



**National Media Strategy  
on decarbonisation to engage and raise awareness  
among industrial companies**

Astana, 2024

## CONTENT

Introduction .....	3
Goals and objectives of the national media strategy .....	4
Current situation and level of knowledge of decarbonisation issues at industrial companies .....	4
Key terms and considerations for understanding decarbonisation.....	7
Key areas of the national media strategy .....	13
Target audience and channels of information dissemination .....	15
Training material for use in the study of industrial decarbonisation .....	18
Presentation templates for PR specialists on industrial decarbonisation for use in the communication process .....	22
Expected results.....	23
Action Plan for the Implementation of the National Media Strategy .....	23

## Introduction

This national media strategy on decarbonisation to engage and raise awareness of industrial companies was prepared within the framework of the project "Further strengthening Kazakhstan's programming capacity, institutional support for expanding direct access to the Green Climate Fund (GCF) and developing a green finance system" (hereinafter referred to as the Project).

As you know, the key area in achieving the goals of low-carbon development in the industrial sector, which are set out in the Strategy for Achieving Carbon Neutrality of the Republic of Kazakhstan until 2060, approved by the Head of State Kassym-Jomart Tokayev in February 2023, is the introduction of technologies in the field of decarbonisation.

Along with the introduction of decarbonisation technologies into production processes, an important step is also to inform and convey to the public information about the results of the work carried out by industrial companies in this direction.

This strategy serves as a guideline for industrial company personnel responsible for informing and raising awareness.

This measure, among other things, will enable other industrial companies, where decarbonisation measures are just being planned, to get practical information and build their own action plan for low-carbon development.

As a result, industrial companies will receive various tools for working with decarbonisation materials based on the national media strategy and will generally increase their awareness in planning and implementing decarbonisation activities.

## Goals and objectives of the national media strategy

The main goal of the national media strategy is to raise awareness of all stakeholders on decarbonisation issues in industry. This strategy serves as a guideline for industrial company personnel responsible for informing and raising awareness.

In implementing the national media strategy, it is planned that responsible employees of industrial companies on media issues will improve their skills and competencies in the preparation of information materials on decarbonisation.

The National Media Strategy is designed to solve the following tasks:

- further formation of environmental culture in industrial companies and reduction of negative impact on the environment;
- the emergence and increase of high-quality content in the field of decarbonisation of the industrial sector in the information field;
- providing the opportunity to conduct seminars and trainings on decarbonisation at industrial enterprises on their own based on the acquired skills and materials.
- replication of the experience of foreign industrial companies for Kazakhstani enterprises aimed at ensuring an understanding of current trends in the development of decarbonisation policy in the world.

Thus, when all the above tasks are achieved, more and more materials will appear in the public information space about the experience of industrial companies in the Republic of Kazakhstan in the implementation of measures in the field of decarbonisation, based on practical implementation.

## Current situation and level of knowledge of decarbonisation issues at industrial companies

This section of the national media strategy is the basis for building key areas of the national media strategy on decarbonisation to engage and raise awareness among industrial companies.

It should also be noted that based on the current level of knowledge among specialists of industrial companies, it is possible to effectively determine a further action plan and the necessary information tools for the preparation and submission of information in the field of decarbonisation.

To determine the current situation and the level of knowledge on decarbonisation issues, a survey was conducted among the largest industrial companies (the list of companies was previously agreed with the IGTIP before the survey).

28 companies took part in the survey, among which more than half or 59 % answered that they know decarbonisation issues quite well. In the following figure, you can see the current level of knowledge in this area.

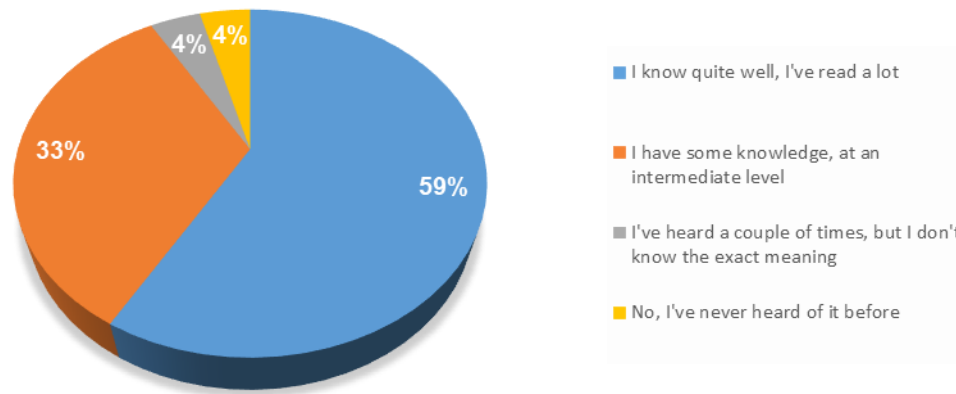


Figure 1. The current level of knowledge of industrial companies in the field of decarbonisation.

To the question "Is your company engaged in decarbonisation issues?" about 62% of respondents answered that their company is engaged in the implementation of decarbonisation measures (the results of the answers in Fig. 2).

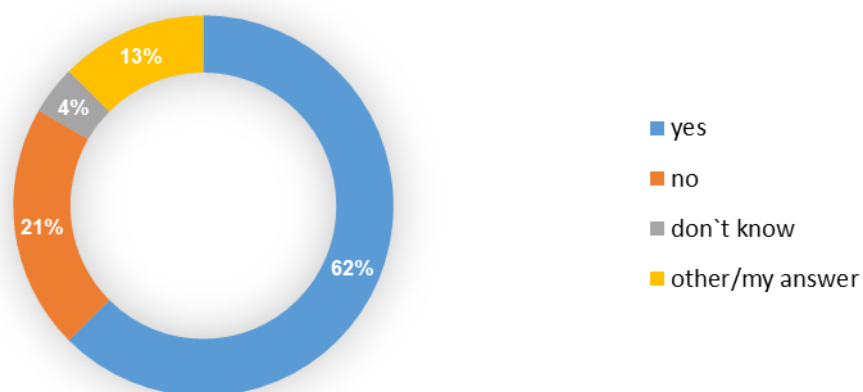


Figure 2. The level of awareness of employees about the implementation of decarbonisation measures at enterprises.

In the above figure, the "Other/My Answer" category of answers indicates the planning or intention of industrial companies to implement decarbonisation policies.

Most survey participants believe that an important step for the large-scale introduction of decarbonisation technologies at industrial enterprises is the introduction of sufficiently effective and innovative technologies, the availability of responsible and qualified employees at enterprises, the availability of funding for the implementation of decarbonisation measures and the creation of a monitoring system for the implementation of measures.

The opinions of representatives of industrial enterprises on this aspect can be seen in Fig. 3

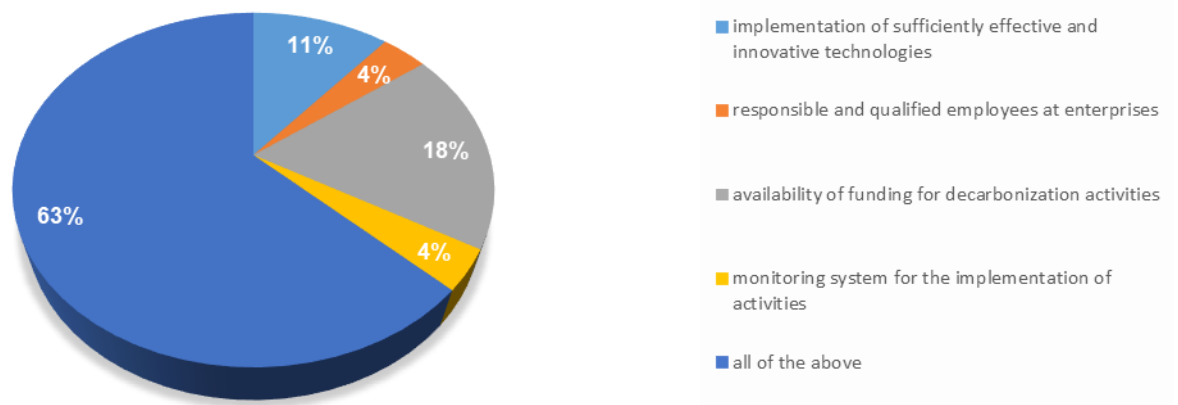


Figure 3. Important steps for the large-scale implementation of decarbonisation technologies at industrial enterprises.

In terms of determining the level of current knowledge in the field of green finance, 54% of respondents answered that they are familiar with these issues only at the level of terminology and names of organizations (Fig. 4).



Figure 4. Level of knowledge in the field of green finance.

Therefore, in the future, when implementing the national media strategy, much attention should be paid to the issues of informing on attracting green finance for the introduction of decarbonisation technologies, including the existing GCF tools.

The results of the survey conducted among industrial companies show the current level of knowledge of the basic issues in the field of decarbonisation and further main directions of the national media strategy, i.e. where the main attention should be directed.

In addition, in the course of preparing the national media strategy, an analysis of open sources (official websites) of the 50 largest industrial companies was carried out.

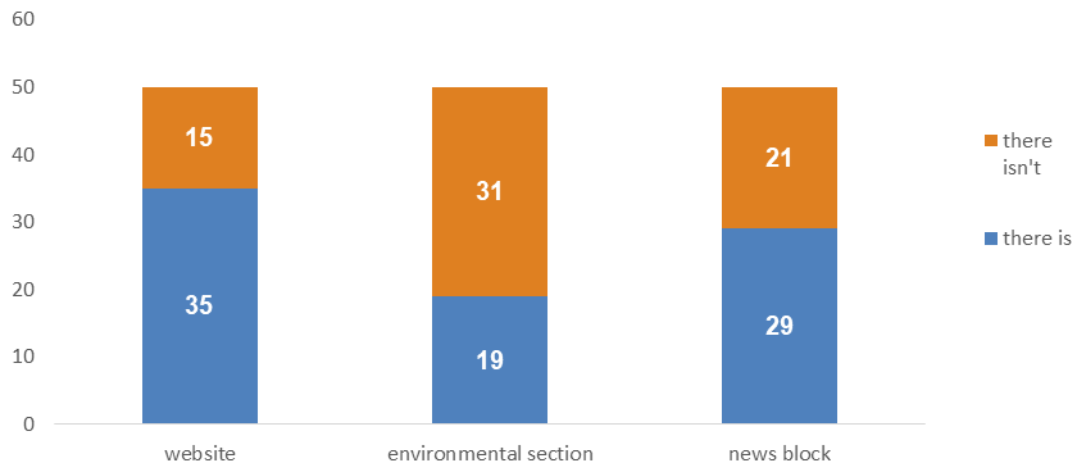


Figure 5. Results of the analysis of open sources (official websites) of industrial companies.

According to Fig. 5 among the 50 largest industrial companies:

- only 35 companies have their own website;
- Among the 35 companies that have their own website:
  - Only 19 companies have a section on the environment;
  - 6 companies do not have a news block.

The data based on the results of the analysis show that even large industrial companies do not have their own websites. Moreover, even if they have their own websites, not all companies pay attention to the preparation and replication of environmental protection materials, including the use of decarbonisation technologies. Most likely, this situation will change in a positive direction with the implementation of the national media strategy for the decarbonisation of industry.

### Key terms and considerations for understanding decarbonisation

This section of the national media strategy is aimed at raising basic awareness among stakeholders on decarbonisation issues.

The information was prepared taking into account the results of a survey conducted among industrial companies.

### First steps in decarbonisation

At the beginning of the 21st century, the possible threat of global climate change caused by human activities becomes obvious. Because of the skyrocketing evidence for global warming, the Intergovernmental Panel on Climate Change's Sixth Assessment Report has been dubbed a "code red for humanity."

The report emphasizes that in order to achieve the main goal of the Paris Agreement – to keep the increase in global temperature in the surface layer of the atmosphere at

1.5°C relative to the pre-industrial period – the transformational transition of the world's economies to the path of low-carbon development must begin today, integrating climate change issues into the sustainable development of national economies.

In recent years, the words "decarbonisation", "low-carbon development", "carbon neutrality" can be heard more and more often not only during scientific conferences, but also from politicians, officials and businessmen.

Many countries, national and multinational companies/corporations have committed to achieving carbon neutrality by 2050. Achieving this goal is possible only with the rapid decarbonisation of key sectors of the economy and ensuring a sufficient level of carbon dioxide absorption from the atmosphere.

Governments and businesses are setting decarbonisation goals that were unthinkable three or four years ago. The UN Race to Net Zero campaign has 11,309 non-state actors, including 8,307 companies, 595 financial institutions, 1,136 cities, 52 states and regions, 1,125 educational institutions and 65 health institutions (as of September 2022). committed to carbon neutrality. As of May 2021, more than 120 countries, 800 cities, 100 regions, and 2300 companies have announced their net-zero goals – an overall balance between greenhouse gas emissions and carbon removal from the atmosphere.

From year to year, the number of organizations claiming to be carbon neutral is increasing. They recognize that carbon neutrality can play a key role in their sustainability, corporate and social responsibility strategies, allowing them to contribute to the fight against global climate change. Companies also understand that individuals and corporate customers prefer to buy goods and services from environmentally conscious suppliers.

At the same time, it cannot be ruled out that for a number of companies, the transition to carbon neutrality may weaken their economic development. To a large extent, this is due to the degree of their readiness to competently build a strategy for the transition to low-carbon development. Quite a few companies are poorly prepared for a new type of activity, as they do not have the necessary amount of data and analytical tools to make informed decisions.

## **Paris Agreement**

The Paris Agreement was adopted at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris. The document came into force on November 4, 2016. At the moment, 189 countries have joined the Paris Agreement. The main difference between this UNFCCC treaty is that the document does not divide the world into two groups: countries with climate obligations and countries without climate obligations, as was the case in the Kyoto Protocol.

The Paris Agreement aims to "substantially reduce global greenhouse gas (GHG) emissions and limit global temperature rise this century to 20°C, while seeking means to limit growth to 1.5°C. To achieve the goal, global GHG emissions must peak as



soon as possible in order to build a climate-neutral world by the middle of the 21st century.

The document provides for the adoption by the Parties to the Agreement of voluntary commitments/plans/programs to reduce GHG emissions, in the terminology of the Paris Agreement, as determined at the national level of contributions. The tool also includes information on planned sustainable development actions to adapt to a changing climate.

Countries in need of financial and technological support, as well as capacity-building to meet their commitments, can count on international assistance. First of all, assistance will be provided to the poorest countries through financing measures for adaptation to climate change and the transition to renewable energy sources.

In an article by UN Secretary-General António Guterres, published on the eve of the 5th anniversary of the Paris Agreement, it is said that this agreement gave rise to a movement for carbon neutrality. By the end of 2022, countries that account for about 70 percent of the global economy had committed to net-zero emissions by 2050.

Scientists believe that to combat rapid warming on the planet, governments of all countries must reduce coal, oil and gas production by an average of six percent per year. But, unfortunately, as Mr. Guterres noted, many countries plan to increase fossil fuel production by an average of about two percent annually.

The UN Secretary-General calls for abandoning such plans and, after the pandemic, jointly confronting climate change with new approaches to development. He proposes to act on three fronts:

- By 2050, form a truly global coalition for carbon neutrality;
- Align the international financial system with the Paris Agreement;
- Find innovative solutions to adapt to the impacts of climate change

Many countries that have joined the Paris Agreement have either already established carbon trading systems or plan to do so in the near future. A growing number of countries are setting targets for the share of renewable energy sources or low-carbon fuels in the national energy mix.

Thus, at the level of state regulation, various incentives for decarbonisation are gradually being formed. Reducing GHG emissions is becoming an important task not only for governments, but also for businesses in all sectors of the economy.

### **Building understanding on decarbonisation**

Decarbonisation is the process of reducing the amount of carbon, mainly carbon dioxide (CO<sub>2</sub>) and methane, emitted into the atmosphere. The main task of decarbonisation is the transition to a global low-carbon economy, which will achieve the goal of the Paris Agreement.

In other words, decarbonisation refers to the actions of states, corporations, companies, etc., to reduce their carbon footprint, primarily greenhouse gas emissions. Very often, these actions are understood as part of a broader "greening" agenda or an

even broader agenda to promote ESG principles, which requires radical changes in production processes and investments. The decarbonisation process involves reducing emissions of all greenhouse gases (carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, nitrogen trifluoride, perfluorocarbons and hydrofluorocarbons).

Decarbonisation plays a key role in the global race to achieve carbon neutrality as part of the implementation of the Paris Agreement. It should be noted that the current decarbonisation policies and measures are clearly insufficient, as the average global level of CO<sub>2</sub> concentrations in the atmosphere is constantly increasing, reaching a new high in 2021. The world continues to produce carbon much faster than nature can absorb it, leading to a rapid warming of the Earth due to the greenhouse effect.

From a macroeconomic perspective, decarbonisation can be seen as a process that can involve four main components: switching to low-carbon/other fuels, energy efficiency, electrification, and carbon sequestration. That is, the decarbonisation of a sector, company, enterprise, etc. can take place in two main directions:

- Reduction of anthropogenic GHG emissions;
- Increased carbon sinks and carbon sequestration.

The main sources of greenhouse gas emissions are energy, industry, transport, buildings, and agriculture. When developing decarbonisation plans/programs, the greatest attention should be paid to reducing GHG emissions associated with the combustion of fossil fuels.

The transition from fuels such as coal, natural gas or oil to carbon-free and renewable energy sources must happen as quickly as possible. An important role in the decarbonisation process is given to measures for energy efficiency and electrification of as many sectors as possible. It should be noted that the decrease in energy demand as a result of improved energy efficiency will be offset by increased electrification. By 2050, electricity demand is expected to double from today.

The second, equally important aspect of decarbonisation is to increase carbon sinks through tree planting, pasture conservation, improved farming and forestry practices, and the disposal of carbon dioxide emissions.

### **Main approaches and directions for technologies in the field of decarbonisation**

Decarbonisation includes a variety of approaches and areas aimed at reducing GHG emissions. Here are some of the main approaches and directions of decarbonisation in companies:

- Use of clean energy sources: Transition from fossil fuels (coal, oil, gas) to low-carbon energy sources such as solar, wind, hydropower, and nuclear power.
- Energy efficiency: Implementation of technologies and methods that reduce energy consumption and improve the energy efficiency of production and technological processes.
- Electrification: Replacing traditional sources of electricity with electricity in a variety of industries, including transportation, manufacturing, and heating.

- **Waste management:** Developing waste treatment and disposal practices to reduce methane (greenhouse gas) emissions from landfills.
- **Sustainable sourcing:** Developing strategies to ensure companies have environmentally and socially responsible suppliers and materials.
- **Innovation and technological solutions:** Development of new technologies that reduce GHG emissions in various areas, from production to transport.
- **CO2 capture and sequestration:** The use of technologies to capture and absorb CO2 from the atmosphere

Depending on the specific industry, companies can choose a combination of these approaches and complement them based on their goals, capabilities, and constraints.

### **Green finance for decarbonisation activities, including GCF tools**

Climate finance and carbon finance are part of a more general concept – "green" finance. Climate finance refers to national and international financial flows from public, private and alternative sources aimed at supporting mitigation (reducing emissions and increasing GHG sequestration) and adaptation actions. Carbon financing refers to operations related to GHG emissions trading and carbon taxes.

For the first time, the idea of climate finance was voiced within the framework of the UNFCCC. Under the "common but differentiated responsibilities" (Article 3.1), industrialized countries (Annex 2 to the UNFCCC) are obliged to provide financial assistance to developing countries. In 2009, the 15th Conference of the Parties to the UNFCCC determined the total amount of funding to be transferred to developing countries at US\$ 100 billion per year. This commitment was further included in the Paris Agreement (2015).

Currently, the financial mechanisms of the UNFCCC are the Global Environment Facility (GEF) and the Green Climate Fund (GCF). In addition, the UNFCCC established the Special Climate Change Fund, the Least Developed Countries Fund, and the Adaptation Fund.

The Global Environment Facility was established in 1991 as a partnership between the World Bank, UNEP and UNDP. Between 1991 and 2014, the GEF provided grants worth \$13.5 billion and attracted \$65 billion in co-financing for projects in developing countries.

The Green Climate Fund (GCF), established in 2011 by the UNFCCC, is the most important provider of climate finance in the world. The fund finances mitigation (reducing emissions and increasing GHG sequestration) and adaptation projects/programs. The \$100 billion that developed countries are required to commit annually to combat climate change in developing countries under the Paris Agreement will be transferred to the GCF. As of August 2022, contributions from developed countries to the Fund amounted to \$10.8 billion.

GCF focuses on investing in the following strategic areas:

- energy generation and access;

- Transport;
- buildings, cities;
- industry and equipment;
- forest and land use;
- health, food and water security;
- livelihoods of people and communities;
- ecosystems and ecosystem services;
- infrastructure and environment in human settlements.

The Fund's direct access mechanism allows national organizations to receive funding directly, and not only through international intermediaries. The FCF has also established a dedicated Private Sector Fund (PSF) to encourage private investment in mitigation and adaptation projects.

Depending on the total budget of the projects, there are 4 categories of projects: ultra-small and micro (XS-Micro) - 0-10 million dollars. United States; S-small - 10-50 million dollars. United States; M-medium - 50-250 million dollars. United States; L-large - over \$250 million. United States.

The GCF uses part of its funds to mobilize financial flows from the private sector into attractive and lucrative climate-smart investment opportunities. GCF structures its financial support through a flexible mix of grants, concessional debt, guarantees, or equity instruments to leverage blended finance and attract private investment to combat climate change in developing countries. This flexibility allows the Fund to create new financial structures to support the creation of a green market.

There are a number of economic and financial instruments that can be used by private and public investors to support mitigation and adaptation projects. There are five main categories of such instruments:

- Financial incentives: revenue-boosting mechanisms such as feed-in tariffs and subsidies, implementable certificates, tax breaks, clean energy subsidies, etc.
- Risk management: guarantees that reduce the risks associated with investments in low-carbon projects/programs.
- Grants: Cash transfers and in-kind support for goods and services.
- Preferential loan: financing on better terms than on the market, such as lower interest rates and longer loan terms.

Mitigation projects are often financed through a combination of equity and credit instruments, and are also supported by a combination of policy incentives. Adaptation projects are often supported by grants and low-cost loans.

## Key areas of the national media strategy

The key areas of the national media strategy for decarbonisation to engage and raise awareness of industrial companies are prepared based on an analysis of the current level of knowledge of specialists from industrial enterprises in Kazakhstan.

The following table provides information on the proposed directions of the national media strategy, as well as a brief explanation of the directions and the main steps for their implementation.

Table 1. Directions of the national media strategy.

№	Direction	Brief explanation	Basic Steps
1	Information support for decarbonisation policy	This direction involves various formats of events/content and their practicality in informing target groups about the decarbonisation of industry	Description of the main areas of information and their target groups for each block
2	Methodological support in promoting decarbonisation issues	Methodological support describes a list of tools in the form of key topics with explanations for the preparation and dissemination of materials on decarbonisation in industry	Base (key topics) for the preparation of materials

3	<p>Training and regular improvement of the skills of responsible specialists on decarbonisation issues</p>	<p>An important area in the implementation of the national media strategy is the regular conduct of training events in order to provide up-to-date information in the field of industrial decarbonisation, incl. existing opportunities for green financing of the GCF, as well as accreditation issues in the GCF</p>	<p>Organization and conduct of regular seminars and trainings, including in the regions</p>
4	<p>Incentivizing and encouraging leaders to advance decarbonisation policies</p>	<p>As part of the national media strategy, it is proposed to consider the possibility of introducing various elements of incentives for specialists of industrial enterprises who produce good materials on the introduction of decarbonisation technologies to further stimulate other companies</p>	<p>Conducting various competitions and green ratings among media specialists of companies</p>

5	Monitoring of results and continuous improvement of media policy on decarbonisation	In the course of implementing the national media strategy, it is recommended to conduct interim monitoring of the results and, if necessary, update the media strategy taking into account trends in the field of decarbonisation in the world	Annual monitoring of companies' awareness through analysis and surveys
---	---	--	--

To implement the above directions of the national media strategy, an action plan has been prepared for the content part (Table 2).

### Target audience and channels of information dissemination

The main target audience that will use the national media strategy consists of two groups:

- The first group is responsible employees of industrial companies on media issues (press secretaries, PR specialists, etc.);
- The second group consists of specialists from various news agencies, portals and media channels engaged in the publication of materials in the field of ecology, climate change and sustainable development.

It should be noted that based on the skills and competence of the above groups, the quality of information material and the level of increasing the audience's interest in decarbonisation issues depends. It is also important to use the channels of information dissemination correctly.

An earlier survey of industrial companies showed that the survey participants give great preference in using or obtaining the necessary information to online information platforms (49% of respondents) and social networks (40% of respondents). These results can be found in Fig. 6.

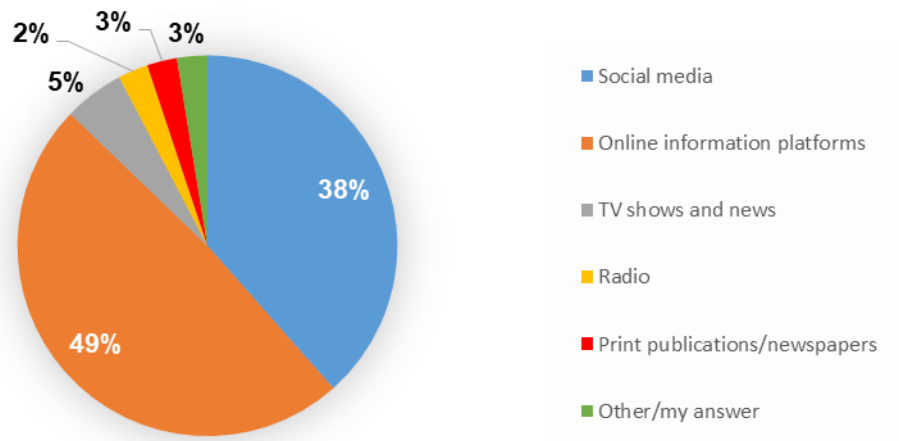


Figure 6. Survey results on preferences in information channels.

In terms of activity in social networks, 41% of respondents answered that they spend about an hour a day (Fig. 7).

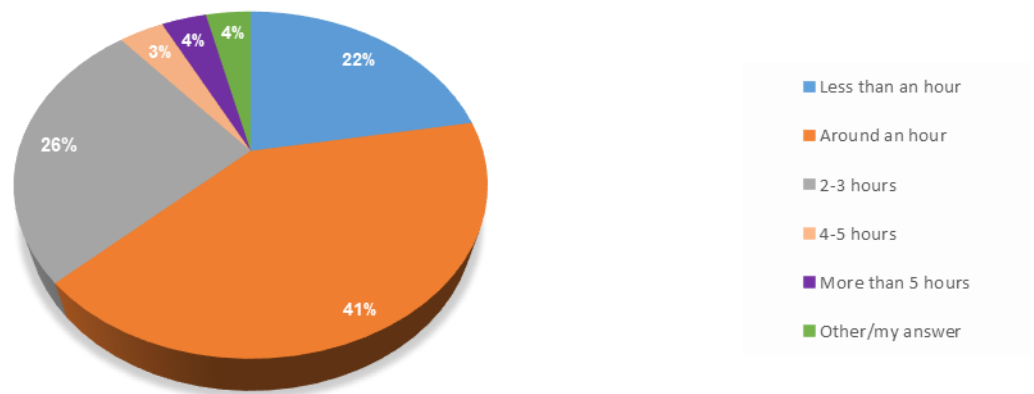


Figure 7. Activity in social networks.

The distribution of opinion according to interests in traditional mass media can be seen in Fig. 8.



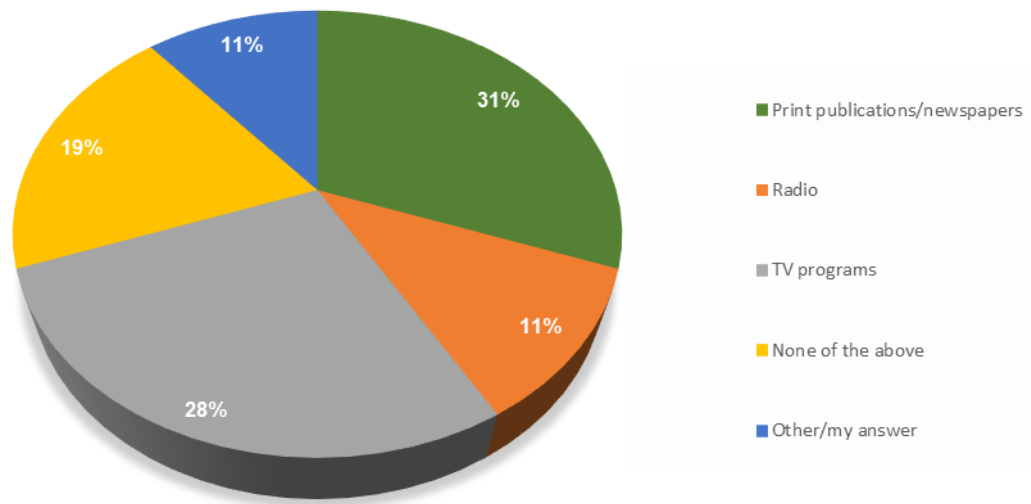


Figure 8. Interest in traditional media.

As the data show, print media/newspapers are in the first place, and TV programs are in second place. These two positions are the majority of votes (59%), so in the future these tools for disseminating information among traditional types of communication should also be taken into account.

In addition, when asked "Where would you like to receive more information about decarbonisation?" most of the survey participants expressed a desire to receive information in online information portals (44%), followed by social networks (37%). The distribution of preferences is shown in Fig. 9.

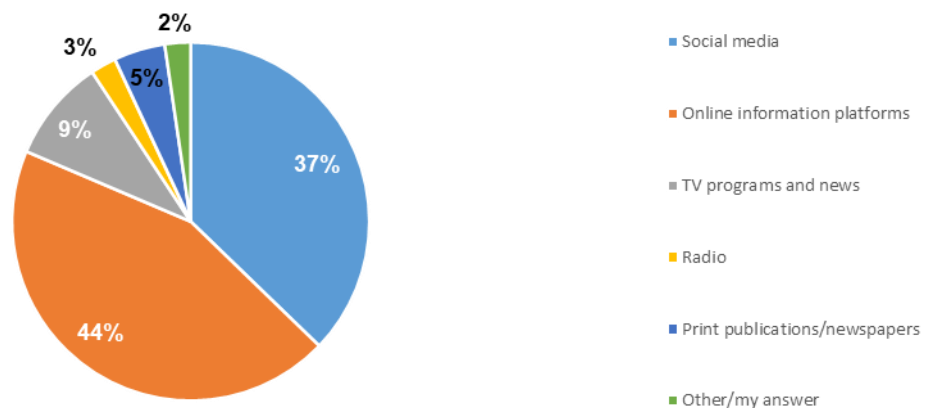


Figure 9. Survey results on preferences in information channels.

In terms of preference in existing online platforms for content, design and timeliness of news, survey participants noted zakon.kz, Tengrinews and Kazinform among

online platforms, Instagram and Facebook among social networks. Telegram channels and YouTube were also noted.

Thus, in order to effectively present information on decarbonisation issues, the main channels of information dissemination need to consider social networks and information portals.

## **Training material for use in the study of industrial decarbonisation**

**The purpose of the training material:** to form an understanding of stakeholders on the importance of decarbonisation of industry in Kazakhstan, as well as to raise awareness of key sources of greenhouse gas emissions in the industrial sector.

**As a result of studying the educational material, participants will be able to:**

- Understand the basic aspects of decarbonisation in the industrial sector.
- To identify the main sources of greenhouse gas emissions in the industry of Kazakhstan.
- Assess and interpret target indicators and indicators of decarbonisation in the industry.
- Identify the most significant climate risks for companies in the sector.
- Analyze and compare different measures and technological solutions for decarbonisation in the short and long term.

**Organizational forms of educational material:**

- Lectures: Reporting on decarbonisation, emission sources and targets.
- Group discussions: Discussion of climate risks and their prioritization for companies in the sector.
- Case studies and examples: Analysis of successful practices of companies implementing decarbonisation projects.
- Interactive surveys: Assess participants' understanding and readiness to implement decarbonisation.

**Content of the educational material:**

Information and theoretical part:

1. Introduction to Decarbonisation: The Importance of Reducing Greenhouse Gas Emissions in the Context of Climate Change and the Sustainability of Industrial Sectors.
2. Major Emission Sources: An overview of the stages of extraction, processing and transportation that affect carbon emissions.
3. Targets and indicators: Presentation of decarbonisation indicators, measurement methods and their importance for tracking success.

Practical part:

1. Climate risk assessment: Working in groups to identify and prioritize the most significant climate risks for companies in the industrial sector.
2. Analysis of activities and technologies: Discussion and comparison of various technological and strategic solutions to reduce emissions in the short and long term.
3. Developing decarbonisation plans: Creating practical action plans for the implementation of activities and technologies in companies, taking into account climate risks and unique characteristics.

To detail the content of the educational material, it is necessary to emphasize the following key aspects.

### **1) Conducting a basic lecture on the topic "The concept of decarbonisation and climate challenges in industry".**

The lecture will present up-to-date data on the impact of the industrial sector on the climate and greenhouse gases. Participants will learn about the main sources of emissions associated with different stages of production, as well as about climate risks that can affect the stability of the business.

#### Part 1: Introduction to decarbonisation and its significance

- Definition of decarbonisation: An explanation of decarbonisation as the process of reducing greenhouse gas emissions (mainly carbon dioxide) to mitigate climate change and achieve sustainable development.
- The Importance of Decarbonisation in the Industrial Sector: A discussion of the role of industry in climate change, the main sources of greenhouse gas emissions, and the urgency of the need for action.

#### Part 2: Climate Challenges and Their Impact on the Industry

- Major Climate Challenges: An overview of key climate challenges facing industry, including changing weather patterns, environmental constraints, and resource instability.
- Examples of companies and challenges: Provide real-world examples of companies facing climate challenges.

#### Part 3: Decarbonisation goals in the industrial sector

- Key goals of decarbonisation: Discussion of the main goals of decarbonisation for industrial sectors, such as reducing energy consumption, transitioning to clean energy, and optimizing processes.
- Examples of successful decarbonisation goals: Presenting examples of companies that have successfully set and achieved their decarbonisation goals, including reducing emissions and improving efficiency.

#### Part 4: Sources of decarbonisation financing

- Investment and financing: Consider various sources of financing for the implementation of decarbonisation measures, including own investments, government support, subsidies, and private investors.
- Green Bonds and standards: An overview of the concept of green bonds and other financing mechanisms focused on environmentally sustainable projects. Mention of standards and certifications to support decarbonisation efforts.

## **2) Organization of group work "Identification of climate risks and their prioritization".**

The group work "Identifying Climate Risks and Prioritizing Them" is an important part of the training module on industrial decarbonisation. Its goal is to contribute to the analysis and understanding of the most significant climate risks faced by this industry, as well as the development of a strategy for priority actions to minimize them. Within the framework of this group work, the following stages and questions will be considered:

### Stage 1: Identification of climate risks

At this stage, participants must identify a wide range of possible climate risks that may affect the industry of Kazakhstan. This may include:

- Changing weather patterns: What extreme weather events (floods, droughts) can affect operations and infrastructure?
- Changing water availability: How can changes in water levels and water availability affect industrial processes?
- Environmental restrictions: How can changes in environmental regulations and legislation affect industrial activities?
- Shifts in demand for resources: How can changes in the global economy and consumer demand affect the market for your products?

### Stage 2: Risk Assessment

After identifying risks, participants should assess their significance in terms of their impact on business and the environment. Discussion questions may include:

- What is the probability of each of the risks?
- What could be the potential impact on the company's operations, security, and reputation?
- Which of the risks can have the greatest impact on greenhouse gas emissions?
- Which risks are long-term and which may manifest themselves in the coming years?

### Stage 3: Risk Prioritization and Strategy Development

At this stage, participants select the most significant and likely risks and determine priority measures to manage them. Issues for discussion:

- Which of the identified risks should be considered the most critical for the company?
- What actions and measures can reduce the impact of these risks on operations?
- What innovative technologies and approaches can help minimize these risks?
- What is the optimal sequence and timing for the implementation of these measures?

#### Stage 4: Presentation and Discussion of Results

Each group presents the results of their work, discusses them with other participants of the training event and receives feedback. This creates a platform for the exchange of ideas and best practices on climate risk management in industry.

The group work "Identifying Climate Risks and Prioritizing Them" contributes to a deeper understanding of what climate challenges may affect their companies and how to develop the most effective strategies for decarbonisation and sustainable development.

### **3) Holding a technical lecture on the topic "Decarbonisation: technologies and ways to reduce emissions".**

This lecture will provide an in-depth overview of the most effective and applicable technologies for decarbonisation. Important attention should be paid to both short-term measures and long-term strategies that will help the industry reduce its carbon footprint.

- Improving energy efficiency and modernizing production
- Use of renewable energy sources (RES)

#### Part 1: Technologies to reduce emissions

- Clean energy and energy efficiency: an overview of the role of clean energy sources (wind, solar, hydro) and energy efficiency in reducing emissions in mining and processing processes.
- Full electrification of heat needs: transition from gas to renewable electricity
- Transition to sustainable fuels (biofuels or synthetic fuels)
- Switching to alternative modes of transport
- Carbon capture and sequestration: presentation of carbon sequestration techniques and the use of carbonation processes to convert emissions into mineral forms.
- Geological storage technologies: an overview of the possibilities of geological storage of carbon dioxide and the technologies used for safe storage.

#### Part 2: Innovative approaches to decarbonisation

- Use of hydrogen: Discussion of the role of hydrogen as a clean energy carrier and its potential to replace hydrocarbon fuels.

- Electrolysis technologies and the use of renewable energy: Consideration of Electrolysis technologies for the production of hydrogen from water using renewable energy.
- Artificial intelligence and automation: An overview of how AI and automation technologies can improve the efficiency of mining and processing processes while minimizing emissions.

#### Part 3: Real-world application of technology

- Company examples: Presentation of practical examples of companies in industry that are successfully implementing technologies in the field of decarbonisation.
- Challenges and benefits: Consider the challenges that companies may face in adopting new technologies, and show the potential economic and environmental benefits.

#### Part 4: Long-term decarbonisation strategy

- Integration and planning: Discuss the importance of creating long-term decarbonisation strategies that include the phased integration of new technologies and approaches.
- Cooperation and exchange of experience: Emphasizing the role of exchange of experience between companies, industrial partners and public authorities for successful decarbonisation.

#### 4) Wrap-up discussion and action plan

The training material ends with a discussion of the results of the survey and the development of an action plan. Participants exchange ideas on what steps each company can take to improve its environmental performance and long-term sustainability.

This training material provides participants with a broad understanding of the climate challenges associated with industry. It also allows participants to assess the current situation in their companies, exchange experiences, and build a knowledge base to make sustainable decisions in the future.

### **Presentation templates for PR specialists on industrial decarbonisation for use in the communication process**

Presentation templates are prepared for further use by PR specialists in their work when speaking or discussing the issues of decarbonisation of industry at various information events.

It should be noted that the results of a survey of industrial companies were taken into account when developing presentation materials. As a result, presentation templates were prepared on the following topics:

- Presentation №1 "Decarbonisation in the Oil and Gas Industry";

- Presentation №2 "Achieving decarbonisation in the mining industry";
- Presentation №3 "Fundamentals of decarbonisation of the chemical industry";
- Presentation №4 "Implementation of decarbonisation policy in the metallurgical industry".

All presentations can be viewed and downloaded at the following link:  
<https://cloud.mail.ru/public/3CW8/aaHnSuUMU>

### **Expected results**

As a result of the implementation of the national media strategy, the following expected results can be identified:

- Increase in content on information resources on the decarbonisation of the industrial sector of Kazakhstan;
- Raising awareness of employees in the field of media in industrial companies on decarbonisation issues;
- The emergence of various new approaches and visions among media professionals in the dissemination of information in the field of decarbonisation;
- Formation of industrial companies' own media strategy or plans to highlight the results of the implementation of decarbonisation measures.

Thus, the emergence of a national media strategy will give an additional impetus to the promotion of decarbonisation policy in our country.

### **Action plan for the implementation of the national media strategy**

To achieve the above results, the following preliminary action plan for the implementation of the national media strategy in the field of decarbonisation has been prepared (Table 2).

When forming the plan, the recommendations of the survey participants among industrial companies were also taken into account.

Table 2. Action Plan for the Content Part of the National Media Strategy

<b>№</b>	<b>Measure</b>	<b>Completion Form</b>	<b>Deadline</b>	<b>Responsible</b>
1	Preparation and distribution of a press release on the developed media strategy for decarbonisation	Press release		
2	Placement on official Internet resources and sending to industrial companies for use in further work	Placement on official internet resources		
3	Identification of responsible employees in industrial companies on media issues	Approval of the responsible employee		
4	Formation of their own media strategy for industrial companies, taking into account decarbonisation issues	Media strategies of companies		
5	Organization of regular trainings for employees of industrial companies on current aspects and trends in the development of decarbonisation policies (technologies, regulatory framework, green financing in the GCF, etc.)	Trainings		
6	Conducting regular trainings and seminars on decarbonisation for journalists	Trainings and seminars		
7	Training of responsible and competent speakers on decarbonisation issues at industrial companies	Speakers		



8	Wide awareness and dissemination of decarbonisation topics among society and the population by industrial companies	Informing		
9	Holding an annual competition among industrial companies to encourage leaders in the implementation of decarbonisation measures	Contest		
10	Holding thematic competitions among journalists to write materials on decarbonisation issues for replication among the general public	Contest		
11	Organization of press tours to industrial enterprises where decarbonisation measures have been implemented	Press Tour		
12	Conducting thematic lectures and presentations on decarbonisation issues for future journalists at universities	Lectures in universities		
13	Development of video materials on decarbonisation for novice specialists of industrial companies	Video materials		
14	A summary of all regulatory and strategic documents related to the decarbonisation policy and further posting on the official internet resource	Set of documents		
15	Creation of the YouTube channel "Decarbonisation in Kazakhstan" and posting various videos	YouTube channel		

16	Creation of the telegram channel "Decarbonisation in Kazakhstan" and placement of various information materials	Telegram channel		
17	Preparation and distribution of the brochure "Green Financing of the GCF and its Accreditation Procedures" among all participants of the national media strategy			
18	Monitoring the results of the achievement of the national media strategy	Information		