COMPETITIVE AND INNOVATIVE ECONOMY

STRATEGIC AREA

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The National Development Strategy (NDS) is a long-term strategic document that will “produce” a non-political, inclusive, long-term, developmental document through an inclusive, analytical and participatory approach, and with established priorities in the interest of society and the state.

Through modern and innovative development models, adapted to the domestic context and based on broad and significant consultations with all stakeholders, this strategic document will provide a clear vision for a planned and secure future to reflect intergenerational, gender, interethnic, interparty and long-term consensus on the priorities of the country. The aim is to ensure inclusive, green and sustainable development for all, particularly for vulnerable categories of people.

We sincerely thank you for being part of the process of creating the NDS in the area of "Competitive and Innovative Economy." We expect your serious contribution in identifying the main challenges, causes and effects that hinder the development of a competitive and innovative economy in our country and to influence the definition of steps that our country should be taken over the next 20 years to secure a better future for our children.

The table below provides some guidelines to guide the discussion and work during today's workshop. For some of the points, you may agree or have opposing views. We expect your full cooperation and creativity in the proposals and ideas to improve the competitiveness and innovation of the domestic economy for the next 20 years.

Thank you,

The Operational Team responsible for preparing the National Development Strategy

CHALLENGES	CAUSES	EFFECTS	SOCIETAL CHANGES - SYSTEMIC APPROACH
Low Quality of the Workforce **12**	***Weak Quality of All Levels of Education:*** **Preschool Education:** - Insufficient childcare capacity in kindergartens (requiring parents or grandparents to take care of the child) - Need for a greater focus on creativity at an early age **Primary Education:** - Insufficient number of qualified teachers - **Lack of continuous education for teaching staff** - Frequent changes in educational systems (programs/curricula) - (too many reforms - not enough time to see results from previous reforms) - Absence of critical thinking, emphasis on memorization of facts, etc. - Outdated educational programs in certain disciplines - **Lack of a merit-based system (in all levels of education) - a system based on performance** - **Gender stereotypes in old curriculums and coursebooks** **Secondary Education** - Lack of interest among students in acquiring quality education - Better students opt for general high	- Low labor productivity - Low wages leading to disinterest in better performance by the workforce - Relatively weak knowledge among students before enrolling in higher education - Poor performance of students in PISA and other international tests - Strong disparities in the results of PISA among students from different regions - Disparities in international testing between boys and girls - Low level of knowledge transfer and application in the manufacturing sectors and workplaces in general - Retraining skills needed to properly utilize the (young) workforce - Low employability of the workforce - Relatively high youth unemployment rate - Brain drain of skilled students/workers going	- Development of a comprehensive education strategy as part of the NDS, incorporating a high-quality education reform; however, the results of the reform are yet to be seen (The strategy is in place until 2025, the implementation is a challenge) - **Political consensus and** respect for and adherence to key strategies from all political parties, regardless of which party adopted it - Systemic approach to introducing a program for addressing regional and gender disparities in international testing achievements - Continuous emphasis on lifelong learning (education): retraining/upskilling - **Quality and inclusive education at all levels** - **An efficient system for lifelong learning** - Continuous investment in educational institutions **as a percentage of GDP** - Focus on certification/accreditation of programs and formal and non-formal education - **Streamlining the certification process** - Collaboration between international knowledge providers **and state participation** - Scholarships for teacher faculties - **Investment and maintenance of scientific research centers with** innovation labs - **Innovation ecosystem** - Increasing the number of assistants **at faculties (especially technical ones)** - Greater state support for **preparation and** co-financing of EU

	schools rather than vocational schools - Insufficient practical work experience in secondary schools - Inconsistencies in the concept notes of secondary and primary education - Outdated and inadequate programs for general secondary education - The matura exam is losing its significance due to inconsistencies in administration, and the results do not reflect the students' knowledge **Higher Education:** - Outdated teaching programs - Underutilized opportunities for student mobility to the EU - Poorly equipped laboratories - Low representation of practical skills in the curriculum (focus on theory) - Poorly equipped libraries - Weak/low attractiveness of the teaching profession - Strategy for Education (frequently changing)	abroad for studies/work	projects - Development of project units within universities to increase the absorption of EU projects (focus on student and staff mobility, investment in equipment) **with the aim of maximizing project utilization** - Enhanced development of programs for talented students/pupils, providing them with appropriate career guidance - Strengthening Centers of Excellence for vocational education (both in terms of equipment and quality training for human resources in the centers) - Transparent system for taking the matura exam that will be resilient to influences and errors - **Alignment of the produced workforce with the requirements of the real sector** - **Master's theses of students should address real problems in industry companies** - **Changes in teaching methodology - from memorizing facts to critical thinking** - **Professional orientation and career guidance** - **Possibility of certification by private companies** - **Equipping, investment and maintenance of educational institutions**
	- Challenges in implementing the strategy and action plan during changes in power/ministers from different political parties - Insufficient involvement of parents in the educational system - **Lack of connection between business and academia**		- **Encouraging financial literacy and innovation through the education process** - **Initial training for teaching staff (especially subject teaching with methodology of teaching, psychology and pedagogy)** - **New teaching programs based on selected industry priorities (in line with smart specialization)** - **Establishment of an entrepreneurial culture in society** - **Implementation of a proper selection, value, promotion and**

	- **Rigid accreditation system for study programs (allowing flexibility for changes up to 20%)** - **Overemphasis on administrative aspects of the accreditation process** - **ADULT EDUCATION** **Insufficiently comprehensive and quality adult education** **There is no new contemporary Law on Adult Education that includes the validation of knowledge**		**upskilling system for teaching staff, starting from preschool education** - **Creation of innovative and entrepreneurial competencies in students at all levels of the education system (retaining subjects related to innovation and entrepreneurship in primary education and general high schools and introducing entrepreneurship in vocational education)** - **Establishment of a high-quality value system in the educational process** - **New Law on Adult Education that provides for the validation of previously acquired knowledge and skills**
Shortage of Workforce, especially in Certain Qualifications **11**	- Emigration (parents leaving the country along with their children) - Studying abroad without returning - Emigration of high-quality (qualified) workforce - Low birth rate - **High percentage of unemployed active working-age population** - **Large percentage of inactive women on the labor market**	- Lack of qualified staff in the education system - Inability to initiate new activities/projects - Disproportionately high wages for certain professions/trades - A large number of women from rural areas who are not employed	- Stimulating brain gain - **Facilitating the process of recognition of foreign diplomas** - Subsidies for foreign investments from nationals - **Establishing a system to compensate for the missing skills in society through collaboration with the diaspora and labor mobility** - Importing foreign workforce **under clearly defined conditions and criteria** - **Increasing the utilization of mobility programs such as Erasmus and Marie Skłodowska-Curie** - Stimulating educational profiles with a labor shortage (through investment in those educational institutions (infrastructure/teachers/professors) - **Strategy for reducing brain drain** - **Policy for developing staff for green and digital transformation** - **Activation program targeting inactive women in the labor market, including involvement in the real sector**

Low Export and Export of Products with Low Added Value **7 / 8**	- Lack of appropriate structural reforms - Focus on LOHN (CMT) production systems - Lack of tendency/desire to create new products and services - Very few innovations - Tendency to build or maintain export competitiveness based on low prices rather than high quality	- Low economic growth rates (GDP) - Low export revenues - High import dependence for exports - Very weak penetration of new markets or new market niches - Competition (building competitive advantage) based on low prices (despite the low high product quality) - Low level of export product diversification (relatively high production concentration)	- **Targeted export support** - Increased government support and promotion of export-oriented companies (co-financing joint appearances in international markets, etc.) - Greater utilization of the diaspora to connect with foreign markets - **Facilitating access to export capital (Access to financing)** - **Alternative sources and instruments of financing (e.g., hedge funds)** - **Advisory services to enhance competitiveness (building capacities for business support) (business support sector)** - **Integration with the domains of <u>Smart Specialization (green transition)</u>:** - **Smart agriculture and food with high value added** - **ICT (Information and Communication Technology)** - **Industry 4.0** - **Smart objects and sustainable materials** - **Energy for the future** - **Tourism** - **Product diversification with new production groups** - **Combating unfair competition**

Technologically Outdated Equipment **6**	- Lack of funds for new technology - Resistance to the implementation of the latest equipment in production processes (using second-hand equipment) - Insufficient preparedness of the workforce for working with the latest equipment	- Production of products and services with low(er) quality - Low selling prices - Technological backwardness (domestic companies are not ready to use technology from the latest technological generation, but are “followers of followers” in a technological sense) - Relatively high scrap rates in production processes - High production costs	- Integration into regional and global supply chains - Subsidies for innovations (rather than for "traditional" production) - for new products/services - Enhanced collaboration between companies and leading faculties/universities to foster the use (and learning) of the latest technology in the country - Special programs to encourage the inclusion of women and girls in STEM - **Encouragement of research and development centers within businesses** - **Mandatory provision of integrated environmental permits for all industrial capacities** - **Developed infrastructure to support businesses and citizens**
Lack of Organizational and Managerial Knowledge and Skills **10**	- Relying on "proven" (outdated) management techniques and organizational practices - Challenges with succession planning in family-owned businesses - Small number of women in leadership positions in the real sector	- Lack of an adequate number of professional and skilled managers - Lack of a great deal of successful entrepreneurs - Untapped potential of half of the population	- Strengthening professional associations (and educational institutions) that offer high-quality management training and coaching with a focus on encouraging women to participate in training - **Integrating management skills into the curricula of higher education institutions** - Providing **mentorship** and **education** to managers in family-owned businesses to ensure successful continuation of the business after the end of the entrepreneur's career - **Enhancing practical work experience in secondary and higher education** - **Trainings for human resource management** - **Specialized schools for project management** - **Support for international certifications** - **Subsidies for learning and international certification in**

			project management
Very Few Innovations (Weak Innovation Potential) **9**	- Disinterest of involvement in innovations - Lack of stimulating mechanisms (rewards) for creating innovations (subsidies are provided for traditional activities and/or products (e.g., tobacco) rather than for innovations) tailored to women, men and vulnerable groups of citizens - Insufficient financial resources in companies for investing in innovations - Inadequate qualification for innovation	- Low rankings on innovation indexes in the EU and globally - Few patents (both domestic and international) - Relatively few realized projects for commercialization through the Fund for Innovation and Technological Development (a detailed assessment of the impact of funded projects is needed)	- Strengthening the capacities of educational institutions to foster innovation and entrepreneurship (from **pre-school**, primary, through secondary to higher education, as well as adult education, etc.) by raising expectations for the inclusion of girls in innovation and entrepreneurship - Enhancing the role of FITD, not only in terms of financial support but also by providing expertise (offering services in areas such as innovation management, new product development, intellectual property, etc.) - **Supporting the development of potential patents or the commercialization of patents** - **Prioritizing green and sustainable innovations** - Strengthening the capacities of the Ministry of Education and Science (in terms of funding research projects that lead to potential patents or commercialization) by encouraging projects proposed by female researchers - **Sustainable funding system for technological development in the business sector**
Very Low Level of Involvement/Integration of Domestic Companies in International and Regional	- Unpreparedness of domestic companies from various aspects (workforce, equipment, knowledge, managerial skills, etc.) for successful integration into international value chains - Weak government incentives to overcome obstacles for integrating domestic companies into international "value chains"	- Lack of structural reforms - Lower revenues of domestic companies - Absence of technology and knowledge transfer from foreign to domestic companies	- Strengthening the capacities of educational service providers in the logistics and supply chain segment - **Creating a policy to increase the involvement of domestic companies (through tax relief or mandatory use of domestic inputs)** - **Supporting domestic companies in meeting standardization and certification requirements (e.g., ESG) to work with foreign companies** - **Streamlining administrative procedures**

"Value Chains" **8**	- Insufficient interest from foreign companies (and foreign direct investments in Macedonia) to include domestic companies in their "value chains" for long-term technical-technological cooperation, etc.)		- **Targeted financing for companies with the potential to be part of global and regional supply chains** - **Establishing a system for technology and knowledge transfer from foreign to domestic companies** - **Smart specialization in collaboration with regional strategies for Smart specialization**
Inadequate (Insufficiently Reformed), and Often Unpredictable Domestic Business Environment **8 / 10**	- Implementation of inadequate "economic policies" - Rampant corruption, crime, nepotism, and similar issues by those in charge of economic policies - No rule of law - "Strategy inflation," where strategies are not fully implemented - Mixing of public and private interests (especially in public procurement) - Insufficient quality of public administration - Informal economy - Parafiscal charges	- Unpredictable conditions for doing business - Preference for "lucrative" short-term gains over long-term planning - Lack of long-term orientation in the direction of economic development (subject to change with shifts in power)	- Non-interference of politics in business / **strengthened integrity of political actors** - **Professionalization of key administrative positions** - More transparent public procurement processes - Improved **and independent** judicial system / **enforcement of laws and strengthened inspection and anti-corruption measures** - Reducing the informal (gray) economy with a separate approach to women involved in the informal economy - Focus on industries with the highest priority (according to the smart specialization strategy) - **Reporting system to track the expenditure of collected tax revenues** - **Decision-making based on the evaluation of implemented strategies and cost-benefit analyses** - **High-quality and consistent legal regulations** - **Reduction of parafiscal charges** - **Social promotion of a business-friendly climate** - **Cultivating a climate of adhering to rules** - **Responsive and accountable institutions as a service to the business sector** - **Professional, efficient and accountable public administration** - **Efficient and effective regulations (tailored to the needs of the business sector) that enable a fully free market and**

			competition

VISION

In the next 20 years, Macedonia will become:

- a developed, green, innovative and efficient economy with a motivated and high-quality workforce, marking continuous progress and sustainable competitiveness while being agile in response to global trends.

MISSION

Through synergy between businesses, the government and the education system, Macedonia will create a highly skilled and knowledgeable workforce that meets the needs of the labor market. This skilled workforce will offer products and services with high added value, enabling competitiveness in a dynamic and complex world.

<u>Competitive, green, sustainable and innovative economy</u> with a focus on fostering an entrepreneurial culture and skills aligned with the demands of the modern market. This includes creating quality jobs, staying abreast of technological developments and promoting industries with the potential to integrate into global value chains or provide high-value exports. All of this will be achieved within a predictable, consistent and professional business climate that is resistant to corruption.

Mission: Highly developed, export-oriented, sustainable and competitive economy at the global level.