*' – which have nothing to do with the recurrent charge whereby defence integration would amount (or lead) to a sort of 'Euro-military'.

V. CONCLUSIONS

Même le futur n'est plus ce qu'il était. (Paul Valéry)

The five avenues described in Chapter IV are neither rigidly separated from one another nor mutually exclusive. They simply illustrate distinct functional as well as political logics and methods to address a number of well-known problems affecting European military capabilities. And they can even be considered as potentially cumulative over time. Yet they all beg the question – albeit to different degrees – of whether (and, if so, to what extent) they may dent national 'sovereignty'.

Trying to answer this question requires clarifying what 'sovereignty' may mean. If it is meant to entail a high degree of strategic autonomy and self-sufficiency in military/defence matters, virtually no European country is 'sovereign' anyway (strictly speaking, not even the US is, as it relies on foreign intelligence and allied facilities worldwide). If it is meant to entail a high degree of independence in decision-making, most EU countries have conferred the defence of their national territory to the Atlantic Alliance, while a few others have bilateral arrangements with it and/or the US itself; moreover, all EU members have already subscribed to art. 42 TEU in its entirety, as well as to the so-called 'solidarity clause' (art. 222 TFEU). If it is meant, however, to define national procedures in matters of life and death and institutional accountability, each EU member state is (and of course remains) fully 'sovereign' in its own right, including with regard to establishing legal or even constitutional constraints on its national sovereignty.

Most importantly, perhaps, 'sovereignty' is not a static concept: both its substance and its form keep evolving and rarely coincide with one another, especially when measured against practical realities in such domains as trade or technology. Incidentally, the history of European integration – starting notably with the Coal and Steel Community (ECSC) – offers the best possible evidence of how national 'sovereignty', rather than being transferred or even given up, can be broadly preserved by being pooled and shared; and of how, without opting for integration, European countries would probably have simply lost such 'sovereignty'. This seems particularly relevant today, considering the risks of 'de-militarisation' (the 'bonsai' armies) and even 'de-industrialisation' (for the defence sector) highlighted also in this Report.

Historically, yet again, the EU has proved particularly good at setting shared medium- to long-term policy goals (ends) and creating the administrative procedures (ways), and the institutional and budgetary arrangements (means) required to meet them. It has also been extremely good at reassuring its member states about their say in all that (sovereignty).

This is why concerns about the possible loss of national sovereignty – legitimate though they may be – that managing and developing military capabilities *together* (as argued in this Report) may imply, seem somewhat beside the point. Europeans are already losing sovereignty by *not* consolidating, *not* optimising, *not* innovating, *not* regionalising and *not* integrating their military capabilities. They are also losing 'strategic autonomy', and (re)gaining at least some requires action and determination. Generating both requires, in turn, appropriate enabling mechanisms.

Spotting the dots

The European political and institutional landscape around defence and military matters is extremely segmented. Even without bringing NATO into the picture (which falls outside the perimeter and the parameters of this Report), the sheer range and variety of EU bodies, procedures, doctrines and budgets that affect defence and military capabilities is striking. This is, arguably, the result of the incremental accumulation of ever more detailed functional arrangements to deal with specific sub-policies in the absence of an overarching and comprehensive political framework.

As already explained in Chapter I, the EU institutions and procedures linked to the CSDP deal only with crisis management and peace-building: they are now all under the aegis of the High Representative for the CFSP and Vice-President of the European Commission, Catherine Ashton, and within the scope of the European External Action Service (EEAS). Within this relatively broad policy 'box', however, the military dimension proper remains distinct from the other ones: it has its own specialised bodies, decision-making procedures and administrative modalities, funding rules and mechanisms that are different and separate from those adopted for *civilian* crisis management – although the operational boundaries between the two appear increasingly blurred – and even more separate from those related to other types of external action (from development to humanitarian aid, trade, or visa regulation).

For its part, the 'common defence' and the 'common defence policy' mentioned in the TEU have not been given significant attention or follow-up so far, even though they would involve similar kinds of military capabilities. At the same time, specific sub-policies related to 'homeland security' and defence – from counter-terrorism and intelligence to civil protection and disaster response – have each been given dedicated administrative units, operational guidelines, and budgetary lines across EU institutions. Cyber-security issues are still dealt with by different bureaucracies, mostly within the European Commission, and only recently have efforts been made to coordinate their work. Space policy tools are spread out not only inside the EU (Commission, SatCen) but also beyond, including in the European Space Agency (ESA).

The trade, industrial and research dimensions of military capabilities are equally located in separate administrations, partly within the Commission (the Directorates-

General MARKT, TRADE, ENTR, RTD, MOVE) and partly within the EDA. Efforts at better coordination are being made, yet again, especially after the creation in late 2011 of a dedicated Task Force on Defence Industry and Markets inside the Commission, which is about to deliver a specific Communication. But important differences in terms of legal competence, budgetary resources and bureaucratic priorities persist and limit the overall coherence and effectiveness of the EU policy output.

Finally, parliamentary oversight of military-related matters is minimal at EU level (although the European Parliament keeps trying to widen its turf by using the budget lever) and extremely diversified at national level, among the member states themselves: the rights and powers of the Assemblée Nationale, the Bundestag and the House of Commons – just to name the most famous ones – are not even remotely comparable in this domain. As a consequence, it is extremely difficult to identify a fair and effective way to bring together to discuss military capabilities not only MEPs and MPs, but even MPs from national parliaments alone – some of whom have considerable influence over such decisions.

The main consequence of all these separate policy 'boxes' is not only a residual lack of coordination and consistency (this often exists even at national level) but also a set of in-built rigidities and potential straitjackets that risk producing administrative and operational paralysis and frustrating the numerous officers and officials who genuinely believe – at EU as well as national level – in the urgent need to act, and to do so together.

The 'comprehensive approach' embraced lately by HR/VP Catherine Ashton and the EEAS is notably trying to bridge some of these gaps – by bringing together the so-called '3 Ds' (diplomacy, defence and development) and involving both EU institutions and member states – and devise joined-up policy approaches to current and future challenges. But when it comes to mobilising financial resources or producing legislation to back them up, the need for an even more comprehensive approach (and political framework) becomes apparent.

Connecting the boxes

Connecting and coordinating *all* the relevant policy 'boxes' may indeed require additional political impetus from the highest possible level, as well as much more continuity over time. The European Council meeting on defence planned for late 2013 could thus represent a unique opportunity in this respect, as it will put on the table three separate yet ultimately converging strands: the *political* case for defence (Europe in the world), the *operational* case (its ability to act), and the *economic* case (growth and competitiveness). It would indeed be essential to make it a point of departure – rather than arrival – for the establishment of a comprehensive political framework dealing with European military and defence-related matters.

There are, once again, useful experiences to draw upon. With the establishment of the so-called 'European Semester', a couple of years ago, the EU has launched a cycle of economic policy coordination that entails collective monitoring of national fiscal policies, feedback and adjustment procedures, and specific recommendations. Initiated by the European Commission and carried through by the ECOFIN Council, the cycle culminates at European Council level – at the traditional March summit devoted to economic issues – and is iterated every year. Member states governments as well as national parliaments are progressively adapting to such 'calendarisation', which includes an upstream (drafting, consultation, feedback) and a downstream (implementation) stage.

Needless to say, the level of interdependence and integration among the member states in the European Monetary Union (EMU) framework is hardly comparable to that in defence policy – in legal, institutional and political terms. Yet is it really inconceivable to imagine (and sketch out) a similar process in the security and defence domain? The key challenge would be to bring together all the relevant stakeholders – which are now scattered across the various 'boxes' – and keep the European Council involved and focused on a regular, preferably permanent, basis.

As this Report has tried to highlight, dealing with military capabilities at EU level implies dealing with a wide range of policy issues: fiscal, commercial, industrial, social, technological and, of course, operational. In other words, in the defence realm there is no equivalent of the ECOFIN Council in terms of concentration of relevant competencies and know-how. Defence Ministers across the EU do not have a stand-alone Council formation, although they already meet four times per year (twice informally and twice more formally), i.e. even more frequently than in the NATO framework. In this respect, the recurrent call for a dedicated Defence Council configuration may be a red herring: what would make a difference is an *ad hoc* formation bringing together – once a year – the national ministers for defence and economy/competitiveness along with their institutional counterparts in the EU: the Commission, the EEAS, and the EDA.

The Commission, in turn, might consider the possibility of reorganising its internal services, as from 2014, in order to bring under the same bureaucratic roof and personal responsibility – a dedicated Commissioner with a new portfolio overseeing a number of Directorates, if not a new DG in its own right – the various units and competencies it has in terms of defence-related markets, industry, infrastructure and research (the recent Task Force on Defence Industry and Markets represents, in fact, an initial step in the right direction). This would bring only one person to the Council table and decisively reduce bureaucratic fragmentation.

Such a 'hybrid' Council formation would not constitute a complete novelty: until recently, for example, foreign, defence and development ministers from the EU-27 used to meet once a year in the so-called 'Mammoth' Council. It could become the locus where specific proposals and solutions (including those presented in the five avenues from Chapter IV, and others) are discussed, tested, and possibly endorsed.

More importantly, it could become the driver and catalyst of policy coordination efforts, lay the ground and do the preparatory work for an annual European Council meeting – to be held, arguably, in the autumn – that would be open also to EU Foreign and Finance Ministers and devoted to the Union's common external action and presence.

The involvement of Foreign Ministers would be of course essential to connecting the various 'boxes' relevant to external action; that of Finance Ministers for embedding the logics of fiscal discipline and 'more bang for our bucks' into the broader evaluation of how best to protect common 'strategic interests'; and that of the Presidents and Prime Ministers for agreeing the necessary political trade-offs and conferring legitimacy and accountability to the whole process. How else, for instance, could a possible mechanism for reinvesting a fixed share of savings stemming from consolidation and rationalisation into new common capabilities (thus creating the right incentives for all players), or the possible opening of a specific chapter in the EU budget to support an EATC-type military airlift system (thus fostering financial solidarity and reducing free-riding), be designed and implemented? A process along the lines described above could indeed generate a new dedicated cycle of policy coordination at EU level, with predictable cascading effects on governments and parliaments across the entire EU.

Finally, neither this nor any of the avenues illustrated in Chapter IV would require changing the EU treaties. The agenda of European Council meetings; the number, nature and scope of Council formations; the internal set-up of the European Commission; the operation of the EEAS and EU agencies; the specific policies adopted in the relevant domains, including industrial consolidation, market liberalisation, funding for R & T, possible new joint ventures and 'project bonds': these are all matters for political deliberations in which the member states would be called to exercise their 'sovereign' decision-making – but they do not require treaty change.

This does not rule out, of course, the possibility of doing that at a later stage. After all, the ESDP was first launched in 1999 without changing the treaties, and only later on were some articles modified to accommodate – *ex post facto* – what had been decided and done since, thus granting it additional legitimacy. The EDA itself was even created (2004) and started operating long before it was formally enshrined in the TEU (2009). And experience shows that it is advisable first to test new arrangements – if necessary and useful, even outside the treaties (as happened with Schengen) – and then, if proven workable and effective, bring them into the TEU proper, rather than negotiating in advance and in detail over formats that may end up remaining dead letter (as has happened so far with Permanent Structured Cooperation, articulated in art. 46 TEU and a related Protocol). In this and other respects, the 2025 horizon leaves ample margins for experimentation, feedback, adjustment and eventual codification.

* * *

In conclusion, as this Report has tried to argue, the specific 'box' of European military capabilities cannot really be dealt with in splendid isolation. Both in its current condition and prospective configuration in 2025 and beyond, the spectrum of policy challenges and issues with which it is connected calls for a common, comprehensive and regular (re)assessment of ends, ways and means – which, in turn, calls into play many other 'boxes'.

Increasing defence and military cooperation at the European level may no longer be a matter of choice but of necessity, imposed by both external challenges and internal constraints. Common approaches (policies of scale) can generate both immediate savings and investments for new capabilities (economies of scale) through varying combinations of consolidation, optimisation, innovation, regionalisation and integration.

The EU might indeed be the most appropriate and effective framework in which to undertake these efforts, precisely because its member states can bring to bear all the different policy levers (including their collective regulatory power) built up over decades of economic and political integration. Doing this in and through the EU may prove easier than in and through NATO – which cannot rely on a comparable range of instruments for policy coordination and convergence – but it may well (and indeed should) end up benefiting and perhaps even reinvigorating the Alliance.

In a typical twist, doing all this is urgent, but requires time to produce results; it is costly, but arguably less costly than doing nothing; and it is difficult – coming as it does in an unfavourable internal and external context – but arguably inescapable. There are various avenues worth considering, but they all require (to different degrees) bold and farsighted political decisions to match political rhetoric. The EU treaties are sufficiently permissive and flexible to allow for such decisions, whose predictably positive effects may, in turn, facilitate subsequent treaty adaptation. And the outside world may push Europeans into taking those decisions sooner rather than later – and implementing them consistently over time.

ANNEXES

TABLES AND CHARTS

1. EU-27 countries' combined defence spending in $ million, 1988-2011

2. 2000-2011 Military expenditure of 27 EU member states in $ million

3. 2001-2011 Military expenditure in $ billion

4. 2010-2012 Defence spending in $ billion

5. 26 EU member states' defence expenditure breakdown in 2006-2010

6. 26 EU member states' collaborative defence expenditure: procurement and R&T

7. Share of global export markets

8. 27 EU member states deployed troops under EU, UN or NATO flag

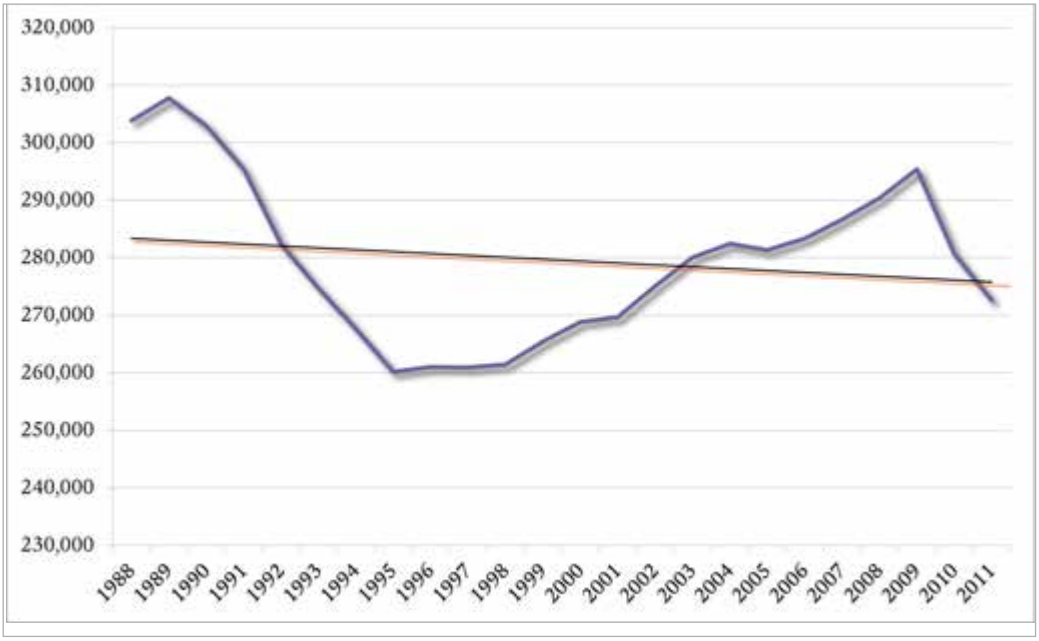
9. 2002-2012 Combined 27 EU member states' land combat equipment and land armaments

10. 2002-2012 Changes in the composition of the combined 27 EU member states' naval equipment

11. 2002-2012 EU-27 member states' air forces fleet composition

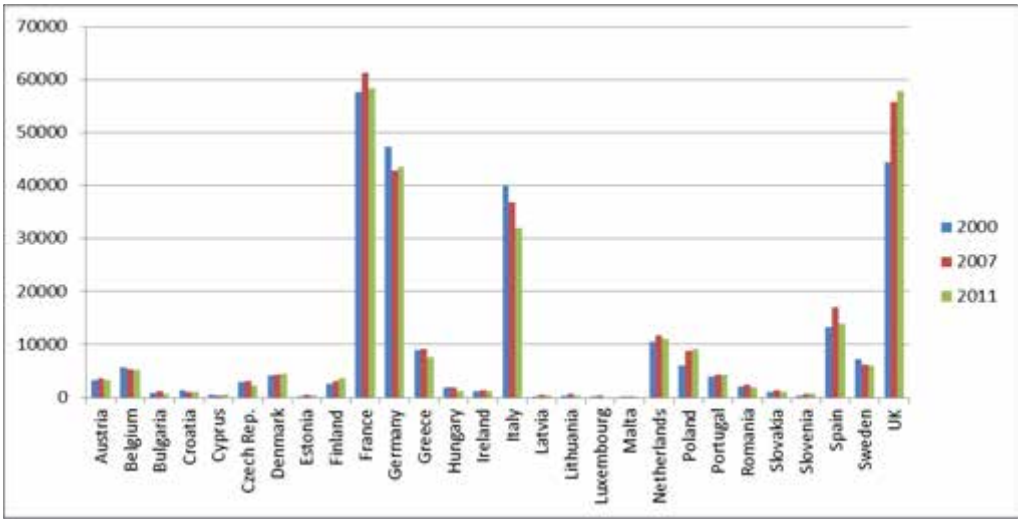
12. Number of EU-27 countries possessing precision-guided munitions and unmanned aerial vehicles

Figure 1: EU-27 countries' combined defence spending in $ million, 1988-2011



Source: SIPRI, *Military Expenditure database*. Data are in constant 2010 dollars. Figures correspond to the military expenditure of the 27 existing EU member states, even if they were not members of the EU at that time.

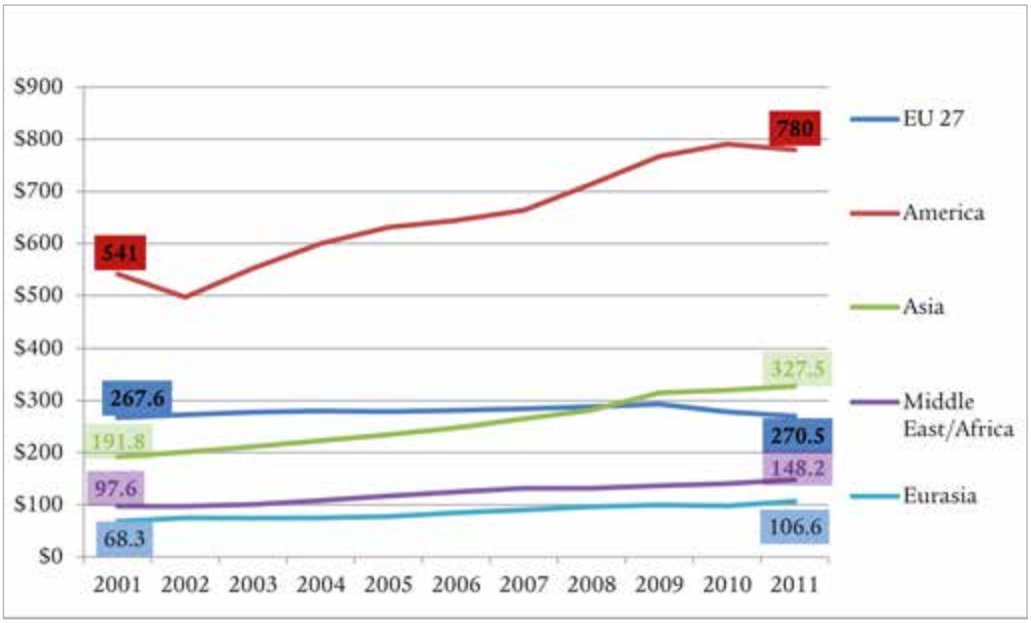
Figure 2: 2000-2011 Military expenditure of 27 EU member states in $ million



Source: SIPRI, *Military Expenditure database*. Data are in 2010 constant dollars. Figures correspond to the military expenditure of the 27 existing EU member states, even if they were not members of the EU at that time.

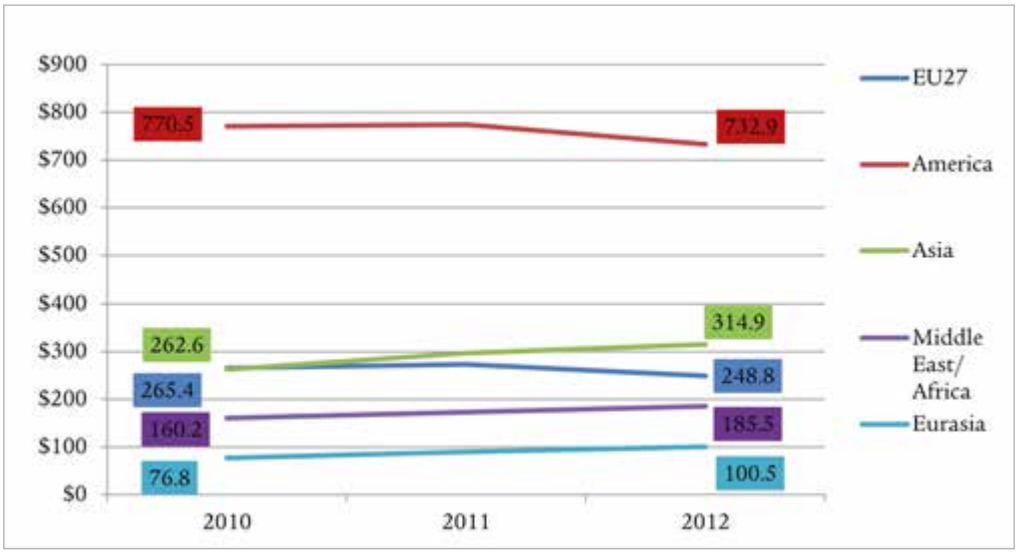
The current SIPRI database covers only the military expenditure until 2011. For this reason, we also gathered figures from the *Military Balance* (2013), in order to better illustrate the evolution of defence spending in the period from 2010 to 2012.

Figure 3: 2001- 2011 Military expenditure in $ billion



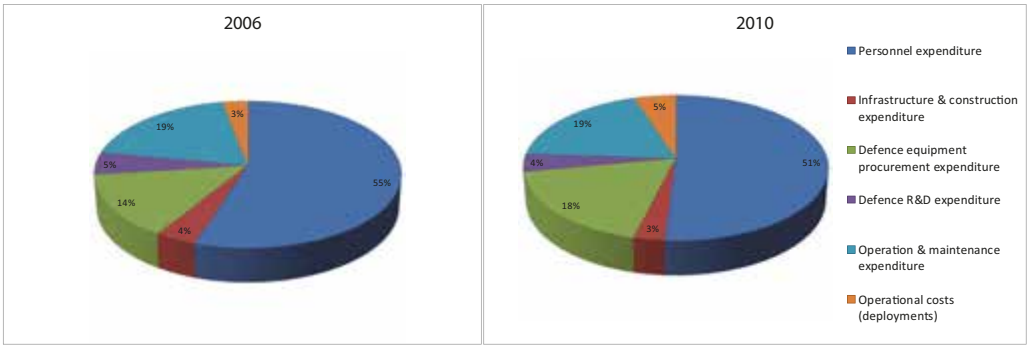
Source: SIPRI, *Military Expenditure Database*. Data are in constant 2010 dollars. EU-27 figures correspond to the military expenditure of the 27 existing EU member states, even if they were not members of the EU at that time. The Eurasia figures include European non-EU member states, Russia and former Commonwealth of Independent States (CIS) in Central Asia. The Asia figures include East Asia and Oceania.

Figure 4: 2010-2012 Defence spending in $ billion



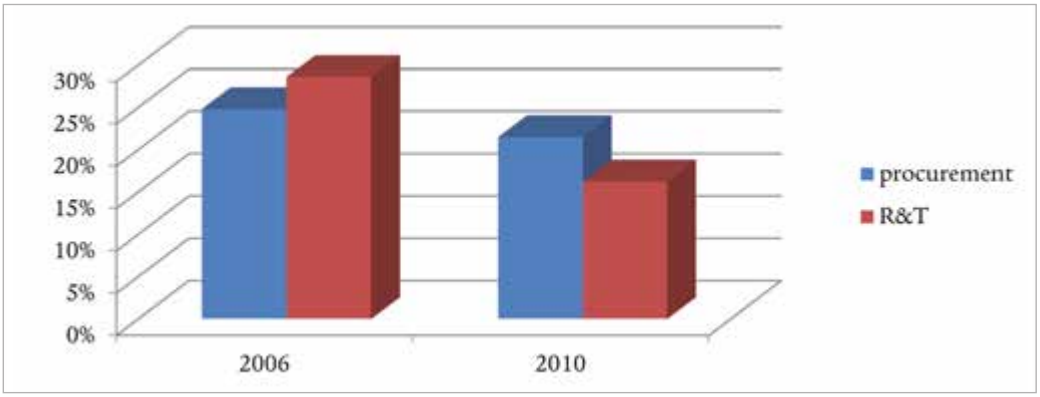
Source: IISS, *The Military Balance* (2013). Data are in constant 2010 dollars. Eurasia figures include European non-EU member states, Russia and former Commonwealth of Independent States (CIS) in Central Asia. Asia figures include East Asia and Oceania.

Figure 5: 26 EU member states' defence expenditure breakdown in 2006-2010



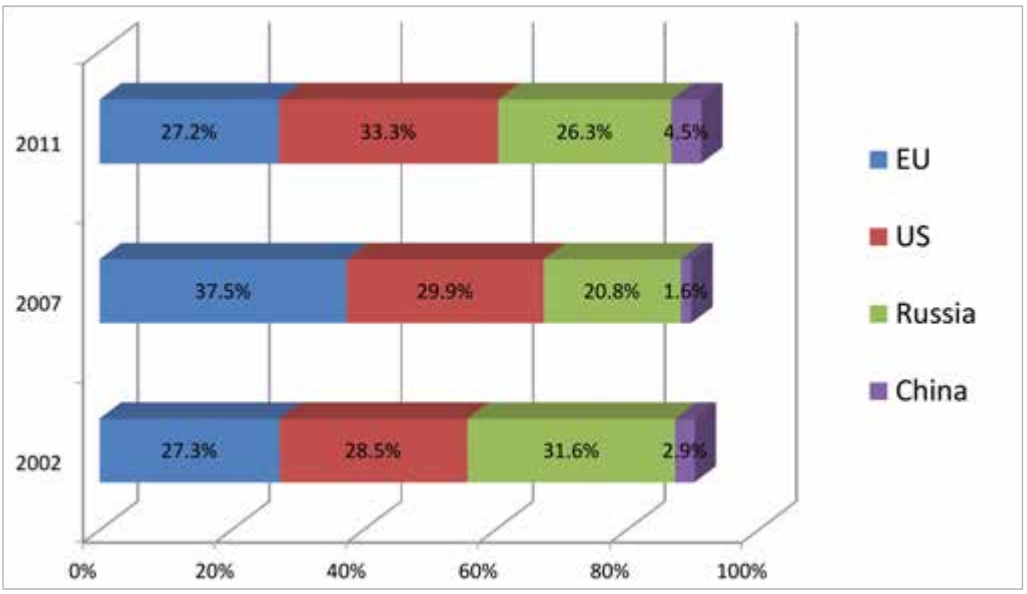
Source: EDA. The 26 EU member states figure corresponds to the 26 existing EU member states (without Denmark), even if they were not members of the EU at that time.

Figure 6: 26 EU member states' collaborative defence expenditure: procurement and R&T



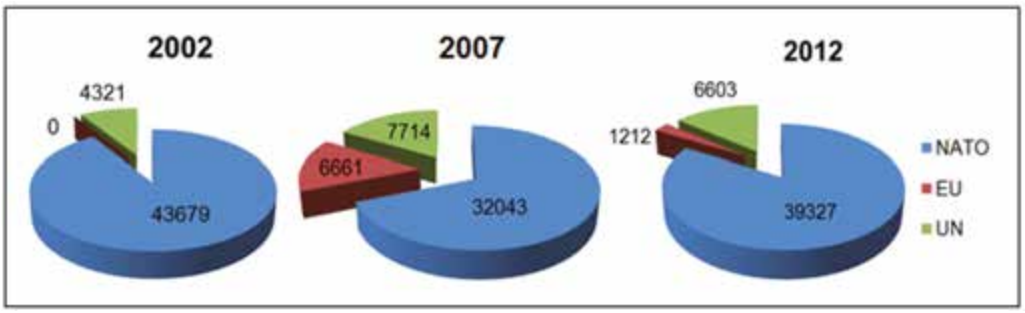
Source: EDA. EU-26 corresponds to the 26 existing EU member states (without Denmark), even if they were not members of the EU at that time.

Figure 7: Share of global export markets



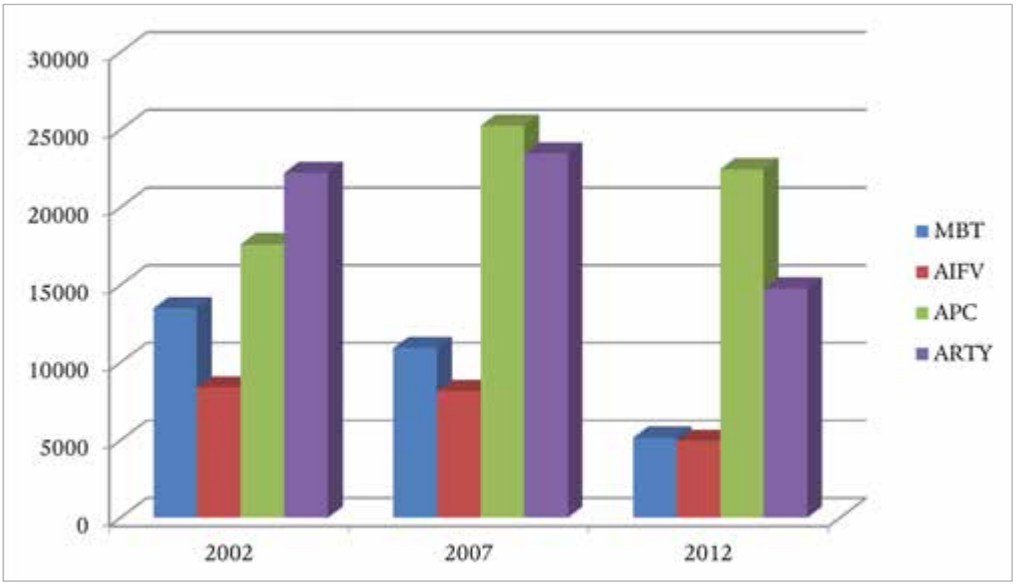
Source: SIPRI, *Arms Transfers Database*. EU figures correspond to the 27 existing EU member states even if they were not members of the EU at that time.

Figure 8: 27 EU member states deployed troops under EU, UN or NATO flag



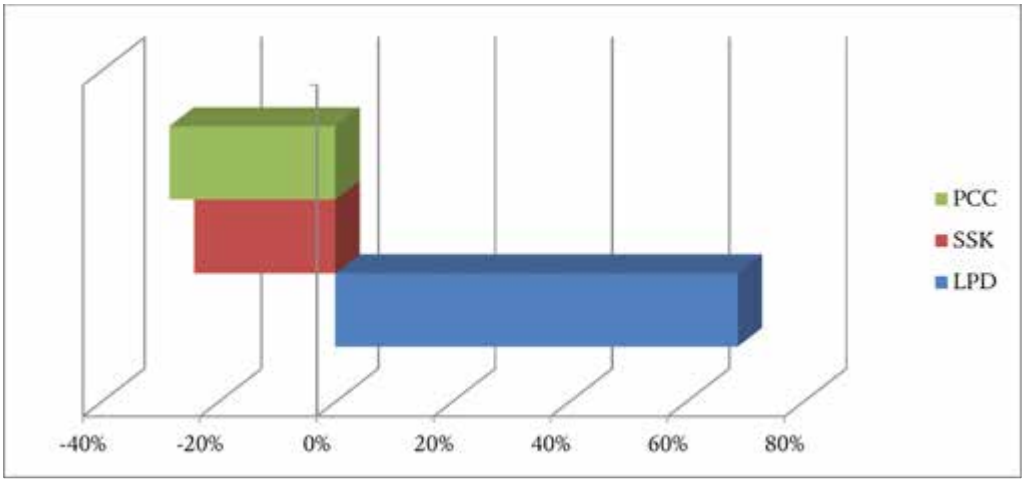
Source: IISS, *The Military Balance*, various editions. EU figures correspond to the 27 existing EU member states even if they were not members of the EU at that time.

Figure 9: 2002-2012 Combined 27 EU member states' land combat equipment and land armaments



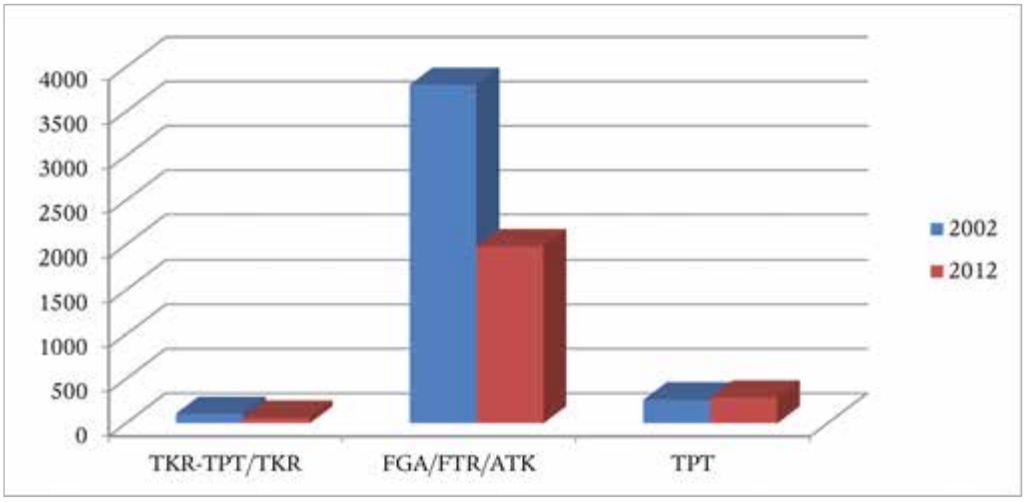
Source: IISS, *The Military Balance*, various issues.
MBT: main battle tanks; AIFV: armoured infantry fighting vehicles; RECCE: reconnaissance; APC: armoured personnel carriers; ARTY: artillery.
Figures correspond to the land contact equipment and land armaments possessed by the 27 existing EU member states, even if they were not members of the EU at that time.

Figure 10: 2002-2012 Changes in the composition of the combined 27 EU member states' naval equipment



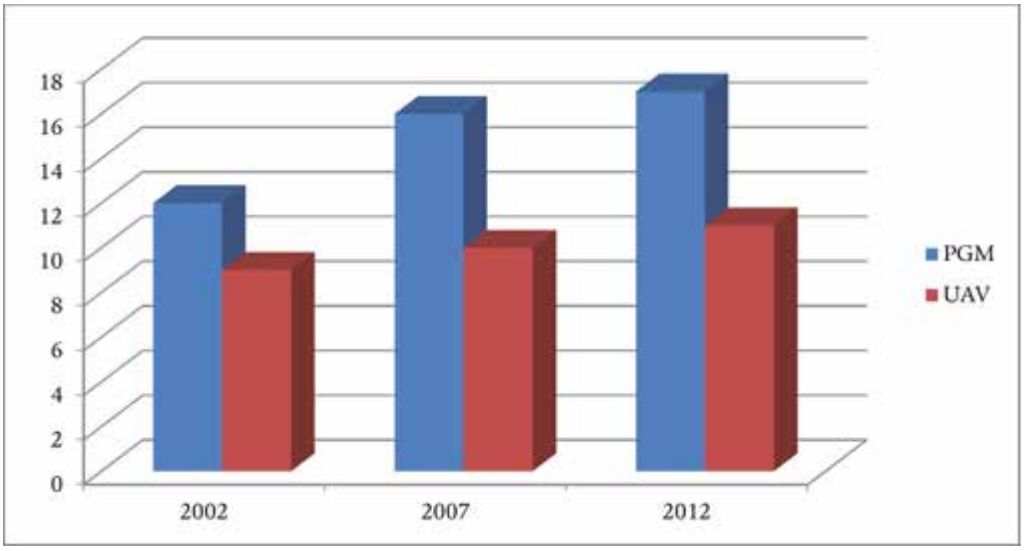
Source: IISS, *The Military Balance*, various issues.
LPD: major amphibious warships; SSK: medium/small tactical submarines; PCC: small and medium warships.

Figure 11: 2002-2012 EU-27 member states' air forces fleet composition



Source: IISS, *The Military Balance*, various issues.
TKR: air-to-air refuel tankers; FGA: fighter for ground attack; FTR: fighter; TPT: transport.

Figure 12: Number of EU-27 countries possessing precision-guided munitions and unmanned aerial vehicles



Source: IISS, *The Military Balance*, various issues.
PGM: precision-guided munitions; UAV: unmanned aerial vehicles.

Abbreviations

AWACS	Airborne Warning and Control System
C4	Command, Control, Computers and Communications
CBRN	Chemical, Biological, Radiological and Nuclear
CEUMC	Chairman of the EU Military Committee
CFSP	Common Foreign and Security Policy
CHOD	Chiefs of Defence
CSDP	Common Security and Defence Policy
DG	Directorate General
EATC	European Air Transport Command
EDA	European Defence Agency
EEAS	European External Action Service
EIB	European Investment Bank
ESA	European Space Agency
EUMC	European Union Military Committee
EUMS	European Union Military Staff
GDP	Gross Domestic Product
ISTAR	intelligence, surveillance, target acquisition and reconnaissance
NATO	North Atlantic Treaty Organisation
NGO	Non-Governmental Organisation
R&D	Research and Development
R&T	Research and Technology
RCA	Remote Controlled Aircraft
SatCen	Satellite Centre
TEU	Treaty on the European Union
TFEU	Treaty on the Functioning of the European Union

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** Any views expressed in this report do not necessary represent those of the Baltic Defence College, or its financial supporters, namely Estonia, Latvia and Lithuania.*

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