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AWARDS FROM ACADEMIES AS A STIMULATING FACTOR FOR INNOVATION. (The Role of Public Academies of Sciences in the Targeted Formation of Activating Factors that Stimulate the Accelerated Development of Innovative Smart Technology Projects, Including Those Applying Elements of Artificial Intelligence and Artificial Neural Networks in Control and Monitoring Lines)

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Abstract

In the modern dynamic business environment, where organizations constantly face the challenges of a rapidly changing labor market, issues of employee compensation and motivation become key to successful performance. An effective reward system ceases to be merely a part of human resources policy and transforms into a strategic instrument capable of shaping corporate culture, strengthening engagement, and motivating teams to achieve common goals.

As demonstrated by real innovative practice, awards of public academies of sciences, as well as those of other academies, are important for specialists, since they confirm the high quality and novelty of their innovative projects, open access to grants and partnerships, enhance prestige, attract attention to developments (in the agro-industrial complex, IT, and medicine), and facilitate their implementation and integration into scientific and industrial communities.

The significance of these awards lies in the official recognition of contributions to science and technological development, which motivates researchers and provides an impetus for the further advancement of innovation in the country.

Awards of the Russian Academy of Natural Sciences recognize scientific and pedagogical achievements, stimulating innovation through public recognition of merits, support for new directions in science and education, and the popularization of advanced developments, which is essential for integrating science into practice and enhancing the authority of domestic science. They serve as indicators of quality and innovativeness, motivating researchers to create effective educational and scientific technologies and emphasizing the importance of implementation.

Keywords: *Public academy of sciences; stimulating factor; stimulating factor for innovation; activating factor; innovative smart technology projects; control and monitoring lines; awards of public academies of sciences for the novelty of innovative projects; popularization*

of advanced developments and their integration into production; motivation of researchers; concrete achievements in the development and implementation of new technologies, creation of world-class engineering solutions; stimulation of innovation through public recognition of merits

Awards of the **Russian Academy of Engineering** recognize outstanding contributions to science and technology, stimulating innovation through the acknowledgment of achievements in the development of new technologies, patenting, the creation of high-tech teams, and workforce training. This enhances the prestige of the profession and contributes to the technological development of the country. The significance of these awards lies in highlighting real engineering successes, motivating further discoveries, and influencing the innovation process through the popularization of advanced developments and their integration into production.

The **International Academy of Engineering** grants awards for outstanding contributions to engineering, the creation of new technologies and patents, as well as for workforce training. These awards stimulate innovative development, raise the prestige of the engineering profession, promote the implementation of advanced solutions, and strengthen international cooperation in science and technology, which is critically important for progress. The awards recognize concrete achievements in the development and implementation of new technologies, the creation of world-class engineering solutions, patenting, and the training of engineers, directly influencing the growth of innovative potential.

The **All-Ukrainian Public Organization "Ukrainian Academy of Sciences"** has united scientists and manufacturers from various sectors of the national economy. As the legal successor of the Ukrainian Academy of Sciences of National Progress, the UAS has its own anthem, flag, and other symbols. The main goals and objectives of the Academy include the study and generalization of scientific knowledge, promoting the fullest possible use of these achievements in the interests of Ukraine's socio-economic development, fostering the development and reproduction of the intellectual potential of society, disseminating scientific and technical achievements, and protecting the common interests of UAS members.

As an example, we cite the system of public stimulation of innovative activity created within the **International United Academy of Sciences (IUAS)** and successfully applied in everyday practice.

As demonstrated by real innovative practice, awards of the International United Academy of Sciences (IUAS), as well as those of other academies, are important for specialists, since they confirm the high quality and novelty of their innovative projects, open access to grants and partnerships, enhance prestige, attract attention to developments (in the agro-industrial complex, IT, and medicine), and facilitate their implementation and integration into scientific and industrial communities.

The significance of these awards lies in the official recognition of contributions to science and technological development, which motivates researchers and provides an impetus for the further advancement of innovation in the country.

Significance of Awards for Specialists: Recognition and Prestige:

Receiving an award from a recognized academy constitutes a substantial confirmation of expert evaluation of one's work.

Support for Innovation:

Awards are often accompanied by grants, access to laboratories, and funding for the further implementation of projects.

Demonstration of Potential:

They make it possible to present developments to a broad audience, including investors and industrial partners.

Stimulation of Cooperation:

They open opportunities for joint research with other scientists and organizations.

Importance for Innovative Projects: Identification of Promising Developments:

Academies highlight projects with practical orientation, prototypes, and implementation potential.

Integration into the Ecosystem:

They help projects enter the country's scientific and innovation infrastructure.

Stimulation of Interdisciplinarity:

Projects covering diverse fields – from IT to the agro-industrial sector – are recognized.

Typical Awarded Projects (Examples):

IT and Technologies:

Developments in artificial intelligence, quantum computing, and new materials.

Healthcare:

New diagnostic and treatment methods, pharmaceutical developments.

Agriculture:

Innovations in the agro-industrial complex.

Social Solutions:

Projects aimed at addressing pressing societal challenges.

**Who Grants the Awards
and How This Occurs:**

Organizers:

Scientific and engineering communities, профильные ведомства (specialized government agencies), and technology parks.

Format:

Competitions and festivals of innovative projects with expert evaluation and public defense.

Thus, the awards of the **International United Academy of Sciences (IUAS)** are not merely a mark of honor, but a stimulating instrument for the development of science and technology, helping to bring advanced ideas from laboratories into the real sector of the economy.

What major scientific achievements of the last 10 years can be highlighted?

Let us present the five most significant developments and achievements of the past decade:

- Quantum computer;
- Synthetic DNA;
- The first landing in history on the surface of a comet ...;
- Detection of gravitational waves predicted by Einstein ...;
- Automotive autopilot systems.

The **Russian Academy of Natural Sciences (RANS)** was among the first to stimulate an innovative approach to the development of new promising projects, and its

role in this process is recognized as exceptionally important.

Awards of the Russian Academy of Natural Sciences (RANS), such as the Gold Medal “For Innovative Work in the Field of Higher Education” and the Socrates Medal, recognize scientific and pedagogical achievements, stimulating innovation through public recognition of merits, support for new directions in science and education, and the popularization of advanced developments. This is important for integrating science into practice and enhancing the authority of domestic science. These awards serve as indicators of quality and innovativeness, motivating researchers to create effective educational and scientific technologies and emphasizing the importance of implementation.

In order to encourage scientists for scientific works, scientific discoveries, and inventions of major significance for science and practice, the Russian Academy of Natural Sciences awards prizes named after outstanding scientists.

Medals and prizes are awarded on behalf of RANS by the Presidium of RANS on the basis of the results of competitions announced by the Presidium of RANS, in accordance with the procedure established by these Regulations.

Medals are awarded for outstanding scientific works, discoveries, and inventions, or for a body of works of great scientific and practical significance.

In competitions for gold medals, only individual persons may participate personally. For prizes, works or series of works of a single thematic focus, as a rule by individual authors, may be submitted.

In competitions for medals and prizes named after outstanding scientists, both Russian and foreign scientists may participate, in accordance with the status of the medal or prize.

The right to nominate candidates for medals and prizes is granted to:

- Academicians and Corresponding Members of the Russian Academy of Natural Sciences (RANS);
- Research institutions and higher education institutions;
- Scientific and engineering-technical societies;

- Scientific councils;
- Scientific and technical councils of state committees, ministries, and agencies;
- Technical councils of industrial enterprises;
- Design bureaus;
- Teams of authors.

Scientific evaluation of all works submitted to the competition and the recommendation of candidates for the awarding of medals and prizes are carried out by expert commissions organized for each medal and prize.

The bureaus of the departments discuss the works and candidates nominated by the expert commissions for the awarding of gold medals and prizes.

Decisions of the Presidium of RANS on the awarding of medals and prizes are adopted by open voting and are considered approved if more than half of the members of the Presidium present at the meeting vote in favor.

Decisions of the Presidium of RANS on the awarding of medals and prizes, as well as brief abstracts of the works awarded gold medals or prizes, are published in RANS journals.

Medals, as well as diplomas certifying the awarding of medals, are presented to the recipients at sessions or conferences of RANS.

Awards of the **Russian Academy of Engineering (RAE)**, such as the Order of “**ENGINEERING GLORY**,” recognize outstanding contributions to science and technology, stimulating innovation through the acknowledgment of achievements in the development of new technologies, patenting, the creation of high-technology teams, and workforce training. This enhances the prestige of the profession and contributes to the technological development of the country. The significance of these awards lies in highlighting real engineering successes, motivating further discoveries, and influencing the innovation process through the popularization of advanced developments and their integration into production.

Main Awards and Their Significance:

Order of “ENGINEERING GLORY”:

Awarded for a significant personal contribution to engineering, the creation of world-

class engineering solutions, the successful implementation of new technologies, obtaining patents, освоение новой техники (mastery and deployment of new technologies), and workforce training.

Impact on the Innovation Process:

Stimulation of Developments:

Awards motivate engineers to create breakthrough technologies and to commercialize them.

Recognition and Prestige:

They raise the status of engineering activity, attract talented young people, and strengthen engineering schools.

Demonstration of Achievements:

Laureates become role models, and their projects serve as benchmarks for others, contributing to the dissemination of best practices.

Interstate Cooperation:

Awards are also granted to those who contribute to the development of engineering activities at the international level.

Thus, the awards of the Russian Academy of Engineering play a key role in shaping the innovation environment by recognizing those who advance Russian engineering thought and technology.

The **International Academy of Engineering (IAE)** grants awards for outstanding contributions to engineering, the creation of new technologies and patents, as well as for workforce training. These awards stimulate innovative development, raise the prestige of the engineering profession, promote the implementation of advanced solutions, and strengthen international cooperation in science and technology, which is critically important for progress. Awards such as the Order of “**Engineering Glory**” recognize concrete achievements in the development and implementation of new technologies, the creation of world-class engineering solutions, patenting, and the training of engineers, directly influencing the growth of innovative potential.

For major achievements in science, technology, the organization of production, and the implementation of advanced technologies, awards for the scientific and engineering community have been established in the following nominations:

- Order of “**Engineering Glory**”;

- Gold Medal of the **International Academy of Engineering**;
- Badge of “**Engineering Valor**”.

Recipients of the Order of “Engineering Glory”

The Order of “Engineering Glory” is awarded to:

- Heads of states and major international associations for leadership in engineering activities and for creating conditions for productive scientific and technological work, ensuring world-class achievements within a state or association;
- Members of the International Academy of Engineering who participate in the creation of a unified engineering space within the framework of the Academy, for a high level of scientific and engineering achievements;
- Representatives of states actively cooperating in the coordination of production and in solving engineering problems at a high scientific and technological level.

Grounds for Awarding the Order of “Engineering Glory”

The Order of “Engineering Glory” is awarded:

- For an outstanding personal contribution to the development of scientific and engineering activities;
- For outstanding achievements in the creation of engineering teams ensuring world-class technology;
- For outstanding results in the development and implementation of new technologies;
- For innovative activity in creating valuable patents and active participation in the deployment of new technologies;
- For major successes in the training and mentoring of scientific and engineering personnel;
- For active cooperation in solving interstate problems that contribute to the development of scientific and engineering activities.

The award is conferred by a resolution of the Presidium of the International Academy

of Engineering for the above-listed merits, based on long-term productive scientific, engineering, governmental, and public service, upon the recommendation of the Awards Commission.

Main Awards of the International Academy of Engineering (IAE)

Order of “Engineering Glory” – the principal award for significant merits in engineering, including:

- Personal contributions to scientific and engineering activities;
- Creation of world-class engineering teams;
- Development and implementation of innovative technologies;
- Innovative activity and patents;
- Training of engineering and scientific personnel.

Significance of the IAE Awards

Recognition of Merit:

Officially acknowledges and rewards leading engineers and engineering teams.

Motivation:

Stimulates further research, development, and the implementation of advanced solutions.

Enhancement of the Status of Engineering:

Emphasizes the importance of the engineering profession for society.

Impact on the Development of Innovative Technologies

Stimulation of Innovation:

Awards for patents and new technologies directly encourage innovative activity.

Exchange of Experience:

They contribute to the dissemination of best engineering practices and world standards.

Support for Human Capital:

They recognize achievements in specialist training, ensuring an inflow of new ideas and solutions in the future.

International Cooperation:

They promote the resolution of interstate engineering challenges, uniting efforts for the development of science.

Thus, the awards of the International Academy of Engineering play a key role in shaping a favorable environment for innovative engineering creativity, the implementa-

tion of innovations, and the strengthening of engineering thought within global technological development.

Of particular interest is the **International Academy of Informatization**, established in Kazakhstan;

International Academy of Informatization (IAI)

The International Academy of Informatization (IAI) is an independent, self-governing public association of like-minded individuals in the fields of the study of the nature of information, information technologies, environmental and information-analytical activities, the informatization of society, and the creation of a unified global information community.

The Academy has its representative offices and branches in many regions of Kazakhstan, including the cities of Astana, Karaganda, Shymkent, Ust-Kamenogorsk, Petropavlovsk, Kostanay, Taraz, Aktobe, and Karatau.

Objectives of the Academy

- Formation of the infrastructure of the Republic of Kazakhstan as part of the unified global information space;
- Enhancement of the information culture of the population of the Republic of Kazakhstan and the global community;
- Forecasting the main directions of development of informatization in the Republic of Kazakhstan and the global community;
- Training of specialists and highly qualified scientific personnel; advanced training and retraining of specialists across all sectors of the national economy;
- Publication of industrial, scientific, educational-methodological, and information-analytical literature; issuance of newspapers and journals.

Constitution of the IAI

The Constitution was adopted at the General Assembly of the Academy and entered into force on October 2, 2014.

It includes the Mission, Motto, Value System, and Vision. The Mission reflects the essence of the Academy's activities and its social significance. The Motto concisely emphasizes

the key aspects of the IAI's work. The Value System reflects the core features of the Academy's activities and unites the interests and aspirations of its members. The Vision presents how the Academy envisions its future.

The international status of the Academy is defined by the fact that its membership includes not only Kazakhstani scientists, but also representatives from neighboring and distant foreign countries. These are specialists who actively contribute to the development of informatization processes in Kazakhstan and in their respective countries.

At present, the Academy unites more than 1,600 prominent scientists, public figures, and government officials from many areas of science and practice who have made a significant contribution to the development of informatization in the country.

The IAI carries out its Mission through cooperation with public administration bodies, civil society institutions, international organizations, the media, and the social sphere, as well as across economic sectors. It is capable of conducting independent expert evaluations of socio-economic, innovative, and other programs and projects; providing extensive consulting services; and creating and maintaining various information databases.

The Academy annually organizes international scientific and practical conferences, the key theme of which is the monitoring of the current state and assessment of prospects for the development of informatization in Kazakhstan.

The Academy has its own website, which serves as an effective instrument for intellectual and informational communication, exchange of opinions, and dissemination of scientific and practical achievements of the global community.

Throughout its existence, the IAI has implemented a number of international and social projects. The Academy cooperates with various scientific organizations, public associations, ministries, and agencies, maintains international relations with UNESCO and the OSCE, and acts as an implementing partner of UNDP under programs for the introduction of ICT.

Regulations on Awards

These Regulations govern the procedure and processes, in accordance with Clause

2.3 of the Charter of the Public Association “International Academy of Informatization” (hereinafter referred to as the IAI), related to the establishment of awards and the awarding process, and determine the sources of financing for expenses associated with the production of awards and the awarding of IAI members.

These Regulations define the types and status of awards and regulate the procedure for nomination for awards.

Main Principles of Awarding IAI Honors

The main principles governing the awarding of honors by the International Academy of Informatization (IAI) are:

- Encouragement of IAI members who have made a significant contribution to the development of science, enriched science with discoveries and scholarly works, and who recognize the Charter of the IAI;
- Substantiation of awards;
- Transparency;
- Uniformity of requirements and equality of conditions for awarding.

IAI Awards

2.1. IAI awards constitute a form of recognition of merit and encouragement for a significant contribution to the development of national and global science, as well as for a substantial contribution to the development of informatization and the implementation of the IAI Mission.

2.2. The IAI awards include:

2.2.1. Honorary Badge – “*Academician of the IAI*”

2.2.2. Honorary Badge - “*Corresponding Member of the IAI*”

2.2.3. Honorary Badge - “*Adjunct of the IAI*”

2.2.4. Jubilee Medal - “*Gold Medal of the IAI*”

2.2.5. Jubilee Medal - “*Silver Medal of the IAI*”

2.2.6. Gold Order of the IAI

2.3. The Presidium of the IAI is also entitled to establish named prizes and other awards (breast badges and insignia) for outstanding scientific research and discoveries in various fields of science and culture.

Design of IAI Awards

The design of IAI awards, their descriptions, and samples of award certificates, as well as the form of the award nomination sheet and submissions, are approved by the President or the First Vice President of the IAI.

Manufacture, Documentation, Accounting, and Storage of IAI Awards

4.1. The manufacture, accounting, and storage of IAI awards and the certificate forms thereto are ensured by the IAI Directorate.

4.2. The procedure for accounting and storage of IAI awards and certificate forms thereto is established by orders of the IAI Directorate.

4.3. The preparation of award documentation and the accounting of award recipients are carried out by the IAI Directorate.

Eligible Recipients of IAI Awards

5.1. IAI awards are conferred upon members of the Academy who are:

5.1.1. Scientists who have made a substantial contribution to the development of national and global science and have enriched science with discoveries and scholarly works.

5.1.2. Employees of sectoral research institutes and higher education institutions of all profiles.

5.1.3. Specialists in Information and Communication Technologies (ICT) and other industries.

5.1.4. Employees of central and local executive authorities whose functions include matters related to the development of science.

5.2. Awarding different IAI honors for the same merits is not предусмотрено (not envisaged).

Nomination and Awarding Procedure for IAI Honors

6.1. Documents for nomination for IAI honors may be submitted by:

6.1.1. Members of the IAI (Academicians and Corresponding Members);

6.1.2. Heads of sections and regional structures of the IAI; heads of enterprises, organizations, and institutions regardless of

the form of ownership where the nominee is employed;

6.1.3. State authorities whose functions include matters related to the development of science, culture, and industry;

6.1.4. Heads of sectoral research institutes, universities, and colleges.

6.2. For awarding IAI honors, the following documents shall be submitted in the name of the President of the IAI:

- An award nomination sheet in the prescribed format;
- A petition by an organization or an IAI member nominating a candidate for an award, signed by an IAI member or by the head of the organization and affixed with the official seal.

6.3. The awarding of IAI honors is timed to coincide with anniversary dates of IAI members and with state and professional holidays of the Republic of Kazakhstan.

All-Ukrainian Public Organization “Ukrainian Academy of Sciences”

The All-Ukrainian Public Organization “Ukrainian Academy of Sciences” has united scientists and manufacturers from various sectors of the national economy. As the legal successor of the Ukrainian Academy of Sciences of National Progress, the UAS has its own anthem, flag, and other symbols. The main goals and objectives of the Academy are the study and generalization of science, promotion of the fullest possible use of these achievements in the interests of the socio-economic development of Ukraine, support for the development and reproduction of the intellectual potential of society, dissemination of scientific and technical achievements, and protection of the common interests of UAS members.

Through joint efforts of more than 25 research institutes, fundamental and applied research has been conducted, resulting in the development and implementation of the latest technologies, machines, materials, and equipment, including:

- Developments in the field of environmental safety in automotive engineering;
- Development of camouflage coatings to protect military equipment from detection by radar systems and night-vision devices;

- Development of protective anti-corrosion coatings for marine vessels;
- Development of special high-strength cast iron for the production of brake pads, gearboxes, and machine parts operating under load;
- Development of biologically safe monitors for televisions and computers;
- Development of special materials resistant to high temperatures;
- Development of simulators for training flight personnel and cosmonauts;
- Development of new pharmaceutical products and treatment methods in the field of human reproduction;
- Development of systems for the purification of industrial wastewater and drinking water;
- Development of non-traditional energy sources;
- Development of methods for restoring the fertility of Ukraine’s chernozem soils;
- Development and implementation of expert systems and computer technologies;
- Development of radio-electronic systems and interactive multimedia systems;
- Research in the history of Ukrainian science and statehood;
- Subsurface tomography for the search for natural mineral deposits, and others.

The Academy comprises 15 regional branches, 3 educational institutions, more than 50 research institutes in Ukraine and worldwide, over 1,000 full members and corresponding members, 20 honorary members, and 50 foreign members.

To become a member of the Ukrainian Academy of Sciences, two recommendations from acting academicians or corresponding members are required. At the document preparation stage, more than 12 registration and rating forms are completed so that the Mandate Commission can objectively assess the significance of the scientist.

In the modern dynamic business environment, where organizations constantly face the challenges of a rapidly changing labor market, issues of employee compensa-

tion and motivation become key to successful performance.

An effective reward system ceases to be merely a component of human resources policy and transforms into a strategic instrument capable of shaping corporate culture, strengthening engagement, and motivating teams to achieve common goals.

Our analysis will focus on the challenges that modern companies face in the area of employee compensation and on how innovative methods can help them reach a new level of efficiency and employee satisfaction.

By opening a discussion on innovative approaches to compensation, we seek to provide readers with a foundational perspective on the topic, to emphasize the importance of this aspect of human resource management, and to draw attention to the key points that will be examined in detail in the following sections of the article.

In today's business world, there are many approaches to employee compensation, each with its own characteristics and advantages. However, in order to effectively analyze existing approaches, it is first necessary to understand their fundamental features and principles of operation.

One of the classical approaches to compensation is a fixed salary, which remains

constant regardless of an employee's performance. This approach ensures stability and predictability of income, which may be an important factor for many employees.

The second approach is performance-based compensation. Here, remuneration directly depends on the results of an employee's work, which makes it possible to stimulate them to achieve better results. This approach is often used in sales and other fields where employee performance can be easily measured.

The third approach is competency- and skills-based compensation. In this case, employees are paid according to their level of qualification, experience, and skills, which encourages self-improvement and professional growth.

In addition, there are other approaches, such as flexible forms of compensation (for example, bonuses, incentives, company shares), as well as non-financial motivational mechanisms (for example, opportunities for professional development, recognition, and encouragement by management).

Understanding these different approaches to compensation will help companies choose the most appropriate strategy for their employees and achieve an optimal balance between financial incentives and motivation.

References

- International Academy of Informatization (IAI). General Information [Electronic resource]. – Available at: <https://academy.kz/o-nas/obshchaya-informatsiya>
- International United Academy of Sciences (MOAN). Official Website of the International United Academy of Sciences [Electronic resource]. – Available at: <https://moan-academy.ru/>
- Russian Academy of Natural Sciences (RANS). Official Website of the Russian Academy of Natural Sciences [Electronic resource]. – Available at: <https://rae.ru>
- Ukrainian Academy of Sciences (UAN). Official Website of the Ukrainian Academy of Sciences [Electronic resource]. – Available at: <https://uan.ua>

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