# DEFENCE AND NATIONAL SECURITY **STRATEGIC REVIEW** 2017

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RÉPUBLIQUE FRANÇAISE

# Defence and National Security Strategic Review 2017

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# PREFACE BY THE PRESIDENT OF THE REPUBLIC

France's military power lies at the core of our national ambition. Living up to this ambition requires financial and human resources, as well as a strategic vision.

This is why, just after my election, I commissioned the Minister for the Armed Forces to conduct a Defence and National Security Strategic Review, to support our vision and provide the basis for a new Military Planning Act. The leading experts she has convened have carried out this in-depth review.

We are now living in an era of major upheaval. Although we were already aware of the vast majority of the risks and threats that we are facing, they are materializing with increasing frequency, greater consequences and greater proximity. Their accumulation is indicative of a weakened international system and of emerging actors overtly trying to undermine it.

France and Europe are now directly at risk.

Islamic terrorism, which has hit our country, is spreading to new regions despite our military successes. On the international stage, the threat of a major conflict is once again a possibility. Assertive powers and authoritarian regimes are emerging or re-emerging, while multilateralism appears to be giving way to the rule of force. Aggressive behaviours are becoming more frequent in cyberspace, with potentially dire consequences.

The European idea itself, designed to promote peace and prosperity after the dramatic events of the previous century, is being challenged by Brexit, the refugee crisis, and rising doubts about Europe's ability to protect its population.

In such an environment, which challenges three decades of certainties and references, only a strong France, in control of its own destiny, can provide answers to today's major crises, promote its values and assert its interests. First-class defence and diplomacy are critical to this ambition, along with strong and credible armed forces, capable of dealing with all kinds of threats, in every field. This will allow us to strengthen our position in the United Nations Security Council and, in the multilateral world order that must prevail, to undertake the necessary initiatives and actions that will guarantee our sovereignty.

To that end, I have decided to maintain our nuclear deterrence strategy and renew its two components, as they ultimately guarantee our vital interests, our independence and, more broadly, our freedom of decision.

This is also why I want to ensure that our armed forces and intelligence services have all the resources they need to meet their current commitments and future challenges. The volatile strategic environment and the extremely tense operating conditions our armed forces have to face require an agile, deployable and resilient defence system.

Its primary mission will remain the protection of France and its people, on our mainland as well as our overseas departments and territories, which constitutes the very essence of the fundamental link between the French Republic and its armed forces. Jihadist terrorism is not the only threat we face; others are rising and crises can develop at any time. Modernizing and strengthening our armed forces must therefore enable them to respond and, more particularly, to deploy far beyond our borders, wherever they are needed. Their preventive role will also be reaffirmed, within a comprehensive approach that combines security, development and diplomacy in the service of peace.

It is also through our armed forces that our country will be able to honour its international commitments, ensuring its allies can continue to rely on France in every situation, and to pursue its strategic partnerships in Africa, the Middle East and the Asia-Pacific.

Finally, Europe's progress on defence must be further consolidated. We have laid the foundations for its strategic autonomy. Several of our partners are realising that, as part of a balanced transatlantic relationship, Europe is the natural framework for our security and the protection of our borders, given challenges that can only

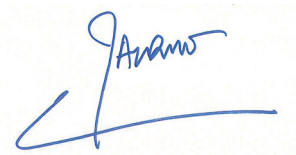
be faced collectively. The time is therefore right to revive European defence by drawing our strategic cultures closer, by cultivating pragmatic partnerships with European states which, like us, have the political will and military capabilities to meet their operational responsibilities, by committing the necessary resources at the European level and by strengthening our defence industries, to ensure they remain at the cutting edge of technology and competitiveness on a global scale.

The security and defence of our Nation require the commitment of the entire defence community. Specifically, it is the whole country and all the driving forces of the national community – its local authorities, political groups, companies, youth – who must come together to meet these challenges.

We also owe this collective effort to our soldiers, to the men and women of the Ministry for the Armed Forces, who, day and night, in France and abroad, in combat units and support services, bravely and selflessly defend our country and its citizens, ready to make the ultimate sacrifice.

This Strategic Review recognises their central role in the life of the Nation, today and in the future. The upcoming Military Planning Act will come as its concrete expression.

**Emmanuel Macron**



# FOREWORD BY THE MINISTER FOR THE ARMED FORCES

This Strategic Review comes at a pivotal moment for our armed forces and our defence, for our country and Europe.

This is a pivotal moment, first and foremost, because the additional resources the President of the Republic has decided to allocate to defence will provide further flexibility under the upcoming Military Planning Act. Making the best possible use of these resources requires a full understanding of the threats against France and Europe, of the current and foreseeable strategic context and, consequently, the environment in which our armed forces will operate.

It is also a pivotal moment because we are going through a period of major upheavals.

The threats and risks identified in the 2013 White Paper have materialised faster, and with greater intensity than anticipated.

Jihadist terrorism remains the most direct threat our country faces today. France and its European neighbours have been hit hard. Our armed forces are making daily progress in their effort to reduce Daesh's territorial hold in the Levant, but we have no illusion: terrorism is evolving and expanding to new regions, thriving on chaos, civil war, and the fragility of some states. It will remain a priority threat to our societies and populations. We will maintain steadfast and unrelenting efforts to combat this phenomenon.

In addition, we have come to realise in recent years what a multipolar world could look like, a world where power relations are emerging while the multilateral system

is losing force. We are facing rising instability and unpredictability, fueled by the military assertiveness of a growing number of established or emerging powers in troubled regions. International frameworks are being challenged and compromised, while advanced weapons are increasingly and widely disseminated to states and to non-state groups. Together with new modus operandi based on ambiguity, intimidation or destabilization, these changes increase the risks of escalation.

Our alliances also have changed. We can no longer rely everywhere and forever with absolute certainty on our traditional partners.

Such a situation requires us to take multiple actions.

First, we have to sustain a full-spectrum and balanced armed forces model to maintain France's strategic autonomy and its freedom of action. This entails the continuation of our nuclear deterrence strategy and the renewal of its two components, decided by the President of the Republic, in combination with the necessary capabilities in the intelligence field.

Second, it is critical that we continue our efforts towards industrial and technological excellence. Specifically, this means preparing for the future, a key to our technological performance, and more generally, implementing a comprehensive policy to support innovation. We also need an active policy in support of exports. This ambition, with the inherent technological expertise, is vital to forge stable European collaborative industrial ventures.

Third, as the President of the Republic stressed in his 26 September speech at the Sorbonne, our European ambition must be not only reasserted but, more importantly, renewed. France wishes to play a part in launching new dynamics in Europe, which recognise that defending Europe is not simply a matter of progress at the institutional level but rests, first and foremost, on the political will and military capacity of Europeans to assume their responsibility for dealing with the threats and challenges we face today. This will and capacity will strengthen the European Union and NATO, both vital to guarantee the security of Europe and Europeans. They will also enable us to take concrete military action, whenever it is required, within demanding and reliable partnerships.

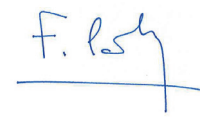
Finally, the Strategic Review demonstrates an urgent need to innovate. Innovation and audacity must be the keywords of our defence strategy, because both are fundamental to our efficiency and our sovereignty.

None of this will be possible without the men and women whose training, skills and sense of duty deserve to be fully recognised by the Nation. If we are to ensure that military careers remain attractive, and to retain personnel, we need to improve the status and career prospects of service members and give proper recognition to the specific nature of the mission of the men and women working for our defence.

I would like to thank Arnaud Danjean and the entire Strategic Review Committee for the remarkable work they have done, in a very short time, without compromising the quality of the analyses and recommendations or the diversity of the experts consulted, both at home and abroad.

The conclusions of this Review, in terms of capacity and budget, will be worked into the forthcoming Military Planning Act. The defence of France and its people can count on the determination and the will of the President of the Republic, the Prime Minister and myself to give the armed forces as well as the departments of this ministry, the resources they need to deal with the threats our country will face.

**Florence Parly**



# INTRODUCTION

In its introduction, the 2013 French White Paper on Defence and National Security, following on from the previous paper in 2008, indicated that the fast-changing international context would inevitably impose timely reviews of our defence strategy. In view of the upheavals observed since 2013, in particular the jihadist terrorist attacks on French soil, as well as the deteriorating security situation at Europe's borders and the need to prepare a new Military Planning Act consistent with the engagements of our armed forces, the President of the Republic decided to initiate this review process in the summer of 2017.

The central issue now is not so much the identification and anticipation of trends, but the increased pace and intensity of changes such as terrorism, the return of open warfare in neighbouring regions, the rise in military and industrial power of many states, European fragilities and realignments. These events have emerged so suddenly and on such a scale that they have had a direct impact on France and on European societies. Threats have drawn closer and become increasingly more violent at a time when the international system, which is supposed to absorb such shocks, is being challenged and undermined. With the return of power politics, the credibility of alliances is less certain, adding to the perception of greater instability.

In an increasingly unpredictable world, France is directly involved in simultaneous and complex crises, from the Sahel to the Middle East, alongside its partners, the United States first among them. It is now confronted with forces that are growing in number and diversity, with more assertive ambitions and postures, and enhanced capabilities. Friction and confrontation are no longer restricted to disputed geographical areas, but now involve the digital domain as well.

These risks and threats, which have become more intense and ambiguous, will continue to weigh on our defence. In addition, strategic realignments have been exacerbated by rapid and major technological breakthroughs, with two main effects. Firstly, certain systems and domains (digital space, outer space), which until now were open to a relatively small number of players, have become more widely accessible. Secondly, they impose the need to adapt and make significant investments to preserve an advantage that is constantly challenged. This is especially the case in the industrial and military fields.

Weighing up all the risks, threats and opportunities for France, two main issues underpin the work in this review:

- France clearly cannot address all these challenges on its own. Our national autonomy is real and should be as comprehensive as possible, but it is limited within a growing number of fields. This calls for a clear-sighted approach to priorities based on the geographical proximity of threats and on the interests of our national community. France's European and American partners are essential for facing these challenges.

- France also has global interests. These relate to its status within multilateral organisations and its presence around the world (in particular in its overseas territories and exclusive economic zone), as well as the fact that the world is shrinking as globalised technologies and flows of goods and people generate more interdependence.

Within this context, its responsibility is based on its unique situation in objective terms. France is the only EU country (post-Brexit) that is a permanent member of the United Nations Security Council, a nuclear power, a founding member of the European Union and NATO, and that retains a full-spectrum and engaged military. As such, its ambition must be twofold: to preserve its strategic autonomy and to build a stronger Europe to face the growing number of common challenges.

The recent and, so far, unequal commitment of European states to step up their defence investments and assume greater responsibility for their own security, opens up new horizons. European initiatives can provide various avenues for consolidating much-needed solidarity, whether through capability and research mechanisms supported by EU institutions, implementation of all the provisions of the Treaties, increased responsibilities of European countries in the Atlantic Alliance, or pragmatic multilateral cooperation programmes.

This European ambition must be carried with both determination and clarity, for it has too often in the past been hampered by empty formulas and unrealistic projects. The pragmatic and flexible approach recommended here must serve to gradually overcome the obstacles, which are not to be neglected, and forge joint responses

to the continent's main security issues. The aim of France is to work more closely with Germany, and with those European countries willing and able to move forward, and to preserve a strong bilateral relation with the United Kingdom. This should lead to significant progress.

In the international context set out in this review, it is clear that the demand on France's armed forces and defence can only grow. Ambitions must therefore be sustained in every area - technology, industry, capability or on the operational front - supported by a rigorous innovation policy. Furthermore, given that the nuclear factor is set to play an increasing role in France's strategic environment, maintaining over the long-term our nuclear deterrent, the keystone of the Nation's defence strategy, is essential now more than ever.

The deterioration of the international environment described here also implies the need to strengthen various aspects of the "knowledge and anticipation" strategic function. It also calls for better coordination of all the efforts made by the Ministry for the Armed Forces and the State as a whole to prevent crisis situations, both in France and overseas, and to adopt a comprehensive approach to address them.

The sustainability of French military engagements must be guaranteed. They can only be effective if adequate resources are allocated to missions over time.

Based on the assessments set out in this review, it is now for the future Military Planning Act to ensure that France has sustainable, full-spectrum and balanced armed forces.

# PART A

## A RAPID AND LASTING DETERIORATION OF THE STRATEGIC ENVIRONMENT . . . . . 16

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# 1. A challenged international system

## 1.1. The multilateral order called into question

1. The international system is marked by the increasing autonomy of a range of actors, to include the emergence of terrorist proto-states.

2. The international balance of power is changing rapidly. The uncertainty, the anxiety or, on the contrary, the new ambitions generated by this unstable situation are all risk factors. Competition, initially economic and technological, is increasingly extending to the military realm.

3. This climate of general uncertainty is prompting some countries to doubt their allies and to seek yet more autonomy, while others are nurturing nationalist ambitions. The strategic and military emergence of several regional powers is indicative of the advent of a multipolar world.

4. The increasing autonomy of actors, coupled with their growing heterogeneity, amplifies the risks of misunderstandings and misperceptions. The growing influence of non-state actors (terrorist and criminal organisations, major multinational corporations, diasporas) intensifies this dynamic. More than at any time since the end of the Cold War, unpredictability is thus the dominant feature of the strategic environment.

5. The emerging multipolarity and newfound international rivalry challenge the rules and international institutions which have provided the legal framework and regulated the use of force since the Second World War. Certain actors are now in a position to reject the international order they regard as imposed by the West, and are contesting or circumventing these rules.

6. Some great powers are choosing postures that overtly favour power-based relations.

7. The United Nations Organization (UN) and its agencies will nevertheless remain the key to organising a consensual rules-based international order. These organisations are essential to averting conflict in its many forms, responding to humanitarian crises, legitimising overseas operations, and implementing stabilization after military interventions.

8. As some states openly promote their narrow power interests, they regularly obstruct the work of the UN Security Council. For France, the use of the veto entails duties and special responsibilities under the UN Charter. This is why Paris took the initiative in 2013 to regulate its use by proposing that the five

permanent members of the Council voluntarily and collectively refrain from exercising their veto in cases involving mass atrocities.

9. Although the problems encountered are not new, their recurrence fuels criticism against UN efficiency. Its difficulties in effectively addressing the unprecedented global refugee and displaced person crisis, the absence of tangible sanctions to punish the Damascus regime for its use of chemical weapons and the lack of concrete responses to the provocative actions of North Korea contribute to undermining confidence in multilateral institutions and hindering efforts to settle disputes through regulation.

10. UN peacekeeping operations also come under regular criticism (weak mandates, lack of responsiveness, insufficiently trained and selected troops, etc.). These operations have made significant progress in the past 15 years, in terms of robustness, of mandate implementation and of equipment provided against sometimes heavily armed adversaries. These improvements must be preserved.

11. Other international organisations are also seeing their activities paralysed or their legitimacy questioned: the Permanent Court of Arbitration (PCA), the Organisation for the Prohibition of Chemical Weapons (OPCW), the Conference on Disarmament, the International Criminal Court (ICC) and the Organisation for Security and Cooperation in Europe (OSCE). Beijing's disputes over key established principles of maritime law, Russia's blocking of decisions at the OSCE and some African states' defiance of the ICC illustrate this trend.

12. The increased questioning of the international order concerns not only global governance but also its normative aspects, which are increasingly disputed, with direct consequences for defence and security issues. Several countries, including permanent members of the Security Council, appeal to history or to their own values in order to relativize the scope and legal force of international principles they have previously endorsed.

13. Russia pursues its efforts to contest and block international institutions and instruments, and promotes alternative regional institutions when its interests are at stake. China favours, in its neighbourhood, economic influence and bilateral relations.

14. The United States itself resorts to unilateral action. Washington can be reluctant to ratify agreements that restrict its sovereignty (as seen with the Rome Statute of the ICC and the Comprehensive Nuclear-Test-Ban Treaty) and reserves the right to revoke any commitment judged restrictive and "unfair" (Paris Climate Agreement) or to enact legislation with extraterritorial authority. In addition, the

United States continues to reduce the funds allocated to multilateral organisations (UN peacekeeping operations).

## 1.2.Deconstructing the European security architecture

15. Together with a credible deterrence, the architecture inherited from the Cold War provided European security with a sufficient level of transparency, clarity and predictability to ensure strategic stability. The risk of unintentional or uncontrolled escalation was thus reduced to a minimum.

16. The annexation of Crimea by Russia violates the Helsinki Principles and undermines the security architecture of the continent. Within the OSCE, the treaties on Conventional Armed Forces in Europe (CFE) and on Open Skies and the revision of the Vienna Document are suspended or weakened. Serious doubts have also arisen regarding the future of the INF Treaty[1] and compliance with its clauses. This treaty remains an essential instrument for European stability and security, and must be preserved.

17. The consequences of this progressive deconstruction of the European security architecture are severe. The disappearance of limitation measures and the gradual invalidation of transparency and risk reduction mechanisms increase unpredictability and strategic ambiguity, and the ensuing risks of escalation.

## 1.3. Tensions within the European Union

18. In the past decade the European Union (EU) and its member states have faced growing instability in their neighbourhood (Georgia, Libya, Syria, Sahel, Ukraine, etc.) and a series of existential crises: the economic and financial crisis in 2008-2009, the sovereign debt and euro crisis in 2011-2013, the current migrant crisis and the Brexit referendum in 2016. Last but not least, the threat of jihadist terrorist attacks in Europe has reached an unprecedented level since 2015.

19. Initially, the resulting tensions were expressed by differences in strategic priorities, according to whether European countries gave more importance to threats in the east or in the south.

20. At the same time, as member states were disagreeing on the economic priorities, a surge in populism and domestic protests called into question EU principles

1 Intermediate-Range Nuclear Forces Treaty: stemming from the Euromissile crisis of the 1980s, this treaty between the United States and the USSR deals with the elimination of their intermediate - and shorter-range ground-based missiles.

and values. Such a situation highlights the double risk of irreconcilable political differences and regionalisation of European security policies.

21. While some of these centrifugal trends have come to a standstill, they still permeate public opinion. They also thrive on so-called alternative narratives, which are complacently disseminated by certain states.

22. Lastly, the receptiveness of European societies to external influences has been tragically illustrated by the effectiveness of jihadist propaganda, which has succeeded not only in recruiting partisans and terrorists among European populations, but also in undermining the general sense of belonging and social cohesion.

## 2. France, exposed and committed

23. The contraction of geopolitical space, resulting from increased interdependency, has facilitated the rapid spread of the consequences of crises– even distant ones – to Europe. This directly exposes European countries and populations to all kinds of tensions.

24. Several areas of open and simultaneous conflicts deserve special attention because of the potential risks to France's interests and the long-term engagement of its armed forces. Furthermore, the inherent vulnerability of four regions demands greater vigilance, given their importance to France and Europe.

### 2.1. Simultaneous and long-term commitments

25. Because of their simultaneity, suddenness and intensity, crises in which French armed forces are engaged put pressure on their capabilities. Deployed in the Sahel region, as part of a national framework, and in the Levant, as part of an international coalition, French forces provide reassurance in Eastern Europe, and defend and protect the national territory at the same time. This is all done while maintaining a continuous and secure nuclear deterrent.

#### • Direct attacks on the national territory

26. French soil has been subjected to terrorism for many decades. The 2015 attacks demonstrated the unprecedented seriousness of the threat posed by a militarised jihadist terrorism striking at the heart of Western societies. The November 13 attacks, carried out by trained and equipped commandos, changed the very

nature of this threat and justify the continuum between security and defence. In parallel with these actions, planned and organised from abroad, a persistent threat of inspired attacks of a more rudimentary and unpredictable nature has arisen. These events have demanded quick national response, including the deployment of Operation *Sentinelle*, unprecedented in its duration and size. It reflects the ultima-ratio role of the armed forces through continual adjustment to the evolving threat and strengthened coordination with the other homeland security forces.

27. Moreover, the control of the mainland and overseas territories' direct approaches and the monitoring of French sovereign spaces require the deployment of military means and expertise. Augmenting other public administrations, military capabilities of surveillance and intervention are used in combating drug trafficking and the looting of natural resources. They also contribute to border protection and migration crisis management, which, if they were to deteriorate, would amount to a major challenge on French national territory.

### • The vulnerable Sahel-Sahara region

28. A high priority in France's fight against terrorism and trafficking as well as in the protection of French expatriates, the Sahel-Sahara region risks becoming an entrenched hotbed of jihadism. Taking advantage of governance and security weaknesses, jihadist groups adapt and evolve. They exacerbate the structural imbalances and vulnerabilities of states and threaten neighbouring regions in the north (the Maghreb) and south (Sub-Saharan Africa). These changes were witnessed in Mali, with the appearance of Daesh in 2016 and the merging of various Al-Qaeda movements. The resilience of Boko Haram and the emergence of new groups are part of the same trend. The risk of connections with Islamic groups based in Libya and the permeability of several local communities to Islamist influence must also be monitored closely.

29. Mobilising significant Army and Air Force assets over the considerable distances of the Sahel, Operation *Barkhane* relies on military facilities based in Chad, Mali and Niger. Naval forces are also engaged in support of operations and participate in the control of criminal and terrorist trafficking. Moreover, Operation *Barkhane* assists the build-up of the G5 Sahel joint force with the support of European and international partners.

30. Efforts by the Sahel states to take over security in the region have had some success but must be reinforced (the G5 Sahel joint force and the joint multinational force against Boko Haram). Progress in resolving the domestic situation in Mali has been overly slow since the signature of the Peace and Reconciliation Agreement in the summer of 2015, due to the wait-and-see policy of the parties,

their interest in seeing the *status quo* preserved, and governance problems. A sustained international investment, within MINUSMA and as part of EU actions, is now needed more than ever. In this regard, priority must be accorded to our European partners, as they become increasingly aware of African security issues.

### • A destabilized Middle East

31. French armed forces are mobilised throughout this region, with ground, air and naval forces engaged against Daesh in the Levant (Operation *Chammal*). They have also been deployed in Lebanon as part of the United Nations Interim Force in Lebanon (UNIFIL) since its creation. Finally, they maintain a significant presence, with permanent bases in the United Arab Emirates and Djibouti, and permanent deployments in the Indian Ocean and the Arabo-Persian Gulf.

32. In the Levant, the successive military defeats of Daesh have initiated a complex transitional phase, which will be dominated by internal divisions in Syria and Iraq, as well as by regional power rivalries, refugee management issues, and the evolution of Russian-American relations.

33. In Iraq, the significant progress against the Islamic State cannot conceal the continued fragmentation between communities. This is hampering reconstruction and state rebuilding efforts, while Daesh still retains the potential to harm by shifting to insurgency tactics and manipulating Sunni frustrations.

34. In Syria, the regime restoration process does not eliminate internal conflicts and divisions, which are exacerbated by the large number of actors and operational fronts. Moreover, it is not leading to a long-term solution to the conflict but increases the risk of frictions or serious incidents between involved regional or global powers. The Damascus regime will remain heavily dependent on its Russian and Iranian allies, likely to maintain a lasting presence in the country.

35. The period ahead might prove to be particularly challenging for the Lebanese authorities, as they are confronted with the redefinition of the role of Hezbollah and the problem of refugee repatriation – an essential issue for the country's demographic and political equilibrium. Neighbouring Jordan, which is militarily engaged in the conflict and is facing the same challenge, might also be affected. Lastly, the Kurdish question remains open.

36. The unresolved Israeli-Palestinian issue continues to be a major source of tension. Beyond the ever-present risk of armed confrontation between the Israelis and the Palestinians, it favours the establishment of jihadist movements close to Daesh and has repercussions within European societies.

37. The coming reconfigurations in the Near and Middle East take place in a context dominated by the influence of Russia, Iran and Turkey.

38. The Arabo-Persian Gulf remains a high-risk area. The rivalry between Riyadh and Tehran fuels regional tensions. Furthermore, the continuing conflict in Yemen is intensifying the antagonism between Sunnis and Shia. It adds to other factors of instability and makes freedom of movement in the Red Sea difficult. It also favours the strengthening and local entrenchment of jihadist groups, particularly Al-Qaeda in the Arabian Peninsula (AQAP).

### • Tensions on Europe's eastern and northern flanks

39. Europe's eastern and northern flanks have experienced the reassertion of Russian power and the resurgence of war. They are also affected by Moscow's intent to rebuild a sphere of influence.

40. Ukraine's territorial integrity has been violated by the use of force. The quick and massive build-up of Russian military capabilities in Crimea, that followed its illegal annexation, creates a southern bastion on the Black Sea, comparable to the situation of Kaliningrad for the Baltic Sea. In the Donbas, the lack of progress in the implementation of the Minsk Agreements sustains internal divisions as well as an enduring low intensity conflict. The military capacities involved also generate a permanent risk of escalation.

41. In the Baltic area, Moscow's aggressive posture manifests itself through recurrent military demonstrations. This posture has led the Atlantic Alliance to adopt, in complement to the air policing and maritime surveillance missions already in place, a set of measures to reaffirm its unity and to respond with a balanced, deterrent and predictable posture, including the creation of the Very High Readiness Joint Task Force (VJTF) and the deployment of forward forces. French forces contribute to this new ground presence and will continue to participate in control and surveillance missions of the maritime areas and of the airspace.

42. An increase in Russian activities (flights of strategic bombers and deployments of submarines) has been observed in the North Atlantic region, all the way to allied approaches. These areas are vital for NATO's collective defence, the economic interests of Europe and the freedom of action of French forces, including for nuclear deterrence. Russian activity there is a major concern, which France shares with its main allies and which requires the deployment of significant capabilities.

43. The various frozen conflicts in the post-soviet area (Abkhazia and South Ossetia, Nagorno-Karabakh, Transnistria) are feeding sustained instability in the eastern neighbourhood of Europe and sources of crises that could be reactivated.

44. These engagements reflect the evolving nature of the conflicts in which French armed forces are and will be deployed. The dissemination, distance and size of the theatres, as well as simultaneous sustained operations and deployments are causing early wear and tear of human resources and equipment.

## 2.2. Risk areas

### • The Mediterranean and its southern regions

45. Due to their fragility, several countries on the Mediterranean southern shores face difficulties in controlling their territory and movements of populations, aggravated by the threat of jihadist groups operating in Libya. This country is also the focal point of a number of regional challenges, given its central role in the current migration crisis and the risk of a lasting terrorist presence on its soil. The whole area is also experiencing a return of power politics, with the permanent presence of Russian air and naval forces, the rising involvement of China and the acquisition by several coastal states of sophisticated military assets, putting Europe within range of modern conventional weapons. The Mediterranean, particularly its eastern part, has thus become highly militarised, while the lack of cooperation structures in its western part is damaging efforts to deal with converging tensions.

46. The sudden, serious destabilization of one of its southern states would also gravely jeopardize European security interests. Flows of refugees and the return of jihadist fighters from the Levant and Libya both represent growing sources of trouble, fueled in recent years by political tensions, uncontrolled urbanisation and pressures on natural resources.

### • Balkans

47. The Balkans represent a major challenge for Europe and the security of the continent as a whole. The region remains divided by its history and by very contrasted economic paths. Its subsequent weaknesses can be exploited by radical movements (especially jihadists), criminal groups, and other states for destabilization purposes.

48. The return of unrest in the Balkans would mean that the EU and NATO have signally failed in their efforts to stabilize the region. It would also seriously impact the internal security of European countries.

### • Sub-Saharan Africa

49. France has a direct security and economic interest in the stability of the African continent and adjacent areas. In addition to the many expatriates and citizens with dual nationalities, the close ties with Africa are further reflected by the existence of defence agreements, permanent cooperation, and French military bases. The crises in Africa may therefore have direct security, humanitarian, migratory, and economic repercussions on national territory. This calls for prevention and protection measures, as well as intervention if required.

50. The economic take-off of Sub-Saharan Africa is a reality that conveys both hopes and responses to the many challenges this region faces (governance, demography, urbanisation, access to basic resources, human development, and security). Likewise, the progressive consolidation of democracy in certain African countries is a source of stability and legitimacy. However, this trend should not conceal the persistent difficulties, as well as the uncertainty regarding upcoming political successions, in several key countries. Porosity to trafficking and slow diversification of economies, away from oil dependency and from other natural resources, are additional vulnerabilities.

51. Patent Islamist radicalisation, fueled by external ideological influences, affects a growing share of the population, especially its youngest and most disadvantaged segments. Struggles of influence between Wahhabi and Salafi branches are resulting in active proselytism by religious NGOs and external financing of social structures dedicated to healthcare and education. These initiatives are a substitute to state actions over the long run, thus making Sub-Saharan Islam even more effective as it allows to condemn socio-economic injustice and to challenge ruling powers.

52. China - the continent's number one economic partner – primarily focuses on raw materials, while expanding its activities into new sectors such as armament, transport, telecommunications, energy, and infrastructures. It has also become Africa's main financial partner, by supporting export through loans of its national banks, and facilitates the introduction of its national companies in every sector.

53. With abundant resources (oil, minerals and fishes), the Gulf of Guinea area concentrates multiple disorders (trafficking, piracy, terrorism), at the same time as many strategic and economic interests for France. In addition to our strong military presence, francophone bordering states host a large French community.

54. The large number of foreign military forces in the Horn of Africa, and particularly Europeans, reflects its strategic importance. Although this region has several poles of relative stability, it also experiences persistent conflicts, with the al-

Shabab threat in Somalia, the Sudan crisis, and the tensions between Eritrea and its neighbours. It is also impacted by the war in Yemen and by rivalries between regional powers.

- **Asia**

55. The evolution of strategic dynamics in Asia remains of major concern. The region, which has experienced the largest increase in global defence spending over the last decade, is currently fraught with an unprecedented number of tensions, while its security architecture still remains incomplete. Potential conflicts could involve a nuclear dimension.

56. In Northeast Asia, against the backdrop of strategic rivalry between the United States and China, the crisis, that North Korea has triggered and fueled, is affecting regional and international stability. The breaking of the *status quo* could lead to invoking the clauses of mutual assistance between the United States and its allies. It also leads Japan and South Korea to reconsider their military postures, thus feeding the structural tensions with Beijing.

57. At the same time, the South and the East China Seas remain the priority areas of China's assertive policy, with Beijing invoking "historical rights" and creating *fait accompli* situations by building of artificial islands or attempting to set up an Air Defence Identification Zone.

58. South Asia remains vulnerable because of the historical dispute between India and Pakistan. Latent bilateral tensions periodically erupt into violent crises. The instability is further amplified by the mobility and sustained activity of terrorist networks operating in Afghanistan and Pakistan. The traditional rivalry between India and China and their respective rises in power are a source of increasing tension.

59. Any deterioration in security in Asia would have significant consequences for France, due to its status as a permanent member of the UN Security Council, its own interests (overseas territories, nationals, economic interests), as well as its partnerships with several states: primarily Australia and India, but also Japan, Singapore, Malaysia, Indonesia, and Vietnam. Freedom of supply and navigation would be at risk, should the regional strategic situation deteriorate, in turn threatening interests shared by all Europeans. France maintains a relative proximity to these regions, which are distant from its mainland, by way of a sovereign presence in its overseas territories in the Pacific and Indian oceans.

60. Finally, Afghanistan continues to be a major security issue at the crossroads of the Middle East and Southern Asia. It is home to a growing jihadist presence,

with Daesh gaining ground and Taliban movements strengthening their hold across the Afghanistan-Pakistan region. Faced with the antagonistic ambitions of the regional powers (India, Pakistan and China) but also deeply destabilized by drug-related criminal activities and corruption, Afghanistan is locked in a political, security and humanitarian stalemate: its security forces only achieve limited results, despite sustained support from the international community, and the country continues to be a major source of illegal immigration and drug trafficking that extends to Europe.

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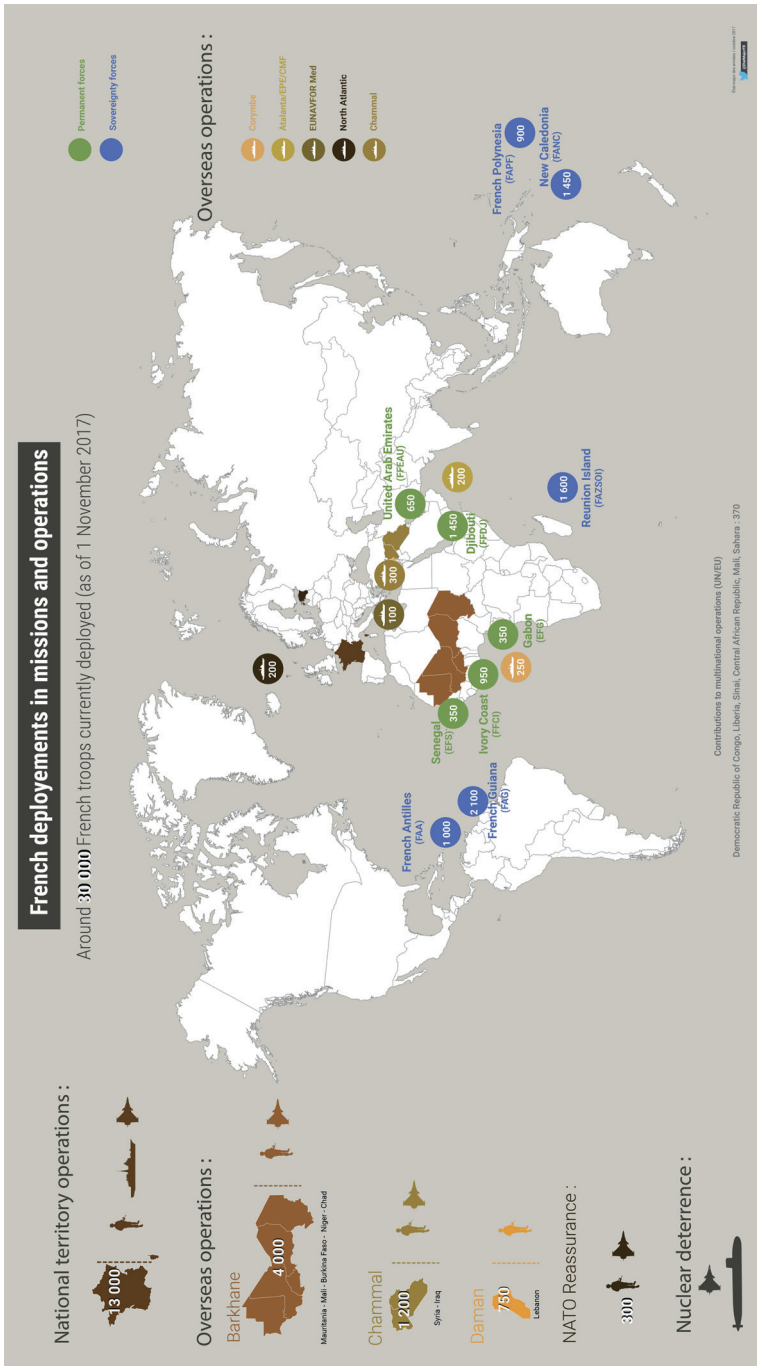
61. In addition to the open crises in which its forces are involved or could become involved because of its overseas bases, the French armed forces are also directly engaged on the national territory, both overseas and on the mainland, to fulfill their deterrence role, protection mission (*Sentinelle* mission), as well as maritime safety and air security. These forces can rely on a network of permanent and deployed bases, which require sustained investment but represent an asset in the defence of our interests and the exercise of our global responsibilities. Given the current size of the armed forces, the current situation exceeds their operational contracts and leads to serious difficulties in terms of training and support.


French deployements in missions and operations
Around 30 000 French troops currently deployed (as of 1 November 2017)
Permanent forces
Sovereignty forces
National territory operations :
13 000
Overseas operations :
Barkhane
4 000
Mauritania - Mali - Burkina Faso - Niger - Chad
Chammal
1 200
Syria - Iraq
Daman
750
Lebanon
NATO Reassurance :
300
Nuclear deterrence :
Overseas operations :
Corymbia
Atalanta/EPE/CMF
EUNAVFOR Med
North Atlantic
Chammal
200
100
300
650
United Arab Emirates (FFEAU)
200
1 450
Djibouti (FFDJ)
350
Gabon (EFG)
250
950
Ivory Coast (FFCI)
350
Senegal (EFS)
1 000
2 100
French Guiana (FAG)
French Antilles (FAA)
1 600
Reunion Island (FAZSOI)
900
French Polynesia (FAPF)
1 450
New Caledonia (FANC)
Contributions to multinational operations (UN/EU)
Democratic Republic of Congo, Liberia, Sinai, Central African Republic, Mali, Sahara : 370

# 3. Multiple weaknesses aggravating crises

62. Steadily growing flows of goods and people, combined with a compression of distances and time can affect the ability of states to protect their territory and citizens. A host of other factors can also increase the risk of conflicts and crises.

## 3.1. Demographic and migration pressure

63. The global population continues to increase, albeit at a slower pace. According to UN forecasts, the world will be home to 8.6 billion people by 2030, then 9.8 billion by 2050. Africa's very rapid demographic increase is challenging the traditional model for demographic transitions: with almost 1.7 billion inhabitants by 2030 and 2.4 billion by 2050, the African continent is expected to account for more than half of the global population increase.

64. Recent conflicts (in Syria, Iraq, Nigeria, the Central African Republic, Libya and Ukraine) have displaced huge numbers of people. The Syrian crisis alone led more than five million refugees to flee, mostly to neighbouring countries (Turkey, Lebanon and Jordan). The European Union itself has had to deal with the illegal entry of millions of people, reaching a peak of almost 1.9 million entrants in 2015, of whom 1.2 million were asylum seekers.

65. The influx of migrants and refugees to already weakened regions, as well as exponential population growth in less developed nations with a limited ability to absorb it, represent a major challenge as these movements are liable to exacerbate existing political and social tensions, particularly in fragile states.

## 3.2. Climate change

66. Major climate events are occurring with increasing frequency. Such phenomena trigger emergencies during which the armed forces are naturally needed in support of homeland security forces. The French overseas departments and territories are particularly and regularly vulnerable to such risks.

67. The most vulnerable regions of the world - which notably include the Sahel (Niger, Mauritania, Mali and Chad), Southeast Asia (Pakistan and Bangladesh) and, to a lesser extent, the Pacific island small states - are also the most exposed to climate events. Continued global warming may cause migration movements to intensify in intertropical regions that, whether dry (Sahel) or wet (Bangladesh), are highly exposed to extreme low-pressure weather systems.

68. Extreme climate events impact the availability of critical farming and fishing resources, which may increase international and local competition for their control. The Arctic, where the pace of global warming is double the global average, may one day become an area of confrontation.

## 3.3. Sanitary risks

69. Increased mobility of population favours the expansion of areas in which certain diseases are prevalent, as well as the rapid, large-scale propagation of viruses responsible for a variety of epidemics (e.g., severe acute respiratory syndrome – SARS). The Joint Forces Health Service regularly mobilises its research and treatment capabilities in response to such situations. The most recent Ebola outbreak, which occurred in fragile Western African countries between 2014 and 2016, clearly illustrated how larger population movements can complicate the containment of major sanitary crises, necessitating assistance from the international community.

70. The risk of the emergence of a new virus spreading from one species to another or escaping from a containment laboratory is real. Similarly, interconnected food industries generate risks to human health, and increase the potential for "agroterrorism". Even worse, the spread of biotechnologies might enable terrorist organisations to carry out sophisticated biological attacks.

## 3.4. Energy rivalries

71. Energy supply is another area of major strategic competition. As worldwide demand for oil and gas continues to increase, the conflicting interests between liquefied natural gas-exporting countries, countries that export via gas pipelines, and transit countries are likely to play out in the European market.

72. France's energy security is dependent on reliable supply, i.e. supply free from political contingencies, at an affordable cost for business. This was the rationale for France's adoption of nuclear power in the 1970s, a decision facilitated by the ready supply of uranium. Continued energy security requires that shipping routes, key straits and land infrastructure around the world remain secure, which also applies to the stability of producing regions. It involves Europe in major ways, given energy streams that transit through EU member states, European strategic reserves, and EU legislative and regulatory framework.

73. In some states, oil and gas revenues account for a significant portion of budgetary resources, and directly fund defence spending. For such countries, the energy

sector is a source of strategic power while also creating a dependency on market prices and international cooperation.

### 3.5. Organised crime

74. The United Nations Office on Drugs and Crime (UNODC) estimates that the proceeds of organised crime from money laundering alone currently represent between 2 and 5% of global GDP (i.e., between €715 billion and €1,870 billion). Crises of governance and fragile states facilitate the development of criminal organisations, which rank amongst the most important beneficiaries of globalisation.

75. Porosity between terrorist and criminal activities has increased with the emergence of transnational jihadist organisations that share with organised crime similar practices and expertise (e.g., clandestinity, money laundering), and may sometimes benefit from the same networks. For example, arms from the Western Balkans were used in the November 2015 terrorist attacks in Paris. In the Sahel and in the border region between Afghanistan and Pakistan, illicit drug-related activities contribute to the climate of violence, the deterioration in the security situation, and the funding of terrorist activities. In Mali, such activities are among the root causes of the current crisis, and a source of funding for terrorist and other armed groups.

76. Furthermore, certain states, such as North Korea, either foster or directly participate in the development of such criminal activities, in order to bypass sanctions or find sources of funding.

77. The development of such criminal organisations, of their activities and ability to act, constitutes a challenge for our overseas operations. France's actions can frustrate criminal interests and illegal activities, which sometimes have ambiguous relations with local authorities.

78. In cyberspace, both the ability to operate anonymously (TOR network) and the creation of electronic currencies (particularly Bitcoin) are opening up new opportunities for crime, with a potential for development that seems exponential.

## 4. Disruptive technological and digital innovation

79. Although technological disruption can herald progress, it also contributes to instability in the strategic environment: sophisticated weaponry and the rapid

spread of many technologies are now enabling medium-sized states, groups and even individuals to acquire or develop capabilities previously only accessible to a limited number of countries.

80. In the past, major breakthroughs in armament have been the result of dedicated military R&D funding. Today, most technologies with the potential to radically change future defence systems are still state-funded (e.g. hypersonic and hyper-manoeuvrable missiles, improved and networked sensors, active stealth systems, directed-energy weapons, etc.). However, the civilian public and private sectors are generating an ever increasing number of technologies with military applications.

81. For example, genetic engineering and more specifically synthetic biology (with genome engineering), as well as technologies derived from neuroscience and human augmentation, are extremely promising, although it is hard to fully assess their military potential at this stage. In the space domain, broader access enabled by the *New Space* movement opens up multiple opportunities, including miniaturised systems and new services, available at ever lower costs.

82. The ongoing digital revolution, driven by public and business applications, is likely to yield the most significant disruptive technologies. Hyperconnectivity, big data technologies, the Internet of Things and robotics are examples of fields offering major opportunities for defence applications. Artificial intelligence, in particular, is expected to play a central role in defence systems, where it will make a significant contribution to operational superiority, while entailing new risks.

## 4.1. A double risk: technology lag and operational levelling

83. The emergence and spread of new technologies, while offering opportunities, also undermine the technological superiority of Western armed forces and challenge their defence industries.

84. At a time of global re-arming, major powers are stepping up their efforts to develop leading edge systems (such as hypersonic and stealth), creating a risk of Europe lagging behind. Furthermore, a growing number of countries are acquiring sophisticated weapon systems (including missile defence, air defence and even antisatellite weapons). The increase in missile range and speed, multiple sensor combinations and networking make targeting easier, reduce the effectiveness of stealth and offer harder-to-counter anti-access and area denial capabilities.

85. The spread of new civilian and dual-use (civilian and military) technologies is enabling all types of actors without industrial bases to acquire advanced resources previously only available to states (e.g. cryptography, GPS navigation, telecommunications and jamming technologies). In a booming global market, the risks of loss of control or misappropriation of such technologies are numerous and proven.

86. The current transformation in the space sector is already resulting in denser traffic (including small satellites constellations) and a growing risk of collision with space debris, making it necessary to develop space situational awareness and the resilience of our space capabilities.

87. All of these changes, together with rudimentary modes of action and more innovative methods (e.g. drone-mounted improvised explosive devices, or IEDs) tend to even out the balance of military forces, particularly as the underlying technologies are not adequately covered by control mechanisms.

## 4.2. Growing threats in cyberspace

88. Cyberattacks have ramped up considerably over the past decade, reflecting the dissemination of increasingly sophisticated means of attack. States have played a direct role in these changes by propagating cyber-weapons that, once known, may be studied, re-engineered and reused, but also indirectly, by allowing such attacks to be developed in or deployed via their territory.

89. Over the same period, the increasing exposure of developed societies to digital technologies and interconnection has increased their vulnerability. Cybernetic tools can be used to inflict significant industrial damage or to impair networks and infrastructures critical to the proper functioning of societies or states. Major systemic risks ensue from the difficulty of managing such attacks and their vectors and consequences. Controlling the propagation of attacks, of tools and weapons, and of their consequences, is difficult, which entails major systemic risks. These risks are exacerbated by the fact that action in cyberspace can achieve global effects using limited resources. In the military domain, the increasing dependency of weapon or command systems on digital technologies makes them ever more sensitive to such threats.

90. In cyberspace, certain attacks might be regarded as armed aggression, due to their scale and severity. A major cyberattack may, given the damage it could cause, justify invoking legitimate defence under Article 51 of the UN Charter.

91. Difficulty in attributing actions and the combination of direct actions with opinion-influencing and propaganda techniques make numerous manipulation scenarios possible, whether for destabilization purposes or in support of more conventional operations. Addressing constantly changing cyber-threats is particularly complex inasmuch as the response must extend beyond the scope of defence, due to the intertwined nature of the challenges faced and of the public and private actors.

# PART B

## NEW FORMS OF WARFARE AND CONFLICT . . . . . 36

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92. The increase in asymmetric threats, the growing power of state and non-state organisations, in particular via the proliferation of sophisticated conventional systems or even weapons of mass destruction (WMD), and the emergence of intensified military competition between major powers are causing a shift in warfare. Confrontation now extends across all domains and can take place prior to open conflict. A renewed rivalry over the control of global commons has resulted, together with more challenging operations in all domains. These changes contribute to a situation of constant crisis at a global scale, which carries increased risks of escalation.

# 1. Harder, more disseminated threats

## 1.1. Entrenchment and spread of jihadist terrorism

93. Jihadist terrorism is the most immediate and significant threat we face, as it is directed against our homeland and population. It is entering a period of transformation, although this will diminish neither its scope nor the danger it represents in the coming decade: the main jihadist organisations will retreat in some theatres, without totally disappearing, but their underlying ideology will not weaken.

94. Today's jihadist organisations - Daesh, Al-Qaeda and their various affiliates - stand as an ideological and operational matrix, passing on their expertise from generation to generation, and have demonstrated an ability to adapt and mutate despite suffering setbacks. Branches of these networks thrive on chaos, civil war and ungoverned regions and put down roots in new areas, aided by the return or transfer of experienced leadership from combat zones in the Middle East. From the Levant, the centre of gravity of these movements, where tens of thousands of combatants have developed theirs skills, their spread to Afghanistan and Southeast Asia, but also to Central Asia and potentially Sub-Saharan Africa, demonstrates the speed of this reconfiguration. Exacerbated by the acquisition of military and technological expertise (drones, cryptography, communications and chemical weapons), the jihadist threat has been further amplified by foreign fighters returning home and potentially planning attacks against France from North Africa. This evolution is a major security challenge for Western nations, their interests and their citizens.

95. As the end of the militarised and "territorialised" pseudo-caliphate in Iraq and Syria approaches, it is important not to underestimate Daesh's ability to retain an offensive capability. Daesh remains an organisation with global operational

reach that is capable of marshalling significant military and economic resources. As the organisation's hold has loosened, it has gradually moved underground in the Levant, while simultaneously exporting its global struggle to enemy territories supported by safe havens (such as eastern Afghanistan, southern Libya, Nigeria, Bangladesh and Southeast Asia). While creating new destabilizing effects in those regions, Daesh is also pursuing its worldwide propaganda efforts.

96. The notoriety of Daesh must not overshadow Al-Qaeda, a transnational movement that has also demonstrated its ability to adapt to changing circumstances. Al-Qaeda is spreading its brand to a variety of regional movements, such as Hay'at Tahrir al Sham (formerly Jabhat al-Nusra – JAN) in Syria, Al-Shabab in Somalia, and jihadist groups (Nusrat al-Islam wal-Muslimin – NIM) unifying under its banner in the Sahel. The organisation is building long-term relationships with host populations, seeking their support as much as their obedience, replicating the model developed in Yemen by Al-Qaeda in the Arabian Peninsula (AQAP).

97. Both movements share the same ideology, jihadist salafism, and the desire to destroy the regimes of the Muslim world they judge illegitimate and societies they deem impious.

98. Whether in Western Africa, Somalia, the Levant or Southeast Asia, the evolution of jihadism should be characterised by the proliferation and entrenchment of enclaves and persistent guerrilla movements, or even proto-states that can count on sympathy and in some cases active support from their host populations.

99. For more than 20 years, jihadism has not weakened but has regularly relocated and mutated. As illustrated by the spread of radical Islam around the world, from Western Africa to Indonesia, such transformations are part of a broader civilizational phenomenon that must be considered in all its dimensions. The responses to this challenge require a whole-of-government approach, including intelligence, security, justice, education, and diplomacy.

## 1.2. Accelerating proliferation

100. The proliferation of WMD, the spread of sophisticated conventional systems and the transformations induced by technological advances provide regional powers as well as non-state organizations with unprecedented means of aggression and disruption.

### • Spread of conventional weaponry

101. For many years, non-state actors, terrorists movements as well as militias, have been taking advantage of the abundant availability of weapons (light weapons, anti-tank weapons, improvised explosive devices, mines, etc.) from criminal trafficking and the looting of former arsenals. This phenomenon extends to the new generation of tactical armament (thermobaric weapons in the Levant), as well as to heavy weapons, such as ground or surface-to-air artillery, land and naval mines.

102. Moreover, these actors now have access to sophisticated armament such as ballistic missiles, surface-to-air or anti-ship missiles from short to medium range, which may be used for area denial or to terrorise populations. The Houthi rebellion is a recent example: such capacities were used for tactical purposes (against Emirati and American ships along Yemen's coasts), as well as for strategic purposes (ballistic attacks against Saudi territory).

103. In enclosed areas with high traffic or population density (such as the Mediterranean Sea and the Arabo-Persian Gulf), the build-up of anti-access systems, in support of "aggressive sanctuarization" postures could be a source of real concern in case of rising tensions. This proliferation also involves the spread of standoff strike systems such as ballistic and cruise missiles. More than 40 states have developed such offensive capacities that could carry conventional payloads as well as WMD.

### • Proliferation of biological and chemical weapons

104. The Syrian conflict has trivialized the use of chemical weapons, with many proven uses of mustard and sarin gas since 2013. Their repeated use by Daesh, and above all by the regime of Bashar al-Assad, and the existence of chemical precursor stocks in Libya show that chemical arsenals and the necessary skills to their effective use are still a tangible reality. Yet, neither these violations nor the murder of Kim Jong-Nam with the help of a neurotoxin have been followed by sanctions commensurate with the taboo they have broken. The use of chemical compounds against military forces or on the national territory should not be ruled out.

105. Similarly, the biological risk, which is extremely difficult to qualify due to its dual nature, continues to increase with the ongoing research in synthetic biology. The capacity to rebuild or modify viruses using genetic engineering is also a major concern.

### • Nuclear proliferation

106. Combating nuclear proliferation is an absolute necessity. The Joint Comprehensive Plan of Action (JCPOA, signed in Vienna in July 2015) has severely restricted, at least until 2025, the Iranian nuclear programme. Furthermore, Iran has a sizeable and operational ballistic arsenal, both diverse and sophisticated. Tehran continues to improve its missiles and also pursues an ambitious intercontinental missile programme.

107. The strategic challenge posed by North Korea has changed in nature and is shattering the regional strategic balance and, in the long run, the global one. Progress has been faster than originally foreseen, and Pyongyang is about to deploy an operational arsenal at regional scale. The regime stated priority, which is to have an operational nuclear force of global reach, may soon become a reality, thus directly threatening the United States, as well as European territory. North Korea's rhetoric and capabilities seek to decouple Washington and its Asian allies. The North Korean crisis is therefore a problem of proliferation, but also one of deterrence and defence, threatening not only regional stability but also the non-proliferation regime and international security. Moreover, for many years North Korea has played a notorious role in abetting proliferation. Its dealings with the Middle East concern both WMD and missiles, and represent a threat to Europe.

108. Pakistan has steadily developed its tactical nuclear arsenal, spurring uncertainty regarding the lowering of the threshold, as well as the safety and security of its weapons. Islamabad is also improving the range of its missiles, which may in time allow it to target territories beyond the subcontinent.

109. Furthermore, non-proliferation commitments adopted by several Middle East countries have not been fully implemented, thus leaving grey areas.

110. Finally, the Treaty on the Prohibition of Nuclear Weapons adopted on July 7th, 2017, after a rushed negotiation, risks weakening the non-proliferation regime, in particular the Non-Proliferation Treaty, in a world where the nuclear factor is coming back in force. Disarmament cannot be decreed but ought to be built gradually. This is why encouraging a realistic process of arms control and confidence building is important, in order to contribute to strategic stability and shared security. For instance, current tensions between the United States and Russia affect the future of bilateral disarmament instruments. In the near future, the world could be confronted with the absence of any strategic arms control framework agreed by the United States and Russia.

111. Beyond the direct threat posed by North Korea today, proliferating regional powers risk bringing the collapse of the non-proliferation regime and result in cascading proliferation, as neighbouring countries may consider that they have no other option than to develop their own WMD programmes.

- **Nuclear multipolarity**

112. Finally, the lack of information on new actors (North Korea) makes the deterrence equation more unstable. Besides, some states with nuclear capacities have opted for opaque postures, breaking with the classic codes of nuclear deterrence (be it public doctrine or prudent declaratory policy), or for aggressive nuclear postures that include a blackmail dimension. France is therefore confronted with the emergence of a genuine military nuclear multipolarity and must continue adapting to this new reality, in particular by strengthening its intelligence and analysis tools.

## 1.3. The return of military rivalry

113. Although the United States will undeniably remain the world military leader for many years, US defence spending as a percentage of global defence expenditures has started to shrink. This decrease is much more pronounced for most European countries, which drastically reduced their military capacities during the 2000s, thus initiating a historic decline. Meanwhile, not only are China and Russia full-spectrum actors with capabilities often surpassing their European counterparts in quantitative terms, but they are also committed to a policy of modernisation and closing the technology gap. Lastly, a growing number of regional powers are also investing in advanced weapon systems.

114. European nations will have to bear an increased share of responsibilities at the continent's periphery and beyond, not only to manage crises and support regional stabilization, but also to defend national and European interests from major assertive powers.

- **Issues arising from renewed Russian power**

115. While denouncing the so-called "Western expansionism", Russia seeks to undermine the transatlantic relationship and to divide the European Union. In an unprecedented way since the end of the Cold War it pursues a policy of all-out assertion (Eastern flank, the Mediterranean Sea, Syria, the Balkans) and across all domains. This approach follows its policy of a "sphere of influence" and goes hand in hand with various worrisome forms of strategic intimidation.

116. Launched during the 2000s and accelerated from 2010 on with strong financial support (3-4% of GDP), Russia's efforts to modernise its military are already yielding significant results. While parts of its surface fleet and land forces still remain below Western standards, the modernized components are efficient and numerous enough to provide Moscow with very substantial intervention capabilities in what Russia regards as its "near abroad", which is also Europe's. Beyond it, these capabilities remain significant, as demonstrated by the permanent naval presence since 2013 and the ongoing Russian air campaign in Syria. At the strategic level, Russia is currently completing the modernization of its nuclear arsenal.

117. This assertion of Russian power must be met with a firm response combined with dialogue, notably on issues of common interest, in which Moscow remains a key stakeholder. The aim of this dialogue should also be to define the conditions for a constructive relationship between Europe and Russia.

- **China: a power with global ambitions**

118. China is becoming the second world power. Maintaining its domestic stability is linked to its long-term international efforts. China is striving to become the dominant power in Asia in the near future and, in the long term, to match or overtake the power of the United States. To that end, the development of its military capabilities is a priority.

119. The People's Liberation Army is no longer committed to the sole defence of the national territory and has enjoyed more than 25 years of steady budget growth. The Chinese defence budget is now four times that of France, compared to similar levels ten years ago.

120. China's military modernization is focusing on high-end technologies, intelligence, space, cyber, power projection and deployment capabilities. The increase in China's naval capabilities initially had the objective of dominating the South China Sea. The creation of artificial militarised islands with airfields and port facilities has been a crucial step forward. Meanwhile, the ongoing production of new units, at the pace of one submarine every year in particular, as well as the development of an emblematic aircraft carrier programme and of a fifth generation fighter illustrate this ambition. In the field of military procurement, China has made a significant effort to export weapons, including to crisis areas. Chinese equipment is increasingly and directly competing with our own products.

121. Holding a strategic dialogue with China that is both clear-eyed and demanding is therefore critical. Rising Chinese military capabilities and their potential

consequences in new areas of interaction in Africa (Djibouti) and in the Indian Ocean must be closely monitored.

## 2. Contested spaces

122. Access to global commons (sea, airspace, outer space and cyberspace) has traditionally been a subject of rivalry between major states. Competition is currently intensifying whereas common rules are either insufficient (in space and cyberspace) or weakened and contested (aviation and maritime law), giving way to power relations. This competition also sees a rapid increase in the number of actors - including great, emerging and non-state powers - and their means of action.

### • Maritime areas

123. Maritime areas are subject to rising tensions, due to their key role in the globalisation of all kinds of flows, including data (via undersea cables), to the resources they hold, and to the development of long distance naval and air strike capabilities. In addition to the China Sea, where such tensions ripple across the Pacific Ocean, the North Atlantic Ocean, the Mediterranean Sea and the Indian Ocean in particular illustrate this issue.

124. The Mediterranean brings together states situated on its northern and southern shores around common security issues. It is also a major crossroads between the Atlantic Ocean, the Indian Ocean and the Black Sea, the straits of which play a crucial role in global maritime and data traffic (25% of global traffic). New regional sea powers are gradually acquiring modern naval equipment and area denial systems (naval, anti-submarine, and air defence). The resulting increased militarisation not only of the Mediterranean coastline but also of its international waters runs the risk of nations seeking to take control of maritime and air approaches to their territory, to the detriment of international freedom of movement. For example, Russia has recovered its status as a Mediterranean power, evidenced by air and sea power demonstrations and by its long-term presence in the eastern Mediterranean, supported by a strengthened network of overseas bases between Crimea and Syria. Beijing is also expanding its presence in the Mediterranean. A combination of increasing maritime trade flows between China and the European Union, making China the EU's second-largest trade partner, and the purchase of the port of Piraeus have made access to the Mediterranean via the Suez Canal a crucial component of the "new maritime silk roads" that Beijing promotes.

125. Sea lanes in the Indian Ocean are among the most strategically important for the world economy, with 25% of world seaborne trade and 75% of EU exports transiting through this maritime space. The Mozambique Channel is thus an area of strategic interest with a vital commercial sea lane still under the threat of piracy. In a different way, China's growing naval presence represents a new strategic challenge. Chinese presence in the region, which started in 2008, is now permanent, and relies both on an operational base in Djibouti and a support facility in Gwadar (Pakistan). This trend reflects China's strategic ambition to develop a long-term naval influence in a maritime area extending from the South China Sea to the whole Indian Ocean. China's activities have been widely seen as the most important element in reshaping the entire region's security dynamic. Littoral states worry about the increase in China's activities: this is true of India (historical stakeholder) as well as of Australia which, like France and the United States, has to cope with security issues both in the Pacific and Indian Ocean.

126. Lastly, France's implementation of its maritime defence posture and specific arrangements incorporating cross-government action has proved efficient on the mainland (due to the use of semaphores and radar coverage of coastal approaches in particular), but still needs strengthening in its overseas territories.

### • Airspace

127. International air traffic is steadily increasing. By 2030, the number of passengers carried annually is forecast to reach six billion. European airspace - and French airspace in particular, as it handles 15,000 flights daily - is a major crossroads for this traffic, with an unmatched concentration of navigation routes and some of the world's largest international airports. In addition to the increasingly dense conventional commercial traffic, new aircraft – including drones of all sizes for multiple applications, ultralight aircraft, and stratospheric objects – need integration. Such integration should not degrade the flow of airspace activities and overall safety. The management of this traffic is optimised to such an extent that even limited disruption would immediately have a major economic impact. Looking beyond strictly military operations, air traffic raises a number of specific concerns, including vulnerability to terrorist attacks, hijacking of aircraft (e.g. 9/11, emerging threats from drones, which affect all critical operators), and interactions between conflict zones and civilian flights (e.g. the shooting down of flight MH 17 over Ukraine in July 2014).

128. For the many actors involved - principally, the Air Force (in a permanent security posture), as well as the Interior, Justice, Transport and Economy Ministries, etc. - the issues have implications for our sovereignty, for military operational traffic and training areas, and lastly, for command and control

system development and interoperability. Our sovereignty is affected both by international regulations and by the air traffic density.

### • Outer space

129. Insufficiently regulated and subject to deep transformations, outer space is also a domain of strategic and military rivalry. The growing number of state and private actors is leading to a generalization of space access. Acquisitions of industrial capabilities enable more and more countries to develop space launchers and satellites.

130. The unprecedented technological progress underpinning this expansion favours the emergence of a new approach to designing and operating space systems (*New Space*), as well as of a more common use. It also poses dangerous risks of proliferation, of increased rivalry between states and of intense industrial competition. A provider of essential navigation, communication, meteorological and imagery services, outer space is also a domain of confrontation where some states can be tempted to use force to deny access or threaten to damage orbiting systems.

131. Advances in space rendezvous techniques, robotics and electric propulsion now allow space systems to be repaired, refueled or even de-orbited. Under cover of civilian goals, states are able to overtly finance technologies that could be used for anti-satellite operations. Actions with such tools would be much harder to detect, track, attribute and counter than with conventional exoatmospheric means (missiles, lasers, jamming devices, etc.).

132. Activities relating to this new paradigm also raise wide-ranging legal issues concerning export controls, regulation of data dissemination, space safety in the context of the increasing number of satellites and space debris, etc. The problem of space weaponization must now be addressed in new terms.

### • Digital space

133. Digital space has become a real domain of confrontation and is the subject of intense strategic competition. The massive digital transformation that has been taking place in our societies over the past decade, combined with globally interconnected information and communication systems, is prompting the emergence of new threats as well as new opportunities. These developments provide universal access to powerful tools for self-expression, influence, propaganda and intelligence, making available not only huge volumes of data but also formidable means of attack. They have facilitated the rise of new private actors that are able to assert their presence on the international stage,

as challengers to state sovereignty as well as essential partners in some cases. As a result, they are reshaping the balance of power between state, non-state, and private-sector actors.

134. The Internet-related service companies that have arisen from the digital revolution, such as Google, Facebook, and Baidu, must now be considered as major stakeholders in the geopolitical environment. Their vast user bases enable them to collect and monitor huge volumes of data, and to provide essential services. Owning, mining, and processing this data represent a major advantage from both economic and strategic perspectives (information, anticipation, etc.). These platforms have become critical to counter-terrorism, cybersecurity, personal data protection and, in some cases, cyberattack detection, attribution, and response.

135. The United States, China, and Russia have supported the emergence of national Internet giants as part of overall strategies to assert power and sovereignty. The supremacy of the United States across all aspects of cyberspace (including hardware, technological and economic, legal, political, and military dimensions) sharply contrasts with the situation in Europe, which remains heavily dependent on external actors and whose investments and business sector struggle to reach critical mass. China is investing massively in next-generation Internet capabilities, innovation and e-business, and the development of a "digital silk road". In so doing, it aims to ensure sovereign control over the portion of cyberspace that it treats as national territory, and to further project its influence. Russia requires all data relating to its citizens to be stored within its borders, and is investing massively in the construction of data centres as part of a data control and information security strategy.

136. Finally, the frequency, scale, and technological sophistication of attacks continue to increase in cyberspace, where states are engaged in constant confrontation. Such situations may at some point in the future be qualified as armed aggressions and deemed to require the use of force, potentially causing collateral damage to private actors. While France supports the applicability of international law to cyberspace and cyber operations, a principle that meets growing consensus, certain states continue to oppose it. Furthermore, the conditions for implementing and, above all, verifying the enforcement of these rules remain an unresolved issue.

## 3. From ambiguity to escalation

137. Technology development advanced military capabilities dissemination, and the emergence of new domains of confrontation present new challenges to traditional defence and security systems. By expanding the range of options available to all types of actors, they are facilitating the development of integral and grand strategies that mix military and non-military capabilities, as well as so-called "hybrid" postures based on a combination of ambiguous postures, direct and indirect pressures enabling flexible action from peacetime to open conflict. While the global development of military capabilities at both the upper and lower ends of the spectrum leads to harder armed conflicts, the risk of serious incidents or uncontrolled escalation is increasing.

### • Ambiguity and strategic intimidation

138. State and non-state actors now have access to a significantly wider range of tools for achieving their political goals without having to engage their military capabilities in direct confrontations.

139. The new domains of confrontation (cyberspace and outer space) and the vastly expanded scope for action in the information field (e.g. Internet, social media, and digital propaganda) enable remote action, unconstrained by boundaries between states' "inside" and "outside" or by the usual distinction between peace, crisis, and war times. These levers are all the more attractive that they are largely unregulated by law, barely subject to control, and that attribution of actions remains a central challenge. Rather than pursuing physical assets, they target objectives directly at the heart of societies (e.g. critical infrastructures and resources), as well as their intangible dimensions (morale and political cohesion). Conventional propaganda tools deployed by way of official media and covert means of action now combine with social media trolls and groups of hackers. Conducted with varying degrees of discretion, disinformation efforts amplified by the Internet can lead to soft forms of subversion, intended to exacerbate tensions within the targeted society, as well as to influence and to foster political paralysis.

140. Ambiguous postures and covert aggression are also becoming more common, with certain states making an increasing use of a wide variety of proxies, ranging from manipulated diasporas to militias and other armed groups capable of stalemating conventional forces. Finally, long-range precision strike capacities (such as ballistic and cruise missiles and unmanned systems) add an offensive dimension to these capabilities for force demonstration and political purposes.

141. Using the full range of possible actions with agility, by a combination of internal destabilization, diplomatic or economic pressure on the one hand, show of force

and "aggressive sanctuarization" of their approaches on the other, great and regional powers are able to develop comprehensive intimidation strategies to assert themselves against rivals and adversaries.

142. Taken together, these factors generate a state of endemic tension on a global scale, which affects international relations between powers and is most visible in crisis areas. One of the main dangers of such strategies is their ability to erode political will and internal cohesion of states and alliances over the long term.

### • A more challenging operational environment

143. Whenever force is used openly, the technological levelling between potential adversaries, which characterises today's operational environment, tends to make conflicts more difficult. As observed in theatres from Afghanistan to the Sahel, this more challenging operational environment makes Western military superiority increasingly vulnerable and reversible in all domains.

144. On land, the increased prevalence of combat in urban areas is reducing the impact of technological superiority. As a result, modern armies may have to concentrate large forces that require heavy protection in order to avoid exposing them to severe attrition. More generally, at the lower end of the spectrum, asymmetric adversaries are now using "levelling" capabilities and innovative tactics that result in considerably tougher conditions of engagement. At the upper end of the spectrum, the dissemination of large quantities of modern hardware (including the latest generation of tanks and attack helicopters, long range artillery and electronic warfare systems) is challenging the balance previously favourable to European land forces, and may even reverse it in certain areas. Restoring their superiority requires acting in three directions: investing in high technology solutions, developing interoperability, and restoring their critical mass.

145. In the maritime domain, similar trends can be observed, with a tougher operating environment at the lower end of the spectrum, particularly in coastal areas, and increasing militarisation of the high seas (expanding submarine fleets, investments in aircraft carriers, development of ship-launched surface-to-surface missiles, etc.). Naval IEDs are now being encountered, writing a new chapter in the long history of mine warfare. Improvements to monitoring systems (satellites, radars, and drones) and the proliferation of anti-ship missiles are making naval forces more vulnerable to attack. At the same time, the current trend for naval rearmament is reshaping the balance of forces both in terms of quality and quantity, thus constraining the freedom of movement of Western naval forces. Consequently, they will have to significantly upgrade their protection and counter-strike capabilities.

146. As well as being a combat domain in its own right, airspace is a key factor in surface operations. Controlling it is therefore crucial. In this area too, the age of Western supremacy is over, threatening the freedom of action of air forces, even in regions until recently considered permissive. Our strategic competitors have proven their ability to deploy a comprehensive range of air capabilities of comparable and, in some cases, superior performance. The anti-access and area denial (A2/AD) capabilities currently being disseminated are backed not only by advanced ground-based air defence systems (S-300) with significantly enhanced range, but by stealth fighters and powerful radar solutions, all integrated in comprehensive command and control systems. They call into question the capabilities for first and forcible entry, as well as for power and force projection. Countering A2/AD postures and establishing air superiority is once again becoming an objective that must be achieved prior to all operations. This implies redoubling our efforts, in terms of aircraft fleets (which have been severely scaled back in Europe), state-of-the art capabilities (generation 4+ and 5 aircraft, special-purpose munitions), and disruptive technologies.

147. The effects of this generalised build-up of military capabilities are amplified by cyber and space-based information technologies: with systematically more intense and destructive engagements, forces field increasingly similar capabilities across all environments. Combat is also characterised by an increasing readiness to using violence, with disregard for the rules of war and laws of armed conflict.

- **Increased risks of escalation**

148. These converging trends increase the risk of escalation and "rise to extremes" between powers, potentially crossing the nuclear threshold, due to possible errors regarding the opponent's response thresholds. This risk is also increased by advances in the speed of delivery systems and, concerning chains of command, faster decision-making enabled by automation. Such changes tend to destabilize the balance of power by lowering the threshold of confrontation, by increasing the probability of accidental conflict, or by encouraging rivals to systematically try and seize the initiative by striking first. This incentive to strike first between peer rivals may be particularly relevant in space and cyberspace.

# PART C

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149. In view of the above threats, France must maintain its nuclear deterrent based on two complementary components, and simultaneously address four major challenges.

150. Protection of the national territory, airspace, and maritime areas comes first. The permanent security and protection postures are its cornerstones.

151. Second, we must retain the ability to respond to a crisis in our neighbourhood that would also directly impact the national territory. The combination of risks may prompt our forces to intervene, possibly alone, in a conflict with major humanitarian and migration dimensions.

152. The third challenge is to preserve our dominance, under all circumstances, over non-state adversaries scattered throughout regions of national interest, potentially possessing significant resources and advanced military capabilities.

153. Finally, we must be able to shoulder our responsibilities, under any circumstance, in a military confrontation with state actors. The likelihood of such a confrontation is reinforced by the more intense strategic rivalry between great powers and the ensuing escalation risks. Such circumstances, which imply more challenging and state-on-state engagements, require our armed forces to possess modern combat capabilities, and to be able to engage in high-intensity operations, along with allies and partners operating leading edge capabilities.

154. Consequently, the required ability of our armed forces to operate across all domains and scenarios justifies maintaining a full-spectrum and balanced force model, as a prerequisite for our strategic autonomy. This over-arching ambition was restated in the 2008 and 2013 White Papers on Defence and National Security.

155. France's ambition also relies on retaining a high degree of independence in terms of situation assessment, autonomous action, and anticipation, provided by our intelligence services.

156. Looking ahead to 2030, maintaining such a model will require a national military build-up, augmented by effective cooperation. More than in the past, we must strengthen the links between national strategic autonomy and European ambition, as well as between national and shared interests. In making its interests clear, France seeks to facilitate European strategic convergence, while shared European interests progressively emerge.

157. For France, strategic autonomy rests on a political foundation comprised of two pillars: a high degree of industrial and technological autonomy on the one hand, and the means and resources to ensure operational autonomy on the other.

# 1. Security interests and strategic autonomy

## 1.1. Our interests and security priorities

158. France's interests include all factors that contribute to its security, prosperity, and influence. Defending these various interests implies a very wide range of means and actions, as diverse as the vitality of our business community, the restoration of public finances, the effectiveness of diplomacy, and a vibrant culture. Our defence system contributes to this on several levels, as the foundation of our freedom of action around the world in response to any aggression.

159. The concept of 'interests' has primarily been addressed in the French doctrine in terms of vital interests, closely connected with nuclear deterrence. These vital interests have never been precisely defined, for it is ultimately the supreme responsibility of the President of the Republic to constantly assess threats in any circumstances, and to decide on appropriate responses on a case-by-case basis. The integrity of our territory and the protection of our population are central to our vital interests. Whatever the means used by the state adversary, we must preserve the life of our Nation. Furthermore, the definition of our vital interests cannot be restricted to the national scope, because France does not conceive its defence strategy in isolation, even in the nuclear field.

160. As a signatory to the Treaty on European Union (TEU) and the Washington Treaty, France has made binding commitments which imply *de jure* and *de facto* solidarity with its allies in Europe and abroad.

161. Under Article 42.7 of the TEU, "If a Member State is the victim of armed aggression on its territory, the other Member States shall have towards it an obligation of aid and assistance by all the means in their power, in accordance with Article 51 of the United Nations Charter." The TEU goes on to state that "Commitments and cooperation in this area shall be consistent with commitments under the North Atlantic Treaty Organisation, which, for those states which are members of it, remains the foundation of their collective defence and the forum for its implementation." In signing the Washington Treaty, we made a collective commitment to "assist the Party or Parties so attacked by taking

forthwith, [...] such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area."

162. Beyond such commitments, France's interests must be assessed in the light of the increasingly intertwined nature of the European nations' interests. Our shared destiny, converging threats against Europe, and the in-depth dialogue between Europeans concerning strategic priorities are gradually shaping a growing number of fundamentally shared interests.

163. When, in the wake of the terrorist attacks of November 13th, 2015, France invoked Article 42.7 of the TEU, for the first time in the history of the European Union, its partners provided unanimous support, paving the way for several additional military contributions to our common fight against terrorism.

164. In addition to these commitments, this political reality means that an outside aggression against European territory or cohesiveness would severely affect our interests.

165. However, the range of security interests to be defended is wider. We must also guarantee our strategic supply and our freedom of action in the global commons, as well as protect our sovereignty in the digital world. Our overseas facilities also deserve particular attention, since they play a crucial role in defending access to critical areas or critical transit points under threat. France may commit on behalf of its vision of security interests that includes its peace-keeping and international security responsibilities, as defined in the UN Charter.

166. In addition to commitments towards our allies and European partners, our interests must also take into account our partnerships or defence agreements, in particular in Africa, the Middle East, Asia-Oceania.

167. As we define our priorities, geography will remain an important driver. The protection of French territory and approaches by definition depends on it. Some of the physical flows (such as trafficking and illegal migration) that affect our security also depend on geography. In the Euro-Mediterranean and African areas, we are led to assume greater political and military responsibilities, including with our most directly concerned European partners.

168. However, geographical proximity cannot be the sole criterion, for at least two reasons: first, a major crisis in Asia or a major cyber threat would undoubtedly affect our interests; secondly, France intends to fulfill its responsibilities globally, not limiting them to its own neighbourhood.

169. This position is not carved in stone. The vision of French interests must be constantly updated and, in any case, it is the President's supreme responsibility to continuously assess the nature of our vital interests and the possible threats to them.

## 1.2. Our strategic autonomy

170. Strategic autonomy remains a key objective of our defence policy, due to its decisive impact on our sovereignty and freedom of action. In an international system where instability and uncertainty prevail, France must preserve its capability to decide and act alone to defend its interests.

171. This autonomy is a condition to France's credibility in the eyes of allies and partners. At a time when Europe is demonstrating its determination to lay the foundations of its own autonomy, as it faces shared threats and challenges, France's ability to continue to take action and exert influence is a valuable asset in supporting and rallying its neighbours, particularly those with significant military capabilities.

172. In addition to its operational, industrial and technological dimensions, our strategic autonomy is underpinned by a broader base that includes, first, factors that enhance the Nation's resilience and safeguard its core functions; and, second, the means of conducting effective and fully-engaged diplomacy, inseparable from the actions of our armed forces.

### • Cohesion and resilience

173. National cohesion and the resilience of functions essential both to state continuity and to the life of the Nation constitute the cornerstone of our freedom of action.

174. National cohesion has a decisive impact on the legitimacy of military action thanks to the nation's support of decisions to use force. Today, this cohesion is confronted with the spread of ideologies that challenge republican values and principles. The use of advances in digital and media technologies has improved the capabilities for outside influence or interference, be it by state or non-state actors. Strengthening national cohesion, particularly among the younger generation, must remain a priority, marshalling the full resources of the state and civil society.

175. In this area, the armed forces play a socialising role, both in recruitment and in the programmes to which they contribute (National Guard, Voluntary Military Service, Adapted Military Service, etc.).

176. On another level, the resilience of vital sectors and of the strategic domains of research and industry must be consolidated. The level of protection and awareness in some of these areas, which are exposed to the development of cyberthreats and related risks (piracy, espionage, and data theft), is currently insufficient.

177. Protecting the defence supply chain is another area for vigilance. Driven by the need to diversify their activities in response to a narrow, irregular defence market, many companies may be tempted to gradually wind down their defence-related activities. Furthermore, companies can sometimes survive through cross-border mergers, resulting in France losing its know-how in certain areas of expertise. Foreign investment in France is monitored in order to accompany such efforts and attach special terms and conditions to takeovers.

### • An effective diplomacy in support of a comprehensive approach

178. Autonomy also depends on diplomacy, and in particular, on the ability to shape the political and legal framework for military action.

179. Diplomatic action is key to coordinating our interventions and those of our partners in the pursuit of shared goals. The political process leading up to national decisions almost always includes an international dimension (with our partners) and a multilateral approach (involving the United Nations or regional security organisations). France's investment in NATO, the European Union, the OSCE, and the United Nations must also be viewed as a core element of our decision-making autonomy. It follows that we must maintain the means of asserting not only our diplomatic but also our military presence and influence in these institutions.

180. Autonomy also assumes, as part of a comprehensive approach, the availability of those resources necessary to complement military engagements and facilitate disengagement: support for front-line partners; support for operations by regional organisations and peacekeeping operations; diplomatic efforts to solve the crisis in conjunction to engagements; rapidly available financial resources to fund stabilization, emergency aid, and rebuilding activities, etc. In other words, strategic autonomy cannot be envisaged in exclusively military terms; instead, it requires close coordination with civilian instruments such as diplomacy or development.

# 2. A commanding European ambition and global responsibilities

181. As the instruments of global security and stability are challenged, France must fully commit to rebuilding a collective and multilateral order in collaboration with its allies and partners. From a defence perspective, this commitment must first focus on Europe, bilateral European cooperation agreements, and the transatlantic relationship. France's bilateral partnerships as a whole also play a role in safeguarding shared interests.

## 2.1. Building European strategic autonomy

### • Emerging European security interests

182. Converging threats against Europe require Europeans to commit more heavily to ensuring their own security, and to work towards the goal of shared strategic autonomy. This ambitious goal - first acknowledged by the 28 heads of state and government leaders as part of the EU's global strategy in June 2016 - requires a fresh perspective on European security conditions and will be achieved through pragmatic new initiatives.

183. Geography and history remain important factors in the manner in which European states rank threats and risks, and more generally, in the diversity of their strategic cultures. The considerable scaling-back of defence spending in Europe following the end of the Cold War has also fueled increased resentment among Americans with regard to Europeans, and indeed between Europeans themselves. More recently, the management of the migrant crisis has been a source of significant tension across the continent.

184. Nevertheless, a collective awareness of shared security issues is emerging, particularly now that Europeans are finding themselves slightly more alone than in the past. Migration, organised crime, and terrorist networks affect the whole of Europe to varying degrees and are perceived as such. The need to secure our approaches, strengthen our joint defence, and stabilize our neighbourhood is increasingly shared. Facing multiform threats that they cannot afford to ignore, Europeans are realising that they have a fundamental interest in ensuring the stability of the European continent.

185. This has resulted, first, in a *de facto* solidarity between Europeans, as illustrated by the responses when France invoked Article 42.7 in the wake of the November 13th, 2015 terrorist attacks, by the German involvement in the Sahel, by the contributions of numerous allies to the assurance measures in the Baltic states

and Poland, or by Estonia's first commitment alongside our forces in the Central African Republic in 2014. Similarly, the signs of a recovery in defence expenditure and investment are now becoming apparent. The European military build-up must be viewed as a long-term endeavour. While these efforts are too recent and limited to cope with a sudden upturn in threats, they will also have to be adjusted to reflect the changing capabilities of our potential adversaries, and receive sustained support from the major European nations, including France.

186. European institutions now acknowledge the need for sustainable, converging efforts on defence. As a result, the High Representative, and more recently, the European Commission, have prompted the Union to embrace its full role in protecting and providing security for European citizens, and encouraging member states to do more on defence.

### • Pragmatically strengthening CSDP

187. European unity and the ability of member states to collectively exercise their security responsibilities are long-standing goals for France. Accordingly, Paris and Berlin, with firm support from Rome and Madrid, launched an initiative to revive European defence in 2016, covering not only operational aspects (operations funding, the strengthening of African partners' capabilities, military planning, command and control capability), but also capability-related and industrial aspects (joint programmes and investment in defence technologies).

188. The proposal to set up a European Defence Fund (EDF) is a major event for Europe from both a political and an industrial perspective. For the first time, research and development relating to defence capabilities would be financed by European funds, in order to encourage cooperation between member states and support the European defence industry. The success of the EDF will depend on two conditions: addressing the defence sector characteristics and ensuring that the necessary financial resources are allocated to fulfill our ambitions, while avoiding duplicating industrial expertise or driving out our national defence investments.

189. Meanwhile, the Permanent Structured Cooperation (PESCO) should allow for a qualitative leap on European defence. Commitments must be strong enough to encourage ambitious, unifying projects, and above all, address the operational needs of European armed forces.

### • NATO - A key component of European security

190. By its return to the NATO Integrated Military Command in 2009, France fully acknowledged NATO's role in European defence, while preserving its special

status in the nuclear domain. It has been the logical consequence of the role gradually taken on by French armed forces in NATO structures and operations – a role reflected by the fact that a French General currently holds the post of Supreme Allied Commander Transformation (SACT). Furthermore, France is an active participant in the command structures available for NATO and the EU (including the Eurocorps in Strasbourg, the French Rapid Reaction Corps in Lille, etc.).

191. France strongly supported NATO's renewed investment in collective defence (Article 5 of the Treaty), as reflected in the decisions adopted at the summits in Wales (2014) and Warsaw (2016). Whether combining firmness and dialogue with Russia or adapting its deterrence and defence posture, NATO has successfully established a balanced, deterring but predictable approach. First, successive troop deployments, including French forces, under NATO's enhanced Forward Presence (eFP) in the Baltics and Poland, have enhanced security in eastern and northern Europe. Second, NATO strengthens security in Europe's southern approaches, and takes part (in particular by contributing naval assets) in the fight against terrorism and other risks in the Mediterranean region. Furthermore, from a capacity perspective, NATO remains the best organisation for ensuring technical and human interoperability of Allied forces, and consistency in their equipment efforts.

192. Europeans have started rebuilding their forces and capabilities, as demonstrated *inter alia* by their commitment within NATO to spend 2% of GDP on defence by the end of 2024. This must be understood less as a response to American demands of fairer burden sharing, than as Europeans taking increasing responsibility for their own security; an action made indispensable by the degradation of Europe's strategic environment.

193 Nevertheless, NATO's ability to perform its missions remains highly dependent on the strength of the transatlantic relationship. The growing distance between Europe and the American political class and population, together with recent political changes in the United States, are raising serious concerns in Europe, more so than in the past.

194. Nevertheless, the United States is a fundamental partner, due to the convergence of defence and security interests, and the strength of existing operational and intelligence ties. This special cooperation must be maintained and given close attention by both sides.

### • A new approach to defence cooperation

195. Cooperation is henceforth a reality for the armed forces contributing to NATO and EU command structures, and to a wide range of bilateral or multilateral organisations. In this respect, European armed forces pool transport and refueling capabilities (EATC) and share the burden of air policing, monitoring the North Atlantic and managing undersea domains. The French aircraft carrier battle group systematically integrates resources (including frigates and helicopters) from our European partners. France has numerous bilateral partnerships. In Europe, the Franco-German Brigade, the Franco-British Combined Joint Expeditionary Force (CJEF), the C130 J Franco-German air transport unit and joint training programmes (Tiger, A400M) are emblematic. In Africa and the Near and Middle East, operational military assistance is a pillar of prevention. Lastly, each service maintains close relationships with its American and European counterparts most involved in European defence to ensure the interoperability necessary for joint engagements.

196. Germany is a crucial partner in furthering European defence and security ambitions. Berlin has begun to increase its defence budget and has committed itself to the Sahel (MINUSMA, EUTM Mali, support for G5 Sahel) and the Levant (action in the anti-Daesh coalition and arms deliveries to Kurdish forces in Iraq). Bilateral cooperation is being strengthened in all domains by projects that are crucially important to the future of European defence[2]. France has every interest in supporting and facilitating this shift by Germany. This effort requires significant industrial and financial investment, a prerequisite for a balanced partnership ready to meet today's challenges.

197. The Franco-British defence relationship was further strengthened with the Lancaster House Treaties (2010) covering operational, equipment, industrial, and nuclear domains[3]. Notwithstanding Brexit, the challenge for France is to solidify a defining bilateral defence cooperation with the United Kingdom in all domains, thereby maintaining a special defence relationship with the only European nation that still has global ambitions, a nuclear deterrent, and the ability to conduct high-intensity operations. To remain dynamic, this special relationship must be enabled by practical achievements and joint operations. After setting up a joint commission on nuclear policy and doctrine in 1992, France and the United Kingdom stated that the vital interests of one could not

2 Structural projects relating to MALE drones, with additional cooperation with Madrid and Rome; space-based earth observation with CSO/SARah; the future combat aircraft; joint development of a combat tank by Nexter and Krauss-Maffei Wegmann, through the KNDS alliance; air transportation initiative based on the C130 J joint unit based in Evreux.

3 Combined Joint Expeditionary Force (CJEF); Future Combat Air System (FCAS drones); naval drones, mine warfare; One MBDA, particularly with a view to joint development of cruise missiles; Teutates Treaty, providing for shared EPURE simulator facilities in Valduc.

be threatened without the vital interests of the other equally being at risk[4]. This joint position, stated publicly at the highest level at the Chequers Summit in October 1995, has since been regularly reaffirmed.

198. The United Kingdom and Germany are strategic intelligence partners. This three-way partnership constitutes an essential foundation to building a secure Europe.

199. France must supplement these two major bilateral defence relationships by paying greater attention to its other European partners and by giving proper consideration to both their expectations and their contributions to European security.

200. Spain and Italy are engaged alongside France in operations in the Mediterranean, North Africa and the Sahel. France also cooperates with these two countries, which possess significant military capabilities, on decisive industrial and armament programmes for France and Europe (drones, frigates, NH90, surface-to-air missiles, space, etc.).

201. Similarly, other European nations currently possess, on different scales, specific capabilities that can make valuable contributions to the various military operations to which France participates, regardless of their framework of engagement. France has begun re-engaging with the countries of Northern and Eastern Europe. This initiative must be sustained and enhanced, just as with France's commitment to European security, whether in the north, the south or the east, from the Baltic to the Black Sea.

202. Accordingly, in addition to strengthening CSDP and supporting the necessary increase in defence budgets and capabilities, France supports an optimal combination of the various initiatives of European defence cooperation. The institutional frameworks provided by NATO and the EU, for example, have been usefully supplemented by new defence initiatives and *clusters* (e.g. the EATC, the British Joint Expeditionary Force in the operational domain, the German FNC for capacity building), as well as older regional groups (e.g. NORDEFCO).

203. As a new Europe emerges, France must offer ambitious defence partnerships to its partners based on a differentiated approach, with the highest priority being given to the more willing and able European nations. This implies providing support, both within and outside the EU and NATO frameworks, for the various promising initiatives that strengthen strategic convergence among European nations regarding their shared security. For this reason, France strives to increase

4 Joint press conference by Jacques Chirac and John Major in London on 30 October 1995.

Europe's strategic autonomy, which requires the development of a common strategic culture. By the start of the next decade, the goal is for Europeans to have a shared doctrinal corpus, a credible joint military intervention capability, and appropriate common budget tools. With this goal in mind, France is proposing to its partners the creation of an ambitious cooperative framework: the European Intervention Initiative was announced by the President of the Republic on September 26th, 2017. This initiative will also help enhance their interoperability in all scenarios in which their forces are engaged.

## 2.2. A stronger multilateral framework and essential strategic partnerships

### • Our commitment to stronger multilateralism

204. Faced with global challenges, the world needs effective multilateralism, embodied by a strong United Nations. Furthermore, absent a robust multilateralism, the emerging multipolarity risks returning the world to spheres of influence. History has shown us the dangers of such a situation. As a result, France will continue to work tirelessly to promote a vision in which power politics are regulated by law, based on the UN Charter as a cornerstone. This applies in particular to certain emerging fields of military action that require special effort to establish standards of behaviour that will ensure strategic stability, including in outer space and cyberspace.

205. France is currently engaged in United Nations missions in Lebanon, Mali and the Central African Republic, and continues to make significant contributions to UN peacekeeping operations, particularly by providing certain critical capabilities.

### • Deepening our strategic partnerships

206. Outside the Euro-Atlantic area, France maintains security partnerships and defence agreements, and has prepositioned forces in the Middle East and Africa. As a result of this presence, France can rely on security partners and support facilities that improve the responsiveness of its forces. France upholds the reciprocal obligations implied by such relationships.

207. In North Africa and the Near East, despite the absence of formal defence agreements, France has long-standing and close relationships with several key states in the region (Morocco, Lebanon, Tunisia, Jordan, and Egypt), and is helping to stabilize states that have been severely weakened by a string of crises with the potential to impact our interests. In the Near East, Lebanon

is a priority partner, significantly affected by the Syrian crisis and whose security capabilities must be strengthened. Jordan is also an actor that is key to regional stability.

208. As it reinvigorates its relation with its African partners, France has renewed all of its defence partnership agreements in Africa, striving to ensure that they are fair and transparent. These agreements enable France to honour its commitments and, if requested by its partners, to be able to rapidly deploy military forces to the region for peacekeeping and regional security missions. In addition to its bilateral agreements, France's posture in Africa is based on sustained multilateral efforts (support for the work of the African Union and the G5 Sahel group), including mobilising its European partners. We support our African partners' goal of taking better ownership of their security.

209. As a result of their shared history and interests, it is crucial for France to assist African states in building up and maintaining their capabilities over the long term, enabling them to play their part in managing migration and terrorism, for example. Consolidating French overseas military facilities is essential.

210. The Arabo-Persian Gulf is also a key strategic region for France. Paris has binding defence agreements with the United Arab Emirates, Qatar, and Kuwait. As part of this military cooperation, a permanent base has been set up in Abu Dhabi. Lastly, France must retain engagement capabilities and full freedom of movement from the Gulf to the Suez Canal.

211. As the only European nation to have a permanent military presence in both the Indian and Pacific Oceans, France is strengthening its relations with the major democracies in the region that share its vision of international security. These ties ensure that France is able to understand and act appropriately in a region where the strategic balance is rapidly shifting. With India, France has entered into a major strategic partnership built on trust which is intended to structure the relation over the long term, offering security benefits for both countries.

212. France and Australia are building a structuring, durable partnership reflected in the joint production of the next generation of Australian submarines. With this reliable, capable partner in the Asia-Pacific region, operating side-by-side in the principal theatres (Afghanistan in the past and the Levant today), France is forging bonds that will help enhance maritime safety in the Indo-Pacific.

213. France is also assisting Japan in its effort to expand its international commitment on defence and security issues. The exceptional partnership between Paris and Tokyo illustrates the close alignment of their strategic interests at the global level.

214. Singapore is another strategic partner with whom our relation is based on trust through cooperative projects in the area of defence technology and research, in addition to close operational ties.

215. France has regular and productive defence relationships with Malaysia, as well as countries such as Indonesia and New Zealand. These bilateral relations are accompanied by closer ties with the various ASEAN bodies.

216. Lastly, with regard to South America, France has a solid defence relationship with Brazil, based on a strategic partnership agreement signed in 2008. We maintain a regular and constructive dialogue in the defence industry. Protecting our shared border against multiple illegal trafficking activities is another area of close cooperation.

# 3. Reaffirming our technological and industrial ambitions

## 3.1. The need for a strong DITB

217. France's Defence Industrial and Technological Base (DITB) consists of a dozen global companies and almost 4,000 small and medium-size businesses, which in 2017 together represent more than 200,000 jobs in France, most of which are highly technical and cannot be easily relocated abroad; the activities of this DITB have a major positive impact on France's balance of trade (around €6 billion in 2016). This base is augmented with a whole series of public sector resources and skills: research organisations, testing and centres, agencies, etc.

218. Maintaining the vitality of this ecosystem is a matter of national sovereignty. Ensuring reliable procurement and support for our armed forces, particularly those with a role in nuclear deterrence, is a prerequisite for France's freedom of action, making this activity a pillar of its strategic autonomy. More generally, this industrial and technological base feeds the economy and extends France's influence around the world. Consequently, the DITB must be supported and sustained at all levels (from start-ups to large companies and groups). This support is provided via long-term policies in areas such as research and investment, cooperation, support to exports, acquisitions, and protection with regard to foreign investment.

219. France ranks among the world's leading exporters of military hardware, due in large part to its status as a major technological power. This situation is the result of continued investment and a policy that constantly balances exports,

civilian and military dual-use technologies, and national acquisitions. Export sales play a crucial role in maintaining expertise and a competitive defence industry, by providing additional business augmenting national orders, and by driving innovation in a fiercely competitive international environment. French success stories in this field owe much to strong commitment from the state, which must be maintained. France will continue to rigorously control exports of military and related equipment in accordance with its international commitments.

220. However, export controls regulations (including ITAR) implemented by the United States are severely restricting our ability to export freely.

221. In addition, faced with a fluctuating demand, more effective coordination between the procurement policies of domestic stakeholders, such as interagency actors and prime industrial contractors, may offer a solution for smoothing the production schedules of the most vulnerable strategic companies.

222. Lastly, a dedicated capital fund must be developed to protect French companies possessing special technological assets or expertise from takeovers by foreign funds. The creation of a national defence investment fund, announced in May 2017, is contributing to this effort, alongside a more general strategy to protect scientific and technical potential.

223. Similarly, maintaining France's capability for sovereign action in cyberspace requires expertise in both industrial and regulatory aspects of the relevant technologies, equipment, services, and data acquisition, storage and processing capabilities. This can only be achieved by preserving and in some cases developing a base of national trusted industrial partners, able to either produce top-notch technological building blocks or to design complex systems, into which outside blocks from trusted foreign partners may be integrated.

224. Perpetuating the current dynamic requires a long-term strategy to secure a future for the defence industry, on which France's technological excellence depends, and which acts as a catalyst of European defence.

## 3.2. Mastering technological and industrial cooperation

225. In December 2016, the European Council gave new impetus to the Common Security and Defence Policy by adopting an ambitious action plan. This plan represents an opportunity to build a solid, coherent European industry. Harnessing the assets of its industry, France intends to participate fully in this initiative, through its involvement in the European Defence Fund and by redoubling its

efforts in promoting technological and industrial cooperation. However, this new European dynamic in defence must not come at the cost of freedom of use, action, and decision at the national level.

226. The following analysis provides an overview of potential cooperations regarding the building of defence systems[5]. It reflects the four possible approaches with regard to the goals in terms of sovereignty, operational autonomy, budget constraints, and confidentiality.

- **Sovereign** relates to a purely national approach, that cannot be shared and where guarantees of hardware and software integrity, freedom of use, and operational superiority prevail. Emerging technologies *a priori* fall under this posture in order to assess their potential and develop an appropriate level of expertise to make fully informed decisions on cooperation.

- **Cooperation with nationally preserved skills** concerns equipment for which sharing may be an option (for technical, political, or budgetary reasons) but is not the general rule. Reverting to the sovereign posture remains a possibility.

- **Cooperation with mutual dependency** is based on a lasting streamlining of complementary technical or technological expertise among partners, who accept foregoing one or more areas of expertise, while ensuring all fields are covered and retained specialised competences are shared. This is a genuine, lasting mutual interdependency, which must nevertheless provide adequate guarantees in terms of access to skills, competencies and retained autonomy (relating to export, for example). This approach requires an *ad hoc* industrial organisation backed by intergovernmental agreements to provide adequate assurances in terms of sustainability, as with the One MBDA project.

- **The "market" solution represents** the option where specific national or military requirements are very minor, as either the market provides a broad, multifaceted offer, or the investment cost ("entry ticket") is considered acceptable.

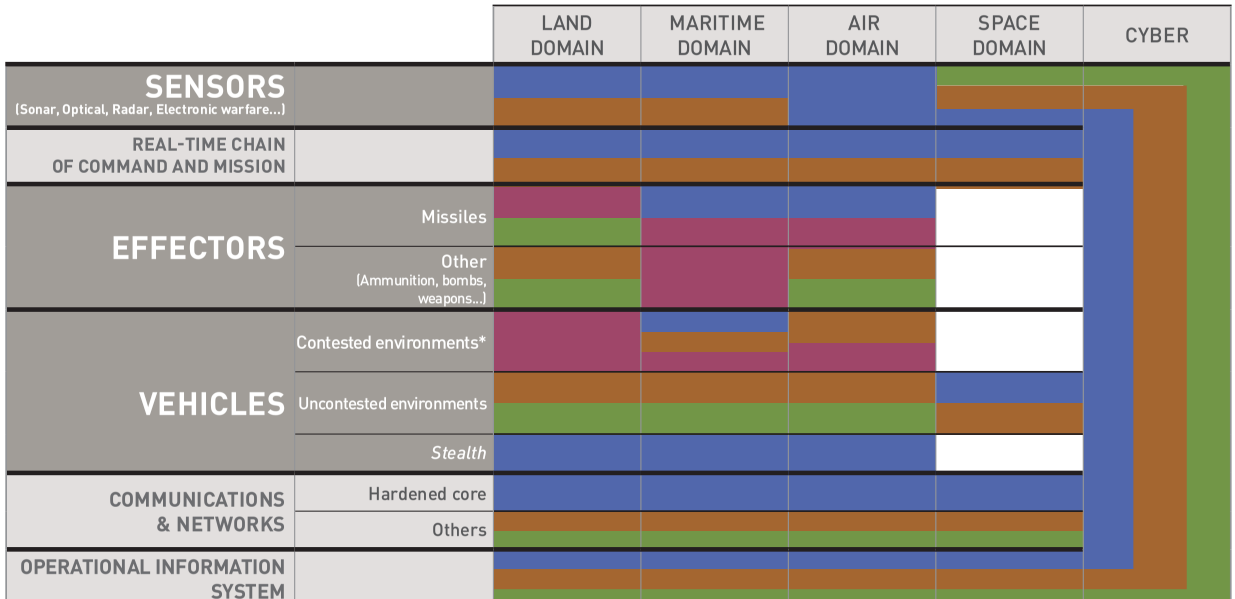
227. In the latter three cases, European solutions are preferred, although trusted non-European partners are not ruled out. Lastly, whichever approach is adopted, sovereign control over intellectual property rights and the freedom to sell on the export market must be preserved.

228. This logic has been applied to the major technical armament domains used to design, produce, and support military hardware in order to provide clear

5 In this context, the full range of skills, technologies, and facilities used to design, produce and, where applicable, support military hardware.

guidelines, in each domain, for France's ambitions in terms of technological and industrial cooperation. Without predicting what can be ultimately achieved for each project, the table below reflects an initial intention that will be further assessed on a case-by-case basis, depending on the systems under consideration and the stage in the life cycle of the relevant programme.

## Ambition in terms of technological & industrial cooperation




* Contested environments: environments in which obstruction or interference is expected by the forces in the course of their operations.

- Sovereignty
- Cooperation with nationally preserved skills
- Cooperation with mutual dependency
- "Market" solution (civil sector or defence)

229. This cooperation policy is likely to evolve over time to reflect emerging and future cross-disciplinary technologies in fields such as artificial intelligence, robotics, connectivity, materials, etc.

## 3.3. Preparing the future, integrating innovation and digital technology

230. Preparing for the future is a key factor in maintaining the excellence of our DITB, on which our technological superiority and strategic autonomy depend. Allocating significant funding to R&T ensures that our industry can maintain its position on the international stage, and develop expertise in those technologies that armed forces will need to respond to changing threats. This technical expertise is also a prerequisite for building balanced cooperative ventures in which France can legitimately exert its influence or even claim leadership.

231. Given the uncertain strategic environment and the constantly changing threats, covering the full spectrum of industrial and technological fields is becoming increasingly critical and calls for an increase in budgetary resources for science, research, technology, and innovation.

232. This financial effort will make it possible to continue investing in defence technologies which are the most lengthy and costly to master, such as hypersonics, sensor enhancement and fusion, and active stealth. It will also open the way to further exploration in breakthrough civilian technologies (artificial intelligence, robotics and autonomous decision-making, networked systems, new materials, biotechnology, etc.). Large-scale demonstrators will make it possible to better prepare the next generation of systems and equipment, able to deliver operational superiority and ensure future export success in an increasingly competitive market.

233. This long-term preparatory approach must be supplemented by a general policy in support of innovation, in order to identify, generate, capture, experiment, and support near-term technologies, and to proactively integrate them into weapon systems.

234. More agile procedures[6] must be implemented in order to optimise human and financial resources. Procurement procedures[7], in particular, must be adapted throughout their lifecycle to more proactively take into account the changing nature of threats and to better integrate innovative technology and practices, including those coming from the civilian sector.

6 Here understood as ensuring quick and reversible adaptation to a given situation, without hindering long-term actions.
7 These procedures include the statement of requirements, specifications, purchase, acceptance and support of systems.

235. This agility-oriented approach means that exchanges and partnership building must be facilitated and enhanced, to include human resources, within an expanded ecosystem involving civilian, military, national, academic, business, and industrial stakeholders. Particular attention must be given to ensuring that this goal remains consistent with ethical obligations.

236. Lastly, France must continue offering top-notch education in order to remain attractive and to prepare future generations for the security and defence challenges they will face. In this respect, agility and innovation are not only decisive factors in ensuring our technological and operational superiority over the long term. They also play a crucial role in enabling the Ministry for the Armed Forces and defence companies to hire and retain top talents.

## 4. Strengthening the strategic functions

237. The five strategic functions defined in the 2013 White paper describe how France implements its defence and security policy and frame the required armed forces to achieve its ambitions. They are still relevant today.

238. The strategic functions are interdependent. The balance between them ensures the cohesion and credibility of our forces. The continuum between domestic security and defence enhances their complementarity. The links between intervention, protection and prevention, both inside and outside national territory, have thus become closer. Meanwhile, complementarity between deterrence and the other functions has been strengthened.

239. In this respect, an effort must be made to reemphasize the role of prevention. Fundamentally, focusing on stability and long-term development should allow for more effective action prior to a crisis. This implies reinvesting, as a priority, in our permanent and non-permanent overseas facilities as well as those of our allies and partners.

### • Deterrence

240. Nuclear deterrence remains the cornerstone of our defence strategy. It protects us from any aggression against our vital interests emanating from a state, wherever it may come from and whatever form it may take. It rules out any threat of blackmail that might paralyze its freedom of decision and action.

241. Our deterrent is strictly defensive. The use of nuclear weapons would be conceivable only in extreme circumstances of legitimate self-defence, a right

enshrined in the UN Charter. In this respect, nuclear deterrence is the ultimate guarantee of the security, protection and independence of the Nation.

242. By its existence, it contributes to the security of the Atlantic Alliance and that of Europe.

243. Nuclear deterrence is embedded in the more global framework of the defence and national security strategy, which takes into account the entire spectrum of threats, including those considered to be under the threshold of our vital interests.

244. Nuclear deterrence will remain based on the permanent posture of its airborne and seaborne components, which are indivisible and complementary. Both contribute to all deterrence missions. Thanks to their performance, adaptability and characteristics, they will remain a credible instrument in the long term, while being structured in accordance with the principle of strict sufficiency. Upon discontinuing nuclear testing, France invested in simulation systems that ensure the safety and reliability of its nuclear weapons.

245. We must continue the necessary adaptation of our deterrence capabilities, in response to changes in the strategic environment, to shifting threats and changes in areas such as air defence, missile defence, and undersea detection. This implies renewing the two components and sustaining our nuclear warheads.

246. These two components, which boost our whole defence system and ensure the freedom of action of our forces, are supported by a range of conventional capabilities, thereby offering a broad range of strategic options. Several assets that contribute to deterrence may be deployed in conventional operations.

247. Furthermore, due to its requirements in terms of effectiveness, reliability, and safety, nuclear deterrence sustains our research and development efforts and contributes to the excellence and competitiveness of our defence industry. It is also a driving force for our technological skills.

248. Maintaining our deterrent over the long term is essential, as multiple powers are developing their nuclear forces, and as some of them use these for power demonstration, intimidation, or even blackmailing purposes.

- **Protection**

249. The mission of the armed forces is, first and foremost, to protect the Nation against any and all military threats. The armed forces ensure the security of our territory, airspace and maritime approaches at all times. The terrorist attacks of 2015-2016 have reminded us of the centrality of this function and

led to large-scale re-engagement of the armed forces on national territory. By its magnitude with respect to the security and defence continuum, such a deployment has weakened the combat capability of our forces, raising the question of the balance between the intervention and protection functions.

250. On 14 September 2017, upon request by the President of the Republic, the Defence and National Security Council decided to adapt the *Sentinelle* force: the agreed level of protection remains unchanged but the operational doctrine and modes of action are to be revised to allow more tailored engagement under prefectoral authority, thus enhancing flexibility and unpredictability.

251. National territory, both on the mainland and in overseas territories, has recently been affected by crisis situations that, due to their scale or severity, have required the deployment of military resources in addition to France's domestic security forces and other national assets. In the event of a chemical, biological, radiological or nuclear (CBRN) event on national territory, the specific capabilities of the armed forces would also be called upon.

252. Repeated cyberattacks have revealed vulnerabilities in networks that are essential to the proper functioning of state services and national security. They require as a priority the strengthening of defence means and the development of offensive and defensive capabilities. As a result, France has decided to adopt a permanent cybersecurity posture.

253. In outer space, our dependence on capabilities that are vulnerable today must lead us to enhance their protection and, by working in close cooperation with our American and European allies, to increase redundancy where necessary. The resilience of the armed forces and services has also become an operational issue. In that regard, the way in which the support functions of our forces were designed has to be reconsidered, as it was based on the assumption that the national territory would not be under threat. Similarly, the concept of "protection and defence"[8] has taken on special sensitivity when faced with an enemy capable of targeting military facilities or personnel on national territory. This dimension must be addressed in the short term through additional investment in human and physical resources.

254. Lastly, protecting our citizens abroad may imply evacuation operations, potentially including nationals of friendly countries. France must be able to execute a mission to ensure their safety, anywhere and anytime, and to act either alone or within *ad hoc* cooperative operations.

8 "Protection and defence" covers all human and physical resources devoted to protecting facilities hosting defence information and activities, which can be subject to terrorist attack, sabotage or other malicious activities.

### • Knowledge and anticipation

255. Our ability to know, understand, characterise and predict is key for France to make decisions and act with autonomy and sovereignty, including in operations with partners and allies. Intelligence is the cornerstone of this capability and must be enhanced. Anticipation over the short- and medium-term of national security risks, such as disruptive technologies, justifies France's development of autonomous capabilities matching its needs.

256. Ensuring our analyses and positions remain independent will require increased investment in human intelligence, in the continuation of major technical programmes. Such initiatives will allow us to remain on the cutting edge in this field and in the development of the analytical capabilities needed to mine the large and rapidly expanding volumes of data gathered by human and technical assets. In this area, expertise in artificial intelligence is set to become a sovereignty issue, in an industrial environment that is characterised by fast-paced technological innovation, and currently dominated by foreign companies.

257. The existence of several academic research centres and think tanks contributes to our ability to recognise, anticipate and analyse crises. It implies greater cooperation between the defence, research and training communities. To this end, the then Ministry of Defence launched the "Higher Education Pact" in January 2017. The administration, in partnership with the research community, must make more systematic use of open sources, which represent a major asset.

258. The priority given to the fight against terrorism must not overshadow other needs in terms of geopolitics, monitoring major powers' military capabilities, counter-proliferation, counter-intelligence, counter-espionage, fight against organised crime, or protection of our economic interests.

259. The growing importance of cyberspace and the emergence of outer space as domains of confrontation place the characterisation and attribution of attacks at the core of our need for autonomous assessments, as these fields are particularly prone to clandestine action and manipulation.

260. The major challenge that cyberthreats represent calls for a substantial increase in France's defensive and offensive capabilities. The ability to detect and attribute attacks, based on gathering both human and technical intelligence, will be a key factor. In space, the agreement to pool resources with European allies should renew and enhance our situation assessment and threat detection capabilities.

261. The efforts by the French intelligence community to reorganise and streamline must continue. Pooling of technical capabilities across all services is now well under way and must be sustained.

262. The need for national military capabilities to perform this function is a prerequisite for France's ambition to remain a framework nation. Within a coalition, the availability of national capabilities and information sharing provides a lever of influence while facilitating integration with the targeting processes, for example.

### • Intervention

263. Intervention contributes directly to defending national interests, protecting citizens abroad, honouring France's obligations and supporting the international community.

264. In addition to providing in-depth strategic defence far beyond Europe's borders, intervention is also the key instrument of France's immediate defence, in a context of a closer geographical threat.

265. Interventions by French armed forces, in addition to enabling France to honour its commitments under Article 5 of the Washington Treaty, fall into three categories. In a direct engagement France acts alone and initiates an intervention that may subsequently extend under its leadership, as was the case of Operation *Serval* in Africa. France can also contribute to large-scale multinational operations, possibly in a stand-off role, as a member of an Operation *Inherent Resolve*-type coalition, or in NATO operations (Afghanistan, Libya, etc.). Finally, France also supports UN or EU crisis management operations, notably thanks to its ability to provide a rapid-response capability.

266. Intervention must adapt in order to cope with emerging anti access strategies in all environments, requiring us to pay particular attention to the operational superiority factors that are most critical for forcible entry. Increasing technological and operational capabilities of a broad spectrum of actors, from terrorists and militias to intermediate and major powers, poses a long-term challenge to our intervention capabilities.

267. Coercive actions, as in the Sahel, are generally conducted as part of a global approach intended to stabilize a crisis region. The comprehensive approach relies on the use of diplomatic and civilian resources. It requires the ability to mobilise significant military forces in order to simultaneously secure the theatre of operations, train local forces to take over the military role and support civilian action through public and private stakeholders. The initial military effort

must be accompanied by a diplomatic initiative in order to rapidly broaden the scope of foreign military and civilian contributors.

### • Prevention

268. Prevention, inseparable from existing and foreseeable forms of international cooperation, plays a role in stabilizing countries and regions where crises have direct implications on our own security interests. When conducted abroad, it requires close coordination between military action and diplomatic efforts, action by the intelligence services and the mobilisation of human and financial resources from ministries other than those responsible for defence and foreign affairs. The full range of development stakeholders, including the *Agence Française de Développement* (French Agency for Development), contributes to prevention.

269. France's defence cooperation, both in its operational and structural aspects, allows us to be as close as possible to potential crisis areas at all times. It primarily relies on three forward operating bases (in Abu Dhabi, Abidjan and Djibouti) and two cooperation bases (Dakar and Libreville), supplemented by several other deployments and operations. This structure has now been streamlined down to the minimum.

270. As overseas facilities, these prevention assets contribute to the intervention function and represent in this respect a unique system that ensures France's freedom of action by providing responsiveness, flexibility, and redeployment capabilities, invaluable in times of crisis. They also play a role in the knowledge and anticipation function, by providing in-depth knowledge of local situations.

271. Vulnerabilities on the southern shores of the Mediterranean require special prevention efforts. This geographical focus of the comprehensive approach may also lead to look for bilateral cooperation agreements with the European nations most concerned by the situation. Further south, military means in Sub-Saharan Africa have proved their worth by preventing the collapse of a number of states and by striking terrorists in their safe havens. The expanded military partnership with the G5 Sahel joint force is helping the sub-regions nations to take more autonomous control of their security. Operation Corymbe is fulfilling the same mission in the Gulf of Guinea. These initiatives strengthen France's international credibility among its allies and partners. Similarly, setting up a joint military base in the United Arab Emirates in the Arabian peninsula has moved France closer to the centre of gravity of the operations against Daesh. It makes it easier to support operational deployments in Jordan, Iraq and the Arabo-Persian Gulf.

272. Elsewhere around the world, French overseas territories are major assets from the perspective of military cooperation, crisis anticipation and regional integration. They also accommodate bases able to play a role in controlling global commons and providing aid to countries struck by natural disasters. They give France secure platforms for power projection all over the world, and the possibility to redeploy military assets in response to changes in the strategic situation. France is present as a credible partner and ally in both the Indian Ocean and the Asia-Pacific region.

273. In addition to these permanent assets, our prevention actions include all occasional or recurrent deployments that contribute to asserting our presence, supporting our allies and helping to stabilize areas of tension. To this end, our participation in NATO's enhanced Forward Presence in the territories of our Baltic allies and partners plays a dual role of prevention and deterrence.

# 5. Armed forces tailored for current and future strategic challenges

## 5.1. A full-spectrum, balanced force

274. A full-spectrum and balanced military is key to ensuring that strategic functions are fulfilled in the face of all threats. Such a force requires the capacity and the capabilities, to include the most critical and rarest ones, to achieve the desired military effects. The point is neither to be capable of operating autonomously in every context, nor to possess every capability at the highest standard of performance or in massive quantities. It is important, however, to be aware that giving up an operational capability, even temporarily, creates a risk of permanent loss of certain skills.

275. Such a force model ensures France's national independence, strategic autonomy and freedom of action. It is dynamic by design to adjust to changing conflicts. It expresses our ambitions and military expertise.

276. It also provides additional legitimacy for forming partnerships and assuming the role of framework nation, in particular regarding those high value military capabilities possessed by only a handful of powers.

277. The armed forces must be able to engage, even at very short notice, across the full spectrum of threats and conflict. As a result, they must be capable of permanently maintaining the deterrence posture, the homeland security and

protection posture, of conducting stabilization and counter-insurgency operations, and engaging in high-intensity operations in all environments: land, sea, air, outer space and cyberspace.

278. The Defence Industrial and Technological Base (DITB) required for this model requires the support of the armed forces themselves. Related tasks, in particular in the export field, have an impact on their format and are a constraint that must be taken into account.

279. Lastly, the wide dispersion of theatres of operation, coupled with simultaneous and extended engagements require the availability of appropriate force volumes (equipment, personnel and inventory), with adequate critical mass.

## 5.2. Balanced operational cooperation

280. The French armed forces must be able to operate autonomously for extended periods in fields such as intelligence (autonomous assessment), permanent protection of French territory, command and control (national control over the use of forces), permanent security postures, special operations, cyberspace, protection against asymmetric threats, power demonstration in support of political will, and influence activities. In these fields, contributions from partners may be sought to enhance the effectiveness of our forces, but must not be a prerequisite for operational engagement. In fact, other nations' decision-making processes are often less responsive than ours, given their constitutional and political frameworks.

281. French forces must also be able to gain and maintain combat superiority in all domains, perform in-depth strikes, deploy assets to hardened theatres with high in-theatre mobility and protection against conventional threats, provide fire support to troops in contact, conduct amphibian or airborne operations and missions in complex or extreme environments (including urban or mountainous terrain, deserts and jungles…), and perform combat search and rescue. In these fields, partnerships will be sought whenever we lack the necessary capabilities, provided political agreement can be found.

282. Lastly, in order to secure our military space assets, French forces will have to continue working in partnership with those Nations with assessment and action capabilities in outer space.

283. The aim of the operational partnerships and cooperative efforts established by France, particularly in Europe, is to facilitate joint operational engagements, and thus ultimately to enhance our relative operational autonomy by bringing

in additional or complementary assets. Such partnerships also provide other benefits, in terms of legitimacy and acceptability of operations that France seeks to carry out. Lastly, they create or strengthen existing ties that rely on the proper recognition of respective security priorities by each party. To this end, on the basis of an early assessment, cooperative projects must reflect a sufficient convergence of political wills and military needs in terms of calendars and capabilities. From a capacity standpoint, they must contribute to making operations sustainable and ultimately deliver savings (costs, equipment volumes, maintenance, numbers of deployed personnel, etc.) when compared to a strictly national approach.

284. In many configurations, partnerships, whether bilateral or multilateral, are thus necessary, regardless of the desired degree of operational autonomy. Interoperability, which is essential for joint action, relies on common technical standards for command and control systems and major equipment as well as on shared concepts, doctrines, tactics and procedures.

285. France must retain its capability to be a framework nation, i.e. to rally partners and generate trust, by assuming the responsibility for planning, force generation and command and control of a military operation. It must be ready to provide differentiating capacities and a significant volume of armed forces. Within NATO, France has committed to provide the capacities necessary to command a small joint operation (SJO), and a component of a major joint operation (MJO). It also plays an active role in defining NATO standards, to ensure the interoperability of its equipment and the political control of Nations over essential shared capacities. Outside this institutional framework, France must be able to provide its allies and *ad hoc* partners with the capability (i.e. procedures and equipment) to work together effectively.

## 5.3. Reinforcing operational capabilities

286. Efforts engaged under previous Military Planning Acts must be maintained in order to take wear and tear into account and prepare our armed forces for the future. Additional efforts are also necessary in terms of intelligence, command and control (C2), forcible entry, combat and support capabilities.

### • Intelligence and C2

287. Analysing and understanding a situation is an essential prerequisite for any political or military decision. It is critical to any military manoeuvre, whether at the strategic, operational or tactical level. Efforts in this area cover only

some of the needs identified for knowledge and anticipation, which exceed the scope of the armed forces alone.

288. First, human and technical investments in intelligence collection across the full spectrum (human, electromagnetic, radar, optical and digital) must continue by diversifying platforms, sensors and collection methods (including manned and unmanned aircraft, naval units and space-based assets). Sensor complementarity will provide access to targets of interest across the threat spectrum, regardless of the engagement permissiveness. Its goal is to find the right balance between surveillance assets with narrow fields of observation and those used to orient them (wide fields).

289. We must also address the challenge of processing and analysing volumes of data that are increasing exponentially. This requires improving the interconnections between the various systems and integrating, on all levels, automated data processing and analysis in order to accelerate decision-making loops for military intelligence. A special effort will be made regarding augmented intelligence analysis (big data and artificial intelligence).

290. Outer space is of crucial importance to all of our defence capabilities, while becoming an increasing source of vulnerability for our C2 and surveillance assets. Monitoring objects in low earth orbits – and watching geostationary orbits in particular, as planned for by the aerospace operations command and control system (AOCCS) – is essential to ensuring the security of our space-based assets and conducting our operations. In that regard, the level of protection and the resilience of the planned Syracuse 4 satellites must be enhanced.

291. In addition to the above capability to monitor the sky and outer space in real time, an early warning capability would enable better characterisation of ballistic threats, determination of the source of a launch and prediction of the target area.

292. C2 structures represent the nerve system of action. They require planning, command and control capabilities at the strategic, operational and tactical levels (for the air, land and sea components), including deployable modules, as well as trained and experienced human resources to take into account the variety of our engagements. Our efforts towards C2 systems that are more homogenous and more interoperable with Allied ones aim at:

- developing C2 structures that are interoperable both with NATO countries and *ad hoc* partners;

- improving the interconnection and information-sharing between our own systems in order to accelerate the decision-making loop;

- ensuring free-flowing data exchange while retaining control over information in a context of cyber-risks and an increase in the volume of data to process, particularly from new sensors.

### • Forcible entry

293. The proliferation of high-technology defensive systems gives our adversaries anti-access capabilities in all domains, both physical and intangible. These systems are liable to impede our freedom of action and increase the level of risk. Forcible entry refers to the capability to penetrate such contested spaces and reduce the threat level in order to conduct military operations inside.

294. The initial phase of combat must create a force balance that is favourable to a subsequent engagement at an acceptable level of risk. It requires capabilities designed to obtain and maintain land, sea, and air superiority to shock the enemy and seize points of entry to the theatre while creating room for manoeuvre. Efforts will focus on obtaining and retaining air superiority, long range strike, undersea warfare, special operations, combat search and rescue, and on cyberwarfare capabilities.

295. Air superiority is a prerequisite for military operations. It encompasses the skills and capabilities needed to reduce enemy air threats down to a level that provides the necessary freedom of action for land and naval forces. This ability, which does not relate exclusively to forcible entry, requires persistent effort in order to maintain constant pressure on the enemy. Forthcoming upgrades to the Rafale and its weapon systems, as well as the Future Combat Air System (FCAS), for which detailed studies must be approved without delay, will have to meet this challenge by introducing connectivity, integration of capabilities to suppress enemy defence systems and the development of autonomous systems (combat drones).

296. Striking enemy centres of gravity deep in its defence system while limiting the exposure of our forces requires a capacity to remotely operate from French territory, or from deployed air bases, land bases or from the sea (aircraft carrier group). Penetration capabilities and the range of weapon systems are decisive elements in that regard, as well as the combination between platforms (including air refueling where applicable) and weapons.

297. Cruise missiles represent differentiating assets which are important to develop, so as to ensure our power projection capabilities. In that regard, the naval cruise missile, the refurbishment of the air-launched cruise missile, and the planned anti-ship cruise missiles that are being jointly developed with the United Kingdom will provide state-of-the-art capabilities. The improvement in military

positioning capabilities will greatly enhance the accuracy of military effects and the capability of the armed forces to operate in non-permissive environments.

298. Special forces will continue to play a major role, in forcible entry as well as in the fight against terrorism. It is therefore essential to enhance their capabilities as a matter of priority, in particular in terms of deployability and mobility. The same applies to personnel recovery, which requires expertise in long-distance insertion of special forces trained to locate, secure and evacuate personnel (nationals, ejected pilots and hostages).

299. Lastly, the armed forces must be able to plan and conduct operations in cyberspace, down to the tactical level, in a seamlessly integrated approach with the planning and conduct of kinetic operations[9]. In addition to operations specific to cyberspace, operations in the digital domain not only expand the range of conventional effects available to political authorities, but also take advantage of the increased use of digital technology by our state and non-state adversaries. This ability requires enhanced and sufficiently agile human resources, as well as the continuous development of appropriate technical solutions.

### • Combat and protection capabilities

300. Being able to establish and maintain a favourable force balance on land, at sea and in the air is essential for the on-going protection of our territory and its population, as well as to defeat an adversary further afield.

301. To this end, significant modernisation efforts are already in progress. In particular, these include the modernisation of surface-to-air systems, light helicopters and counter-UAV defence systems; the renovation of air-defence frigates; the acquisition of detection and suppression systems against rocket-artillery-mortar (RAM) threats; the renewal of mine-hunting capability; the refurbishment of the Atlantique 2 maritime patrol aircraft, of the amphibious fleet and of the nuclear attack submarines; the acquisition of medium-size frigates, of armoured vehicles with enhanced protection and connectivity (JAGUAR, GRIFFON and light multirole armoured vehicles) and of engineering and artillery assets.

302. Given the growing number of threats and security challenges, the protection of our coastal waters and maritime interests requires timely use of high end capabilities to counter threats such as maritime terrorism or incursion attempts into our territorial waters. To this end, dedicated efforts must be spent towards equipment designed for maritime defence and state action at sea. Some maritime zones could otherwise no longer be monitored and national responsibilities no longer be fulfilled, particularly for overseas territories. In addition to

9 Military action aimed at causing physical damage or destruction.

the essential renewal of patrol vessels and maritime surveillance aircraft (preferably via European cooperative ventures), maritime surveillance must be enhanced (Spationav network radar coverage, satellite-based surveillance, data processing, UAVs, etc.).

303. Maintaining air superiority at sea involves preparing for the renewal of the aircraft carrier group. Furthermore, the work initiated with the United Kingdom will provide our forces with a successor to the Exocet-class anti-ship missile.

304. Protecting national airspace is another major challenge in confronting a diversified spectrum of threats and risks.

305. To maintain our national airspace surveillance and control capability requires a continuation of the on-going modernisation and harmonisation of the 3D radar coverage (including a substantial effort towards detection at very low altitude), an enhancement of performance levels, and the consolidation of command and control across French territory in order to confront new threats.

306. As the last resort in case of a major crisis on national soil, the standing homeland protection posture puts together a coherent set of measures to support cross-government action. It requires a sustained, immediate mobility of military units, sufficient volumes as regards certain key capabilities and the ability to operate in a CBRN environment.

307. In ground combat, the SCORPION equipment programme, by enhancing the ability to operate on the frontline or in tactical depth, and to exercise a sustained control of the military environment, will increase the strength and the agility of units engaged in operations. In the longer run, the Main Ground System project, expected to design the LECLERC tank replacement, and the future artillery system are to be developed jointly with Germany.

308. The arming of remotely piloted aircraft systems, which will provide an appropriate response capacity when dealing with ever more transient adversaries and large areas of operations, must be accelerated.

309. An effort must be made in the development of detection and neutralisation capabilities, in particular against unmanned aircraft systems, and in the protection of equipment and people. These capabilities will support the armed forces' contribution to the protection of French territory.

310. Equipment, weapon systems and information systems must also be made more robust and resilient to cyberattacks.

- **Service support capabilities and sustainability**

311. Military operations take place over many years, with recent engagements lasting an average of 10-15 years. Sustainability is required both for intervention forces and for support echelons operating in an increasingly challenging environment.

312. Sustainability depends on the volume of forces, equipment and stocks, on logistical organisation and on the ability to restore human and material resources.

313. Efforts to replenish and maintain munition stock levels have been initiated across all platforms (including artillery, combat aircraft and naval units). This effort will also apply to infrastructures used by the armed forces.

314. Functions related to joint service support, healthcare, energy, logistics flows (resupply), operational maintenance of equipment and support to operational personnel, recruitment and training all directly contribute to the ability of forces to carry out operational preparations and to operate overseas as well as in French territory over the long run. A particular priority should be given to the operational maintenance of equipment, to strategic and tactical air, sea and land lift capabilities and to and medical support for deployed forces (mobile surgical units).

315. The availability of a strategic reserve of personnel, equipment and munitions is necessary in order to be able to respond to a strategic surprise and provides an initial restoration capacity in case of sustained engagements. When tapped, this reserve must be reconstituted as needed within very tight timeframes.

316. Sustainability also depends on the resilience of the armed forces. It relies on the agility as well as on the robustness and redundancy of systems, networks and critical equipment. From a support perspective, resilience depends on the ability of the leadership to shape organisations in order to ensure the security, continuity and responsiveness necessary for operations and operational preparation. The resilience of support functions also includes industrial and operational supply chains, which must thus be protected.

## 5.4. Trained, experienced and valued service personnel

317. Against a backdrop of changing ways of life and fiercer competition for certain key skills in the job market, attractiveness and retention are major challenges that require improving the everyday lives and career prospects of military personnel.

318. Beyond core military education and training, the most advanced operational, technical and technological skills need to be taught by a dynamic and integrated civilian and military education and training system.

319. The Nation must ensure proper recognition of our armed forces for the exceptional nature of their duty, which their status reflects.

320. Veterans and the families of military personnel wounded or killed in operational duty must receive special attention consistent with their commitment and sacrifice. Dedicated long-term healthcare and social services must be provided for physically or psychologically injured personnel.

321. The ability of the men and women of our armed forces to endure increasingly tough engagement conditions depends in part on public support, via a renewed pact between the military and civil society, and on a preserved national consensus regarding our defence efforts.

# CONCLUSION

France and Europe are now directly exposed to a broad array of converging threats and crises: in addition to the return of war along Europe's borders and to terrorist attacks, the number of sources of tension in the Euro-Mediterranean region - from the North Atlantic to the Sahel - has increased to unprecedented levels since the end of the Cold War. Furthermore, as crises become globalised due to the contraction of geopolitical space and denser interconnections, Europe finds itself exposed to the direct consequences of even the most geographically distant crises. All these phenomena may be exacerbated by demographic, political, environmental, or health vulnerabilities.

Since the publication of the 2013 White Paper, events – including several which have struck France's territory and population – have confirmed the lasting deterioration of the international environment. In addition to the persistent threat from jihadist terrorism, uncertainties are rising due to the return to power politics and military rivalry, by a growing number of states, potentially jeopardising our security interests. The emergence of a multipolar world generates additional rivalries between states, for control of common or shared spaces, as well as a change in the forms of confrontation, toward strategies of intimidation and ambiguous action, which increase the risk of incidents or escalation. The uncertainty generated by these changes is all the more significant since it combines itself with a direct challenge to those international norms and institutions designed to regulate the use of force, and with a persistent proliferation dynamic, which is of great concern. Lastly, the overall improvement in military capabilities, fueled by technological dissemination,

will make the operational environment ever more demanding for our forces across the full spectrum of engagements.

For France, as a European power with global responsibilities and interests, responding to all these security challenges requires strengthening its strategic autonomy as a matter of priority. Preserving its freedom of assessment, decision, and action will depend in particular on the renewal of all components of the nuclear deterrent, as well as on sustained efforts in terms of knowledge and anticipation. Enhancing the resilience of functions and sectors vital to the life of the Nation must complement these efforts. The strategic areas of industry and research in particular, which are especially exposed, must be the focus of a concerted effort by all relevant government services. Lastly, France's strategic autonomy will remain underpinned by a strong, committed diplomacy based on a comprehensive approach to crises that incorporates security and development, in close coordination with military action.

This military build-up cannot be detached from our support to building European strategic autonomy. While the cohesion of the European Union has been weakened and questions have arisen about the credibility of alliances, Europeans' awareness of shared security interests is growing, as is the desire to possess more autonomous means of action. Such efforts must be encouraged and assisted by making concrete progress in terms of support to research activities and more flexible cooperations, which facilitate the convergence of strategic cultures and interoperability, between able and willing partners. France's European Intervention Initiative is integral to this approach, as it sets out an ambitious, demanding framework for operational cooperation, coinciding with an upturn in European defence spending after two decades of significant reductions. The increase in European capabilities will also reinforce NATO, a key element in European defence.

France's ability to act alone, should circumstances require, and to rally partners, will continue to depend on maintaining a full-spectrum and balanced military. The preservation of our forces' ability to prevail across all types of engagement on land, at sea and in the air will require a sustained build-up effort that extends beyond the upcoming Military Planning Act.

Certain capabilities must be enhanced as a matter of priority, in particular those that contribute to intelligence, France's role as a framework nation, forcible entry capabilities, and the ability to support long-term engagements. The complementarity and links between certain strategic functions must also be strengthened. Prevention, in particular, must regain its lost importance, through an effort on prepositioned forces, forward deployments, and cooperation. Reassessing the right balance between prevention, protection, and intervention must also continue, in order to adapt to changing threats and risks.

This autonomy will only be possible if France maintains the excellence of its Defence Industrial and Technological Base. Preserving France's status as a major technological power, ensuring that forces have access to high-end equipment, and maintaining the vitality of the military industrial ecosystem will continue to require long-term research and investment policies, export support, and protection of the scientific and technological potential. The new European defence dynamic will also give new impetus to the search for strong and balanced cooperative ventures. Such goals can be achieved only if accompanied by a global policy that supports innovation and an overall transformation of the ecosystem, in order to improve responsiveness and to stimulate, capture, and integrate disruptive technologies and practices, particularly those arising from the civilian sector.

This agility-oriented approach cannot limit itself to the industrial and technology sectors. In a context of limited resources, it must steer transformation for all defence actors, increase their ability to integrate innovation and accelerate its effects. It must also allow forces to retain operational superiority vis-à-vis creative and responsive adversaries.

The conclusions of the Review will provide a basis for orienting the significant defence effort, decided by the President of the Republic, which will be implemented in the upcoming Military Planning Act. This substantial defence effort will rest on a human community, both military and civilian, whose training, skills, and sense of duty deserve the nation's esteem. It is with the enduring commitment of these women and men firmly in mind that the Review Committee has drawn up these recommendations, in order to provide them with the best possible conditions to perform their mission in the service of France.

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# LIST OF OPERATIONAL CAPABILITIES

An operational capability is a capability to fulfill a specific mission. All of the following operational capabilities are necessary to a coherent and full-spectrum force model.

**Implementing the nuclear deterrence posture**: ensuring credible nuclear deterrence at all times relies on the safe deployment of all deterrence assets in a fully controlled environment, with the support of conventional forces. Governmental control allows demonstrating the required levels of reliability, compliance and nuclear safety.

**Gathering, processing and distributing intelligence**: such a capability requires a full control of the entire intelligence cycle (gathering, analysis, orientation and dissemination), including both human (HUMINT) and technical intelligence, which consists of both image-based (IMINT) and electromagnetic intelligence (ELINT) as well as site sensitive exploitation (SSE[10]), in close coordination between French intelligence services and those of our allies and partners.

**Identifying threats and attributing aggressions:** confirming a case of aggression, while identifying its source and characterizing its nature, becomes increasingly challenging in the cyberspace and the outer space, due in particular to the diversity of actors (including non-state ones).

**Building, maintaining and sharing an operational situation**: maintaining in the long run an overall, shared situational awareness of the battlefield, for national purposes as well as for sharing with our allies, will require drawing on operational situations by domains.

**Commanding a military operation**: planning and carrying out all aspects of an operation, to achieve the assigned objective, requires planning and C2 capabilities at strategic, operational and tactical levels.

**Ensuring the nation's maritime security**: the Permanent Maritime Security Posture encompasses all of the measures taken by the armed forces for the maritime defence of the national territory and as part of the state's action at sea. It particularly involves, in maritime spaces and specifically in our approaches, countering military or terrorist threats, ensuring public order, accident prevention, people and property protection,

10 SSE includes the immediate mining of data retrieved from action or combat locations: technical and scientific analyses, DNA analyses, etc.

the fight against all illegal activities that threaten domestic security (including drug trafficking, the smuggling of immigrants and arms), marine conservation and the protection of resources in exclusive economic zones.

**Securing the national airspace**: a coherent set of defensive measures implemented and applied at every level of the C2 chain in order to establish and maintain the security of the national airspace and approaches, and to perform search and rescue missions for missing aircraft and persons. It is referred to as the Permanent Air Security Posture.

**Contributing to domestic security on the national territory**: a coherent set of permanent and situation-specific measures intended to support cross-government action. Requests to share or requisition military assets and expertise for the benefit of civilian authorities must be justified on the grounds of unavailability, insufficiency, unsuitability and non-existence of civilian means. This set of measures forms the Domestic Land Protection Posture.

**Ensuring the security of space assets**: ensuring the physical and digital integrity, reliability and secure use of our national assets, and contributing to the security of shared assets, whether it is satellites or their ground-based assets, requires adequate situational awareness of the space situation as well as the capability to act against security threats.

**Conducting operations in cyberspace**: capability to engage in defensive or offensive action against state or non-state actors anywhere in the digital domain.

**Establishing and maintaining air superiority**: reducing over the long term, from the air or the ground, the enemy air threat (from manned or unmanned vehicles) to a level significantly below our capacity to maintain air superiority.. When performed in preparation for and during joint forces operations, air superiority is instrumental in achieving success at an acceptable level of losses. It entails being able to detect and destroy enemy air threats and vehicles.

**Establishing and maintaining superiority on land**: reducing the enemy threat on land down to a level significantly below our air-land combat capability. Throughout operations, it consists of establishing a favourable balance of force by seeking the preliminary weakening of adversary's physical and intangible capabilities, in depth, to include its sanctuaries such as urban areas, without ruling out close combat.

**Establishing and maintaining air-sea superiority**: reducing the enemy air-sea threat (including surface, airborne and submarine threats) to a level that affords the freedom to act safely within the desired area and time-frame, requires adequate situational awareness of the region and its actors, as well as the ability to neutralize

threats to our own vessels, both before and during maritime operations, in order to enable success at an acceptable level of losses.

**Demonstrating and projecting power:** manifesting political will by demonstrating military power to influence the outcome of a situation, whether physically or in terms of perception begins with the deployment of power instruments, ready for immediate use if necessary.

**Transporting forces into theatre:** capability to deploy human, material and logistical means by land, sea or air, from their facilities to operation areas.

**Protecting deployed forces against surface-to-surface threats**: capability encompassing measures of protection (of personnel and equipment) and strike-back capacities (including counter-battery assets) when confronting land-to-land, sea-to-sea, land-to-sea and sea-to-land threats.

**Protecting deployed forces against air-to-surface and ballistic threats**: capability encompassing protection and interception measures to confront air-to-sea, air-to-ground and ballistic threats. Theatre ballistic missile defence, protection of aircraft carrier groups and deployed air bases, and low-altitude air defence for troop protection are integral to this capability.

**Protecting deployed forces against submarine threats**: capability encompassing measures of protection and countermeasures when confronting threats (conventional and otherwise) involving mines and torpedoes. Protection of military as well as chartered civilian units must be ensured both at sea and in ports. This capability is particularly critical for the seaborne component of the nuclear deterrent.

Protecting against CBRN attacks and operating in CBRN environments: protecting (via detection, analysis and decontamination) and engaging forces at home and abroad in contaminated environments comprises measures relating to personnel (combat and support personnel) and equipment (land, air and sea).

**Protecting forces against non-conventional threats:** detecting and countering these threats requires knowing how to rapidly integrate technological innovation that is often dual-use or derived from the civilian sector. Adaptability in terms of doctrine and rules of engagement are also required in non-conventional conflicts.

**Ensuring tactical mobility** takes into account the need for force mobility in domestic and overseas operations, in all environments, including complex and extreme ones. The operation characteristics (in terms of intensity and dispersion) are decisive in that respect.

**Performing in-depth strikes (in enemy territory)**: a differentiating capability amongst military powers that subjects the adversary, and high-value targets in particular, to a constant threat; it requires expertise in the phases of intelligence, penetration of enemy defence, guidance and impact assessment (military and any collateral damage) prior to the strike. Strikes may be performed from stand-off locations (common spaces, national territory or friendly territory) or in contact with enemy forces. This capability must address the need to strike static as well as moving targets.

**Providing combat support to troops in contact**: providing combat support to forces in direct contact with the enemy may consist of air, sea or land-based fire support, as well as of intelligence support in every domain or of cyber-support.

**Conducting special operations**: capability to plan and conduct military operations outside the conventional framework of traditional action, with the goal of targeting objectives of strategic importance. Such operations entail environmental actions, deep intervention targeting high-value objectives, the fight against terrorist organisations, gathering and use of intelligence in non-permissive environments and military partnerships with foreign forces. This capability requires a chain of command, specific means and synergy between special forces, conventional forces and intelligence services.

**Conducting amphibious operations**: the capability to plan, command and control operations from the sea to the land (and vice versa) includes operations from ship to shore[11] or from ship to objective[12] and requires expertise in air-sea, air-land combat, as well as in maritime fire support and submarine-launched missiles.

**Conducting airborne operations**: the capability to directly deploy forces or logistical support by air, close to operational targets (on land or at sea), is designed to bring an element of surprise, in addition to saving delay and facilitating in-depth attacks.

**Conducting operations in complex or extreme environments**: fighting in physical environments that are inhospitable to combatants and non-conducive to manoeuvres requires specific skills and equipment. Examples of complex and extreme environments include urban areas, mountain and extremely cold regions, as well as dry and equatorial areas.

**Conducting combat search and rescue**: expertise in long-distance insertion of special forces trained to locate, secure and evacuate personnel (including nationals, ejected pilots and hostages) requires a high level of alert and responsiveness.

11 Action by amphibious craft dispatched to the shore followed by movement from the shore to the objective.
12 Direct action against the objective (airborne operation from a helicopter carrier).

**Conducting influence operations**: capability encompassing a range of techniques and processes intended to prompt support, to legitimize or facilitate action by our forces before, during and after operations, as part of a comprehensive approach to operations in both physical and intangible domains.

**Providing support to forces and operations**: enables forces to conduct long-term operations at home and abroad. Joint general service support, healthcare, energy, logistics (supply chains), maintenance and personnel support constitute its main fields.

# MAIN ABBREVIATIONS

| ACRONYM | DEFINITION |
|---|---|
| **CBRN** | Chemical, Biological, Radiological and Nuclear |
| **CJEF** | Combined Joint Expeditionary Force |
| **CSDP** | Common Security and Defence Policy |
| **DITB** | Defence Industrial and Technological Base |
| **EATC** | European Air Transport Command |
| **ECHR** | European Court of Human Rights |
| **EDF** | European Defence Fund |
| **eFP** | enhanced Forward Presence |
| **ELINT** | Electromagnetic intelligence |
| **EU** | European Union |
| **EUTM Mali** | European Union Training Mission in Mali |
| **FCAS** | Future Combat Air System |
| **FTI** | Intermediate-size frigates |
| **G5 Sahel** | Organisation comprised of Burkina Faso, Mali, Mauritania, Niger and Chad |
| **GPS** | Global Positioning System |
| **HUMINT** | Human intelligence |
| **ICC** | International Criminal Court |
| **IED** | Improvised Explosive Device |
| **IMINT** | Image-based intelligence |
| **INF** | Intermediate-Range Nuclear Forces Treaty |
| **ITAR** | International Traffic in Arms Regulation |
| **JCPOA** | Joint Comprehensive Plan of Action (agreement between Germany, China, the USA, France, the United Kingdom, Russia, the European Union and Iran, relating to the Iranian nuclear programme, signed on 14 July 2015) |

| | |
|---|---|
| **MINUSMA** | United Nations Multidimensional Integrated Stabilization Mission in Mali |
| **MJO** | Major Joint Operation<br>Army corps level operation / JFACC level operation (350 sorties per day) / Naval Task Force operation (NATO) |
| **NATO** | North Atlantic Treaty Organisation |
| **OPCW** | Organisation for the Prohibition of Chemical Weapons |
| **OSCE** | Organization for Security and Cooperation in Europe |
| **PPT** | Domestic Land Protection Posture |
| **PESCO** | Permanent Structured Cooperation |
| **S&T** | Science, research, technology and innovation |
| **SAMP/T** | Land-based Medium Range Air Defence system |
| **SCORPION** | *Synergie du contact renforcé par la polyvalence et l'infovalorisation*<br>(French acronym for synergy of enhanced contact by multi-tasking and digitisation).<br>Modernization programme of battle-group combat capabilities |
| **SME** | Small and Medium-Size Businesses |
| **TEU** | Treaty on the European Union |
| **TOR** | The Onion Ring<br>Computer network enabling anonymous connections |
| **UN** | United Nations |
| **WMD** | Weapons of Mass Destruction |

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- Mr. Thomas Gomart, Director of the *Institut français des relations internationales (IFRI)*

- Mr. Hervé Guillou, Chairman of the *Conseil des industries de défense françaises (CIDEF)*
  *Deputy: Mr. Pierre-Eric Pommellet, representing the CIDEF*

- Ms. Céline Jurgensen, Director of Strategy with the *Commissariat à l'énergie atomique et aux energies alternatives (CEA)*

- Mr. Bruno Racine, Chairman of the Board of Directors of the *Fondation pour la recherche stratégique (FRS)*

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Colonel Cyrille Duvivier
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DICoD - Bureau des éditions - Octobre 2017