

CONTEMPORARY TRENDS IN INSURANCE AT THE BEGINNING OF THE FOURTH INDUSTRIAL REVOLUTION



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Foreword

This scientific monograph deals with the contemporary insurance trends at the beginning of the fourth industrial revolution. The aim of the research is to answer the question how the insurance can be adapted to the requirements imposed and the opportunities provided by the Industrial Revolution 4.0 and how consequently transformed insurance will contribute to achieving the goals of sustainable development in the future.

The world is at the beginning of the Industrial Revolution 4.0, which overcomes the effects on human development of all the three previous industrial revolutions. The key drivers of this revolution are artificial intelligence (AI), big data, the Internet of Things (IoT), augmented reality, machine learning, robotics, blockchain, autonomous vehicles, 3-D printing, nanotechnology and biotechnology. These technologies enable computers to “think” like humans and to process large amount of data faster than ever before. The new paradigm of global economic development is based on information and telecommunication technologies that represent the necessary technological platform for the organization of modern business models and are inseparable part of the everyday life of modern society. The transition from old to new business models induces conflicts between old staff and their methods of work and new staff, skills and methods required for modern business, based on technological development and technical progress.

The convergence of the physical, digital and biological spheres inevitably brings changes that affect all segments of economic life, and the insurance sector will be among the first to adjust. It is realistic to expect that the development of technology that comes with the Industrial Revolution 4.0 will alter the goals and roles of insurance in society, as well as features of its functioning. Sophisticated technologies create innovation in the insurance market, aimed at meeting new needs of policyholders, developing new products and increasing the efficiency of insurance business processes. New technologies generate new risks. At the same time they increase the volume of data available to insurers, as well as the spectrum of tools for data

analysis, with the aim of a more precise risk measurement. In order to survive in the digital world, insurers have to adapt their portfolio, distribution channels, risk management systems and business models to the changes brought by the fourth industrial revolution. Knowledge and innovation, as key resources of the modern age, are prerequisites for the further development of the insurance market.

A number of authors from the Russian Federation, Germany, Montenegro, Bosnia and Herzegovina and Serbia are the authors of the scientific monograph “Contemporary trends in insurance at the beginning of the fourth industrial revolution”. Threats and opportunities of the fourth industrial revolution for insurance as an economic activity as well as for insurance market participants are the subject of the analysis of the first part of the monograph. The second part of the monograph deals with digitization in the financial sector with a special emphasis on its implications for the insurance sector.

The third part of the monograph analyzes the impact of the Industrial Revolution 4.0 on models of supervision and control in the insurance sector. The fourth part addresses contemporary challenges in the insurance markets of the regional countries and of some developed European Union member states in responding to the requirements of the industrial revolution 4.0. The fifth part is devoted to quantitative models that need to be developed so that the insurance sector could be adjusted to the great and profound changes brought by the Industrial Revolution 4.0.

We use the opportunity to thank authors and reviewers for their great commitment to the preparation and publication of this scientific monograph.

EDITORS

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