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SCIENCE, TECHNOLOGY AND INNOVATION IN THE NEW ECONOMY

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Annotation: *This comprehensive article delves into the intricate relationship between science, technology, and innovation, dissecting their pivotal role in shaping contemporary economic landscapes. It underscores the influence of ICT, innovation, and government policies in driving multifactorial productivity and economic growth. The article sheds light on the evolving nature of innovation, emphasizing the need for collaboration between scientific research and industry for mutual benefit. Additionally, it discusses challenges such as mobility of scientists, intellectual property rights, and the changing dynamics of innovation in small startups. The data-driven analysis provides valuable insights for policymakers, emphasizing the significance of science and technology in fostering economic development and social progress.*

Key words: *ICT Impact, Innovation Dynamics, Technology, science, economic development.*

Introduction.

Scientific advances and technological changes are important factors determination of economic indicators in recent years. Ability to create, distribute and knowledge of exploitation has become an important source of competitive advantage, wealth creation and improved quality of life. Some the main characteristics of this transformation are the growing influence ICT for the economy and society; rapid application of the latest scientific achievements in new products and processes; and high levels of innovation across the OECD countries; moving into industries and services that require more knowledge; and increasing skill requirements. These changes imply that science, technology and innovation they are now the key to improving economic performance and social well-being. However, if governments want to take advantage of these transformations, they will have to implement the right policies. Constraints on government spending, increased competition and globalization, changes the driving forces of the innovation process and better understanding the role that science and technology play in economic performance and social changes have prompted governments to improve their policy tools.

The government increasingly needs to play a stimulating role, enabling businesses

and consumers to adapt to the needs and opportunities of the new economy. But there are other areas, such as investing in basic research and ensuring stakeholder participation in policy development and implementation, where an active role of government is indispensable. This article explores the role of science, technology and innovation in the new economy and discusses the role of government in promoting scientific and technological progress in the interests of economic growth and social well-being.

What is the role of science, technology and innovation in the new economy?

A recent OECD analysis shows that Science, technology and innovation plays an important role in the economy specification. Multifactorial productivity (MFP)in recent years increased in a number of OECD countries (e.g. in Australia, Denmark, Finland, Ireland, Norway, USA), this reflects an increase in efficiency use of Labor and capital. Rather MFP growth usually depends on improved management practices, organizational changes and, most the important thing is to be smart and innovative methods of product production and services. The increase in the number of MFPs is associated with This is not the only sign of accelerating technological progress. Quality there is also Capital and labor improved thanks to significant investments in information and communication technologies (ICT and improve the skills of the average worker in countries OECD. Act, specifically, became the main factor and strong impact on a number of productivity countries, especially when combined with organizational changes, and staff development. They are also helped increase efficiency previously stagnant service areas., facilitated communication, this reduced transaction costs and allowed for cooperation between wider networks and firms. The growing role of innovation and technological change may be related to novel variations. Innovation has become more market-oriented and innovation-oriented research in 12 European countries shows that more than 30% of production turnover is based on new or improved products. Scientific achievements It continues to grow across the OECD, as evidenced by the innovations derived from the field of patent data in all OECD countries and in many areas of technology, in particular, in the field of ICT and biotechnology. Innova wrote that funding is currently more focused on new risky business and projects. Innovation In addition, the network relies heavily on innovation and collaboration, which include between science and industry. A recent analysis of US patent citations in the field of biotechnology showed that more than 70% of the citations were obtained only by the scientific government institution. Innovation is rather an indicator of glo, it comes from many sources

and it spreads more widely through networks, including services, thus expanding the basis of economic growth. In addition, high and medium-high technologies account for a growing share of manu-facturingexports. goods, especially in Ireland, Japan and the USA.

Is there other evidence that innovation is stronger?

There are other indicators that indicate the growing importance of science and technology in economic growth in recent years. Investments in ICT, which are a crucial factor in the new economy, have increased significantly in recent years. In the second half of the 1990s, the spread of ICTs accelerated with the advent of the Internet, although significant differences remain between countries. Investments in intangible assets –education, research and development (R&D), software - are also great. Education is important because new technologies require qualified the staff. Over the last generation, the proportion of adults with at least secondary education has increased from 44% to 72% of the total OECD population, and the proportion of adults with at least higher education has doubled from 22% to 41%. The share of knowledge-based sectors in value added and employment also continues to grow. In 1997, they accounted for about 50% of total value added in Australia, the European Union and the United States, which is significantly higher than their share in 1985.

Methodology

It became scientific progress direct driving force of innovation process. Technical progress Accelerated innovation in areas directly related to science (e.g., Biotechnology, Information technology, new materials) and the demand of companies to contact the scientific base increased. Innovation nowadays it often requires more external and interdisciplinary knowledge as many technologies very complicated. Innovations in the computer industry, for example, demanding knowledge various scientific disciplines, including physics, mathematics and language theory, as well as a number of other distinctive features. Through increased competition, short-term focus on R&D and high level of knowledge, companies they were also forced to save internal R&D costs and look for alternative sources knowledge. Strengthening the links between science and industry can benefit both universities and other research institutions, on the one hand, and companies, on the other. Its staff is looking for contacts in the industry, constantly updating curricula to provide students with the best job prospects and to receive research assistance. Leading research universities are striving to strengthen their positions as strategic alliances with firms confirm their place in innovation

networks and industry knowledge. The main advantage Companies often seek to improve the access of well-trained human resources, although they seek to gain access to new scientific knowledge, networks and problem-solving skills. There are several ways in which research institutes and companies interact, including public/private research networks, research contracts, licenses, joint publications, the influx of students from universities into industry, etc. Some channels are of particular interest because they create new challenges for politics. For example, companies that stand out among universities, etc. research institutes- a vital component of network innovation and the increasingly important role of securities production in most countries. Initial OECD data show that the number of branches is about three Four times more in North America compared to other OECD regions. Eng by-products are focused on ICT and biotechnology, i.e. an important reason for the growing political interest of the scientific sphere in this channel of mutual cooperation. This will help governments to remove some obstacles to the formation of divisions, for example, by clarifying benefits for researchers and start-up entrepreneurs. Mobility of scientists science and industry are also an important channel of interaction. The available data show significant differences in the OECD region. In Scientists and engineers change jobs every four years, and most often in the following areas: software and information technology. Only the 20th place in Japan% of engineers change careers. Employment rules and labor market conditions determine the general state of mobility. Inability to transfer pensions The gap between the public and private sectors is a major obstacle to mobility researchers. More specific restrictions include state labor laws, temporary rules on mobility and secondary employment, and the Charter of Academic Entrepreneurship. There are other obstacles that can affect the relationship between science and industry. For example, the procedure for transferring intellectual property rights varies significantly from country to country. Some countries grant ownership rights for publicly funded research in a developing institution, others to the inventor. Issuing licenses to institutions usually makes research possible in a less exclusive way. In addition, government researchers are traditionally judged by their research, rather than by their own research contributions to industry, meaning that there may be little encouragement for industrial collaboration to commercialize their research.

Result and analysis.

There are other factors that have changed the environment and innovation. Human capital has always been a key factor in the innovation process, but the

mobility of skilled workers is now becoming increasingly important. The number of measures to attract or use the resources of qualified specialists from abroad is growing. Australia and Despite the meager benefits of immigration to the United States, they are highly qualified personnel. There are Indicators of the United States. The United States. It was possible to continue the rapid growth In the field of ICT, in particular the software segment, where the main contribution is made by the human factor. qualified international sources of labor. Thus, immigration is possible because it has become one of the factors that prompted the nanny to continue the boom in the United States, as she has acquired the most sought-after skill, and there have been changes in needs at the brand level. Traditionally, large companies are often seen as the main drivers of innovation, but representatives of small businesses It is noted that Bly plays an increasingly important role, but only in in the field of high technology. Small startups are flexible and not heavy. Which is an obvious disadvantage and a "creative collapse" for large established companies, changes are taking place in technological eras. Startups are important. The sources of new ideas and innovations and the advantages of large companies in developing in an area with a demand structure are unknown, the risks are great, and the technological space has not yet been mastered. Microsoft is a well-known example. from a company that started its life as a startup. In the United States, large companies – Cisco as an example - are "buying" Silicon Valley and buy or acquire promotions in small innovative projects. Since then, Cisco acquired 55 companies in 1999 for $24 billion. In 1999, Microsoft acquired shares 44 companies (worth $13 billion) and Intel is 35 years old ($5 billion). There are many changes in the scientific and technical policy of the OECD. OECD may contribute to progressive political spread practice in member countries. Work is currently underway identification of links between science and industry in various fields OECD countries. This leads to the best understanding the main obstacles the role of Science in innovation and should contribute policy improvement OECD member states. OECD case in 2001 ends on economic growth. The comprehensive report for ministers includes a number of policy recommendations regarding the role of Science, Technology and innovation in economic growth. Movements also continue how to improve scientific quality indicators and technological progress, especially in related areas leads to a new economy better understanding of the roots economic growth and social change.

List of used literature:

1. OECD Science, Technology and Industry Outlook 2000, October 2000.
2. A New Economy? The Changing Role of Innovation and Information Technology in Growth.
3. Managing National Innovation Systems.
4. Boosting Innovation: The Cluster Approach.
5. The Management of Science Systems.
6. University Research in Transition.
7. Research and Development Expenditure in Industry, 1977-1998
8. Main Science and Technology Indicators 2000-I
9. OECD Science, Technology and Industry Scoreboard 1999: Benchmarking Knowledgebased Economies