Update of the Strategic Vision 2030: Recommendations







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Foreword

In December 2020, the Belgian Defence Minister Ludivine Dedonder mandated Colonel Eric Kalajzic (RHID) and Tanguy Struye de Swielande (UCLouvain) to formulate recommendations with the aim of updating the 2016 Strategic Vision. They selected ten academics, respecting linguistic, gender and academic balance:

- Sven Biscop (UGent & Egmont Institute)
- > David Criekemans (UAntwerpen & KU Leuven)
- Cind Du Bois (KMS)
- Joseph Henrotin (CAPRI & ISC)
- Jonathan Holslag (VUB)
- Alexander Mattelaer (VUB & Egmont Institute)
- Delphine Resteigne (ERM & UMons)
- > Dorothée Vandamme (UMons & UCLouvain)
- Nina Wilen (Egmont Institute & Lund University)
- Caroline Zickgraf (ULiège)

Also in attendance at the meetings were a member of the Cabinet, one member of the Defence Staff and two interns.

The group acted as an independent expert group and met in person on nine occasions between February and May at the Royal Military Academy and virtually. Prior to every session, those who wished to do so submitted a contribution in writing to the coordinators to structure the discussion of the session of the day. The coordinators also organised 10 online sessions with several experts on the following themes: strategic visions of neighbourhood countries, hybrid and information warfare, military medical support, AI & quantum computing, cybersecurity, terrorism in Belgium, special operations, intelligence, nuclear deterrence (future of treaties & evolution) and dirty weapons, the NATO development planning process and EU Planning Defence Capability and innovation and research led by RHID.

The following document is a synthesis of all the discussions, written contributions and exchanges of the last few months.

The members of the committee, while not necessarily supporting each individual statement, all subscribe to the general thrust of this report.

Executive Summary

- The evolving security environment will demand more involvement and commitment from Belgian Defence, for which it is not yet sufficiently prepared. There is a need to develop a more proactive and anticipatory strategic culture as a result of increasing uncertainties and geopolitical changes.
- Belgian Defence needs to be able to fulfil its five missions national readiness and resilience, collective defence, projecting forces abroad contributing to collective security, defence diplomacy and aid to Belgian society which are interconnected with Belgium's vital and strategic interests.
- Belgium cannot further reduce its range of capabilities. Belgian Defence needs to be able to play its role in all domains land, air, sea, space, cyber and information. Despite major acquisitions during the preceding legislature, there are still shortfalls in our capabilities. Furthermore, capabilities need to be rebalanced between collective security and collective territorial defence.
- To meet the requirements for missions and capabilities, there is an urgent need of recapitalisation in personnel. The decrease in personnel needs to be reversed and shifted towards increasing recruitment and profile diversity.
- The current government will increase the defence expenditure to 1.24% of pre-COVID-19 GDP and future governments should align with the average of NATO non-nuclear European members, an average that has already surpassed 1.7%.
- > There is a need to strike the right balance between missions, capacities, personnel and budget.
- A vibrant security and defence industry will enable Belgium to participate in multilateral research projects and capability initiatives that further the needs of Defence
- Belgium has to demonstrate to its partners that it will take its share of the burden and accept collective risks. Belgium acting as a free-rider would not be acceptable to its NATO and EU partners and allies.

1. Why update the Vision 2030 of the Belgian Armed Forces?

Since the publication of "Vision 2030" in 2016, based on analyses carried out in 2014 and 2015, international tensions have increased and the pace of strategic change has accelerated.

Both state and non-state threats are challenging the stability and security of our country and our allies. It is therefore important to assess the implications of these trends for our national defence strategy. On a systemic level, international cooperation has, to a certain extent, been overtaken by competition between the major powers, particularly between China, Russia and the United States. This has weakened international organisations and undermined multilateralism as the organising principle of international order. Under the Trump administration, the United States was characterised by an inward retreat, an increase in nationalism and a withdrawal from international organisations.

Faced with this, China and Russia were able to increase their influence, promote authoritarianism and weaken democracy worldwide, primarily through subversion and coercion. This has led to a weakening of international norms and rules and multilateralism, the founding principles of Belgian policy, and a resurgence of proxy wars and potential flashpoints, particularly in Eastern Europe, the East and South China Seas and in the Middle East and Africa. These factors of instability are aggravated by the superimposition of nuclear proliferation and, more broadly, by the weaponisation of advanced technologies. Other trends, such as climate change, increased food insecurity and the destabilisation of energy supply, the difficult management of migratory flows and demographic pressure, the intensification of transnational organised crime, the rise of populism, nationalism, and terrorism, are exacerbating these tensions and general volatility. The development of new, unregulated technologies is aggravating the situation, whether by means of cyberattacks, disinformation, or competition for resources (including big data digital resources).

Confronting these factors of instability, the EU is struggling to develop a common foreign and security policy, despite an increasingly volatile neighbourhood (Belarus, Ukraine, Syria, Caucasus, Mediterranean, Turkey, Pan-Sahel).

It is vital to avoid a strategic vacuum that would leave our country unable to anticipate phenomena and trends and would lead us to reactive policies. Such a situation would lead to an overall weakening of our institutions and a deterioration of the socio-economic situation, already undermined by the current health crisis.

In the face of these plural, heterogeneous and yet interconnected threats, the Belgian Armed Forces are one of the main pillars of the stability and security of the State. As such, it is essential that they remain relevant and resilient. The Armed Forces must therefore accelerate the implementation of the 2030 vision and develop and integrate new areas of capability and skills such as Robotics, Cyber and Al in order to contribute to collective defence and security. Finally, an essential precondition for the implementation of these objectives is a recapitalisation in personnel to enable the execution of different missions and tasks.

2. Vital and strategic interests

Vital and strategic interests guide any decision by the Belgian government to commit its defence capabilities at home or abroad.

Vital interests

Belgium's vital interests are those that guarantee the very existence of our society and way of life. When threatened, they trigger immediate and forceful reactions. In our democracy, these vital interests form part of the social contract concluded between the population and governmental authorities. The following interests are identified as vital to Belgium: security, political sovereignty, social and economic prosperity.

Security:

- ✓ La sécurité physique des habitants de la Belgique ;
- ✓ L'intégrité territoriale, y compris la zone économique exclusive (ZEE), l'espace aérien et le cyberespace ;
- ✓ La sécurité et l'indépendance des infrastructures critiques et des chaînes d'approvisionnement.

Political sovereignty:

- ✓ Political independence and the integrity of the democratic process;
- ✓ Securing individual and collective freedoms and dignity according to the Constitution;
- ✓ Maintenance of the Rule of law.

Social and economic prosperity:

- ✓ The ability of the Belgian people to enjoy a high level of economic and social well-being, to support their families and those close to them and to have opportunities to improve their lives;
- ✓ Equality of opportunity, regardless of gender, race or sexuality;
- ✓ The ability of the country to secure its economic prosperity and maintain independent decisionmaking capacity;
- ✓ Safeguarding access to vital resources, securing critical infrastructure and domains, guaranteeing that foreign direct investments in strategic sectors are secure and present no threat to the continuity of said actors;
- ✓ Maintaining capabilities and opportunities for innovation, scientific research and R&D.

Strategic interests

Belgium's strategic interests are those that help the country secure its vital interests and safeguard them. While not vital *per se*, strategic interests can, if threatened, have a direct impact on the safeguarding of our vital interest. They include supporting and promoting multilateralism and alliances, securing our direct neighbourhood, SLOCs¹ and addressing transnational challenges.

¹ Sea Lines of Communications

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Multilateralism and alliances:

Promoting and defending a rules-based international order is of strategic importance to Belgium, in order to guarantee a stable and secure international environment that is conducive to safeguarding our vital interests, in particular because of the return of competition between major powers. Multilateralism is a foundation of our international status, and alliances guarantee our inclusion and integration within the international system as well as our political independence and international security and prosperity. In that regard, the EU and NATO are cornerstones of our strategic interests: their effective functioning is fundamental to Belgium's functioning and security. In the EU, we have pooled key elements of our political and economic sovereignty. This means promoting and ensuring the consolidation and further deepening of EU integration. NATO guarantees our fundamental security needs and our inclusion in the largest defence alliance. This is also the case for our membership and commitments to international peace and security in the context of the UN, as well as the OSCE, two stepping stones towards protecting and defending our interests.

Immediate neighbourhood:

In order to ensure a stable and secure environment for our political independence and our economic growth and prosperity, it is essential to safeguard the stability of our immediate neighbourhood and the free movement of goods to our coast and ports. This includes the stability and security of the Channel and the Northern Atlantic area, the Eastern flank, and the Mediterranean region (Southern flank).

The Channel and Northern Atlantic area are essential for guaranteeing safe access to natural resources and markets for our products. On the Eastern flank, the deterioration of security directly impacts upon NATO and the EU, thereby affecting Belgium, mostly because of Russia's ongoing destabilisation of Ukraine and its threatening behaviour towards EU Member States and NATO allies. In the Southern flank, the Mediterranean shores from North Africa to the Near and Middle East are highly unstable and insecure, which raises traditional security issues (growing military presence of great and regional powers) as well as human security challenges (terrorism, refugees, human trafficking).

Lines of communications:

Guaranteeing the freedom of navigation, the security of maritime routes and open trade worldwide means that the global maritime environment needs to be secured from geo-strategic rivalries, piracy and organised crime (for example in the Mediterranean, the Gulf of Guinea, the South China Sea). Securing lines of communications so that they can operate effectively is not limited to the maritime domain but also concerns other domains (cyber, air, land and space).

Transnational challenges:

Climate change, demographics and migration, pandemics, scarcity of resources and disruptive technologies will challenge our security environment in the decades to come. In particular, the intersection of these forces will have a profound impact on our security environment. As threat multipliers, they impact both our vital and our strategic interests. They can pose a direct threat to our way of life, economy and prosperity, and also pose an indirect threat due to their exacerbating effect on existing instabilities or tensions. In that regard, managing those forces and their impact is central to securing Belgium's national interests.

3. Missions

Our defence policy should define the missions that the Belgian Armed Forces engage in. Their readiness to take on different missions and tasks rests on a core of inner strength: a well-resourced national defence establishment that is firmly anchored within Belgian society. The nurturing of such an establishment constitutes the long-term foundation for executing all other missions. These range from the honouring of Belgium's collective defence commitments and conducting expeditionary operations supporting collective security and/or national objectives to engagement in defence diplomacy and supporting civil authorities when temporarily overwhelmed at times of crisis.

These five different missions shield the Belgian population from threats both near and far. Maintaining the strength of the inner core is paramount: it is the national defence establishment that provides the Belgian government with the ability to act and protect the interests of all Belgian citizens. This ability is ultimately measured in terms of its readiness to employ and sustain forces in all geospatial domains, drawing on a pool of human and material resources that is sufficient not only to meet national requirements but also to shoulder a proportional share of the burden in a NATO and EU context in order to be a loyal and committed member state.

National readiness: establishing the force, enabling a resilient society

The military ability to act does not appear out of thin air: it is painstakingly built from a variety of parameters. On a national level this requires the ability to *analyse* the security environment, to *plan* and *command* operations, and to *decide* on the employment of the force – and to *resource* it accordingly. As such, the national defence establishment is key to maintaining the required level of readiness to execute all other missions and to nurture the resilience of society writ large. These two dimensions – readiness and resilience – are intimately intertwined. Military readiness provides society with the means to absorb shock and respond to any emergency. Societal resilience therefore relies to a considerable extent on the military providing the backbone for the continuity of government. Vice versa, military readiness builds on the armed forces being fully embedded in the society they are meant to defend. A high state of readiness requires sufficient personnel, the security of supply with respect to equipment, and a command and training system for transforming human, material and financial resources into useable capabilities.

Maintaining national military readiness and thus enabling societal resilience is the foundational mission defined by our defence policy. This is the mission that ensures that any Belgian government – be it now or a generation from now – will have the ability and freedom to act whenever it wants to act. Without that foundation, none of the other missions can be undertaken successfully. The military intelligence system and the defence staff informs and enables decision-making in the National Security Council and the Council of Ministers. The force structure, encompassing all geospatial domains, provides decision-makers with the means to act when called for. At the same time, this national defence establishment contributes to employment, industrial activity, research & development and societal resilience. By virtue of being fully embedded in the society, the armed forces can generate the numbers of personnel and the secure supply of materiel it requires for maintaining the appropriate degree of readiness for all other missions.

Collective defence: to deter and to defend

After the Cold War, collective defence shifted into the background, and the focus of Belgian Defence gradually shifted to collective security, with expeditionary operations outside EU and NATO territory becoming the primary mission. In practice, collective deterrence and defence have always remained vital; the Russian invasion of Ukraine only underlined this.

In view of Russia's assertiveness, and the US strategic shift from Europe to Asia, European states, including Belgium, must significantly enhance their contribution to NATO's deterrence and defence. Belgium's vital security interests are anchored within, and therefore fundamentally dependent on, the system of collective defence.

Collective defence is more demanding than collective security and therefore has to be prioritised in terms of equipment, manpower, doctrine, planning, training, readiness and stockpiles.

NATO will remain a collective defence organisation based on deterrence and the ability to counter aggression with all possible means. NATO's overall strategy is based on an appropriate mix of conventional, nuclear and missile defence capabilities. This implies that the conventional component cannot be reduced any further without increasing the already substantial degree of reliance on nuclear deterrence. If anything, boosting conventional firepower and as well the hybrid capabilities of European allies will be critical to maintain credible deterrence across all possible scenarios. In addition, there exists a growing need for greater flexibility and the ability to deploy reinforcements to remote areas. Mobility, secure communication and supply access are priorities.

Belgium constitutes one of the key arteries for reinforcing and sustaining combat forces in Central and Eastern Europe due to the presence of various North Sea ports. With NATO's eastward expansion, distances have increased; demarcation lines are blurred; a network of territorial depots no longer exists and stocks have to be mobile; different logics of confrontation are combined and cover very diverse domains ranging from the cognitive domain to the domain of the highest intensity at different locations. The speed of reaction and decision making gives a substantial advantage in the five dimensions, sea, land, air, space, and cyberspace. NATO's forward presence alongside the Eastern flank and the ability to respond flexibly to all conceivable scenarios – requiring the readiness to 'fight tonight' if need be – is key. Belgium must assume its fair share of the burden and the risk that this entails if it is to genuinely support the architecture of European security.

Projecting force abroad: contributing to collective security

Belgium's strategic interests include a stable and rules-based international environment; it must therefore continue to contribute to collective security as well. This entails actively participating in international crisis management operations, security force assistance missions, peace support operations and when necessary, combat operations against adversaries which threaten to destabilise the international order.

Belgium and the other European states must increase their capacity to deal with any crisis in their periphery that falls below the threshold of NATO's Article 5. Whenever necessary, Belgium and its European partners must be able to launch autonomous expeditionary operations to prevent security threats from spilling over into the EU, to provide humanitarian support to partner states in need, and or to stop external powers from steering EU's neighbours in a direction that runs contrary to its security.

In this context, EU-NATO coordination is crucial. In terms of capability-development, Belgium can strengthen, when possible, its force posture for collective defence through cooperation and integration with other countries, along the lines of the BENESAM² and CaMo³ frameworks. If the choice were made to re-build a second, mechanised brigade, for example, that could not be done on a purely national basis in a cost-effective way. Belgium's investment in major new platforms for all components is an opportunity to pursue further integration. By investing in its armed forces and in their integration with partners, Belgium could contribute to some of PESCO's⁴ core building-blocks and assume a role in its further development.

² BENESAM: 'Belgisch-Nederlandse Samenwerking' – 'Belgium-Netherlands Cooperation Agreement' is the name of the Belgian-Dutch naval cooperation.

³ CaMo: 'Capacité motorisée' – Strategic partnership between Belgium and France in the framework of the Motorised Capacity (CaMo) cooperation project.

⁴ PESCO: Permanent Structured Cooperation

In addition to building the capacity for autonomous operations in the neighbourhood, the EU should focus on building solidarity and effective deterrence (and, when necessary, retaliation or coercive actions) in the non-military dimensions of Art. 42.7 TEU.

Defence diplomacy: to interact with partners outside the operational realm

Our network of defence attachés, our military representation within the different international organisations (NATO, EU, OSCE and UN) and Belgium's contribution to the military staffs at different levels allow Belgian Defence to support our national diplomacy abroad.

Long-term relationships are also developed by maintaining and nurturing foreign partnerships to help and contribute to a safe and secure environment through Military educational and training exchanges⁵ (the Royal Military Academy, the Royal Defence College, dedicated training centres). Developing additional activities such as military dialogues, military partnerships programmes, military assistance and common exercises is essential to an effective defence diplomacy. These collaborations and partnerships are mutually beneficial not only to Belgium but also to our partners, especially to Belgium's neighbouring countries, by contributing to the development of the nucleus of a renewed European strategic culture.

Aid to Belgian society: to support and enable civilian authorities in need

Defence can support civilian authorities in the form of resources and capabilities if the latter are *temporarily* overwhelmed in a crisis. As such, the armed forces contribute to the collective solidarity effort for a *limited period*.

In order to be able to fulfil these numerous missions in various contexts (National, European, NATO and UN), Belgium must continue to invest in the capabilities of its different components and in the future cyber-influence dimension.

⁵ e.g. European Security and Defence College, NATO Defence College, NATO School, Oberammergau, 4th Cycle of the High Security and Defence Studies (HSDS)...

4. Capability mix

Warfare is changing

Our global and regional security environment will continue to evolve during the next decade. Hence, our Belgian Armed Forces will face persistent and simultaneous challenges in physical and non-physical domains. Increasing uncertainties and geopolitical changes therefore require us to develop a more proactive and anticipatory strategic culture.

Together with our allies and partners, we need to be prepared to operate across the full spectrum of conflict. The keys to success are cognitive superiority, resilience, influence and power projection, integrated multidomain defence and cross-domain command. We also have to achieve comprehensive interoperability, and this can only be realised by fielding a C4I⁶ architecture that allows operational commanders to sense, decide and act more wisely than the adversary, both now and in the future.

An effective conventional deterrence and defence requires the capacity to fight a high intensity war. This implies enhancing the intelligence and the firepower of our armed forces. These currently have a primarily expeditionary posture. We need thus to rebalance our efforts between collective territorial defence and the projection of forces in the framework of expeditionary crisis response operations. Furthermore, in each of our operational commitments, we need to develop cyber and information warfare capabilities. Effective contributions to operations abroad require the capacity to sustain significant units in operations on a permanent, year-round basis. So that contributions to ongoing operations do not need to be interrupted, sufficiently large forces will be required. These will need to be in a high state of readiness and must offer an increased depth in terms of logistics. This cannot be achieved within the 25 000 FTE personnel envelope that was previously envisaged for a more benevolent security environment.

Belgium cannot further reduce its range of capabilities and its troop numbers— it is already highly specialised and has been downsized too much. The time has come to expand the range and the numbers, in light of the needs of national readiness, collective defence and collective security. The multiplication of synergies with other NATO and EU countries is indispensable, starting with our increased partnerships with our neighbours – and will not only involve furthering existing partnerships (e.g. between the Belgian Navy and the Netherlands, CaMo with France, C-SOCC⁷ with the Netherlands and Denmark), but developing new ones.

Despite major acquisitions during the preceding legislature, our capabilities still have important shortfalls. These are well known to our allies and have been highlighted in the capability development processes, both in NATO (NDPP⁸) and the EU (CARD⁹). Our reliability and reputation as a trustworthy partner depend on this. In the absence of such investments and capability development, measures instituted by our allies and partners as a means of exerting pressure could target our country– including in its socio-economic wellbeing.

Intelligence

Intelligence is essential to ensure that available assets are committed appropriately and efficiently. Analysis and information gathering capabilities, both human and technical (signal, imagery, artificial intelligence, quantum computing, big data exploitation and storage), are required to strengthen autonomy in decision-making and crisis or conflict preparedness. To that end, we must guarantee our ISR¹⁰ capabilities.

⁶ C4I: Command, Control, Communications, Computers, & Intelligence

⁷ C-SOCC: Composite Special Operations Component Command - combines national capabilities from the three participating nations into a deployable multinational headquarters, specifically designed for commanding several Special Operations Forces task groups.

⁸ NDPP: NATO Defence Planning Process.

⁹ CARD: Coordinated Annual Review on Defence.

¹⁰ ISR: Intelligence, Surveillance and Reconnaissance

Moreover, one of Belgium's assets, but also one of its vulnerabilities is the fact that the main institutions of the European Union and NATO are based in Brussels. To maintain our position as a host state and maintain the secure functioning of these institutions, Belgium needs to strengthen TESSOC¹¹ capabilities.

Land

Our land component is the one with the most shortfalls. Belgium's NATO partners expect from our country one fully operational motorised brigade that is combat ready, sustainable and deployable. This is not met by means of the CaMo¹² project. We mainly lack indirect and direct fire support and tactical air defence systems. Furthermore, the brigade's full realisation requires that all related systems (ammunition, communications, cyber-electronic warfare, tactical ISR, logistics, etc.) be available. Yet the current composition of our sole brigade does not correspond to that of a typical combined arms motorised infantry brigade as defined by NATO or the French Army. CaMo offers significant capabilities in expeditionary operations and could also be engaged in a collective defence mission in Europe if adequate support systems are acquired – including but not limited to, bridge laying capabilities.

At present, the Belgian Land Component cannot meet the growing NATO Capability Targets that result from the need to be able to reinforce the Eastern Flank in crisis scenarios. To mitigate this shortfall, it needs to grow in terms of both unit and personnel numbers.

This requires:

- ✓ The continued application of the 2016 Strategic Vision and its capability development plan. This is particularly the case with regard to the application of indirect fire (artillery) but also ground-based air defence (GBAD)/counter-unmanned aerial systems (C-UAS) and their associated sensors.
- ✓ Considering a potential Belgian involvement in the future Franco-German Main Ground Combat System (MGCS).

Special operation capabilities should be developed in accordance with the 2016 Strategic Vision, including with the indispensable SOF Air assets (rotary wings and V/STOL¹³ aircraft; see later).

<u>Air</u>

As far as our air capabilities for multi-role combat and transport platforms and strategic enablers are concerned, recent acquisitions cover the requirements only partially ($34 \times F-35$, $7 \times A400M$, $1 \times Airbus A330$ MRTT¹⁴, $4 \times MQ-9B$).

The following capabilities ought to be considered to face current and coming operations:

- ✓ Contributing to NATO's ALTBMD15 through antiballistic capabilities, taking into account the changes induced by hypersonic systems;
- ✓ Acquiring the capability to engage time-sensitive targets by arming MQ-9B drones16;
- ✓ Augmenting the envisioned small mass of 34 F-35 by means of additional multi-role platforms and loyal wingmen drones, very long-range air to air missiles and cruise missiles.

In terms of rapid reaction capability, the Special Operation Regiment is severely lacking in airmobile tactical mobility.

¹¹ TESSOC: Terrorism, Espionage, Subversion, Sabotage and Organised Crime.

¹² CaMo: Motorised Capacity (in French)

¹³ VSTOL: Vertical or Short Take Off and Landing

¹⁴ MRTT: Multi-role Tanker Transport.

¹⁵ ALTBMD: Active Layered Theatre Ballistic Missile Defence

¹⁶ Being tele-operated, they will not have the capacity to target or launch weapons autonomously. Therefore, arming the drone would not contradict the spirit or the letter of the 2018 resolution.

We lack ground-based air defence assets against cruise, hypersonic and ballistic missiles to protect our governmental bodies, our critical infrastructures, the international decision-making centres established on our territory, and the infrastructure intended to facilitate the arrival of reinforcements and cargo from across the Atlantic or the Channel. Increasing our capacities is crucial since our partners and allies do not have enough ground-based air defence capabilities and airborne air defence to provide support and protect our population and territory.

<u>Sea</u>

As far as maritime capabilities are concerned, agreements were concluded during the previous legislature for the acquisition of two ASWF (Anti-Submarine Warfare Frigate) and six MCM systems (Mines Countermeasures vessels) for mine hunting.

As it stands, we do not have the necessary platforms to guarantee a permanent presence at sea. As part of the EU's maritime strategy review and given the importance of freedom of navigation for an open economy such as Belgium, it is essential to reassess the necessary means to contribute to and assume our international responsibilities.

This would allow Belgium to contribute more regularly to the EU's permanent presence in areas of interest (Mediterranean, Red Sea/Gulf of Aden/Indian Ocean, Strait of Hormuz/Gulf of Oman, Gulf of Guinea) and to participate to NATO deterrence and operations.

<u>Medical</u>

Our capacity to provide medical support to deployed troops is limited, as is our reach-back capability (Queen Astrid Military Hospital-QAMH). Therefore, we need either to rely on another nation's help or have to limit the number of simultaneous operations in various areas. Defence lacks sufficient protected evacuation assets to follow land manoeuvre or air platforms for medical transport to guarantee compliance with NATO and EU standards¹⁷. Other medical support capabilities are needed, such as mobile laboratories for operations deployed in high-risk areas, and a medical intelligence capability. The ability to operate in CBRN-contaminated environments constitutes a key element of resilience in national and collective defence missions.

Cyber-influence

Major efforts must be made in cyberspace and information warfare in order to satisfy both our national missions and those of collective defence and security. We recommend developing a cyber-influence command to support our military operations as well as our national resilience. The multidimensional nature of cyberspace calls for the coupling of the cyber and information/influence domains, as well as for cooperation and coordination on a national level. Homeland cyberspace operations should be complemented by deployed and remote cyberspace operations. This will require recruiting enough technicians, analysts, staff members specialised in that field. Technological watch on emerging technologies and innovations needs to be implemented and incorporated with procurement processes in simplified administrative procedures. Enhancing these capacities will also reinforce the EU and NATO capacities, and improve readiness for joint and combined operations both at the domestic and the international levels.

Cyber capacity will also include influence operations and information warfare (IO/IW). This includes identifying the threat, countering it, fighting it or influencing our adversaries, including those that have robust and effective information warfare strategies and a whole-of-government approach to information operations (most notably Russia, China and Iran).

¹⁷ Strategic medical evacuation as defined by NATO remains a national responsibility

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The cyber-influence command should be established based on benchmarking which would be reflected in a continuous study involving the analysis and adaptation of the organisational modes of partners and allies in order to improve performance.

<u>Space</u>

Defence should gain and guarantee access to resilient and secure space-based services (satellite communications, space-based ISR, PNT¹⁸) supported by trained staff and R&D programmes. Defence will contribute to the security¹⁹ and resilience of national and allied space assets by developing its national and international duties in terms of Space Domain Awareness²⁰ and Space Traffic Management.

Technical innovation and anticipation

The development of advanced weapons systems implies rapid technological developments that will impact Defence and need to be closely and continuously monitored. Technological anticipation and investment will be key to guaranteeing our security and success. Regular investment in RT&D is required, as well as a proactive capacity to operationalise and industrialise the outcomes of fundamental and applied scientific research. Robotics, AI and quantum computing will penetrate and accelerate warfare. Combined with Big Data and advanced analytical capabilities, these technologies will significantly improve C4ISTAR²¹ systems.

In addition, investment in green technologies and energies will be required in order to address environmental challenges and decrease our logistical footprint, as a means of encouraging reduced energy consumption, reducing the number of refuelling convoys, or recycling, amongst other things.

Outsourcing

In order to preserve their operational capability, states have to privatise some functions. While the partial outsourcing of areas such catering, the security of installations and maintenance of equipment on Belgian territory does not appear to be problematic, more advanced outsourcing, particularly in theatres of operation, could pose major problems. In this respect, Belgium may also want to reflect on developing a legal framework enabling the requisition of privately owned materiel and infrastructure in cases of grave emergency.

In conclusion, Belgium has to demonstrate to its partners that it will take its share of the burden and collective risk. The new threats we face imply a combination of deterrence and force projection, with interoperable capabilities. Belgium therefore needs an adapted defence toolbox in all operational domains, which provides a wide range of combat capabilities, the necessary means of support and capabilities in order to guarantee that the government has decision-making autonomy and a number of options that will enable it to provide a concrete demonstration of its solidarity with our partners, in proportion to our size and means.

This toolbox should be flexible and deployable, available at short notice (enhanced readiness), with enough certified combat ready units that can be deployed without lengthy preparation for collective defence and security. The toolbox must also be dimensioned in line with our international obligations, most notably those commitments related to the agreed Political Guidance in a NATO framework (i.e., meeting the apportioned NDPP targets) and the EU's permanent Structure Cooperation (i.e., the 20% defence investment expenditure and 2% defence R&T targets).

¹⁸ PNT: Positioning, Navigation and Timing

¹⁹ For example, developing cyber for space services in synergy with the ESA Cyber Center of Excellence in Redu, microsatellites monitoring services, etc.

²⁰ This can take several forms: contribution to international organisations or pooled capacities, development of Space Weather services or sensors, autonomous national niche capacity, etc.

²¹ C4ISTAR: Command, Control, Communications, Computer, Intelligence, Surveillance, Targeting Acquisition and Reconnaissance.

To facilitate future capability acquisitions, we need to invest in strategic foresight analysis on a structural level by creating a foresight cell.

Finally, freedom of action should be guaranteed for successive Belgian governments so that they can significantly contribute to operations or scenarios as they see fit.

5. Personnel

One of the most important challenges for Defence up to 2030 is the recapitalisation in personnel due to a decrease in personnel, caused both by the retirement of almost half of the current workforce and by attrition. This needs to be compensated both by an increase in recruitment, including to levels that exceed the current total workforce, but also by efforts to retain its personnel. Existing measures notwithstanding, the rapid reduction of personnel is accompanied by a significant loss of knowledge, experience and know-how. This is placing increasing pressure on the remaining workforce. Efforts to increase its motivation, but also to develop its creativity, empathy and adaptability while guaranteeing its diversity, are all essential pillars when it comes to developing and retaining a well-functioning workforce. More effective consideration should therefore be given to the aspirations of both military and civilian personnel throughout their careers, although this is a political matter that extends beyond strict HR management. As developed in the 2016 Strategic Vision, a more flexible personnel policy will be required to meet the needs of the organisation and the expectations of its personnel. Career management should be more flexible and should be informed by military and civilian expertise in HRM.

Four transversal axes should constitute the guidelines of our personnel strategy:

Proximity

In order to be attractive and close to its citizens, Belgian Defence should remain closely connected to its society, both in order to retain a societal support base, but also to promote career opportunities in its ranks.

In order to enable sustainable growth of the force structure, Belgian Defence should offer a balanced regional presence, thereby guaranteeing an improved work-life balance for its members. The expansion of regional *quartiers du futur* to all Defence districts should allow Defence to regain a place in the local socio-economic fabric and to be an integral part of the post-COVID-19 socio-economic revival. This proximity should allow Defence, as a socially responsible actor, to increase societal resilience which is indispensable in the current and projected security environment. Societal changes and evolving family configurations require improving the reconciliation of private and professional life, including for personnel serving abroad. Given the changes induced by the COVID-19 crisis, the hierarchical authorities should encourage and support new work models.

Openness

Defence should explore the possibilities for partnerships with both the private and the public segments that bring an added value, so as to ensure greater flexibility for its personnel, especially for the NEET (*Not in Education, Employment or Training*) but also for jobs and skills that are in high demand in Defence as well as in society at large. The role played by reservists in this respect is a considerable advantage, particularly with regard to niche skills or in case of crises. Increasing the size of the reserve force is necessary both for organisational efficiency and for strengthening Defence's societal base, but also in order to address current and future security challenges. To this end, the status of the reserve should be made more attractive and flexible and should allow to engage reservists in operational missions. Reservists should be able to combine their status with another job in a more flexible and modular manner. Specific capabilities (cyber, technicians, mechanics, medical-technical staff, and logistical profiles) should be acquired by increasing the use of civilian reserve specifically trained for the job. Further studies by Defence Staff will be needed in order to exploit this path of personnel diversification.

Diversity

Taking into account the reality of current operations and considering the variety of profiles within the organisation, Defence should strive to offer a working environment in which respect and the appreciation of differences prevails. It should therefore seek to strengthen the development of a positive and inclusive organisational culture in order to attract and retain a workforce that reflects the diversity of our society, at all hierarchical levels. A diversified workforce will better reflect Belgium's multicultural society; it will also improve its operational effectiveness in complex environments. Greater staff diversity should be achieved

through increased recruitment of underrepresented groups, in particular women and ethnic minorities, and members of the LGBTQIA+ community.

Complementarity between military and civilian personnel

Defence should contribute to social mobility and therefore strengthen its societal role, thereby improving its relationship with the society which it serves and boosting its recruitment possibilities. Providing a first professional experience to unemployed youth and NEETs, participating in federal and regional campaigns to stimulate young people's interest in STEM (*science, technology, engineering, and mathematics*)-related careers; continuing to organise a third level of qualifying secondary education preparing for jobs in the security sector and reassessing the effects and attractiveness of the *Life Time Employment* concept are only some examples of the important efforts that need to be made in this domain. Furthermore, improving the attractiveness of careers in Defence should also favour its competitiveness on the job market. The organisation's deficit in a number of skills (e.g. technicians in all components, specialised medical personnel, infantrymen and women) will require special recruitment and retention measures.

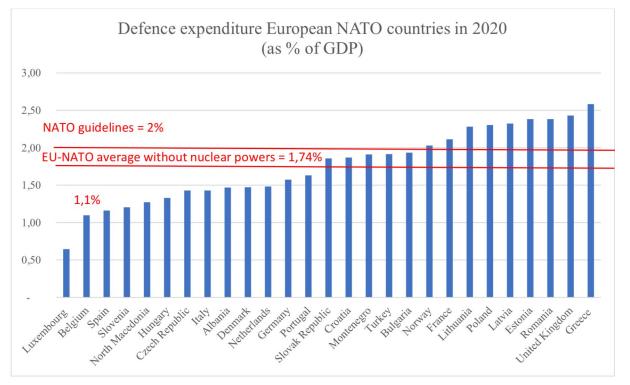
In addition to military personnel, the role of civilian personnel should be strengthened for those tasks that do not require specific military expertise. Civilians bring specialised expertise to Defence in both operational capabilities and support services. Organisational continuity and complementary can be improved by putting civilians in specific functions, primarily in the education, personnel, budgetary, cyber and legal areas, bringing specialised expertise and providing sourcing oversight and support management services. The neighbouring countries' Armed Forces consist of approximately 20% civilian personnel²² while the Belgian Defence barely reaches 5% (1540 FTE in January 2021). Emphasis on the recruitment of civilian personnel is indispensable to reach the threshold of 15% of civilian personnel by 2024 and similar partner's levels by 2030. The creation of a specific status for civilians and its possible alignment to the current statutes and salaries of military personnel would also improve the attractiveness and retention of civilians. Five common values will unite civilian and military personnel around their job: professionalism, respect, integrity, courage and trust. Learning and appropriating these values will prepare Defence personnel to execute their missions in an increasingly culturally complex environment, both in Belgium and abroad.

²² NATO STO HFM-226 Task Group, Civilian and Military Personnel Integration and Collaboration in Defence Organizations, STO Technical Report, March 2018, 456p.

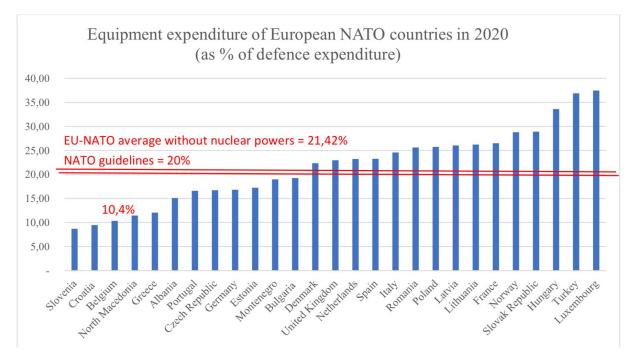
6. Budgetary capacity

Expressed in constant euros, our Defence budget decreased on average by 1.26% a year between 1981 and 2019. Following the policy note of our Minister of Defence, the goal is to increase our defence expenditure to 1.24% of pre-COVID-19 GDP. While today's governmental budgetary cutbacks impact Defence (in 2021, the budget will decrease by 0.89%), this increase in purchasing power will be pivotal if we want to keep on performing our core tasks and if we want to remain a reliable partner for our allies. Keeping our budget in line with our missions and tasks will be the main challenge.

The benchmark used in the 2016 Strategic vision for Belgium's defence expenditures of 1.3% of GDP by 2030 was the average of NATO non-nuclear European members, but, as shown in graph 1, that average has already surpassed 1.7%. Given that Belgium's defence expenditure is only just above 1% of GDP, the Belgian growth path will have to be re-assessed, therefore, to ensure that Belgium can maintain its military relevance and stay in line with our European allies.



At the same time, a percentage of GDP is to some extent an arbitrary metric, particularly in times when the GDP has shrunk in the wake of the COVID-19 crisis. The real aim should be to ensure sufficient funding to meet Belgium's apportioned capability targets as well as to use that capability, whenever needed, to remain a credible partner. We recommend a benchmark that designates a minimum of 20% of total defence spending for the purchase of military equipment in order to fill strategic capability gaps (according to the NATO guidelines on deployability and sustainability and to the PESCO commitments). As shown in graph 2, Belgium scores considerably worse than the majority of NATO allies.



Note: figures are estimates

Finally, our defence budget is not the only criterion. We should also benchmark ourselves against our European allies in terms of the ratio between size of our armed forces and the size of the population – and this shows that we have fallen below the threshold.

7. Defence- Research & Development-Industry Strategy

Innovative, local and contributing to the reduction of trade balance deficit, the defence industry sector (Belgian Security & Defence Industry – BSDI) is an asset for the Belgian economy (with 15,400 direct jobs) but also for Belgian Defence and the country's contribution to European strategic autonomy. Belgian Defence historically supports the industry through the protection of its economic, scientific and industrial potential against foreign interference and industrial espionage. Evolving threats, in particular in the cyber domain, require reinvigorating this mission, including in the prevention of threats that executives face abroad.

Belgian Defence already cooperates with the industry on a variety of topics, including research and testing. It also works in cooperation with the Federal Public Service economy aeronautics-defence direction and supports the Regions engaged in exportation processes. Beside these existing roles that need to be maintained, more could be done.

The Defence leadership should play a leading role in the triple helix partnership scheme by coordinating Belgian defence procurement with relevant industrial actors and research institutions. This scheme needs to be implemented by means of clear forecasts of Belgian defence requirements in the short and longer term and by means of a clear definition of KETA (Key Enabling Technological Defence and Security Applications). In 2016, the "Belgian interests in the domain of the defence and security policy" document, endorsed by the Council of Ministers, stated that having a national defence industry base was in Belgium's national interest (in order to master the dependencies that multinational partnerships entail for Belgian decision-making). However, that document did define the KETAs in a restrictive way (namely: defence (sub)systems, C4I, advanced materials, defence training simulators and cyberdefence applications). These should be expanded within a federal defence and security technology strategy that could include AI, cryptology and data protection, military space systems (participation to launchers, satellites, in accordance with the national space policy), optronics, robotics/cobotics and any technology that could lead or play a game-changing role in military capabilities, including those that can have an impact on dual applications. KETAs are just one side of the ESI (Essential Security Interests) coin. In addition, Defence should identify in which way and in which domain they wish to rely on the Belgian defence industry's production and MRO (Maintenance Repair & Overhaul) to support the Armed Forces in crisis scenarios, in which the assured availability of equipment is most likely to be critical and, in this way, achieve Assured Security of Supply.

Furthermore, Defence can help enable the integration of the Belgian industry into international programmes, particularly European ones, and not only those in which Belgium is engaged but also those in which Belgium's industrial technology can provide Europe with an advantage and can serve to reinforce the European Defence Technological and Industrial Base (EDTIB). Defence can assist by lending its weight on a political level to guarantee that the industry's voice is heard within international industry planning processes. Whenever possible, Defence should also support Belgian firms, European consortia with Belgian buy-in or the participation of the Belgian Defence Technological and Industrial Base (BDTIB) and EDTIB in international programmes if it contributes to the ESI entailing both Assured Security of Supply and technological autonomy at the national and EU level.

Defence is an industry client. For the future, Belgium should, depending on its military necessities and the required standards, encourage investing and buying in European programmes.

Belgium must also decide in which areas it wants to contribute, notably in the framework of PESCO and the European Defence Fund (EDF). The EDF will make it possible to co-finance collaborative projects for the development of military capabilities. Remaining active within PESCO, implementing the framework for granting eligibility status to our companies and showing Belgium's solidarity in the form of its commitments under the National Implementation Plan (NIP), will provide opportunities for our companies to benefit from this co-financing.

A vibrant security and defence industry will enable Belgium to participate in multilateral research projects and capability initiatives that will further the needs of Defence. However, the complex structure of the Belgian State necessitates all Belgian governments and entities to work together on an equal basis, and to develop the necessary mechanisms to protect, consolidate and further develop the industrial and scientific potential of the country. Defence will need to work together with the Belgian Regions in this domain, so as to work together in order to strengthen the economic security of the federation as a whole. This implies a significant expansion of the defence R&T budget to 2% of defence spending.

The Royal Higher Institute for Defence has a key role to play in enabling defence R&T to flourish in function of national DTIB objectives. Together with the Belgian universities network it will foster a culture of innovation in advanced technologies and defence analysis.

Finally, enhanced cooperation should be encouraged in the STEM field (Science, Technology, Engineering and Mathematics) between Defence, the industrial sector and higher education to provide sufficient personnel in the fields of IT, robotics, cyber security, data, artificial intelligence, quantum physics...

Conclusion

In the past few decades, the Belgian Armed Forces have been all too often side-lined in State policies, in order to favour other sectors. Yet the erosion of international security in the past decade calls for the position of Defence at the centre of governmental policies to be re-established.

While it remains one of its first missions, Belgian Defence is about more than securing our territory and constitutional freedoms; it also forms a key element of Belgium's external policy and international standing, in that it acts as a facilitator of Belgium's external action, as an instrument of our country's multilateral engagements and as an important socio-economic force within the country's domestic scene. The credibility of our country, both domestically and externally, depends on having the capabilities and willingness to act and play our part. To remain coherent, our multilateral engagements must be backed up by credible capabilities. Not doing our fair share in defence will have an impact on our overall relations with our EU and NATO partners, in economic and political dossiers as well.

Beyond our reliability as a partner and ally, our military needs to be recognised in its domestic role as a socioeconomic force that employs tens of thousands of individuals; it is a vector of social mobility, integration and diversity. Fulfilling this role means reasserting the military's social role and guaranteeing its timeliness and currency, including by improving the personnel's well-being and preparedness, e.g. with up-to-date infrastructure.

A credible capability is based on a triangle: personnel – budget – equipment. To guarantee the accuracy and reliability of our armed forces, Defence should be finely tuned to our country's international security environment. This requires continuous assessment, monitoring and adaptation to that environment, the ability, not only to act in a timely and flexible manner, but also, when possible, to anticipate and increase our preparedness and resilience.

Defence should be fully embedded in Belgian society, playing the substantial role it is meant to play, and should participate in our country's social and economic prosperity in association with the industrial and academic worlds.

Indeed, protecting our population, defending our vital and strategic interests, and contributing to a multilateral security architecture based on international norms and respecting human rights are key features of the social contract between state authorities and the people. It is an insurance for a safe and secure environment that is necessary in order to ensure our welfare and prosperity.

Recommendations



Responsible publisher: Ludivine Dedonder, Minister of Defence

Rue Lambermont 8 1000 Brussels



www.defence-institute.be