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THE TRANSFORMATION OF THE HUNGARIAN DEFENCE FORCES

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ABSTRACT: *With the end of the Cold War, Hungary, like most European nations, allowed its considerable military capability to decline. As international crises followed each other in the early 21st century, the country's leadership realised that Europe's security situation was deteriorating and a credible deterrent force was needed to protect national borders and sovereignty. The Hungarian Defence Forces embarked on an ambitious transformation program in 2017, the two pillars of which are the modernisation of the entire defence sector and the creation of armed forces superior to all possible opponents. The paper provides a brief overview of the HDF transformation process that has taken place so far.*

KEYWORDS: *armed forces transformation, defence sector modernisation, security environment, Hungarian Defence Forces*

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POST-COLD WAR COMPLACENCY

Before discussing the transformation of the Hungarian Defence Forces, we have to start with a few thoughts about what and where we are transforming from. At the end of the Cold War, Hungary had large, conscription-based armed forces. The number of service personnel comprised nearly 100,000 men on active duty as well as over 200,000 reservists to man 1,500 tanks, 2,000 armoured vehicles, and 1,100 artillery pieces. The Air Force had nearly 200 aircraft of various types.¹

With the end of the Cold War, Hungary, like most European nations, allowed this considerable military capability to decline. Besides Hungary, the NATO alliance also saw a long period of peace, interspersed with small-scale expeditionary operations. We reduced the size of the armed forces, suspended conscription, gave up most of our heavy equipment,

¹ The Military Balance 1991, 88–89.

and saw no need to replace those assets that were withdrawn from service. By 2014, personnel and equipment were reduced by an order of magnitude, to just over 20,000 active strength and a handful of reservists, a few hundred armoured vehicles and less than 50 aircraft of all types.²

Then, the international crises of the last 10 years or so have made us realise that Europe's security situation is not nearly as stable as we thought, and a credible deterrent force is still needed to protect national borders and sovereignty. The protracted Russo-Ukrainian War is a warning that international borders are not inviolable and that the enormous destruction of a conventional war is still possible in Europe today. The continuous migration pressure since 2015 makes it clear that military assistance to the civil power may be necessary in times of peace. Taking these warning signs seriously, Hungary broke with the post-Cold War complacency, adopted more national security-centred policies, and took decisive steps to strengthen its defence posture.

DECISION AND MILESTONES OF TRANSFORMATION

We realised that the security environment was rapidly changing. The Russo-Ukrainian War showed us that there was an increased emphasis on military innovation and the adaptation of new capabilities, enabled by emerging and disruptive technologies. We had to reassess some national force development priorities and timelines to adjust to these new challenges.

We also realised that the Defence Forces have to increase the speed of adaptation to changes because the rapid evolution of technology outpaces military capability development, and we could maintain our flexibility and technological edge only through new, alternative, and innovative methods and a thorough change in culture. While we keep our national capability targets in sight, we are also putting an increased emphasis on harmonising and synchronising our efforts with Allied guidelines and concepts. To enable rapid adaptation to the ever-changing security environment, we decided to turn the HDF into a learning organisation and institutionalise transformation. By transformation, I mean a continuous, self-reinforcing process to prepare the HDF for the challenges of the future. It is more than just modernisation because it involves procedures, concepts, doctrines, and the general mindset of military professionals. These all need to change according to a common vision towards a shared goal.

So, what have been the milestones of the HDF's transformation so far?

Modernising and transforming the armed forces must be accompanied by a conceptual development at the level of political strategy, which provides appropriate foundations for the legal framework for the implementation of force development. In 2017, once the political leadership made its decision known, we embarked on a fast-paced, large-scale force development program, the Zrínyi 2026 Defence and Military Development Program, based on a thorough conceptual overhaul. The program's goal was to turn the HDF into a dominant military force in the region.³ The Zrínyi 2026 Program's implementation was followed by the publication of two strategic documents.

² The Military Balance 2014, 106–107.

³ Government of Hungary 2017; Nagy 2022.

In 2020, we published a new National Security Strategy that identified all the new risks and changes in the security environment and contemplated putting Hungary's defences on a new footing.⁴ A year later, the National Military Strategy was published. This document defines ends, ways, and means to transform the Hungarian Defence Forces into a modern, sustainable, flexible, and effective force with a balanced structure, with high combat effectiveness, capable of being deployed in a wide range of crisis situations. It also contains – in a rather unorthodox manner – a description of the HDF we want to build. That force architecture is still valid today. We planned a three-brigade concept for the ground forces, with combat, combat support, and combat service support capabilities being developed gradually as resources became available. In this context, a heavy, a medium, and a special-purpose (light) brigade have been established. Subsequently, the plan was amended with the addition of a fourth brigade. With regard to combat support capabilities, significant improvements, mainly in terms of quality, are being made in the fields of intelligence and information technologies, engineering, chemical defence, and reconnaissance. Also, the new transformation system was detailed in this document.⁵

This is an exciting time to be in the top leadership of the armed forces, but it is also a difficult one because we are facing many challenges. We must prepare to fight the wars of the future without actually knowing what war will be like five, ten, or fifteen years from now.⁶ Our materiel and human resources are limited, so we need to acquire mature and tested systems with plenty of evolutionary potential, and we need to find the equipment and procedures that will provide the best possible protection to our troops during operations.

As I mentioned, transformation has a dedicated organisation in the HDF.⁷ It is a capability that every modern military needs. The HDF had recognised the importance of national transformation efforts earlier, so there were organisations that worked in the field of transformation, but such an organisation that could integrate the efforts at the system level did not exist. The changing security environment (with the Russian aggression in Ukraine and the increasing importance of new and disruptive technologies) reinforced the need for such institutions, and eventually, new organisations have been created. First, the Modernisation Institute and soon after, the Transformation Command were established. The former was responsible for the material development of the forces, while the latter for the non-material development. Both organisations have gone through several changes since, but the premise holds. We need and use these two functions every day.

Lessons of the Russo-Ukrainian War

Earlier, I mentioned in passing that preparing to fight the wars of the future is a challenge because we do not know what those wars will be like. The Russo-Ukrainian War, going on for almost three years now, is a kind of transition between the past and the future, but it does provide some clues. Both sides are using a lot of equipment that was put into the system 50 or 60 years ago. However, in addition to this, prototypes of the devices of the future also appear: a Starlink communication system, a fire-control system controlled by artificial intelligence, and air, land, and sea drones. Here are some lessons that we have discerned so far:

⁴ Government of Hungary 2020.

⁵ Government of Hungary 2021.

⁶ Williams – Brawley 2025; Rajagopalan – Patil 2024; Rickli – Mantellassi 2024.

⁷ Ruszin-Szendi 2023.

- Drones can be used en masse in the air, on land, or at sea since they are cheap and easy to obtain. It is almost impossible to hide from them, and even if they are identified in time, it is difficult to defend against them. This means that fundamental changes are necessary in air, land, and sea tactics.⁸
- There has been speculation about the demise of the tank. Certainly, both sides have lost thousands of armoured vehicles to drones and anti-tank missiles. But I am certain that the battles of the future will still require highly mobile, armour-protected firepower. Further experimentation and experience will determine whether it will be a manned or remote-controlled system.⁹
- A multi-layered air defence system that covers not only the battlespace but also our own and the enemy's rear areas in depth is capable of seriously constraining the enemy's air activities. However, fast and highly accurate missiles and glide bombs launched from a stand-off distance can get through most air defence systems. Defence against drones requires a different approach: close air defence, kinetic, and non-kinetic systems are needed. Weapons and equipment alone are not sufficient: innovative tactics, techniques, and procedures are also needed.¹⁰
- To maintain and increase the survivability and operational manoeuvrability of troops, individual and collective nuclear, biological, and chemical defence, technical combat support capabilities to support the movement of own forces and to impede the movement of the opposing side, as well as technical capabilities to support infrastructure and fortification construction will be developed.¹¹
- We are also relearning a lesson from previous conflicts: the armed forces must be tailored to the war they are to fight. Small, highly trained, well-equipped professional formations are all very well in an expeditionary setting, but in a high-intensity war, against a strong and determined enemy, they are attrited in the first battles, unless they are supported by a large mass army.¹²

Additionally, a very important lesson is that in a high-intensity war, an enormous amount of materiel is needed. Vehicles and equipment are destroyed or worn out, and fighting enemy forces requires a staggering amount of ammunition. We must therefore rethink our norms for reserving stocks and make arrangements now to ensure a timely and uninterrupted supply of materiel, partly through the further expansion of our military industry and partly from reliable foreign resources.

NATO REQUIREMENTS AND NATIONAL GOALS

With our NATO membership, Hungary's security has increased significantly. We are now part of an extended zone of stability and security in Europe that guarantees a measure of protection against both old and new challenges. Our full membership gives us the opportunity to effectively represent and promote our national interests. At the same time, we can participate in shaping the Alliance's common defence strategy, objectives, and tasks in the planning and coordination processes that express its substance, and in shaping NATO's

⁸ Franke 2024.

⁹ Gardner 2022; Wolf 2024.

¹⁰ Stoll et al. 2024; Balmforth 2023; Stalder – Patterson 2024.

¹¹ Vasyluk 2024; Voitenko – Chaly 2024.

¹² Michta 2023; Martin 2024.

future. However, NATO membership not only increases our security but at the same time, it also imposes obligations on the HDF beyond the defence of the country. Our participation in international missions in Kosovo, Bosnia and Herzegovina, and Cyprus, as well as our contribution to the air defence of Slovakia and Slovenia, requires considerable resources, but it signals to our international partners that Hungary and the Hungarian Defence Forces are not free loaders but active and reliable allies.¹³

Nationally, our goal is to build and maintain armed forces that are able to independently carry out the tasks outlined in the Fundamental Law of Hungary. They must be superior to all possible opponents, primarily by relying on their highly trained human resources, through technical improvements, and maintaining their superiority through continuous transformation. Capability development is carried out across the entire spectrum of capability areas, supported by continuous analysis and assessment of changes in the strategic environment, experience gained from the conduct of operations and exercises, defence research, operational and technological innovation, and concept and doctrine development.

The focus of the capability development is on the steady improvement of the combat, combat support, and combat service capabilities of the Hungarian Defence Forces, which increases the readiness, survivability, and operational effectiveness of the individual soldiers, as well as that of the HDF's combat formations by using the results of modern technology and innovation. Therefore, the directions for the development of indigenous defence industrial capabilities also cover technological capabilities that will define future warfare, such as information technology and cyber defence, simulation, virtual and augmented reality, artificial intelligence, quantum computing, robotics, unmanned systems, non-lethal weapons, energy storage and alternative energy sources, nanotechnology, materials technologies, and biotechnology.

Without the development of the defence industry, the development goal of transforming the Hungarian Defence Forces into a modern and capable military force cannot be fully achieved. Force development creates opportunities for defence-industrial cooperation, which, through technology transfer and the establishment of manufacturing capacities, creates the possibility for the transformation of the defence industry. The development of the Hungarian defence industry is essential for the long-term sustainability of successful force development.

MEETING THE CHALLENGES OF THE FUTURE

The successes of these past years, as well as these recently learned lessons, will be necessary if we look at the expected challenges of the future. If we look around the world, potential conflicts and intensifying competition are everywhere: China, Africa, the Middle East, and the Arctic. It is true that these areas are far from our borders, but since 9/11 and its aftermath, we have learned that distance does not mean that distant problems do not affect us.

In this intensifying future competition, securing resources will be even more important than today. Who owns the energy sources, raw materials, production capacities, and drinking water will fundamentally determine a country's position and opportunities. In addition to material assets, the value of expertise will also increase. Countries that cannot exploit their own resources due to a lack of expertise will fall behind.

¹³ Böröndi 2024; Böröndi – Gazdag 2024; Consulate General of Hungary in Los Angeles [no year].

Of course, this changing and challenging world also affects NATO. As a result of the Russo-Ukrainian War, the organisation will return to its original role, and its central task will once again be the defence of Europe. This, in turn, will require a greater expenditure than ever before. We can already see that spending 2 percent of GDP on defence is not sufficient, and many states have already set much higher goals.¹⁴

The warfare of the future will require greater financial resources than ever before, but not necessarily greater sacrifices than ever before. Innovation will help us in this. If we are able to always stay one step ahead of our rivals, we can avoid suffering such losses as we have seen in the war in Ukraine. To do this, we need to excel in artificial intelligence and drone swarms. We need to prepare for capabilities that are already known today, such as firearms with a larger calibre and penetrating power or artillery that can fire on the move. And if we look further afield, we must start thinking today about the challenges posed and opportunities offered by nanotechnology and space capabilities. To prepare for all these challenges, Hungarian simulation and wargaming skills, which are developing at a rapid pace today, are essential.

One thing we are relearning during the force modernisation process is that it must be a continuous process. We cannot sit back after a year, two or three years, satisfied that we are done. We are not done.¹⁵ The war in Ukraine and other current conflicts have generated the need for technological changes in the Hungarian Defence Forces. New equipment and new systems appear, presenting new challenges and necessitating organisational changes. It is obvious today that emerging and disruptive technologies will continue to pose a great challenge to global security and the security of Hungary. Periodically, we must return to projects that were already completed to see whether they need to be revised, regularly inspect equipment already in the inventory to see if it needs another round of modernisation, and constantly evaluate doctrines and training to see if they have to be brought up to date in line with new developments.

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¹⁴ Hawkins 2024; Fix – Kapp 2024.

¹⁵ Rainey 2024; Kuzma 2022.

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