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# The World Is Not Waiting: An Innovative *Raison D'état*

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**W**e do have a problem with innovation in Poland. All international analyses and rankings of its various aspects indicate clear weaknesses, placing us far below even our modest ambitions. Of course, it is no consolation that the entire European Union is currently struggling with innovation and the development of new technologies. This is illustrated, for example, by the fact that in the early 1990s, the countries that now constitute the EU accounted for nearly 23% of global GDP, whereas today this figure is only about 14%. Let us therefore make it painfully clear: today's Europe faces challenges that will determine the nature of our common future. For this reason, improving our domestic situation is also significant in the EU-wide perspective.

Fortunately, in this context, innovation cannot be described as a forgotten slogan in our country. However, even though the term is used quite often, it is usually employed in a very general manner that does not lead to decisive or effective measures. There are several reasons for this. When speaking about innovation, politicians usually seek to demonstrate concern for the future of the economy and thereby gain additional support from voters. Although the state administration senses the emergence of new economic challenges, it is most often unprepared to introduce the regulatory changes necessary to address them. Scientists attempt to demonstrate the value of their research in various ways; however, they are largely preoccupied with securing their position in the scientific community and obtaining research funding, rather than preparing for potential implementation in the more distant future. Meanwhile, entrepreneurs often demonstrate a willingness to modernize their activities primarily to project a modern image and ensure a more stable market position.

The fact remains, however, that scientists, business leaders, and politicians do believe in the importance of measures that support innovation, even if they are not directly involved in implementing them. Because of our incomplete awareness of the threats posed by globalization and our insufficient determination and ability to cooperate (our famously low level of social capital), "innovation" all too often becomes an

empty slogan that does not translate into real actions that improve the situation. This situation must be addressed swiftly and decisively. The dynamics of the globalized economy have made innovation a real dividing line between winners and losers. Does anyone doubt about which side we would like to be on?

## At the Turning Point of History

Amid all of today's troubles and dangers, one thing seems certain: we are witnessing an important and fascinating moment in Polish history. This moment is well documented by the developmental successes of recent decades, as we now possess the potential to realize individual and collective aspirations to an extent that for many past generations of our compatriots could only have seemed an unrealistic dream. To consistently turn these dreams into reality, we must believe that our future depends primarily on ourselves, understand the innovative essence of building the country's economic strength as the sole guarantee of our security and sustainable development, and – quite simply – get to work. The transformation toward this new culture of innovation is invaluable, especially at a time when we are experiencing increasingly serious threats resulting from the intensified competition and the growing global political and cultural influence not only of established economic leaders but also of rapidly emerging economic powerhouses such as China, India, and Brazil.

We need steadfast faith in success – we must believe that we are capable of achievements comparable to those of today's truly innovative countries. Such faith must be grounded on a reliable recognition of opportunities and honest self-reflection, as well as bold and far-reaching vision on the part of those implementing it, supported broadly by society.

Fully appreciating the lessons of recent economic history in the countries that have achieved spectacular success, we cannot harbour any illusions: we must create our own autonomous model of development, drawing on examples of measures implemented elsewhere but adapting them to our current capabilities. We should begin to think boldly about our existing



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and potential competitive advantages and skillfully use the experience gained by others. Clearly, it is also beneficial to actively establish scientific and commercial cooperation with foreign partners.

## The Task List

It is indispensable that the measures undertaken display synergy created by a large number of elements. At the same time, it must be remembered that all weaknesses and barriers should be eliminated simultaneously, since in practice an innovation system is only as strong as its weakest link. Social awareness of the challenges we face is essential to the success of these measures. The list of areas to which special attention should be paid includes:

**Education.** Creating an education system that emphasizes the development of creativity and cooperation skills, as well as lifelong learning, with an attractive and widely available range of opportunities for supplementing knowledge or even changing one's profession; this should be accompanied by increased flexibility in shaping study programs and their far-reaching internationalization.

**Research.** Treating scientific research, on the one hand, as a key factor underpinning sources of innovative ideas, on the other, as a magnet that prevents ambitious young people from seeking attractive career development opportunities

abroad. At the same time, it should be borne in mind that, in everything discussed here, we are, in fact, referring to the model of development increasingly described as the "knowledge society" – one in which knowledge and skills are the driving forces behind stable economic growth. Such a society knows how to acquire the knowledge it needs through research activities and then apply it in practice.

It is essential to take into account the highly important, ongoing process of interdisciplinary integration of research efforts, which should be considered already at their planning stage. This process enriches our approach to research and enables truly innovative implementation. A prime example is provided by the medical sciences, which are currently undergoing a strong integration with biology, chemistry, electronics, robotics, and materials science. At the same time, interdisciplinarity does not conflict with the need for specialized expertise.

It must also be emphasized that ethical and legal considerations should always be taken into account from the very outset of research initiatives, as is clearly evident, for example, in applications of artificial intelligence in medicine. Given the growing importance of the service sector to the economy, we must also remember to stimulate research in this area.

**Regulations and promotion.** Decisive political and administrative measures aimed at improving the regulatory framework and social climate

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surrounding innovative activity are essential, especially in strategic areas of the economy where private funding can be supplemented with European ones. It should be remembered that large companies can afford to establish their own research departments, whereas small and medium-sized enterprises must rely on existing research units, such as universities, scientific institutes, and private research companies. With this in mind, it becomes clear that effective innovation efforts require dialogue and the development of productive, long-term relationships between business entities and research institutions. This, in turn, requires well-conceived and convincing promotion of ongoing research that reaches business audiences. Such promotion should consist of several elements, amongst which the organization of open days at research institutions, presentations at fairs and exhibitions, and the maintenance of a website and electronic newsletter should play an important role.

We must believe that achievements comparable to those of today's truly innovative countries are within our reach.

**Public debate.** Disseminating our outstanding achievements to date in science, innovative business, and broadly understood culture can help build strong support for human creativity and foster a positive climate for innovative initiatives. It should be noted that a significant obstacle to development-oriented reforms in our country stems from our tacit acceptance of the growing divide between, on the one hand, the views promoted by aggressive, often superficial and biased journalism and, on the other, the contemporary world of science. All too often, empty rhetoric and the promotion of aggressive behavior prevail at the expense of a relevant and earnest debate grounded in reliable, scientifically documented facts. Yet only such a debate can effectively build our capacity to positively shape our collective future. In a democratic system, rational decision-making by elected representatives cannot be expected without creating a well-designed system for informing the public about the real contemporary dilemmas that are so crucial when making electoral choices. Political parties, organizations representing employers,

entrepreneurs, scholars, and journalists should jointly and unequivocally declare their support for the implementation of non-partisan development goals that extend beyond a single or even two terms of office. The details of decision-making processes will nevertheless leave ample room for articulating positions specific to individual parties.

**Rational use of AI.** The current and anticipated future use of AI in the field of innovation cannot be ignored. AI can enhance manufacturing processes by analyzing trends and consumer preferences, thereby enabling the creation of more targeted and refined products. It can optimize logistics by anticipating demand, reducing costs, and ensuring timely delivery of goods. By analyzing weather patterns and soil data, AI tools can help farmers optimize their yields. AI-assisted robots can increase productivity and enable predictive maintenance. AI can also play a major role in healthcare by expediting access to physicians, personalizing treatment, assisting in diagnosis, improving surgical procedures through robotic assistance, and accelerating the development of new therapies and drugs. More broadly, AI will contribute to the creation of extensive innovation ecosystems, improving responses to climate change, optimizing electricity consumption, and monitoring the environmental impact of electric power generation. In science, AI will help identify complex correlations, synthesize information, and generate new ideas, thereby accelerating research progress. The creation of virtual prototypes of innovative concepts will make it possible to test and refine them rapidly, as well as assess their potential and the risks associated with their deployment. Moreover, entirely new opportunities across various areas of innovation are likely to emerge with the spread of quantum computing.

## Innovation as a Signpost

To conclude briefly, in the present era, the sustainability of development rests on two fundamental elements. The first is openness to the world and a willingness to understand the challenges that lie ahead. The second consists of rational actions in confronting those challenges, grounded in cooperation between the scientific sector – drawing on knowledge gained through well-designed research – and the business sector, which recognizes the necessity of innovative activity. Perhaps, then, we should raise a banner high above our heads with the slogan “Innovation, you fool,” making it a signpost on our path towards the future. Of course, the original version of this slogan (“Economy, you fool”) was an important element of Bill Clinton’s political messaging and proved highly effective during his two presidential terms. ■