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**Geo-economic and Political Elements of the Fourth Industrial
Revolution**

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Summary

Keywords: Industry 4.0, geotechnology, Central and Eastern Europe, economic convergence, geotechnological power, disruptive technologies.

This research paper, entitled “Geo-economic and Political Elements of the Fourth Industrial Revolution,” aims to analyze the economic, political, and technological implications of the Fourth Industrial Revolution, contributing to efforts to develop a new theoretical framework titled geotechnology. This framework, complementing geopolitics and geoeconomics, recognizes technological developments as a determining factor regarding power dynamics in the contemporary world.

Therefore, from a geotechnological perspective, this research aims to examine how new technologies can reshape the economic landscape of Central and Eastern Europe (former member states of the Warsaw Pact, now integrated into Euro-Atlantic structures), by comparing post-socialist economic and political developments and transitions with the new technological trends. In this regard, the main objective of this thesis is to develop a theoretical and analytical framework that will enable an assessment of the region’s geotechnological positioning in the context of economic and political convergence between East and West.

The methodology is based on a theoretical analysis of the technologies specific to Industry 4.0 and their global economic impact, as well as on how they influence the international power dynamics with geotechnology. At the same time, the study also includes a statistical model, Geotechnological Power Index, based on a set of relevant indicators such as academic performance in the field of Computer Science, economic size, strategic resources such as rare earth elements, and the structure of capital flows within the tech world, with the empirical analysis serving as evidence regarding the level of readiness and adoption of new technologies in Central and Eastern Europe.

The research findings are summarized in a SWOT analysis designed to assess the region’s readiness in the technological context of Industry 4.0. This analysis shows that the region is lagging behind, with the European Union playing a decisive role in the region’s geotechnological positioning.

In conclusion, this thesis, through its efforts to theorize geotechnology, highlights the fact that the Fourth Industrial Revolution represents not only a technological transformation but

also a reconfiguration of global power dynamics, in which the states of Central and Eastern Europe face both significant opportunities and the risk of marginalization, of remaining Industry 4.0 “consumers” rather than “producers”.

Table of Contents

Summary.....	3
1. Introduction.....	10
1.1. The Fourth Industrial Revolution in Six Fundamental Questions: Who? What? Why? When? Where? How?.....	10
1.2. Industry 4.0 and the Reconfiguration of Relations between Economic and Institutional Actors.....	12
1.3. The Idea, Architecture and Design of the Present Study.....	13
2. Industrial Revolutions: Between the Techno-Scientific and the Socio-Human Spectrum	17
2.1. Comparative Definitions: Conceptual Cores and Nuances.....	17
2.2. Relevant Problematizations: From an “Engineering” to a “Humanistic” Perspective on Industrial Revolutions.....	22
2.3. Technology as a Factor of Production: Developments in Economic Thought – A Brief Historical Overview.....	29
2.4. Technological Transformations: A Cohesive Factor (Across Spaces, Within Eras) and a Disruptor (Across Eras, Within Spaces).....	32
2.5. Generations of Industrial Revolutions: Yet Another Attempt at Systematization.....	36
3. The Fourth Industrial Revolution: “This Time Is Different” (Or Perhaps, As Always?)	40
3.1. Technological Progress in IR 4.0: Differences of Nature or Merely of Degree Compared to Previous Stages?.....	40
3.2. When Info-Technologies 4.0 Meet Bio-Technologies 4.0: A Synopsis of Relevant Qualifications and Quantifications.....	43
3.3. The Status of Innovation in the 4.0 Paradigm: From the Creative Human Genius to Self-Reproducing Technology.....	46
3.4. The Economy of IR 4.0: Do We Have a New Economic Reality (Economy 4.0), and Do We Also (Need) a New Economic Science (Economics 4.0)?.....	48
3.5. The Economic Agent 4.0: (Still) an Exercise in “Profiling”.....	52
3.5.1. Economic Growth and Development 4.0.....	52

3.5.2. Dynamic Sectors, Inert Sectors 4.0.....	55
3.5.3. Sustainability: Green Technologies and Dual Transitions.....	57
3.5.4. The Labour Market (Employment, Skills) and Social Assistance (Inequality, Poverty) 4.0.....	61
3.5.5. National Diversification and International Specialization 4.0: Case Study – NEOM.	64
4. Geotechnology – A New Theoretical Framework for “International Economic Relations 4.0”.....	71
4.1. Offshoots/Derivations of Social Geo-Sciences: Geopolitics (Power), Geoeconomics (Profit), Geotechnology (Profit from Computational Power).....	71
4.2. The Dynamics of the Global Geopolitical Landscape as a Result of Disruptive Technological Changes in IR 4.0.....	72
4.3. The Endemic Anarchy of the International System and Global Governance in the Context of New Technologies: Global Democracy and Global Capitalism, Both in Their 4.0 Extensions.....	79
4.4. “Digital” and Yet “Analog”: Technology–Capital–Resources. The Illusory Virtual Abundance and the Inevitable Physical Scarcity.....	81
4.5. “Digital” Natural Resources (Rare Earths/Metals) Specific to IR 4.0 in Connection with Capital and Technology Flows: Yet Another Mapping of a Complex Network Involving State and Non-State Actors.....	85
4.6. Competition and Cooperation: The Directions of Geotechnological Networks.....	114
5. Central and Eastern Europe: Systemic Transformations as a Permanent Reality.....	121
5.1. Central and Eastern Europe: Geopolitical, Geoeconomic and Geotechnological Coordinates.....	121
5.2. “Transition” as the Defining Concept of the Region: Dictatorship > Democracy; Planned/Command Economy > Market Economy; Socialist Bloc > Euro-Atlantic Community (EU, NATO).....	124
5.3. The Group of Central and Eastern European Countries: EU and NATO Members, “Aspirants” and the “Undecided” – Uneven Integration into IR 4.0.....	129

5.4. Central and Eastern European Economies within the Global Network of IR 4.0: Yet Another Panoramic Perspective on the Current State of Affairs.....	132
5.4.1. Specific Developments: Post-Communist Industrial Restructuring, European/Euro-Atlantic Integration, Workforce Education, Offshoring and Nearshoring...	132
5.4.2. Integration into Geotechnology Flows and Dynamics: Supply Chains and Power/Influence Relations.....	145
5.4.3. The Three Seas Initiative in a Geotechnological Perspective.....	149
5.5 Arguments Regarding the Future Expansion of IR 4.0 in Central and Eastern European Countries: Constraints and Opportunities.....	153
6. Conclusions and Recommendations.....	158
Bibliography.....	164
Annexes.....	176
List of Figures.....	200
List of Tables.....	201