ISCKMC 2022
International Scientific Congress «KNOWLEDGE, MAN AND CIVILIZATION»

IT-TECHNOLOGIES IN THE IMPLEMENTATION OF CLIMATE PROJECTS

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Abstract

The global market for carbon units began to take shape during the first period of the Kyoto Protocol (2008–2012). In 2015, a new global climate treaty, the Paris Agreement, was approved, the economic mechanisms of which are still being developed. So far, a number of regional schemes operate in the world, including in the EU, a number of provinces in China, a number of US states and Canada (usually in the form of quota systems and carbon markets), and voluntary schemes. The article discusses IT technologies in the implementation of climate projects. Modern digital technologies are developing very quickly and are present in all business sectors. It is IT that helps companies to make the transition to a model of advanced harmless production, which means the use of safe materials, intelligent systems, etc. The essence of the concept is a description of approaches to the implementation of projects to reduce greenhouse gas emissions or increase the absorption capacity of ecosystems by Russian companies. Information technology is a set of methods and means of purposefully changing any properties of information. Information technology in the field of management makes the highest demands on the "human factor", having a fundamental impact on the qualifications of the employee. Information technology is an important component of the process of using information resources..

Keywords: Climate project, digital technologies, IT

1. Introduction

The Ministry of Economy has prepared the first version of the concept of the Russian system of climate projects. It describes the rules for implementing projects to reduce greenhouse gas emissions and the circulation of carbon units in the Russian Federation, which, according to the authors, will create conditions for green investments and reduce the carbon footprint of Russian products. Experts welcome the appearance of the document, but talk about the need for a full-fledged national system of carbon regulation (Temnov, 2000).

The essence of the concept is a description of approaches to the implementation of projects to reduce greenhouse gas emissions or increase the absorption capacity of ecosystems by Russian companies (Egamov & Khayitova, 2015).

The main effect should be "creating conditions for attracting green investments and reducing the carbon footprint of products" through the development of national standards for climate projects and the creation of their national register and the Russian register of carbon units (de facto, the results of projects expressed in tons of CO_2 equivalent, which can be sold or set off, all transactions will be recorded in the register).

The Ministry of Economy notes that the concept is "synchronized with the draft law on state regulation of greenhouse gas emissions and the Paris Agreement (PS)", and hopes that the Russian system "can be linked to PS mechanisms and other national and international registers of carbon units."

2. Problem Statement

The global market for carbon units began to take shape during the first period of the Kyoto Protocol (2008–2012). In 2015, a new global climate treaty, the Paris Agreement, was approved, the economic mechanisms of which are still being developed. So far, a number of regional schemes operate in the world, including in the EU, a number of provinces in China, a number of US states and Canada (usually in the form of quota systems and carbon markets), and voluntary schemes (Nikolaeva, 2018).

Currently, environmental issues are quite acute. There are a huge number of environmental problems: global warming, climate change, depletion of natural resources, improper waste disposal, deforestation, ozone depletion, and air pollution. Environmental pollution is one of the most dangerous threats.

According to the Levada Center, Russians consider environmental pollution more dangerous than terrorism, military clashes, man-made disasters and other threats facing humanity. 48 % of respondents agree with this. At the same time, air pollution causes even greater worries and doubts among people. FinExpertiza, an auditing and consulting company, estimates that in the first quarter of 2020, the number of cases of high air pollution increased by 57 % compared to the same period last year.

3. Research Questions

Environmental monitoring is the information basis for a wide range of environmental activities. The data obtained are used for scientific research, environmental assessment and management decision-making (Temnov, 1987).

The Global Environmental Monitoring System provides insight into the ambiguous impact of anthropogenic activities on the environment. For the analysis of the received data, as well as for forecasting based on the results of processing these data, enormous computing power is allocated. A convenient and flexible data analysis system is extremely important for solving environmental monitoring problems.

4. Purpose of the Study

It should be noted that one of the most important components of the environmental policy of each state is the training of competent specialists capable of coping with environmental problems of varying complexity and scale. Here it is worth mentioning information technology.

Modern digital technologies are developing very quickly and are present in all business sectors. It is IT that helps companies to make the transition to a model of advanced harmless production, which means the use of safe materials, intelligent systems, etc (Porfiriev, 2010).

Atos is a global leader in digital transformation, providing high-tech services in the areas of consulting, systems integration, managed services and business process outsourcing, cloud computing, security and big data management. The company's annual turnover is 12 billion euros, and the number of employees is 110,000 people in 73 countries.

5. Research Methods

The accumulated knowledge and experience, understanding of the peculiarities of doing business allow us to provide comprehensive solutions for businesses in various industries. Atos is the International IT Partner of the Olympic and Paralympic Games and is also listed on the CAC40 Paris Stock Index. Atos operates under the Atos, Atos|Syntel and Unify brands.

Atos' goal is to create a digital future that is an integral part of progress. The broad expertise of Atos contributes to the development of knowledge and education in the field of digitalization, bringing our society closer to scientific and technological excellence.

Atos enables its customers, employees, and society as a whole to live, work, and thrive in a safe and secure information environment.

Atos has long been committed to the path of sustainable development and provides its customers with services that help companies achieve digital transformation in order to protect the environment. Constantly expanding its portfolio of solutions, the company acquired the consulting agency EcoAct, which specializes in developing strategies to combat negative climate change.

Atos is increasing its sustainability consulting capacity by joining forces with EcoAct. Based on the joint expertise of Atos and EcoAct, a global decarbonization center of excellence will be established.

It will be based on a comprehensive approach to decarbonization, providing customers around the world with comprehensive analysis services, identifying ways to achieve carbon neutrality, and providing digital solutions to decarbonize digital and business processes.

For the remaining CO_2 emissions, voluntary offsets will be implemented to help companies achieve carbon neutrality.

The acquisition of EcoAct opens up new opportunities for the development of the decarbonization business, allowing Atos to expand its range of consulting services and start providing carbon offset services, thus providing unparalleled value to our customers' business, while also strengthening Atos' position as a leader in decarbonized digital business. technologies.

On the way to environmental protection, small and large enterprises in various industries are faced with the problem of choosing and implementing a sustainable development initiative. Every company needs to have a specific strategy for protecting the environment in order to achieve a sustainable result from digital transformation (Schreiber, 1977).

It is now of utmost importance to provide clients with consulting services on the implementation and integration of innovative technologies that prevent environmental pollution, including climate risk analysis.

With the help of experts in the field, it is easier for leaders of organizations to make informed investment decisions, drawing on extensive experience in developing digital transformation programs that meet customer needs and support their business processes.

It is worth paying attention to the fact that digital transformation is beneficial primarily to the companies themselves, because they can draw attention to their initiatives and thereby contribute to the development of sustainable development technologies in other markets. Moreover, artificial intelligence and the Internet of Things can be used to intelligently calculate energy efficient production models.

6. Findings

It cannot be said that IT projects are accounting, economics and office work. Rather, these are three directions in which developers will still be moving towards perfection for a long time, and few people can see what is beyond the horizon. All the brilliant achievements in the automation of bureaucratic and financial-accounting work are patched up to this day with clouds of auxiliary programs and Excel tables, without the possibility of automatic transfer of data from month to month. At the same time, there are many real areas of application of the work of developers with a clearly defined task and functionality that is difficult to implement. There is no need to think about how to do something dynamically and beautifully, but you just need to do it in a practical and efficient way. Practice shows that it is impossible to rush in the IT field, and one should not hope for instant success. Information technology is developing too fast. To count on economic success, you need to focus on dynamic IT projects that involve continuous development, and not a specific static result.

The modern information sphere is a growing world of threats. No matter how strange it may seem, but progress in the IT sphere has become steadily accompanied by an increase in the quantity and quality of malicious code and negative behavior, especially by "offended" company employees (Ginzburg & Kagan, 1997). It is very difficult to build a bastion of protection around the entire perimeter of possible

negative phenomena. The other side is constantly improving the mechanisms and quality of attacks. This is not an enterprise access system, but nevertheless such IT projects are extremely in demand and vital for any company, especially for large businesses. When formulating such tasks, the risks of IT projects are significantly lower if the development team takes already tested and implemented ideas as a basis, and does not develop "its own opinion" from the very beginning. Currently, there are many proven solutions for creating high-quality protection, and most importantly, they all provide the accumulation of knowledge and heuristics for distributed application in the field. In fact, relying on a well-known solution, a company can make its IT project as a connection of its own infrastructure to protection mechanisms that "by themselves" develop in line with the growth of threats.

Corporate Social Responsibility is what promotes sustainable development and is the basis of the transition to zero carbon emissions. By supporting initiatives to develop effective standards for environmental protection and protection, companies are making a small but very important contribution, and new products, coupled with professional expertise, provide opportunities for making sure investments leading to the main global goal of protecting the environment.

Now the cost of energy for most companies is about a third of all production costs. At the same time, we are seeing a gradual decline in the cost of renewable energy. It is also worth considering that many companies at all stages of the production of products expect energy suppliers to reduce CO2 emissions – and no industry is an exception.

By adhering to the policy of reducing the carbon footprint, the company reduces its negative impact on the environment, which undoubtedly makes it more attractive to job seekers. Also, by conducting campaigns on sustainable development, enterprises contribute to the promotion of responsible consumption ideas.

There are three main tools through which companies switch to renewable energy sources:

- electricity purchase agreements;
- solar photovoltaic systems;
- mini power plants.

If an enterprise is located in a green energy area, it may sign an agreement with the utility or some independent power producers to purchase energy from renewable sources. This helps reduce your carbon footprint.

However, a number of enterprises face difficulties:

- Renewable energy is not sustainable – often due to weather conditions it stops being produced;
- A synergy of conventional and renewable energy is required, rather than a replacement for the former.

7. Conclusion

Because of the lack of understanding of this, many companies waste money on expensive developments.

Thus, the article studied IT technologies in the implementation of climate projects. Modern digital technologies are present in all business sectors.

IT helps companies make the transition to a leading-edge, clean manufacturing model, which includes the use of safe materials, smart systems, and more.

So, summing up the results of the graduation project, it should be noted that information technology is a set of methods and means of purposefully changing any properties of information. Information technology in the field of management makes the highest demands on the "human factor", having a fundamental impact on the qualifications of the employee. Information technology is an important component of the process of using information resources.

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