



## Technological Foresight

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Our current era stands as a witness to knowledge and technological dynamics that shape the features of the near future. In this context, the importance of foresight in future technologies emerges as a vital act aimed at reshaping the contours of the knowledge economy and strengthening the pillars of sustainable development.

This foresight requires a long-term technological vision characterized by accuracy and depth in analyzing technological developments and their potential impacts across various domains, especially economic ones. We live in an era marked by rapid technological transformations, where the importance of anticipating future technologies plays a crucial role in reshaping the knowledge economy and reinforcing the foundations of sustainable development.

Understanding the principles and frameworks upon which future technologies are built forms a fundamental cornerstone for strategic minds guiding today's world. This understanding equips them with the ability to craft detailed plans that skillfully address current and future challenges. Additionally, this comprehension enhances policy flexibility, ensuring alignment with the evolving realities of the era, thereby contributing to steering the course of development towards broader collaborative and developmental horizons.

The effective integration of current and future technological innovations within the structure of the knowledge economy is vital for achieving sustainable growth. These technologies, ranging from quantum computing, genetic engineering, and advanced artificial intelligence to nanotechnology, and innovative developments in clean hydrogen production and green economy technologies, hold limitless potential to propel creativity and innovation on a global scale. These advancements not only enhance technical efficiency but also contribute to environmental sustainability, making them essential for the transition towards a sustainable green economy. Consequently, nations must place significant emphasis on developing human capital capable of interacting with and efficiently leveraging these advanced technologies.

The monumental leaps in artificial intelligence, quantum computing, and biotechnologies are clear indicators of the new era we are entering. Steve Jobs famously said, "Innovation distinguishes between a leader and a follower," underscoring that technological innovation is a measure of a nation's strength and its ability to provide future leadership. Therefore, anticipating these technologies and incorporating them into economic and educational policies is a necessity, not an option.

Similarly, Bill Gates pointed out a commonly overlooked truth, stating, “We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten.” These words vividly highlight the urgent need to forecast future technologies and their long-term impacts, not just in the short term.

Scientific diplomacy is an effective tool in technological foresight, enabling countries to exchange the knowledge and technological innovations that form the backbone of competitiveness in the modern era. This ensures them a strategic advantage in the global system. Countries that actively engage in this field gain a competitive edge by acquiring the latest technologies and best global practices, which contributes to fortifying their economies and enhancing their competitive capacity.

It is evident that technological advancement is a fundamental driver of economic and social development, making foresight in this area a critical process for identifying pathways that will enhance countries’ positions in the global economic landscape. Commitment to adopting these strategies helps in adapting to the evolving technological realities, making readiness for them a central element in international competitiveness and social welfare.

The present time calls upon all of us, as actors in this field, to elevate our visions towards achieving sustainable knowledge and technological progress that fortifies our economic and scientific future. This can be achieved through deep foresight and planning for the technologies of tomorrow, which will serve as the beacons guiding nations’ ships towards shores of prosperity and well-being.

And the conversation continues...