

Ministry of Education and Science of Ukraine  
Kyiv National University of Construction and Architecture

## **He Jing**

The graduate thesis  
to obtain the master's degree

The topic of the work: **Methodological and applied approaches to the management of "green construction" projects based on the "stakeholder theory»**

Head: Associate Professor, Candidate of Economic Sciences Yakymchuk I.M.

Kyiv 2024

## **Relevance of the topic:**

Ukraine's integration into the European and global business space requires the adaptation of domestic realities to business rules and the implementation of fundamental business principles in the practice of Ukrainian entrepreneurship, including those implementing green building projects.

One of the important elements of sustainable development activities is social responsibility and, accordingly, taking into account the interests of all stakeholders when making management decisions, activities, etc. That is why the study of the issues of building relationships with stakeholders is becoming increasingly urgent. The relevance of this task is enhanced by Ukraine's involvement in the efforts of the international community to promote the Sustainable Development Goals and the development of a national system of Sustainable Development Goals (SDGs).

**SECTION I. Analysis of stakeholders and their influence**  
**on enterprise activity.**

**“Stakeholders”** literally: “owner of a share (recipient of an interest); holder of an institution”, from the very beginning - the manager (trustee) of disputed, pledged or ward property, shareholder); in the narrow sense of the word: the same as shareholder (shareholder, participant), i.e. a person who has a share in the authorized (share) capital of an enterprise; in the broad sense: one of the individuals or legal entities interested in the financial and other results of the company's activities

**In this paper, the concepts of “stakeholders” and “interested parties” are used synonymously.**

A simplified list of **stakeholders** according to Freeman includes owners, consumers, consumer protection groups, competitors, the media, employees, SIGs (Special Interest Groups), environmentalists, suppliers, government agencies, and local community organizations.

**A key factor in the success of any enterprise is the ability to build mutually beneficial relationships with key stakeholders in the external and internal environment. Effective stakeholder management is one of the main goals of enterprise management and one of the most important tasks of strategic management.**

## **The main stakeholders of the company are:**

- ❑ - investors, who invest their capital in the company with a certain amount of risk in order to receive income;
- ❑ - Lenders, who temporarily provide a loan to the company in exchange for a hopefully predetermined income and are interested in information that allows them to determine whether the loan payments will be made in a timely manner;
- ❑ - managers of the enterprise, since financial information allows to make the most reliable assessment of the efficiency of the enterprise management;
- ❑ - employees of the company interested in obtaining information about the company's ability to pay salaries, pensions and other payments in a timely manner;
- ❑ - suppliers interested in information that allows them to determine whether the amounts due to them will be paid in a timely manner;
- ❑ - consumers (clients of the enterprise) interested in the stability of supplies, as a result of the financial respectability of the enterprise;
- ❑ - public and governmental organizations, since the well-being of the region's economic infrastructure depends on the successful operation of the enterprise

A detailed analysis of all stakeholders of the business entity and their interests, determination of the most influential and important among them, setting priorities for different groups of stakeholders will make it possible to formulate an effective strategic management plan for the development of the enterprise, to establish the correct direction of development of the business entity, which will allow to achieve the highest possible level of satisfaction interests of all stakeholders of the enterprise.

A number of experts have proposed to distinguish four types of stakeholders, depending on the level of their interest and the degree of influence on the decisions made, and have provided general recommendations for interaction with these groups:

1) high level of interest, but low degree of influence (timely, clear information about the decisions made);

2) a high level of interest and a high degree of influence (taking into account points of view when making managerial decisions, providing feedback);

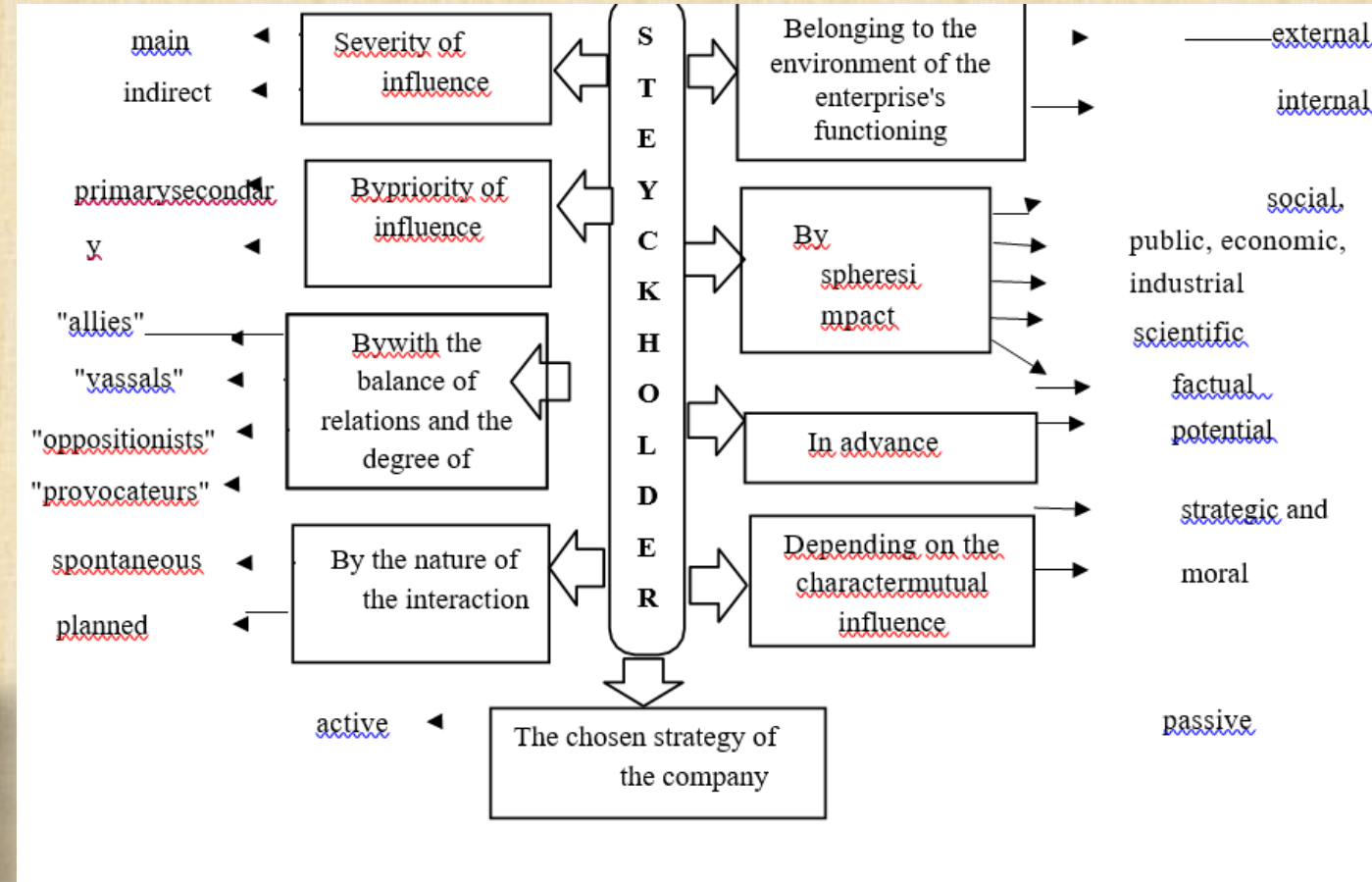
3) low level of interest and low degree of influence (should be monitored in case of changes in interests and influence);

4) low level of interest and high degree of influence (creating an atmosphere of satisfaction from interaction).

One of the significant features of construction development projects is the involvement of a significant number of stakeholders with different status, interests, and degree of participation in the project. Stakeholders include those who can influence the process of a construction project or the final result, as well as receive direct or indirect benefits: asset owners, project managers, construction contractors, architects, company shareholders, investors, government structures, workers, subcontractors, suppliers, financial organizations, mass media, consumers, etc.

Freeman R.E. literally defines stakeholders of companies as "Any persons, groups or organizations that have a significant influence on the decisions made by the firm and/or are influenced by these decisions"

## Major groups of stakeholders found in the construction industry



## Stakeholder groups of the construction enterprise:

### External stakeholders:

- **Consumers** (customers) are the main group interested in satisfying their needs with quality products and services.
- **Suppliers** - provide the enterprise with material and technical resources, influencing the quality and timeliness of works.
- **State authorities** – regulate industry activities through legislation and monitor compliance with standards.
- **Financial institutions (banks)** – provide the enterprise with financing and loans, influencing its investment capacity.
- **Competitors** - influence market conditions, stimulate the enterprise to increase competitiveness.

### Internal stakeholders:

- **Employees** are interested in safe working conditions, fair pay, and opportunities for career growth.
- **Owners** (shareholders) are interested in the stability, development and profitability of the enterprise, and expect transparency in financial matters.

### Other important stakeholders:

**Developers** are companies that perform the functions of planning, project management and operation of objects, controlling the implementation of projects at all stages.

As the experience of most countries shows, the key to the successful growth of entrepreneurship at the national level is precisely the systemic approach, which means the involvement of broad groups of stakeholders in this process.

Stakeholder theory is reflected in the practice of strategic management in the form of the Accountability Scorecard (ASC), which was first described by F. Nichols in 2000 and is designed to find a "balance of interests" between the enterprise and stakeholders.

According to this method, the enterprise and stakeholders are combined by two types of connections: contributions and incentives, which are mostly bilateral, relative in nature, which makes the exchange between the two parties mutual. Shareholders, investors, suppliers, customers (consumers), managers and employees, state (government) structures should be singled out among the most important groups of interested parties.

We distinguish three levels of interaction between the enterprise and stakeholders: macro, micro and internal.

- ***Macro level – indirect influence (for example, state bodies).***
- ***Micro level - direct contact (consumers, suppliers).***
- ***Internal environment - employees and shareholders.***

Stakeholder theory emphasizes that the effectiveness of the enterprise depends on taking into account the interests of various groups of stakeholders.

According to this theory, stakeholders can be considered as "contributors" of different types of resources:

- ***Shareholders contribute capital.***
- ***Workers invest human capital.***
- ***Consumers create working capital.***
- ***Authorities provide administrative resources.***

1. **Mendlow's model ("power/interest")** - defines stakeholders according to the level of their power and interest, helping to identify priority groups.

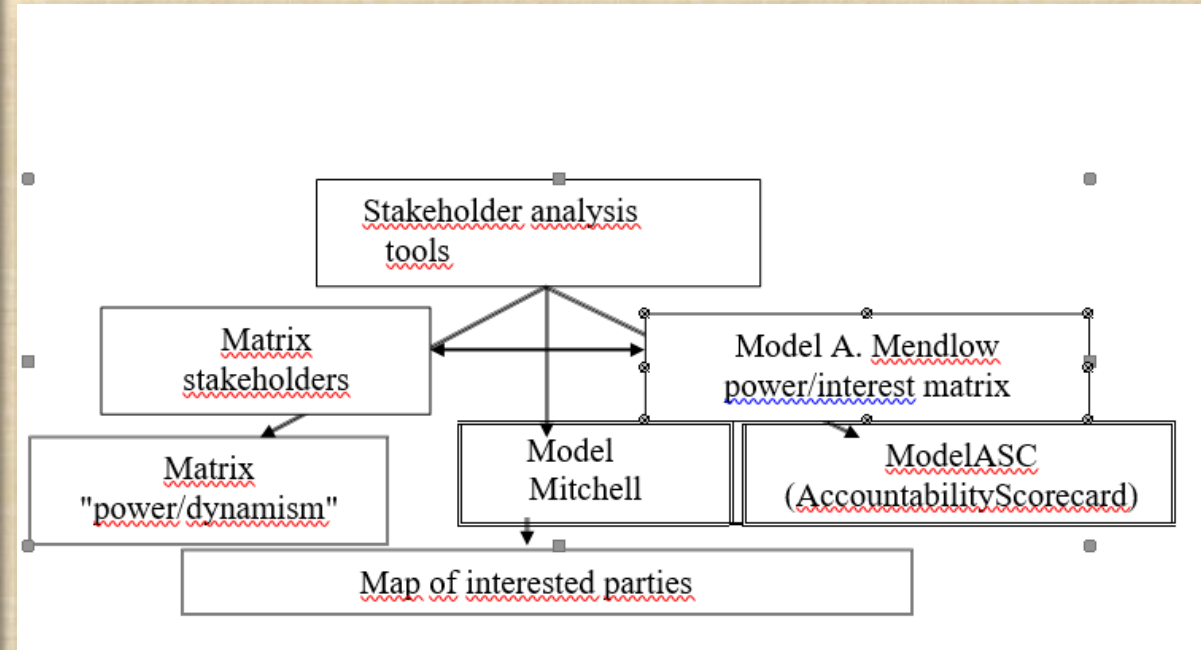
2. **Power/dynamism matrix** - evaluates stakeholders by power and stability of their position.

3. **Mitchell's model** - classifies stakeholders according to power, legitimacy and urgency, dividing them into three groups according to importance.

4. **The ASC model** analyzes the responsibility of the enterprise to stakeholders through their contributions and reactions.

5. **Stakeholder Map - Visually** represents the relationships with various stakeholders and their impact on the company.

A wide arsenal of tools is used to identify and assess the impact of stakeholders:



## **SECTION II. Peculiarities of the areas of work and management of stakeholders in the process of implementation of "green construction" projects.**

Entering and processing project data is an important component of management, which is carried out with the help of computer information management tools. The right choice of technologies helps to build effective work processes in the project. Stakeholder management, according to modern research, requires a structured approach that includes identification, prioritization and engagement of stakeholders.

**The 4R & WS model**, presented by Y. Yu. Huseeva, O. S. Martynenko, and I. V. Chumachenko, is a conceptual matrix model for analyzing, classifying, and managing project requirements and stakeholders. Its structure is based on a hierarchical approach to the organization and management of projects, where each element of the project (work, resources, risks, requirements and responsible persons) is organized in the form of matrices, which allows defining the relationships between different aspects of the project. Such a model provides systematic monitoring of the fulfillment of requirements and interaction with stakeholders, taking into account resources, risks and responsibilities.

## Components of the 4R & WS model:

**Requirement:** Project requirements are defined by stakeholder needs and systematized in a hierarchical structure (RBS), where each requirement is associated with work (WBS) and resources needed to fulfill it.

**Work Structure (WBS):** Hierarchy of work required to complete the project. Each work in the WBS is associated with a specific requirement, resources, risks, and responsible persons.

**Risk:** The Risk Hierarchy Framework (RBS) covers potential threats to the project. Risks are associated with work, resources and requirements, which helps to assess their impact on the project.

**Responsibility:** The organizational structure (RBS) defines responsibility for performance of work, management of resources and response to risks. Each project participant is responsible for performing certain tasks and meeting requirements.

**Resource:** The Resource Hierarchy Structure (RBS) encompasses the material, financial, human, and time resources that are associated with the performance of work and the achievement of project requirements. The "work-resource" matrix determines the amount of resources for specific works.

Improvement of control over processes and improvement of management efficiency;

Increasing transparency in determining and fulfilling stakeholder requirements;

The 4R & WS model allows project managers to comprehensively manage requirements and stakeholders, taking into account all interdependent aspects. Key benefits include:

Mitigate project risks by proactively monitoring the impact of risks on work, resources and requirements;

Ability to accurately allocate resources and establish responsibility at each stage of the project.

Ukraine, taking into account the growing needs for energy resources, climate change and the increase in energy prices, is actively working on adjusting the energy policy, directing it to the development of renewable energy sources (RES). The strategy includes increasing the share of energy from renewable energy sources, introducing resource-saving technologies and improving the efficiency of renewable energy project management, taking into account the specific environmental and risk characteristics of this industry.

Ukraine adopted a number of strategic documents, in particular:

- the project of the National Renewable Energy Action Plan for 2030 (under development);
- "Energy Strategy of Ukraine until 2035", which focuses on the development of the fuel and energy complex and all types of RES.

**The main areas of RES development in Ukraine include wind, solar, bio-, hydro- and geothermal energy.**

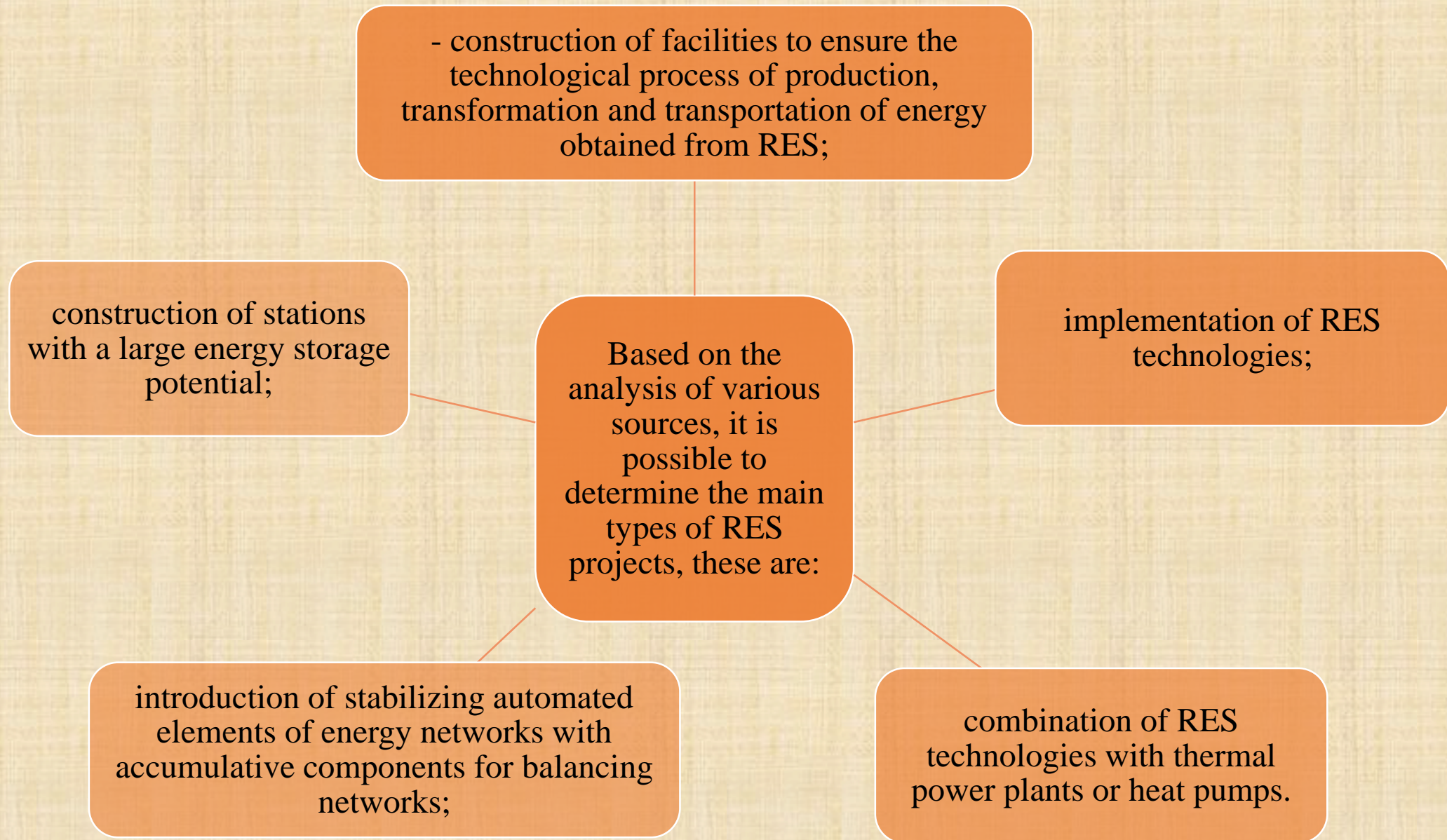
**The involvement of companies in the RES market, the construction of new power plants, the development of 5 GW of RES capacity (except for large-capacity hydroelectric power stations) and the launch of new hydroelectric power units are foreseen.**

Among the problems of the implementation of alternative energy in Ukraine, the dependence of capacity on natural conditions, high equipment costs, unfavorable investment climate, insufficient support from the state and an unstable regulatory and legal framework are highlighted. The factors of investment attractiveness, operational efficiency, payback periods and risk management are important for the development of wind energy. It was found that a significant part of the risks in this area is related to project stakeholders.

**"Green"** management as a component of RES project management contributes to reducing the negative impact on the environment, which involves additional costs, but can attract subsidies, increase the competitiveness of products and reduce environmental taxes.

It is "green" management that allows you to prevent negative consequences and avoid the deterioration of business indicators. It can turn this problem into an opportunity, namely:

1. Attract state and foreign subsidies for the development of environmental safety of production, as well as investments for development;
2. To increase the attractiveness and competitiveness of products, their recognition due to highlighting the activities of the organization aimed at environmental protection;
3. Reduce the costs of paying environmental taxes and fees, avoid fines.



The development of a stakeholder-oriented management strategy of construction enterprises is determined by the use of modern tools, which are formed from methods and models.

**In this context, I. Ansoff's point of view deserves attention, which highlights the following actions for the implementation of a complex model:**

- internal evaluation of the firm;
- assessment of external opportunities;
- formulation of goals and selection of tasks;
- diversification decisions and selection of diversification strategy;
- selection of competitive strategy;
- formation of components of diversification strategy and competitive strategy in the form of individual projects

## Methods of developing a stakeholder-oriented management strategy of construction enterprises.

The following main steps are proposed for the development of a stakeholder-oriented management strategy in construction

enterprises:

<b>Defining the mission, goals and strategy of the enterprise:</b>	<p>O. Vykhansky emphasizes the importance of analyzing the environment, formulating the mission and goals, choosing a strategy, implementing it and evaluating the results.</p>
<b>Dominants of the complex model (according to Shershnyova and Oborskaya):</b>	<p>Selection of the management concept, retrospective analysis, analysis of the external and internal environment.</p> <p>Diagnosis of the company's strengths and weaknesses.</p> <p>Forecast of environmental changes and competitiveness. Formulation of goals, selection of general and functional strategies.</p> <p>Development of development plans and programs.</p> <p>Formation of subsystems for support (organizational, financial, informational, social and psychological).</p> <p>Strategic control.</p>
<b>Organizational model of interaction with stakeholders:</b>	<p>At the strategic level, a team is formed to achieve long-term goals.</p> <p>At the tactical level, the system of resource distribution, personnel management and the organization of the process of intellectual activity are being built.</p>
<b>Implementation of the code of ethics as one of the mechanisms for implementing the strategy:</b>	<p>Rules of interaction with groups of stakeholders (customers, investors).</p> <p>Support of a positive image, corporate culture, reputation.</p> <p>Interaction between different groups of stakeholders through trademarks and corporate standards.</p>
<b>Corporate governance:</b>	<p>It includes forming and ensuring interaction with stakeholders through transparency of information, principles of corporate social responsibility, corporate culture and relevant mechanisms.</p>
<b>Corporate social responsibility:</b>	<p>It is a tool for improving well-being, protecting the environment and building relationships with stakeholders.</p>

Based on the evaluation of the factors that influence the formation and implementation of corporate governance to ensure interaction with stakeholders, it was established that JSC "Kyivmiskbud" has a moderately significant level of formation and implementation of corporate governance, the application of its tools to ensure interaction with stakeholders. This company focuses on factors that ensure the formation and implementation active management to ensure interaction with stakeholders, the importance of directions for the formation and implementation of information policy, the application of regulatory and institutional support is decreasing. A similar situation is observed at JSC "Zhytlobud-1 Trust". At JSC "KDBK", LLC Construction company "Miskzhitlobud", PJSC "Nerukhomist stolitshi", LLC "Zhytlobud-2", Ukrainian State Construction Corporation "UkrBud", Construction group "Fundament", the influence of corporate governance factors on ensuring interaction with stakeholders, compared to previous construction enterprises, is characterized by a decrease in their importance. This indicates a reduction in the level of influence of corporate management actors on ensuring interaction with interested parties.

### **SECTION III. Scientifically based recommendations and practice of implementation of social and environmental responsibility and partnership of stakeholders.**

The mechanism of formation of the enterprise's communication with stakeholders involves the construction of a communication environment where interaction between internal and external stakeholders takes place. It is based on the following elements:

The communication environment	is formed for the interaction of internal stakeholders (owners, management, staff) and external stakeholders (partners, suppliers, government bodies, customers, financial and credit organizations).
The main elements of the communication space:	Business processes of an enterprise are an internal coordination system that determines the nature and directions of communications necessary for the implementation of enterprise functions. Stakeholder business processes are an external system that interacts with the enterprise's business processes.
Types of communications	"Top down" - definition of the strategy and main directions of the enterprise's development by the higher management bodies. "Bottom up" - initiatives from personnel to improve products, processes and working conditions. "Horizontal" (cross-functional) - communications between different areas of activity aimed at improving strategic business processes.
The communication space	is a center in which the interests of stakeholders are coordinated and their value, as well as the value of the enterprise, is maximized.
Three sub-mechanisms:	Formation of communications "from top to bottom" - includes strategic planning and management of development directions. Forming communications "from the bottom up" - allows you to track initiatives and proposals from the staff. The formation of "horizontal" communication - ensures the relationship between functional units.
The overall result	is that an effective system of communication space facilitates the coordination of strategic goals between the enterprise and stakeholders, which, in turn, supports the sustainable development of the company in the context of the global economic system.

## **In the course of the research, we found out the problem of the attack and the modern realities of forming a road map of stakeholder interaction:**

Lack of understanding of the role of CSR and stakeholder engagement: Many companies and communities do not realize the value of corporate social responsibility (CSR) and engagement, which limits their participation.

Different expectations of stakeholders: The interests of business, the state, communities may conflict, which complicates cooperation.

Complexity of dialogue and involvement of stakeholders: Initiators often face low interest in dialogue, as everyone seeks benefits only for themselves.

Lack of monitoring mechanisms: A system of transparency and public monitoring should be implemented to track progress.

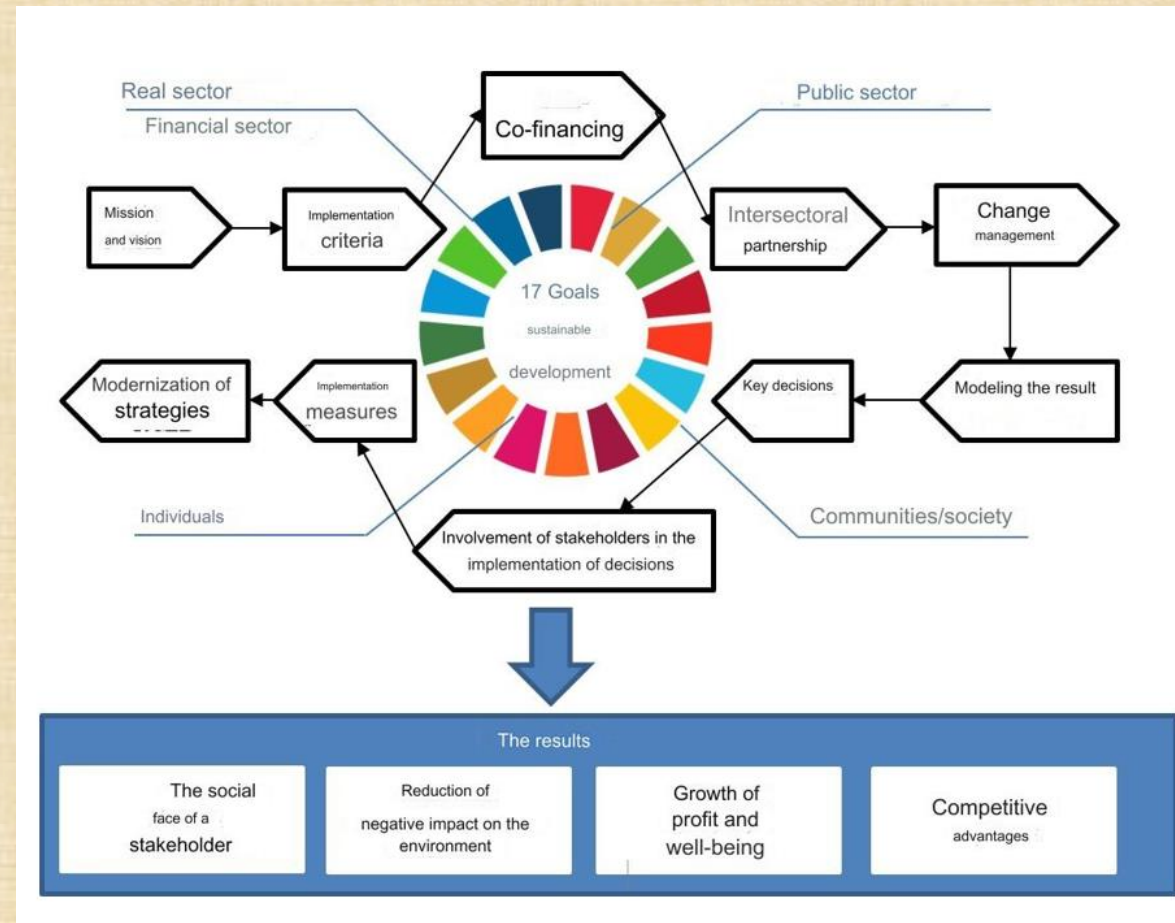
Lack of government support: Lack of adequate funding and incentives makes it difficult for businesses to participate in sustainable projects.

## Modern realities:

Growing interest in sustainable development among companies that are beginning to understand the importance of CSR.

Integration of international standards: In particular, anti-corruption norms, transparency standards and sustainable development goals until 2030.

Regional approach: It is more effective to implement projects at the regional level, adapting them to local characteristics.



Stakeholder interaction roadmap developed based on (Muthu, 2014; Subramaniam, 2009) and reflects various sectors of the economy to achieve.

Solidarity financing is an effective approach to the implementation of ecologically oriented projects aimed at reducing anthropogenic impact on the environment and supporting sustainable development. Under conditions of limited budgetary funding in Ukraine, institutions of socio-economic relations are actively developing alternative methods of financing for such projects. The most common forms of solidarity financing are:

1. **Crowdfunding and crowdfinancing** — allow you to attract micro-investments through online platforms. They contribute to the mobilization of society and business to support eco-projects, in particular in the field of renewable energy and environmental innovations.
2. **Participatory budget (participation budget)** is a part of the local budget that the community uses for its own initiatives. This stimulates the participation of citizens in decision-making and solving environmental problems.
3. **Grant financing and international credit programs** — allow attracting resources from international donors and financial organizations. Thanks to such financing, thousands of projects were implemented, in particular in the field of energy efficiency and health care.
4. **Public-Private Partnership (PPP)** — promotes the pooling of state and private sector resources for the implementation of socially significant projects, especially in areas such as waste management, water supply, energy efficiency and transport.

Each of these mechanisms ensures inclusiveness, transparency and social responsibility in decision-making, allowing stakeholders to pool resources to achieve long-term environmental, social and economic outcomes. All forms of solidarity financing create new opportunities for the activation of citizens, businesses and authorities for sustainable development.

This approach provides solutions to environmental problems, contributing to the development of "green" infrastructure and sustainable development of Ukraine, taking into account the needs of current and future generations.

**Thank you for your attention!**