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MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
CENTRAL RESEARCH INSTITUTE OF ARMS
OF THE ARMED FORCES OF UKRAINE

**COORDINATION PROBLEMS OF MILITARY TECHNICAL
AND DEFENSIVE INDUSTRIAL POLICY IN UKRAINE.
WEAPONS AND MILITARY EQUIPMENT
DEVELOPMENT PERSPECTIVES**

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In order to overcome this unfavorable tendency it is necessary to critically re-think the structure of defense planning, first of all, its program-target phases, namely:

expand the nomenclature and rebuild a new hierarchy of targeted programs aimed at improving the country's defense capability, following the example of the PPB system, ensuring the interconnectedness of their content, synchronization of key measures, optimal allocation of resources between them;

it is normative to establish binding relationships between long-term, medium-term and short-term targeted programs, as is customary in the PPB system, when medium-term programs can not contain tasks that are not reflected in long-term programs, and short-term programs are tasks that are not in the medium-term programs of this direction;

ensure interconnectivity of long-term and ongoing planning by enforcing a mandatory principle: targeted programs of all hierarchical levels can only be implemented through state defense orders, and state defense orders can not include measures not provided for by the relevant target programs;

to offer and implement a system of continuous management of implementation of targeted programs in real time, which will allow to produce rational management decisions at any current moment.

Unfortunately, the domestic practice of program-targeted planning for the development of the Armed Forces and the defense-industrial complex is still far from the methodology adopted by NATO.

However, the further delay in solving this problem not only negatively affects the country's defense capability, but it can also eliminate the prospect of Ukraine joining the North Atlantic Treaty Organization for an indefinite period of time.

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BATTALION TACTICAL GROUP 2035

Change of the NATO Defence Planning Process (NDPP) model in Oct 2016 endeavours to move defence planning into the medium term, which has been pushed to 19 years in the future, as a more effective way of influencing national armed forces capabilities development. As example of implementation of new NDPP model can consider a Conceptual Force (Land) 2035, which presented by Rich Walker (British Army representative on NAAG meeting in June 2017).

The Future Combat Team (FCT) Hypothesis would replace the Battle-Group as the grouping of choice for operations an independent all-arms task-group of approximately 350 people. This is the battalion tactical group (BTG 2035), which have 50 vehicles and 80 Robotic and Autonomous Systems (UAVs and UGVs) and able to fight and hold ground in non-contiguous battle-space against a peer enemy.

BTG 2035 should be able to move 1600 km from a SPOD, should be sustainable for at least 7 days in low intensity war fighting and have the ISR organic systems to sense and destroy all targets to 15 km and to sense and understand of situation out to 30km by using Artificial intelligence. The BTG-2035 will need the ideas to enable it a range of transformative capabilities and an ability to displace human mass with Robotic and Autonomous Systems, enabled by Artificial Intelligence.

Other the very important moment is the Interoperability of the Future Combat Team with NATO Forces. The roadmaps of UK-NATO Interoperability have defined interoperability in breadth, depth and by level of ambition. The Interoperability spans three broad areas:

1) Human and Procedural Interoperability to end 2017. Often unrecognized, but key to the moral component, is the mutual trust that is earned during challenging training and operations. As both Armies investigate and develop Human Optimization, so trust in the troops under one's multinational command will become as important as the ability to build trust with an indigenous population. Common doctrine clearly increases the agility of a multinational force, but the sticky intransigence and complexity of national policies often acts as an obstacle to interoperability that is technically feasible.

2) Technical Interoperability on level "digital fire" to end 2020. This is the most obvious area of interoperability, but often a minefield of intellectual property rights, and national and industrial interests.

3) Full integration on level battalion tactical group to end 2025 and ability to coherent use of BTG from 20 - 25 Nations to 2035.

In 2027 will be implemented the multinational integration of security digital voice and data communication on Squad level.

In conclusion of this report should be suggest full update of minimal capabilities requirements for weapons and military equipments on battalion's level in Ukrainian Armed Forces.