Ministry of Defence

Defence Vision 2035
Fighting for a
safer future

Choices are necessary

"Fighting for a safer future" is the title we have given to the Defence Vision on the way to 2035. We did that for a reason!

I still find it remarkable that here in the Netherlands we take it for granted that we can live our lives in freedom and that nothing will happen to us. Threats seem far away, but they are actually close to home.

Ukraine, Crimea, Syria: the repercussions of conflicts there can be felt here too. We are also facing new, different threats: Russia tried to hack the Organisation for the Prohibition of Chemical Weapons (OPCW) in The Hague. Our own Defence Intelligence and Security Service was able to uncover the plot. Elections have been and are still being influenced. Every day, cyberattacks occur in the Netherlands. Our open economy is being threatened by the trade war between the United States (US) and China. And fake news is spreading throughout our society. We are seeing that now, for example, in the coronavirus crisis. A crisis that is in any case taking a heavy toll on us all.

This by no means comprehensive list of issues is jeopardising our democratic constitutional state. The constitutional state that is crucial for our way of life, for our freedom.

Security is not a luxury! It is a hard and fast condition for prosperity and democracy. It is a core task of the government that should be prioritised.

After we took office, the state secretary and I rolled up our sleeves and wrote and implemented the 2018 Defence White Paper. We set in motion all kinds of investments and improvements and took steps to restore and modernise the organisation. The people on the work floor have noticed that too. It is a good start, but no more than that. Especially as we have come across a huge backlog of overdue maintenance.

In recent years, we have spoken to a great many people, both inside the defence organisation (from the bottom to the top) and outside it, about what still needs to happen. That has given us a good idea of what is required for the future. A safe future for us all.

For we must not be naive. As a society, we must become more resilient and we should also be prepared to invest in those who defend our values: the men and women of our armed forces. Risking their lives if they have to, they fight for our future security!

The future is after all uncertain. Threats are on the increase and we will need to be less reliant on our allies. The defence organisation will have to step up to the plate.

The conclusion of the threat and problem analyses in this Defence Vision is that, with the current design and state of the organisation, we are not sufficiently or appropriately equipped for the changing threats.
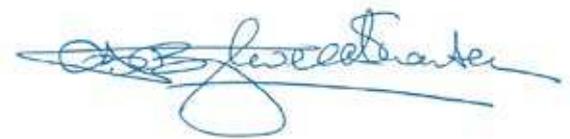
Clear choices are necessary! The defence organisation needs greater adaptive capability, speed and fighting power. We are choosing a new profile and a different way of working. In 2035, we want to be a smart, technologically advanced organisation. We need to be a flexible and scalable military force that can respond to threats proactively. A military force that can operate on a small and specialist scale, but also together with others in larger configurations.

Those choices must be worth something to us. Because security is precious. At the moment, we are not sufficiently able to cope with the changing threats. In our vision, we set out where we stand and what it's all about. In any event, long-term political commitment is important for our people to be able to bring about the necessary changes.

Together, we have worked hard on this Defence Vision. A vision that will help with choices. Security is not a luxury; we and the whole of the defence organisation will continue to fight for a safer future.

Precisely so that in 2035 we are able to protect what we value!

Ank Bijleveld-Schouten
Minister of Defence

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Vision 2035
Who we should be and what we should be able to do

In 2035, the defence organisation will be a smart, technologically advanced organisation. It will have a great capacity to adapt to situations and will act on the basis of the best information. And so it should. Because physical and digital threats all over the world will only increase in the coming years and the grey zone between war and peace will become ever larger.

The defence organisation will be called upon with increasing frequency. And then our people have to be ready: equipped and trained. As our Kingdom's fighting force, military personnel carry on when others have stopped.

In 2035, the defence organisation will be proactive and flexible. The armed forces will be able to operate in small and specialised units as well as in larger configurations. We will be able to reach multiple locations quickly and stay there longer. We can keep the peace and use maximum force - and everything in between. Ideally, we will prevent conflict. But if we have to, we will fight to win.

In 2035 too, we will be a reliable partner. Because we will be doing it together. Nationally and internationally. We will honour our commitments and ensure that our work and systems connect seamlessly with those of our allies.

Only then can the defence organisation continue to protect what we value.

3 characteristics and 10 design principles

Technologically advanced

- Unique personnel and labour-extensive capabilities
- Flexibility of action: rapidly deployable, scalable and self-supporting
- Strong innovative capability
- Escalation dominance, with our partners

Information-driven

- Authoritative information position
- Multidomain and integrated operations

Reliable partner and protector

- Transparent and visible in an engaged society
- Focus on a stronger, more self-reliant Europe
- Focus on further specialisation within NATO and the EU
- Strategic capabilities for a resilient society

To bring about the changes, we need to take steps. There is currently a mismatch between the growing demands on the defence organisation and the available resources. Long-term political commitment is required in order to be able to manage the organisation properly. Choices are necessary, because not everything is possible and not everything can be done at the same time.

Summary

Our world is in a state of flux and the security environment is deteriorating around us. The Netherlands is a safe and secure nation and our security is an important condition for our freedom, prosperity and democracy. We are the sixth largest economy in Europe; people can be themselves here and can decide for themselves who governs them. The defence organisation defends and protects our way of life and our people are prepared and trained to fight for it. Sometimes to the death. Because security and freedom are worth fighting for. As a free and prosperous nation, we have much to protect and therefore much to lose.

Dutch security interests increasingly come under direct pressure. So the defence organisation needs to have a response to the many threats we face, now and in the future. Our people need to be ready – equipped and trained. At any time of day and in any possible situation. At the moment, some threats are changing so rapidly that the defence organisation needs to adapt. The current setup and state of the defence organisation means that we are not properly equipped to deal with future (or some current) threats. The search for solutions to this problem is central to this vision.

Something is happening…
Our Kingdom is coming under attack on a daily basis in the cyber and information domain. Crucial physical and digital hubs are targeted ever more frequently. By influencing elections and other vital processes, opponents seek

to wilfully destabilise countries. Once we had a lack of information. Now there is often too much: we constantly have to filter and look for the needles of truth in the haystack. We live in a world full of connections. We are a nation of openness and, in our open economy, there will always be unavoidable dependencies. This makes the protection of our economic security even more important.

In the physical world too, things are becoming increasingly turbulent. Military forces of potential adversaries are modernising and becoming stronger through large-scale investments. A country such as Russia will not hesitate to annex part of another country, to deliberately weaken the multilateral order or to launch a poison gas attack in another country's territory. Only to subsequently deny having done so. The competition between major powers is intensifying, the language is hardening and the risk of a conflict involving military means is thus growing. The spread of modern weapons and expertise to other countries and non-state actors is adding to the mix. At the same time, the situation at Europe's borders is deteriorating, with irregular migration, organised crime and extremism as a potential consequence.

Old threats continue to exist and new threats are emerging. They come our way simultaneously and in many forms. All analyses show that ever more frequent demands will be made on the defence organisation's scarce

capabilities. We have to (be able to) operate more frequently and in more widely differing situations. We need to be able to reach a mission area faster and stay there longer.

This growing demand for defence deployment widens the gap between tasks on the one hand and capabilities, supplies and support on the other. The preponderance of NATO, on which we rely heavily, is now under pressure; unified action is no longer a given. Europe has to be able to act more independently, but cannot yet do so. The defence organisation is insufficiently equipped to counter hybrid threats and actions in the information domain. We are often faced with a lack of courses of action because we cannot clearly identify the perpetrator. We also have a shortage of personnel for the way the organisation is currently set up. The labour market will not provide a solution in the future, so we will have to find one ourselves.

Vision of the defence organisation in 2035
We want the freedom to live our lives the way we want to, also in the future. That freedom is being threatened in ways that are constantly changing. The threat environment is becoming more diverse, more complex, more alarming. This demands changes in our defence organisation and in the way we look at security. We can no longer take our security for granted. We have to work hard to protect our freedom, prosperity and democracy. For the defence organisation, this means

innovation, modernisation and the incorporation of different methods of combat in which technology and information are key. We need to be able to adapt faster than we did in the past. We have to be able to respond with sufficient courses of action, in different domains and with different partners, both military and civil. We also need to become more autonomous in crucial, strategic matters, and we must be able to operate accordingly.

We, as Europe, need to be able to stand on our own two feet. That way, we can keep NATO strong. To do so, European defence budgets need to be increased (towards the NATO norm), thus strengthening both Europe and NATO and keeping the US and others on board. We have already taken some important steps: this cabinet has invested heavily in the defence organisation. Future cabinets will address the issue of possible follow-up steps. To shape those steps properly, more transparency is required to provide clarity as to how the organisation is faring and what options and dilemmas exist. To do so, this Defence Vision describes which design principles form the basis for determining how this core task of government can be fulfilled in the future.

This vision therefore looks ahead 15 years. On the basis of a threat and problem analysis, we have formulated three characteristics and ten design principles in order to guide and design the organisation so that it can offer

a response to future threats and problems. Our people are key, now and in 2035. The characteristics for which we are aiming are:

1   **Technologically advanced**
2   **Information-driven in organisation and operation**
3   **A reliable partner and protector**

The ten design principles that will constitute the profile of the defence organisation are:

➤ **Design principle 1:** Unique personnel and labour-extensive capabilities
➤ **Design principle 2:** Flexibility of action: rapidly deployable, scalable and self-supporting
➤ **Design principle 3:** Strong ability to innovate
➤ **Design principle 4:** Escalation dominance, with our partners
➤ **Design principle 5:** Authoritative information position
➤ **Design principle 6:** Multidomain and integrated operations
➤ **Design principle 7:** Transparent and visible in an engaged society
➤ **Design principle 8:** Focus on a stronger, more self-reliant Europe
➤ **Design principle 9:** Focus on further specialisation within NATO and the EU
➤ **Design principle 10:** Strategic capabilities for a resilient society

We are now making a start on this. So that as it heads towards 2035, our defence organisation will be a smart, technologically advanced organisation with a vast capacity to adapt to

situations and act on the basis of the best information. We will also be reliable for our national and international partners and for society so that, together, we can withstand the threats that confront us. That way we can keep the peace and apply the strongest forms of force - and everything in between, also in the future.

The changes in the defence organisation not only require commitment from the defence organisation itself. Long-term political clarity, balancing policy and budget, is needed to bring about a transition and to allow realistic goals to be set. Future cabinets will be able to address this issue.

Choices are also necessary, as not everything is possible and not everything can be done at the same time. On the basis of the (financial) overview of all requirements (if we design everything in the best way possible), future cabinets will be able to formulate an effective strategy and decide which certainties to opt for and what risks to take.

Introduction

An uncertain future

Freedom, security and prosperity may seem assured, but they most certainly are not. A great deal of effort and investment, often unseen, is required to keep our society secure and free. Over the last 75 years, we and our partners have managed to deter potential adversaries by being able to deal the heaviest blow. But deterrence is requiring ever more effort and in the meantime our freedom, security and prosperity are being threatened in other ways. We have seen that in the terrorist attacks in Europe, the conflict in Ukraine and the downing of flight MH17, piracy, organised crime, cyberattacks and now coronavirus. In the case of all large and small strategic shocks such as these, and on many other occasions too, the defence organisation had to be ready and able to act fast and effectively.

The coronavirus crisis has shown both the strength and the weakness of our society at times when the normal course of events is disrupted. We have also seen once again that a threat seldom appears in isolation: this crisis is accompanied by geopolitical tensions, disinformation campaigns and cyberattacks. The defence organisation has provided national organisations with various forms of assistance with its expertise, skills and capabilities. It underlines the importance of a defence organisation that can act quickly and efficiently in the case of unpredictable events.

'Unpredictability' is a relative concept. The risk of a pandemic and the ensuing disruption of society has been incorporated in threat analyses for years. As have other threats which could have a major impact on the interests of our Kingdom – and which we hope will never become a reality. But if they do, the defence organisation needs to be ready.

Even in peacetime, the defence organisation's military and civilian personnel are working every day to protect and defend our Kingdom, in public view and behind the scenes. The defence organisation's personnel are constantly exercising and training and are standing by to do what is necessary, nationally and internationally, the moment our interests are in jeopardy.

The defence organisation is there to defend the foundations of our society. The defence organisation is thus a major prerequisite for our Kingdom's earning power. Because without security, neither the economy nor society can function properly. Furthermore, the defence organisation is one of the largest employers and a major investor in the Netherlands. The organisation's technological and industrial base helps to ensure a certain level of strategic autonomy at national level. As one of the first responders, we ensure that a crisis situation is sufficiently normalised to allow other security and aid organisations to perform or resume their work, that we control our borders, and also that we protect certain computer systems and networks. As the last line of defence, we can deliver (extra) sustainability in normal and exceptional circumstances to support the civil authorities. Together, we can thus protect and defend the Kingdom's national and international interests in any circumstances.

A constantly changing world

Geopolitical relations are hardening and threats are increasing in number, variety and complexity. That is the conclusion of the intelligence services, the National Security Strategy, the Integrated Foreign and Security Strategy, the thinking and writings in a UN, NATO and EU context and the (inter)national academic and think tank world. Adversaries are becoming stronger and smarter. Major players such as Russia and China are modernising their armed forces and, just like countries such as Iran and North Korea, are launching (proxy) attacks on other countries.

The US is turning its attention to Asia, a policy shift initiated by President Obama and, in a different tone, perpetuated under President Trump. Tensions between the US and China also have repercussions for European security. The Advisory Council on International Affairs (AIV) concluded that these developments were weakening Europe's position. Economic interests and security are increasingly intertwined and can also clash. The coronavirus crisis is causing an acceleration of these existing trends and thus a further hardening in relations. Some of the increasing tensions are manifesting themselves within the NATO Alliance. All this demands a stronger Europe, one which is an independent geopolitical player. We will also be strengthening NATO, which is still the cornerstone of our security policy. Instability in countries surrounding Europe is in the meantime persisting or even intensifying. Criminal organisations are threatening our security, both in the Netherlands and in the Caribbean parts of the Kingdom.

The Defence Vision 2035

The current setup, prioritisation and state of the defence organisation means that we are not adequately equipped for the changing threats. For an organisation tasked with protecting and defending the interests of our Kingdom, this is an undesirable situation. The search for possible solutions in this respect is therefore central to this vision. Regardless of what priorities are set by subsequent governments, the defence organisation wants to work according to the design principles set out in this Defence Vision. This government has already taken significant first steps by making investments, but it will be the choice of future governments to take this task further. This document provides the tools for this, but does not pre-empt decision making on the defence budget by this or any future cabinets.

The instruments available to the Netherlands to protect our freedom, security and prosperity need to be adjusted. Defence is essential in this respect, and this vision focuses specifically on the consequences of the global changes for the defence organisation. Other instruments are also of great importance, such as diplomacy, development cooperation and various economic instruments. This vision therefore also looks at the role of the defence organisation in relation to our main partners, together with whom we protect our freedom, security and prosperity.

There is currently a mismatch between the growing demands on the defence organisation and the available resources. Personnel are experiencing this every day. It means that, in the coming years, much is necessary, important and urgent. It is with good reason that partners are pressing urgently for the Netherlands to increase defence spending to 2% of the gross domestic product (GDP). The Netherlands is endeavouring to deliver its fair share, so that together we can continue to protect what we value.

The number of threats requires adaptability and focus. The defence organisation needs to work differently. The first, important steps in this direction were taken with the 2018 Defence White Paper, the definitive elaboration of the coalition agreement for the current cabinet term, in which decisions were made for the investment agenda for the coming years. The 2018 Defence White Paper contained a commitment to present in 2020 the incremental growth in the context of longterm objectives for the future. That is what this Defence Vision does: it looks ahead 15 years and, by identifying what is needed on the way to 2035, will help future governments to set policy priorities in the battle between requirements and budget. Because it is clear that not everything is possible and not everything can be done at once. Realism has to come into play and requires a phased approach.

The three characteristics and ten design principles will form the basis for a new profile for the defence organisation. For each design principle, we will give a broad indication of what is required for the transition between now and 2035. If we stick to this, by 2035 we will have a smart, technologically advanced defence organisation which is able to adapt to any situation and which has the best information, allowing us to deliver an optimal response to the changing threat environment, in which information plays a vital role. The organisation will be scalable, which means that we can operate on a small, specialist scale as well as in a large configuration. Given the different types of threat, this customised approach is essential.

Long-term political commitment to realistic goals in terms of both policy and budget is needed to bring about change and to direct and design reinforcements. Future governments will be able to address this issue. The defence organisation is a long-term one: defence equipment is often so specialised that it can take more than ten years from an initial purchase decision to actual delivery. That equipment then has to last for up to 30 years, with interim upgrades. Long-term commitment is equally vital when it comes to personnel. In 2012, we had to reduce the organisation by 12,000 jobs, whereas we are now having difficulties keeping the organisation at authorised strength.

Volatile geopolitical situations

Cyberattacks and influencing

Proliferation of technology and (CBRN) weapons

?

St. Maarten

Saba

St. Eustatius

Curaçao   Bonaire

Aruba

?

Armed forces of potential adversaries are growing ever stronger

?

Threats to vital infrastructure

Unpredictable natural threats

Frustration and poverty on the fringes of Europe

Extremism and terrorism

Threat analysis

Technological trends, geopolitical power shifts, economic, socio-demographic and ecological developments give rise to new opportunities, risks and threats. The contours of a new reality are starting to come into focus, but uncertainty about what will eventually become reality remains – and will do so in the future – a sign of the times. Russia is more aggressive, China is more assertive and the terrorist threat persists. Partnerships such as NATO, the EU and the UN, upon which our peace and prosperity are based, can no longer be taken for granted. We are experiencing major cyberattacks, threats against our vital infrastructure and influencing by foreign powers. Climate change means that the natural world is becoming ever more unpredictable. The situation in the ring around Europe is deteriorating. Geopolitical tensions and the rapid proliferation of weapons are giving rise to volatile situations.

A large number of scientific reports and interviews with experts have been used to produce a trend analysis and an analysis of possible deployment scenarios, which can be found in the explanatory annexes[1] and on the basis of which the following, condensed threat analysis has been formulated. We can conclude that, both now and in the future, we will be increasingly confronted by the following:

1 Explanatory Annex I "Trend analysis 2035" and Explanatory Annex II "Deployment scenarios 2035" on page II and page X.

Cyberattacks and influencing.
Our Kingdom is under constant attack in the cyber and information domain. Knowledge is stolen, (vital) systems are hacked and disinformation influences our democracy. Economic influence is increasingly being used to exert pressure, also in the Netherlands. The discussions surrounding 5G and the production of microchips are bringing that area of tension into sharp focus. Social media and influencing tactics make it easier to target individual citizens and groups. States such as China, Russia and Iran have a broad range of military and non-military instruments at their disposal, which they can deploy separately or simultaneously to gain more power and influence.

Unpredictable natural threats.
Threats are not only posed by state and non-state actors. More and more often, we are being confronted by natural phenomena. Sea levels continue to rise, weather patterns and ecosystems are changing. In the Caribbean part of our Kingdom in particular, hurricanes and extreme weather can have devastating effects, as we saw in the case of Hurricane Irma. The Netherlands too is vulnerable, both to flooding and to forest fires. And in the area surrounding Europe, drought, unpredictable rainfall, salinisation of groundwater and water shortages could all be a source of conflict, resulting in political instability, radicalisation and potentially large irregular migration flows.

Volatile geopolitical situations.
With increasing frequency, we are seeing large-scale military exercises being conducted on the borders of NATO territory as well as territorial violations of the land, sea, air and cyber domains. We are facing the consequences of a trade war between China and the US. Countries are racing furiously to possess ground-breaking technologies and to set international standards. Proxy wars are being fought out in Syria, Libya and Yemen, and even the Caribbean is becoming more geopolitical. The language is hardening, also when it comes to nuclear weapons. The strategic stability that we have enjoyed over the last decades is under pressure. The international network of arms control and disarmament is crumbling. Developments surrounding the Iran agreement are alarming, as are the escalating ballistic activities of North Korea.

Threats to vital infrastructure.
The Netherlands is a major player in global trade. Consider, for example, the number of people who fly via Schiphol each day; on a busy day in a corona-free period, that could exceed 200,000 passengers. The Port of Rotterdam is the largest in Europe, a major logistic hub for the entire world. For data, too, we are a major hub, given the presence of internet cables in the North Sea and the Amsterdam Internet Exchange. All these intersections, also in relation to telecommunications and energy supplies, are vital for our prosperity and day-to-day operations. And that is why they are also targets for those who want to hit us where it hurts.

● **Armed forces of potential adversaries are growing ever stronger through expansion and modernisation.**
Potential adversaries are catching up. Weapon systems are becoming more precise and unmanned systems more commonplace, reaction times minimal. Some adversaries will opt to deploy weapon systems without any meaningful human control. In combination with rising tensions between major powers, this is leading to a volatile situation. Despite the coronavirus crisis, China increased its defence budget again this year, to 178.2 billion dollars. Beijing wants a fully modernised military by 2035. Russia is developing hypersonic weapons, robots, drones, lasers and successful area denial strategies. And it is not just adversaries who are investing; the US and, for example, Australia are also investing heavily in their defence organisations in response to the growing threat from China.

● **Proliferation of technology and (CBRN) weapons.** Malicious factions and states are increasingly able to access technological applications, such as drones and other weapons. China and Russia are developing, producing and exporting a growing number of more modern weapon systems. Russia supplies sophisticated weapon systems to countries such as Iran, Turkey and Syria. This democratisation of technology and weapon systems

is increasing the risk of incidents and unforeseen attacks. There is also a growing danger that an adversary will develop and deploy as yet unknown biological, chemical or radiological agents. The proliferation of tactical ('small-scale') nuclear weapons is increasing the risk of escalation.

● **Extremism and terrorism.**
In various places around Europe and elsewhere in the world, national militaries are unable to control jihadi organisations. The Sahel and the Horn of Africa, for example, are still being plagued by jihadi and ethnically motivated violence. Jihadi groups still have an alarming level of freedom of movement and capabilities. They thrive in places where proxy wars are fought out, such as in the armed conflicts in Libya, in Syria and in Yemen. Islamic State is continuing the fight underground. Developments in jihadi conflict areas can serve to inspire jihadis in the Netherlands to perpetrate attacks on home soil.

● **Frustration and poverty on the fringes of Europe.** The population of Africa (already 1.1 billion) will have doubled by 2050. Urbanised areas are becoming larger and busier, and governments in many parts of the world have less control over what is happening in certain (slum) areas. Millions of young people are entering the labour market, but there are not enough jobs. This is likely to translate into even greater pressure on Europe's borders.

Criminal networks and jihadi groups see this as fertile ground for new recruits, while at the same time it feeds extreme right and radical nationalist ideology. Organised crime will become more widespread and more violent, in our Kingdom too.

No response yet to militarisation of new domains (cyber and space)

NATO superiority is under pressure

The organisation is recovering from years of cutbacks

Risk of drowning in a sea of information

Digital and physical infrastructure is not well protected

Shortage of people

Higher demand for deployment and too few means, supplies and support

Over the last 20 years, deployed mainly for the second main task

Enemy is unknown

Divisions in trusted alliances

Not equipped for all hybrid and digital threats

No ability to adapt to unpredictable adversaries

Problem analysis

It is the defence organisation's job to take account of all potential risks and threats. Should they become a reality, our people need to be ready – equipped and trained. Security is not a luxury. It is a hard and fast condition for freedom, prosperity and democracy. This makes it one of the government's core tasks that deserves to be prioritised. The reality is that increasing demands are being made on the defence organisation's scarce capacities and we have to be able to operate in a growing number of different situations. Both far away and close to home. In training exercises in which we play out threat scenarios so that we can learn and improve, we are not currently capable of withstanding our (potential) adversaries.

In its present form and state, therefore, the defence organisation is not adequately equipped for the changing threats. The search for a solution to this problem is the main theme of this vision. Given the threat environment, the defence organisation is facing the following problems:

● **Our superiority is under pressure: as NATO, we are not keeping pace with developments in terms of quantity or quality.** For a long time, our NATO Alliance had a clear political and military-technological superiority over the rest of the world. The fact that we could deal the heaviest blow served as an excellent deterrent. This superiority is no longer a given. While the focus of our efforts was on combating terrorist factions in inhospitable terrain and not on the ability to operate at the higher end of the force spectrum, others were pre-paring for large-scale conflict. Despite this cabinet's sizeable investment in the support and modernisation of our

military, we are not yet equipped for this. The same applies to operations in urbanised terrain.

● **The defence organisation cannot do it alone, but cracks are appearing within trusted alliances.** A country such as ours cannot possibly be prepared for everything on its own. But while our potential adversaries grow stronger, we ourselves are dealing with rifts between partners, with the repercussions of Brexit and with the search for leadership in Europe. The US is backing away while our security will in the coming years depend heavily on American solidarity. A politically and militarily strong NATO is our main guarantee of security.

● **We are at risk of drowning in a sea of information.** We receive ever increasing amounts of information. Information can easily be manipulated by means of new technologies and that is happening on a huge scale. We have to be able to filter, process, and analyse all information and use it to guide us and to inform our actions. We are not adequately set up for that at this time. The amount of data and information available and the speed at which those data are processed and analysed have repercussions for all capabilities on land, at sea, in the air, in the cyber domain and in space.

● **The defence organisation is not adequately equipped to counter hybrid threats or operations in the information environment.** States and non-state actors seeking power, influence, knowledge and/or economic gain are opting ever more overtly for competition. In doing so, states use hybrid activities, often with the help of actors who cannot be linked to them directly. We are currently too

compartmentalised in the security chain to detect these threats and to do something about them.

● **We do not yet have an appropriate response to the militarisation of new domains, such as cyber and space.** As well as threats on land, at sea and in the air, we also have to deal with threats in the cyber domain, and there is a growing danger of militarisation of space through the deployment of satellite and anti-satellite capabilities for military purposes. Adversaries making innovative use of these new domains are currently one step ahead of us, and that is dangerous. The world continues to evolve and new threats (in new domains) will continue to come our way. The defence organisation lacks the innovation and modernisation capabilities necessary to keep pace with these developments.

● **There is a growing demand for Defence deployment and we do not have sufficient assets, supplies or support to meet it.** Threats are appearing from different directions at the same time. The old threats (conventional, nuclear, terrorist) still exist, but new risks are emerging alongside them, for example through technological developments. The more assertive stance of major powers and other states, the unrest in places such as the Middle East, the Sahel, the Horn of Africa and the tense situation in the Caribbean are making Europe and our Kingdom vulnerable. There is a growing probability that different threat scenarios will become a reality and that they will play out at the same time. We will then need to be able to respond rapidly and be deployable for longer, even at the higher end of the force spectrum. Despite major investment by this cabinet, we still

have a significant shortfall in terms of support and supplies for these future scenarios. The gap between our tasks and our resources is thus widening.

• **The defence organisation has a shortage of personnel for the way we are currently set up.** The current shortage of manpower is one of the main risks for the defence organisation. The labour market is changing, not just in terms of size, but also in terms of composition, especially as a result of population ageing. The number of over-65s is increasing sharply. The number of people aged between 20 and 65 (roughly speaking, the working population) is barely increasing at all. Whereas in 2012 there were four working people to every senior, by 2040 that will be two. The current organisation is still not designed for the new age and changes on the labour market. The shortage of manpower will continue to be a structural problem if the defence organisation and its personnel system do not evolve further in the intended direction.

• **For the last 20 years, the armed forces have mainly been deployed for the second main task, in expeditionary missions.** In the case of these missions, we decide on the basis of the available means what our contribution will be. We supply quality. But the efforts of the past few years have taken their toll on the organisation: we are largely set up to conduct missions against low-tech adversaries with less money, less knowledge and inferior capabilities. Expensive weapons for deployment at the high end of the force spectrum were given lower priority, as a result of which we now have too few of them. This commitment in the

context of the second main task is appreciated by our Allies. All too often, unfortunately, we have to say 'no' in an international context, because we cannot supply the required contribution. Furthermore, the demands in relation to crisis management operations are changing. There is, for example, greater demand for training and capacity building, which is in short supply in the defence organisation.

• **The defence organisation lacks adaptability to cope with the unpredictability of where, when and against whom action will be needed.** There is a growing variety of threats, which in most cases emerge unexpectedly and violently. The defence organisation must be ready immediately. We do not know what will become a reality, but we can expect to face more such scenarios. That demands a huge amount of flexibility from the defence organisation, something which, because of a lack of support, supplies and capabilities, it does not currently have.

• **Our digital and physical infrastructure is not properly protected against (future) threats.** This year it was coronavirus. Next time it might not be a biological virus that disrupts our society, but a computer virus targeting our financial systems or water supply. Or a terrorist organisation threatening to use weapons of mass destruction or simple, armed drones. Our vital infrastructure is not sufficiently resilient in this respect and that makes our society vulnerable.

• **We have fewer options for action because we cannot clearly identify the perpetrator.** In today's setting of hybrid conflict, it is becoming

more and more difficult to identify a perpetrator. The investigation surrounding the downing of flight MH17, for example, is being disrupted by subversive activities. But it is extremely difficult to find out who is responsible for them. Situations such as these are arising ever more frequently. In the cyber domain, a hacker's identity can be hidden by increasingly effective encryption. So-called deep fakes can put words into the mouths of influential people even though they have never actually uttered them. State actors covertly fund non-state actors and use them as proxies. The inability to discover the identity of an adversary makes it extremely difficult to produce an appropriate, legitimate and proportionate response.

• **The defence organisation has to modernise and expand from a base that has suffered years of cutbacks.** Over the past decades, the defence organisation has been scaled down to a small, professional military force, mainly focusing on and designed for (limited) expeditionary deployment. It is that very base that has been cut back in order to preserve as much combat power as possible. For years, commitment has exceeded the limits of what the organisation could provide. The adaptation of the organisation, the huge commitment and a range of cutbacks meant that the organisation at the time was depleted and hollowed out. This cabinet has taken steps to improve the situation, but the damage cannot be repaired in a single cabinet term. It has scarred the organisation and the effects are still being felt on a daily basis, for example in the current state of affairs of our real estate, IT and logistics.

Consequences of the threat and problem analyses

Society expects the defence organisation to be ready to protect and defend our Kingdom's interests against any threat, fast and effectively, wherever and whenever necessary. With the expected growth in deployment scenarios and the changing forms of conflict, we cannot guarantee this in the future. This is an undesirable and even potentially dangerous situation.

Changes in the threat environment demand changes in our defence organisation. The defence organisation has to be designed more smartly so that it can contribute under its own steam to the security of the Netherlands, Europe and the world. To do so, the defence organisation must at all times be able to react promptly, with sufficient courses of action available from which to choose. The defence organisation must also take account of the hybrid context and thus be in a position to operate in different domains with different military and/or civil partners.

The commitment of the defence organisation's knowledge and expertise for conflict prevention, in combination with, for example, diplomacy and development cooperation, is growing in importance. We need to invest comprehensively in prevention through deterrence, by tackling the root causes of conflict and by building local capacity in order to turn the tide of negative trends.

It is in our interests to keep our trusted alliances strong. Over the next 15 years, Europe (the Netherlands thus included) will need to become self-reliant in terms of security (as in other strategic matters)

and to be in a position to defend its own interests. European defence budgets therefore need to be increased (to the NATO norm). In this way, we will strengthen Europe as well as NATO and keep the US and others on board.

When it comes to essential, strategic matters, the defence organisation needs to be autonomous and arranged with as much flexibility as possible. It should, for example, hold an authoritative information position and become more information-driven in terms of organisation and operation. The defence organisation must have the capacity to operate in large or small configurations, for prolonged periods and with changing partners, thus enabling it to counter the various threats. The organisation should also be equipped to operate in the information environment, within the prevailing ethical and legal parameters, for example with offensive cyber capabilities. Specialisation, in conjunction with partners, is a method on which to focus to ensure the continued delivery of high quality.

The course has been set in terms of personnel, as the first important steps have been taken towards a more up-to-date personnel system. Our organisation and our personnel policy will be more flexible and we must, wherever possible, make use of more labour-extensive technological solutions. In that way, we can deploy our scarce, unique human capabilities where they will be most valuable.

The defence organisation needs to improve its ability to operate in different domains (land, air, sea, cyber and information and space)

at the same time and to do so with ever-changing civil and military partners (integrated operating). Only then will the organisation, together with its partners, be able to respond to hybrid threats. In this way, we will work together to strengthen the resilience of our society.

We have already taken some important steps, but there is still a long way to go. Long-term commitment is needed to continue in the footsteps of this cabinet. The defence organisation needs to become more transparent, so that it is clear where the organisation stands and what options and dilemmas are in play.

On the basis of the threat and problem analyses, this vision sets out three characteristics and ten design principles to direct and design the organisation in such a way that it will be able to respond to threats and challenges now and in the future.

The defence organisation in 2035

The defence organisation is our Kingdom's fighting force. Our people are among the few in our country who are authorised and able to use force. Military personnel do this dangerous job – in some cases resulting in death – in the interests of us all. So that we can live the life we want to live. With the growing complexity of threats, a combination of different instruments is used in more and more cases. The Netherlands leads the international field when it comes to successfully combining and integrating these different instruments. Besides our military, they include diplomacy, economic policy, development cooperation and intelligence. Naturally, this vision focuses on the defence organisation and on how the organisation should equip itself to deal with future threats.

As expressed in Article 97 of the Constitution, "[t]here shall be armed forces for the defence and protection of the interests of the Kingdom, and in order to maintain and promote the international legal order." Twenty years ago, we decided to clarify the variation in the defence organisation commitment by identifying three main tasks:

First main task: Protection of national and allied territory, including the Caribbean parts of the Kingdom.

Second main task: Maintenance and promotion of the international legal order and stability.

Third main task: Support for civil authorities in national law enforcement, disaster relief and humanitarian aid, both nationally and internationally.

It would now be impossible to imagine the defence organisation without these three main tasks and they are and will continue to be leading in our work. Since the formulation of these main tasks, the context has changed substantially. Ever more frequent demands are made on the defence organisation, and threats have increased in number, type and complexity. The main tasks overlap more and more and a clear demarcation between the three has become increasingly artificial. 'Territory', for example (first main task), has long since ceased to refer merely to territory in the traditional sense, but can now also refer to 'digital territory' (the cyber domain). Our collective opinion is also influenced with growing frequency by large-scale disinformation campaigns. Furthermore, the defence and protection of our (physical, digital and cognitive) territory are conducted far beyond our own territory and thus overlap the second main task. The support for civil authorities in law enforcement, disasters and crises – the third main task – has always significantly overlapped the protection of national territory (humanitarian aid and disaster relief obviously take place outside that territory too). We must, therefore, be able to protect our interests now and on the way to 2035, both close to home within our Kingdom and far away in other countries.

In the 2018 Defence White Paper, we emphasised the growing importance of the first main task for the defence organisation. The focus on this task has increased since the 2014 NATO summit in Wales, with, for example, the setting up of the Very High Readiness Joint Task Force (VJTF) and the enhanced Forward Presence (eFP) in Lithuania. The Netherlands is participating in both.

We no longer talk about a level of ambition to determine what we can do. The commitment of the armed forces is not an ambition, but a necessity. In the redesigning of the defence organisation, therefore, there will be greater focus in the coming years on the first and the third main tasks, so that the three tasks are more evenly balanced. There is some catching up to be done on the first main task, as we are not sufficiently able to cope with high-quality

adversaries, nor are we well enough equipped for a prolonged conflict. But the third main task is also placing increasing demands on the defence organisation. The organisation needs to help to increase society's resilience, partly by protecting our physical and digital infrastructure. The focus on the first and third main tasks does not affect the importance of the second. Maintaining security and protecting the international legal order are fundamental for us all. This could, for example, take the form of prevention or forward defence and could occur in a NATO, EU or UN context as well as in ad hoc coalitions.

The first main task is thus becoming more important. But the second main task (abroad) and the third main task (predominantly within the national borders) remain vital. Over the next 15 years, it is still more likely that we will be deployed in situations that are not at the highest end of the force spectrum, for example for conflict prevention, as in Lithuania. But we have to be in a position to be deployed more rapidly, with more means, at higher intensity and for longer periods. The aim is to build a defence organisation that can perform the three tasks successfully. In setting up our armed forces, we are putting as much effort as possible into the qualities and capabilities that are important for all three main tasks. The defence organisation has one set of capabilities with which it has to be able to perform all tasks, in order to do our job properly in the overlap of the three main tasks. Furthermore, the defence organisation has capabilities for independent and structural national tasks.

Vision 2035
Who we should be and what we should be able to do

In 2035, the defence organisation will be a smart, technologically advanced organisation. It will have a great capacity to adapt to situations and will act on the basis of the best information. And so it should. Because physical and digital threats all over the world will only increase in the coming years and the grey zone between war and peace will become ever larger.

The defence organisation will be called upon with increasing frequency. And then our people have to be ready: equipped and trained. As our Kingdom's fighting force, military personnel carry on when others have stopped.

In 2035, the defence organisation will be proactive and flexible. The armed forces will be able to operate in small and specialised units as well as in larger configurations. We will be able to reach multiple locations quickly and stay there longer. We can keep the peace and use maximum force – and everything in between. Ideally, we will prevent conflict. But if we have to, we will fight to win.

In 2035 too, we will be a reliable partner. Because we will be doing it together. Nationally and internationally. We will honour our commitments and ensure that our work and systems connect seamlessly with those of our allies.

Only then can the defence organisation continue to protect what we value.

Three characteristics and ten design principles

To realise our vision for 2035 (see text box), the defence organisation needs to prepare for an uncertain future, in line with the changes in the threat and problem analyses. This cabinet has taken the first important steps. But we have to quicken the pace. In this vision, we aim to do that according to three characteristics and ten design principles. Together, these characteristics and principles form the profile for the defence organisation of 2035 and will help us to stay on track when making decisions about the setup and composition of the organisation. The success of the profile stands or falls with the restoration and preservation of the balance between tasks, equipment and personnel. The core of this profile will continue to comprise well-trained personnel, who, when the chips are down, make the difference between winning and losing.

In the following chapters, we will describe the aim of each design principle and what is required to achieve it between now and 2035.
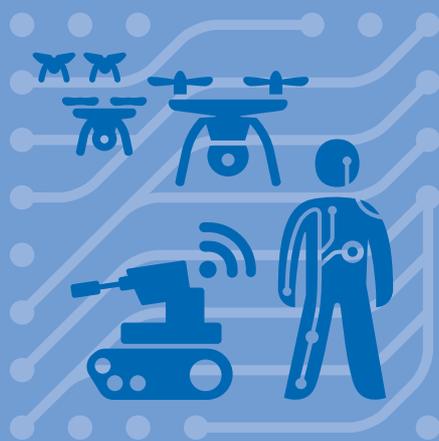
Profile in 2035:

Characteristics of the defence organisation

Characteristic 1:
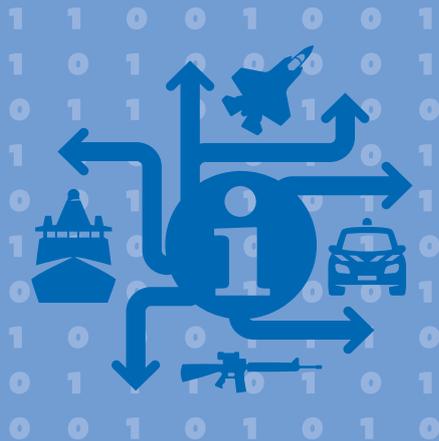## Technologically advanced

Military personnel do a dangerous job. When we look around us in 15 years' time, we see dizzying speeds, miniature weapons, greater precision, far-reaching use of artificial intelligence and big data, even more complexity and even more autonomous systems. Our people work with state-of-the-art systems so that they can work at the highest level and as safely as possible. Technological brilliance is combined with flexibility. Weapon systems can be easily upgraded with the most up-to-date software, can be replaced, are interoperable with other systems and can be deployed in a wide range of threat scenarios. A technologically advanced organisation requires a strong innovative role and a qualitatively sound workforce with a higher proportion of personnel trained in (information) technology. We work with rapidly deployable, flexible and scalable combat units which can largely operate independently. We are also able to rapidly up- and downscale personnel and equipment.

Characteristic 2:
Information-driven in organisation and operation

We specialise in building and maintaining an authoritative information position. This is the basis for a strong focus on information-driven operations, which is less centred on demarcations in time and location. This enables us to quickly gather, process and analyse reliable information and ultimately use it quickly and decisively to act and fight, from the strategic level to the level of individual military personnel in the field. With the right information, we can expand and accelerate our courses of action for deployment. Only in this way can we keep up with potential adversaries and respond with greater customisation. The information environment is growing in importance and is an area in which hybrid threats are thriving. Consider, for example, socially disruptive cyberattacks and disinformation campaigns. We assume that our operations will need to be multidomain and integrated, mainly in a hybrid context. Together with our partners outside the defence organisation, we are going to devote greater conceptual attention to the role and task of Defence in this grey zone of 'strategic competition' between war and peace.

Characteristic 3:
Reliable partner and protector

For our security, now and certainly in the future, the credibility of our alliances is vital. We want a Europe that is stronger and more independent in its actions when its security and interests are at stake. We want to maintain a strong and robust NATO Alliance. The EU, NATO and the UN must continue to play a part in strengthening the international legal order and in crisis prevention. It is only through collaboration that we will be able to cope with the number of different threats. To this end, we ourselves also need to contribute substantially and proportionately to the response to national and international crises and dare to take the necessary risks – we must not say 'no' too often. The need for specific knowledge and a greater range of capabilities is growing. On the international stage, our comprehensive approach (with development cooperation and diplomacy) remains standard, and we integrate our actions with our civil partners in a national context too. Threats are coming ever closer and the role of the defence organisation in the national security domain is tailored accordingly. That means we have a certain degree of autonomy in strategic capability, knowledge, processes, supply chains and stocks. Industry and knowledge institutes also play an important role in this respect. As one of the first responders and as the last line of defence in major crises, we should be able to ensure normalisation and support for the civil authorities. We contribute more, proactively and reactively, to the security of the Kingdom. We are expanding our role in strengthening the resilience of society and are also more transparent in and about our work.

Profile in 2035:

Design principles for the defence organisation

Technologically advanced

Design principle 1: Unique personnel and labour-extensive capabilities
Our people are and will always be the heart of our organisation. We embrace technology to achieve greater effects, thanks to the combination of people and technology. We thus produce a response to demographic developments and the changing labour market. This provides a higher level of independence, and also enables our people to work more safely.

Design principle 2: Flexibility of action: rapidly deployable, scalable and self-supporting
The defence organisation needs to deliver greater customisation. We

have to be able to operate more independently in small, specialist deployment as well as in large-scale configurations (both in NATO, EU and UN contexts and in ad hoc coalitions or alone). For that, units at lower level also need sufficient high-quality support to enable individual, simultaneous, rapid, prolonged and multifunctional deployment. We can upscale with personnel and equipment and we have a wide range of reaction times.

Design principle 3: Strong innovative capability
We are focusing on research, development and the translation thereof into actual technological and social innovation and its implementation in our organisation. The Netherlands is a highly innovative and technologically

advanced nation: the defence organisation contributes to and benefits from this, by having access to the latest knowledge and expertise.

Design principle 4: Escalation dominance, with our partners
In all domains and dimensions, we and our partners must be able to defeat potential adversaries. Even in the relatively new cyber domain and in space (and newer domains, should they emerge). The Netherlands contributes to this ability with high-tech equipment and high-quality personnel.

Information-driven in organisation and operation

Design principle 5: Authoritative information position
A strong position in the information domain provides us with greater control of complex situations and operations. We can gather, process and analyse relevant and reliable information more rapidly. We can then act quickly and decisively. Information is increasingly becoming a combat capability that we have to be able to deploy. Specifically, this is about the ability to disrupt the information position of others and to protect our own. We are one of the frontrunners in this field and wish to remain so.

Design principle 6: Multidomain and integrated operations
In operations with national and international partners, multidomain thinking will be the ultimate premise. We will ensure far-reaching collaboration between our own armed services and with other armed forces and partners. We are intensifying the comprehensive approach with military and civil means, focusing partly on conflict prevention. This will enable us to cope with more permanent hybrid threats.

Reliable partner and protector

Design principle 7: Transparent and visible in an engaged society
Our defence organisation is an inextricable part of society. We are increasing the visibility of our work and our people. We are thus also contributing to security awareness so that we as society remain alert to (hybrid) threats, such as disinformation, and build our resilience to those threats. This goes hand in hand with transparency in respect of parliament, partners and the public. To achieve this, the defence organisation needs to sustain the change in culture that is currently in progress.

Design principle 8: Focus on a stronger, more self-reliant Europe
We are focusing on a Europe that can act more robustly and independently whenever common security and interests are at stake. Strengthening European defence cooperation will also contribute to a stronger NATO.

Design principle 9: Focus on further specialisation within NATO and the EU
Within NATO and the EU, we are focusing on further specialisation with the aim of achieving greater shared effectiveness. Our capabilities need to fit perfectly with the power and added value of the Kingdom and should contribute to the sharing of costs and risks. We are intensifying and broadening our unique comprehensive approach.

Design principle 10: Strategic capabilities for a resilient society
With a wide range of support activities, we are making an even more meaningful contribution to the security of the Kingdom. We want to be able to guarantee the supply of vital capabilities to strengthen the security network and perform our main tasks. To do so, we need to possess the strategic capabilities and supplies that ensure the necessary independence and autonomy.

Design principle 1:

Unique personnel and labour-extensive capabilities

In 2035 too, the core of the defence organisation's work will consist of well-trained and skilled people. People who make the difference between winning and losing. People who dedicate themselves to keeping our Kingdom safe. They are inventive, resourceful and used to working in stressful circumstances with imperfect information.

A shortage of this unique manpower is one of the greatest risks for our defence organisation. In order to continue to attract and retain the right people, we are applying more customisation and greater differentiation. The 2018 Defence White Paper ensured significant investment in employment conditions and a start was made on a new personnel model. We also invested in the working environment and in employees' social and physical safety and will continue to do so.

But the defence organisation needs to change the way it is set up. Changes on the labour market, demographic developments and growing technological capabilities require a new way of working: more technology- and knowledge-intensive, or in other words, more labour-extensive. Even in a shrinking labour market, we need to be able to hold our own. Automation, digitalisation and robotisation present opportunities: by forming a 'team' of people and machines, we can get the best out of our people, make our (often dangerous) job safer and, in certain cases, change the physical selection criteria.

The wide variety of threats requires creativity, diversity, collaboration and specialist knowledge. We deploy our people wherever their unique qualities are most valuable: wherever interaction, empathy and ethical considerations are involved. There are simply some things we will never be able to leave to robots, such as decisions about life and death.

This is what we need to do:

> We will create more customisation for forms of appointment and contract and for rotation policy. It will be easier to move in and out of the organisation, to change from civilian to military, and vice versa. Strategic personnel planning will be an integral part of the planning for readiness preparation and deployment.

> Attract, develop and retain personnel on the basis of talents and competencies. The salaries paid to our personnel must match these changes. Training (life-long learning) will be set up more often with partners.

> Commanders will be given more opportunities to recruit and retain sufficient, qualified personnel and thus improve their units' readiness preparation.

> We will increase the diversity in our workforce. We will engage (military) specialists with different basic requirements. We will offer full, specialised career opportunities and increase the diversity in management and command positions.

> We see possibilities for technology-intensive work methods in, for

Objectives for 2035

We are a good employer and an inclusive organisation with sufficient diversity. Social and physical safety are embedded in our business management and our task performance.

We are able to attract and retain the right people and to offer them challenging work, career prospects and a safe working environment. To achieve this, we have, for example, a more open personnel policy with a high degree of customisation.

Our systems and work methods will be more labour-extensive where possible and will remain labour-intensive where necessary and desirable. Safety and quality are leading in this respect.

example, the command and control (C2) chain, logistics, manned weapon systems, training exercises (simulation) and business processes.

> We will promote the measurability and monitoring of set objectives in respect of personnel safety and implement an organisation-wide system for integrated risk management, thus providing better insight into (safety) risks and enabling us to be more effective in preventive actions.

Design principle 2:

Flexibility of action: rapidly deployable, scalable and self-supporting

To cope with the huge demand for tailor-made rapid, prolonged deployment, the defence organisation must become more flexible and deployable in any unit size or composition. The threat analysis requires us to be able to send individual units straight to a particular location, and also that we are capable of large-scale operations (brigade, maritime task force, air wing). Units should be able to operate self-reliantly at lower level and to combine with other units (from other branches of the armed forces) and national and international partners. They should be able to operate independently and be multifunctionally deployable. They need to be deployable in a NATO, EU or UN context as well as in ad hoc coalitions or alone.

This new profile places demands on our organisation. It goes hand in hand with changes in relation to training and exercises, management, readiness preparation processes and deployability objectives. It is vital that we have the necessary support (combat support and combat service support): small units need to be able to get out and about independently, be more rapidly deployable and be able to endure for longer. In a large-scale setting too, sufficient support is essential. We took the first steps in this respect with the 2018 Defence White Paper. Various reinforcement measures for our combat support and combat service support were set in motion, for example. The modular and scalable character should be leading in our weapon systems too, so that they can be easily upgraded, replaced and combined with other assets.

This design is in keeping with the new NATO concept of Deterrence and Defence of the Euro-Atlantic Area (DDA). It requires more self-reliant combat units with greater mobility and a shorter reaction time. The current NATO and EU arrangements also require shorter reaction times and greater sustainability. There are situations in which reaction times can be longer, however. For situations in which we have more time to prepare for deployment, we will make more use of scalable solutions, some of which are organised outside the defence organisation. In terms of manpower, this means, for instance, the ability to mobilise high-quality reserve personnel. We can achieve scalability by working with industry, knowledge institutes, other government bodies and civil organisations.

This is what we need to do:

❯ We need to develop strategic and operational concepts that enable us to realise this method of operating. We will also incorporate new warfighting methods. At the same time, we have to be able to connect seamlessly with our main international partners.

❯ We must ensure significant reinforcement of the support for and protection of combat units so that they can be deployed more independently, more flexibly, more rapidly and for longer periods, and are interoperable with our main partners. We are talking here about, for example, reinforcements in fire support, air defence, logistic and medical support, supplies, C4ISR assets (command, control, communications, computers, intelligence, surveillance and reconnaissance) and engineers.
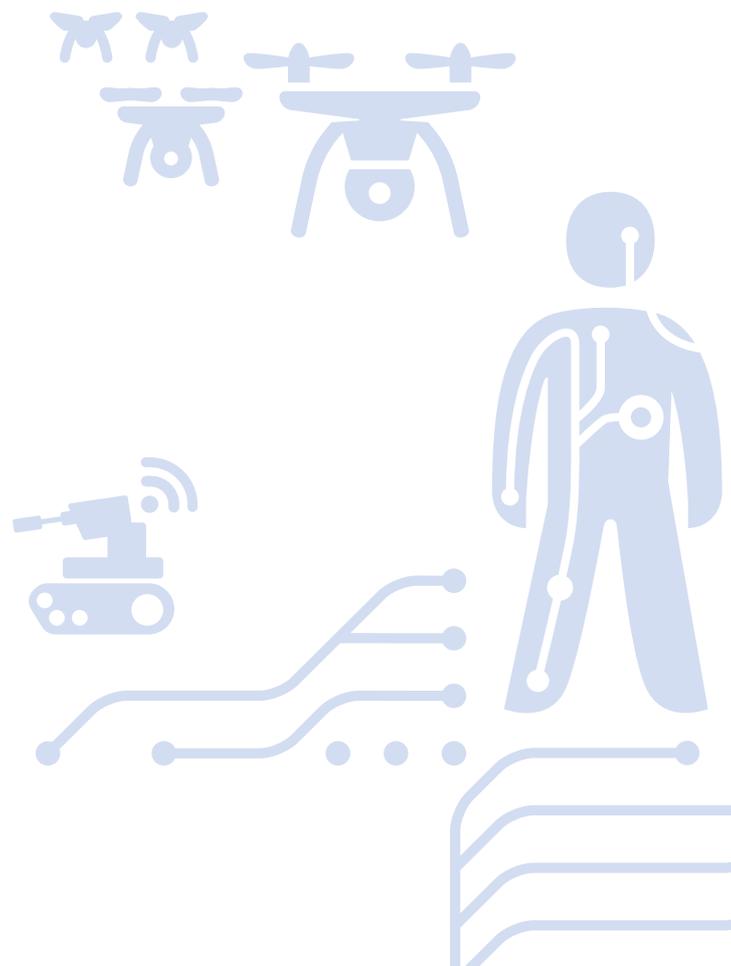
❯ We need to train and exercise in rapid and independent deployment in large and small configurations. Each setting requires specific skills. The same applies to management. Readiness preparation and deployability objectives need to be adapted to this new profile. We are building on scalability of people and equipment. In the context of rapid striking power, quality and collaboration, we will work with

Objectives for 2035

We will set ourselves up according to the principle of customisation and quality: smaller units as well as large configurations can operate independently, and we will adapt our organisational processes accordingly.

Units can be deployed rapidly in different scenarios and have sustainability, at all times with the proper support and the right equipment.

We comply with NATO and EU arrangements regarding reaction times. We have extra capacity in terms of personnel and equipment when we need it in order to cope more effectively with high demand and to increase sustainability.

Our weapon systems and units are modular: easy to upgrade and to combine with other systems and units.

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flexible workforce and equipment supplies, whereby we can up- and downscale quickly. With this in mind, we have already expanded our reservist network and have simplified the process for hiring temporary, external civilian personnel.

❯ Greater flexibility in (guaranteed) capabilities requires collaboration with industry and other non-military organisations. To further shape the collaboration with private partners, we will formulate substantive (and legal) frameworks for the adaptive armed forces, whereby we will seek the right balance between owning and being able to access certain capabilities.

❯ We will prioritise capabilities that are easy to upgrade, are the most labour-extensive and can be combined with other, often more readily replaceable systems. To do so, we need to accelerate the translation of requirements into procurement and implementation, and modify the Defence materiel process (DMP) and the Defence lifecycle plan (DLP) accordingly, partly by creating more free budgetary scope. This will be at the expense of other issues in the already overloaded DLP, or it will require additional investment.

Design principle 3:

Strong innovative capability

To remain technologically advanced, we need to be at the forefront in the field of research and development. Innovation for military purposes is often associated with possibilities for other sectors, for example in relation to health and sustainability. A strong knowledge and innovation role for the defence organisation, linked to Dutch knowledge institutes and businesses, thus contributes to the resilience of our society.

The Netherlands is a nation of knowledge development, science and technological innovations. Various companies and universities are global frontrunners in respect of data science, artificial intelligence, quantum technology and innovations in the field of sustainability. We can distinguish ourselves internationally in this regard. There are countless opportunities for the defence organisation and for the business community; the Defence Industry Strategy and the Defence Innovation Strategy were issued in 2018 to fully exploit these opportunities.

New ideas lead to a stronger, more precise and safer way of operating. They need to be developed, tested and (if successful) implemented and scaled up. In this process, extra attention is paid to the step from innovation to implementation.

Emerging and disruptive technologies present risks as well as opportunities. We are keeping a watchful eye on the ethico-legal aspects of technology development, such as in the case of artificial intelligence and weapon systems.

The retention of knowledge in relation to defence and security technology contributes directly to Dutch security interests. To get the greatest return on our efforts, we need to focus them and, as an organisation, establish a multiplier effect. In some cases, off-the-shelf purchases will not suffice; in those cases, the defence organisation needs to develop the product itself and act as a launching customer.

This is what we need to do:

➤ We are putting the emphasis on knowledge areas and technologies for defence-specific purposes, as stated in the Defence Industry Strategy. We will devote particular attention to quantum technology, artificial intelligence, robotics, 3D printing and bio- and nanotechnology. We will keep an eye on the ethico-legal aspects of said technologies.

➤ We will prioritise research focused on the military of the future, in particular research into labour-extensive and sustainable solutions and network-enabled operations. A (significant) portion of the knowledge and innovation budget will be allocated to this.

➤ We will continue to promote the ecosystems of businesses, universities and knowledge institutes for concept development and experimentation. We will design our business management in such a way as to upscale successful initiatives and short-cycle innovation. We can do this by establishing an empty financial bandwidth in our DLP. This will have to be at the expense of other issues (within the current parameters) or it will require additional investment.

Objectives for 2035

At least 2% of defence spending will be dedicated to research and technology developments, as agreed within the European Defence Agency (EDA). This forms the foundation of our organisation.

Research focuses on maintaining and increasing operational striking power. To this end, we will reinforce the defence-specific knowledge base in relation to network-enabled operations, labour-extensiveness and sustainability.

We will create scope for faster upscaling after successful experiments, both financial and in relation to culture, regulations and processes.

We will stimulate and accelerate the development of technologies that are vital to our security interests.

➤ The Netherlands would like to have its own technological and industrial base. We will use interministerial initiatives to strengthen this, such as the growth fund. Internationally, new programmes in the Multiannual Financial Framework, in particular the Permanent Structured Cooperation (PESCO) in the EU and the European Defence Fund (EDF), offer promising platforms for cooperation in relation to research and capability development. This requires co-funding from the ministries with policy responsibility.

Design principle 4:

Escalation dominance, with our partners

Together with our NATO and EU partners, we must continue to have enough of the right capabilities for credible deterrence and escalation dominance. This requires appropriate levels of training, and the ability to comply with the arrangements for rapid deployability. It also requires investment in (conventional) capabilities to boost our striking power. With a conventionally strong Europe, we will also reduce the risk of deployment of nuclear weapons.

In 2014, we agreed with our NATO allies to move our defence spending over the next 10 years towards the NATO norm of 2% of GDP. We are currently a long way off that figure. Allies' capabilities should complement each other. It is for this reason that NATO has set up the NATO defence panning process (NDPP), in which agreements are made as to who will bear the cost of which capabilities. Our allies have rightly concluded that the Netherlands is not in a position to meet these capability targets. The EU also has capability targets that the Netherlands needs to meet. NATO and the EU are working closely on this[2].

With the investments made by this cabinet, we are making good progress in enhancing our striking power. We have initiated essential replacement programmes. The first F-35 fighter jets have been commissioned and the number of aircraft will be increased. We are replacing the M-frigates and the submarines. We are also investing in new tanker aircraft and a counter-

UAV capability and we are updating the CV90 infantry fighting vehicle and, for the artillery, the armoured howitzer.

We want to distinguish ourselves even further on the international stage in the field of military mobility. We currently play a pioneering role in this respect and we want to maintain that position. That is because the Netherlands is an important transit nation for the armed forces of the US, Canada and the UK. Our allies must be able to count on our ability to support their troops for extended periods of time.

This is what we need to do:

➤ We will fulfil the capability targets of NATO and the EU, in the process of which we prioritise capabilities which are needed in both a NATO and EU context and which will help the EU to operate at the highest end of the force spectrum. With regard to deployment, we will contribute proportionately to NATO and the EU.

➤ We will continue to prioritise the readiness preparation of the rapid reaction forces of NATO and the EU. We will also honour the agreements regarding military mobility: the logistic conditions for the recognised military corridors should be in place.

➤ We will ensure a healthy balance between investing in new capabilities and maintaining existing ones. The necessary support should not be overlooked, as a lack thereof is a pressing problem in terms of honouring our national and international undertakings. Consider operational (combat) support and problems in business management.

Objectives for 2035

We will fulfill the capability targets set by NATO and the EU.

We are frontrunners in the field of military mobility and are set up to function successfully as a transit nation and host nation.

We contribute proportionately and comparably with similar member states to EU and NATO missions and UN peace operations, in small or large configurations.

The new profile for the defence organisation, as outlined in this vision, is leading in the procurement of major equipment and the maintenance and decomissioning of weapon systems.

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2 *For further details, see Explanatory Annex III "NATO and EU capability objectives" on page XIV.*

Design principle 5:

Authoritative information position

Information-driven operations are the basis for the future defence organisation. It is, therefore, not without good reason that it was prioritised in the 2018 Defence White Paper. Future threats in all domains as well as technological developments have a huge impact on the way in which the defence organisation operates. Because of the growing threat, the collection, rapid processing and use of reliable information, as well as faster and more effective command and control than that of the adversary, will in the future be even more crucial for success.

We need to further enhance our ability to gain rapid insight into and understanding of our environment and to improve our foresight. This will allow us to get a better grip on complex situations and operations. On the basis of the vast amounts of data, we can create a common operational picture in order to understand what is happening, thus enabling us to identify, attribute and avert threats at an early stage. In so doing, we will broaden our options for deployment, including the possibility of preventive intervention. This can be done by conventional means, but information can also be used as a combat capability, whereby information is used to accelerate the deployment of weapon systems and as an independent weapon itself (as a means of communication and in electronic warfare).

Information is already being used as a weapon. States and terrorist organisations are using false or incomplete information to gain strategic and tactical advantage. In doing so, they frequently cross what are for us acceptable ethical and legal boundaries, for instance by influencing our way of thinking. Our society needs to become more resilient to this and strike back where necessary, obviously within our own ethical and legal boundaries.

The effective deployment of such information and weapon systems stands or falls with the quality of our personnel. Our people and weapon systems must have the best information and the best software. At the moment, we are too dependent on others. For a strong information position, the use of the right sensors is becoming more important. Our people and systems should therefore be equipped with sensors of a superior quality.

The collected information needs to be analysed, filtered and distributed in collaboration at central points in the organisation so that lower-level units have the information that is relevant to them. Command and control is changing because of techniques such as artificial intelligence and data science, which are speeding up and improving our decision-making process. Essential for successful operations are a robust infrastructure for communication and C2 and guaranteed access to our networks and the electromagnetic spectrum. Sensors and weapon systems will be linked as a result, thus guaranteeing

Objectives for 2035

We are among the pioneers within NATO and the EU in respect of information-driven operations.

Thanks to a network of central command and control elements, information can be jointly analysed, filtered and exchanged better and faster, analyses can be combined and thus the desired effects managed.

We will strengthen the instruments for defensive and offensive actions in the information environment, making us one of the frontrunners in the cyber domain.

We have reliable, robust and future-proof IT which supports our information-driven and technologically advanced defence organisation and which is easily adaptable.

secure and reliable communications. The same applies to freedom of access to space.

This is what we need to do:

❯ A state-of-the-art IT system will form the backbone of a new way of working, based on data and data analysis. This cabinet is already investing in a modern IT infrastructure, but this needs to be consolidated further and the processes based on it will need to be improved; there is also a backlog to clear. We need the latest software, as software and data play a key role in our ability to use our weapon systems effectively. They are also crucial in the support chains.
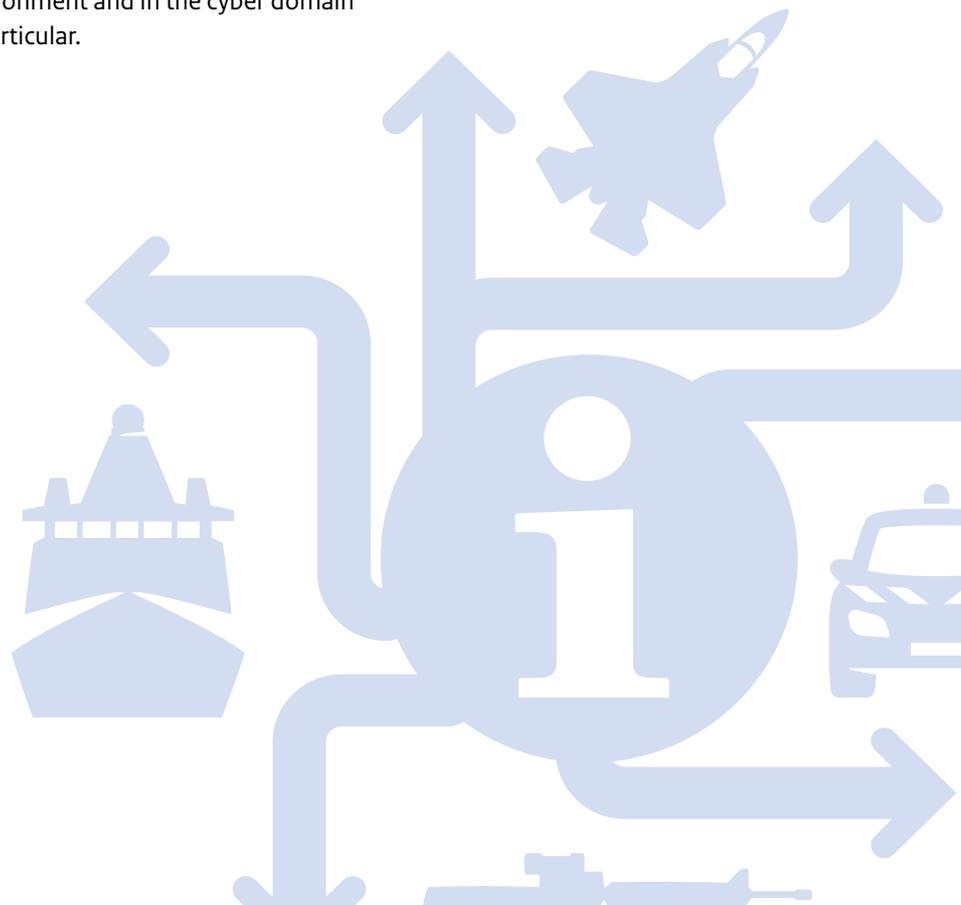
❯ We will ensure that there are sufficient specialist personnel in the field of IT, cyber security and data who can also work with artificial intelligence. Such personnel are scarce, as are the necessary hardware and software. We want to join forces with our partners to train the specialists, in return for a number of years' service in the defence organisation.

❯ We have become more reliant on satellite systems, for both military and civil purposes. Access to space is a crucial link in information-driven operations. We will be publishing a space strategy on our position regarding this domain. Our defence organisation is going to work with EU and NATO partners to raise situational awareness in space and to establish a strong information position in this respect too.

❯ We will perform an effective anticipation function whereby, to support/promote the international legal order, we can act proactively in potential conflict areas and can thus operate preventively. For example, by means of deterrence and by advising and training local security organisations.

❯ We need to protect ourselves more effectively against the ways in which adversaries attempt to influence our will, perception, behaviour and systems. Using our own capabilities, we need to be able to operate defensively as well as offensively, at all times within the relevant ethical and legal parameters. With the required combination of high-tech capability and specialist manpower, we must remain one of the frontrunners in operations in the information environment and in the cyber domain in particular.

❯ The defence organisation aims to reinforce partnerships within the national cyber security network in order to strengthen the resilience of that network. In the process, we will also be focusing on greater interoperability with our partners in relation to IT and in the cyber domain.

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Design principle 6:

Multidomain and integrated operations

Once upon a time, there was only land, air and sea. Our armed services are based on that foundation. In the last decades, however, in the Netherlands and internationally, the cyber domain and space have been recognised as military domains. So we now have five. The defence organisation has therefore set up the Defence Cyber Command and has commissioned a centre of knowledge on space. The interdependence of the five domains is growing and we must therefore think, organise, operate and command beyond the individual domain, in other words adopt a multidomain approach. This is also in keeping with design principle number 2. Our defence elements must be able to work together seamlessly (joint operations) and we must be able to ensure the best possible collaboration with our international partners (combined operations). By doing so, we can counter combined attacks in different domains and with different instruments.

But we are not there yet. In hybrid warfighting, military means are combined with civil means. The information environment is a key terrain in this respect. Consider disruptive cyberattacks and disinformation campaigns. These threats are permanent, go beyond the defence organisation and are not limited to physical locations. That is a challenge, because our military commitment is usually time-limited and focused on a specific (geographical) operation. Even with our security partners, we are in many cases still too compartmentalised in our work.

Over the past years, collaboration with partners and between the defence organisation elements has become stronger: military personnel have a permanent place in regional and national crisis teams and there is more and more joint training. With our unique and internationally respected comprehensive approach in mission areas, we coordinate our operations in the fields of defence, development cooperation, diplomacy, police, justice and trade. Integrated deployment will increasingly be designed to prevent (reoccurring) conflict, for example by means of deterrence, rebuilding of security sectors or stabilisation of a fragile situation. In the future, we will intensify collaboration with various public and private organisations even further. Dutch military and civil contributions should also be well embedded internationally.

This is what we need to do:

➤ We will promote network-enabled operations and integral management at various levels, with highly divergent (high-tech) means and functions. Multidomain command and control will become the norm. This requires modifications in design, responsibilities, information sharing, training and culture. It requires greater cooperation on the part of the defence organisation elements and the development of multidomain and integrated doctrine and concepts. That begins with more joint education, training and exercises, and with the co-location and exchange of personnel (including commanders and managers).

Objectives for 2035

Multidomain and integrated operating is the basic premise in operations with national and international partners.

We have insight into potential hybrid campaigns that could play out simultaneously on different fronts and we can act accordingly, together with our partners.

Our devices, systems, processes and services are interchangeable and interoperable and can be used in collaboration with our partners.

➤ We will provide interchangeable and interoperable means and methods. At the moment, the defence organisation has too many different systems which cannot be linked. Linkage requires robust support and layered protection of all elements of the system.

➤ Interoperability with our national and international partners should be a determining factor in the purchase of means and the selection and training of personnel.

➤ We will continue to invest in the multilateral cooperative alliances in which we operate, such as NATO, the EU and the UN. There, we will focus, for example, on improving the effectiveness of missions and enhancing various types of peace and stabilising operations and activities. We need to contribute our fair share, also in terms of troop supply. The Netherlands' position as a troop-

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contributing country needs to be more in step with other countries of similar size and with a comparable economy. Amongst other things, that requires investment in what is currently scarce capacity in respect of training, mentoring and advice, as well as in enabling capabilities for missions.

❯ For the prevention and lasting resolution of conflicts, broader solutions are required, for which the root causes need to be addressed. Together with the Ministry of Foreign Affairs and other partners, we will intensify this comprehensive approach, promote it further internationally and expand it with new partners.

❯ Together with our national partners, we will work on ways of becoming less compartmentalised in our approach, for example by means of more joint analyses, common strategies and integrated training.

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Design priniciple 7:

Transparent and visible in an engaged society

We have an active role in society. The defence organisation has a relatively closed culture. But secrecy is not compatible with the modern world: almost everyone has access to the internet, and real-time information is there for the taking. By actively sharing more information, we will not only ensure that our work is better understood, but also that society is less vulnerable to mis- and disinformation.

On behalf of Dutch society, the defence organisation is permitted, within the given parameters, to use force to protect and defend our interests worldwide. It is imperative that we are accountable to parliament and society for this and we must therefore become more transparent. We have already been focusing on this issue under the current cabinet: more incidents are proactively reported and more insight is provided into the way the military operates. We will continue on this path. Over the coming years, the transparency of the organisation will thus grow with the changing circumstances, which necessitate greater openness in order to maintain support for our operations. When sharing information, we are at all times mindful of personal, operational and national security, both that of the Netherlands and of allies and partners.

We will continue on this path. Not only do we want to be more trans-parent about our work; we also want to make it more visible. The defence organisation often trains 'out of sight' in order to minimise inconvenience, and much military deployment occurs in other (distant) countries. Unknown might not make unloved, but in some

cases it makes not understood. The defence organisation wants society to have a better insight into what exactly our people do. We also want other ministries, local authorities, businesses and other organisations to have a better idea of where to find us when they need us. Greater visibility and clarity will also help to involve society in the work of the defence organisation and increase security awareness. It will help everyone to stay alert to threats and to build the necessary resilience. People in military uniform should once again become a common sight in public.

This is what we need to do:

➤ We will strengthen our relations with the outside world. We will show society how we are doing. We will continue the culture change and start with adaptations in our training.

➤ We will be more visible and become more environmentally conscious: we will train more frequently among and with the public and increasingly lend our expertise to the societal debate about topics relevant to our organisation. We will invite external parties more often to defence locations in the context of good neighbourly relations.

➤ Through experience of psychological warfare by adversaries in, for example, Lithuania, Afghanistan and Iraq, the defence organisation is aware of the dangers of disinformation and influencing, and thus of the need to protect our open and transparent society from them. Greater openness, also about this type of threat, will create security awareness and thus increase societal resilience.

Objectives for 2035

We will continue to take steps to be even more transparent and relaxed in our dealings with the outside world, and we will become more visible.

We will continue to take steps to be even more transparent in the way we provide information to parliament and the public. In doing so, we will at all times be mindful of personal, operational and national security, both in respect of the Netherlands and of allies and partners.

The defence organisation is a more proactive, societal partner and helps society to become more resilient to threats, including those that result from more subtle hybrid forms of conflict.

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Design principle 8:

Focus on a stronger, more self-reliant Europe

The Europe of the future must be able to act independently if and when European interests are at stake. The EU Global Strategy of 2016 specifically states that the EU must be capable of conducting military operations at the highest end of the force spectrum. At the moment, Europe has only limited capability in this respect. Over the coming years, therefore, we need to invest more in increasing Europe's military ability to take greater responsibility for its own security and the representation of European security interests.

Over the last few years, many new initiatives have been launched in the EU in relation to security and defence. The defence organisation is aiming to achieve concrete results in these new initiatives. We are one of the drivers of the PESCO project on rapid response teams and mutual assistance in cyber security. The same applies to the PESCO project on military mobility, which supports cross-border military transport in Europe.

We are thus focusing more intently on a Europe, and so also an EU, that takes responsibility, also in military terms. This tightening of policy is necessary to guarantee security in Europe, including the Netherlands and thus indirectly the entire Kingdom, now and in the future. We will do this in a way that strengthens NATO too. Because a credible NATO remains vital for our security and, as European NATO states, we need to take our share of the responsibilities and make a larger, fairer contribution to the collective.

This is what we need to do:

‣ We will intensify cooperation within the EU and also involve third countries, such as the UK, permanently in the European security structure. We are also committed to cooperation in fora such as the European Intervention Initiative, the Joint Expeditionary Force, the Northern Group and the Arctic Security Forces Roundtable.

‣ We will intensify cooperation with defence organisations in Europe. We have made significant progress in this respect in recent years, certainly with strategic partners.

‣ We will focus on jointly defining more concrete priorities in relation to the EU's common security and defence policy, including cooperation on knowledge and innovation, joint transport and supply and the joint development of capabilities, for example in relation to the cyber domain, escalation dominance and communications and information systems.

‣ We are committed to consolidating strategic capabilities within Europe. Together with the business community and other partners, we are building a strong European defence market.

‣ We will argue (even more vigorously) for interoperability and standardisation within the EU and NATO, so that we can work together to the best possible effect. We will refine this policy line further. EU and NATO processes must be geared to each other so that capacity development and investments yield maximum returns. Bilateral cooperation, as well as cooperation between the EU and NATO, must be raised to a higher level operationally, strategically and politically.

‣ We will honour the agreements made in an EU and NATO context. To be a reliable ally, we need to grow our defence budget over the coming years, taking into account the scope made available by the next cabinet. Long-term commitment to the EU and NATO agreements is important for our credibility.

Objectives for 2035

We will focus more sharply on an EU which is better able to act as a geopolitical player and which can protect and defend European (security) interests independently.

We will honour the agreements made in an EU and NATO context, namely financial agreements, agreements about capabilities and agreements about deployment and readiness.

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Design principle 9:

Focus on further specialisation within NATO and the EU

We want to focus on further specialisation within NATO and the EU. Each country has a natural leaning towards certain capabilities and type of deployment. We should make better use of that added value in order to jointly achieve more effects and raise the quality of our operations.

The capabilities we choose must be ideally suited to the strength of our armed forces, our Kingdom, the needs of our society and the threats we face. We will determine those specialisms on the basis of the areas in which we excel. This will result in quality, effectiveness and efficiency. For the time being, the current versatile and high-quality base of capabilities will remain relevant. From there, we can grow and specialise. In that growth, we will consolidate certain specialisms: abilities and capabilities that are not (sufficiently) available to everyone.

At the moment, the defence organisation excels above all in its high-quality personnel, the F-35s due to arrive, its submarines, its capabilities in the cyber domain (specifically cyber means and intelligence), special operations forces, integrated air and missile defence and the Dutch comprehensive approach to deployment. Internationally, we are, for example, renowned for our training of and advice to security organisations with the aim of promoting the international legal order. Nationally, we also excel in crisis management (as described further in design principle 10), thanks to our organisational structures, means and knowledge on the part

of our people. We can expand our specialisms further from these qualities. Specialisation ultimately means that there are some things we will no longer do - that will be possible if these tasks are taken over by our partners, and vice versa.

Specialisation often begins with the intensification of cooperation and with the pooling and sharing of capabilities. It is a prolonged process that is not completed overnight. If partnerships do not prove strong enough, it could lead to lead to extreme vulnerability, as it is essentially about mutual trust. The preconditions for specialisation are therefore risk sharing and burden sharing. Furthermore, it must not be allowed to affect our role as last line of defence or first responder.

This is what we need to do:

➤ We will continue to build on the knowledge and experience we have gained from the current cooperation and use this to be a driving force within NATO and the EU to jointly increase specialisation and interoperability between partners. In doing so, we will promote potential leading groups of countries that can take the lead in this.

➤ From our base, we will start to consolidate and expand a number of qualities and niches: our own specialisms. At the moment, the defence organisation already excels in a number of areas and it is from there that we will develop our specialisms. The preconditions for specialisation should be taken into account in the process.

Objectives for 2035

It is our policy commitment in NATO and the EU to achieve further specialisation and full interoperability.

From a versatile and high-quality base, we will build on our own specialisms.

We will intensify our collaboration with strategic partners as a step towards specialisation.

➤ We will continue to intensify our cooperation with partners and to participate actively in initiatives relating to pooling and sharing.

Design principle 10:

Strategic capabilities for a resilient society

Strategic capabilities

In order to protect our democratic constitutional state and open economy, we must remain independent on certain fronts. So while we often rely on good and strong civil and military partners, there are some situations in which we need to be autonomous. There will always be the inevitable dependencies, partly because of the very nature of our open economy. This makes the protection of our economic security particularly important. It requires a more robust national security architecture and greater autonomy in strategic capabilities, processes, chains and supplies for national security and for a resilient society.

It is not possible to own everything ourselves. In our decision making, therefore, the risks need to be carefully considered: where do we want to be strategically more independent and where do we dare to accept the risks of dependency? If, for example, interests are already well protected at European level, it may no longer be necessary to protect them at national level. Strategic autonomy is important in different aspects of the security architecture, for example certain forms of combat power, support capabilities, supplies and infrastructure.

National tasks

The national security architecture consists of a large number of players, one of which is the defence organisation. Together, we need to be able to guarantee vital capabilities for crises and emergency situations. The defence organisation must also be able to contribute its unique capabilities as one of the first responders and as the last line of defence. We need to have the capabilities with which we can deliver (additional) sustainability, in normal as well as exceptional circumstances, to support the civil authorities. In respect of the latter, therefore, the defence organisation needs a degree of autonomy too.

The defence organisation has crisis management as a core competency and has the corresponding structures for command and control. We want to further develop this competency to support civil organisations. In recent years, we have already taken steps in this respect and are now a permanent part of national (crisis) coordination mechanisms. Throughout the corona-virus crisis too, the defence organisation has played a vital role in the coordination of patient distribution among the various hospitals. The defence organisation can also help more in tackling structural security challenges in our Kingdom, for example in the fight against organised crime and subversion.

This is what we need to do:

➤ The Netherlands, and thus also the defence organisation, should own certain strategic capabilities, systems and supplies itself. Strategic supplies of, for example, medical consumables, ammunition, emergency food rations and fuel need to be expanded so that they are not only available for use in other countries but also in emergency situations in the Netherlands.

➤ We want to contribute more to strengthening the resilience of society,

as specified in Article 3 of the NATO Treaty. This means a role for the defence organisation in supporting the continuity of public administration and providing assistance with respect to energy supplies, migration, food and water sources, the treatment of mass casualties, civil communications and transport systems.

➤ Our procurement policy takes account of the need to be able to guarantee our economic security and strategic autonomy. To this end, we are investing in knowledge, technology and capabilities as identified in the Defence Industry Strategy.

Objectives for 2035

The defence organisation has the strategic capabilities and supplies necessary to be able to act as the last line of defence and as one of the first responders.

Within the network of security partners, we will reach agreements about the guaranteed tasks and capabilities in emergency scenarios and crises, and about who delivers what.

We will increase our availability for deployment in the national security domain in support of the civil authorities. We will make greater use of our crisis management capability and our ability to scale up. By doing so, we will contribute to the resilience of our society.

Financial overview

The rapid changes in the threat environment demand changes in the defence organisation. The previous chapters describe the lines along which the defence organisation needs to develop on the way to 2035. The defence organisation has to modernise so that it can continue to perform its constitutional tasks in the future and can respond to the many threats. As an organisation, we will have to grow gradually towards this point. The necessary change of course, described in the design principles, will be embarked upon regardless of the budget.

In order to make the right choices, this chapter gives an insight into the financial translation of the Defence Vision if we set everything up as well as possible. This is not a claim for the 2021 Spring Financial Report or any other such occasion. Parliament asked for insight into the required amounts in order to make better choices – this summary is designed to comply with this request.

The financial overview shows that if we want to be in the best possible position to counter the threats, the required budget will exceed the NATO norm. We are, however, in a situation in which government funding is in short supply. The NATO norm is based on the notion of a balanced organisation. The defence organisation does not yet fit that description; steps are being made in that direction. We face various challenges to future-proof and balance the defence organisation.

To this end, the cabinet has, as previously stated, taken important steps by making extra investments in the defence organisation with the coalition agreement in 2017, by the submission of the National Plan to NATO in December 2018 and with the financial implementation of part of this National Plan in 2019. Future cabinets will address any follow-up steps. Long-term political commitment to realistic targets for policy and budget is required in order to be able to properly direct and set up the organisation. This commitment could bring stability to the recovery, modernisation and reinforcement of the defence organisation.

Looking back on this cabinet period

With the measures in the 2017 amendment memorandum for operational (combat) support and the 2018 Defence White Paper, this cabinet, as previously stated, has taken important steps toward the recovery and modernisation of the defence organisation. For our personnel and equipment, the investments have made a huge difference. The new personnel agenda incorporates enhancements, such as a new pension scheme for military personnel, a new agreement on terms and conditions of employment, compensation for the state pension shortfall and a review of veterans policy. Important steps have also been taken in pushing for a safe working environment for personnel. Our investment programme (Annex IV of the 2018 Defence White Paper) included a total of 100 projects: approximately half of these projects can still be carried out or accelerated with additional resources as a result of the 2018 Defence White Paper. This is highly significant for the striking power and deployability of the military. Since the 2018 Defence White Paper, 41 DMP A-letters for new materiel were sent to parliament in 2018 and 2019, and another 15 A-letters will be sent in 2020. Our investment quotient rose in 2019 to 24% of the defence budget.

The aim of the 2018 Defence White Paper was to invest in people, striking power and visibility, and numerous measures have been set in motion in recent years to achieve this. Parliament has been kept informed of progress since 2018, by means of budgets, annual reports, deployability reports, personnel reports, and so forth. Furthermore, separate letters were sent (Parliamentary Papers 31 125 no. 114, 34 919 no. 55) regarding the progress of specific, complex issues, such as IT and real estate. These letters communicated important policy amendments and decisions to strengthen our organisation. We continue to monitor the progress of the measures and will continue to inform parliament of that progress. There will also be evaluations, which will be sent to parliament through the usual channels.

The implementation of all these important measures does not mean that the intended effect is already sustainable. More future-proof solutions will be required when it comes to, for example, the upkeep and replacement of weapon systems, our real estate, IT and staffing. This too has been communicated to parliament by means of the aforementioned letters and reports.

This vision will pass design principles on to future cabinets. On the basis of

the choices made by those future cabinets, a defence white paper will be drawn up at the beginning of each cabinet term. That white paper will translate the cabinet's decisions into measures and will set out how the design principles will be substantiated and how they will contribute to the successful ongoing development of the defence organisation. Consideration will also be given to how these measures will be evaluated.

Inventory of financial requirements and commitments

We are talking about substantial amounts: if we set everything up as well as possible, an additional €13-17 billion will be required. At the moment, it is clear that not everything can be done and not everything can be done at the same time. Choices and stages are therefore necessary: a future cabinet will be able to create a decisive strategy for this on the basis of this overview. The long-term goal should remain firmly in sight. The financial overview below brings the implications of the possible choices into focus: after all, a euro can only be spent once. If we spend it on enhancing our IT, it cannot also be spent on improving our real estate. Not doing everything carries its own risks, given that the threat analysis is a fact. Those risks must be properly considered.

The financial requirements are shown in bandwidths: technological developments, market forces and other developments are continuous processes, which means it is not useful to include precise figures. These bandwidths are further substantiated below and divided into four categories. Three of the four categories

correspond to the policy options in the interministerial report entitled Brede Maatschappelijke Heroverwegingen 15 (BMH 15).

All the requirements set out below will benefit our personnel directly and indirectly: they will significantly improve their working conditions. We have included the improvements specific to personnel policy in the categories of 'modern business management' and 'agile and future-proof'.

Our international tasks, obligations and agreements

The Netherlands has made agreements in a NATO context about defence spending for the common defence of allied territory. Within NATO and the EU, these agreements about defence spending have been converted into capability targets for all countries, something to which the Netherlands has also committed. These targets are based on the new security environment and the (potential) threats we are facing[3]. If each country adheres to the agreements made and achieves the capability targets, we will be better able to protect our common security.

To achieve the capability targets, substantial structural investments are needed: the incorporated sum of an additional €6.5-8 billion is explained in the BMH.[4] Investments in these capabilities will modernise and strengthen our armed forces, broaden our range of options for action and increase sustainability, boost the resilience of Dutch society and strengthen the bonds with NATO, the EU and the UN.

Information-driven operations

The amount of data and information available and the ever faster processing and analysis thereof will only increase further in the coming decades. This has repercussions for the entire defence organisation and all operations of the armed forces. Operations are increasingly being driven by information, and information forms the basis for raising the tempo and precision of combat. The information environment, and particularly influencing by digital means, is becoming more important. Sensors are required for this, for example, as well as connections and capabilities to filter, process and analyse data. Robust IT is also needed, as outlined in the recent parliamentary paper on IT. Investment in information-driven operations will serve to enhance our digital resilience, partly because of the emphasis on deterrent capabilities in the digital domain and by strengthening our own defence. The additional structural amount of €1.5-2 billion included for this is also set out in the BMH.

Modern business management

We have made significant progress in recent years, but more is required to modernise our business management in order to achieve a state of balance. Over the last few years, therefore, we have been taking an inventory. Even after the investments of the last

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3 For further detail about the capability objectives of NATO and the EU, see Explanatory Annex III on page XIV.

4 The Brede Maatschappelijke Heroverwegingen assumes an additional €7 billion in structural terms, based on the 2018 price index.

few years, it is clear that recovery is still necessary for the required readiness and deployability of the military in order to be able to carry out the defence organisation's constitutional tasks. This applies in particular to real estate, IT, major equipment, materiel maintenance, staffing and good employership, general business management and social and physical safety. The additional structural amount of €1.5-2 billion included for this is set out in the BMH.
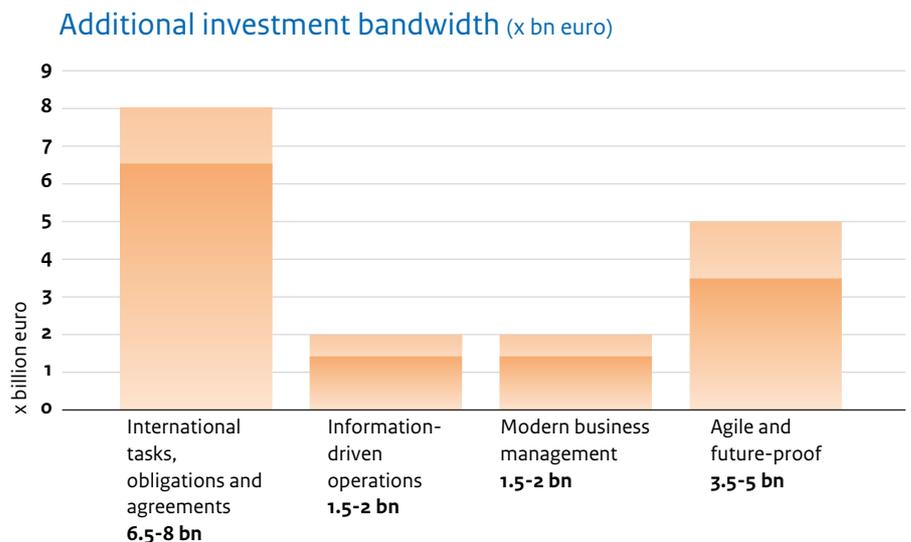
Agile and future-proof
We need to become more agile in order to be able to respond to changes in our environment and to potential adversaries. To this end, we have to strengthen our combat support substantially so that our forces can operate more independently, faster, longer, more frequently and more effectively. Technologically advanced and labour-extensive solutions and high-quality personnel are also vital in this respect. Above all, we need to enhance our innovative capabilities.

Technological developments and changing global relations mean that the defence organisation is going to find itself in relatively new domains in the coming years. We need to be able to use information as a weapon in all domains. What is more, developments in the space domain not only have major implications for our security, but also for our economy and prosperity.

To guarantee the ability to be future-proof in the performance of tasks and obligations in the national security domain, we need to expand

Additional investment bandwidth (x bn euro)

x billion euro

International tasks, obligations and agreements
6.5-8 bn

Information-driven operations
1.5-2 bn

Modern business management
1.5-2 bn

Agile and future-proof
3.5-5 bn

and improve quality in certain areas. We want to be even better able to support our national partners, deliver the guaranteed support autonomously and in any circumstances, and be able to maintain this over longer periods of time.

This category concerns an additional structural requirement of €3.5 to €5 billion.

First steps
When consideration is being given to financial choices for the defence organisation (additions as well as reductions), a balance always needs to be sought between the needs in these four categories. They cannot be seen in isolation, but as complementary to and in part dependent on each other. The fulfilment of the international obligations (the first category), for instance, occurs on the basis of the premise that we want our operations to be information-driven and that we have sufficient (combat) support to deliver flexibility and customisation. To arrange the current organisation

accordingly, however, these items are also to be found in the other categories. The four categories thus complement each other and together contribute to the strengthening of the defence organisation.

The next cabinet – also depending on economic developments – will want to place new emphasis and priorities on countless other issues, including defence, and will have a certain level of resources to do so. The defence organisation is aware of the fact that it is impossible to predict in advance how much in the way of resources a cabinet will allocate to the organisation. The rapidly changing global security environment and the further recovery of the defence organisation mean that there is currently a mismatch between the organisation's tasks and the budget: at the moment, we cannot fully meet the demands placed on us or honour the agreements made in a national and international context. Even with substantial growth in the defence budget, the next cabinet will be

obliged to make choices, set priorities and decide what it expects from the defence organisation. A balance has to be sought between the defence organisation's goals and tasks and the means required to achieve and perform them. To achieve greater stability for the defence organisation, long-term commitment is needed to bring the organisation up to date.

In the light of the threat environment, the NATO allies have agreed to make every effort to grow towards a defence budget of 2% of GDP (the NATO norm). As a prosperous nation that derives so much benefit from our partnerships, it is important to take our share of the responsibility for the protection of our common security. To be a reliable partner, one of the three characteristics identified in this vision, we must be willing to honour our NATO agreements. We could start by equalling the average of the European NATO members so that we deliver a proportionate contribution to our European partners. This would be a good onward step to the policy of this cabinet. It would send a strong signal.

The Netherlands is expected to reach a GDP percentage of 1.48 in 2020. This rise is entirely related to the anticipated development of the economy because of the coronavirus crisis. The average among European NATO states will also rise further as a result, reaching an estimated 1.8%. In 2021, the Netherlands will still be among the states with the lowest contribution. That will remain so on the present course towards 2024: most countries have announced intensification, so the gap will widen. NATO recently expressed its grave concern on this subject in the periodic

report on the Netherlands in the context of the defence planning capability review.[5]

A future cabinet may choose to substantiate the most essential conditions (consider above all the reinforcement of our combat support and logistics, IT and our personnel) and a number of targeted reinforcements in our striking power. These capabilities must match the unique qualities of the defence organisation and specifically strengthen the EU and NATO.

Development paths
Defence is an important condition for and part of the earning potential of our society: without security, there can be no properly functioning economy or society. An investment in the defence organisation is thus an investment in our economy and prosperity.

To give an idea of how the defence organisation could become stronger over the coming years, three possible development paths are shown below:
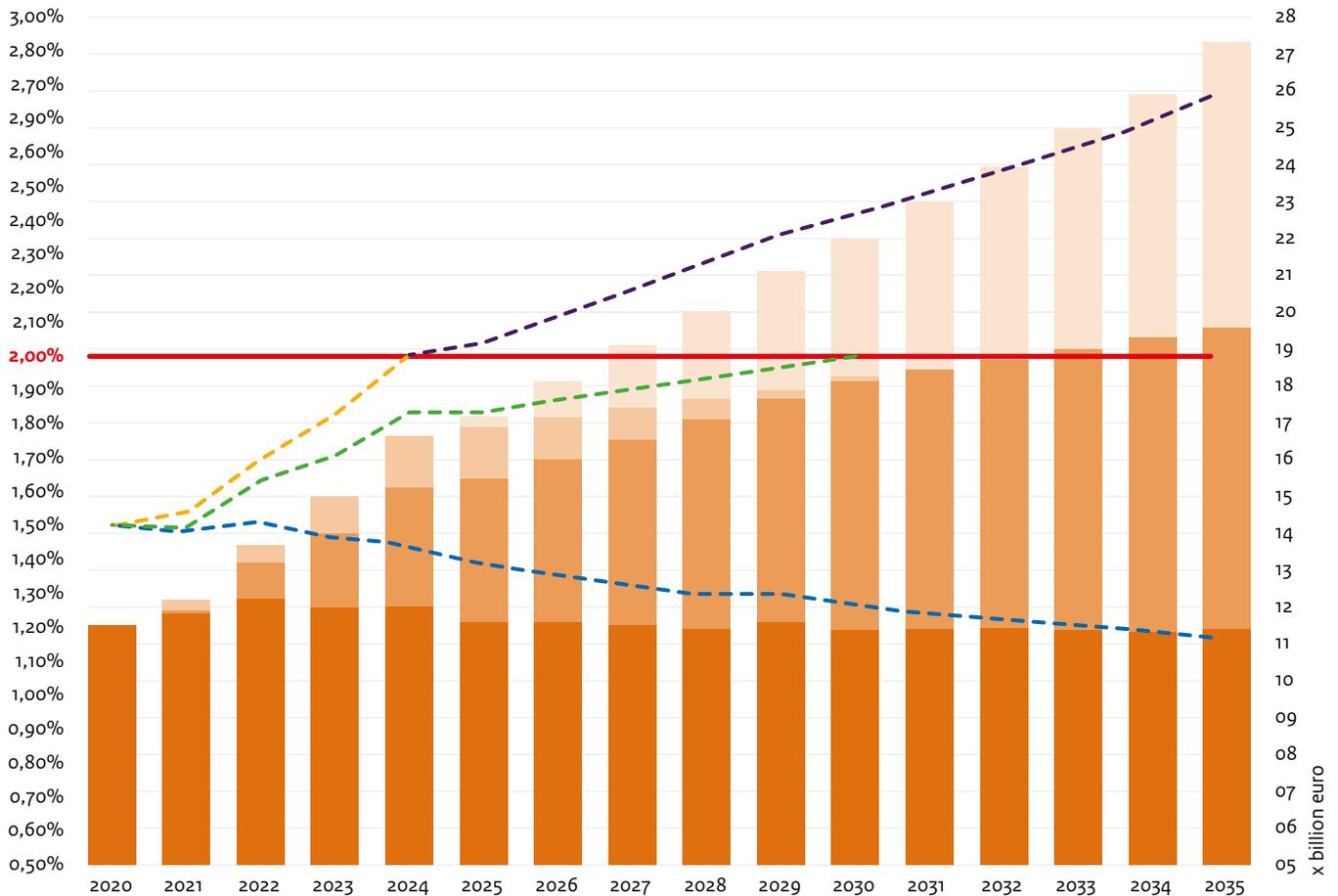1. Grow towards the average among European NATO states in 2024: before the coronavirus crisis, this amounted to 1.83% of GDP. This is likely to rise as a result of economic developments. Further growth towards the NATO norm of 2% of GDP in 2030.
2. Grow towards the NATO norm of 2% in 2024: in accordance with agreements made by government leaders at the NATO summit in Wales and later in Warsaw.

3. Grow towards the entire requirement indicated below in 2035.

It is, of course, quite possible that future cabinets will opt for a different path. Whichever path is chosen, however, choices will be necessary, depending on the budget available.

Legend:

- Current budget (budget 2021) (€bn)
- Growth path to European NATO average in 2024 (pre-coronavirus)
- Growth path to NATO norm (2% in 2024)
- Defence Vision growth path (in full)
- Current GDP percentage
- Growth path to European NATO average in 2024 (pre-coronavirus)
- NATO norm
- Defence Vision growth path (in full)
- Growth path to NATO norm (2% in 2024)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Current budget (OB2021) (in €bn)	11,5	11,6	12,1	11,8	11,8	11,4	11,4	11,3	11,2	11,4	11,2	11,2	11,2	11,2	11,2	11,2
Required additional budget (in €bn):																
Growth path to European NATO average in 2024(1.83%)	0	0,1	1,5	3,2	3,9	4,4	4,9	5,4	5,9	6,4	7	7	7	7	7	7
Growth path to NATO norm (2% in 2024)	0	0,4	1,5	3,2	5,4	5,9	6,1	6,4	6,6	6,7	7	7	7	7	7	7
Defence vision growth path (in full)	0	0,4	1,5	3,2	5,4	6,4	7,4	8,4	9,4	10,4	11,4	12,4	13,4	14,4	15,4	16

In conclusion

The threats that we as a Kingdom need to be able to withstand are not static. Technological developments, geopolitical changes and also such issues as climate change and demographic developments are altering the threat environment. Threats are now evolving so quickly that the defence organisation has to adapt. And given the current setup and state of the defence organisation, we are not adequately equipped to deal with future (or some current) threats.

In 2035 too, we will need a defence organisation that can protect our way of life and the interests of our society. The defence organisation will be called upon with increasing frequency. And our people need to be ready: equipped and trained. As our Kingdom's fighting force, military personnel carry on when others stop. Ideally, they will prevent a conflict. But if they have to, they will fight to win. Sometimes paying the ultimate price: their life.

The defence organisation will get to work on the basis of the profile outlined in this Defence Vision. So that on the way to 2035 it becomes a smart, technologically advanced organisation with a great capacity to adapt to different situations and act on the basis of the best information. We will also be an organisation on which our national and international partners and society can rely.

The three characteristics and ten design principles will provide guidance and help to maintain a steady course in the decision making regarding the design and composition of the organisation. The success of the profile will also depend on the restoration and maintenance of the balance between tasks, equipment and people.

The defence organisation is going to move forward along the path to 2035. In order to be fully equipped for future (and some current) threats, we need long-term commitment from the politicians. Future cabinets can address this issue. We must be able to move forward in the coming years and know where we stand. Choices will also be necessary, as we cannot do everything and we cannot do it all at the same time.

The world will look different in 2035. Security is not a luxury, it cannot be taken for granted and it does not come cheap. But it is vital for the protection and defence of our interests. For the preservation of what we value.

Defence Vision 2035

Explanatory Annexes

📄 Explanatory Annex I: **Trend analysis 2035 (page II)**
Our world is constantly in motion. We monitor the trends and developments that affect the future (operational) environment in which our defence organisation will be operating.

📄 Explanatory Annex II: **Deployment scenarios 2035 (page X)**
In order to determine the best profile for our defence organisation to enable us to perform our tasks properly in the future, we frequently use deployment scenarios in addition to environmental and threat analyses.

📄 Explanatory Annex III: **NATO and EU capability objectives (page XIV)**
In order to ensure that the capabilities of allies complement one another, NATO uses the NATO Defence Planning Process (NDPP). The EU also has targets for strengthening combined deployment and qualities.

Explanatory Annex I:

Trend analysis 2035

Our world is constantly in motion. We monitor the trends and developments that affect the future (operational) environment in which our defence organisation will be operating. Technological trends, geopolitical shifts of power, economic, socio-demographic and ecological developments bring new opportunities and risks. The contours of a new reality are becoming increasingly visible, but uncertainty about what will eventually become reality continues to be characteristic to our time, also in the future.

Current trends and developments point towards significant changes. Technological possibilities in particular are expanding rapidly. They bring us great opportunities; for example, robotics, artificial intelligence and quantum technology can further enrich our daily lives. A fridge that does its own shopping when products have run out, new cures for diseases that used to be deadly, and robots capable of giving people the care they need. Distance is becoming even less relevant thanks to developments such as self-driving cars and better means of communication.

Change also carries risks, however. The defence organisation's job is to take account of precisely those risks. The defence organisation is the insurance policy for a great many risks about which we are uncertain as to whether they will ever materialise but which will have a disruptive effect if they do. We therefore need to acknowledge and evaluate those risks, so that we can prevent or mitigate them as much as possible. The Netherlands is an open and diverse country of connections and internal and external security are therefore inextricably linked. We are an important hub for air traffic

(Schiphol), shipping (Ports of Rotterdam and Amsterdam) and data traffic (Amsterdam Internet Exchange). We are in the top 20 of the world's largest economies and there is a wide variety of backgrounds and outlooks among our population. Open connections are our strength. But also our weakness.

Poverty and poor governance elsewhere in the world, from North Africa to Venezuela, lead to people smuggling, drug trafficking, other forms of organised crime and extremism that could have an undermining effect in the Netherlands too. One-sided strategic dependencies (economically as well as in relation to security) can lead to vulnerability. A conflict in the Middle East may create problems with foreign terrorist fighters years later. An outbreak of a new and aggressive virus in Asia could shut down our economy. A digital attack launched from abroad could disrupt systems in

the Port of Rotterdam. A tragic example of how international developments can strike at our heart is the downing of flight MH17 above Ukraine, as a result of which 298 people lost their lives, 193 of whom were Dutch.

Increasing technological possibilities

Innovative and ground-breaking applications of artificial intelligence, quantum technology, battery and nanotechnology, 3D printing and bio- and gene technology are finding their way into our daily lives. Technological developments are changing our way of thinking, decision making and acting. They are changing the international economy, our way of communicating with each other, our transport, the job market and our security, to name but a few. It also changes our approach to conflict and warfare. New domains such as the cyber domain and space offer new opportunities. Weapon systems are becoming ever faster and more accurate.

Technological trend monitors developed by research institutes such as the Netherlands Organisation for Applied Scientific Research describe the changing relationship between man and machine. Algorithms are becoming better and better at identifying patterns, gradually enabling them to respond more accurately to users' wishes. Unmanned systems are becoming more powerful and versatile. People's intellectual and physical faculties can be enhanced with implants and pharmaceutical agents. On the one hand, future generations will be more accustomed to working with machines in support of their day-to-day activities. On the other, rapid developments will give rise to societal debates on (new) legislation and regulations regarding data protection, privacy and other ethico-legal issues.

The current content of jobs will change, new types of job will emerge, and the need for different competencies will arise. These changes in the job market will lead to a high demand for specific (and therefore scarce) job profiles in the technology sector. Throughout the job market, there will be a growing focus on competencies such as the ability to switch quickly and to adapt to and embrace new possibilities. Older workers may find it more difficult to do this.

Digitalisation creates new possibilities for deterrence and protection.

Technology helps to achieve more effects by the same number of people and to work better and more safely.

Unmanned systems are more common. Both on land, at sea and in the air. They are used by more and more actors, including non-state actors.

There is permanent surveillance in the electromagnetic spectrum.

Artificial intelligence changes the planning and conduct of military operations. Operations become information-driven. This dependence on technology can also cause vulnerability.

Satellites provide crucial communication and navigation. The use of space is becoming increasingly essential.

Attacks no longer take place within a single domain or at a single location, but are coordinated on different fronts and over prolonged periods of time.

The proliferation of tactical ('small-scale') nuclear weapons increases the risk of escalation. The threat of as yet unknown biological, chemical or radiological agents is also growing.

Faster, more precise weapons shorten reaction times, including missiles that can hit Europe directly. This puts the concept of meaningful human control under pressure.

Changing geopolitical relations

The rise of a power such as China offers many economic opportunities, but also brings security risks. The discussions about 5G and the production of microchips are clear evidence of this tension. The US is increasingly regarding the Asian great power as an existential rival. Russia and other regional powers occasionally use the new geopolitical situation to their advantage. All this can put Europe in a difficult position, as we are situated between the US and China and are vulnerable to Russian aggression. This rivalry is also felt in the Caribbean part of our Kingdom.

The (Western) rules of play that we have used on the world stage over the past decades are also changing. As many actions and reactions during the COVID-19 crisis have emphasised, various players have subordinated transparency, cooperation and international solidarity to the furthering of their own interests. Beijing is claiming a greater role on the world stage, the US is going its own way, and non-state actors have an ever greater say. Examples of the latter are large tech companies, authoritative NGOs and even wealthy individuals.

The US appears to be backing away, while for its security Europe will continue to be highly dependent on solidarity within the NATO Alliance, and particularly that of the US, in the years to come. While we remain committed to freedom and democracy and endeavour to preserve a multilateral world, we will also have to learn to navigate a world where unilateralism and protectionism, bilateral agreements and ad hoc coalitions play a greater role.

The increasing tensions between great powers are already manifesting themselves: trade wars between states, proxy wars in the Middle East and North Africa, and a more aggressive rhetoric, which is often disseminated unfiltered through social media. We see large-scale military exercises at the borders of our Alliance and increasingly frequent territorial violations of the land, sea and air domains, also in the Netherlands. We see a race for the possession of ground-breaking technologies and for the power to set international standards.

Increasing tensions are accompanied by tougher nuclear rhetoric. Russia's development and deployment of the ground-launched cruise missile SSC-8 heralded the end of the INF Treaty and there are other developments raising concern: those concerning the Iran deal, North Korea's ballistic activities and investments in new (dual-capable) weapon systems.

The new relations boost far-reaching (European) defence cooperation.

Hybrid conflicts are the 'new normal'. Deployment increasingly focuses on the cyber domain and the information environment.

Uncertainty prevails within NATO and the EU as a result of Brexit, the search for leadership in the EU, and the behaviour of certain allies.

States such as China, Russia and Iran are trying to gain more influence, also by military show of force and intimidation.

The likelihood of a conflict with military aspects between great powers is growing. Great powers are focusing on constant technological innovation.

Tensions are rising more visibly in areas such as the cyber domain, on the high seas, in the polar regions and in space.

Chances are that more protracted conflicts will arise around Europe with interference from various great powers.

The situation in neighbouring Venezuela is not likely to improve any time soon, making the Caribbean part of the Kingdom more 'geopolitical'.

Increased pressure on the international legal order renders multilateral conflict resolution more problematic. This has consequences for mission mandates.

International economic developments

For a long time, protectionism and state subsidies were internationally seen as undesirable. That idea has changed. The free-market economy cannot be taken for granted in the future. The closing of borders and economic hubs during the COVID-19 crisis has accelerated this trend of protectionism. We will continue to feel the effects in the coming years, both in the public and private sectors. The national budgets of many countries will also remain under strain in the coming years and oil prices may continue to fluctuate.

The increasing scarcity and geographical distribution of not only oil and gas reserves, but also that of, for example, uranium and rare-earth metals, could stir up (trade) conflicts. Economic conflicts will affect prices and availability of goods and services. Rare-earth metals are indispensable for technologically sophisticated applications such as smartphones, but also wind turbines, electric cars, new generations of batteries, jet engines, satellites and missile guidance systems.

The international economy has been moving towards digitalisation for years, and the crisis of recent months has given this trend an extra boost. Large IT multinationals (such as Apple, Alphabet, Amazon, Microsoft, Facebook and, perhaps in the near future, Tencent) now have more resources at their disposal than many a country.

We must take into account the possibility of outbreaks of new (and old) communicable infectious diseases that can spread rapidly. COVID-19 was preceded by other coronaviruses, such as SARS. Such outbreaks – and worse - cannot be ruled out in the future, especially in densely populated areas. As has become painfully clear, such infectious diseases can have major consequences for the international economy.

The current crisis presents opportunities to restructure the economy in a more sustainable manner.

Large IT multinationals are becoming increasingly influential. For the defence organisation, too, dependence on commercial parties is on the increase (but so too are the opportunities).

Volatility on the international markets means that the price and availability of defence equipment can fluctuate greatly.

Public budgets are under pressure, which is aggravated by current economic conditions. There is no guarantee of growth for the defence organisation.

Trade disputes surrounding rare-earth metals may increase. Certain rare-earth metals are indispensable for applications such as jet engines, satellites and missile guidance systems.

The current economic crisis, triggered by COVID-19 measures, will lead to higher unemployment and financial problems worldwide for years to come.

Demographic and social developments

The world population will increase by approximately one billion people over the next 15 years. That growth is unevenly distributed. Africa's population (currently 1.1 billion) is likely to have doubled by 2050, while its economic development is lagging behind. A large group of young people will start looking for other livelihoods. Moreover, this a region that is also facing other challenges, such as the effects of climate change.

In stark contrast are Europe, Russia and China, whose populations are ageing. Growing numbers of people worldwide will move to cities, especially in coastal areas and poorer regions. Of all the continents, Africa's urbanisation is progressing at the highest rate. According to consultancy company McKinsey, in 2025 there will already be 100 African cities with a population of over a million. This is not an exclusively African trend: Latin America and Asia are also seeing a growth in the number of megacities, including cities with populations of around 30 million inhabitants.

This often unevenly distributed population growth and urbanisation will in all likelihood have social consequences as well. This could increasingly lead to conflicts in major urban areas. The global polarisation between democracy and autocracy, and between the haves and have-nots, may increase as a result of these developments. A possible pandemic could further reinforce this trend. In this respect, autocracies are making grateful use of technological applications to restrict freedoms, while democracies are taking measures to, for example, protect the privacy of citizens. Between these two extremes, a growing number of so-called 'unfree democracies' are emerging.

The Netherlands, too, is becoming ever more crowded. According to research by the Netherlands Environmental Assessment Agency (PBL) and Statistics Netherlands (CBS), in 2035 we will have a population of approximately 18.3 million people with increasingly diverse backgrounds. The big cities are growing considerably. It is not only the size, but also the composition of the population that is changing, mainly as a result of ageing. The number of people over 65 is rising sharply, whereas there is hardly any growth in the number of people between the ages of 20 and 65 (roughly speaking, the working population). In 2012, there were four working people for every senior; in 2040, there will be only two.

This also has consequences for our national budgets: the same number of people have to drive the economy and prosperity of our country. To illustrate the contrast: based on current trends, more than 300 million young people will be entering the labour market in the Middle East and North Africa between now and 2050.

Competition on the labour market is growing and the population composition is changing. This requires a different approach to recruitment and to the way the organisation is designed.

Urbanisation in places such as Africa and the Middle East means that conflicts occur more frequently in major cities.

Criminal networks and jihadi non-state actors continue to find fertile ground, but other forms of extremism are springing up too.

Organised crime is becoming increasingly large-scale. Developments in the Caribbean are increasingly felt in the Netherlands.

Our borders are coming under (even) greater pressure. An unregulated increase in the number of migrants seeking protection and a better life cannot be ruled out.

Ecological developments

Scientists have agreed for years that we should not underestimate the effects of climate change. Reports by the UN Intergovernmental Panel on Climate Change (IPCC) have become increasingly alarming over the years. The Global Risk Reports of the World Economic Forum (WEF) have been claiming for years that climate-related risks are most likely to occur and will have the greatest impact. Sea levels continue to rise and weather patterns and ecosystems are changing. The risk of flooding, forest fires and health threats is increasing.

Precisely in the region surrounding Europe, such as the Middle East, the Sahel and the Horn of Africa, drought, unpredictable rainfall, salinization of groundwater and water scarcity could become sources of conflict. In the Nile Delta in Egypt, for example, the saltier water could cause crop failures, and in the Yemeni capital of Sana'a, groundwater levels are steadily dropping. In the Arctic, new shipping routes are beginning to emerge and the extraction of rare-earth metals is becoming more feasible. Scarcity of resources such as water could lead to famine, local (and geopolitical) conflicts and migration flows. We should bear in mind that weather conditions could cause damage to buildings and infrastructure.

The Netherlands is vulnerable too: 60% of our surface area is at risk of being flooded. Unlike other countries, however, we are fortunate to have the means to protect ourselves. The Water Act of 2017 stipulates that the risk of a person dying as a result of flooding may not be greater than one in 100,000 years, and we are working hard to make our dikes future-proof. There is no such statutory provision for other risks. But even with such a provision in place, extreme weather can still pose a serious risk. There is also a risk of forest fires in the Netherlands, while in the Caribbean part of our Kingdom, hurricanes will continue to have devastating effects.

Both nationally and internationally, discussions are being held on climate change, sustainability, the energy transition and the possibilities of geo-engineering (large-scale manipulation of weather systems using technology). The outcome of these discussions will partly determine what consequences there will be for the future. Their translation into society and into legislation and regulations will affect all of us. It may lead to changes in sectoral employment, for example.

Energy independence could enhance security (also in mission areas) and could have operational advantages.

Extreme differences in temperatures can affect equipment and personnel.

New rules concerning sustainability mean higher initial costs, but could save costs in the long term.

Growing number of conflicts over natural resources.

Increased demand for humanitarian aid and disaster relief.

Conclusion: Adapting to a new operational reality

As set out above, the (near) future will bring a great number of new elements to our operational environment. For example, we may be faced with a larger number of unexpected crises that also require the deployment of the defence organisation. We do not know whether or when something will become a reality, but the defence organisation must always be ready to serve our society. We are also increasingly 'troubled' by the permanent strategic rivalry between great powers such as the US, China and Russia and the hostile hybrid activities in which that rivalry manifests itself. Information and cyber resources are being deployed ever more frequently as weapons in this playing field. The conventional threat is also growing, however, given the fact that adversaries have highly advanced (and nuclear) weapon systems at their disposal. The speed and precision of combat are increasing.

The current and future threats are so significant, numerous and diffuse that we cannot be prepared for all of them by ourselves. The reliability of trusted partnerships will come under further pressure in the coming years, but our partners will remain crucial for our ability to act collectively against the many threats that are coming our way.

We do not yet have an answer to all those new elements. If we look from an overarching perspective at what is coming our way, we come to the following conclusions regarding the necessary renewal of our organisation on the way to 2035:

● We need to be (even) better able to anticipate and adapt, and to act quickly and inventively. We must work to increase our own resilience and contribute to a more resilient society. We will need to have (and retain) certain personnel and materiel capacities ourselves in order to be able to take action in unexpected crises. The defence organisation will have to make a greater contribution to the protection of national security.

● Within a broader and integrated network of military and civil players, we must find a better response to organised hybrid campaigns that are under way constantly and on different fronts (economic, cyber domain, information domain, military, etc.).We must therefore also be able to act independently on a more permanent basis in various domains, both at the low and high ends of the force spectrum.

● We must remain able, together with our partners, to deter adversaries that are technologically equal or superior to us (conflict prevention) and, if necessary, to confront them (and win). This is also relevant to the heightened nuclear threat. Innovation and renewal of our own weapon systems and our own methods are therefore essential. Deterrent measures against the Russian threat will also remain necessary in the future.

● Using technological, personnel-related and other solutions, we must ensure that we have sufficient capacity for the objectives we set. We need to structure ourselves differently, achieving more effects with the same number of people.

● We must identify our added value, i.e. the strength of our organisation, more clearly and on that basis make the greatest possible contribution to partnerships. The same goes for our partners: we must reinforce each other on the basis of our individual and collective strength.

● We must continue our efforts to be a reliable ally, if only so that we can expect the same reliability from our partners. Europe (and thus the Netherlands too) will have to play a greater, more self-reliant role in the field of security (as well as in relation to other strategic issues) over the next 15 years.

Explanatory Annex II:

Deployment scenarios 2035

In order to determine the best profile for our defence organisation to enable us to perform our tasks properly in the future, we frequently use deployment scenarios in addition to environmental and threat analyses. In view of the uncertainties inherent in the developments in our environment, a growing number of different deployment scenarios are conceivable. From scenarios at the high end of the force spectrum against (at least) equivalent adversaries operating with the most technologically advanced materiel (an Article 5 situation in the context of the NATO Alliance) to deployment against non-state actors conducting low-tech operations with asymmetrical warfighting methods. We must also be able to act in crisis situations and to provide humanitarian aid and disaster relief, and we must be prepared to make our contribution to the protection and defence of the vital interests of the Kingdom. From socially disruptive cyberattacks to pandemics, from ecological disasters to large-scale unrest. For the preparation of this Defence Vision, we organised various scenario sessions using existing and new scenarios, including those conceived in the context of the inter-ministerial Brede Maatschappelijke Heroverwegingen (BMH) in 2020.

Overview of scenarios used

As part of the BMH, three conceivable scenarios requiring the deployment of the defence organisation for the period up to 2025 were drawn up. These were fictitious scenarios with a significant degree of probability and impact. In addition, deployment scenarios for the period up to 2035 were developed by the defence organisation itself. These scenarios will remain relevant over the next 15 years, although their aspects will change depending on changes in elements of the environmental analysis.[6] A brief outline of the scenarios used is given below.

1 Civil war in a North African country: a civil war in a North African country creates a power vacuum that allows extremist non-state actors with a considerable number of supporters in the Netherlands and with covert support from a foreign power to operate unhindered. This deteriorated security environment leads to a sharp increase in irregular migration from North Africa to southern Europe. The plight and despair of migrants are being exploited. The country's authorities appeal to the international community for help, and this forms the basis for intervention. A blockade by non-Western countries prevents a UNSC resolution from being adopted. Several European and non-European countries provide neither political nor military support. The extremist group commits an attack on a resort in a neighbouring North African country, where a large number of Western tourists are staying. This attack results in a large number of Dutch victims. The same extremists call for follow-up attacks, explicitly designating the Netherlands as a target. Based on intelligence and police information, this threat is considered to be extremely serious. The Dutch parliament agrees to contribute to a military mission of a number of like-minded European countries to

6 For more details, see In-depth Supplement I *"Trend analysis 2035" on page II.*

the North African country. Where necessary, military interventions are made in order to prevent further escalation. In this mission, the defence organisation collaborates with various ministries and investigation and intelligence services as part of a whole-of-government approach. The mission involves long-term deployment, including aftercare and reconstruction, in the North African country and in the Netherlands, in which the defence organisation needs to contribute to the security and protection of both military facilities and civilian objects.

x

This scenario shows the vulnerabilities that arise when a situation at Europe's borders gets out of hand and Europe is largely left to its own devices. The course of the scenario reveals, for instance, the lack of sustainability. It also shows how events abroad can lead to polarisation and the erosion of resilience in Europe and in the Netherlands.

2 Hybrid attack on the Netherlands: the security environment for one of the NATO allies is deteriorating rapidly. A neighbouring country, possibly with the intention of preparing to commit a flagrant violation of territorial integrity, is causing social and political unrest. It is doing so through cyberattacks, social influencing and physical sabotage, to name but a few. This country appears to be steering towards a physical confrontation. These disruptive activities are also taking place in the Netherlands. The cyberattacks are not only aimed at military targets, but also at unbalancing society by creating chaos. The purpose of the attacks is to disrupt decision-making processes and to put pressure on the NATO Alliance.

One of the physical activities involves an explosion in a gas pipeline. The attack is claimed by a local action group. However, there are indications that the aforementioned neighbouring country of our ally was (indirectly) involved.

This scenario presents the vulnerabilities that arise when defending our vital interests against a hybrid opponent. It involves, for example, our information position/ intelligence, digital resilience, the detection/ dismantlement of subversive structures and scale-up capability in the event of an acute threat. It also reveals a lack of resilience. Incidents are causing damage to civil and military targets and to digital and physical infrastructure. They are aimed at influencing the population, adversely affecting our democracy from within.

3 Attack on a NATO ally: a large country neighbouring a number of NATO allies sets its sights on achieving rapid military success by invading and occupying the territory of a NATO ally – so quickly that NATO is politically and militarily unable to prevent the attack. This operation is characterised by a pre-emptive strike, a rapid concentration of resources and the subsequent sealing of the area of operations. After its military objectives have been achieved, the country tries to force political negotiations. In addition to modern fighting power and high-tech weapon systems, the attacker also has tactical nuclear escalation dominance. It is capable of sealing the area of operations and severely restricting NATO's freedom of action. This anti-access and area denial concept (A2AD) also has an offensive component, such as the deployment of long-range missiles (also aimed at

Dutch strategic targets, such as the Port of Rotterdam). In addition to kinetic resources, other means of denying access include electronic warfare, deployment of cyber weapons, and an intensive information operation.

This scenario presents NATO's current vulnerabilities that arise in a rapidly evolving situation in which the adversary makes the first move. It concerns, among other things, the obstruction of means of communication and therefore command and control, response times of our units and the resilience of the Alliance against disinformation and against an adversary who plays allies off against one another.

4 Crisis in the Caribbean:
in this scenario, the security environment in parts of the Caribbean has deteriorated. New oil discoveries lead to border conflicts in the north of South America. The South American countries concerned are reinforcing and modernising their military capabilities with support from abroad. In the countries concerned and on the islands of Bonaire, Curaçao and Aruba, there are fears that the border conflicts in the north of South America will escalate in military terms and destabilize the region. Curaçao and Aruba are inundated with refugees who have risked crossing over to our Kingdom in makeshift vessels. The large number of refugees creates food shortages on the islands. Riots break out on the islands and the population has resorted to plundering. Armed organised international gangs take advantage of the unstable situation by trafficking large quantities of drugs and arms and exploiting the flow of refugees (robbery, extortion,

recruitment, smuggling). There are also cases of violent robbery aboard ships anchored off the islands.

This scenario shows the vulnerabilities that arise in the event of a serious disruption of internal security on the Leeward Antilles, a humanitarian emergency and violent organised (drugs-related) crime. It is also intended to test what we can do when faced with a possible military escalation in the Kingdom, taking into account the fact that the Caribbean parts of our Kingdom lie outside the NATO Treaty area as well as outside the EU.

5 Developments in the Arctic: as a result of climate change, the ice in the Arctic is melting; new sea routes between Europe and Asia are opening up and the extraction of raw materials in the area is becoming easier. At the same time, the melting of the Arctic and Antarctic ice caps is causing sea levels to rise. Combined with extreme weather changes, this increases the risk of flooding in large parts of the Netherlands. The Arctic is also linked to other theatres (of conflict), including the Baltic States, the Atlantic, the North Sea and what is know as the Greenland-Iceland-UK gap. In the context of changing geopolitical relationships and attempts to secure access to oil and gas reserves, exclusive economic zones and shipping routes, the importance of sea and subsea connections is on the rise. For example, the new Northern Sea Route has been claimed by a large Arctic country. Linking these interests to security makes the Arctic a potential deployment area for instruments of power, including armed forces. Countries could thus increase their control over the Arctic, for example by

imposing area denial (A2AD). In the Arctic, Dutch maritime and energy companies as well as military units are increasingly confronted with provocations by military units from the large Arctic countries.

This scenario demonstrates that a large-scale (military) conflict in the Arctic is not expected in the next 15 years. However, the interplay between ecological, economic and political-military interests makes the Arctic a delicate area that may also affect developments in the Baltic States and the Nordic countries. The threat in this scenario also shows that the remote Arctic can indeed affect the security of the Netherlands and Northern Europe. Close monitoring of (military) developments in the region is therefore extremely important.

Effects on the armed forces

The developments described in the trend analysis and the elaboration of scenarios as outlined above together form the basis of the characteristics and design principles set out in this Defence Vision. The conclusion is that in order to be able to perform our tasks properly in the changing environment, we need:

● **Reliable partners:** we need reliable collaboration with like-minded militaries in order to be able to act collectively, using both kinetic and non-kinetic means simultaneously in all domains, in all dimensions and in all phases of the conflict. Together, we must be able to deter or to win the fight.

● **Fast response times and independent deployability:** we must be ready at all times and be prepared for sustained deployment. We must be able to arrive on the scene quickly and, where necessary, operate independently.

● **Flexibility and versatility in deployment:** along with our allies and partners, we need to invest in the 'new' domains such as the cyber domain and space, while at the same time continuing to invest in (weapon) systems and effects in the other domains and dimensions.

● **More anticipation, prevention and de-escalation:** to avert increasing threats and prevent the escalation of conflicts as much as possible, the armed forces can be deployed at an early stage, for example by prepositioning (combat) units in potential crisis areas or by preventively conducting targeted offensive (cyber) actions.

● **Authoritative information position:** the increased threat means that credible deterrence or the ability to win the fight is even more dependent on the extent to which the defence organisation can access reliable, high-quality information and intelligence from all domains and dimensions before the adversary does.

● **Integrated command and control and information-driven operations:** in order to be faster in decision-making and weapons deployment than the adversary, we need fully integrated command and control at all echelons. Using information as the driver to structure the operations of the armed forces as a whole requires network interoperability, both internally and with all our (potential) military and civil partners. It requires linked (autonomous) systems, robust (network) support and layered security of all the system components.

● **Information as a weapon:** armed forces that also use information as a weapon in its own right and that are permitted to use this weapon at an early stage and offensively where necessary.

● **Support for civil authorities:** permanent assistance of civil authorities through unique and specific capabilities, provided by, for example, the Royal Netherlands Marechaussee, CBRN units, the Defence Explosive Ordnance Disposal Service, logistics capabilities, the Major Incident Hospital and special units.

● **Increased focus on crisis management:** national threats and developments will continue to require

crisis management, a core competency of the defence organisation. The ability to manage crises under demanding conditions is a competency that can be used at national level to support the competent authorities.

- **Resilience and engagement of society:** increased threats not only necessitate international cooperation, but also require that Dutch society be engaged in the sustainment and deployment of the defence organisation. Social engagement of this kind will promote adaptability, flexibility and effectiveness.
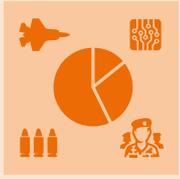
- **Greater effects through technology:** in order to be able to continue to act decisively, the defence organisation will have to use technology to achieve greater effect with the same number of people. This may also reduce risks to personnel.

- **High-quality personnel:** personnel will still make the difference in 2035 too, but the role of personnel in the various domains will be different in the future. New technological applications create new relationships between people and technology. These developments result in a different personnel structure and a different mix of required skills and qualifications. In order to remain relevant, the defence organisation will be composed differently and make greater use of technology. In brief, the organisation will be structured in a more labour-extensive way.

- **Armed forces that are combined and jointly interoperable with military and civil partners:** both at national and international level.

NATO and EU capability objectives

NATO capability objectives

NATO wants the capabilities of allies to complement each other. To promote this, NATO uses the NATO defence planning process (NDPP). In this process, NATO looks at what is going on in the world, what the Alliance wants to achieve and what it wants and needs to be, in order to be able to subsequently flesh out the Alliance's ambition and main tasks and to determine which capabilities are needed to realise those (for collective defence, crisis management and cooperative security). NATO is working closely with the EU in this area, so that priorities for the capability targets are attuned to one another as much as possible. Increasing interoperability is a spearhead for both organisations. Standards are being developed to achieve this.

The NDPP has a four-year cycle and comprises five steps:
1 Political guidelines: what do we want to be able to do?
2 Determining the capability targets: what do we need for this?
3 Dividing the capability targets: who does what?
4 Facilitating implementation: how should the targets be realised?
5 Reviewing results: have the targets been achieved?

The capability targets consist of both quantitative and qualitative targets. In other words, they are about numbers of weapon systems, but also about the level of training of units. NATO classifies the targets according to 'abilities' – the ability to achieve the Alliance's ambition. These abilities are:

● **Prepare:** the ability to train and ensure the readiness of units, partly by (large-scale) exercises, but also by, for example, having situational awareness in the cyber domain and having adequate strategic supplies.

● **Engage:** the ability to engage opponents in and from the various domains (land, sea, air, cyber and space). Examples are ground-based firepower (such as a heavy infantry brigade), sea-based firepower (such as shooter capability for missile defence and anti-submarine warfare) and the necessary capabilities to carry out precision strikes from the air in A2AD environments.

● **Sustain:** the ability to provide the necessary support so that (combat) units are able to carry out operations and missions. This includes logistics support with various (strategic) transport capabilities for land, air and sea, but also specialist support such as medical facilities.

● **Consultation, Command & Control (C3):** the ability to conduct adequate command & control and communication. This ability is realised through the various (deployable) headquarters that make it possible to direct operations in the various domains. These command & control structures depend on communication and information systems in order to function.

● **Protect:** the ability to protect vital interests and units. Examples include ground-based air defence, naval mine countermeasures and CBRN protection.

● **Inform:** the ability to collect information and intelligence. This is achieved by platforms such as airborne joint intelligence, surveillance & reconnaissance, and units for land intelligence, surveillance, targeting and reconnaissance.

Targets for the Netherlands

The most recent political guidelines were adopted in 2019. In 2021, the capability targets will again be divided among allies. It is expected that a greater number of units will have to be available with a higher degree of readiness.

In the NDPP cycle that closes in 2020, 152 quantitative and 64 qualitative capability targets were allocated to and accepted by the Netherlands. The Netherlands has three priority targets: (1) a fully-fledged mechanised brigade; (2) joint intelligence, surveillance and reconnaissance capability to generate more intelligence and (3) joint theatre-enabling capability for the provision of support in an area of operations. According to NATO, the Netherlands is currently unable to meet these targets. Indeed, the figures speak volumes: as regards the quantitative targets, in the NDPP cycle that closes in 2020, the Netherlands only met 28.9% in full, 62.2% in part and 8.9% were not met at all. As regards the qualitative targets, 48.8% were met in full, 44.9% were met in part and 6.3% were not met. The problem lies particularly in shortfalls in striking power and

sustainability. The extent to which the Netherlands is meeting over 0.4% of the capability targets cannot be measured because of a lack of data.

Additional NATO obligations
In addition to the financial contribution – the 2% standard (*cash*) – and realising the NDPP capability targets (*capabilities*), the Netherlands is also expected to contribute in relation to activities, operations and missions (*contributions*). On none of these three points are we doing what is expected of us. For example, we are not making a proportionate contribution to missions, such as those in Afghanistan and Iraq. Various units are on standby for missions: we are participating in, for example, the enhanced NATO Response Force (including VJTF), the Amphibious Task Group (ATG), the Standing NATO Maritime Group (SNMG) and the NATO Readiness Initiative. Together with Belgium, the Netherlands also provides the Quick Reaction Alert (QRA) to guard the airspace of the Benelux countries. The Netherlands participates in NATO's nuclear task and also has a task in host nation support for military units transiting the Netherlands.

The national resilience of society is essential for security and collective defence. In 2016, the NATO allies, including the Netherlands, undertook to improve civil preparedness. To this end, NATO set basic requirements with regard to seven strategic focus areas: continuity of government, energy, uncontrolled movement of people, food and water resources, mass casualties, civil communications and transport systems. NATO assesses the level of preparedness of allies in

these areas. In addition, NATO has developed guidelines for resilience to help countries prepare themselves. Civil-military cooperation is essential to realising this.

Ready for the future
NATO reflection process
In December 2019, the Heads of State and Government decided in favour of a reflection process to strengthen NATO's political dimension. That decision was preceded by a tumultuous period for the Alliance, including Turkey's invasion of north-eastern Syria and French President Emmanuel Macron's statement that NATO was brain-dead if it was possible for an ally to take such unilateral action.

The process was launched under the leadership of the NATO Secretary-General, assisted by ten people. This group will submit its report to the Secretary-General (who is not bound by the advice) in December 2020. The reflection process should result in a decision by heads of state and government at the NATO Summit in 2021.

For the Netherlands, the restoration of mutual cohesion and solidarity is central to the reflection process. For this to happen, NATO must prove again that it is relevant to all allies, both by making optimum use of available resources and by finding answers to new threats. In this respect, the Netherlands believes that all three of NATO's main tasks (collective defence, crisis management and cooperative security) are important and that the balance must be maintained.

In addition to receiving a report by the reflection group, the Secretary-General will also hold discussions with young people, civil society and the private sector to gather ideas on how NATO can continue to be able to meet tomorrow's challenges.

NATO Warfighting Capstone Concept
NATO is currently also looking at the future and, for that reason, it is developing the NATO Warfighting Capstone Concept (NWCC). The NWCC will be published this year and will look 20 years ahead. It will examine NATO's current and future needs to be able to win a conflict. This concept is based on three operational frameworks: shaping, contesting and fighting. The NWCC should help the Alliance to identify the capabilities necessary for the conflict of the future.

EU capability objectives
The EU uses a capability development plan (CDP). The purpose of this EU capability plan is to enable the EU to achieve the agreed European level of ambition and to implement the priorities set in the EU Common Security and Defence Policy (CSDP) adopted by the Member States. The strategic compass currently being developed by the EU Member States (completion expected in 2022) should ensure an agreed common future goal with regard to, among other things, European capability development.

The CDP will set out which capabilities the EU needs. Furthermore, the Coordinated Annual Review on Defence (CARD) identifies opportunities for further cooperation in European capability development. The priorities set as part of European

capability development are largely the same as those set in the context of NATO. This means that the Netherlands can contribute to meeting the ambitions of both NATO and the EU simultaneously.

In 2017, in the context of the Permanent Structured Cooperation (PESCO), the Netherlands agreed to 20 binding commitments to further strengthen EU defence cooperation. These are financial and operational commitments, as well as commitments to increase cooperation in the field of materiel. The Netherlands has committed to, among other things:

➤ a regular increase of the defence budget;
➤ making units available for the realisation of the EU's level of ambition;
➤ providing substantial support to CSDP missions and operations in the form of personnel, materiel or training;
➤ striving for an ambitious approach to the sharing of common costs of EU military missions and operations;
➤ strengthening cooperation in the fields of cyber capabilities and military mobility;
➤ a more multinational and harmonised approach with regard to capability development and procurement.

The agreement reached by the European Council in July 2020 regarding the Multiannual Financial Framework (MFF) for 2021-2027 includes an amount of €7 billion for the European Defence Fund (EDF), for the (partial) financing of cross-border defence research and capability development. In order to be eligible for financing under the fund, consortia must demonstrate that the portion of the costs not covered by EDF funding is covered by other means (co-financing). For this, no specific budget line has yet been included in the defence budget. To ensure full participation of the Dutch defence industry, which can help fulfil national defence requirements and mitigate EU shortfalls, it is important that the Dutch government has the possibility of providing co-financing, because significant economies of scale can be achieved through the EDF. In addition, cross-border cooperation contributes to the promotion of interoperability.

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