



Yandex Sustainability Progress Report 2023

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Note on Corporate Restructuring

This report covers the calendar year of 2023 and is compiled for the organizational perimeter at the time under Yandex N.V., the parent company of Yandex Group, focusing on the Russia-related businesses being divested.

In November 2022 the company announced that it had launched a strategic process to restructure the group’s ownership and governance in light of the unprecedented and exceptional geopolitical environment, with a view to securing the sustainable development and success of its geographically diverse portfolio of businesses over the longer term. The company undertook an extensive process to identify and assess potential alternatives and ultimately determined to focus on the sale of 100% of the Russian businesses as the structure best suited to serve the interests of all stakeholders, including the Class A Shareholders.

In February 2024 the company announced a binding agreement with a purchaser consortium to sell all of its businesses in Russia and certain international markets, securing shareholder approval for the transaction in March 2024. Following the completion of the transaction the company will focus on developing a **portfolio** of AI-related technology assets.

On May 17, 2024, the company announced the **successful initial closing** of the divestment. The second and final closing of the divestment is expected to occur in July, shortly after this report has been published, at which time the company will sell its remaining interest and therefore sever its connections with Russia.

Future sustainability disclosures with respect to the divested businesses will be published by IPJSC Yandex. YNV intends to produce annual sustainability statements for its retained businesses. An inaugural statement for 2023 with respect to YNV and the retained businesses can be accessed [here](#).

Details of the transaction are provided in the [Shareholder Circular](#)

Summarized in the [Restructuring Presentation](#)

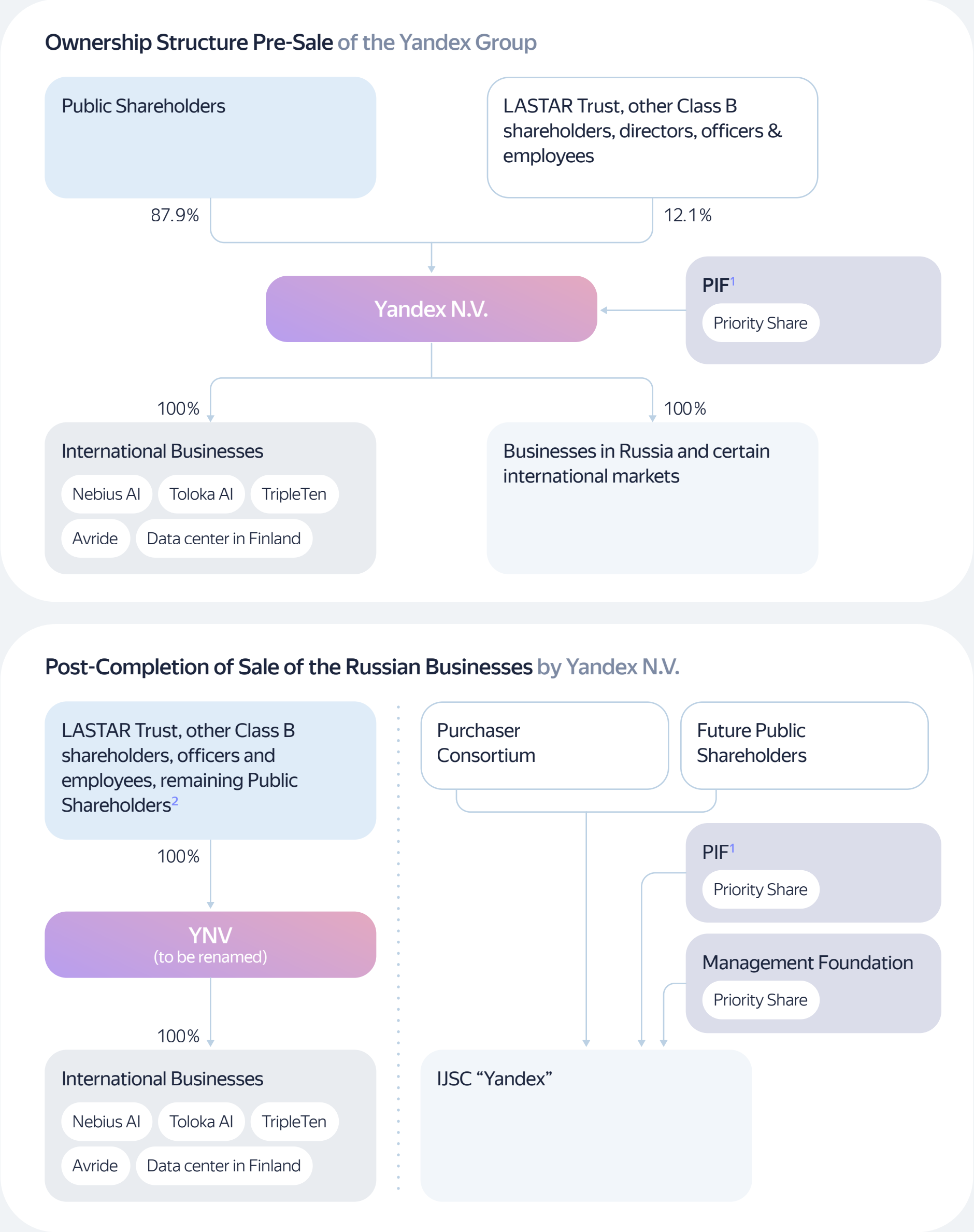
Divestment Milestones

- November 25, 2022**
Announcement of the intention to restructure the group’s ownership and governance.
- February 5, 2024**
Announcement of binding agreement to divest Russia-based businesses.
- March 7, 2024**
Receipt of shareholder approval of the divestment and changes to the governance structure.
- May 17, 2024**
First closing of the divestment. YNV’s interest in Russia-based businesses reduced to 28%. Resignation of the four Russian members of YNV’s Board and retirement of governance mechanisms that are no longer appropriate.
- July 10, 2024**
Termination of listing of YNV’s Class A shares on the Moscow Exchange.
- July 2024 (expected)**
Second and final closing of the divestment. YNV’s interest in Russia-based businesses falls to 0%.

¹ Public Interest Foundation.
² Holdings of Russian shareholders expected to decrease materially as a result of transaction consideration paid in YNV Class A shares.

Yandex N.V. Ownership Structure

Before & after the proposed transaction



Opening Remarks



For Yandex, sustainable development is a systematic effort that allows us to benefit people, make their daily lives more convenient, and open up new opportunities for them.

In 2023, we expanded free educational IT programs, improved the accessibility of our products for people with disabilities, supported hundreds of non-profit organizations, and doubled our investments in digital security.

Over the years, we have maintained a high level of energy efficiency of the infrastructure and optimized the load on the computing power used to train large language models.

Daria Zolotukhina

Head of HR

We see great potential in artificial intelligence technologies. Large language models which Yandex has been developing for several years, are used in many of our services. For example, with the help of YandexGPT, users search and analyze information, create content and watch videos that are originally in foreign languages.

Our technologies drive the growth of the digital economy, enabling millions of people to earn income, expand their businesses, and master IT professions through Yandex services.

We continue to share our achievements in annual non-financial reports. This approach not only allows us to inform a broader audience about our progress but also helps us evaluate our performance and identify areas for improvement.



Yandex in 2023

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About Yandex

- GRI 2-1
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Yandex (hereinafter, the Company, Yandex) is an international technology company offering over 90 digital services to millions of consumers every day. Headquartered in Russia, we currently operate in the CIS, Africa, Middle East, and other regions.¹

Service Synergy

For more than 25 years, we have been creating world-class technologies to benefit people.

Today, Yandex spans dozens of services that form a digital platform connecting users, partners, suppliers, and other stakeholders. Yandex services help users with a variety of tasks: from searching for information and shopping online, ordering food and getting around the city, to studying modern IT professions and developing businesses.

The synergy of Yandex products makes it possible to constantly improve the user experience through multiple independent services, respond faster to users’ new needs, and launch new products.

¹ The latest information about Yandex’s global presence can be found on our [website](#).





Business Results¹

More operational results can be found in the chapters of this report.

Financial Results



800.1 RUB BN
consolidated revenues for 2023
53% increase over 2022



97 RUB BN
adjusted EBITDA in 2023
12.1% adjusted EBITDA margin



27.4 RUB BN
adjusted net income
in 2023

Operational Results



63.4 %
Yandex's share of the Russian
search market
as of year-end 2023



30.4 M
Yandex Plus subscribers
as of year-end 2023
58% increase over 2022



47.4 M
active monthly users
of Yandex Go
18% increase over 2022

¹ More detailed information about our business results can be found in our [Annual Report](#), [press release](#), and [website](#). Separate breakdowns for the services are presented in various sections of the report.



Key Business Changes

2023

April

The Company acquired the remaining share of Uber in Yandex Taxi Group and completed the consolidation of its ridetech and foodtech services. As a result, Yandex became the sole owner of the group, which includes ride-hailing, car-sharing, and scooter rental services.

June

Yandex has received the Nasdaq Hearings Panel’s decision to grant the Company continued listing on Nasdaq following its appeal. On March 15, 2023, Nasdaq notified Yandex N.V. that its securities would be delisted unless the Company appealed to a Listing Qualifications Hearings Panel. The continued listing is subject to specific conditions related to Yandex’s corporate restructuring. The trading halt on Nasdaq remains in effect.

November

Yandex was recognized among the top employers in Russia [according to Forbes](#) (RU). It was the only IT company and one of two companies among 125 participants to earn platinum status in all rating categories. The Company was also recognized as the best employer in Russia [according to RBC](#) (RU).

December

Yandex released a [new YaC](#) (RU) miniseries about its services, technologies, and the people behind them. This year, it focused on the YandexGPT and YandexART neural networks and new products, including the Duo Max Station, which features a touch screen, and e-bikes for couriers.

Yandex opened access to the YandexGPT API via Yandex Cloud, allowing all users to implement the generative language models in business applications and web services.

The Company was also recognized as a [global leader in the development of AI](#) according to the Massachusetts Institute of Technology (MIT) and Epoch AI Center.

2024

February

Yandex N.V. announced that it entered into a definitive agreement with a purchaser consortium to sell all of the Yandex group’s businesses in Russia and certain international markets.

March

Yandex N.V. shareholders [approved](#) the sale and changes to the governance structure. 94.3% and 98.8% of votes were cast in support of the divestment at the meeting of Class A shareholders and the meeting of Class A and B shareholders, respectively.

April

IPJSC “Yandex” received a primary listing on the Moscow Exchange.

May

Yandex N.V. [completed](#) the initial closing of the divestment, with its interest in Russia-based businesses reducing to 28%.

July

Expected final closing of the deal to sell Yandex N.V.’s remaining interest in Russia-based businesses.

July 10: termination of listing of Yandex N.V. Class A shares on the Moscow Exchange. IPJSC “Yandex” shares begin trading on Moscow Exchange under the YDEX ticker.



Sustainability Agenda

Our sustainability agenda includes four key focus areas that encompass 12 sustainability streams. These streams serve as a guide for Yandex services and help us prioritize where we can truly benefit society, business, and the environment.

This agenda is also based on the UN Sustainable Development Goals (UN SDGs).

We selected ten goals where we can make the most significant impact. These include the five primary goals we consider immediate priorities for Yandex and five supporting goals for implementing and maintaining best practices.

For more detailed information about our sustainability agenda, please see our [website](#).

UN Sustainable Development Goals

■ Primary SDGs ■ Supporting SDGs ■ Other SDGs



● Developing our own business sustainably ● Assisting others on their path to sustainability

Quality of Life

- Convenience, Quality and Safety of Services
- Accessible and Inclusive Environment

Ethics and Integrity

- Information Security and Data Privacy
- Content Quality and Digital Safety
- Regulatory Compliance
- Responsible Procurement

Using tech & innovation to bring value to users and local markets

Investing in People





- Yandex Employees
- Education for All
- Yandex Service Partners

Environmental Impact

- Energy Efficiency of Yandex Infrastructure
- Packaging and Waste Management
- Carbon Footprint









Quality of Life

	Goals	Metrics
Convenience, Quality, and Safety of Services	<ul style="list-style-type: none">Ensure that Yandex services maintain high quality and safety, and help users perform everyday tasks	<ul style="list-style-type: none">User and service partner satisfaction metrics tracked by various Yandex services and other metrics
	<div><p>Alice Unique skills with YandexGPT</p></div>	<div><p>Yandex Maps Highly-detailed next-gen maps</p></div>
Accessible and Inclusive Environment	<ul style="list-style-type: none">Ensure that Yandex services are accessible to allLeverage technology to create a sustained charitable giving model	<ul style="list-style-type: none">Number of the Helping Hand Foundation program beneficiaries and other metrics
	<div><p>Helping Hand Products by charity foundations on Yandex Market</p></div>	<div><p>Kinopoisk, Yandex Music, and Bookmate New accessibility features</p></div>

2023 Case Highlights







Investing in People

	Goals	Metrics
Yandex Employees	<ul style="list-style-type: none">Sustain corporate values and principles of openness and mutual respect by attracting and retaining like-minded, highly skilled talent everywhereCreate a comfortable working environment and equal opportunities for growth, development, and innovation	<ul style="list-style-type: none">Undesirable staff turnoverPercentage of positive responses in Yandex job satisfaction surveys and other metrics
	<div><p>Young&&Yandex Yandex internship program</p></div>	<div><p>Space Internal career service for Yandex employees</p></div>
Yandex Service Partners	<ul style="list-style-type: none">Balance the economic interests of our businesses with the social and economic needs of our service partners	<ul style="list-style-type: none">Service partner satisfaction metrics tracked by various Yandex services and other metrics
	<div><p>Yandex Pro The platform work enabler</p></div>	<div><p>Rideteсh and Foodtech services Partner safety policies</p></div>
Education for All	<ul style="list-style-type: none">Provide access to quality math and IT education for all and train highly skilled IT specialists	<ul style="list-style-type: none">Number of people who have used Yandex’s free educational servicesNumber of students aiming to learn a new profession and get a job in their chosen field and other metrics
	<div><p>Yandex Textbook AI-assisted exam preparation</p></div>	<div><p>Yandex Practicum Tutoring by YandexGPT</p></div>









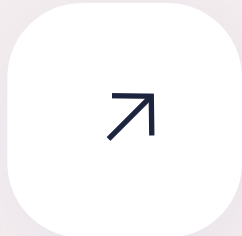


Ethics and Integrity

	Goals	Metrics
Information Security and Data Privacy	<ul style="list-style-type: none">Ensure a high level of personal data protection	<ul style="list-style-type: none">Absence of cases where fines or other penalties have been imposed for violations of personal data protection laws and other metrics
	<div>Yandex ID New data protection tools</div>	<div>Yandex Cloud Multi-layered security</div>
Content Quality and Digital Safety	<ul style="list-style-type: none">Monitor the quality, safety, and legality of content on Yandex internet resources	<ul style="list-style-type: none">Number of advertisements rejected due to violationsResponse time to user complaints and other metrics
	<div>Neuro GenAI-powered search</div>	<div>Yandex Browser AI features to overcome language barriers</div>
Regulatory Compliance	<ul style="list-style-type: none">Comply with all laws and regulations and adhere to the most stringent standardsContinuously maintain a culture of zero tolerance for corruption and restrictive business practices	<ul style="list-style-type: none">Percentage of employees who have completed business ethics trainingAbsence of legal decisions in which the Company was found to be in violation of anti-corruption / antitrust laws and other metrics
Responsible Procurement	<ul style="list-style-type: none">Offer various vendors equal opportunities to work with Yandex and build long-term relationshipsBe a reliable partner and build awareness about the good business practices adopted by Yandex throughout the supply chain	<ul style="list-style-type: none">Number of small and medium businesses among Yandex suppliers and other metrics

Environmental Impact

	Goals	Metrics
Energy Efficiency of Yandex Infrastructure	<ul style="list-style-type: none">Implement energy-efficient solutions and integrate opportunities to reduce costs and environmental impact	<ul style="list-style-type: none">Data center power usage effectiveness (PUE) and other metrics
	<div>Yandex data centers Free cooling and supercomputing</div>	<div>Yandex Cloud Energy-efficient cloud technologies</div>
Packaging and Waste Management	<ul style="list-style-type: none">Divert waste from disposal by investing in circular solutions	<ul style="list-style-type: none">Amount of waste generated by disposal methodPercentage of delivery packaging and our own branded label packaging made from sustainable materials and other metrics
	<div>Yandex Market Packaging-free delivery to pick-up points</div>	<div>Yandex Lavka Take-back of delivery bags for recycling</div>
Carbon Footprint	<ul style="list-style-type: none">Monitor the carbon footprint of Yandex infrastructure and services, and make strides towards net-zero carbon emissionsDevelop services that contribute to the efficient use of resources and reduce negative impacts on the environment	<ul style="list-style-type: none">GHG emission factor of Yandex infrastructure (Scope 1 + Scope 2) per 1 MWh of consumed energyGHG emissions of services (per 1 passenger km; per 1 delivered order)Amount of GHG emissions avoided due to Yandex solutions and other metrics
	<div>RouteQ Solutions for less carbon-intensive logistics</div>	<div>Yandex Go Carbon footprint of taxi rides</div>



Technology and Innovation

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Technology and Innovation



Yandex products and services, from Yandex Search, cloud services, and voice assistant to weather forecasts and delivery robots, use our proprietary [technology](#) (RU). Every year, we update and expand our technology base with new solutions designed to help businesses operate more efficiently and provide users with more convenient services.

We share our experience and best practices with the professional community as one of the [global tech leaders](#) for contributions to open source.

In 2023, we advanced a number of our key technologies.

AI Ethics

We build and disseminate AI in line with our [principles](#) encompassing safety, value for people, predictability, reproducibility, and lack of bias. Together with other leaders in the tech industry we also support the [AI Ethics Code](#) and its guiding principles and rules, which are designed to create an environment that ensures the trustworthy development of AI technologies.

Yandex Generative Neural Networks



The only Russian company

in the top 20 of the global [rating](#) of scientific contributions to AI

TOP 3

global apps with generative AI. At the start of 2024, Shdevrum [became](#) one of the world's top three generative AI apps

17 Yandex services

use the YandexGPT large language model as of the end of May 2024

- Yandex Search
- Yandex Browser
- Alice
- Neuro
- Shdevrum
- Yandex Cloud
- Yandex Textbook
- Practicum by Yandex
- Yandex Eats
- Yandex Lavka
- Yandex Market
- Auto.ru
- Yandex Real Estate
- Yandex Mail
- Yandex Translate
- Yandex Direct
- Yandex Business

This year has been marked by the rise of generative neural networks, one of the most significant advancements in the history of the IT industry. According to [Yandex Search data](#) (RU), interest in generative AI has increased more than fifteenfold since the beginning of 2022.

We have been using generative neural networks and integrating them in Yandex products for years. For example, Yandex Search has been generating Quick Answer since 2021. Today, YaLM (Yet another Language Model), a family of large language models developed by Yandex and released as open source in 2022, makes this process even more efficient.

In spring 2023, we debuted [YandexGPT](#) (RU), our new large language model, and became the first tech company in the world to integrate this technology into a virtual assistant (Alice). Our team continued to train YandexGPT on hundreds of thousands of question and answer pairs, helping it surpass previous versions, and answering questions and working with texts almost as well as humans. The next-generation [YandexGPT 3](#) (RU) was released in spring 2024. It is even better equipped to handle questions and tasks, including business-related problems, such as generating new ideas or extracting key points from large volumes of information, and it is significantly less prone to errors.

By the end of May 2024, YandexGPT has already been integrated into 17 Yandex services to offer users new convenient features. We analyze the demand for new AI-powered content¹ to improve the model and continue training it based on received feedback.

¹ Yandex uses the Neurostat service for this. Our [research](#) (RU) shows that the most popular AI-powered tools among young audiences include generating and debugging code, writing posts for social media, and creating content plans, while users over 45 favored AI-assisted music creation, photo editing and poem generation.



Yandex Generative Neural Networks

How Yandex Generative AI Helps Users

Analyzes and structures information

YandexGPT scrutinizes content available online and consolidates it to help users save time searching for answers. For example, in Yandex Market and Yandex Search, YandexGPT analyzes reviews and uses them to generate concise lists of pros and cons for products. In Yandex Real Estate, it recognizes complex search queries (for example, “one-room apartment with a large kitchen inside the Moscow Ring Road up to RUB 10 million) and adjusts the search results accordingly. In Yandex Browser, it discerns the essence of articles and videos, and also helps users edit texts and improve their writing style.

55 M

user queries answered by AI-powered tools in Yandex Browser, including for text and video summaries, editing, text generation with the “Alice, Let’s Think” skill, and image generation

from launch until the end of Q1 2024



Generates content

In Yandex Market, AI helps sellers add information about their products, while on Auto.ru, it generates detailed descriptions of cars for sale. Moreover, the YandexART neural network can generate images and videos for personal or business use. For advertisers, AI-powered tools provide support in generating ads in Yandex Direct and Yandex Business with high-quality headlines, text, and relevant images.

Answers questions

Launched in April 2024, Yandex’s **Neuro** (RU) service recognizes user queries and finds information with Yandex Search to generate a ready-made answer with supporting links to all sources. Yandex Search also uses YandexGPT to generate **Quick Answers** (RU) displayed to users below the search bar.

Provides tools to study and learn

In Practicum by Yandex, AI helps learners review material, explains challenging concepts from lectures using simplified language. On the free study platform for Russia’s Unified State Exam in computer science, YandexGPT acts as a tutor by explaining theory, providing educational videos on the subject, and explaining approaches to problem-solving.

Expands opportunities for business

In December 2023, business users were given the opportunity to embed AI in their products with the **YandexGPT API**, a Yandex Cloud service harnessing the power of generative language models to automate business processes such as customer support, online sales, advertising, or develop bespoke IT solutions. YandexGPT also helps users generate and complete paperwork, including contracts, invoices, regulatory documentation, job descriptions, and more.

In April 2024, Yandex Cloud invited companies to try **YandexART** to generate images, design layouts, illustrations for advertising, social media or books. YandexART also has an API to embed image generation into services and web applications.

>10 THSD companies

companies have tested the YandexGPT API, with 1,500 companies using it daily



Robotics in Yandex Market

In 2023, Yandex Market opened the **Robot Laboratory** (RU) at the Yandex Robotics Center and launched new robotic solutions to increase the speed and efficiency of order processing and enhance the safety of warehouse operations.

At the Market Super Warehouse (Sofino-2), there is a separate area for testing swarm robotics operating under the good-to-person principle.¹ For example, **Dilectus** robots at this warehouse work together to prepare orders by carrying containers with goods from racks between the storage area and the preparation area. In addition to Dilectus robots, Yandex Market warehouses also have their own conveyor management system and other robot models, including **Spectro** inventory robots to scan pallets and **Motus** robots to transport heavy loads around the warehouse.

The warehouse also features the **Robo-Arm** (RU), which is designed to handle various operational tasks, from unloading shipments of goods from sellers to preparing them for delivery to customers. Robo-Arm can pick up boxes of different sizes, shapes, and weight from the conveyor and place them on pallets, and vice versa. With Robo-Arm's most recent configuration, the average pallet assembly speed has doubled. This helps Yandex Market quickly accept and process goods from sellers, resulting in reduced delivery times.

Read more about how Yandex Market robots improve safety in logistics centers in the [Yandex Employees](#) chapter.

Scientific Research in Yandex

The technology powering Yandex could never exist without scientific research. All of our technologies are firmly rooted in science and technological advancements.

Fundamental research on artificial intelligence is handled by the **Yandex Research** team. In 2023, eight studies by scientists from our team **were featured** (RU) at the NeurIPS international machine learning conference, including on the **Petals system**. This study was a collaborative effort with researchers from the University of Washington, Hugging Face (a leading developer of machine learning tools), and other international organizations. Petals, an open source system, divides large language models into multiple sections and hosts them on different servers all over the world. This allows anyone, including small startups and independent researchers without supercomputers, to run large models or even adapt them using the idle computing resources provided by volunteers.

The Yandex research team also includes research engineers who design the solutions used by or in Yandex services, such as supercomputers, computer vision and natural language processing models and autonomous technologies.

Yandex recognizes that scientific partnerships play an important role in research. That is why we are heavily involved in collaborative laboratories with the country's leading universities, including the Higher School of Economics in **Moscow** and **St. Petersburg**, and the **European University at Saint Petersburg** (RU). Current research is focused on natural language processing, computer vision, machine learning, machine translation, and some other areas.

246 AI publications

produced by Yandex Research team,
including 17 publications 2023

¹ Swarm technology involves a group of simple robots all solving a common task by interacting with each other and the environment. The robots are programmed to cooperate to achieve a common goal.



Open Innovations

We firmly believe that the IT industry would stagnate without collaboration. To this end, Yandex has been sharing technology and engaging developers around the world in its advancement for years. In fact, Yandex ranks among the top 30 global companies in the [Open Source Contributor Index](#).

In 2023, we started the [Yandex Open Source](#) (RU) **grant program** to support external open source projects from independent developers focused on data processing and storage, development, and machine learning. Each winner of the competitive selection process run by managers and developers of Yandex open source projects is entitled to an annual grant of RUB 600,000 for Yandex Cloud services.



Key Open Source Launches in 2023

YTsauros



YTsauros is a platform for the storage and processing of big data, which is necessary to most Yandex services. For example, Yandex Search uses YTsauros for its search index, while self-driving cars use the platform to crunch travel data and improve algorithms. YTsauros manages Yandex supercomputers to distribute loads and use computing power in the most efficient way.

Diplodoc



This docs-as-code platform uses the industry standard Markdown syntax to make writing and updating large volumes of technical documentation easier.

DataLens



This Yandex Cloud BI system provides source code for data analysis and visualization. Today, most Yandex services and thousands of external companies in the cloud infrastructure use DataLens, including to compile dashboards to monitor key company metrics and enable collective access to analytics.

Yandex Metrica Tags

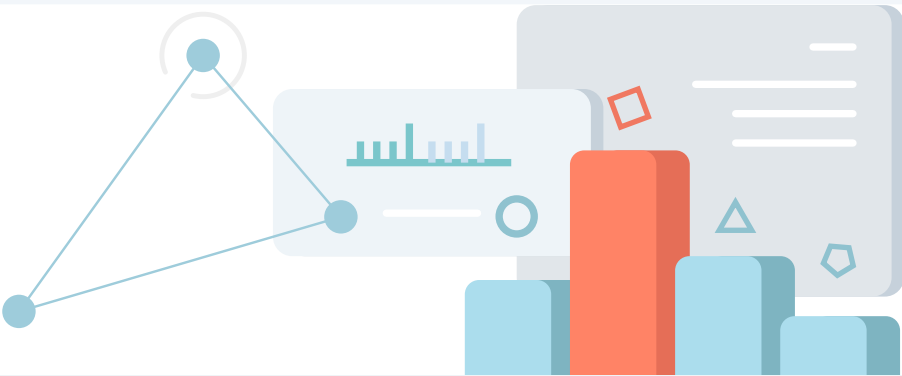


Tags are a key component of Yandex Metrica. These tags are loaded on hundreds of thousands of sites to record information about site traffic and visitor actions. Any developer can review the tag code in detail and modify it to suit their needs.

Yandex Metrica

TOP 5

most widely used web analytics systems in the world according to [W3Techs](#)



Gravity UI



This design system and component library allows users to make modern service interfaces, landing pages, and dashboards. Gravity UI can be used for anything from simple landing pages to complex dashboards with graphs. For example, all Yandex Cloud interfaces (the console, DataLens, Monitoring, Tracker services, etc.) are developed using Gravity UI libraries.



Open Innovations

Support for the IT Expert Community

Yandex contributes to the advancement of DevRel¹ by supporting the professional IT community through specialized events for sharing knowledge and presenting new technology, products, and services. In 2023, we held more than 150 events, including our flagship **YaTalks** conference featuring more than 140 speakers from Yandex and other companies. More than 30,000 unique users streamed the event online, and over 2,000 people attended in person. In total, more than 50,000 people attended our specialized events in 2023. Moreover, Yandex’s social media channels also help make professional content available to all.

>50 THSD people

attended our industry events in 2023

>15 M views

on recorded presentations from Yandex conferences in 2023

¹ Short for developer relations.



Yandex Cloud Boost

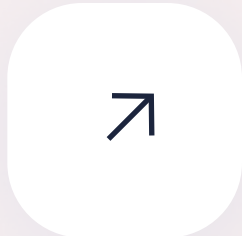
Yandex Cloud Boost collaborates with accelerators and venture funds to help IT startups access cloud technologies and create an ecosystem that provides for their basic needs. Startups can use cloud resources to build their infrastructure and services while benefiting from access to Yandex’s unique expertise and technology.

In 2023, the Yandex Cloud Boost program provided more than 300 startups (1.5 times more than in 2022) with grants totaling over RUB 103 million.

In December 2023, we also launched Yandex Cloud Boost AI, a grant program that provides companies using large language models in their services with access to the YandexGPT API. In just two weeks, 121 companies applied to use the YandexGPT API to generate product descriptions on marketplaces, score candidate resumes, summarize online meetings, process legal documents, provide customer support, and much more.

>300 startups

received grants for a total of 103 RUB M



Quality of Life

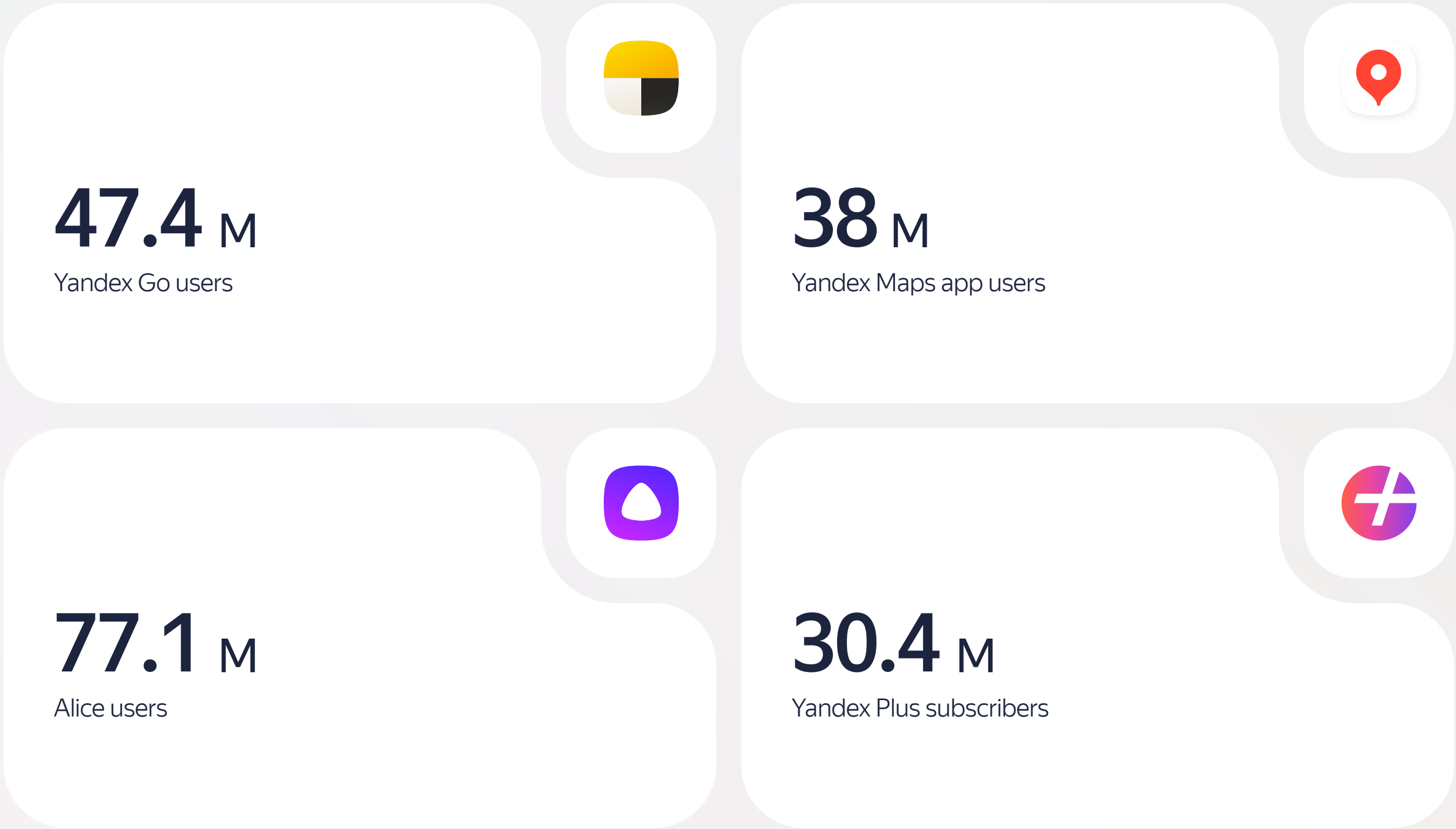
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Usefulness and Usability	19
Safety	23
Inclusive Environment	26
Accessibility	26
Sustained Community Support	30



Convenience, Quality, and Safety of Digital Products



We prioritize making all Yandex services useful, safe, and user-friendly. To ensure we meet the evolving needs of our users, we continuously update and enhance our products.



Active monthly users, December 2023

Usefulness and Usability

Here are the latest updates to our services designed to make everyday tasks simpler and more convenient for our users.



Yandex Go

Yandex Go helps users save money on taxis even during periods of high demand. For example, the system might suggest waiting a few minutes before requesting a ride, walking a short distance to your destination after the ride, or sharing a ride with someone else in the **Carpool** service class. The latter option is currently being rolled out in Russia and is already available in 18 cities.

Yandex Go users can track historical price trends with a dedicated chart. It is generated by an algorithm that analyzes multiple metrics, including the number of available drivers nearby and the price of trips on this route over the past four weeks. If a ride costs more or less than the average for the month, the app will show the exact reasons why. This helps users decide whether to request a taxi right away or wait a little to avoid heavy traffic and ride for less.

The service continues to develop the **City to City** service class for convenient rides to nearby cities.¹ To receive City to City trip requests, drivers must enable the service class in advance. For users, these trips offer ten minutes of free wait time during the route, allowing for one or more short stops.

¹ The list of cities where this service class is currently supported is available [here](#) (RU).



Usefulness and Usability



Yandex Maps and Navigator

Heated public transport stops

Users in northern Russian cities can now enable settings in Yandex Maps to include routes with heated public transport stops marked with the “Comfort” icon.¹ These routes may not be the fastest, but they provide a warm place to wait along the way.

Combined routes

Users in Moscow and St. Petersburg can now benefit from combined routes. If a destination is far away from a public transport stop or rarely serviced by public transport, users can build routes that include a taxi ride from the nearest metro or Moscow Central Diameter station. The taxi can be ordered at the same time the user is choosing their route. To make taxi pickups safer, the Yandex Maps team has marked more than a thousand pickup points near stations.

Pictures of popular places

Users will now have a more convenient time navigating cities thanks to the addition of pictures to the labels of popular places. This will make it easier to recognize museums, places of worship, theaters, and other attractions. Many organizations also feature short descriptions and interactive stories generated by **YandexGPT** based on user reviews. By clicking a label, users can get a quick look at basic information about the location.

¹ Available in Noyabrsk, Surgut, Norilsk, Yakutsk, Murmansk, and other localities.

Toll roads

Yandex Maps both warns drivers about toll roads on routes and also displays the toll fees. This helps users estimate costs in advance or choose a route without toll roads, if possible.

Yandex also added features to its **Navigator** that were previously only available to Yandex Maps users. Routes with 4–10 stops have been optimized to account for traffic, and users have the option to check in advance how long a trip will take at a certain time of day. The “Avoid bad and unpaved roads” option was also added to route settings to only map routes in Navigator with quality roads where possible.



Fintech Services

In 2023, we made major updates to **Yandex Pay** (RU). Users can now pay for goods and services in full or in installments using a card from any Russian bank (for online purchases) or a Yandex Pay digital card (for offline purchases), and earn Yandex Plus points.

The app now also offers **Saver** (RU) accounts with daily interest accrual, along with other savings accounts for Yandex Pay cardholders.² All funds in Saver accounts are securely stored in the Yandex Bank and covered by the Deposit Insurance Agency.³ Yandex Pay processes bank card data in accordance with PCI DSS 4.0 and is one of the first services in Russia to earn this certification. Access to user data is protected by the Yandex ID single account security system. More information about Yandex ID tools for data protection is available in the **Personal Data Protection** section.



² There are two options: Flexible Saver savings accounts with daily interest accrued and the option to deposit or withdraw money with no fees, and Fixed-Term Saver long-term deposits (3 months to 2 years) with a fixed interest rate.

³ Standard insurance: up to RUB 1.4 million.



Usefulness and Usability



Alice and Smart Devices

Alice, Yandex’s virtual assistant, utilizes various Yandex services and tools to make everyday lives easier.¹ For example, users can ask Alice to request rides in Yandex Go or order groceries in Yandex Lavka.

Every year, Alice grows smarter. Already powered by Yandex’s SpeechKit speech recognition technology, in 2023 Alice has integrated with YandexGPT, our large language model. Previously, Alice answered about 40% of questions indirectly by suggesting an online search. Now, thanks to YandexGPT, Alice can provide complete answers to 95% of user queries. More about YandexGPT is available in the [Technologies and Innovations](#) chapter.

In spring 2024, we introduced a [new generation of Alice](#), now capable of explaining complex concepts, offering ideas, and maintaining the context of conversations by asking follow-up questions. Importantly, she has also been configured to include references to the source of information and choose the words carefully when addressing sensitive topics. Additionally, for text-related tasks, we added a new “Chat with Alice” feature on a.ya.ru, where she can assist users in generating ideas, slogans, and other written content.

For Drivers

In Yandex Navigator, drivers can stay focused on the road by simply asking Alice to add a stop or find the nearest parking lot, as well as chat with Alice to pass the time during heavy traffic. Alice can also suggest a more optimal route to reduce total travel time.

5.2 BN

voice assistant queries
in December 2023



For Kids and Parents

With the Baby Monitor function, parents can keep an eye on their children in another room. Alice also serves as a teacher for learning phonetics, playing educational games, and assisting schoolchildren in understanding classroom tasks.

To keep children safe with Alice, we offer children’s accounts and a filter for inappropriate content. With the special voice filtering feature enabled, smart speakers equipped with Alice can recognize when kids are talking and only play age-appropriate content. More information about how we protect children online is available in the [Quality Content and Safe Digital Environment](#) chapter.

For Users With a Healthy Lifestyle

Alice has a dedicated category of skills for [Health and Exercise](#) (RU), that includes helping users with eye and breathing exercises, recording workouts, checking for unhealthy ingredients in food, and working out at home.

For the Elderly and Users with Disabilities

Yandex’s virtual assistant and smart devices help the elderly and users with disabilities handle everyday tasks independently.

For example, if someone has trouble using a cellphone, our smart speakers can receive calls for them. The blind and visually impaired users can also rely on Alice for help using Yandex services. In Yandex Browser, Alice reads on-screen text out loud and makes it easier to navigate websites and apps. With smart speakers, she can read audiobooks, order taxis, and simply tell the time. Additionally, for users with limited mobility, the ability to control smart devices like outlets, light bulbs, TVs, and humidifiers via voice commands is particularly beneficial.

More information about Yandex’s solutions for making digital products more accessible to various user groups is available in the [Inclusive Environment](#) chapter.



¹ Read about all of Alice’s skills [here](#) (RU).



Usefulness and Usability



E-commerce Services

In the **Yandex Market** app, we added a filter that automatically compares prices in the service (including in the past) and elsewhere online to show products with the lowest price offers and most savings. Yandex also added other tools to Yandex Market to help shoppers save, including finding discounts on their favorite categories.

We have also implemented several new technologies that make searching for products in Yandex Market easier than ever, including a smart camera that finds products based on photographs and provides helpful YandexGPT-generated overviews of the product based on customer reviews.

To improve user experience at the final stage, Yandex Market continues to implement different delivery options based on the experience and technologies used in other Yandex e-commerce services, such as fast delivery (originally implemented in Delivery, the grocery delivery service) and one-click delivery (from Yandex Lavka), which allows users to choose when they would like to receive their order.¹

In **Lavka**, users can shop for groceries based on their typical diet. The “Healthy Lifestyle” section is full of products without meat, dairy, gluten, or sugar, while the main catalog has a filter for certain ingredients, including allergens like nuts or gluten, and sugar.

Yandex Lavka has also debuted a new line of ready-made and dietician-approved meals that promote a balanced diet for athletes, people with food restrictions, or anyone mindful of their carbohydrate intake.² The meals are prepared in the St. Petersburg Yandex Lavka kitchen using the sous vide method to better preserve nutrients and make them more easily absorbed.³ The calorie content of these ready-made meals is shown in the catalog, and now displays nutrition information both per 100 grams and for the entire portion.



¹ Small or medium-sized items first arrive at a Yandex Lavka dark store near the delivery address, and are then delivered to the recipient’s door after the user requests a courier in the Yandex Market app.
² Items available in Moscow and St. Petersburg.
³ A method of cooking food in vacuum packaging at low temperatures.



Bookmate

At the end of 2022, we introduced the Bookmate service as a standalone option within Yandex Plus, alongside Kinopoisk and Yandex Music. In 2023, Bookmate expanded its offerings to include a children’s section featuring over 12,000 books for children and teenagers. This collection ranges from classics and educational materials to newly released books, comics, and original stories created specifically for Bookmate.

Books are categorized by themes and age groups, such as Fantasy, Adventure, Toddlers, and Teenagers. Bookmate’s collection also includes titles about popular hobbies, foreign languages, and even how to draw manga.





Safety

GRI 403-7

This section contains updates regarding how we keep our users safe in the real world. To learn more about how our technologies protect users online, refer to the [Information Security](#) and [Quality Content and Safe Digital Environment](#) chapters.



In 2023, we published the [Taxi Safety Policy](#) (RU), which describes the tools used at all stages of passenger and driver interactions with the service, from monitoring speed and driving style to identifying potentially dangerous situations on the road. These tools play an important role in maintaining safety: 99.990% of rides are accident-free.¹

Refer to the [Courier and Driver Safety](#) section for more about ride safety metrics.

Driver Verification and Training

We check information in open sources and the driver’s own identity documents. We also explain the safety measures in different service classes and test drivers’ knowledge of traffic rules.

Route Assignment

We assess route complexity and select drivers with suitable driving experience.

Safety Reminders

We notify drivers about current speed limits and the need to keep seat belts in working order, and remind everyone in the car that they need to buckle up.

Vehicle and Equipment Verification

Yandex Go uses photo checks and in-person inspections when required to determine vehicle safety conditions. In the Kids service class, we also check the availability and condition of child safety seats and booster seats.

Speed and Driving Style Monitoring

Algorithms help us obtain data on speeding and dangerous maneuvers. We monitor and investigate instances of sudden braking, deviations from routes, long stops, and rides ending far away from their destinations.

Support Team

Both drivers and passengers can report conflicts or dangerous situations during a ride. The “Conflict” button is available for drivers in the Yandex Pro app, while the Yandex Go app provides a Safety Center for passengers.

Phone Number Protection

We hide the real phone numbers of users and drivers when calls are made in the app.

Identifying Dangerous Scenarios

We train drivers to take action if a passenger’s behavior indicates that they are in danger (for example, if they seem scared or nervous).

Life and Health Insurance in the Event of an Accident

We insure drivers and passengers on every ride. The maximum payout for an insured event is RUB 2 million.

¹ According to the Yandex Go safety team using calculation methods verified by experts from the Business Solutions and Technologies company.





Scooters

Scooters are becoming more popular every year as a way of getting around the city. On March 1, 2023, electric scooters were officially added to Russia’s traffic rules and classified as Personal Mobility Devices.

Before their first ride, users are shown safety instructions, and informed that riding a scooter with two or more people is prohibited, and that users must dismount the scooter at crosswalks and walk with it to the other side of the street. Only users over 18 can rent scooters in Yandex Go, which is higher than the age indicated in the traffic rules.¹

Yandex Go scooters have an automatic speed restriction of 20–25 km/h. Our scooters are also equipped with proprietary IoT trackers that monitor the scooter’s location and send a signal when it enters special zones. In “slow” zones, the scooter automatically slows down to either 15 km/h or 6 km/ h, while in “quiet” zones, where riding scooters is prohibited, the scooter will come to a smooth stop. These zones are marked on the map in the Yandex Go app, so users can check them before riding.

In 2023, Yandex Go added **proprietary Yandex Wind scooters** to its fleet. Wind scooters are made from magnesium alloy, common in heavy-duty aviation equipment and other industries. This material makes the scooters lighter and more durable, while their wide yet short platforms allow for comfortable single rides, but make it almost impossible to have two riders.

All rides on scooters rented through Yandex Go are insured for up to RUB 2 million. Insurance is activated after tapping the “Start Ride” button and ends after tapping “End Ride.”

To develop a culture of safety, we opened free **Scooter Safety Schools** in Moscow, St. Petersburg, Kazan, and other large cities, which allow users over 18 to learn more about the traffic rules for scooters, including in practice. During these sessions, attendees practice riding scooters over speed bumps and through obstacle courses.

>5 THSD

people completed training sessions at Scooter Safety Schools in 2023



Yandex Maps

In 2023, Yandex Maps introduced highly detailed, next-generation maps for drivers, complete with lane markings, parking spaces, and pedestrian safety islands.

While users are on the road, Yandex Maps shows the recommended lane path to make it easier to change lanes before turning. Buildings along the route are now three-dimensional to better serve as additional landmarks.

In addition to improved map details, the display along the route was also updated to show more of the road and road events ahead, including accidents and road repairs. This helps drivers prepare for upcoming maneuvers and make turns in time, or change their route in advance to something more convenient.

Yandex Maps can also warn drivers about railway crossings, ferries, and speed bumps, as well as configure routes without poor quality roads wherever possible.



Auto.ru

Every year, Auto.ru holds the “Big Traffic Rules” exam, an online test that allows anyone to demonstrate and improve their knowledge of traffic rules. In winter 2023, a dedicated “Pro” section was introduced, focusing on safe driving skills in adverse weather conditions. This section was further expanded in spring to include specific questions tailored for users of bicycles, electric scooters, and electric unicycles.

The Auto.ru Reports service assists users in thoroughly researching used cars before making a purchase. These reports compile information from numerous trusted sources that are not typically accessible publicly. They provide details such as accident history, usage as a taxi or in car sharing, vehicle mileage (including for imported cars not yet registered with the State Traffic Safety Inspectorate in Russia), and other pertinent data critical for informed decision-making.

>1 M

people took each of the seasonal Big Traffic Exams

¹ The traffic rules include three age categories of PMD users, each with their own requirements: under 7, 7–14, and over 14 years of age.



Safety



Delivery Services

Yandex Eats, Yandex Delivery (the middle- and last-mile delivery service), Yandex Lavka, and Delivery (the grocery delivery service) published a [Safety Policy](#) (RU) outlining the measures used to deliver orders safely and providing safety metrics based on service data. In 2023, 99.999% of orders were delivered without incident, and only one accident occurred per 270,000 kilometers traveled.¹

Courier Verification and Training

We check courier IDs and help them get the required medical examinations. We also explain the traffic rules for couriers delivering on foot, by bicycle, or using other transport.

Data Privacy

We don't show the real phone numbers of users and couriers, hide completed chats, and delete home addresses immediately after each delivery is completed.

Courier Liability Insurance

Third parties can receive insurance payouts from accidents involving couriers, e.g. if a courier damages their car.

Infrastructure Safety

Yandex participates in road safety initiatives and is developing its own e-bicycles with speed control for couriers.

¹ The number of accidents reported to the service relative to the number of orders delivered by on-foot and bicycle/scooter couriers.



Yandex Drive

Driver profiles help manage accident risks in Yandex Drive. A special algorithm analyzes driving style using the vehicle's accelerometer and other sensors to generate individual ratings for each driver, which define vehicle rental conditions.

Driver ratings are affected by speeding and sharp accelerations, braking, turning, and lane changes. The more careful the driver, the higher their rating. Risky drivers can be temporarily or permanently blocked from the service, while careful drivers earn incentives, including 10% cashback in Yandex Plus points for drivers with the "Awesome Driver" status.



Yandex Market

Yandex Market has started adding the "Original" tag to products that have passed additional authentication verification. This tag is commonly used for clothes, shoes, and accessories from brands that customers most often worry are faked. A special "Original" filter is also available in the search parameters. To earn the tag, the seller must provide a certificate from an official representative or authorized seller, or a delivery contract.

Yandex Market's quality control team has also ramped up collaboration with the Advanced Technologies Center (the operator of the Chestny Znak marking system) to better handle customer complaints about products without the legally required labeling. The share of counterfeit goods on the marketplace in 2023 did not exceed 0.01% and was unaffected by the significant increase in the assortment of products available.



Inclusive Environment



GRI 413-1

We are committed to leveraging our technology and experience to foster inclusiveness and accessibility. We create an environment where Yandex services are available to everyone, provide sustained support to non-profits, and help users make charity a part of everyday life.



Accessibility

At Yandex, we believe in technology for all. Our commitment is to ensure that our digital products are accessible and intuitive for everyone, no matter their age or health.

Latest news and updates about accessibility at Yandex can be found online:

[Website \(RU\)](#)

[Telegram channel \(RU\)](#)

Digital Accessibility

We believe it is our responsibility to consistently support digital accessibility. Many of our key products, such as Yandex Taxi, Yandex Search, Yandex Lavka, Yandex Browser, and the Yandex Mail app, are already adapted for visually impaired users. A total of 13 Yandex services support screen readers.

Smart Camera in Yandex Browser and the Yandex with Alice and Start¹ apps have a text recognition feature complemented by embedded scenarios for blind users. It sees when text is cropped, prompts the user to move the camera at certain angles, and also reads out inverted text.

For people with hearing and speech disabilities, Yandex Conversation offers speech-to-text technology that recognizes text, converts speech to text (and vice versa), offers set phrases for various situations, and saves a history of dialogues. In 2023, the iOS version of the app was released. This year alone, more than 37,000 people have used Yandex Conversation on all platforms.

¹ An Android [app](#) that combines Yandex Search, Alice, Smart Camera, and Yandex Translate.

We make sure our services remain accessible with every update. To this end, our dedicated accessibility team, which includes blind and visually impaired testers, regularly evaluates Yandex’s digital products to help developers make improvements. In 2023, the team analyzed 33 services (22 in 2022) and formed an internal rating system. The higher a service is ranked, the more accessible it is for all. Assessment results are shared with the teams to highlight potential enhancements.

13 Yandex services

are accessible to blind users²

as of the end of March 2024

>37 THSD

Yandex Conversation app users

in 2023

² Yandex Taxi, Yandex Lavka, Yandex Search, Yandex Browser, Yandex Disk, Yandex Maps (web version), the Yandex Mail and Yandex Translate apps, the Yandex with Alice app, Smart Camera, and the Yandex Music, Bookmate, and Kinopoisk apps.



Digital Accessibility

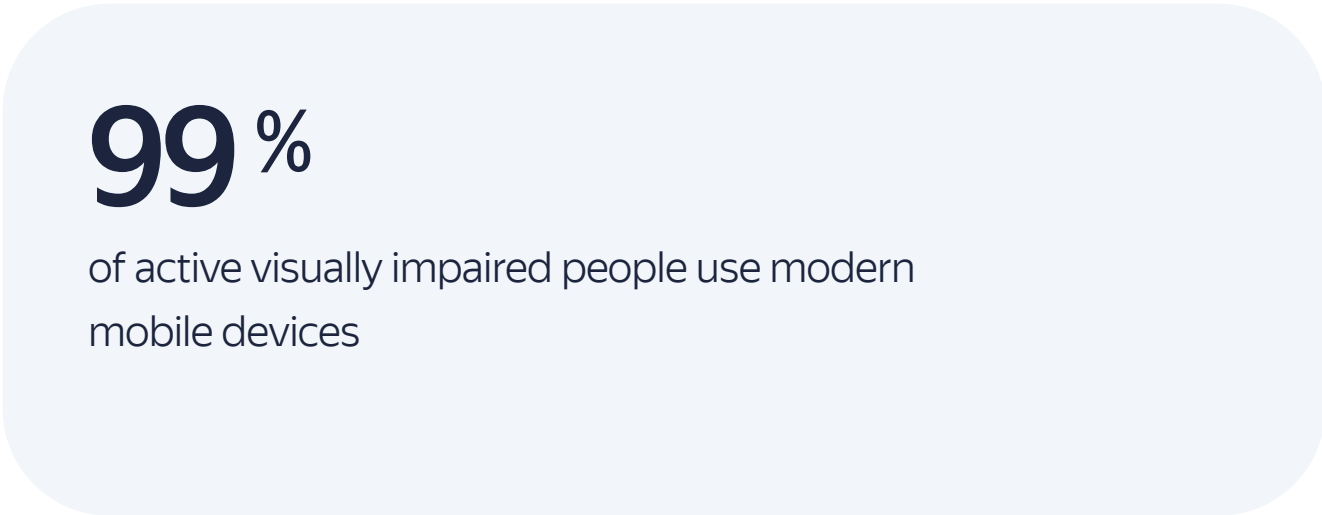
Research on digital accessibility

We conduct research on digital accessibility to better understand user needs, make digital products more convenient, and share our experience in adapting services with other developers of digital solutions.

Technical Preferences of Visually Impaired Users

Our fifth [research](#) (RU), conducted in 2023, evaluated the technical preferences of blind users and included approximately 500 respondents. A similar study was last conducted in 2020.

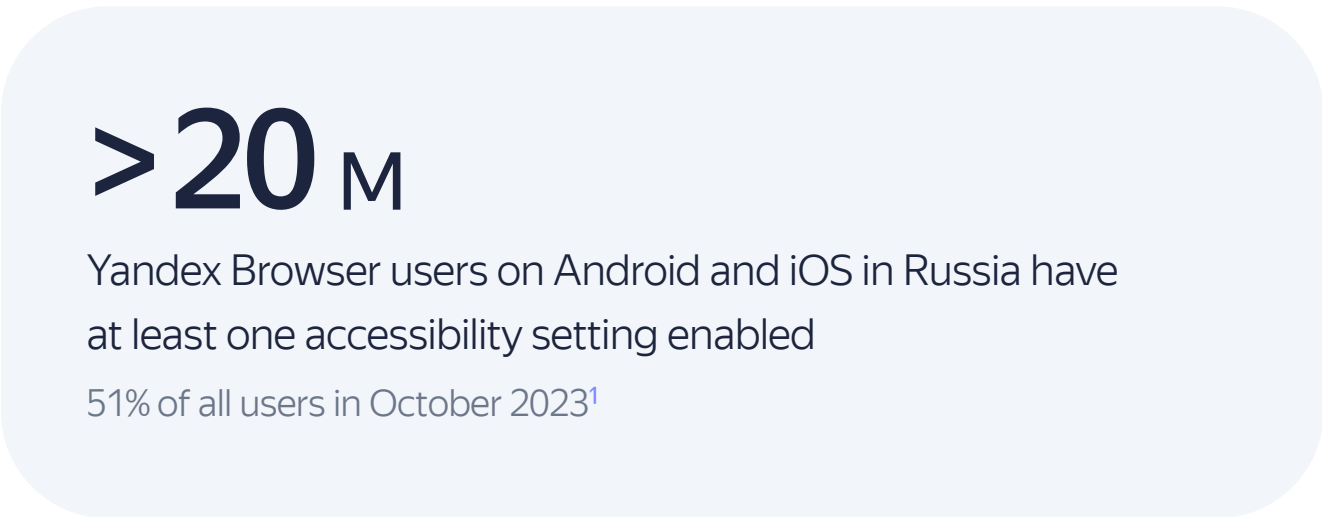
Key insights include the importance of making mobile apps accessible. It was found that 99% of active visually impaired people use modern mobile devices, for the first time exceeding the share of visually impaired computer users (which is also high: 91%). The vast majority of visually impaired users noted the importance of app accessibility and mentioned that mobile versions are not a sufficient replacement.



Use of Accessibility Settings

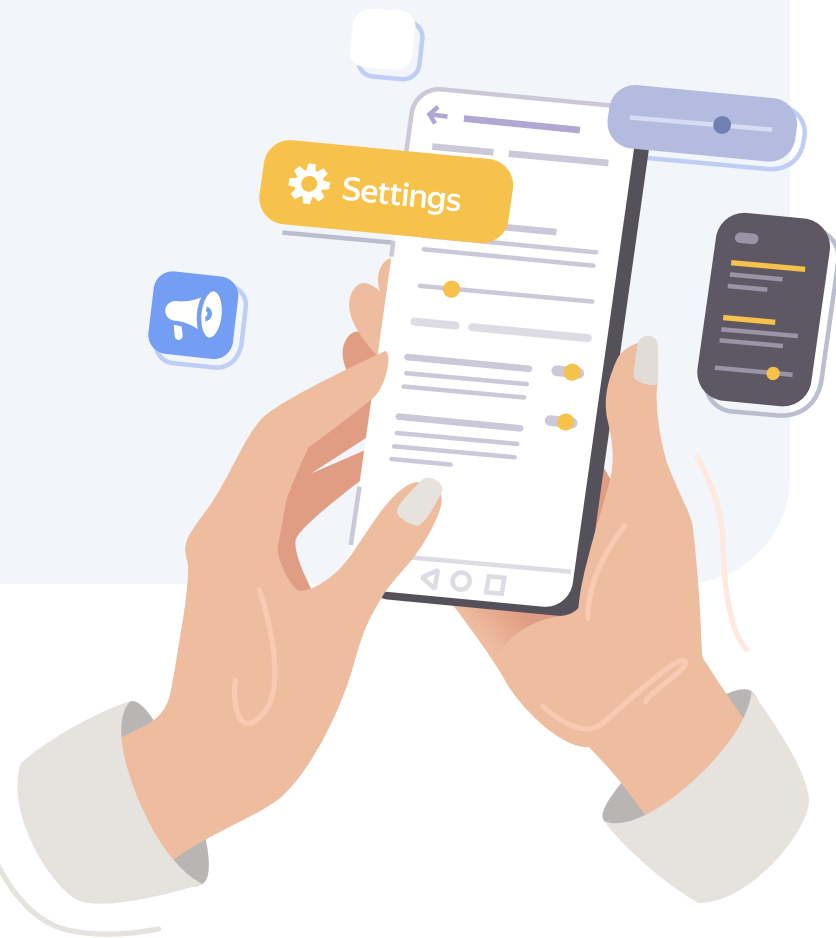
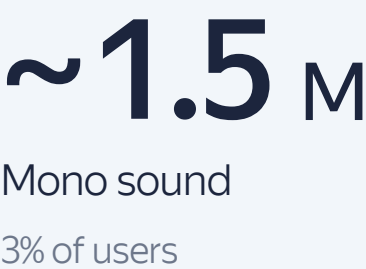
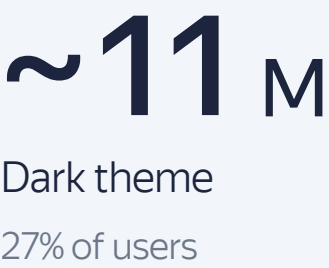
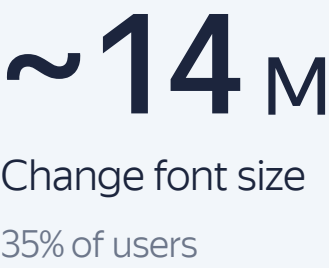
In 2023, we [analyzed](#) (RU) the accessibility settings that Yandex Browser users enable on iOS and Android in Russia. These are special features in the device settings that adapt content based on the user's needs.

For example, a visually impaired person can activate a screen reader to use their device on their own. For users with recent eye surgery, the dark theme helps avoid eye strain from a bright screen. As users get older and cannot hear or see as well as they used to, they can enable larger fonts, a magnifying glass, and a screen reader.



The most popular features

The share is calculated from the number of Yandex Browser users on Android and iOS in October 2023 in Russia.



¹ Data on the number of Yandex Browser users on Android and iOS per month in Russia. Anonymized data current as of October 2023 was used.



Accessibility of Funtech Services

We adapted two entertainment services for visually impaired users – **Bookmate** and **Yandex Music** – in 2023, and made **Kinopoisk** inclusive in 2024. Now they fully support screen readers that convert text, buttons, images, and other screen elements into speech. Yandex also implemented new development processes to ensure that all future app updates consider the needs of visually impaired users.

In collaboration with developers, the accessibility team often comes up with unique solutions to help screen readers convert screen elements more conveniently. For instance, in the Yandex Music iOS app, developers grouped elements to streamline navigation for blind users. This allows them to tap the screen once to check an artist’s name or song title, or to perform actions such as sharing a song. In Bookmate, grouping is applied for repeated elements. For instance, if the title and author’s name appear multiple times on the first pages of a book, the screen reader will not repeat them, providing a smoother reading experience. In Kinopoisk and Yandex Music, the team added the option to control playback using the keyboard.¹ The commands in both services are the same to make them easy for users to remember. For example, the “K” key pauses and resumes playback in both Yandex Music and Kinopoisk.

To help visually impaired users immerse themselves in what’s happening on screen and not miss any important details, Kinopoisk added **audio descriptions** to popular movies, shows, and other Kinopoisk productions. Audio descriptions are short descriptions of characters, actions, and settings in movies and shows to complement the dialogue. These narrations are typically placed during natural pauses in the audio to explain what’s happening on the screen. Kinopoisk currently offers over 70 movies and shows with audio descriptions, and all future original Kinopoisk projects will support this format.

To better serve deaf and hard-of-hearing users, Kinopoisk now has Subtitles for the Deaf and Hard-of-Hearing (**SDH**) in Russian, which, in addition to dialogue, highlight the emotions of characters and sounds in the frame. More than 120 movies and shows received SDH, including original Kinopoisk projects. When writing subtitles, Kinopoisk consults with members of the deaf community and works with specialized partners.

Subtitles in Yandex Browser

We taught Yandex Browser to automatically generate subtitles for videos and streams in Russian using a built-in neural network. This helps users with hearing disabilities get more enjoyment from the videos they watch. Subtitles are available for videos in Russian, with visually separated dialogue based on who’s speaking. The new feature works on any site, from video hosting platforms and social media to TV channel pages and videos uploaded to cloud storage, even if the site owner or video creator doesn’t provide their own subtitles.

We discuss in more detail how Yandex Browser makes foreign content more accessible to Russian-speaking users in the [Quality Content and Safe Digital Environment](#) chapter.

>70

movies and shows with audio descriptions in Kinopoisk

>120

movies and shows with SDH in Russian in Kinopoisk

For the first time ever, in the summer of 2023, **Yandex Music** concerts at Plus Dacha featured simultaneous interpreters from Russian to sign language, so visitors with hearing disabilities could better enjoy watching their favorite performers. Now, musical events at Plus Dacha are regularly held in this format.



To celebrate the anniversary of the Patient Zero mini-series about the HIV epidemic in the late 1980s,² Bookmate brought together actors from the series to record the audiobook for **Drops of Health** (RU), a children’s story. Authors Elena Pozdnyakova and Veronika Zolotova wrote the story for the Children+ charity foundation, which helps children and adolescents living with HIV. The story can be used as a precursor to explaining the diagnosis to children with chronic immune system diseases. Information about the virus is presented in a child-friendly way, with a plot focused on the main character learning to live with the Vitricus virus.



¹ On Windows and macOS.

² Patient Zero is an original program commissioned by Plus Studio and Kinopoisk.



Inclusive Cities

Our technologies help people overcome barriers in the digital environment and beyond.



Yandex Maps

Yandex Maps addresses the lack of critical information about urban accessibility for people with limited mobility through features like accessibility labeling. Informational tabs for buildings, parks, beaches, and other locations on the map highlight the availability of important inclusive features, such as wheelchair accessibility, automatic doors and elevators, fully accessible restrooms, and more. Accessibility information is routinely updated by Yandex field assessors, business and organization owners, and even Yandex Map users.

>1 M

organizations in 73 Russian cities had accessibility labeling in Yandex Maps at the end of March 2024



Accessibility Features in Yandex Go

Since 2022, the Yandex Go app has featured a screen with inclusive options for users with disabilities, allowing them to indicate any specific assistance required during their taxi booking process. Users can indicate their communication needs (for example, if they can only communicate by text, or can hear but not speak), request sighted guidance to the car, or mention the presence of a wheelchair or a guide dog. The driver will see a comment in the app and be alerted to the passenger’s needs. We also provide [training materials](#) (RU) and [videos](#) (RU) to help drivers make rides more comfortable for all individuals.

In 2023, we launched inclusive options in six more countries – Kazakhstan, Uzbekistan, Kyrgyzstan, Belarus, Armenia, and Georgia – as well as in Serbia in 2024. The total number of trips in countries where these options are available has exceeded 1 million.

Users in Moscow also took more than 33,000 rides in the **Special service class for wheelchair users**. Vehicles in this class are specifically equipped to accommodate people using both heavy-duty power wheelchairs and portable wheelchairs, and all drivers have undergone training for handling wheelchair lifts and wheelchairs.

We continue to improve the accessibility features in Yandex Go for **deaf and hard-of-hearing drivers and passengers**. In 2023, Yandex Go added an in-app chat option during rides that opens if the user selects the “I only communicate by text” or “I’m mute, but I can hear” options on the accessibility screen, or if the driver has a hearing disability. To avoid distracting drivers behind the wheel, we remind them that they can only read and respond to messages while stopped or parked.

Yandex Go has also updated its [website for deaf and hard-of-hearing drivers](#) (RU) in Russia with information about inclusive options, an FAQ page, and a list of service partners that already work with drivers with hearing disabilities. All text on this site is accompanied by videos in Russian Sign Language (RSL). More than two thousand drivers with hearing disabilities collaborated with Yandex Go in Russia, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan and Uzbekistan as of year-end 2023.

8 countries

offering inclusive options in the Yandex Go app at the end of March 2024

In Russia¹

>600 THSD

rides completed with inclusive options enabled in 2023

>119 THSD

users completed rides with inclusive options

¹ These options are available in Russian cities population exceeding 100,000 people.

In other countries²

>400 THSD

rides completed with inclusive options enabled in 2023

>50 THSD

users completed rides with inclusive options

² Kazakhstan, Uzbekistan, Kyrgyzstan, Belarus, Armenia, Georgia, and Serbia.



Sustained Community Support

GRI 203-1 GRI 203-2

>500

non-profits supported
in 2023

478.6 RUB M

reserved by Yandex to fund free access to Yandex
services and digital products for non-profits¹

151 RUB M

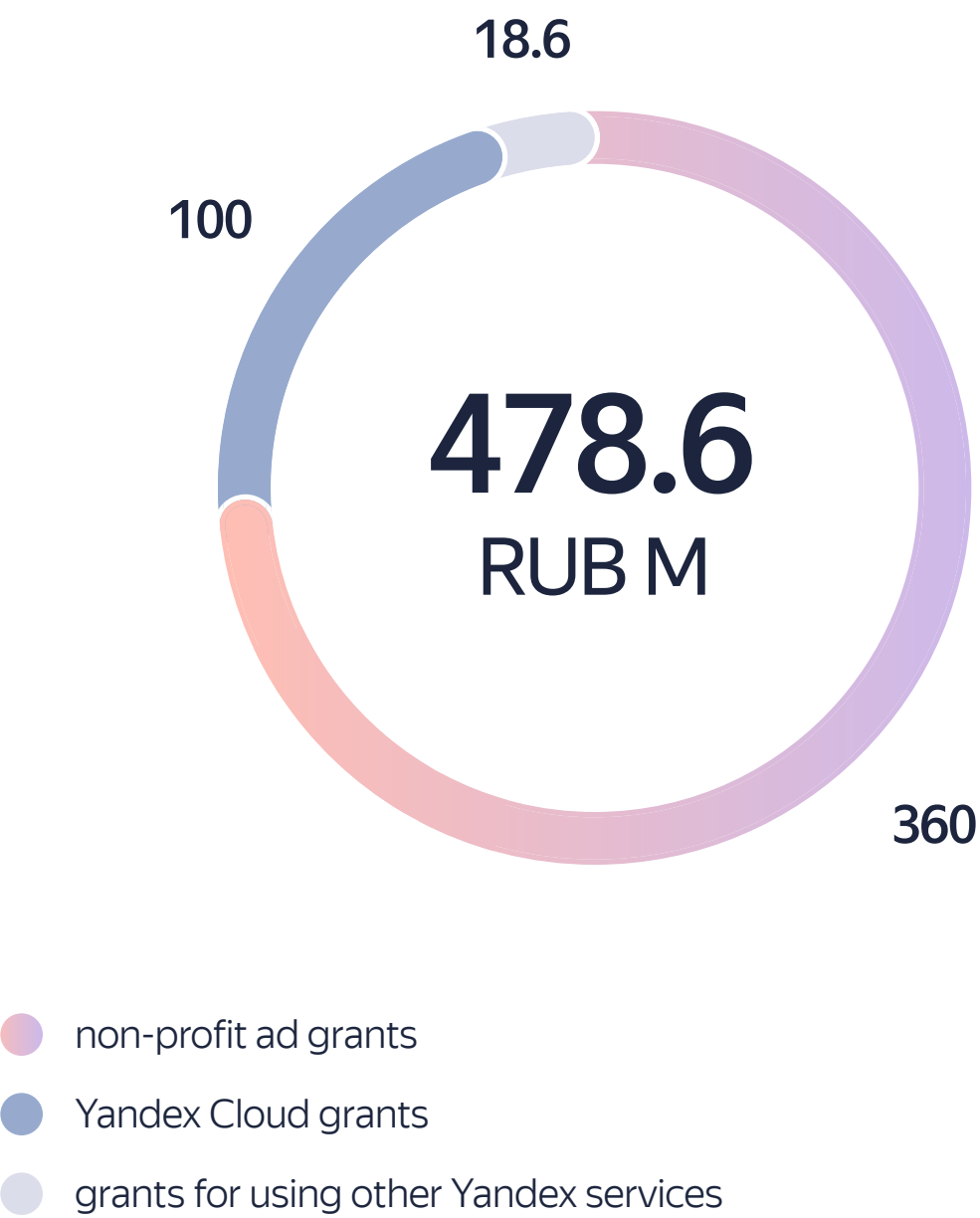
invested by Yandex to fund the operation of the
Helping Hand Foundation²

271.8 RUB M

raised in individual donations via Yandex tools
to support the ongoing programs of the Helping
Hand Foundation
via the rounding-up feature in Yandex apps, on the
foundation's website, and through charity campaigns



Breakdown of funds reserved to provide free
access to Yandex's services and digital products,
by type of grant, RUB million



¹ See the chart for a detailed breakdown. This figure refers to the funds budgeted for non-profit grants. The amount of grants provided as at year-end 2023 may be less than the budgeted amount.

² Total donations to the ongoing programs of the Helping Hand Foundation and allocations from Yandex's budget to cover the foundation's administrative expenses. This amount does not include donations collected from individuals via the rounding-up feature or Yandex's donations to other social causes, such as educational institutions, conferences, and industry events. These latter donations amounted to RUB 540 million in 2023.

Systematic approach

Yandex's charitable efforts follow a systematic approach and are supported by our cutting-edge technologies.

Through the [Helping Hand](#) charitable infrastructure foundation, Yandex makes it easy for users to donate and ensures consistent support for verified non-profits.³

Non-profits perform crucial work, aiding those in need, supporting educational and cultural projects, and fostering research activities. Leveraging Yandex's services and infrastructure, these organizations can address issues more efficiently and achieve better operational planning, free up resources for new initiatives, and expand the reach of their assistance programs.

All non-profits collaborating with Helping Hand are subject to **mandatory annual verification**. The [selection criteria](#) (RU) include compliance with all applicable legislation, adherence to the openness of information, availability of public annual reporting, use of transparent fundraising tools, and other requirements.

More information about Helping Hand is available in the foundation's [Annual Report](#) (RU).

³ The foundation's [bylaws](#) (RU) and detailed [monthly reports](#) (RU) are available on the official Helping Hand website.



Systematic approach

Helping Hand is currently implementing three core programs: **Rides and Deliveries for Non-Profits, Goods for Non-Profits**, and **Digital Solutions for Non-Profits**. In 2023, another program was launched in collaboration with Yandex Market: **Product Showcase for Non-Profits**.

This program allows non-profits to sell goods on preferential terms in a **special section** (RU) of the marketplace and use the proceeds from sales to support their projects and provide aid. Each foundation has a separate page with its own catalog, so users can see which charity they’re supporting. Non-profits also receive free basic training about how to use the platform, including an account overview and information on filling out product cards.

The **Rides and Delivery for Non-Profits** and **Goods for Non-Profits** programs are funded through donations from users who have activated the rounding-up feature in Yandex services or contributed via the foundation’s website, in addition to Yandex’s own funding. In 2023, Yandex’s monthly contribution to the Helping Hand totaled RUB 12 million, and increased to RUB 15 million in 2024.

The **Digital Solutions for Non-Profits** and **Product Showcase for Non-Profits** programs are supported entirely by contributions from Yandex. We budget funds for service maintenance, team operations, and administrative expenses.

The Rounding-Up Feature

The **rounding-up feature** (RU) helps users make contributing to charity as much a part of everyday life as shopping online or taking a taxi.

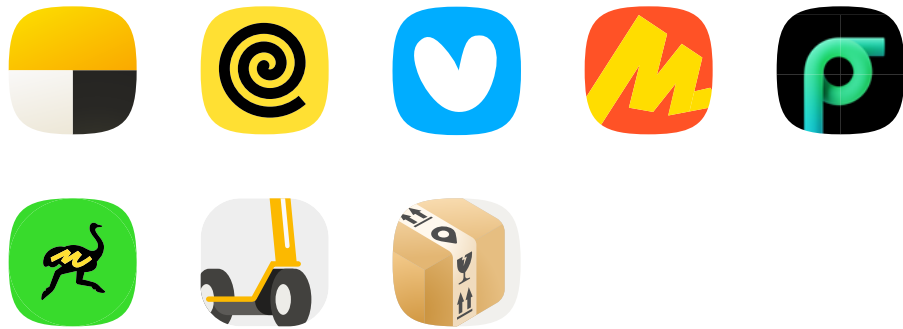
Users can activate the feature in different services (Yandex Taxi, Yandex Eats, Yandex Lavka, Yandex Market, Yandex Fuel, as well as Yandex Scooters and Delivery (the grocery delivery service) since 2023). In spring 2024, the feature was also introduced in Yandex Delivery (the Company’s middle- and last-mile delivery service). After activating the feature, the total of the user’s order fees are rounded up automatically to the nearest 10, 100, or other ruble amount selected by the user.¹ The difference is then sent to the Helping Hand Foundation to sponsor the Rides and Delivery for Non-Profits and Goods for Non-Profits programs. Yandex also contributes an additional RUB 15 million monthly to the amount donated by users.²

In 2023, the number of users who activated this feature exceeded one million, and the average rounding-up amount increased from RUB 7.24 to 8.34. Combined, these regular small contributions enable Helping Hand to sustain programs that systematically aid nonprofits in assisting more people in need.



8

Yandex services have implemented the rounding-up feature
five services in 2022, two services in 2023, one service in 2024



>1 M

users had used the rounding-up feature in Yandex services by the end of 2023³
>800 THSD users by the end of 2022

271.8 RUB M

raised in individual donations via Yandex tools to support the ongoing programs of the Helping Hand Foundation via the rounding-up feature in Yandex apps, on the foundation’s website, and through charity campaigns
186.5 RUB M in 2022

¹ Amounts for rounding-up can be 10, 50, 100, 200, 500, or 1,000 roubles.
² Added monthly in 2024. In 2023, the amount was RUB 12 million.

³ 1,074,245 users by December 31, 2023. In 2023, over 260,000 users activated the rounding-up feature.



Rides and Delivery for Non-Profits

Helping Hand arranges **free taxi rides** (RU) with Yandex Go for users with reduced mobility. These are people with disabilities as well as those who have difficulty using public transport. This service ensures convenient city travel for medical appointments, rehabilitation, or educational purposes. Free rides are also available for the employees of non-profits.

Until recently, the Rides and Delivery for Non-Profits program was only available in large cities. In 2023, we expanded its reach to offer free rides to non-profits **everywhere in Russia where the Yandex Go service operates**. In addition to the standard service class, we offer the Minivan service class (ideal for groups of people) and the Special service class, where rides are provided in vehicles equipped with wheelchair lifts for convenient accommodation of individuals with special mobility needs and their companions.¹

The Yandex Go partner drivers providing rides for non-profits have high ratings in the service and undergo additional training. For certain service classes, this training is mandatory to ensure drivers offer comfortable rides for passengers with disabilities. Yandex Go also offers a dedicated support line to quickly resolve issues before or during rides. Drivers receive full payment for their trips, and the service does not charge any fees for rides in the program.

Since 2023, non-profits can also benefit from **free city-wide delivery** (including cargo orders) thanks to Yandex Delivery (the Company’s middle- and last-mile delivery service). This service helps users transport essential goods, send and receive documents, and deliver cargo.

137

non-profits supported by the program in 2023²
107 non-profits in 2022

>450 THSD

rides provided in 2023
>380 THSD in 2022

>15 THSD

unique users benefited from rides in 2023³
>11 THSD unique users in 2022

Through Someone Else’s Eyes [↗](#)

A joint art project from Helping Hand and Yandex Go to support people with disabilities. We wrapped more than 100 cars of Yandex Go partners with artwork from beneficiaries of Helping Hand partner foundations and placed QR codes in the cars that took users to the website with information about the project and a donation form.

Yandex then doubled the contributions from passengers and distributed them between non-profits that assist people with disabilities.



¹ The Minivan service class is available in major cities, and the Special service class is only available in Moscow.

² Program results for Russia only. Free rides are also available to partner non-profits in Kazakhstan, Uzbekistan, Armenia, Belarus, and Kyrgyzstan. In Kazakhstan and Uzbekistan, non-profits also have access to free delivery.

³ Recipients of aid from non-profits and their companions, and the employees of partner non-profits.



Goods for Non-Profits

Non-profits allocate substantial funds for essential goods. For instance, organizations supporting the elderly need to procure food and personal hygiene products, while those helping homeless animals must purchase pet food, vaccines, and veterinary drugs.

Yandex supports the **Goods for Non-Profits** (RU) program by providing funds to purchase essential goods and facilitate procurement processes, including logistics and storage. This program enables non-profits to meet the basic needs of those receiving aid and devote more resources to ongoing projects.

In 2023, funds were distributed solely through a grant competition with a budget of RUB 160 million. First piloted in 2022, the annual grant contest replaced the previous system of fund allocation based on applications from foundations, which was in effect until the end of 2022.

Out of the 247 applications received in 2023, 48 non-profit organizations from different cities in Russia were selected. Each application was evaluated based on several criteria, including the significance of the foundation’s social impact, the presence of a well-established procurement process, and the effective use of the acquired goods. Each finalist will receive between 400 thousand to 6 million rubles from Helping Hand to purchase food, medical supplies, and other essential goods in accordance with the organization’s needs. The grant will be distributed quarterly throughout the year in equal parts.



¹ The amount of contributions in 2023 to non-profit winners from contests in 2022 and 2023. Includes two contributions in Q1 and Q2 to the 2022 competition winners, and two contributions in Q3 and Q4 to the 2023 competition winners. The contest is held in the summer, and the annual contribution cycle begins in Q3.

² This figure has been adjusted and differs from the value in the 2022 Report due to the clarification of accounting data after the publication of the 2022 Report. It correlates with the figure disclosed in the 2022 [Helping Hand Annual Report](#) (RU).



Digital Solutions for Non-Profits

To offer non-profit organizations the opportunity to enhance business efficiency, we donate [Yandex services for business](#) (RU): Yandex Cloud and Yandex 360, a virtual office that provides corporate mail, calendar, cloud storage, text processing, and communication services. Non-profits receiving a Yandex Cloud grant also have access to YandexGPT as a cloud platform service. The neural network can help with the analysis and classification of requests from people receiving assistance, writing and editing texts, creating chatbots, and various other tasks.

Organizations can also receive [grants for placing non-profit ads in Yandex Direct](#) (RU) to raise public awareness about the foundation and attract new audiences to projects.¹ In 2023, Yandex changed the process of providing grants and introduced a new grading scheme. All non-profits will now receive a fixed amount of RUB 100 thousand, which can then increase to RUB 120 or 150 thousand depending on the advertising campaign results.²

To ensure that non-profits can manage ads independently, we equip them with [step-by-step instructions](#) (RU) for various campaign types. Yandex recognizes that many charities also require extensive training, as their employees may lack experience working with advertising tools or Yandex Direct, so we also offer a [free course](#) (RU) on non-profit ads, available on the Yandex Practicum platform. The course covers all stages of ad placement, from complying with the requirements for non-profit ads to setting up a campaign and analyzing the results.



¹ Please refer to Yandex's [non-profit ad placement rules](#) (RU) to learn about social advertising and the criteria for non-profit ad placement in Yandex Direct. The results of these placements are disclosed in a [special report](#) (RU) providing information on all non-profit ads placed by Yandex, including those created by social ad operators and placed in accordance with the Law on Advertising, as well as ads launched as part of the Helping Hand Foundation's grant program and those paid for by advertisers.

² If a non-profit organization during the quarter spends 90% of the grant and achieves at least one set goal, the grant amount increases to RUB 120,000 for the next quarter. Goals could include the number of users engaging with the ad, or the number of submissions of donation sign-up forms. This amount can be increased to RUB 150,000 in the following quarter if the non-profit continues to meet the same conditions and show that for every two ad views there is at least one click on the ad.

³ This figure has been adjusted and differs from the value in the 2022 Report due to the clarification of accounting data after the publication of the 2022 Report. It correlates with the figure disclosed in the 2022 [Helping Hand Annual Report](#) (RU).



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Yandex Employees



Advanced technologies would not exist without the talented team that creates them. Yandex places special importance on keeping the people who choose to work for us comfortable and motivated to grow with the company and make a positive impact. We focus on making work inspiring and fostering a workspace that also emphasizes self-care.



Yandex Team in Numbers

GRI 2-7 GRI 401-1 CG-EC-330a.2 TR-RO-320a.2

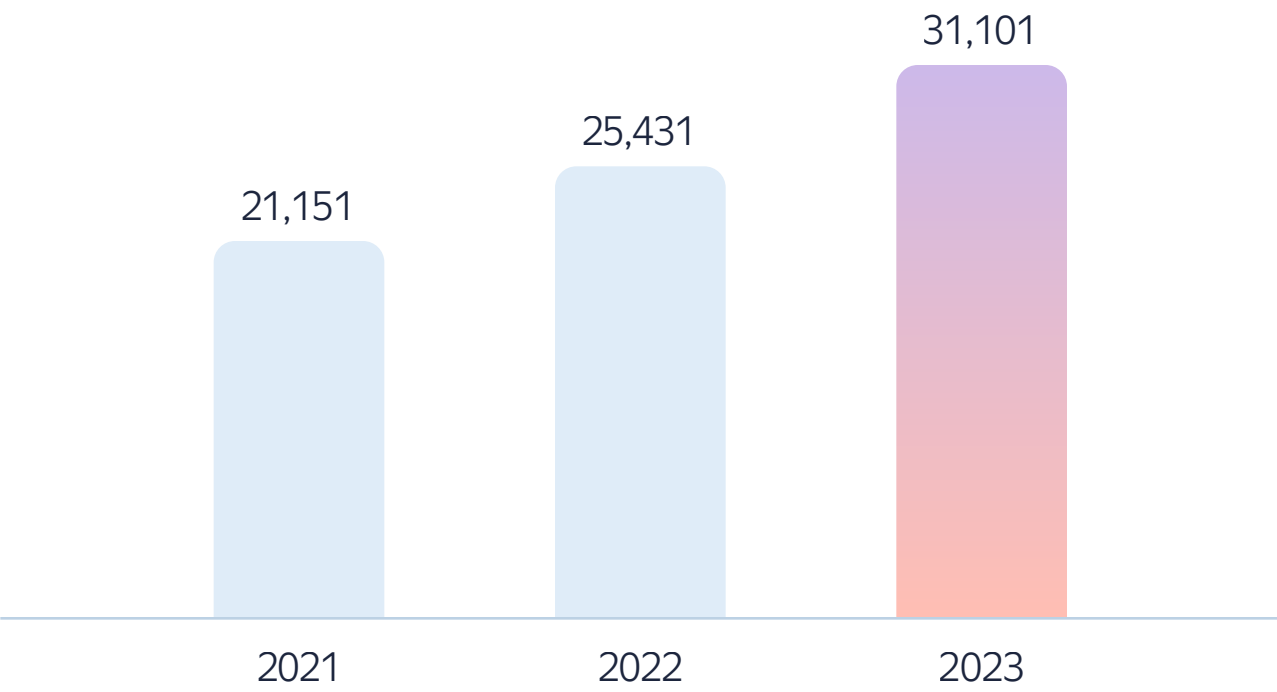
In 2023, Yandex employed 31,101 people, up 22% from 25,431 in 2022. We welcomed 10,215 new employees compared to 6,650 in 2021; this increase is associated with business scaling. In 2023, Yandex employees worked in Russia, Kazakhstan, Armenia, Belarus, Serbia, and other countries.¹ Our biggest teams were Search and Portal (8,932 people); Ridetech, Foodtech, and Delivery (5,536 people); and Yandex Market (4,025 people).

Yandex’s overall employee turnover was at 18.6% in 2023, a decrease compared to 2022² (20.7% in 2022 and 20.5% in 2021). The undesirable turnover rate, our key HR metric that accounts for top performers leaving the company, also decreased, and totaled 3.4% (versus 5.7% in 2022 and 4.9% in 2021).

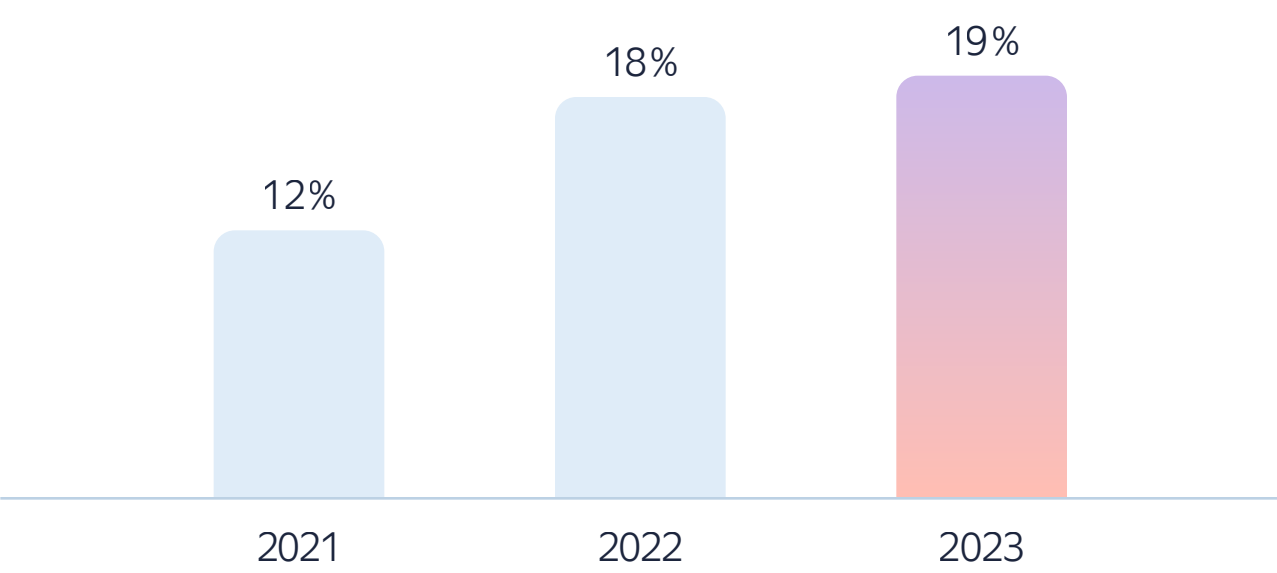
As in the previous reporting period, the majority of Yandex employees had permanent employment contracts (99%), while the remaining 1% were project employees engaged for a specific undertaking. The proportion of full-time and part-time employees has not changed over several years (99% and 1%, respectively). Those who cannot work full-time can usually negotiate with their manager to work flexible hours or switch temporarily to part-time employment.

¹ The majority of people were employed in Russia (80%). This indicator includes both permanent and temporary employment contracts.
² Voluntary and involuntary turnover rates were 12.9% and 5.7%, respectively.

Number of employees in the reporting year, people³



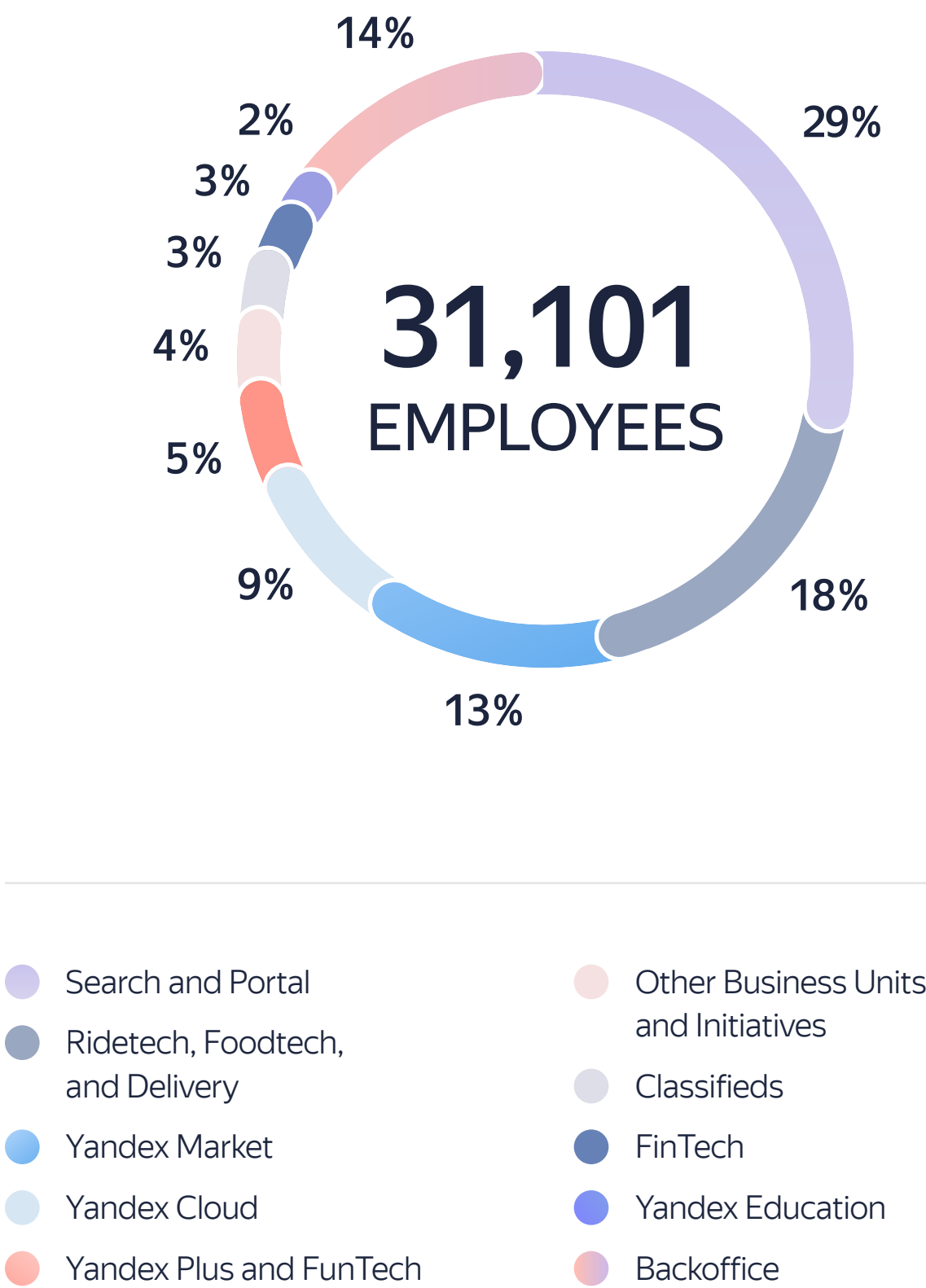
Share of expert-level hires among new hires during the year⁴



³ Data on the number of employees is not as of the end of the year. In accordance with Yandex’s internal personnel accounting procedures, this is the number of unique employees in the reporting period.
⁴ Specialists with extensive professional experience, with a narrow and/or most in-demand specialization at the time of hiring.



Yandex employees in 2023 by business unit



For detailed employee-related data and more, please see the [ESG Data Tables Annex](#). The gender composition of the Yandex team is disclosed in the [Women in Our Workforce](#) section.



Engaging the Youth

We are passionate about working with young talent and recognize their immense potential to propel our technology forward. That’s why we created the [Young&&Yandex](#) program (RU), offering internships and career opportunities designed to empower the next generation of innovators.

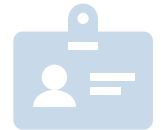
Internship Program

Aspiring professionals are offered paid internships in a variety of fields, including software development, data analysis, information security, business, and testing. All interns work with real-world projects and receive guidance from their mentor.

The intern selection process includes several steps that are designed to ensure equal, unbiased treatment. We also take into account internal referrals from both existing employees and other successful interns. In 2023, a quarter of successful internship candidates were recommended by Yandex employees.

All interns get access to corporate events and are provided with meal allowances when working on premises. For candidates from other cities, we also cover travel expenses and housing in Moscow.

An average of 50% of interns from each intake are offered full-time positions in Yandex. For interns who are unable to join a full-time role at Yandex at a particular point in time, we offer the opportunity to defer the job offer for a maximum of three years. Then, when the candidate is ready to join our team, they benefit from not having to complete all the usual hiring process stages.



2,133

new interns in 2023,
around 30% female

55 %

of interns were hired after the
internship program in 2023

26 %

of current developers were once
Yandex interns

Every 8th

senior developer started their career
at Yandex as an intern
data as of the end of 2023



Engaging the Youth

Ambassador Program

In 2023, we launched the **Yandex U-Team Ambassador Program** (RU) in universities throughout Russia, where students, graduate students, and teachers help organize Yandex events (from developer competitions to hackathons and case championships) and talk about educational and career opportunities in the company. Participants are actively involved in university life, want to experience working in a community, and are interested in learning more about Yandex technologies and projects.

Among the 6,000 applications received, we selected 60 people from 32 universities to participate in the pilot program. Now there are Yandex ambassadors in 13 cities across Russia, from Sochi to Vladivostok.



Seasonal Schools

Seasonal Schools (RU) are free annual short-term training programs for aspiring developers, product managers, designers, and other IT specialists. In 2023, a new program was added for AI trainers who help train neural networks. This year, we received applications from more than 40,000 individuals interested in our summer schools alone.

Most training is held in two stages: first, online lectures and classes, followed by practical sessions in Yandex offices, where students work on real-world projects. Since we launched the project in 2011, we've completed more than 70 programs and awarded diplomas to more than 3,500 specialists, approximately half of whom went on to become Yandex interns or employees.

In 2023, in addition to our summer schools in Moscow, we also held training in Almaty and Belgrade. Among the 900 initial trainees, 580 advanced to the final in-person stage, where they spent a month developing IT products in Yandex offices under the guidance of company experts.

Yandex Seasonal Schools also offer a special online **Open Lecture Course** (RU) section with lectures available to the public. In 2023, more than 25,000 trainees attended or watched recordings of almost 150 lectures on frontend, backend, and mobile development, as well as product management, product analytics, and marketing.

580

people graduated from Seasonal Schools in 2023, and **194** joined Yandex as employees

> 25 THSD

people attended the Open Lecture Course

AI Trainer School

The **AI Trainer School** (RU) as part of Yandex's Seasonal Schools is a first-of-its-kind IT program, where participants learn to train algorithms and evaluate the reliability of neural network responses.

Around 14,000 people registered for the school and over 500 students were selected. More than half of the students who completed the in-person training phase focused on working with real-world cases are now working on YandexGPT.





Equality and Human Rights

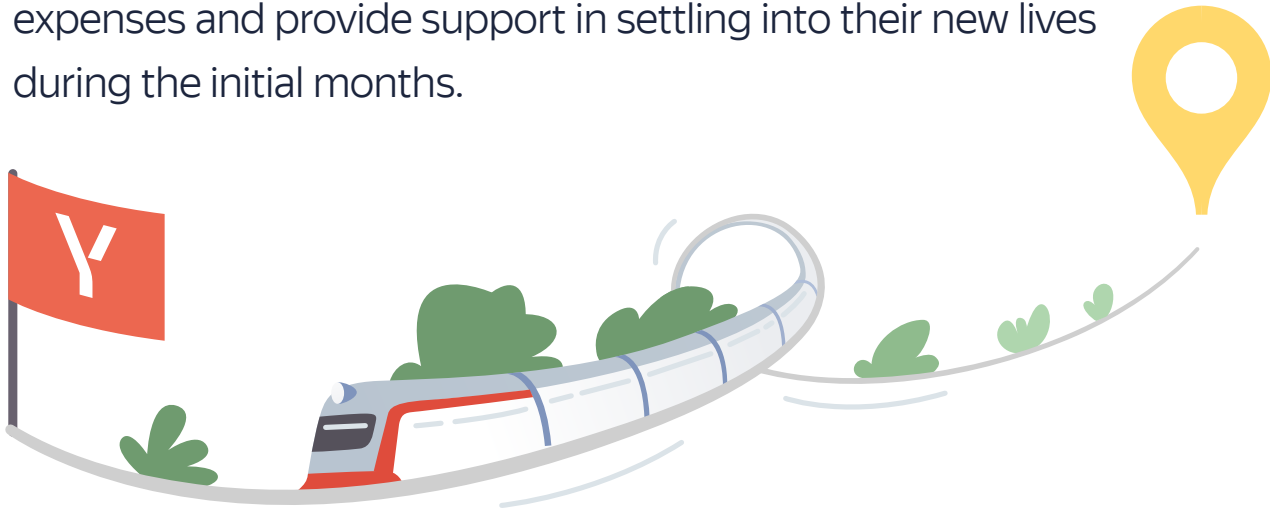
Our team is a diverse group of like-minded individuals with varied backgrounds, ages, nationalities, perspectives, and preferences. We are committed to providing equal opportunities for growth and personal development to everyone. We achieve this by:

Investing in quality technical education for all

Yandex leverages its educational projects to create inclusive opportunities for everyone to thrive in IT, regardless of their stage in life. We aim to provide a supportive and flexible learning environment that breaks down barriers related to age, gender, or other stereotypes. Our training programs focus on up-to-date and emerging knowledge, tailored for practical application in the business world. Please see the [Education for All](#) section to learn more.

Hiring from different regions and helping with relocation

We assist newcomers from remote regions in moving to Russian cities where Yandex offices are located. We cover relocation expenses and provide support in settling into their new lives during the initial months.



Creating opportunities for innovation and knowledge sharing

We encourage employees to pursue continuous learning, develop their professional skills, and experiment. To this end, we have launched targeted programs to assist employees in exploring new business areas, changing their career track, and growing by learning from colleagues and sharing experience of their own. For more detail, please see the [Employee Training and Development](#) section.

Standardizing the hiring process

We use a uniform procedure for assessing all applicants for a specific role, and apply pre-approved criteria specifically developed for the position.



Ensuring compliance with ethical standards

We foster a culture of mutual respect, equality of opinion, honesty, and openness. We provide training to employees on ethical conduct, acquainting them with our [Code of Business Ethics and Conduct](#). We also provide guidance on appropriate behavior in various situations, from conflicts of interest to acts of discrimination, as part of our annual training program. More information about Yandex’s business ethics standards is discussed in the [Ethics and Integrity](#) chapter, while training completion stats are provided in the [ESG Data Tables Annex](#) of this report.

Making performance reviews transparent

GRI 404-3

All Yandex employees undergo regular performance reviews.¹ We use a clear assessment framework and transparently explain how a particular review outcome can impact an employee’s income, such as the share of monthly salary to be paid as a bonus.

¹ Performance reviews are held semiannually.



Equality and Human Rights

Creating safe working conditions

Yandex prioritizes creating safe working conditions, particularly in business processes that involve physical labor.

At Yandex Market logistics facilities, employees undergo mandatory training on work safety, complete a First Aid course, and receive all required personal protective equipment. The facilities undergo internal health and safety audits every quarter.

All incidents are tracked by a special monitoring system, enabling us to analyze safety trends both overall and by specific types of work or processes, such as incident rates related to loading and unloading goods. The system also logs first aid kit usage, which may indicate microtraumas. This approach provides us with the necessary information about various risks, allowing us to respond promptly and effectively.

Warehouse Robots

Yandex is at the forefront of innovation in automating warehouse processes. By introducing robots, we aim to improve efficiency while addressing safety risks by reducing human exposure to injury-prone tasks. At the automated Yandex Market warehouse in Sofino, our cutting-edge robots are already hard at work.

The Dilectus tote robot retrieves heavy transportation containers (totes) from shelves and moves them to the order preparation area. The Motus transport robot moves heavy loads, and the Spectro inventory robot registers goods in the warehouse accounting system, scanning them on shelves up to 12 meters high that employees previously had to climb. Our robots are also equipped with an AI incident recording system that can detect and report violations of safety rules.

500x faster
product registration by the Spectro robot compared to humans, while eliminating the need for people to climb heights

9 totes at once
can be carried by the Dilectus robot, many times more than any warehouse employee could handle

>5 tons of cargo
moved around the warehouse every day by the Motus robot



Supporting inclusive hiring practices

Yandex offers employment opportunities for people with disabilities, both remotely and in our offices, many of which have ramps and inclusive restrooms, storage spaces, and coffee areas equipped for ease of use, as well as buttons to call for assistance.

In 2023, around 800 people with disabilities¹ worked in Yandex businesses and business support team. Those include blind and visually impaired testers on the Yandex service accessibility team (read more in the [Accessibility](#) section), Yandex Lavka bakery production operators with mental disabilities, and deaf Yandex Market operational team members.

To help all team members feel comfortable communicating with each other, we are currently developing instructions and guides with support from specialized organizations. For example, our guide for communicating with deaf team members in warehouses is already in use today. Yandex has also adapted its internal services to make them more accessible to blind employees working remotely.

¹ The number of employees who reported having a disability to Yandex.



Women in Our Workforce

- GRI 405-1
- TC-IM-330a.3
- TC-SI-330a.3
- CG-EC-330a.3
- SV-ME-260a.1

36 %

of our employees are women

33 %

of managers of all levels are women
31% among the CEO-1 and CEO-2 levels

22 %

of employees in STEM roles are women¹

In 2023, over a third of our workforce was made up of women (36%). The number of female managers grew to 2,095 and totaled 33% among all managers (32% in 2022 and 2021). Among CEO-1 and CEO-2 level managers, 31% were women (32% in 2022 and 2021).

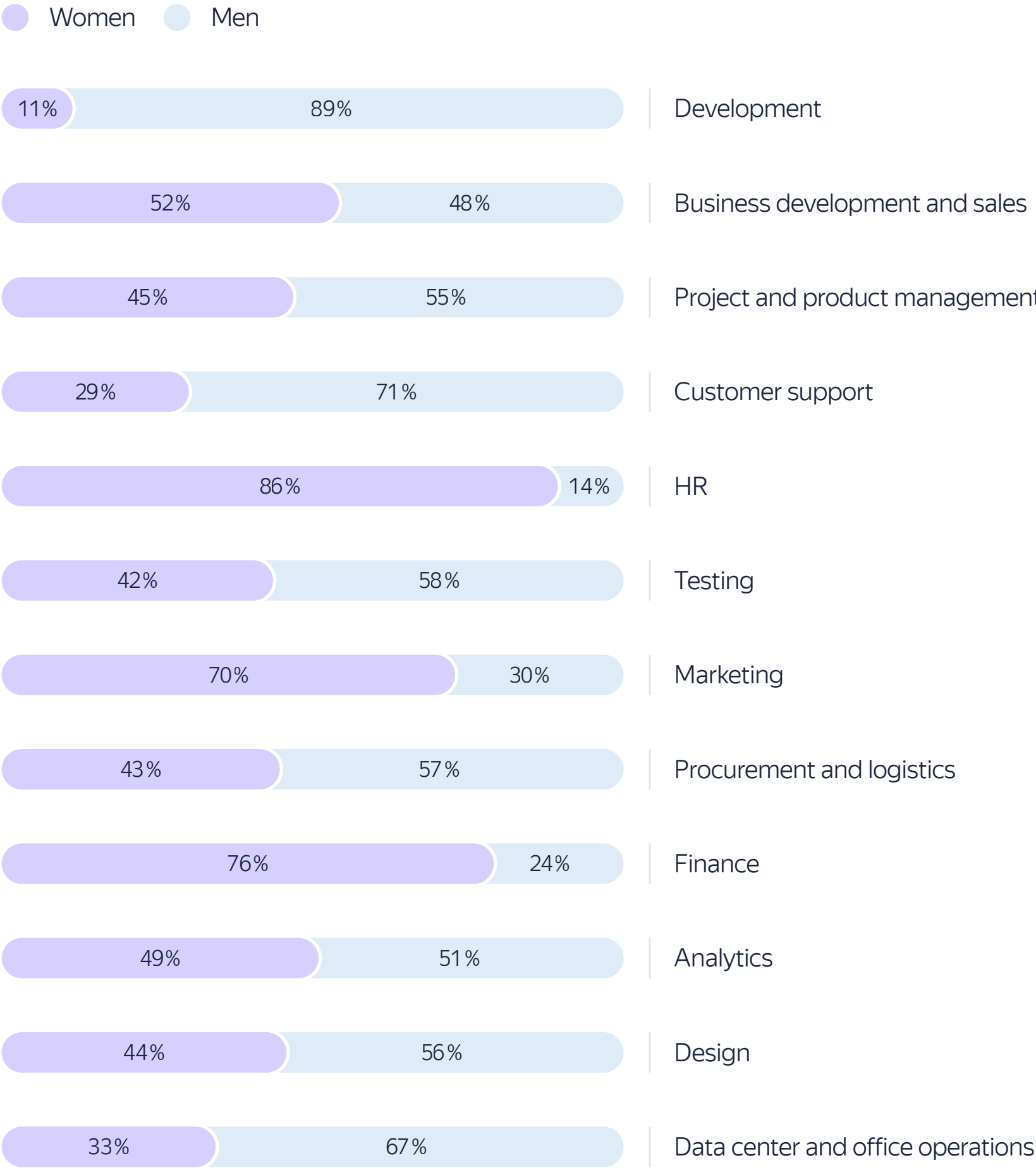
In 2023, the percentage of women in STEM roles was 22.2% (24.3% in 2022 and 23.3% in 2021), in line with industry trends. The growth rate of the number of women in development in 2023 was similar to the growth rate of the number of male developers, and in some technical and partially technical professions, the share of women increased. Among data analysts, the share of women reached 49% (47% in 2022), and 44% of (web) designers were also women (40% in 2022). According to available industry statistics,² the share of women in STEM roles on the markets served by IT giants was around a quarter in 2023.



¹ These include developers, test engineers, data analysts, web designers, product managers, and some other technical professions and related roles.

² According to the [US job market research](#) conducted by The Society of Women Engineers, 2023.

Representation of women by professional field, % of total Yandex employees in 2023



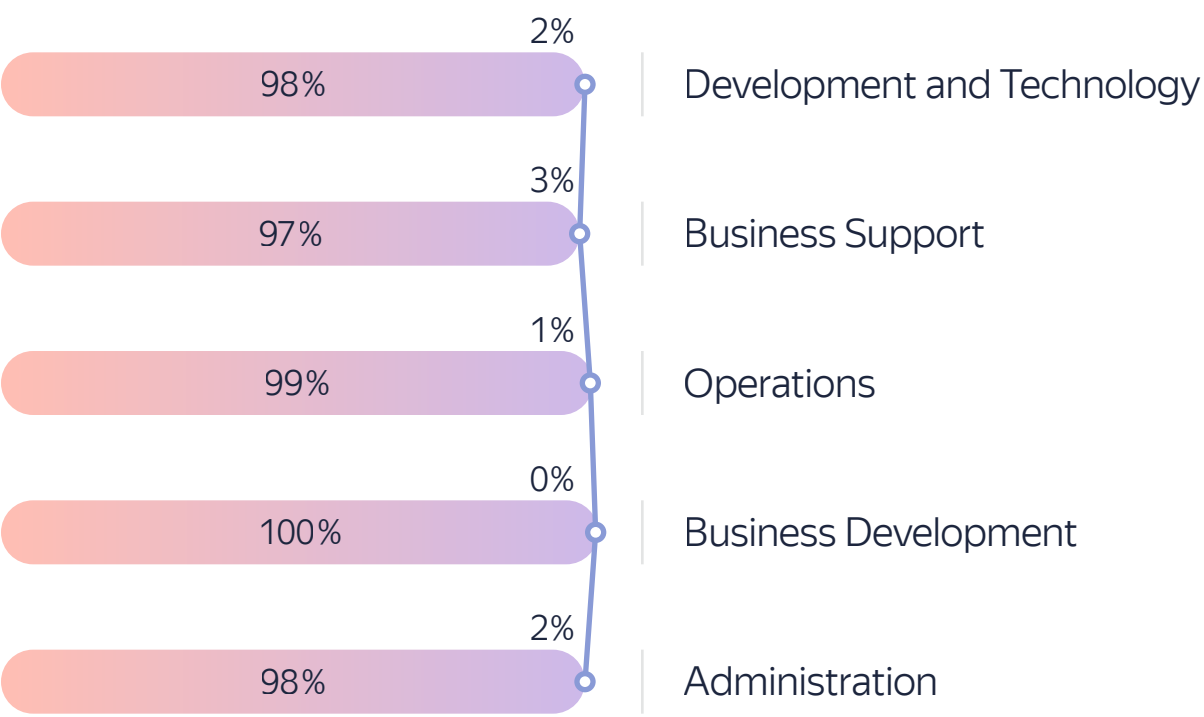


Women in Our Workforce

GRI 405-2

Average monthly pay of women relative to the average monthly pay of men by professional field

Gender pay gap



Calculated for full-time employees as of December 31, 2023. This covers all job levels, except top managers. Categories include development and technology (development, technical analytics, testing and product management), business support (marketing, design, and editorial), operations (logistics and technical support), business development (sales and customer support), and administration (finance, property and facilities, compliance, etc.)

Employee Motivation and Engagement

TC-IM-330a.2 CG-EC-330a.1 TC-SI-330a.2

Yandex strives to create an environment where employees can experiment, try new ideas, and learn.

Employee Engagement

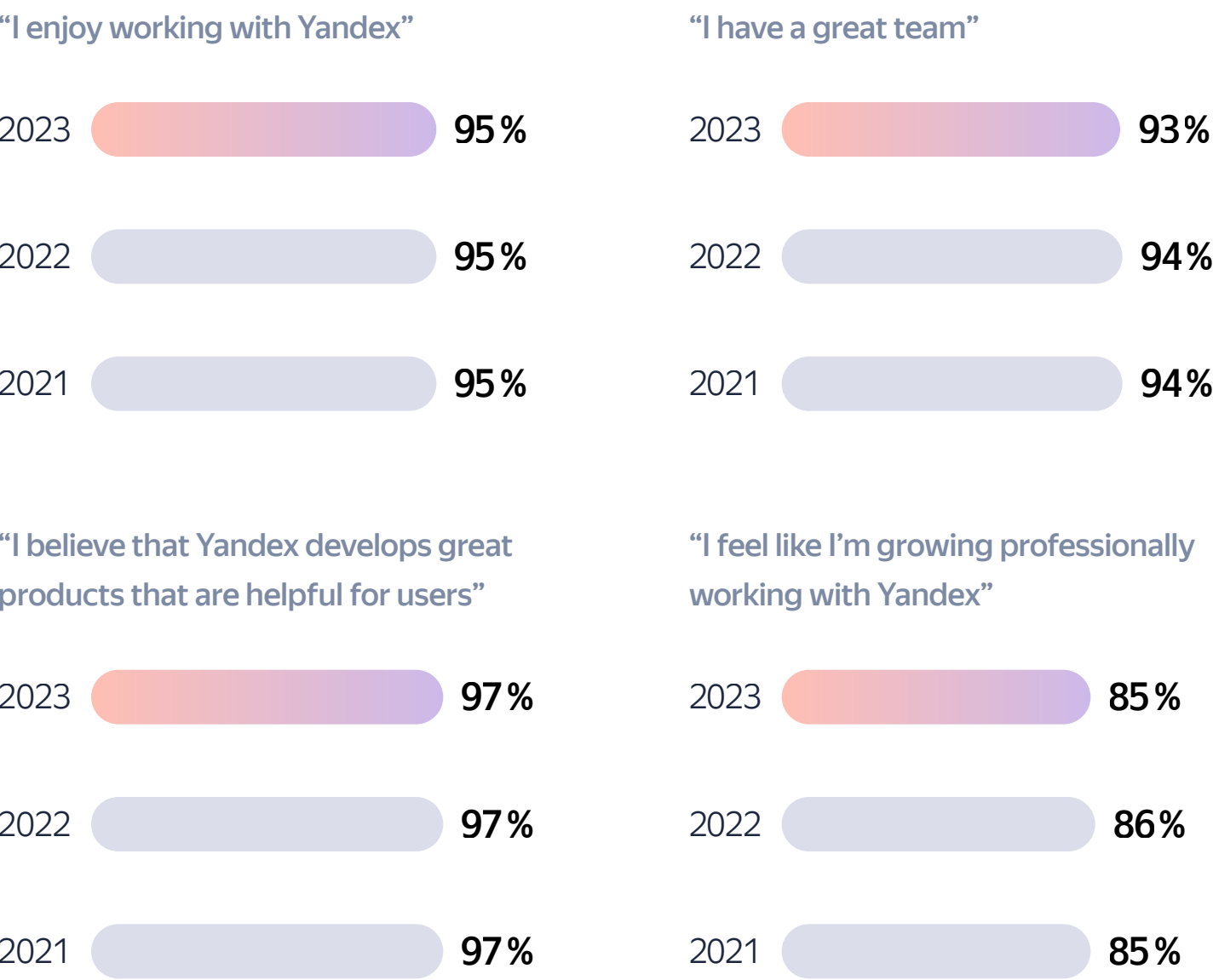
According to the 2023 engagement survey, the vast majority of employees enjoy working at Yandex (95%, the same as in 2020–2022).¹ 96% of respondents agreed that Yandex prioritizes employee wellbeing and satisfaction and demonstrates commitment to accommodating individual preferences.

In 2023, employees most appreciated the stability that the company provided, as well as the opportunity to work on impactful products, be challenged, and be part of a team of great professionals. 86% of employees noted that they highly valued the social impact Yandex is making. Moreover, almost half of respondents said their teams regularly discuss how their product can help address social or environmental challenges. In total, more than half of company employees took part in the survey.

87%

of employees reported feeling actively engaged in their work in 2023²

Percentage of affirmative responses to key questions³



¹ We hold an engagement survey annually to determine overall employee job satisfaction, alignment with our mission, the basic needs of our teams, and whether Yandex is doing enough to meet those needs.
² For our calculation methodology, please see the [ESG Data Tables Annex](#) of this report.
³ The engagement survey consists of more than ten questions. For the purposes of this report, the charts provided show only a sample of the responses.



Employee Engagement

Onboarding Program

All new hires go through onboarding. In 2023, there were more than 10,000 new hires in Russia and internationally. The onboarding program lasts three months and aims to help newcomers get to know Yandex, our corporate culture, and other team members. Every new employee is assigned a buddy – an experienced teammate who is tasked with sharing work tips, introducing them to office life, and helping them get in the rhythm of working at Yandex.

Onboarding is centered around the new employee’s role in the company. For example, in 2023, Yandex launched a special onboarding program for new managers, as well as a **technical adaptation program** with a separate track for **onboarding experienced developers**.

The introduction of the technical adaptation program was driven by our internal research, which showed that the first few months at Yandex significantly impact the long-term performance of technical specialists.

New hires not only learn about our values and internal culture but also focus on mastering the tools and systems we use. For experienced developers, adapting to team workflows is crucial.

Our **MultiTrack** program (RU) allows experienced frontend and backend developers to work in three different teams during their probationary period, and to choose their preferred team based on their experiences. Throughout the onboarding process, developers are guided by a recruiter who acts as their supervisor. This flexibility has proven effective in engaging top talent in a competitive labor market: over the past two years, all developers who completed MultiTrack stayed with Yandex after onboarding.

Peer-to-Peer Connections

Yandex holds various events for employees and their loved ones, and supports the formation of communities among employees with similar interests or jobs, or those who live in the same city or country. These efforts help enhance engagement within the company.

Our company-wide multi-format project about life in the office and beyond, **How to Yandex**, is available to all company employees and spans multiple topics. The project includes internal media showcasing life within the company, useful materials, and employee meetings with experts on various topics, covering mental and physical health, financial literacy, and the well-being of loved ones. Yandex also holds the **Let’s Talk meetings** to discuss employee experiences and challenges, and hot topics for the industry as a whole, such as gender stereotypes in IT or the ethics of artificial intelligence.

Every year, Yandex holds the **Summer Together** marathon, a series of free events for Yandex employees, their families, and friends. In 2023, the marathon included more than 1,800 events in 29 cities, from excursions, sports activities, lectures and workshops with famous speakers, to performances and concerts. Every third Yandex employee took advantage of the Summer Together activities.





Employee Social Benefits

GRI 401-2 GRI 403-3 GRI 403-6

Yandex offers a variety of employee benefits, from private medical insurance, travel insurance, co-funded medical insurance for relatives and mental health support, to home buying assistance (preferential loans at no interest rate or at a lower-than-market interest rate, depending on the loan amount), free sports activities, office food allowances, and discounts at partner stores.

In 2023, our focus continues to be on the promotion of preventive healthcare (disease prevention), and our list of available benefits continues to grow every year. We extended our private medical insurance to include new comprehensive health checkups. These include a general preventive examination with additional diagnostics, an athletic checkup, and pregnancy planning and postnatal care. In 2023, we also added appointments with nutritionists and somnologists to the program.

To support mental health, Yandex employees can work with psychotherapists in our offices, at clinics covered by our private medical insurance, and at third-party clinics (with compensation for a certain number of sessions). Mental health support is also available online, including family counseling.

1,075

employees received housing program benefits in 2023
this program is available in Russia, Kazakhstan, and Belarus

We collaborated with nutritionists to introduce a new food concept in our offices, featuring healthier options. In our Moscow offices, as part of a pilot program, employees can now find a wider variety of healthy items in cafeterias, vending machines, and coffee areas, including vegetables, fruits, nuts, grains, and herbal teas.

We continued to expand access to exercise opportunities for our employees with a new free functional training program in our offices, running and yoga classes, and practices for employee soccer, volleyball, basketball, and other sports, in addition to discounts and special offers in fitness clubs, swimming pools, and yoga and dance studios. We opened a new gym in our Moscow office and introduced “active” meeting rooms equipped with treadmills and exercise bikes, promoting both activity and productivity.

Furthermore, we host challenges where employees engage in tasks over several weeks aimed at cultivating healthy habits like regular workouts and proper nutrition.

>1,800

employees participated in in-person sports activities, while over 1,500 employees participated in online sports activities
900 employees were members of the Yandex running club





Employee Training and Development

GRI 404-1 GRI 404-2

Continuous learning is crucial to honing skills and remaining an in-demand IT specialist. To this end, we offer our employees various professional development opportunities, including educational courses and programs, specialized events and conferences, the option to change career paths and try new areas, and mentorship programs that provide platforms for sharing professional experience with colleagues.

In 2023, the learning platform **Quantum**, which we developed and integrated into the company’s infrastructure in 2022, offered more than 1,800 courses and materials on a variety of topics. Quantum content includes training courses developed in-house (including by employees themselves), and programs from external providers. Through integration with internal services and processes, Quantum is able to recommend content based on the employee’s profile (business unit, position, professional interests, and other criteria). In 2023, an average of 25,000 employees used Quantum monthly.

The **Sphere** leadership development community, launched in 2022, helps foster a unified management culture based on company values, performance, team motivation, and a healthy work environment. Its significance has grown alongside the expansion of our services and the increase in the number of managers compared to 2022. Sphere serves as an online platform for sharing experiences, offering educational events, and providing training for managers at various levels, including those preparing for new managerial roles. In 2023, we also launched a chatbot with a navigator for development tools and information on recommended training. In total, about 2,000 managers completed training programs in 2023.¹

Yandex employees can also benefit from **Ya.Mentor (I’m a Mentor)**, a platform that connects Yandex employees in need of professional or career advice with other team members who can help. Any Yandex employee with a portfolio of successful projects can become a mentor.

Space: A Universe of Careers in Yandex

In 2023, we launched the **Space** service to empower employees interested in exploring different projects or business areas within Yandex. Through Space, employees can discover internal job openings, apply for positions, initiate rotations, track their progress, and even refer friends and acquaintances for opportunities. Internal research at Yandex indicates that these rotations can enhance career development with every third rotated employee demonstrating improved review results.²

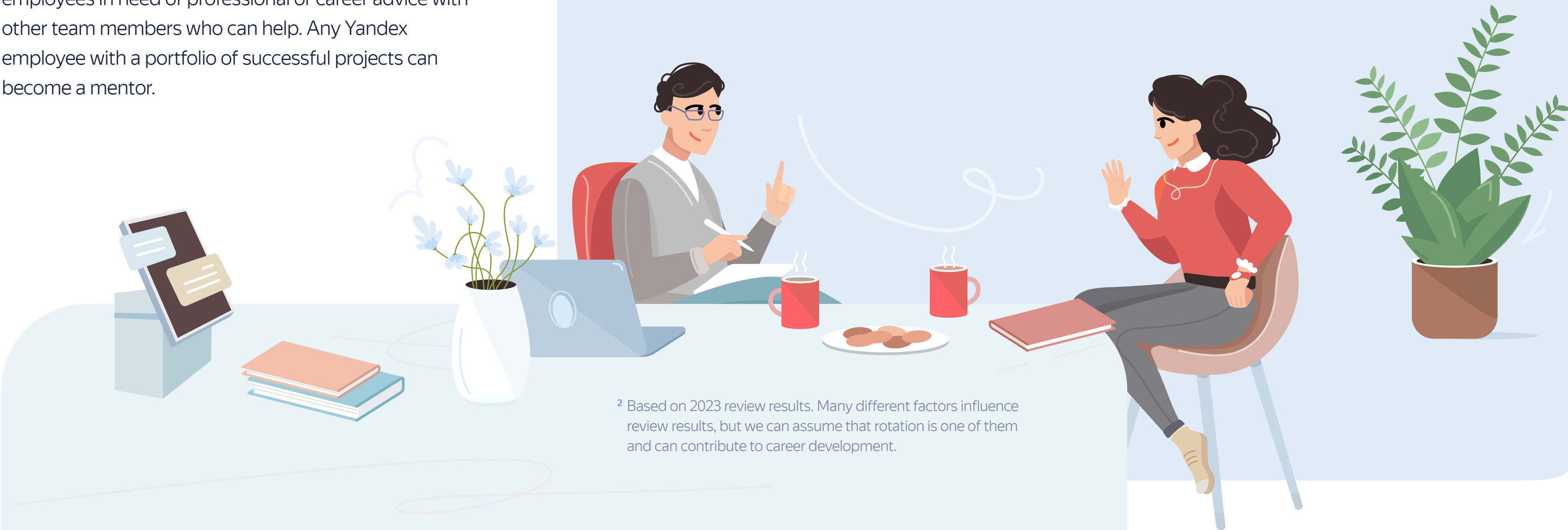
Using Space, employees can schedule sessions with career coaches to develop growth strategies within their current roles and evaluate the risks and benefits of rotating versus staying in the same position. Since its launch, Space has facilitated over 300 career consultations.

Every **7th**
employee rotated in 2023

Every **3th**
employee improved in their next two reviews after rotating
based on review data from 2023

¹ This number only accounts for training provided by the central training team. Various Yandex business units also have their own training programs for managers.

² Based on 2023 review results. Many different factors influence review results, but we can assume that rotation is one of them and can contribute to career development.





Education for All



GRI 203-1 GRI 203-2 GRI 413-1

This year marked significant advancements in artificial intelligence technologies, especially in generative language models. However, the rapid progress in the field creates an unprecedented demand for AI specialists possessing the requisite skills to support these technologies. According to a Yandex [study](#) (RU), finding and attracting professionals with the necessary AI competencies remains a primary challenge in implementing AI technologies, a concern shared by nearly all surveyed companies (99%).

As the educational system risks lagging behind in adapting to these technological shifts, opportunities for acquiring firsthand knowledge and experience are crucial for students and educators alike.

6.2 M

people took advantage of free Yandex educational programs in 2023



Yandex educational programs guide and assist learners at various stages, from introductions to mathematics and informatics to obtaining the most in-demand skills for building a career in digital technologies.



Schoolchildren and Teachers

With the Yandex Textbook online platform featuring a built-in AI assistant, schoolchildren can learn informatics. Yandex also offers educational courses on software development through Yandex Lyceum, organizes Olympiads and educational festivals, and equips teachers with necessary tools and knowledge to teach IT.

Our programs are grounded in the experience of specialists who work with these technologies daily, addressing highly in-demand subjects that are often inaccessible due to a lack of training programs or qualified instructors.



Students and Universities

Yandex and leading higher educational institutions offer joint undergraduate and graduate degree programs tailored to meet market demands. We also provide Yandex Cloud solutions to research institutions and offer programs designed for university students through the School of Data Analysis, covering the most in-demand IT fields.

More information on our educational projects is available on [Yandex Education](#) (RU). For a comprehensive overview of our free educational programs, see the [standalone annual report](#) (RU).



Post-Graduates and Professionals

Practicum by Yandex helps adults master in-demand digital skills and professions, and then find employment in the IT field. The platform offers training courses in development, data analysis, marketing, IT product management, and other areas, as well as online degree programs and corporate training.

¹ The Artificial Intelligence in Russia – 2023: Trends and Prospects study was a joint project between Yandex and Yakov and Partners.



Free Programs for Schoolchildren, University Students, and Graduates

For Schoolchildren and School Teachers

Yandex Textbook

Schoolchildren can use the free [Yandex Textbook](#) (RU) educational platform to study mathematics and informatics, and teachers are offered programs to elevate their professional expertise. In 2023, the platform was used by more than 1.6 million students and over 72,000 teachers from 22,000 schools in Russia.

Every year, Yandex Textbook holds educational Olympiads in mathematics and informatics to help schoolchildren improve their critical thinking and analytical skills.

For **junior school students**, we hold the **annual “I Love Mathematics” Olympiads**. In 2023, the program was structured as an interactive story, where participants helped program actions and plot optimal routes for Yandex autonomous delivery robots and other robots. This engaging format allowed students to deepen their knowledge in various areas of mathematics, enhance their spatial thinking, and develop their ability to formulate and test hypotheses. In certain tasks, students could earn points for making significant progress towards the correct solution, even if their answer was incomplete.

In 2023, Yandex once again held the [Informatics Olympiad](#) (RU) **for 5th–11th graders**. The event saw a 40% increase in participants compared to 2022.

The first round focused on logic, mathematics, programming, and coding with Python. In the second round, students explored various roles such as developer, product manager, designer, and editor, and got to develop new skills for Alice. The top skills have since been added to the catalog, including [a university applicant’s assistant](#), [a tour guide to the unique places of Russia](#), [a mathematical simulator](#) (RU).

Mathematics Olympiad

325 THSD

participants, of which 107,000 completed all the tasks

50 %

female participants and 49% female winners

Informatics Olympiad

>140 THSD

participants, of which 12,000 reached the final stage

43 %

female participants and 38% female finalists

>300

skills developed by the Olympiad’s participants for Alice (virtual assistant) were made available for users
199 skills in 2022





Yandex Textbook

Informatics Exam Readiness Platform

In 2023, Yandex Textbook launched a **free platform** (RU) with a built-in AI assistant to help prepare for the Unified State Exam in informatics. The platform offers over 1,000 sample questions with different variations (written by Yandex and taken from past exams), divided by topic and difficulty. This resource can be used in class settings with a teacher or tutor, and for independent study.

Students benefit from convenient tools such as a built-in code editor and highlighter for notes. The built-in AI assistant powered by YandexGPT can explain theory and unfamiliar terms, point out errors in code or solutions, and ask leading questions to help students reach the correct answer independently. The neural network was trained on materials created by more than 100 informatics teachers. There are also videos available from Yandex Textbook’s content developers to explain complex problems and the most common mistakes.

Teachers have their own accounts where they can make groups of sample questions and also monitor student statistics and progress by training level, age, or grade.

~100 THSD
schoolchildren have used the platform to study for the Unified State Exam in informatics by the end of April 2024

Yandex launched the free **Talent Pool** (RU) professional development program for school informatics teachers and students majoring in education or pedagogy. The program includes workshops and competitions to improve professional skills and share the best teaching practices. Program participants also receive materials and digital tools to hold Olympiads, administer tests, and teach classes designed to get students more involved in the world of informatics.

10 THSD
teachers from different regions of Russia participated in the Talent Pool program in 2023





Yandex Lyceum (RU) offers who are interested in becoming junior developers. These courses teach modern programming languages and provide insights into professional software development. The project has extensive geographical coverage: Lyceum is available in 160 cities across Russia.

In 2023, Lyceum evolved from a traditional two-year program to a dynamic educational platform. It now offers a year-long offline programming course alongside three-month online courses in specialized fields such as game development, big data, and machine learning. We have also expanded our reach to include first- and second-year students from vocational schools and colleges. In collaboration with Yandex Go, Lyceum launched Programming Schools in Armenia, Kazakhstan, Kyrgyzstan, and Uzbekistan, catering specifically to 9th–11th graders. Following a selection process, 318 new students from these countries commenced their studies with Lyceum in 2023.

7,375

students graduated from annual Yandex Lyceum courses in 2023
466 students completed specialization courses

According to the survey results of almost 2,000 Lyceum graduates, **two-thirds** enrolled in technical universities while a **third** opted for undergraduate programs in comprehensive institutions. Beyond higher education institutions in Moscow, regional options are also in high demand. For example, the majority of respondents in the Novosibirsk region are either currently studying or planning to enroll in Novosibirsk State University or Novosibirsk State Technical University.

8 Bits

In spring of 2023, we held the second annual **8 Bits Festival** (RU) for schoolchildren exploring career options and adults interested in transitioning to digital professions. Each day of the event was dedicated to a different Yandex service. Our experts shared their personal journeys in IT and explored the technologies behind Yandex products, from autonomous solutions and generative neural networks to creative writing and filmmaking. More than 20,000 registered participants logged in to watch the live streams with experts.

Digital Classroom

In 2023, Yandex extended its support of the Digital Classroom, an all-Russian educational project. As part of the **“Technology that predicts the weather”** (RU) lesson, schoolchildren learned about IT professions in meteorology and how atmospheric phenomena are measured, analyzed, and forecast. In **“Cloud technologies: In search of snow leopards”** (RU) by Yandex Cloud, students explored computer vision technologies, training of neural networks, and the design of cloud services and data centers. They also had the opportunity to learn about in-demand IT professions like software architect, cloud service developer, data engineer, and ML developer.

3.1 M

schoolchildren took the lesson on weather forecasting technologies

3.3 M

schoolchildren took the lesson on cloud technologies

For University Students, Graduates, and Higher Education Institutions



16

partner universities offer degree programs in IT disciplines in collaboration with Yandex

2,441

students were enrolled in Yandex partner programs at universities in the 2023/24 academic year
556 students graduated from joint programs in the 2022/23 academic year

>70

Russian higher education institutions are supported by Yandex Cloud





For University Students, Graduates, and Higher Education Institutions

Partnership Programs with Universities

Yandex has established [partnerships](#) (RU) with leading Russian universities. Today, more than 4,000 students at 16 universities are enrolled in our Bachelor’s and Master’s programs.¹ Together with partner universities, we train in-demand IT specialists from various fields, from machine learning engineers to sociologists and economists skilled in data analysis. In 2023, we launched new joint educational programs at six universities: MIREA – Russian Technological University, Moscow Aviation Institute, National Research Nuclear University MEPhI, National Research University Higher School of Economics (Saint Petersburg campus), Novosibirsk State University, and ITMO University.

By the end of 2023, Yandex had provided cloud technology training to over 21,200 students through **Yandex Cloud** educational programs. This included Yandex Cloud’s proprietary courses on the platform, complemented by 12 [free courses](#) (RU) in 2023, as well as courses offered through online partners such as Practicum by Yandex, Netology, OTUS, and others. Since the launch of Yandex Cloud’s educational programs, more than 36,200 students have successfully completed these courses.

In April 2024, Yandex Cloud [launched](#) (RU) a certification program for cloud specialists aligned with both international and national standards. Completion of the program helps professionals gain a competitive advantage on current IT projects and the job market.

Yandex Cloud continues to [serve as a technological partner](#) (RU) for over 70 Russian universities, including Moscow State University, Higher School of Economics, ITMO University, St. Petersburg State University, Ural Federal University, Moscow Institute of Physics and Technology, and more. In 2023, more than 9,000 students used our cloud platform.

We support teachers and student communities by holding open webinars and workshops on cloud services, and also provide grants to universities and research institutes.

As part of the [program to promote science and education in the field of computer science](#) (RU), we provide free access to dedicated computing resources and unlimited storage of datasets and educational materials. Educational institutions use these resources to teach undergraduate and graduate students, while research organizations leverage them to conduct experiments, test hypotheses, and prepare scientific papers and studies more effectively.

Yandex Cloud also supplied cloud resources to dozens of student hackathons and competitions, including the national “I Am a Professional” Student Olympiad and the YandexGPT Week online intensive course by the Yandex School of Data Analysis, which has 6,000 registered students. We also regularly partner with student accelerators, and in 2023 awarded grants to more than 50 student startups to access our cloud technology.



¹ As of the end of Q1 2024.

Medical Data Platform

In a joint project with Sechenov University and Beltel Datanomics, Yandex Cloud developed a [medical data platform](#) (RU) to help scientists, doctors, and medical students collect data for research. The platform is currently available in test mode.

The project complements the Medical Information Systems (MIS) digital resources of the Russian Ministry of Health, in which medical institutions store patient histories and examination results. However, MIS currently lacks the capability to download aggregated data on patients with similar symptoms, which could be a valuable resource for research. For instance, such data could help identify the most effective methods to combat new strains of influenza during seasonal outbreaks. Currently, researchers manually gather this data from archives for their studies.

With the medical data platform, however, users can get depersonalized clinical data in a matter of seconds using 150 filters, including for gender, age, and symptoms.² The database already includes 18 million records (anonymized in advance) from the MIS of Sechenov University clinical hospitals.

² Such data cannot be used to identify a specific person. Users only see information about a particular clinical case.



For University Students, Graduates, and Higher Education Institutions

Data Analysis School

The [Yandex Data Analysis School \(YSDA\)](#) (RU) is a free two-year program focused on today’s most in-demand computer science skills: machine learning in services and applications, data analysis, systems for storing and processing big data, and data science.

Over the nearly two decades since YSDA was first launched, more than 1,400 people became its graduates. Many of them continue their careers in IT in Yandex and other large technology companies, startups, and their own digital projects. During the program, students work hands-on with real digital products to hone skills aligned with their educational track, often leading to contributions to innovative solutions. One example is Yandex Cloud’s environmental research solutions, developed in collaboration with the YSDA class of 2023. Read more about these products in the [Technology for Environmental Research](#) section.

In 2023, YSDA opened its campus in St. Petersburg that will host open lectures, intensive courses, workshops from leading YSDA instructors and Yandex experts, development hackathons and competitions in machine learning and algorithms, open to anyone interested in AI.

183

students graduated from YSDA in 2023, with over 50% hired by Yandex

62%

of YSDA graduates have at some point worked at Yandex, and **every second** graduate receives a job offer from Yandex

12%

of graduates work in large international technology companies



Yandex ML Prize

The Yandex Prize in machine learning (renamed the Yandex ML Prize in 2023) was established in 2019 in honor of Yandex co-founder Ilya Segalovich. Since then, it has been [awarded](#) to 50 young researchers and scientific leaders who have made significant contributions to the development of machine learning.

In 2023, Yandex presented the award for the fifth time, expanded eligibility to 11 countries, and introduced new nominations, including First Publication and ML Educators acknowledging young researchers just beginning their careers, as well as those helping others make advancements in machine learning, respectively.

Out of the 200 applications received, the award council selected 11 winners who received cash prizes of RUB 500,000–1,000,000 depending on the nomination, access to Yandex 360 services, and a grant to use Yandex Cloud for large-scale calculations and data processing.

11

young researchers and scientific advisors won prizes in 2023 for their promising and significant work on speech recognition and synthesis, computer vision, information retrieval, natural language processing, and generative models





Training in Digital Professions

Yandex Practicum

Practicum by Yandex (RU) is an online learning platform for acquiring in-demand digital skills and professions for a career in IT.

Practicum helps educate specialists in IT (data analysts, developers, testing engineers) and other digital professionals (designers, marketers, and IT managers). The platform offers more than 150 reskilling and upskilling programs, as well as corporate training.

In addition to the platform’s dedicated team, more than 2,000 teachers, tutors, reviewers, and mentors support Practicum by Yandex training courses to help students every step of the way.

In 2023, Practicum by Yandex launched an accelerated online Bachelor’s degree and online Master’s program in collaboration with leading Russian universities: ITMO, NUST MISIS, and Tomsk State University. Now, besides helping learners reskill for new professions, it also offers students the opportunity to get a degree in IT. Out of the over 1,900 applications we received, a total of 142 students were enrolled.

70 THSD

students have graduated from Practicum courses since the service’s launch 5 years ago

>4 THSD

partner companies offer vacancies to graduates

53 %

of students join Practicum by recommendation from friends

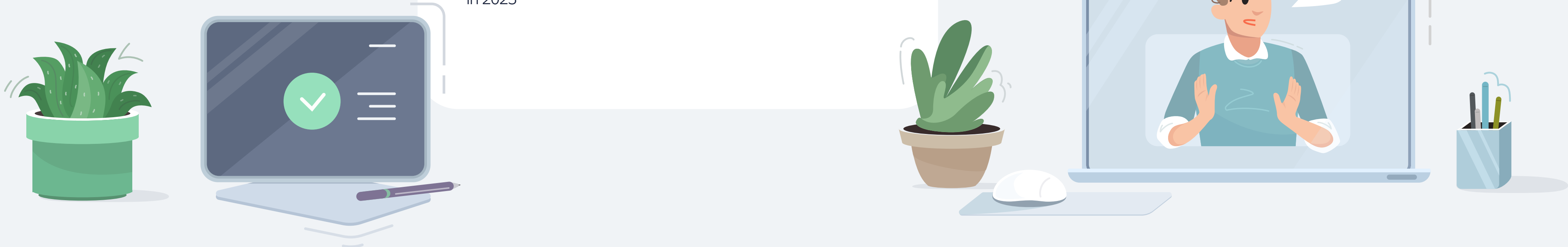
2 THSD

companies trained their staff in Practicum in 2023



We know that starting a career in a new profession can be difficult, which is why we partner with potential employers. Practicum students are welcome to participate in the free **Career Center** (RU) employment program during their course of study or after graduating. Yandex helps students polish their resumes and cover letters, prepares them for interviews, organizes individual meetings with HR specialists, and shares partner vacancies. Today, vacancies in more than 4,000 service partner companies are available to Practicum graduates, and almost 70% of students who contact the Career Center to change careers are employed within six months after graduating.

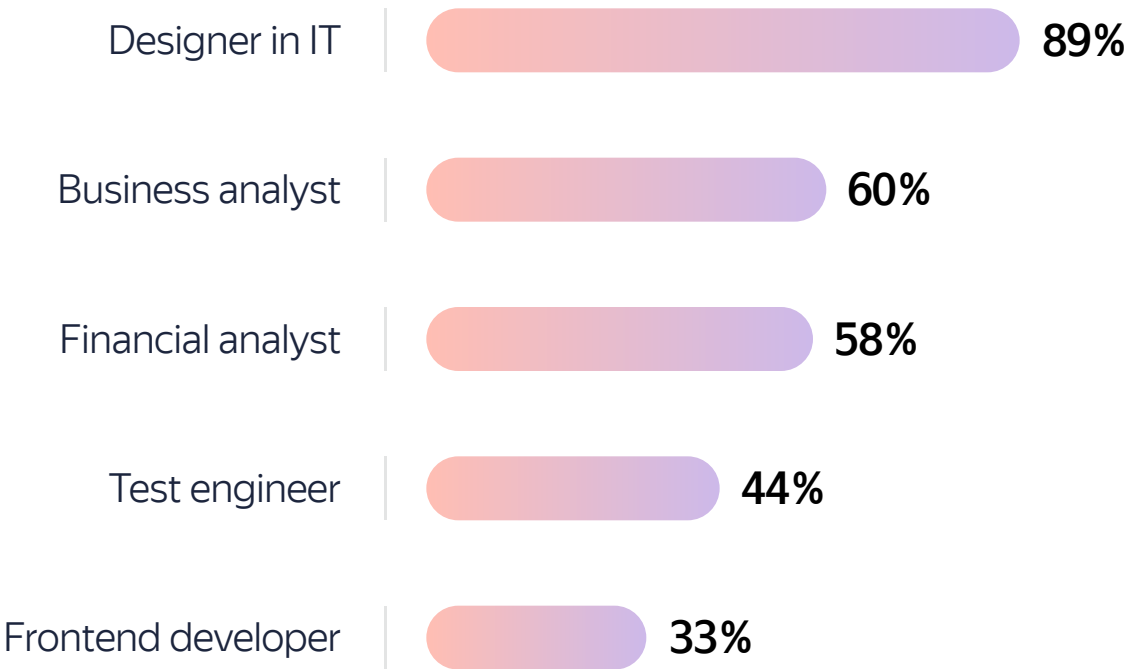
To help build a portfolio of applied projects relevant to their new profession, students can join **Workshop**, an internal Practicum service that allows students to solve real tasks from companies (including Yandex) and non-profits under the guidance of experienced mentors. This can include creating websites, writing chatbots, analyzing data, and launching ad campaigns in Yandex Direct. At the end of March 2024, 12,800 Practicum students were working on these projects. Examples of their work can be viewed on the **Workshop website** (RU).





Training in Digital Professions

Female students by different training specialty in 2023



55 %

of Practicum graduates in 2023 were women
48% in 2022

Enhanced Learning with YandexGTP

To aid students in understanding challenging content, Practicum by Yandex has introduced generative hints powered by YandexGPT. The neural network explains theory in simple language and helps students review material. If students are struggling with part of a lesson, all they have to do is highlight the problem area and turn on generative hints to get an explanation, without being distracted by additional sources. YandexGPT also helps find mistakes in code, including typos and syntax errors, then prompts students to make the corrections independently, without revealing the correct solution.

The language model is trained on an array of theoretical material from Practicum, and course experts validate the quality and accuracy of hints. Today, 80% of Practicum students are already taking advantage of the platform’s neural network features.





Yandex Service Partners



Yandex connects millions of partners offering various services in diverse areas. Our partnerships span individuals (such as drivers and couriers) and businesses of all sizes (including sellers on Yandex Market and restaurants). Ensuring that these interactions are comfortable, safe, and profitable for all parties involved is our top priority.



Social Support for Drivers and Couriers

GRI 203-2 GRI 413-1

In 2023, we focused on refining **Yandex Pro** (RU), our unified platform for order fulfillment, to make it an even more user-friendly tool for selecting partnership formats and earning opportunities with Yandex services. These options include driving a taxi or delivering orders for Yandex’s e-commerce, grocery, ready-to-eat, and middle- and last-mile delivery services.

In Yandex Pro, partners can independently manage order volumes and time spent on the platform, and also conveniently track earnings. After registering on the platform,¹ it only takes a few hours to start completing orders, which is important for partners who want to start earning quickly.

Knowledge Base for Partners [↗](#)

The Yandex Pro **Knowledge Base** (RU) contains useful instructions, guidelines and tips for Yandex service partners, organized by topic.

Partners can find detailed information on earnings calculations, safety protocols, discounts, special offers (such as on food, groceries, and scooter or bike rentals), quality standards, and more. There are also tailored recommendations for self-employed and new partners to help them get started and succeed.

1.75 M

active drivers in all countries of presence
in December 2023

↑ 18 %

increase in the number of female drivers who started
partnering with Yandex Go in Russia
compared to 2022

~ 30 THSD

active couriers partnering with Yandex foodtech and
delivery services (Yandex Eats, Delivery, Yandex Lavka,
Yandex Delivery) in 2023
deliver orders daily in Moscow

¹ In compliance with the norms of rest time and driving time.



Social Guarantees and Financial Assistance Programs

Yandex continues to be one of the few companies globally offering a **medical insurance scheme** to drivers and couriers to protect their earnings 24/7.

While giving a ride or delivering an order, the partner’s **free insurance** (RU) is active. In the event of a road accident, the injured partner is eligible for coverage up to RUB 2 million. This insurance coverage applies to taxi drivers, driving couriers, foot couriers, and couriers using bikes and scooters, as well as Yandex Go taxi users. Insurance payouts are made as per the approved procedure.

Service partners can also opt in to additional **health and life insurance** (RU) that covers situations where the driver or courier isn’t on an active order. In the event of illness, the insurance company compensates the service partner (similar to sick pay) at a rate established for the particular region. If a partner has Silver, Gold, or Platinum status in the rewards program, the cost of the policy is returned in full or in part as bonuses to their Yandex Pro balance.

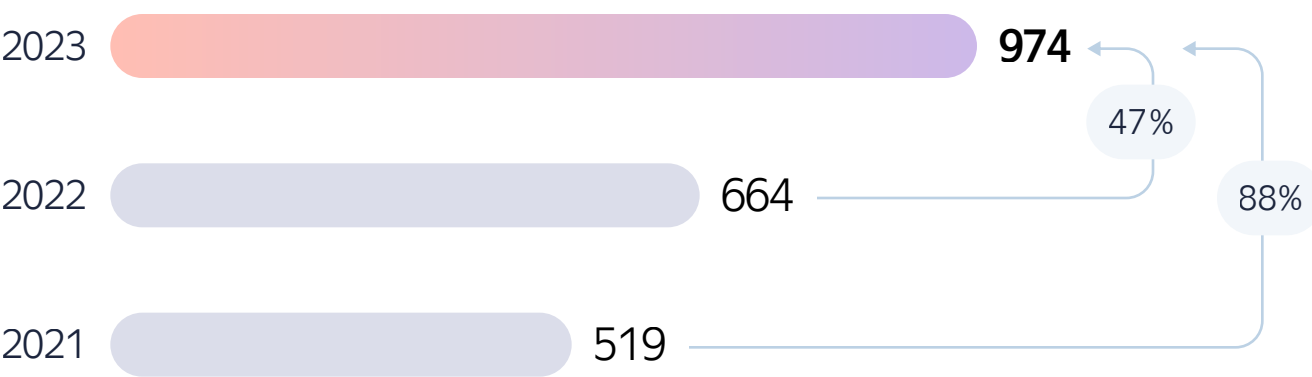
We also provide courier liability insurance for deliveries ordered through Yandex Delivery. The user is eligible for compensation of up to RUB 500,000 if a parcel or freight is damaged or lost during delivery. Insurance payouts are made based on the approved procedure. The insurance becomes effective upon the arrival of the driver or courier to the sender and expires after delivery to the recipient.



2 RUB M

the maximum coverage available to drivers and couriers in case of an accident while they are on an active order
insurance also covers users during their taxi ride

Combined earnings of partner drivers and fleets partnering with Yandex Go,¹ RUB billion



¹ Combined earnings are based on the service's data and calculated as the total GMV for the period less the net take of the service, adjusted for payments to partners from the service (bonuses, etc.). The increase in earnings compared to 2022 is due to improved order distribution technology on the platform and investments in driver supply.



Support Programs and Benefits

In 2023, we launched a **new meal program** from Yandex Lavka for partners of our city services. Now couriers and drivers have access to combo meals at a discounted price.¹ We allocated more than RUB 60 million to support the program and subsidize most of the cost of combo meals.

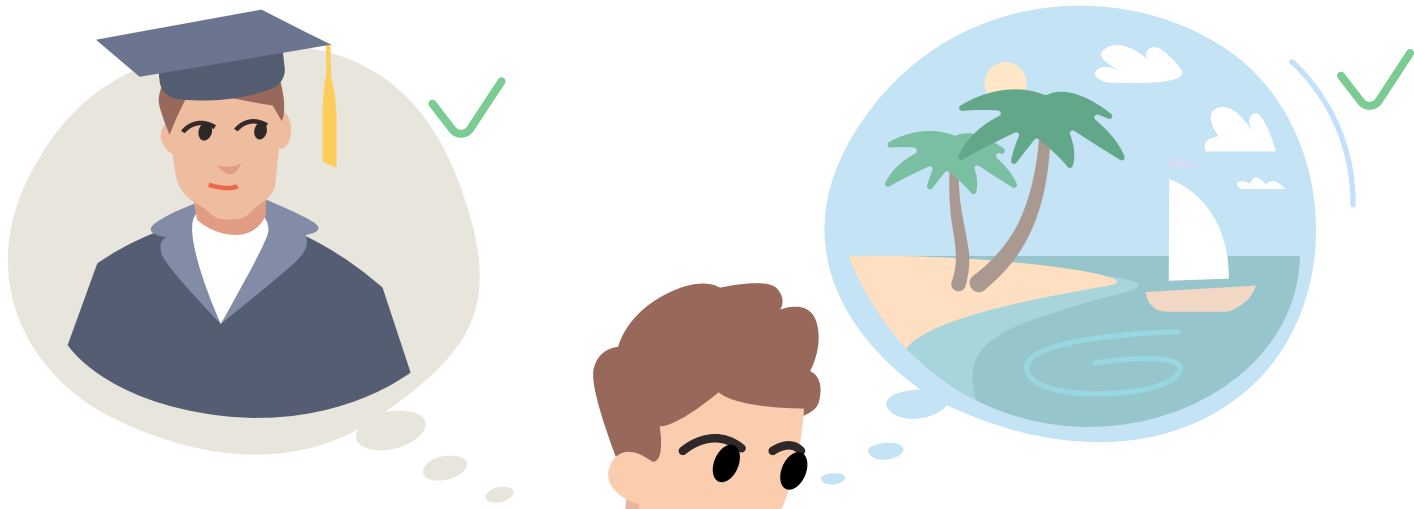
To determine what to include in combo meals, Yandex Lavka surveyed over 2,000 partners about their lunch preferences. Based on the results, we introduced five different options, each consisting of a main course and a salad. All lunch items are produced by Yandex Lavka suppliers whose facilities have passed in-person audits and whose products passed our taste tests. These lunches can be purchased through the Yandex Lavka and Yandex Go apps and picked up at the nearest Yandex Lavka dark store. Each lunch combo is priced at RUB 95 (approximately USD 1).

>60 RUB M

allocated to develop a new discount meal program for drivers and couriers in 2023

We offer a **rewards program** (RU) for drivers that provides a range of benefits upon completing a certain number of ride orders.

We also develop special support programs for self-employed partners,² offering services such as access to free legal consultations and preferential auto loan programs in partnership with regional authorities and banks. In 2023, we introduced a new MIR debit card from Yandex Bank for self-employed partners, providing free service and instant payments without additional fees.



Dreams Do Come True

In 2023, Yandex Lavka launched a feature aimed at rewarding courier partners for their dedication in providing an excellent service. This feature displays a photo of the courier alongside a brief description of their personal dreams or aspirations. Users now have the opportunity to express their appreciation directly by thanking the courier and leaving a tip to support them in achieving their goals.

Following the success of this initiative, Yandex Go also introduced a similar feature for drivers later in the year.

The Courier Dream Option in Yandex Lavka

within two weeks after launch

↑25 %

increase in the number of users who leave tips

↑31 %

increase in tip amounts on orders displaying courier aspirations

¹ Combo lunches are available to partners in all cities where Yandex Lavka operates.

² This tax regime enables partners to collaborate with Yandex directly and apply a reduced tax rate.



Driver and Courier Safety

GRI 403-7

Safe Driving

We apply various technological solutions to ensure the safety of Yandex Go partner drivers. In 2023, we published our [Safety Policy](#) (RU) outlining the tools we use to help prevent accidents and mitigate other risks related to safety on the road. Over the past three years, we have been maintaining an incident rate of less than one incident with an injury per one million kilometers traveled with Yandex Go.¹

Ride Insurance

In the event of an accident during a ride, both the driver and passengers are eligible for coverage of up to RUB 2 million. The insurance is activated when the driver taps the “Start Ride” button and ends when the trip is completed.

Help Following Traffic Rules

We regularly offer tests and quizzes to help drivers refresh their knowledge of traffic rules, safe driving, and service standards.

Monitoring Speed and Driving Style

Our algorithms help drivers monitor their safe driving performance, and we share driving profile reports with them regularly.

Monitoring Potentially Dangerous Situations

If there is a significant deviation from the route or a long stop during a ride, we contact the driver and passenger to find out the reason and take the necessary measures.

Monitoring Time Online

When we see that a driver has been online for a long time, we send them a reminder that they need to take a break. During the break, access to trip requests in the app is restricted.

Conflict Button

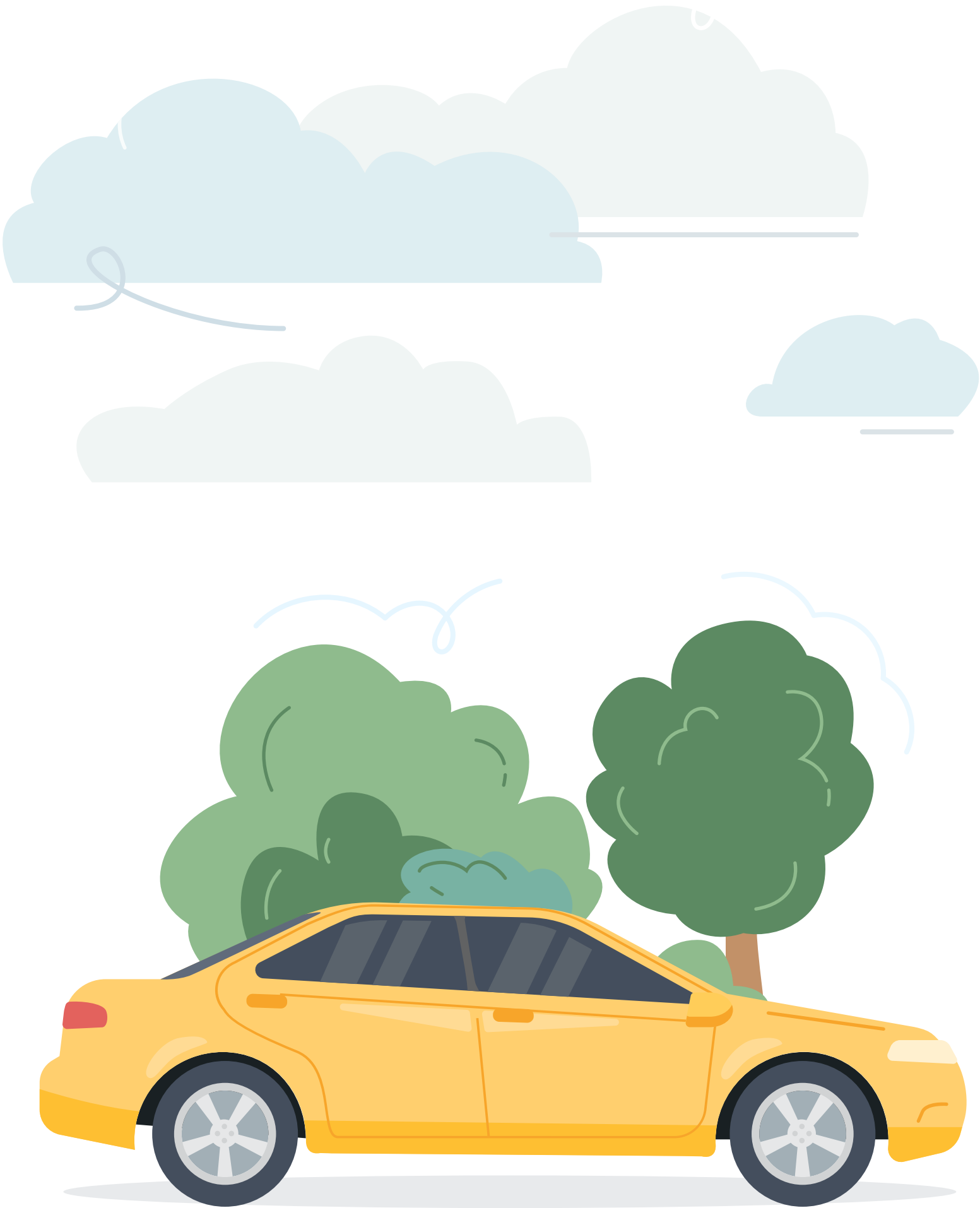
If there is a problem during a ride, drivers can tap the “Conflict” button in the app to record an audio file of what is happening in the car. The audio is then sent to the support team, who will contact the driver through the in-app chat.

Trip Payment Control

We reimburse unpaid trips when the cashless payment option is selected. If a passenger chooses to pay in cash but fails to do so, they will only be permitted to request future rides using cashless payment methods. The full fare for the ride will be charged as soon as a vehicle is assigned for pickup.

Personal Data Protection

To protect drivers, we anonymize their phone numbers and keep them hidden from users within the app. Additionally, all information entered by drivers into Yandex Pro is protected by our security protocols and in line with legal requirements.



¹ In 2021, 2022, and 2023 according to data from Yandex Go about traffic accidents on active rides.



Safe Walking and Biking

Yandex foodtech and delivery services (Yandex Eats, Delivery, Yandex Lavka and Yandex Delivery) published their [Security Policy](#) (RU), detailing measures that help reduce risks for on-foot and bicycle couriers delivering orders.

Traffic Rules Training

We provide couriers with materials on traffic rules and service standards, both in the app and on the [Yandex Pro website](#) (RU). During their initial period as our partners, couriers will receive reminders about rules and safety measures while delivering their first orders with us.

Special Equipment

To help keep couriers safe, we equip them with delivery bags and jackets featuring reflective elements, ensuring they remain visible in low-light conditions.

Optimal Routes

Yandex uses special algorithms to plot the best routes. The shorter and simpler a courier’s route, the safer the delivery. We also rely on the knowledge and experience of couriers who note the shortest and safest routes on Yandex Maps, and those that should be avoided (for example, due to road closures or construction).

Observer Teams

We deploy bicycle assistants in high-density courier areas and busy intersections to enhance safety. These experienced couriers are familiar with the city’s intricate roadways and potential hazards. They monitor courier activities and intervene when necessary to remind them of traffic regulations. Bicycle assistants undergo rigorous training, including passing a traffic rules exam and receiving specialized instruction.

Tools and Bicycle Repair Assistance

Couriers can use tools for quick bicycle repairs at Courier Centers, Yandex Lavka dark stores, and Yandex Market pickup points in cities around Russia. Our courier partners also get discounts in certain bicycle repair centers, stores, and rental services.

Special Rates for Scooter Rentals

Couriers have the option to rent Yandex Go scooters at a discounted rate for making deliveries. These scooters are equipped with speed limiters, undergo regular maintenance, and feature other safety enhancements to ensure safety. In 2023, Yandex also [presented](#) (RU) its proprietary electric bicycle, specially designed using feedback from couriers to improve safety.

Convenient Slots

Safety also relies on the couriers’ level of rest before taking delivery orders. Couriers have the flexibility to choose their preferred delivery time and location within the city. We notify them through the Yandex Pro app if they exceed the recommended daily online hours.

Late-Night Taxis

Couriers may have late-night deliveries when public transport is no longer available. To ensure our partners get home comfortably and safely at these times, we provide promo codes that cover part or all of their taxi ride expenses.

Data Privacy

We carefully monitor the security of data that couriers provide in Yandex Pro, and all information is stored on secure Yandex servers. To further enhance privacy, we automatically mask phone numbers with a temporary number that is only valid during deliveries.

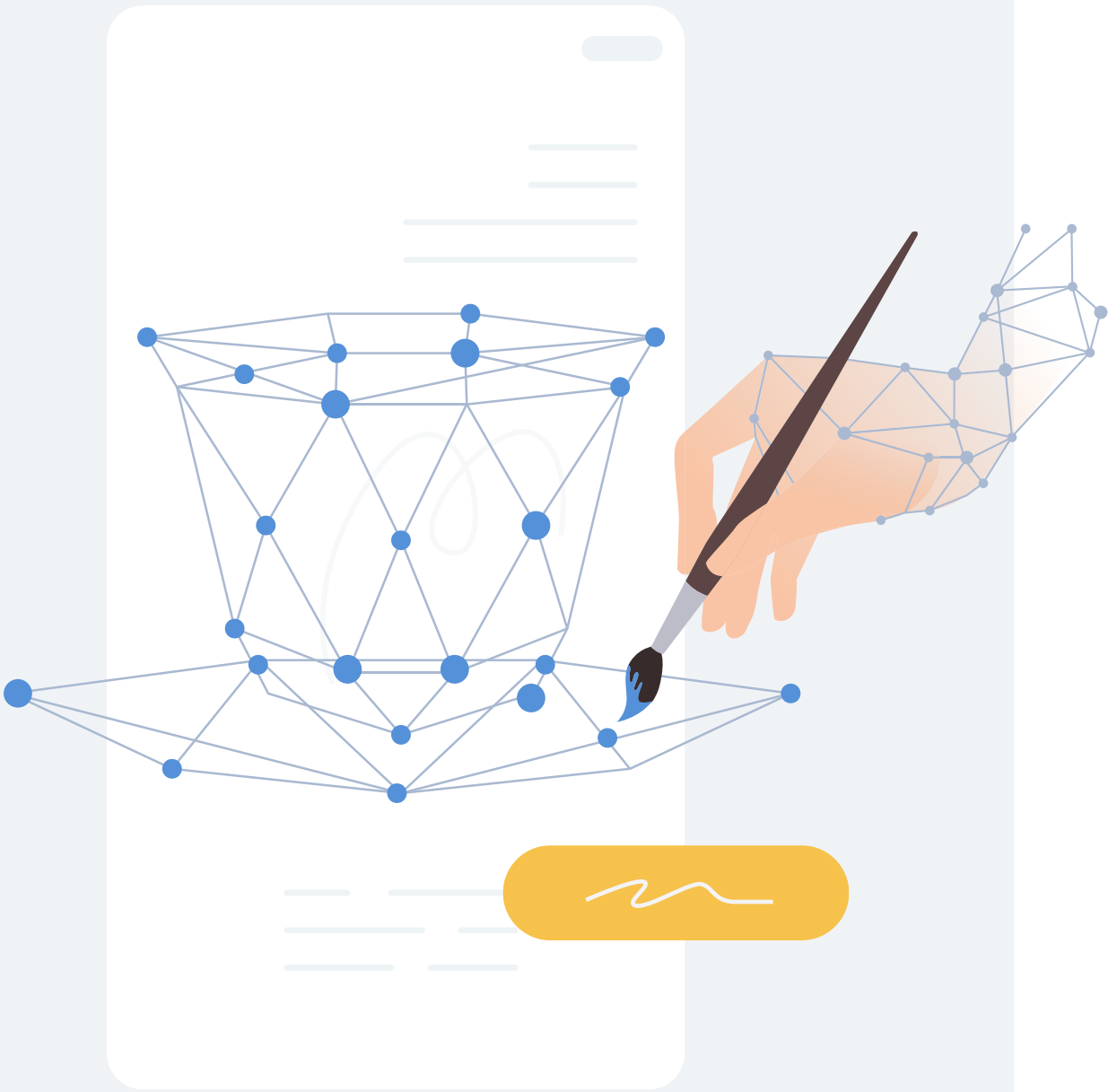




Yandex for Business Partners

GRI 203-2 GRI 413-1

With the help of Yandex services, businesses can attract new customers, increase sales, and optimize business processes using innovations like neural networks. Our products are available to businesses of any size, from major organizations to small and medium enterprises.



For Sellers

In 2023, we focused on ensuring fair competition among sellers of identical or similar products by protecting original seller content from use by competitors. Now the pictures, video reviews, and product descriptions created by stores are only visible to shoppers of that store. Original content is hidden from the general product card, which groups similar items from popular sellers together for the convenience of shoppers. Customer ratings and product reviews are now also seller-specific and displayed separately so shoppers aren't influenced by the ratings of identical products from other sellers.

Moreover, Yandex Market helps sellers make better product cards. Using Yandex neural networks, sellers can generate descriptions of items and realistic images that show products in contextually relevant settings. For instance, for a coffee machine listing, the neural network can seamlessly integrate it into a kitchen interior background.

80.5 THSD

active sellers on Yandex Market as of Q1 2024¹
+52% YOY

Neural networks are available for use in Yandex Market seller accounts. They can write descriptions based on information from the product card, which sellers can then edit. To generate an image, sellers just need to upload a photo of the product with a plain background. In addition to speeding up the placement of new products, image generation reduces the cost of photography: according to Yandex Market, sellers spend an average of RUB 5,000–7,000 taking photos for each product card. In the three months since the feature was launched, sellers have used it for more than 20,000 product cards and saved at least one photo in 60% of all cases.

For Pickup Point Owners

To help owners of pickup points attract more customers and increase revenue, Yandex Market now offers additional options to earn money on services such as power bank rentals, copying services, and food and beverages from vending machines. Pickup points can also contribute to developing a sustainable urban environment by accepting clothing and other items for charity donation or recycling. More information about this project is available in the [Packaging and Waste](#) chapter.

In 2023, Yandex Market and other marketplaces signed the [Standards for Interaction between Marketplaces and Pickup Point Owners](#) (RU) to help ensure transparent communication and fair cooperation between participants in the e-commerce market.

These standards require marketplaces to notify pickup point owners about changes to the offer in advance and provide detailed information about remuneration and fine amounts. Pickup point owners must resolve disputes with customers in a timely manner and comply with service requirements.

In 2023, a working group was formed by pickup point owners and industry associations to facilitate interactions with Yandex Market and our partners. Membership for pickup point owners is based on a number of criteria, including partnership with Yandex Market for more than a year and management of at least three currently operating pickup points. The working group makes recommendations to Yandex Market on how to resolve issues raised by pickup point owners. For example, if a partner violates the rules and their pickup point is disabled, the working group can recommend a trial period for the owner to resolve the issues and continue to operate.

Throughout the year, we also helped support the [pickup point owner community](#) (RU) by holding regular webinars about pickup point operations, sharing news, useful materials, and partner success stories, and publishing the top pickup points based on user reviews and other performance criteria.

¹ Sellers who had made at least one sale within a month before the reporting date.



Yandex Market

For Craftsmen and Smaller Brands

We collaborate with self-employed sellers who place their homemade goods on our marketplace in hundreds of different categories, including kitchenware, accessories, souvenirs, toys, and more. Our platform assists these sellers in establishing online commerce and nationwide delivery from scratch, or launching new sales channels.

The Crafts initiative also supports small-scale production and traditional crafts. This project brings together contemporary artists and local craftsmen, such as weavers or blacksmiths, who produce handmade items for everyday use.

Niche apparel brands can sell goods in Yandex Univermag, a dedicated section for local brands on Yandex Market. Yandex Univermag selects new partners based on the uniqueness of their products and some formal criteria. For example, the store must have a certain number of products in its range, have its own production, or be an official brand distributor.



Yandex Lavka

For Yandex Lavka Suppliers

Yandex Lavka extensively collaborates with local suppliers. In addition to selling goods under their own brand, suppliers can also produce goods under the service's brand, for example, Lavka Signature.

The partner selection process includes several stages, such as food quality tests and production audits, and mostly involves small or medium-sized manufacturers that we collaborate with to help improve quality. For example, we send out our own manufacturing engineers to help potential suppliers optimize production. These engineers check compliance with food safety standards and give recommendations on how to adjust a product's recipe based on the capabilities of the manufacturer's production facilities.

~85 %

of products available in Lavka are made
by local suppliers



Tasks

Data Markup with Tasks

In 2023, we launched the **Tasks** (RU) platform with paid gigs for self-employed partners. The amount offered for completed tasks is determined by customers in advance based on volume, complexity, urgency, and other factors.

Today, the platform offers tasks for comparing images, marking up objects in photos, transcribing audio into text, searching for information online, and reporting the weather to help train AI used in Yandex Search, Alice, and other Yandex services. In the future, more of these tasks will be available. Partners can select the ones they want and complete them whenever and wherever they choose. Tasks are also a convenient way for people with disabilities to earn additional income.

>67 THSD

self-employed partners in March 2024
> 45 THSD at the end of 2023

~16 THSD

self-employed partners complete tasks
on the platform every day



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Information Security and Personal Data Protection



Millions of people entrust Yandex services with their data, and we fully acknowledge the importance of keeping them safe.

In 2023, we invested over RUB 6 billion in cybersecurity – twice as much as the year before. These funds were used to protect user data, increase infrastructure resilience and develop advanced solutions to combat fraudulent activities.

>6 RUB BN

invested in cybersecurity in 2023



Security certificates

Renewed annually.

- Yandex ID certificates

ISO/IEC 27001, obtained in 2023
- AppMetrica certificates

ISO/IEC 27001
- Yandex Metrica certificates

ISO/IEC 27001
- Yandex Cloud certificates

ISO/IEC 27001, ISO/IEC 27017, ISO/IEC 27018, ISO/IEC 27701, PCI DSS, Cloud Security Alliance

Personal Data Protection Policies

- Privacy Policy
- User Agreement
- Cookie Policy
- Other relevant documents are available on the [Legal Documents](#) portal

Information Security System

- TC-IM-230a.2
- TC-SI-230a.2
- CG-EC-230a.1

Yandex has a designated Information Security Department that implements security standards, monitors vulnerabilities, and investigates incidents to protect our infrastructure and services. This work is guided by Yandex’s Information Security Policy, Incident Management Policy, and other internal guidelines. The results are assessed by the Yandex executive management team and Audit Committee of the Board of Directors at meetings held at least once a quarter.

In 2023, we expanded the team to increase the number of information security specialists by a third. This decision was made to keep up with business growth and enhance protection for our infrastructure and services.

Our cybersecurity systems have international certifications and are regularly audited by independent external experts. In 2023, Yandex ID, a single account to access all our products, [received](#) (RU) ISO/IEC 27001 certification. Yandex Pay also became one of the first services in Russia to be PCI DSS 4.0 compliant. In 2023 alone, we passed 39 independent audits, verifying the resilience and security of our infrastructure and services.

39

independent security audits successfully passed in 2023



Vulnerability and Incident Management

Cybersecurity risk monitoring is an ongoing process at Yandex, involving proactive measures to detect vulnerabilities. We conduct sensitivity testing, perform internal audits, and follow clear protocols to guide our actions in the event of an incident.

At the beginning of 2023, we faced an **incident** where code fragments of certain Yandex services were leaked online. In response, our team conducted a large-scale audit of the repository, reviewed employee access to internal systems, and introduced new guidelines for working with source code.

Throughout the year, we concentrated on enhancing the security of the platform that supports all Yandex services. We implemented the Zero Touch Production approach to ensure greater control over actions within the infrastructure, limiting access to production to a small number of team members using trusted devices and only for specific tasks in progress. Additionally, accessing key systems now requires an extra authentication factor for further security.

We also upgraded our Smart Protection technology to make it more flexible, scalable and effective in defending against DDoS attacks. It now employs machine learning algorithms that analyze thousands of factors to detect malicious activity, addressing the challenge posed by the enormous variability in attackers' targets and methods to evade security protocols.



The Bug Bounty Program

Yandex's **Bug Bounty** program engages professionals in an ongoing search for vulnerabilities across Yandex's entire infrastructure and all services. Any specialist interested in cybersecurity can hunt for bugs in our services, report them, and earn rewards. This helps us continuously improve the reliability of our security system and learn about possible risks before they can cause damage.

We regularly hold special Bug Bounty competitions to search for vulnerabilities in certain services or of a certain type. In June 2023, we **increased** (RU) the annual program prize pool by a factor of 2.5, up to RUB 100 million. The size of the reward for discovering a vulnerability depends on its criticality and degree of impact on user data.

In 2023, 528 cybersecurity researchers **participated** (RU) in the Bug Bounty. Researchers earned cash prizes for 378 unique and first-time findings. All vulnerabilities discovered were fixed.

2.5x

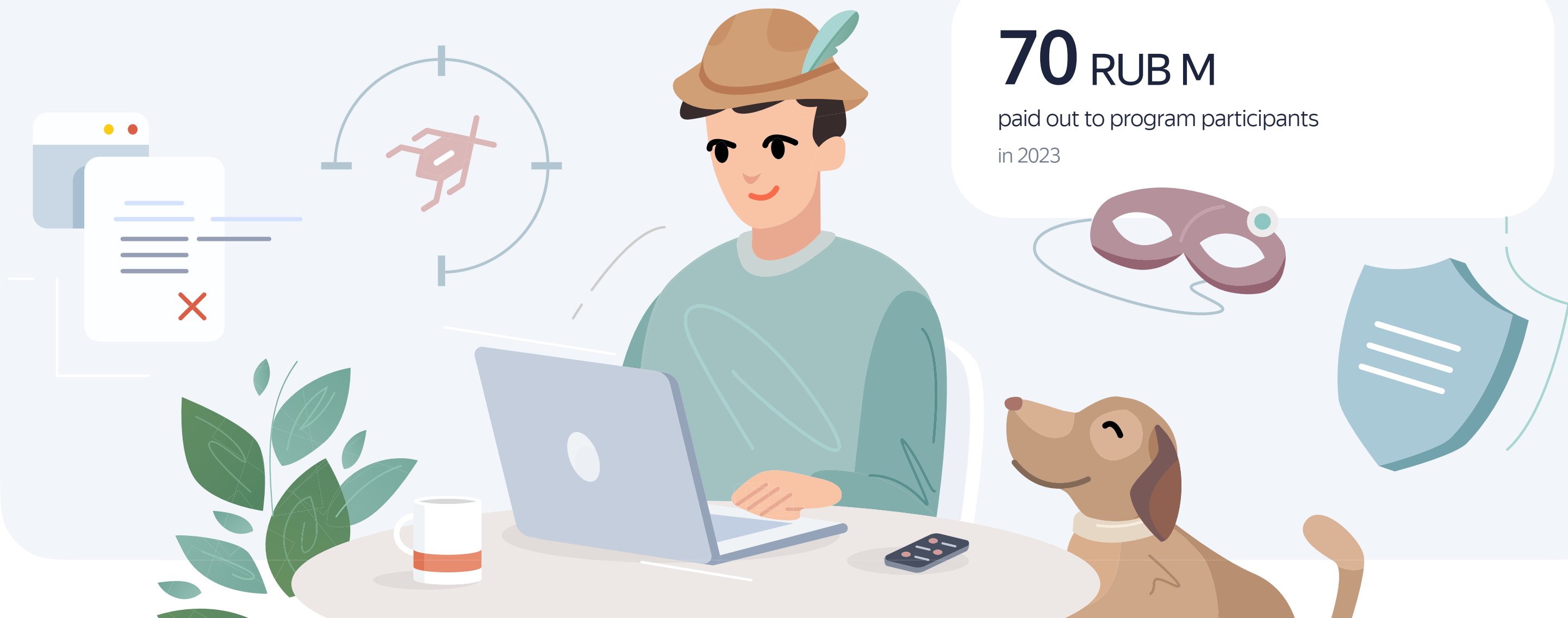
increase in the Bug Bounty prize pool
since 2022

528 researchers

hunted for vulnerabilities in Yandex services

70 RUB M

paid out to program participants
in 2023





Yandex Cloud Security

Yandex Cloud implements a rigorous, multi-layered approach to security: from physically securing data centers, robust protocols within the cloud platform itself to a suite of security tools for customers to protect their systems. These tools include both proprietary solutions and trusted partner technologies. Read more about our cybersecurity in a [separate publication](#) (RU).



At the Cloud Platform Level

The service employs comprehensive approach to protecting our infrastructure, including the physical security of data centers and the security of our cloud platform services **in compliance** with ISO, GDPR, PCI, and GOST R 57580. The platform meets all requirements of Federal Law 152-FZ and delivers first-level security for personal data (UZ-1). In 2023, Yandex Cloud underwent 12 security audits and became the first cloud platform in Russia to achieve the highest rating for “enhanced” information protection under GOST R 57580.¹

Yandex Cloud servers are housed in secure, isolated zones within Yandex data centers, and are subject to special physical access protocols. In the virtual environment, user infrastructures are also isolated from each other at several levels.

To ensure responsible access, we have implemented the principle of least privilege, ensuring that platform employees do not have unrestricted data access, and all activities (e.g., customer support actions) are logged and monitored.

>100

security experts on the Yandex Cloud team at the end of 2023

12

external security audits passed in 2023



¹ National Standard for the Security of Banking and Financial Transactions.

² If necessary, the administrator can always change this.

At the User’s Cloud Infrastructure Level

To enhance user security in cloud infrastructure, we follow the “secure by default” principle by automatically enabling all security settings.² We also proactively assist with detecting leaks and security incidents, and shares recommendations for secure IT systems in the cloud.

In 2023, we released the [Security Standard for deploying infrastructure in Yandex Cloud](#), a collection of user recommendations with step-by-step instructions for choosing security measures, examples of code, and links to training materials.

For those beginning their journey with public clouds, we have launched information security [courses](#) (RU) to guide them through this new terrain. The new [Security Talks podcast](#) (RU) from Yandex Cloud specialists is focused on best practices for secure cloud operations. We also engage with the community and share our expertise at major conferences and at [our own information security events](#) (RU).

>8 THSD

compromised secrets³ discovered and clients notified

5

courses on cloud safety launched



³ “Secrets” refer to a private piece of information, such as passwords or encryption keys, that acts as a key to unlock protected resources.



Yandex Cloud Security

Security Tools

Yandex provides users with a range of tools to securely develop and run applications in the cloud.

To help users prevent and mitigate damage from DDoS attacks, Yandex Cloud provides advanced security features including traffic filtering, rate limiting, and suspicious traffic blocking. In 2023, we launched the [Smart Web Security](#) (RU) service that helps identify threats using behavioral analysis and built-in machine learning algorithms.

To enhance security for cloud application development, we have publicly released our [vulnerability scanner](#). Additionally, we have made [Yandex Lockbox](#) available, providing a secure environment for storing sensitive data such as database passwords and server certificate keys in encrypted form.

Users can also choose from a variety of off-the-shelf infrastructure protection tools from our partners [on the Yandex Cloud marketplace](#).

>1.5 M

vulnerability scans run by Yandex Cloud users with the new vulnerability scanner service¹

>40

partners providing security solutions



¹ Vulnerability scans for Docker images, or files containing everything needed to run an application: code, runtime environment, libraries, environment variables, and configuration files.

Personal Data Protection

TC-IM-220a.4

TC-IM-230a.2

CG-EC-230a.1

TC-SI-220a.4

TC-SI-230a.2

At Yandex, we handle personal data in full compliance with the applicable laws and strictly adhere to a set of internal [principles](#) (RU). These principles include empowering users with control over their data, processing data only for specific and legitimate purposes, minimizing data collection to what is necessary for those purposes, retaining data only as long as needed to fulfill the collection purposes, prohibiting the sale of data, and ensuring transparent communication with users.

At Yandex, every employee is responsible for safeguarding user data, and improper handling of personal or confidential information is a violation of the [Yandex Group Code of Business Ethics and Conduct](#). At the executive level, data privacy is overseen by the Chief Privacy Officer (CPO), who coordinates between the Information Security Department and trained specialists within each business unit responsible for managing user data.

To ensure proper employee conduct, we provide training on data protection, confidential information handling, and anti-phishing skills. Employees in specialized roles undergo additional training tailored to their responsibilities, including on secure development.

In line with our commitment to transparency, we update our [Transparency Report](#) semiannually to detail how we handle government requests for personal data disclosure. In 2023, we received 68.9 thousand requests from government agencies. The share of refusals to provide user data over the last few half-years has remained at an average of 21%.

The report also contains statistics on the number of user requests to download and delete data collected by our services. In 2023, we received more than 213 thousand requests to delete data and more than 185 thousand requests to download archived data.² Users of all major Yandex services can make these requests.



² The same user can send several requests. After receiving a request, their data is promptly removed from our servers within 24 hours. If the data are legally required to be retained for a specified period, we ensure their deletion at the appropriate time.



Personal Data Protection

Yandex ID: New Data Security Tools

With Yandex ID, users can manage their personal data across Yandex services and other platforms that support Yandex ID authorization. Our team prioritizes the reliable protection of user accounts, and in 2023, we successfully prevented 50 million suspicious login attempts from over 20 million accounts.

Safe Authorization

To increase the security and speed of logging in to user accounts, we are improving passwordless authorization options in Yandex ID, including [Login with Fingerprint and Facial Recognition](#) (RU) and [Login by Picture](#) (RU).¹

Two-factor authentication helps further strengthen account protection, including for the 15 million Yandex ID users who already have it enabled. To make this security feature more accessible, we integrated Yandex Key, a service that generates unique one-time password, into the Yandex with Alice app. This integration eliminates the need for a separate Yandex Key installation, providing millions of users with a quick and secure way to log in to Yandex ID.

Since 2023, users have been able to regain access to their accounts by filling out a special form and submitting a selfie with their IDs. This method is particularly useful in scenarios where users have lost access to their personal devices, which might be compromised and exploited if alternative authorization methods, like phone numbers, were chosen.

¹ Yandex ID does not have access to user facial or fingerprint data. This information is stored on the user's device and is not shared with either the service or third parties.

Inactive Accounts

In 2023, we [updated](#) (RU) our Inactive Account Policy to better prevent data from being compromised.² Inactive accounts often have old passwords, which are the most vulnerable. They can serve as an entry point to steal personal information or be used to send unwanted content or malware. We now prompt owners of inactive accounts to verify their profiles and enhance security measures. They are notified that their accounts will be permanently deleted if no action is taken.

New Algorithms

Our team continues to improve algorithms to counteract various unwanted activities. If cookies are detected on unusual devices, Yandex ID blocks attackers from gaining access to the account. Yandex algorithms have also been trained to automatically detect and protect against bot-generated accounts, safeguarding Yandex services and partners who utilize Yandex ID for authorization.

50 M

suspicious login attempts prevented by Yandex ID in 2023

↑ 20 %

growth in the number of users with two-factor authentication enabled compared to the beginning of 2023

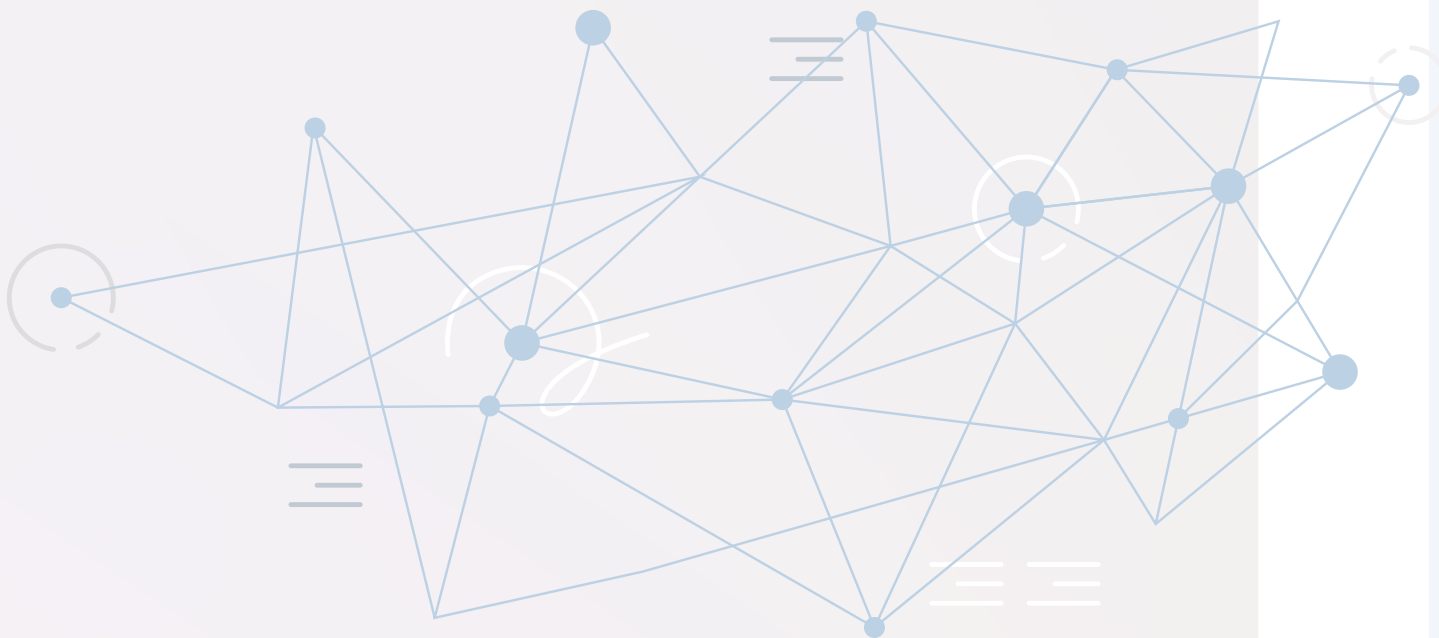




Quality Content and Safe Digital Environment



Using the internet today is both exciting and challenging. It’s never been easier to find the information and services you need, but it’s important to be able to distinguish useful information from low-quality and fake sources, choose the right products or services among hundreds of thousands of offers, and avoid the many scams that continue to get more clever every year. Yandex strives to make your online life easier and create a convenient and safe digital environment.



¹ Yandex is required to remove search results that link to websites included on Roskomnadzor’s register of prohibited websites. Results for these websites are removed automatically as soon as they appear on the register. We disclose the number of removed links in our [Transparency Report](#). All users who attempt to visit a prohibited webpage receive a notification that it has been removed as per the legal requirements.

² Included in the metric that evaluates the quality of search query results. The greater the probability that the user will like and find the results useful, the higher the score. This metric powers a classifier updated in real time that determines the quality of web pages when ranking.

Search Content

Search quality is the most important aspect of any search engine.

Our search engine technology follows the [ranking rules](#) (RU) to find the most relevant information based on user queries. Forbidden links are removed from search results.¹

In 2023, Yandex [updated](#) (RU) its algorithm for distinguishing high-quality from low-quality pages, increasing the importance of [expert indicators](#) (RU) (evaluations of assessors) and user trust in the information provided on the web page.² The updated algorithm also determines the reliability of information regarding sensitive topics more accurately, particularly where low-quality results can harm the user (such as in cases of medicine or financial management).



Neuro: Combining search and large-scale generative models

In the spring of 2024, our team [released](#) (RU) Neuro, a solution we developed in 2023. This new service is integrated into Yandex Search to help users search the internet with the help of large generative model technologies.

The main difference between Neuro and the previous generation of Yandex Search is that relevant sources are now highlighted among all available information online, analyzed, and summarized with a brief description of the main points. Neuro finds information from current sources online, not from the model’s memory, which ensures high-quality results to even nuanced questions that require an excellent understanding of context, extensive knowledge, and awareness of the latest news. For example, if a user asks Neuro whether they should visit the seaside in the spring, they get an overview of the pros and cons based on both the experiences of other travelers and weather data.

Sources of information are listed in a separate section above the results so that users can check the facts or read more.³

Neuro understands context and the real way people talk. This means users can use natural wording, ask additional questions, or clarify information in a simple conversation. Images can also be attached to written questions. For example, users can attach a photo of a board game along with a request for the rules.

To learn more about how Neuro works, read our [article on Habr](#) (RU). Neuro is available in the Yandex with Alice app and in the Yandex Browser upon logging in to Yandex and turning it on next to the search bar.

³ Results should be independently verified, as they are generated by YandexGPT based on selected web pages that may contain inaccuracies.



Search Convenience and Accuracy

In 2023, we started using the **YandexGPT** language model to generate **fast answers in Yandex Search**.¹ These results are shown under the search bar to help users quickly get the information they need.

Fast answers have been available in Yandex Search for several years, but with the integration of YandexGPT, they are now equipped to better handle complex questions, such as a user query for the advantages of buying a house instead of an apartment, for example. To generate fast answers, YandexGPT finds multiple sources in real time that best match the user’s question, analyzes them, and briefly summarizes the results. Then, the neural network selects the most useful answer and displays it directly below the search bar. Answers generated by our neural network are always marked and include a link to sources.

YandexGPT uses similar methods to help users **shop in Yandex Search and Yandex Market** by summarizing information from customer reviews and generating a short list of pros and cons. First, the algorithm chooses from the most detailed and descriptive feedback from customers. Then, it notes the most mentioned product features and determines which are most important. This helps users focus on their specific needs when shopping, without getting lost in a sea of similar products.

Another useful Yandex Search update is the addition of detailed medicine cards in **search results about medicine**. These cards include instructions for use, alternatives with the same active ingredient, and prices on different sites. Users now see the most important information in one place, without having to spend time clicking on different links. Information about available analogs is especially useful when certain medicines are out of stock. Medicine cards can be used in addition to the doctor search, where information is presented in a dedicated section of the search results from a database of over 700,000 doctors and 60,000 medical clinics.



Updated Yandex Browser

In early 2024, we **debuted** (RU) **Neurobrowser**, a major update to Yandex Browser, with features made possible by the newest generation of neural networks used to simplify the experience of working with content and help overcome language barriers.

The **Help with Text** feature powered by YandexGPT checks for spelling and punctuation errors, and can also consolidate text to make it more readable and structured. After selecting “Help with Text”, users can choose one of three modes: Correct Errors, Shorten, or Improve Style.

Neurobrowser also improves the availability of foreign-language content for Russian-speaking audiences. It can now **translate videos** from Japanese and Korean into Russian, and add a voiceover, a feature that was previously available only for English, French, Spanish, Italian, German, and Chinese.

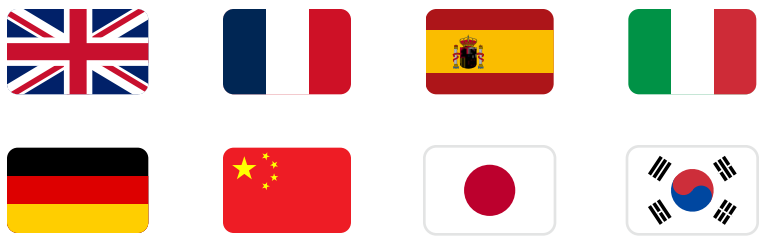
Built-in neural network tools translate videos from these languages, add a voice track, and even summarize content. For videos in Russian, Browser can generate subtitles in real time, separating speech from different people visually to improve readability, which is especially important for users who are hard of hearing. For more information about Yandex’s other solutions that are making digital services more accessible to various user groups, please refer to the **Inclusive Environment** chapter.

The Yandex team also taught Neurobrowser to **recognize QR codes in videos**. These codes are common in videos, but used to require a separate device to scan them. Now users simply need to hover the cursor over the code and follow the link.

For more information about other new features and the technologies powering Neurobrowser, you can check out this [article on Habr](#) (RU).

8 foreign languages

supported in Neurobrowser for translation and summarization into Russian



¹ Fast answers from YandexGPT are available in test mode for all users in search results, but only for a limited number of queries.

Search Content

Technologies for Preserving History and Studying the Past

Archives preserve the history of countries and their people. Carefully preserved documents and other primary sources provide the only way for people interested in history and cultural lineage to learn about events of the past firsthand.

It is a challenging task to collect, store, and systematize archival materials with the aim of ensuring access for all. To help historians, sociologists, demographic analysts, and journalists find information about historical events and figures, as well as allow ordinary people to learn more about their ancestors, Yandex launched the [Archive Search \(RU\)](#) service.

It currently includes handwritten documents dating from the 18th to the early 20th centuries from the archives of 11 regions of Russia, along with 3.6 million digitized pages of periodicals, like Soviet Sport, Evening Moscow, and eparchial bulletins. In just one year of operation, the Yandex neural network recognized and transcribed more than 60,000 handwritten and printed texts, totaling over 10 million pages. Users viewed the transcribed materials more than 20 million times.

Archive Search is built on the same principle as Yandex Search, meaning users just need to enter the words they want to find in the search bar. The transcription technology is based on optical character recognition. Yandex's neural network recognizes letters no longer used in the modern alphabet, accounts for handwriting style, and converts illegible handwriting into printed text in mere seconds.

>10 M

pages of archival documents transcribed by the Yandex neural network in one year

this is approximately 8,000x more than the number of pages in Lev Tolstoy's War and Peace

We also continue to serve as a technology partner for the [Russian National Corpus \(RNC\)](#), established by a team of linguists to form the first online collection of digitized Russian texts. This resource helps individuals study the language of previous eras and today – both literary and colloquial – in all its diversity. In 2023, the collection of texts in the RNC exceeded 6.2 million, or more than 2 billion words. We continue to release new corpora for users (for a current total of 46), and update the design of the collection.



Protection against Fraud and Scams

Our algorithms help protect users from scammers and undesirable or malicious content.

Used by more than 85 million people every month, Yandex Browser warns users about suspicious sites, scans downloaded files for viruses, and protects against password and bank card information theft. As part of a major update, our team integrated neural networks into the browser to check the security of web pages in real time. Instant verification means that even the newest malicious resources are tracked, even if they have not been visited yet. If a site is truly dangerous, Yandex Browser will warn users about the risks and advise them not to follow the link.

>110 M

prevented clicks on suspicious websites in 2023 with Yandex Browser

>400 THSD

malicious sites detected by Yandex Browser in real time using neural networks since verification was started





Protection against Fraud and Scams

Protection against Spam Calls

The Yandex with Alice app has a free Caller ID feature that allows users to identify unwanted (spam or scammers) and expected (delivery or medical) calls, and block unsolicited ones. The call blocker feature relies on a continuously updated database of phone numbers based on open sources, trusted partners, and user feedback.

In 2023, we increased the accuracy of the Caller ID feature in the Yandex with Alice app to 95% and grew the database to 42 million phone numbers – by more than a factor of 2.5 compared to the beginning of the year. We also noticed that spammers and scammers increasingly relied on messengers, so we added a [warning function](#) (RU) about unwanted calls in messenger apps. Since its launch until the end of 2023, almost 11% of the more than 1.2 million calls checked in instant messengers were marked as unwanted.

95 %

phone number detection accuracy in the Yandex with Alice app

1.3 BN

calls handled by caller ID, of which 54% were identified as unwanted

Spam Protection in Yandex 360

Despite the [downward trend](#) (RU) of email spam over the past five years, scammers are becoming more sophisticated in terms of content and methods to disguise spam messages as legitimate emails. These emails are dangerous because they trick users into following a link and entering their bank card or other important information that scammers can steal and exploit.

To protect email accounts and personal data, we continue to improve the Yandex 360 spam filter. In 2023, Yandex significantly updated its anti-spam system and added new features to prevent and block 300 million more malicious emails than in 2022.

Our team set up a hard spam filter using machine learning technology to prevent malicious emails from reaching user inboxes, or even the spam folder. We also drastically increased the speed of blocking spam attacks in real time to 1–2 seconds.

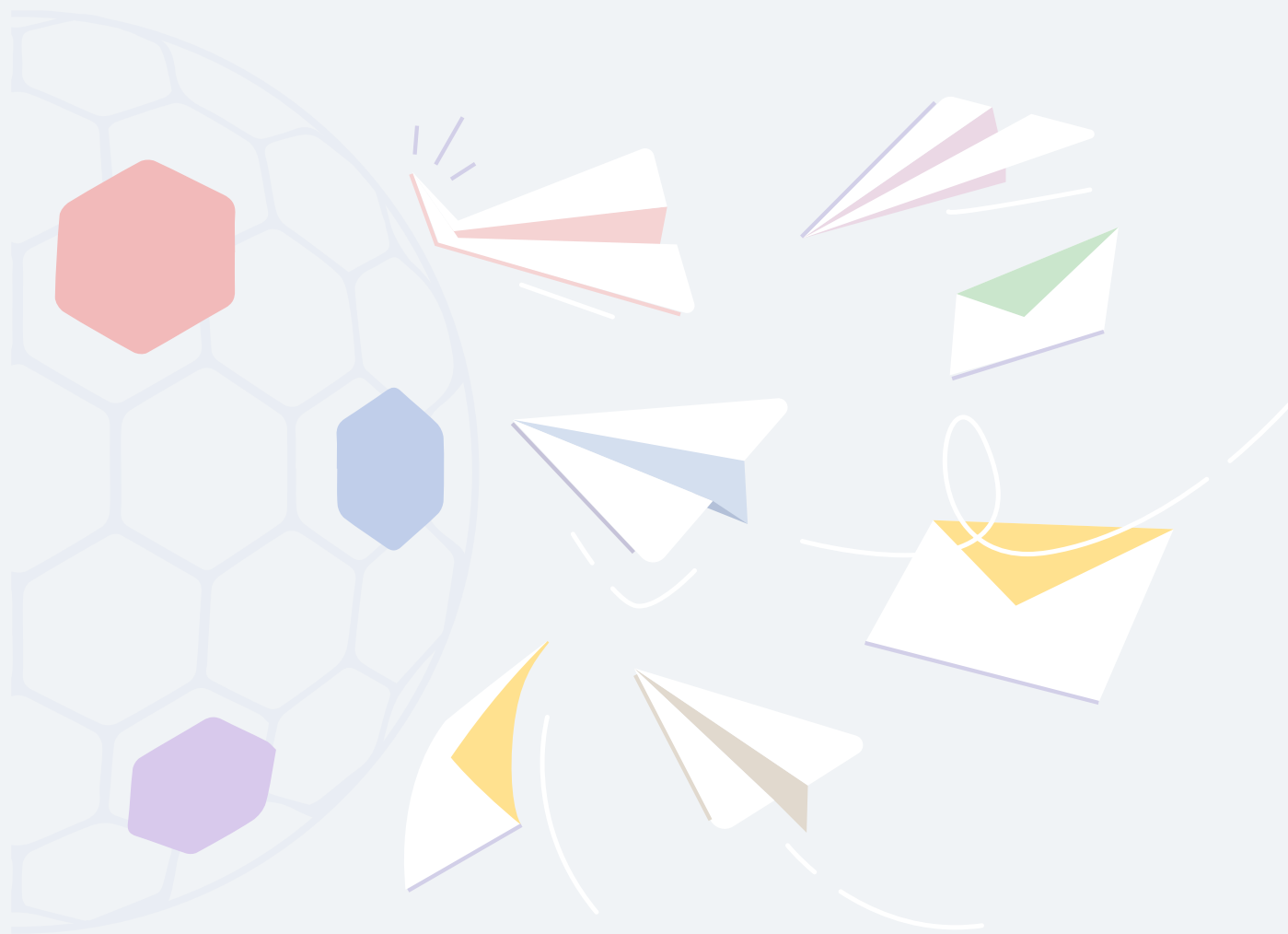
Spam protection increases cybersecurity and helps reduce the energy consumption of personal devices when working with email. This has a pronounced benefit on the environment that we discuss in more detail in the [Carbon Footprint](#) chapter.

>97 BN

incoming emails processed in 2023, of which **around 21.3 billion** were malicious and blocked

300 M

more malicious emails were marked and blocked compared to 2022, thanks to new features





Protection against Fraud and Scams

Protecting Children Online

The digital environment is an important part of children’s daily lives today, so it must be safe.

Safety Features for Children in Yandex Services



Yandex Search, Yandex Browser, and Yandex Textbook

Family Mode in Yandex Search excludes all adult content from search results (even if the query is clearly searching for this content).¹

In celebration of International Children’s Day, Yandex Textbook and Yandex Browser held a special **interactive quest** for students in grades 2–5 to learn about the rules of online safety. More than 6,000 children studied the materials and analyzed practical cases, including what to do with suspicious links and how to safely enter personal data in online services.

¹ Family Mode with advanced filtering is enabled by default in Yandex ID children’s accounts, hiding sites containing obscene language and restricting search results with inappropriate content (use of drugs, alcohol, tobacco, etc.).



Yandex ID

Children’s accounts are available in Yandex Search, Yandex Browser, Yandex Music, Kinopoisk, and other Yandex services. Filters are applied automatically to hide inappropriate content.



Alice

Child mode is activated automatically when a child talks to Alice.² Kids are offered educational and entertainment content, and a selection of **special skills** (RU).



Yandex Plus Kids

Yandex Plus subscribers have access to the Skazbuka and Kubokot apps, as well as children’s sections on Kinopoisk and Yandex Music.



Yandex Music

In Yandex Music, the Kids section has a safe search filter that only shows children’s songs, fairy tales, and books. Parents can also restrict access to content with obscene language in the regular media library.

In July 2023, Yandex Music supported the initiative of the Music Industry Association to draft recommendations for handling dangerous or inappropriate content and became the first service to implement them. In Q3 2023 alone, 17,515 songs were marked “18+” or “Explicit” to protect children from potentially disturbing content. More information about how content is added to Yandex Music, and why it may sometimes be unavailable, can be found in our **Transparency Report** (RU), first published by the service in 2023.

² Filters for adult and children’s voices can be set using the **Understand Children** (RU) option.

³ Children’s mode is activated automatically when logging in on a Yandex ID children’s account or creating a child’s profile in Kinopoisk.



Kinopoisk

Kinopoisk has a children’s mode that offers special selections of educational and entertainment content for kids and includes the option to limit screen time.³



Bookmate

Bookmate has a children’s section with tens of thousands of books for children and teenagers from leading publishers. The section is organized by topic and age categories, including funny stories, books for children ages 10–12, school curriculum, and more.





Advertising Content

In 2023, Yandex continued to generate a substantial part of its revenue from advertising. Advertisers can place ads on Yandex platforms (for example, Yandex Search) and on sites and applications in the Yandex Advertising Network. Yandex provides a link between advertisers and users. In this position, our focus is twofold: help honest businesses attract customers effectively, and protect users from low-quality, irrelevant, and unhelpful content.

5 BN

average daily ad impressions in Yandex and on partner sites in 2023
6.2 BN on peak days

35 M

malicious ads were rejected in 2023

>214 THSD

fraudulent Yandex Direct accounts were permanently blocked in 2023
42% more than last year

<33 %

of advertisers wait longer than 20 minutes for a moderation decision
around 60% in 2022



All ads must undergo moderation to check for compliance with the [advertising rules and requirements](#) (RU) in the [Yandex advertising policy](#). Yandex checks approximately 90 million ads every day using an automated moderation process that is improved on a regular basis.

In 2023, we started using a **Deep Semantic Similarity Model (DSSM) neural network** to moderate ads for products and services prohibited from display or that require permits, including medicine, dietary supplements, and alcoholic beverages. Since then, the classification of ads in these categories has improved by a third. To classify ads correctly, for example, for medicine and dietary supplements, the neural network first finds their names in the ads, then checks them in official registers. After that, YandexGPT is used to see if the product names have meanings other than medical terms. If a word has multiple meanings depending on the context, the DSSM analyzes the semantic similarity to classify the correct ad category.

The growth of invalid traffic is one of the most serious problems currently facing the advertising market. To help combat this issue, Yandex launched a **new fraud detection algorithm** to quickly and accurately identify low-quality advertising traffic and save advertisers from paying for suspicious actions.¹

We train our algorithms using thousands of different factors to help distinguish the targeted actions of real users from accidental clicks² and suspicious activity, such as bots or incentivized traffic where users are promised a reward for engagement. Our [fraud detection system](#) automatically filters out low-quality traffic at the click stage and excludes it from analytics to prevent advertisers from paying for it.



Alongside the advertising safety measures, we also monitor the quality of websites that host ads. Only sites that pass verification are allowed to join our advertising network.

In 2023, Yandex blocked the following for rule violations:

>17.5 THSD

sites

>15.5 THSD

apps

>2.7 THSD

Telegram channels



¹ This includes fraud with advertising traffic, such as when attackers generate artificial clicks on ads to artificially inflate an advertiser's costs.
² Unintentional user clicks; for example, due to the location of the ad unit.



Compliance and Business Ethics



- GRI 2-23
- GRI 2-24
- GRI 2-25
- GRI 2-26
- GRI 205-2

Business Ethics and Anti-Corruption

Everything the company does is informed by the [Yandex Group Code of Business Ethics and Conduct](#), and the [corporate values](#), that we have cultivated over the years. These values include a zero-tolerance policy towards corruption and bribery,¹ the promotion of fair competition, the development of services that benefit people (even if they may never become profitable) and responsibility for the safety of their use, and respect for the culture, language, and other characteristics of local markets.

The Yandex Group Code of Business Ethics and Conduct is mandatory for all employees. We also expect our business partners to uphold the same principles, as outlined in the separate [Supplier Code of Conduct](#). These documents integrate the provisions of applicable legislation and international conventions, including the Universal Declaration of Human Rights, United Nations Guiding Principles on Business and Human Rights (UNGPs), the International Labor Organization (ILO) Convention, and the UN Global Compact, among others.

We have established a dedicated hotline to facilitate the reporting of business ethics violations via a [special form](#). It is available to employees, users, partners, and clients, including anonymously. Retaliation against good-faith reporters of misconduct is strictly prohibited. All reports are treated with the strictest confidentiality and reviewed by a panel that includes members of the ethics committee. The findings of investigations inform our subsequent actions, from warnings to any disciplinary measures against the wrongdoer.

Ethics and Anti-Corruption Training

All Yandex employees undergo mandatory annual training on business ethics.² The online course provides insights into high-risk situations and guidance on appropriate responses. Topics include how to recognize conflicts of interest and corrupt or discriminatory actions, and how to respond to them properly. The training is available in Russian, English, and French (added in 2023).

During annual compliance events, employees have the opportunity to reinforce their knowledge of ethical rules. In 2023, interactive materials included comic series, quizzes, film viewings and discussions about ethical issues at work, and other on-topic discussions. This year, the main topic was respect for personal boundaries, and in 2024 the focus will shift to anti-corruption and conflicts of interest. Starting in 2024, events will be held throughout the year to accommodate as many employees as possible.

GRI 205-3

¹ There were no violations of the applicable anti-corruption laws at Yandex in 2023: no court rulings relating to corruption were made against the company or, as far as Yandex is aware, against its employees. Nor were we aware of any breaches of the applicable anti-corruption requirements among Yandex’s business partners within the scope of their relations with the company.

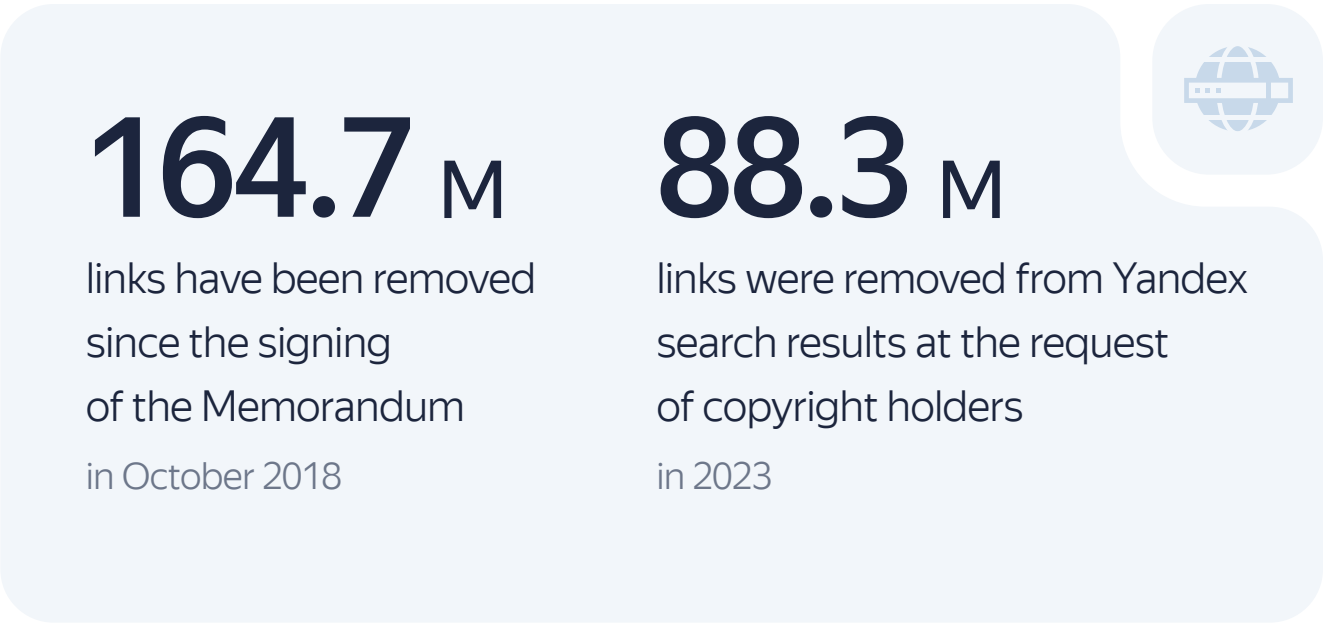
² For statistics on employee completion of the business ethics and anti-corruption training courses, please see the [ESG Data Tables Annex](#).

Intellectual Property and Copyrights

SV-ME-520a.1

We protect our intellectual property and the copyrights of third parties, safeguarding our innovative products with patents and obtaining the exclusive rights to use them. By the end of 2023, Yandex’s patent portfolio included 964 patents, while an additional 263 patent applications were pending.

To ensure more legal and high-quality content on the Internet and protect third-party copyrights, we support the Memorandum of Cooperation for Protecting Exclusive Rights. If links are reported by the copyright holder to web pages that might have been reproduced illegally, we remove them from search results. The number of links removed at the request of copyright holders is disclosed in our [Transparency Report](#).



Responsible Procurement



GRI 2-6

Procurement quality and efficiency affect a number of processes, from equipping employee workplaces to creating new services that may involve suppliers at any step during development and launch.

We build our procurement procedures on the principles of integrity, reliability, adherence to obligations, mutual benefit, and flexibility, which helps us meet business needs, even when external conditions are unstable. In 2023, we continued to adapt our procurement model to current circumstances and find alternatives to suppliers who left the market. Yandex collaborated with more than 20,000 suppliers, many of which are our long-term partners.

We expect all of our suppliers to adhere to the ethical principles outlined in the **Supplier Code of Conduct**. Our priorities include good-faith business practices, the provision of safe working conditions, respect for human rights and freedoms inside and outside the workplace, and environmental responsibility.

GRI 204-1

¹ 81% of Yandex’s procurement budget (excluding the ecom and ridetech business group) was allocated for purchases from local suppliers. The ecom and ridetech business group maintains separate accounting and has earmarked 91.5% of its procurement budget for local suppliers. Local suppliers are considered Russian legal entities operating in the Russian Federation.

Yandex undertakes to uphold these values in line with the **Yandex Group Code of Business Ethics and Conduct**. To help foster a deeper understanding of our expectations among suppliers, in 2023 we developed an **interactive course** (RU) on the main aspects of our Supplier Code of Conduct.

Selecting, partnering, and working with suppliers entails significant responsibility, so we rely on a proven approach that utilizes a variety of tools. For example, a special chatbot helps employees submit procurement requests, provides information about procedures and rules, and tags members of the procurement department team to assist in the process.

The majority of supplier document management is carried out electronically to make the process more convenient, faster, and less expensive than the traditional paper method. However, suppliers can still print out and mail documents if they are unable to transition to an Electronic Document Management (EDM) system.

> 20 THSD
suppliers partnered with Yandex¹
in Russia and internationally in 2023

> 5.5 THSD
small and midsize businesses
were Yandex suppliers
in Russia in 2023

Almost
65 %
of suppliers used the EDM system
when working with Yandex
increasing from around 50% at the start
of 2023, until the end of the calendar year





Environmental Impact

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Technology for Environmental Research92



Energy Efficiency



TC-IM-130a.3 CG-EC-130a.3 TC-SI-130a.3

Every time users access our services, whether to search the internet, request a ride, or watch a movie on Kinopoisk, our data centers use electricity to give users what they need any time of day, without failures or delays. Energy is consumed by our logistics centers, where we process and prepare orders for delivery, as well as the offices where Yandex teams work.

We prioritize high-level energy efficiency. Energy-efficient infrastructure not only spurs innovation (for example, to handle the large volume of computing power to train YandexGPT), but also helps avoid significant increases in energy costs and reduce environmental impact.



Yandex Data Centers

As of the end of 2023, Yandex operated four data centers in Russia,¹ and is currently constructing a new data center facility.

In 2023, the total electricity consumption of our data centers was up 15% compared to 2022. This growth is attributed to the expansion of our data centers and addition of new server equipment. Heat consumption experienced a 25% decrease due to reduced consumption at sites scheduled to be decommissioned. Purchased heat is utilized by the Mytishchi and Ivanteevka data centers, while the remaining centers rely on electricity and heat pumps for their heating needs.

The consumption of diesel decreased significantly year-on-year and returned to the level of 2019–2021. The spike in its usage in 2022 was attributed to the need for diesel power generation at the Mäntsälä facility for a few months due to challenges faced during the renegotiation of the energy supply contract.

Natural gas consumption decreased by 2%. Natural gas is utilized by three cooling units in the Sasovo data center to provide additional cooling for servers that are unable to handle high temperatures. When the outside air temperature exceeds the permissible operational threshold, the free cooling mode automatically switches to air recirculation mode with air cooling.

¹ The scope of 2023 reporting also includes a data center in Finland. Following the final closing of the deal to sell all of the group's businesses in Russia and certain international markets, the first closure of which took place on May 17, 2024, the data center in Finland will remain an asset under the Dutch YNV.

1.13

average annual PUE of Yandex's largest data centers in Russia²

4.5 x

less overhead energy consumption by server equipment in 2023 compared to the global average³

² PUE (Power Utilization Efficiency) is the ratio of the total power consumption of a data center to the energy delivered to computing equipment. The closer the PUE is to 1.0, the more efficient the energy consumption.

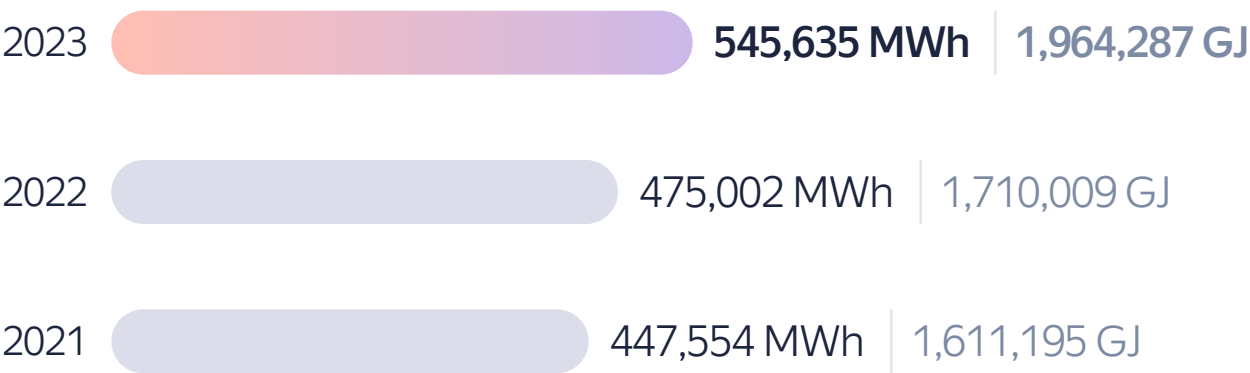
³ Energy consumed by a data center for maintenance on top of every watt used for computing. In Yandex's largest data centers in Russia (DC Vladimir and DC Sasovo), the overhead energy consumption was 13% in 2023 (versus the global average of 58% according to the [2023 Data Center Industry Survey Results](#)).



Yandex Data Centers

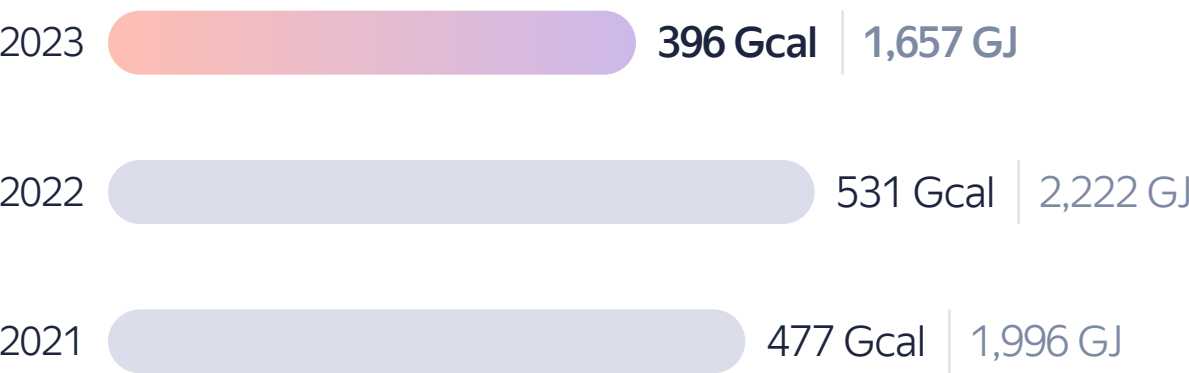
- GRI 302-1
- TC-IM-130a.1
- CG-EC-130a.1
- TC-SI-130a.1

Electricity consumption, MWh and GJ



MWh/GJ conversion factor: 3.6

Heat consumption, Gcal and GJ



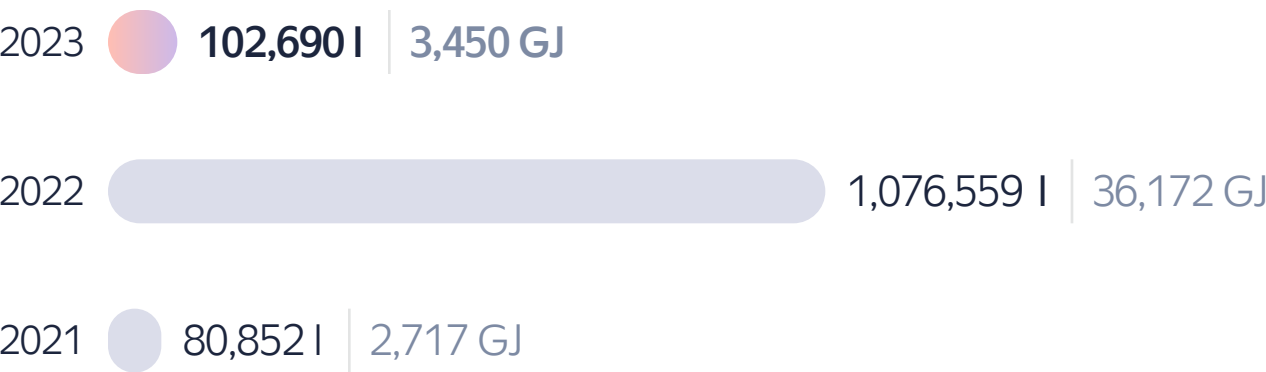
Gcal/GJ conversion factor: 4.184

Natural gas consumption, m³ and GJ



Inputs used for conversion to GJ: gas calorific value
per m³ = ~0.0318 GJ

Diesel consumption, liters and GJ



Inputs used for conversion to GJ: petrol calorific value
per liter = ~0.0336 GJ

GRI 302-3

In 2023, the average PUE for all fully commissioned data centers in the reporting perimeter was 1.26 (1.25 in 2022; 1.26 in 2021). ¹

The average PUE of our largest data centers in Russia (DC Vladimir and DC Sasovo) was 1.13 (1.15 in 2022; 1.15 in 2021), in line with global peers and 28% better than the **global average** of 1.58 in 2023.

¹ The ideal PUE is 1.0, which means that all energy consumed by the data center is used for computing. For example, a PUE of 1.5 means that, on top of every watt used for computing, the data center consumes 0.5 watts in overhead to support server operation (cooling, capacity allocation, etc.). The antecedent used for calculating PUE is a total of all sources of overhead energy consumed by a data center, e.g., lighting in halls, construction work, etc.

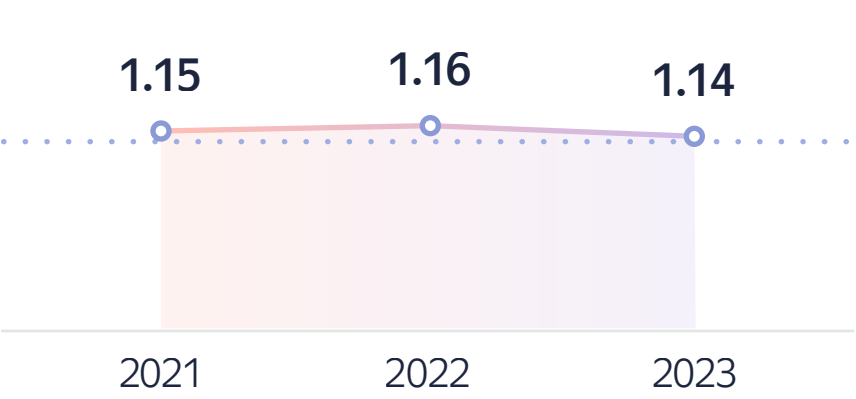


Yandex Data Centers

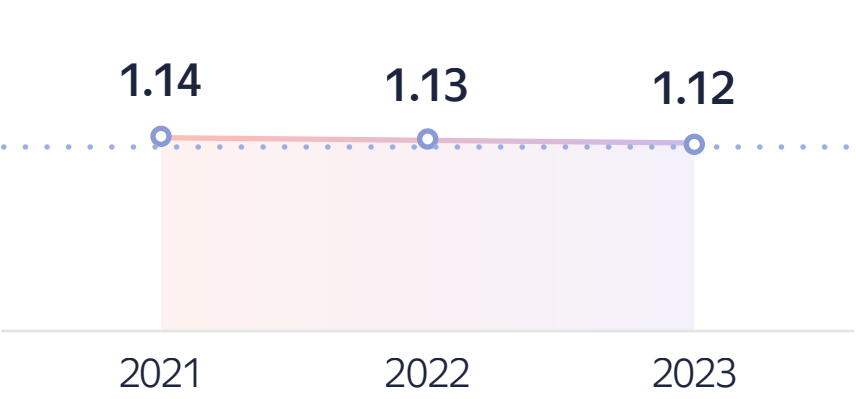
PUE of Data Centers

GRI 302-4

DC Sasovo
Constructed in 2012



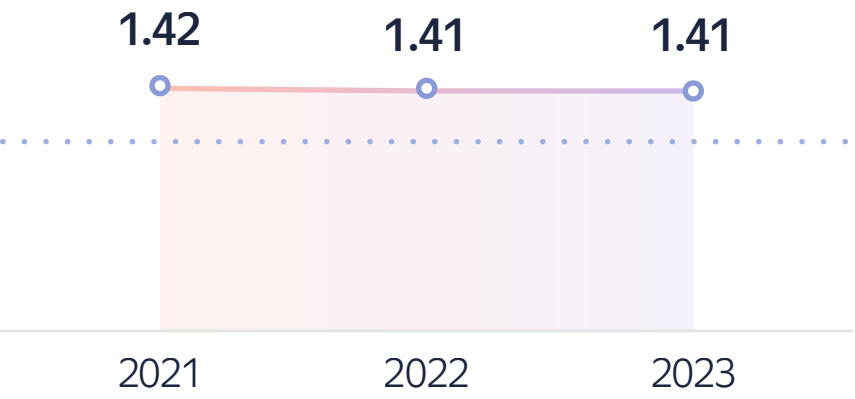
DC Vladimir
Constructed in 2017



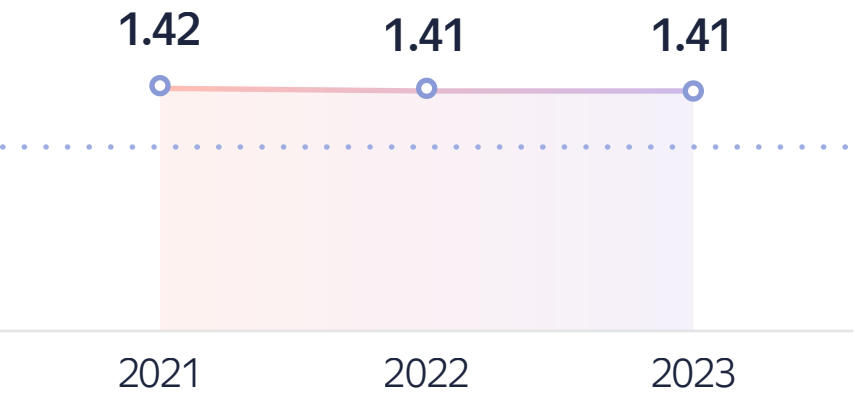
Yandex's largest data centers in 2023

• • • The ideal PUE is 1.0

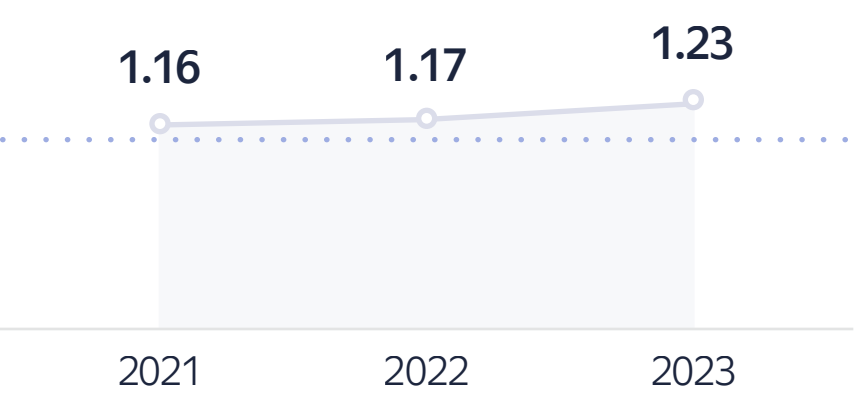
DC Ivanteevka
Constructed in 2008



DC Mytishchi
Constructed in 2009



DC Mäntsälä
Constructed in 2014



Following the final closing of the deal to sell all of the group's businesses in Russia and certain international markets, the first closure of which took place on May 17, 2024, the data center in Finland will remain an asset under the Dutch YNV.

Energy Efficient Solutions

Yandex invests in cutting-edge solutions to maintain high levels of energy efficiency, from smart server rack architecture to tailored building layouts and innovative technologies.

Supercomputer Architecture

Yandex's supercomputers are built with an advanced architecture that enables them to tackle up to 3,500 tasks concurrently, and twice as fast as standard server equipment. These supercomputers use an optimized heat dissipation system that minimizes energy consumption required for cooling purposes and consume 30% to 50% less energy for computations than servers with standard architecture. Our supercomputers are among the top 80 **most powerful supercomputers** globally and the top 10 most powerful commercial supercomputers in Europe.

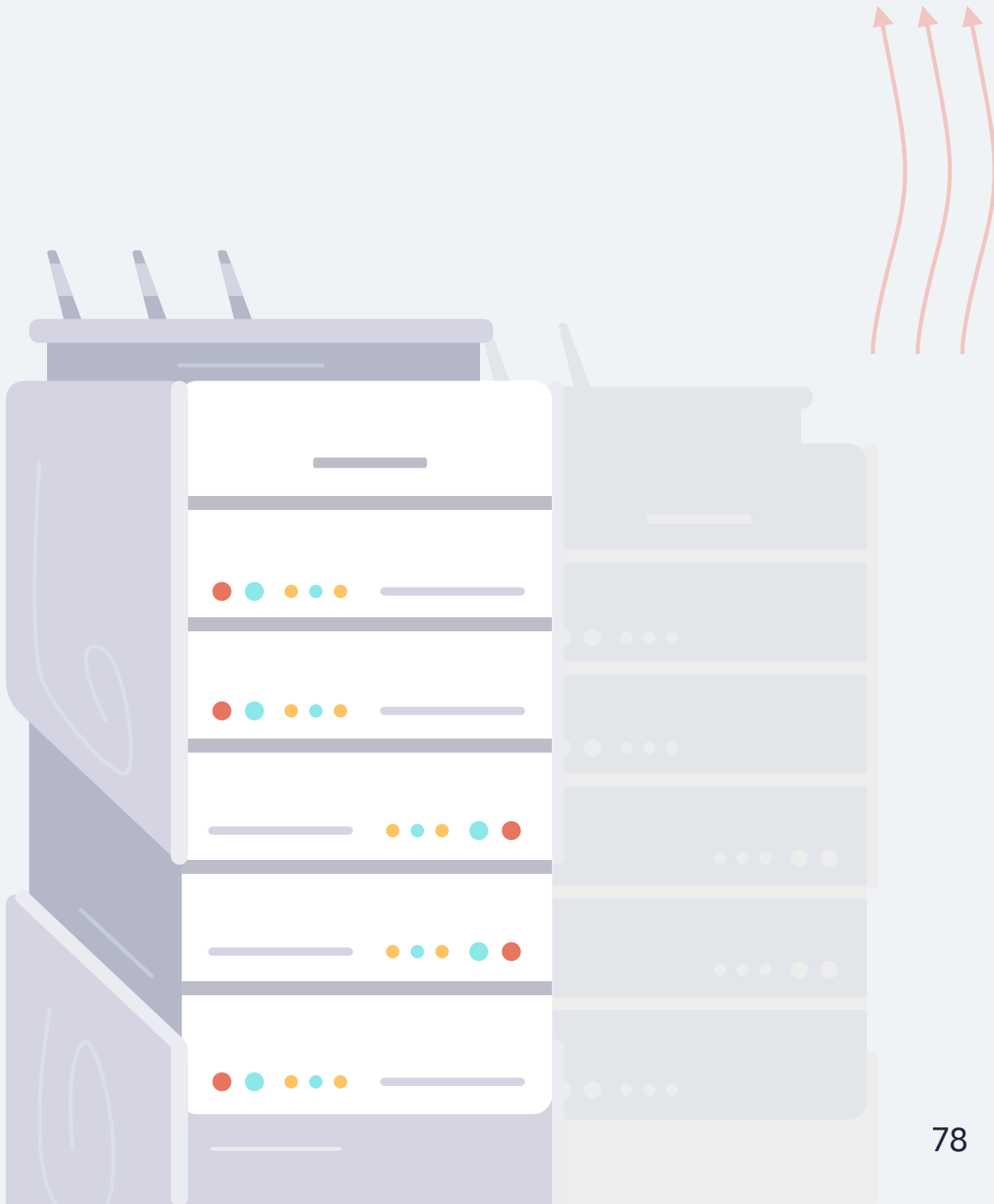
Yandex supercomputer
“Chervonenkis”

TOP 4

most powerful supercomputers in Europe
based on a rating of the **top 500** supercomputers,
June 2024

Free Cooling

We design our own server equipment to be resilient to high temperatures to ensure continued operations and zero-downtime. The high thermal stability of servers allows us to use external ambient air instead of cooling systems using water and refrigerants. Free cooling brings filtered outdoor air into the server rooms, while capturing and returning the heated air back into the atmosphere. To achieve optimal temperatures with minimal ventilation, our data centers are designed to separate hot and cold air streams. This increases the efficiency of free cooling and reduces energy consumption for ventilation.





Yandex Offices

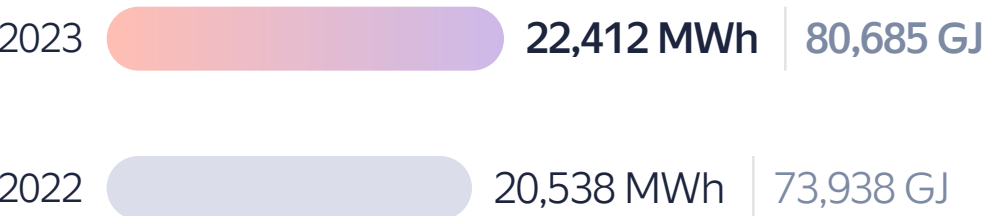
In 2023, electricity use in Yandex offices grew by 9% compared to 2022. This can be attributed to both the expansion of office space in Moscow and an increase in the number of employees working on site.

The aggregate electricity consumption of offices in the Krasnaya Roza, Avrora, Lotte Plaza, and Oko business centers in Moscow (over 70% of Yandex’s office area in 2023) increased by 7% with a 2% uptick in heat consumption.

Energy use figures for Yandex offices are provided in the ESG Data Tables Annex.

- GRI 302-1
- TC-IM-130a.1
- CG-EC-130a.1
- TC-SI-130a.1

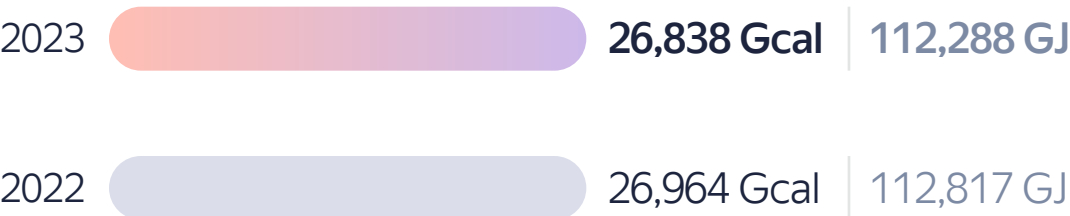
Electricity consumption at offices, MWh



MWh/GJ conversion factor: 3.6

Actual data on electricity consumption for 24 Yandex offices (97% of all company office space in 2023), versus 24 offices in 2022 (99% of all office space in 2022).

Heat consumption at offices, Gcal



Gcal/GJ conversion factor: 4.184

Actual data on heat consumption for 11 Yandex offices (74% of all company office space in 2023), versus 13 offices in 2022 (74% of all office space in 2022).

Yandex Market Logistics Center

Yandex Market has two types of logistics facilities: **fulfillment centers** (RU), where goods are stored, checked, packaged and sent to customers, and **sorting centers** (RU), where packaged orders are received for further shipment to other regions.

In 2023, we managed more than 20 of our own logistics centers throughout Russia. Electricity and heat consumption in logistics facilities increased by 34% and 22% year-on-year, respectively. This growth is due to business scaling and the addition of new warehouse space.

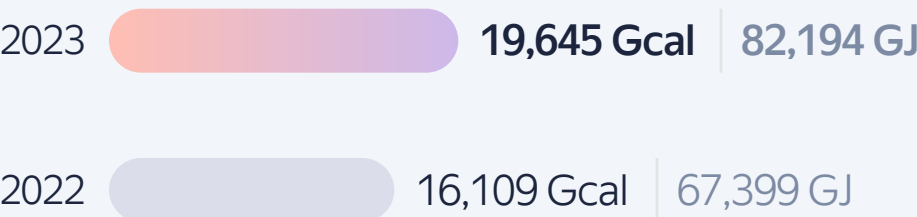
Electricity consumption at Yandex Market’s own logistics centers, MWh



MWh/GJ conversion factor: 3.6

Actual data on electricity consumption for 24 facilities (100% of all warehouse space in the specified periods). Only Yandex Market’s own logistics facilities are taken into account.

Heat consumption at Yandex Market’s own logistics centers, Gcal



Gcal/GJ conversion factor: 4.184

Actual data on heat consumption in 2023 for 16 facilities (80% of all warehouse space in 2023), versus 13 facilities in 2022 (77% of all warehouse space in 2022). Only Yandex Market’s own logistics facilities are taken into account.



Packaging and Waste

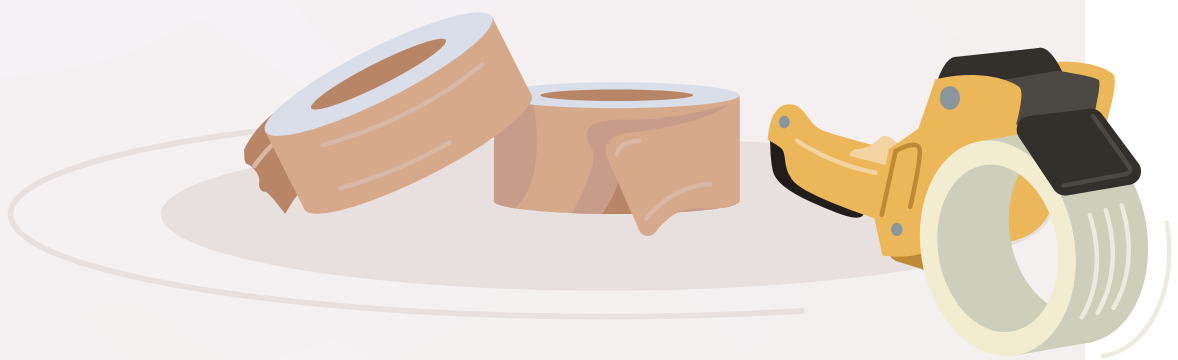


- GRI 301-1
- GRI 301-2
- GRI 306-1
- GRI 306-2
- GRI 306-3
- GRI 306-4
- CG-EC-410a.2

Digital businesses inevitably produce waste, ranging from office equipment to packaging materials used in e-commerce and delivery services. Managing this waste responsibly is crucial not only for environmental preservation but also for cost reduction and operational efficiency.

At Yandex, we prioritize optimizing the use of packaging materials by promoting reuse and recycling practices. We ensure that packaging is employed only when necessary to ensure the safety and integrity of goods during transportation and delivery.

In 2023, we partnered with other businesses and packaging experts to develop the [Sustainable Transport Packaging Recommendations](#) (RU). These recommendations are tailored for e-commerce operations in Russia and evaluate the sustainability of various transportation packaging options used to protect goods during transit, including their components like dividers, fillers, seals, and labels. The sustainability assessment considered functional properties, such as durability and water resistance of materials, as well as environmental characteristics, specifically recyclability of various packaging types within Russia.



Delivery Services



Yandex Market aims to ensure a seamless shopping experience and damage-free delivery while also prioritizing the sustainability of the shipping process.

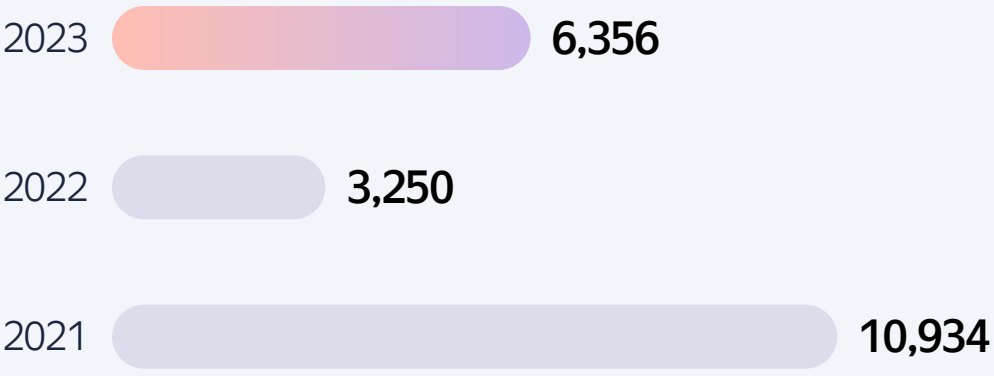
In 2023, Yandex Market fulfillment centers saw a doubling in the number of orders shipped compared to 2022. Notably, the growth in packaging volumes consumed was behind this increase by 28 percentage points, and the average packaging cost per order was halved from 2022. Key to achieving this efficiency were measures implemented to optimize delivery packaging.

The share of recyclable packaging materials remained consistently high at 97%, although there was a slight decrease in the share of packaging made from recycled materials (from 70% in 2022 to 58% in 2023). This shift was influenced by higher number of orders in categories such as liquids and fragile items, for which packaging types made of virgin materials (such as bubble wrap) are used.

Detailed statistics on the use of packaging in Yandex Market are available in [ESG Data Tables Annex](#).



Volume of packaging used in Yandex Market, metric tons



97%
of Yandex Market delivery packaging is recyclable
and 58% is made of reused or recycled materials

>11 THSD MT
of packaging waste generated at Yandex Market's logistics centers were sent for recycling in 2023

>9.8 THSD MT
of wooden pallets were reused

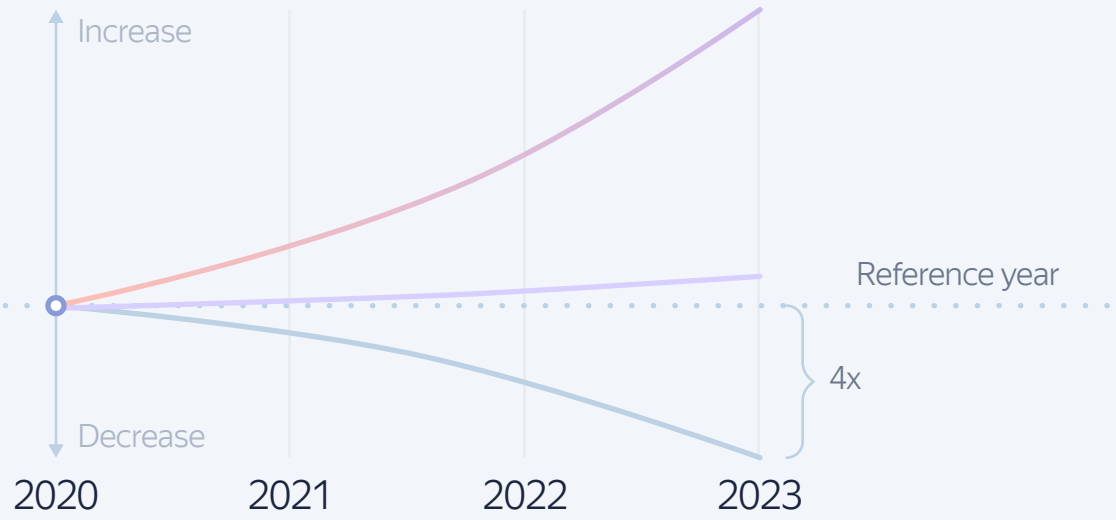


Optimization Measures

4x

reduction in packaging costs per order compared to the end of 2020
the launch of optmization measures

Packaging cost per order



- Number of orders
- Average procurement prices of key packaging types
- Packaging cost per order

The graph shows the change in packaging cost per order during 2021–2023 relative to the reference period (late 2020, when the service launched its packaging optimization initiative). As a result of these optimization measures, the packaging cost per order has decreased fourfold over the period against the backdrop of an increase in the number of orders and a slight rise in the procurement prices of packaging materials.

>60%

of orders were delivered in courier envelopes without paper filling

Fit-to-Size Packaging

Packaging is automatically selected based on the size of goods specified by partner sellers. Our packers verify that the specified sizes are accurate and adjust the system’s choice manually for items with non-standard measurements. Optimizing packaging size reduces the amount of materials used, as goods do not need to be wrapped to prevent movement during delivery when fit-to-size courier envelopes are used. This also allows us to transport more orders with fewer vehicles.

Diversified Delivery Packaging

In 2022, we started introducing courier envelopes featuring adhesive flaps as an alternative to carton boxes. In 2023, these envelopes were used to deliver the majority of user orders. Yandex envelopes are made from 30% recycled materials that are accepted for recycling in cities where Yandex Market operates.¹

Envelopes are used to deliver non-fragile items in various categories, such as apparel, books, or everyday goods in durable original packaging. Unlike boxes, which require filler materials to prevent damage during transportation, envelopes provide a secure and snug fit without additional packing. Fragile and high-value items are still packaged in cardboard boxes made from 100% recycled materials.

>9 THSD

pickup points throughout Russia process orders without additional transport packaging²

Elimination of Redundant Packaging

We analyze the durability of various item categories during transport and implement solutions to use the exact amount of materials required to ensure damage-free delivery.

When door-to-door or “one-click” delivery options are selected, we no longer wrap or box items that come in damage-proof original packaging, such as pet food, drink packs or garden soil.

We continue to expand the number of deliveries to pickup points without additional transport packaging. Instead of dispatching fully packed orders in boxes or courier envelopes, we place individual items in their original packaging into secure crates. This method excludes liquids, fragile, high-value, and age-restricted goods. Pickup point staff allocate items by order, allowing users to collect them in their original packaging. In 2023, over 9,000 pickup points across Russia processed orders without additional packaging. The number of such orders has grown to 7 million since the initiative was first introduced.

20%

of orders were delivered to Yandex Market pickup points without additional transport packaging during the high season (November and December 2023), the share of orders without transport packaging exceeded 30%

¹ Production limitations restrict our ability to increase this share of recycled materials.

² Applies to orders delivered using the **Fulfillment by Yandex** (FBY) model (RU), where sellers deliver goods to Yandex Market warehouses for further processing and delivery by Yandex.



Optimization Measures

The Second Life of Goods on Yandex Market

Since 2022, Yandex Market has been developing its [Discounted Goods](#) (RU) to promote responsible consumption and cost saving. This section offers deals on quality second-hand items from trusted partners as well as new, unused items with damaged packaging across various categories, including electronics, household appliances, car tires, and more.

In the second half of 2023, the Discounted GoodsП featured more than 800,000 items, the majority of which were returns from customers with minor defects or damaged original packaging. Each item is clearly marked with the reason for the discount and includes information about the seller’s warranty.

Textile for Recycling at Pickup Points

In 2023, in collaboration with Yandex’s Helping Hand charitable foundation, Spasibo charity shop, the Vtoroye Dykhaniye and Sdat Veschi Prosto non-profit organizations, Yandex Market installed containers for used clothing collection at pickup points in Moscow and St. Petersburg. Today, donations can be made at more than 35 pickup points, and since its launch, more than 9 metric tons of clothing have been collected by charity organizations or recycled.

>9 MT

of textile was collected at Yandex Market pickup points over 6 months and donated to charity or recycled at the end of May 2024



Packaging in Yandex Delivery

Yandex Delivery also relies on transport packaging to ensure damage-free deliveries. However, the service is mindful of its packaging choices, predominantly using cardboard envelopes, boxes, and packaging paper made from 100% recycled materials.

95 %

of transport packaging used by Yandex Delivery is made from recyclable materials



Yandex Lavka

In 2023, Yandex Lavka’s dark stores and ready-to-eat food production facility sent nearly 3,000 metric tons of waste for recycling.¹

All delivery bags used by Lavka are made of high-density polyethylene, which has shown the lowest environmental impact based on the results of a comprehensive life cycle assessment (LCA). The cumulative carbon footprint of the HDPE bag measured in CO₂-equivalent was found to be 65% and 53% lower than that of two available alternatives, the kraft paper bag and the LDPE bag, respectively.² To view the research in full, please see this [publication](#) (RU).

In 2023, 70% of the packaging units for food products released under the Lavka brand were made from sustainable materials (recycled or containing recycled content). This percentage has slightly decreased from 76% in 2022 due to the launch of new products and increased sales of products in flexible, non-recycleable packaging for which no recyclable alternatives are currently available on the market.

Yandex Lavka employs pooling when transporting goods from its own ready-to-eat food production facility in St. Petersburg and distribution centers, using reusable plastic crates. This approach helped the service avoid using over 6,000 metric tons of single-use cardboard boxes in 2023, which would have become waste. We also helped our partner suppliers of ready-to-eat food, fruit, and vegetables in adopting reusable crates.

¹ The known volume of waste may differ from the actual. Data on waste generation and transfer for recycling at some warehouses is limited. The quantitative data is presented in the [ESG Data Tables Annex](#) to the Report.

² Within the LCA, we compare the global warming potential (measured in CO₂-equivalent) for the life cycle of bags manufactured from HDPE, LDPE, and kraft paper based on use scenarios of Yandex Lavka in Moscow. The LCA was conducted in 2020 as part of the delivery packaging selection process, and was performed in accordance with ISO 14040 and ISO 14044.



Yandex Lavka

Yandex Lavka’s Sustainable Packaging¹



100%

of delivery bags

70%

of food packaging units produced under the Yandex Lavka brand

60% – is packaging from recyclable materials,
10% – is packaging containing recycled materials

78%

of the packaging units in the Ready-to-Eat food category of the Yandex Lavka brand

6,126 MT

of single-use cardboard boxes were avoided in 2023 by adopting circular solutions for delivery²

Users themselves play an important role in reducing packaging waste. We are working to make eco-friendly habits convenient through our services.

By the end of March 2024, more than half of all Yandex Lavka product cards show the recycling codes of packaging material. This makes it easier for users to understand whether packaging is recyclable. Yandex Lavka also has a [landing page with useful tips](#) (RU) on preparing packaging for recycling.

Over 40,000 recycling collection points are now available on **Yandex Maps**, with 26 filters for different materials added to organization profiles. Users can search for specific queries like “Recycling pickup point” or “Where to dispose of batteries”. In addition to common materials (plastic, glass, metal, paper, and batteries), collection points for less common items like tires, soil, household appliances, textiles, polystyrene foam, and thermometers are also listed. Users can also access the map by scanning the QR codes on Yandex Market delivery boxes.

Yandex uses an external partner to help keep information about waste collection points in Yandex Maps up to date. The partner’s volunteers visit collection points and containers, and report any changes and new locations. Moderators then verify this information by contacting service organizations and collection point owners, and visiting waste sorting sites.

Returning Delivery Bags

In 2023, Yandex Lavka launched a circular initiative to collect 2HDPE **bags from users for recycling** when they receive their orders.³ To return a bag, users simply select this option in the app when placing an order. Upon delivery, the courier collects the bags, seals them in a designated bag, and drops them off at a dark store, where our partner picks them up for recycling.

Each time users return bags, they earn Yandex Plus points equivalent to the delivery packaging fee. These points can be used across Yandex services off at Lavka dark stores to be further sent for recycling.

Results as of the end of May 2024

17.5 MT

of bags have been collected since the program launch

16 MT

of bags have been prepared for recycling



¹ Sustainable packaging is understood as recyclable, made of recycled materials, and/or with less environmental impact than comparable alternatives based on life-cycle assessment. According to Russia’s sanitary rules and regulations, packaging manufactured from secondary materials cannot be used to pack some food products.

² The calculation of the cardboard box equivalent uses the box weight, size, and volume that corresponds to a reusable crate.

³ At the time of this report, the bag return program is available in all cities where the service operates.



Yandex Lavka

Processing Write-Offs

Yandex Lavka prioritizes the delivery of fresh, spoilage-free products to its users. Products that do not meet these criteria are written off. However, since this results in losses for the service and creates waste, Yandex Lavka employs a range of tech-powered solutions to minimize write-offs.

For example, we forecast demand to purchase precisely the quantity of products that are likely to sell before the next delivery. The Avtozakaz system leverages historical data to forecast demand at specific dark stores with nearly 90% accuracy in 2023. Additionally, our order calculation system is fully automated, allowing us to monitor product availability and make procurement decisions based on current stock and expected demand. Orders for suppliers are generated automatically based on this information.



The Banana Chronicles¹

Bananas pose significant challenges in terms of perishability and supply chain complexity before reaching consumers. To reduce banana write-offs, we use a range of operational and product solutions.

Yandex Lavka sells bananas based on ripeness, improving user experience and optimizing inventory management. Previously, overripe bananas were typically removed from the shelves, but now they can be sold if requested by a user.

Another waste-reduction solution is the option to purchase bananas individually. This lets users purchase only the number of bananas they can eat, and allows Lavka to minimize additional costs associated with packaging. This solution continues to drive down the cost of bananas for users the current cost of one banana is 15% lower compared to before the feature was introduced.

↓87%

reduction in average monthly write-offs of bananas

To calculate the reduction, we compared average monthly write-offs in 1Q 2024 with the reference period of 1Q 2021, which preceded the launch of the ripening stage choice feature. Compared to the end of 2022, total write-offs decreased by 14%.

¹ Results for Moscow only.

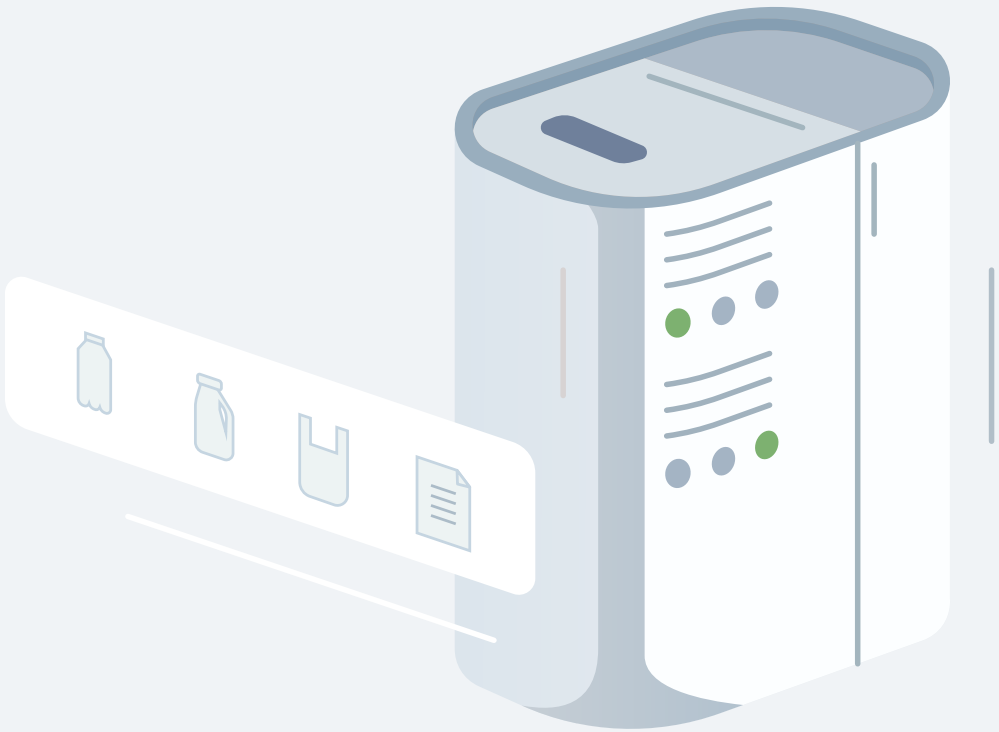
Office Waste Recycling

We strive to make eco-friendly habits a part of everyday life – both among our service users and employees.

Our green office initiative for employees includes separate bins for waste, a second life for office equipment, the use of environmentally friendly office products, and events to promote eco-friendly habits. Funds raised from the sale of paper and plastic are sent to the Helping Hand charitable foundation, so employees who dispose of waste in separate bins in offices help support both our environmental effort and ongoing charitable initiatives.

>1 M

raised from sending office waste for recycling and during the Eco-marathon, and allocated to Helping Hand to support ongoing charitable initiatives² in 2023



² RUB 593,000 raised from sending waste for recycling and RUB 470,000 raised in the Merch for Donations promotion during the Eco-Marathon, and donated to Helping Hand.



Waste Collection System

Yandex introduced separate waste collection in its offices several years ago. Currently, it is available in Moscow, our eight regional offices, the Moscow self-driving car and delivery robot assembly workshop, and in our offices in Belgrade and Almaty.

In Moscow, our separate waste collection system is logistically optimized and fully transparent: we transport office waste to our logistics facility in the Moscow Region before sending it for recycling. We maintain precise knowledge about our recyclable office waste because we only work with reliable recycling partners who provide regular reports.

In addition to cardboard, paper, plastic, glass, and metal, we also collect and recycle textiles, batteries, and even electronic cigarettes.¹ In 2023, we collected almost one ton of batteries throughout all of our Russian offices, three metric tons of batteries from equipment, and 170 kilograms of electronic cigarettes. This waste was sent to certified organizations for disposal.

There are also clothing bins always available at our offices in Moscow and St. Petersburg. Over the past year, we have collected almost 2 metric tons of textiles to be donated or recycled.

In 2023, we also held stuff swaps in our offices in Moscow, Belgrade, Almaty, and Yerevan. Yandex shares news and announcements about these environmental initiatives in our internal online community that already includes more than 2,000 employees.

¹ Textiles, batteries, and electronic cigarettes are collected in Moscow. Only batteries and electronic cigarettes are collected in regional offices.

² A pilot project for food waste collection was implemented at the Aurora Business Center office in Moscow. All coffee areas have special boxes for the disposal of used coffee grounds and fruit after juicing.



Eco-marathon

In 2023, we held the **Eco-marathon**, a month-long series of online and offline events, from a simple eco-challenge with useful recommendations for every day, to workshops and lectures with environmental experts, quizzes, and the collection of uncommon waste fractions (toothbrushes, expired medicine, CDs, and more).

The Eco-marathon also included a Merch for Donations campaign, where employees could donate to Helping Hand and receive overstock Yandex merch promoting our brands and services from past external and internal events. A total of RUB 470,000 was raised to support Helping Hand partner non-profit organizations, and warehouse space was freed, resulting in hundreds of items finding new homes.

20 cities
participated in the Eco-marathon across 6 countries

110 kg
of uncommon waste fractions were collected in Moscow and St. Petersburg



E-Waste Recycling Program

To extend the life cycle of outdated but working **office equipment**, we provide our employees with the opportunity to purchase it at discounted prices. Retired equipment that no longer works is sent for recycling.

1,316 pieces

of corporate equipment have been purchased by employees

500 kg

of corporate equipment has been sent for recycling



In addition to collecting and recycling corporate equipment, we also do the same for employees’ **personal devices**. Twice a year, we organize three types of collection points at our offices: for consumer electronics, accessories, and data storage devices.

Household appliances

Accepted:

Small appliances such as hair dryers, irons, kettles, and desktop lamps without bulbs

Not accepted:

Air conditioners and split systems



Accessories

Accepted:

Used cables, computer mice, keyboards, and headsets



Data storage devices

Accepted:

Laptops, computers, telephones, smartphones, tablets, flash drives, and hard drives



To ensure the integrity of personal data, the bins for data storage devices are sealed, and the contents are sent for grinding and granulation. Additionally, there is a non-sealed compartment where used devices can be taken by others free of charge.

We work with an e-waste recycling partner to recycle our equipment. The devices are sent to a facility for sorting, disassembly, compression, or melting, depending on their components. Our recycling partner provides detailed reports specifying the recycling results.

10 cities

had recycling bins in Yandex offices for employees’ personal devices

948 kg

of equipment was sent for recycling
365 kg more than in 2022

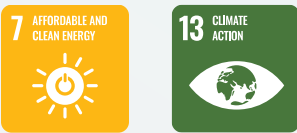
>900 kg

of metal, plastic, and glass were extracted, recycled, and reused as secondary materials¹

¹ This amount can be turned into 3,900 plastic clothes hangers, 19 car hoods, 1,000 copper power cables, or more than 700,000 paper clips.



Carbon Footprint



- GRI 305-1
- GRI 305-2
- GRI 305-4
- GRI 305-5
- TC-IM-130a.3
- CG-EC-130a.3
- TC-SI-130a.3
- TR-RO-110a.1

We recognize the significant role that digital technologies play in addressing complex climate challenges. Yandex services analyze meteorological data and climate phenomena to build and visualize climate forecasts in order to help scientists study ways to combat climate change and help businesses choose strategies to adapt to a changing planet. Please see the [Technology for Environmental Research](#) section for more detail.

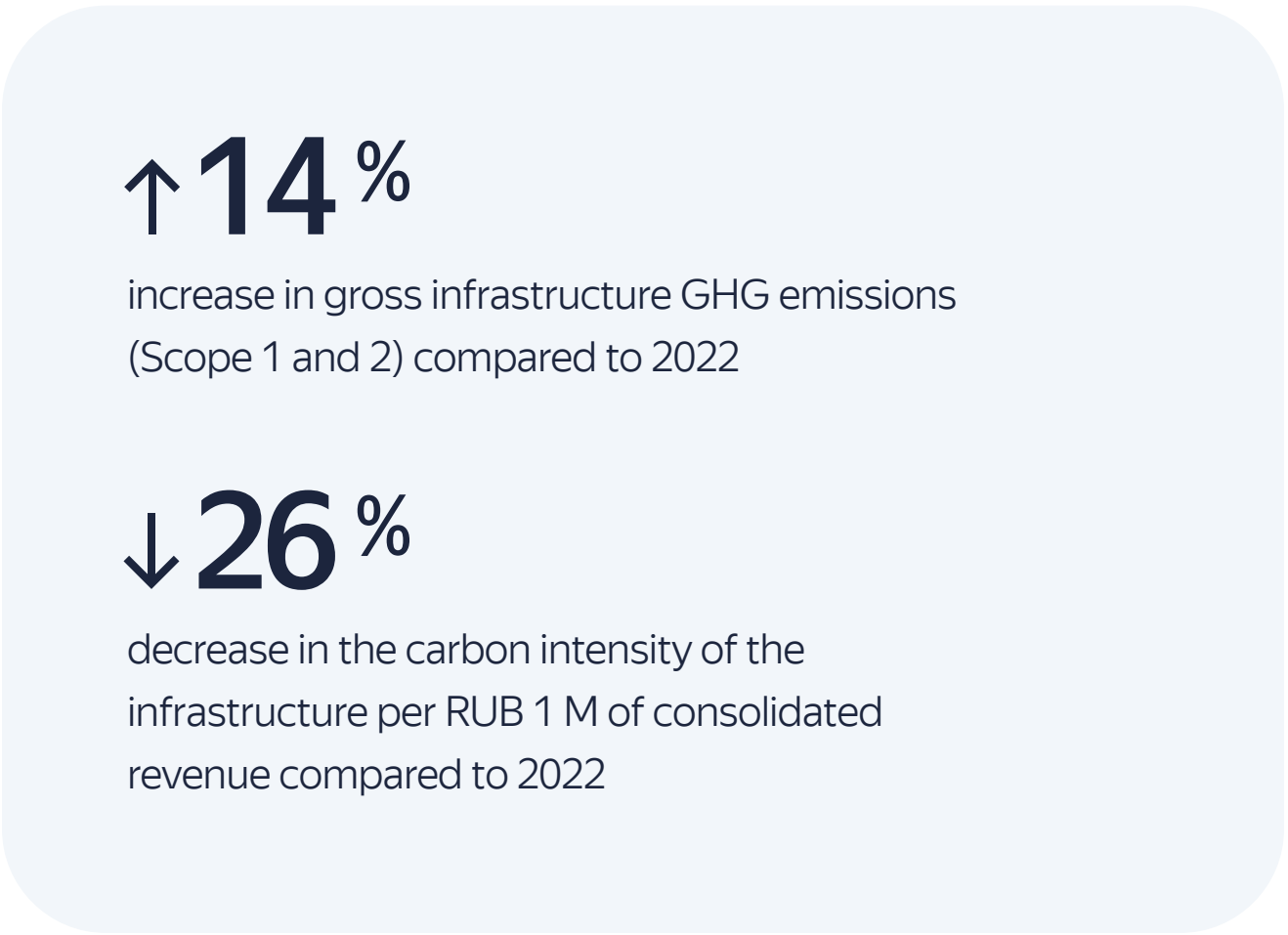
However, we are also mindful of the inevitable carbon footprint associated with any digital service and strive to assess our climate performance. The understanding of emission sources and factors influencing our carbon footprint is essential for us to effectively plan and prioritize decarbonization measures. Our focus on maintaining a high level of energy efficiency in computing is based on an understanding of the structure of Yandex’s carbon footprint. More than half of the Company’s total carbon footprint comes from the operation of our data centers.

We annually assess the direct and indirect greenhouse gas (GHG) emissions associated with the operation of Yandex’s infrastructure, and monitor the climate performance of individual services.¹

¹ Scope 1 covers greenhouse gas emissions from stationary and mobile combustion sources controlled by the Company. Scope 2 covers indirect emissions induced by the consumption of heat and electricity purchased from third parties. We calculate Scope 2 emissions using the location-based method based on average carbon-intensity levels of national grids where the consumption occurs. The market-based method involving the use of supplier-specific emission factors is not applied due to data unavailability.

Carbon Footprint of the Yandex Infrastructure

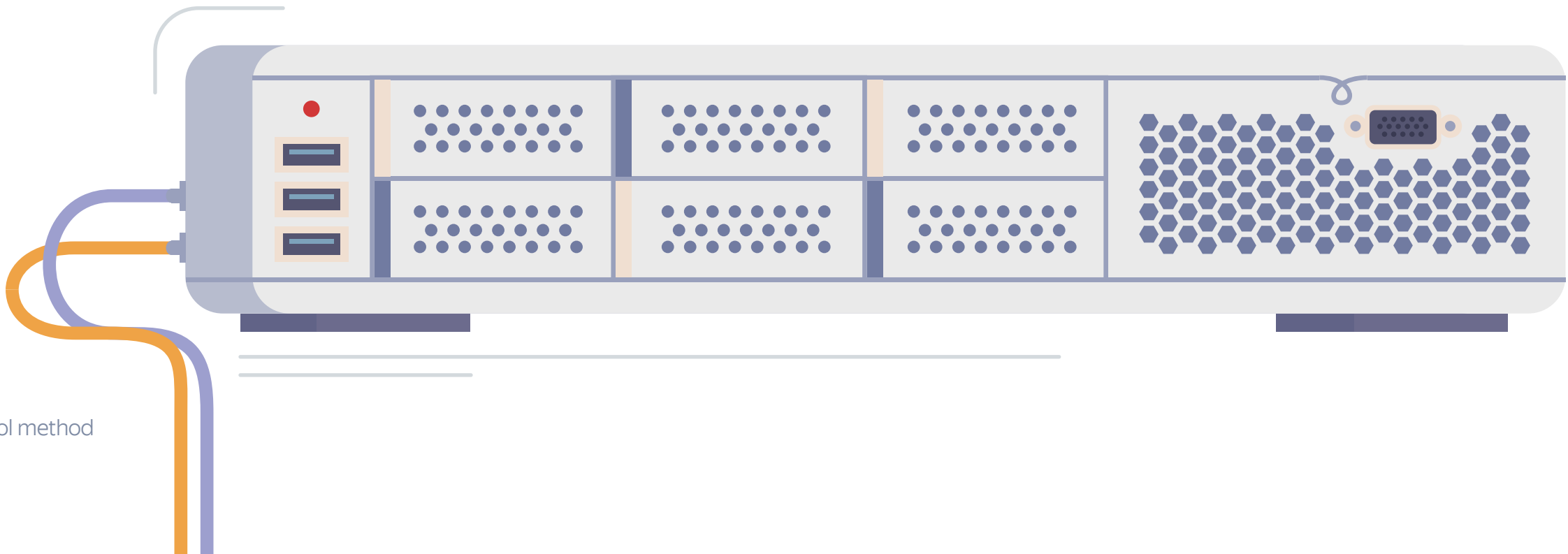
Yandex’s direct and indirect carbon footprint is attributable to its infrastructure, including movable and immovable property managed by Yandex and supporting its operations.² This includes data centers, offices, logistics centers, and other delivery service facilities, as well as vehicles owned or leased by Yandex and facilities for their maintenance, such as self-driving cars and vehicles of the Yandex Drive car-sharing service.



In 2023, gross infrastructure GHG emissions grew by 14%, reaching a total of 301 thousand metric tons of CO₂e: direct emissions from the fuel used by vehicles and consumed for own energy generation (Scope 1) decreased by 2%, while indirect emissions from purchased energy consumption (Scope 2) increased by 24%. The increase in indirect emissions is associated with business development and the commissioning of new infrastructure facilities, as well as with greater in-office operations and the expansion of office spaces in Moscow, resulting in higher energy and heat consumption. It was also influenced by the inclusion of Yandex Lavka infrastructure facilities (large dark stores and production facilities for Yandex Lavka private label ready-made food, ice, and bakery products), as well as service facilities for self-driving vehicles (test site and garages) in the calculation.

Carbon intensity per million rubles of consolidated revenue decreased by 26% compared to 2022, from 0.51 to 0.37 tons of CO₂e. Among other things, this is a result of optimization that allowed profitability to be increased without any significant rise in energy cost.

Please see the [ESG Data Tables Annex](#) for more detail.



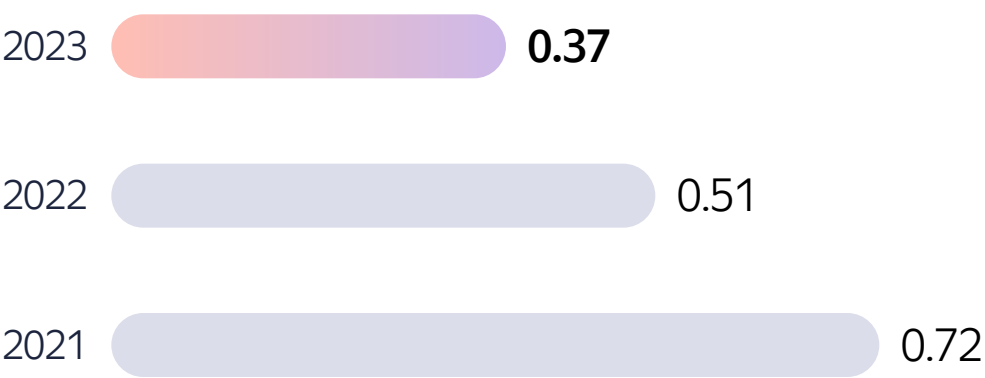
² The scope is defined as per the operational control method proposed by the GHG Protocol.



Carbon Footprint of the Yandex Infrastructure

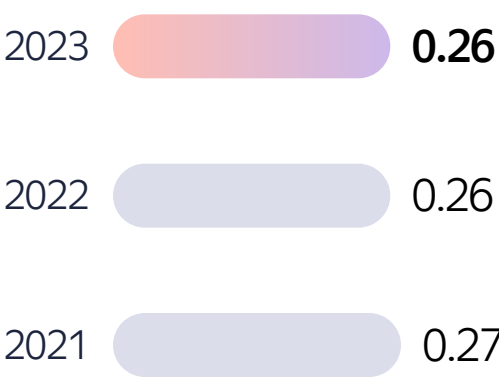
GRI 305-4

Carbon intensity (Scope 1 and Scope 2),
metric tons CO₂e/RUB 1 M of consolidated revenue



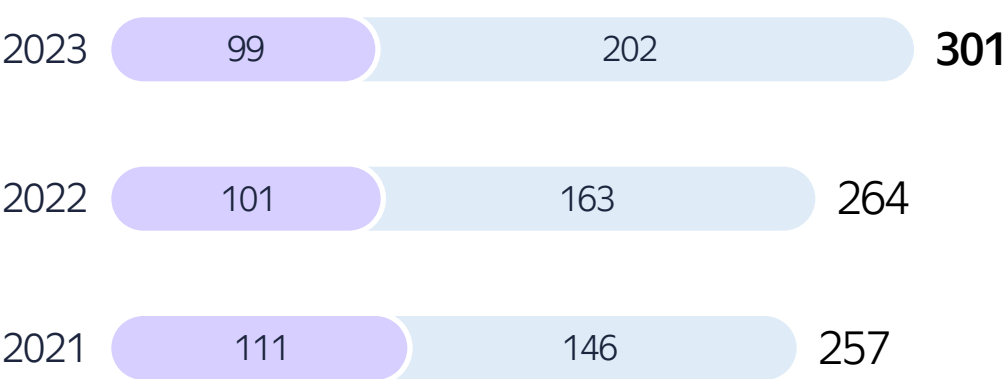
GRI 305-4

Carbon intensity (Scope 1 and Scope 2),
metric tons CO₂e/MWh



GRI 305-1 GRI 305-2

Gross GHG emissions (Scope 1 and Scope 2),
thousand metric tons CO₂e



- Direct emissions, Scope 1
- Indirect energy emissions, Scope 2



Carbon Footprint of Yandex Services

Digital Services for Decarbonization

Yandex’s digital services help users streamline their daily activities, resulting in economic advantages and positive environmental impacts.

For instance, migrating IT resources and complex calculations (such as AI training) to an energy-efficient cloud infrastructure presents opportunities to lower the carbon footprint of energy-intensive processes, and reducing travel time or the number of delivery vehicles can reduce GHG emissions associated with logistics.





Digital Services for Decarbonization



In 2023, we expanded Yandex Cloud to offer users even more capabilities. More than 60 interconnected services are now available, including scalable infrastructure and data platform services (data storage, processing, and analysis), as well as machine learning and development tools. The number of platform users **increased** (RU) in 2023 by a factor of 1.2, reaching 29,300.

Migration to the cloud can enhance the efficiency of digital business processes while also mitigating their climate impact. The physical infrastructure of Yandex Cloud comprises state-of-the-art data centers equipped with energy-efficient server hardware. By outsourcing calculations to Yandex, customers can reduce both their carbon footprint and energy expenses.



Almost

40 %

potential increase in Yandex Cloud’s energy consumption in 2023 if Yandex used infrastructure with energy efficiency at the global average

>6.4 THSD MT CO₂e

avoided by the Yandex Cloud platform thanks to a more energy-efficient server infrastructure

This is **equivalent** to the GHG emissions from 1,500 gasoline-powered passenger vehicles driven for one year

The assessment covered the full year of 2023. The amount of saved emissions is the difference between the scenario value and actual energy consumption of the Yandex Cloud platform converted into GHG. The figure is calculated in accordance with the guidance in the GHG Protocol for estimating emissions. To calculate actual energy consumption, we determined the amount of electricity used for Yandex Cloud calculations in Yandex data centers. Then we adjusted the result to the average annual PUE value for each module of data centers where Yandex Cloud is hosted. This takes into account the energy consumed to support the servers (cooling, power distribution, etc.). To calculate the energy consumption scenario value, we replaced the average annual PUE value of data center modules hosting Yandex Cloud with the **global average** (1.58 in 2023).



RouteQ (RU) is an AI-powered solution for route planning. The service leverages an adaptive algorithm with over 300 planning parameters, such as delivery time, warehouse work schedule and capacity, freight dimensions and mutual compatibility, traffic forecasts based on data from millions of vehicles, and more. Customers (including Yandex Market) can fulfill on average 20% more orders per route, resulting in cost-saving and improved carbon performance.

20 %

average reduction in vehicle mileage following the application of RouteQ

>2.8 M liters

of diesel and petrol saved by Yandex Market with RouteQ-optimized logistics in 2023

7,483 MT CO₂e

avoided by Yandex Market in 2023 thanks to mileage optimization with RouteQ

This is **equivalent** to the GHG emissions from 1,700 gasoline-powered passenger vehicles driven for one year



Digital Services for Decarbonization



Yandex Magistrali

Yandex Magistrali (RU) is a single platform to plan cargo transportation within and between cities. The platform helps cargo owners, carriers, and forwarders coordinate all stages of transportation, from searching for contractors to monitoring orders in real time.

Users particularly benefit from the option to combine cargo shipments with cargo from other customers if the truck isn't full. This reduces the cost and carbon footprint of transportation, as goods are delivered by fewer vehicles and there are fewer GHG emissions per ton-kilometer.

18%

fewer fleet miles on average among
Magistrali users

based on service data from 2023

Up to 8%

lower costs for intercity transportation thanks
to Magistrali (percentage varies by region)



Yandex 360's spam filtering technology helps keep user email accounts and personal data secure. In 2023, the spam control feature processed over 97 billion incoming emails, blocking about 21.3 billion as malicious. Spam control not only saves users time but also helps conserve battery life on their devices when interacting with the service.

>4.4 THSD MT CO₂e

prevented thanks to the Yandex 360 spam
filter in 2023¹

and over 8,000 metric tons over 2 years. More than 4,000
hectares of forest would be needed **to offset** this volume
of emissions naturally (an area of about 6,100 football fields)

¹ According to available research, a single spam email is associated with an average of 0.3 grams of CO₂e of GHG emissions, where 52% of these emissions come from the email being opened and read. We assumed that the carbon footprint of a spam email with an attachment is 4.2 grams of CO₂e, 14 times higher than the average value, i.e., exactly as much as an average email with an attachment (1,098 KB) compared to the average size of an email without attachments (78 KB) in 2023. We multiplied this value (0.3 grams for emails without attachments and 4.2 grams for emails with attachments) by the actual number of filtered and undelivered spam emails (11 billion emails without attachments, 580 million emails with attachments) and calculated a 52% share of it. All undelivered emails were regarded as emails without attachments. We assume that spam emails were never opened by users.



Yandex Fuel

In 2023, Yandex Fuel opened 150 electric charging stations (ECS) in Moscow and St. Petersburg, including eight fast-charging stations. Five of them are installed in our fast charging station hub in St. Petersburg, a joint project we launched with the Baltic electric charging stations network.

Currently, the app has more than a thousand charging stations from different partners, including more than 200 ECS added by Moscow Energy in 2023. Users can find ECS on the map, check whether they're in use, and start and end charging sessions. Electric vehicle owners can also use a special filter to show specific charging stations on the map. After selecting the connector type or specifying the vehicle model, the filter is set automatically.

150

ECS installed by Yandex Fuel in Moscow
and St. Petersburg

>1,000

partner ECS displayed in the app



Carbon Footprint of Taxi Rides with Yandex Go

Since 2021, Yandex Go has conducted carbon footprint assessments, setting itself apart as one of the few ride-hailing platforms globally to measure the carbon intensity of passenger mileage. The details of our calculation methodology are outlined in the [ESG Data Tables Annex](#).

↓19%

reduction in GHG emissions per passenger kilometer in 2023 compared to 2017¹
average value for all reviewed regions

82%

of Yandex Taxi mileage was on-trip²
average value for all reviewed regions

¹ According to the GHG emission classification adopted in the GHG Protocol guidelines, the carbon footprint from the mileage of partner vehicles connected to the Yandex Go platform is not part of Yandex’s direct or indirect emissions (Scope 1 and Scope 2) but is included in category 11 (Use of sold products) under Other Scope 3 Indirect Emissions. The calculation did not take into account the following categories of Scope 3 emission: emissions associated with the production or disposal of a vehicle operated by a contractor, the production of fuel used by the vehicle, or any emissions generated by personal use of the vehicle (mileage during a period of inactivity online).

² Mileage between passenger pickup and drop-off. On-trip mileage does not take into account the distance driven while waiting for a ride request or to the passenger pickup location.

Since 2017, the carbon intensity of taxi rides with Yandex Go (measured as the ratio of a vehicle’s total GHG emissions associated with Yandex Go rides to passenger mileage³) was down by 18% for rides in Moscow, by 23% in St. Petersburg and by an average of 18% in other Russian metropolitan areas reviewed. In 2023, for every passenger kilometer in Russia, the amount of emissions was the same as in 2022.

GHG emissions intensity of Yandex Go rides in Moscow and St. Petersburg, g CO₂e per passenger km

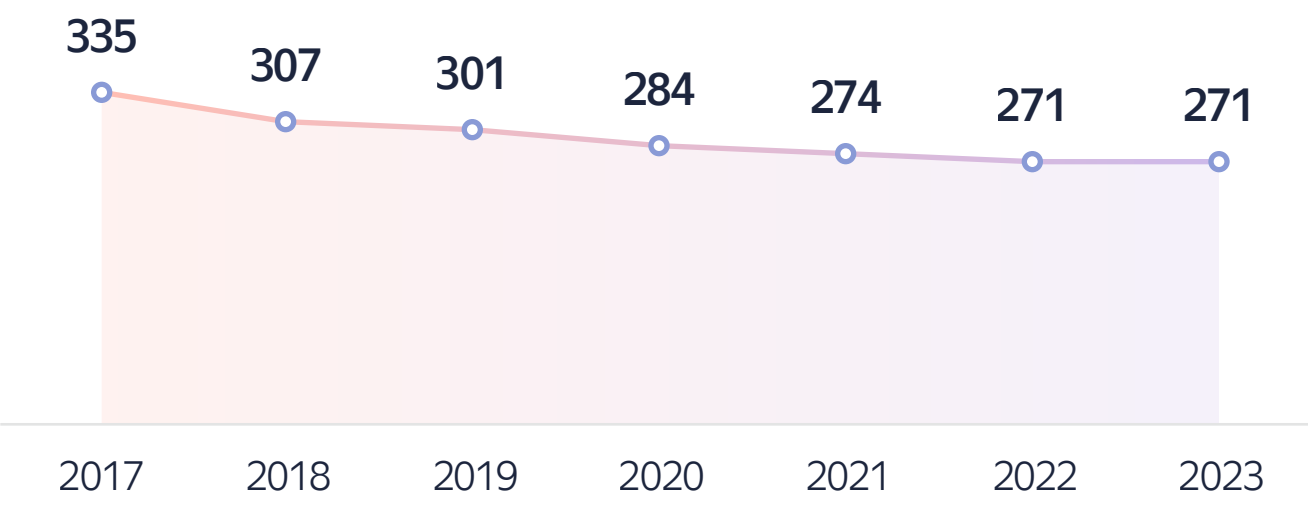


³ Passenger mileage is the mileage between the passenger pickup and drop-off locations multiplied by the average number of passengers in the vehicle, or the sum of the distances traveled by each passenger. For example, a 10 km ride with two passengers in a taxi generates a passenger mileage of 20 km.

⁴ The graphs show the average intensity for each group of cities.

GHG emissions intensity of Yandex Go rides in other Russian cities, g CO₂e per passenger km⁴

Other cities with populations of over one million



Other cities with populations of 500 thousand – 1 million



Other cities with populations of 300–500 thousand



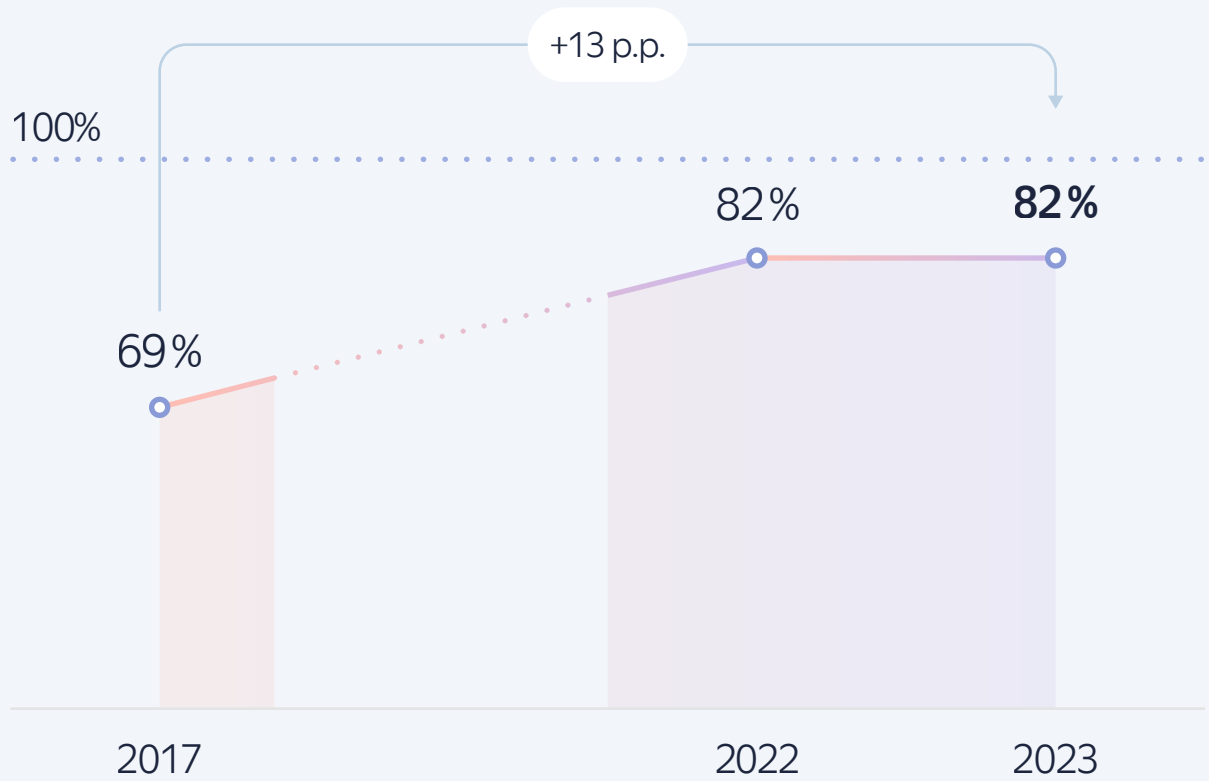


Carbon Footprint of Taxi Rides with Yandex Go

The annual reduction in carbon intensity is primarily driven by the platform’s increasing efficiency, which we measure by evaluating the share of on-trip mileage of vehicles active on the platform. A higher share indicates a more efficient platform, as it signifies that drivers do not have to travel long distances while waiting for their first trip request or between rides.

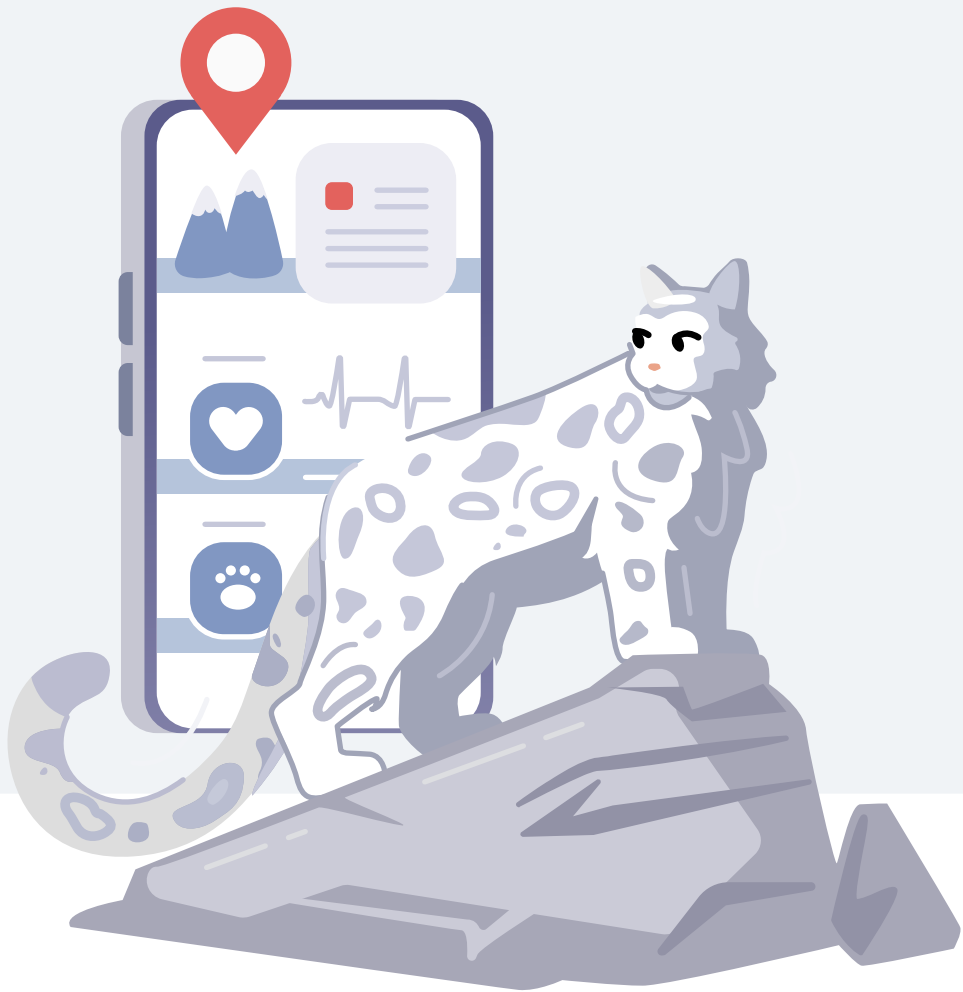
By the end of 2023, the share of on-trip mileage was the same as in 2022 in almost all cities and had already reached or surpassed 80%. The slowing down of growth is natural, as efficiency is already high. Further increases in efficiency will mostly depend on external factors. Reaching the maximum of 100% would require each driver to have the exact same drop-off and pickup locations for all current and subsequent passengers. Although our algorithm strives to provide near-perfect matches, there may not always be another trip request at the same address, or the request may be for a service class that the driver cannot accept.

Share of on-trip Yandex Go mileage, average for all regions



Technology for Environmental Research

Scientific research is crucial for understanding the impact of human activities on the environment, protecting biodiversity, and addressing climate issues. Today, digital technologies have tremendous potential to drive scientific discoveries forward. Neural networks can effectively process enormous volumes of information, find patterns, and make forecasts, while cloud solutions provide the necessary computing capacity to conduct data-intensive research.



Yandex Cloud

Helps protect the snow leopard population

Snow leopards are one of the rarest and least studied species of big cats in the world. In Russia, there are no more than 90 still living in the wild. Protecting the population is challenging due to the difficulties in conducting research. These challenges arise from the leopards’ hard-to-reach habitats, their crepuscular lifestyle, and their solitary hunting habits.

Yandex Cloud and students from the Yandex School of Data Analysis offered researchers a [solution](#) (RU): a neural network trained to recognize 10 different species of animals, including snow leopards, from images and videos obtained using camera traps. Trained on 40,000 labeled objects, the AI provides output in only a few seconds.

Monitors greenhouse gas levels

In 2023, a carbon measurement testing facility was [opened](#) (RU) in the Moscow region to monitor the level of GHG emissions in the atmosphere and research ways to absorb them. Research findings are expected to contribute to the development of more effective measures to prevent forest fires, reducing carbon intensity of livestock production, and better management of landfill gases. Yandex supports the project in collaboration with Lomonosov Moscow State University.

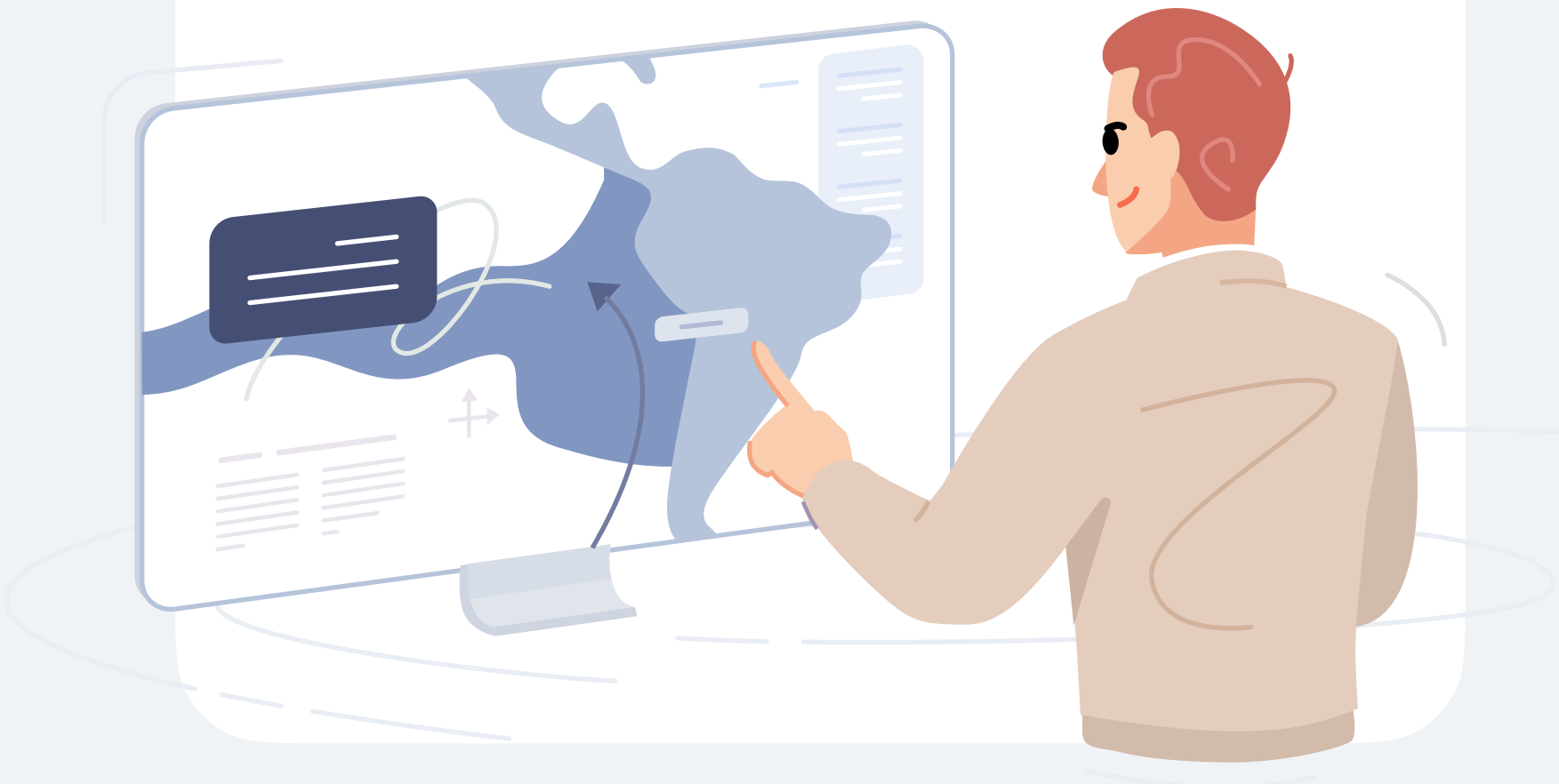
The testing facility’s sensors and gas analyzers process terabytes of data collected in real time to find the most effective ways to control and reduce greenhouse gas emissions in the region. The data array is stored in Yandex Cloud as part of a single database for data exchange with other testing facilities in different regions of Russia.



Predicts El Niño

Specialists from Yandex Cloud, the Yandex School of Data Analysis, and the Higher School of Economics are [collaborating](#) (RU) on a neural network to help predict El Niño: above-average sea-surface temperatures that periodically develop across the east-central equatorial Pacific. El Niño can lead to devastating floods and snowfall in some regions, and droughts and forest fires in others.

The new model currently predicts El Niño up to a year and a half in advance, with expectations to extend the forecast period to two years. The neural networks have been trained on thousands of temperature maps, incorporating both historical and calculated data dating back to 1800. Researchers preprocess these datasets using the Yandex DataSphere ML development service.



Helps develop meteorological tools for business

Climate change has a direct effect on economic activity. For example, the production of renewable energy depends on the strength of wind or sunlight, the flow of rivers, and precipitation levels. Harvests depend on the absence of extreme weather, such as droughts, floods, or frost.

To help businesses adapt to weather and climate conditions, Yandex Weather develops [solutions](#) (RU) with up-to-date weather data, forecasts, and recommendations based on the local area. For example, Yandex Weather can show agricultural enterprises the optimal time to sow, irrigate, and harvest; energy producers when to carry out infrastructure maintenance; and retailers how to manage inventory in volatile weather conditions.

Yandex Weather solutions use [Meteum](#) (RU), a proprietary Yandex technology that generates forecasts of more than 150 variables using data from weather radars, satellites, global models, and weather sites, including weather reports from Yandex users.



Predicts ashfalls

In 2023, Yandex Weather, Yandex Cloud, and the Yandex School of Data Analysis [developed](#) (RU) a service for predicting the spread of ash after volcanic eruptions. Ashfalls bring air travel to a halt and increase the cost of municipal services for emergency repairs of urban infrastructure (roads, power lines, etc.).

Now the interactive map shows the spread of ash clouds a full day in advance to help city services, transport companies, and residents prepare accordingly. Powered by machine learning technology, the map decodes data from surveillance cameras and incorporates a mathematical model, adjusted by Yandex Weather meteorologists, to simulate the dispersion of impurities in the atmosphere.

The project is already helping monitor ashfalls in Kamchatka and can be adapted to forecast them anywhere else in the world.

In 2023, Yandex Weather conducted a **large-scale study on climate change in Russia** using proprietary climate data. The study revealed that the average temperature in the country over the last decade was 2.2°C higher compared to the period from 1950 to 1979. More detailed results are available [here](#) (RU).





About the Report

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Reporting Principles

GRI 2-3

The data disclosed in this report cover the operations of the Yandex Group, i.e., Public Limited Liability Company Yandex N.V. and its subsidiaries, in its biggest market of presence from January 1 to December 31, 2023, unless otherwise indicated. In subsequent reporting periods, sustainability reports will continue to be released by Yandex’s new parent company: Yandex International Public Joint-Stock Company.

The terminology used to present quantitative data, as well as accounting categories, might differ from the terms and classifications specified in Russian laws regulating this area. The report uses the terminology and classifications defined in the updated GRI Standards (Universal Standards) and SASB Standards, unless otherwise indicated.

Any forward-looking statements regarding our future business expectations and goals contained in this report are based on the information available to us as well as assumptions that we believe to be reasonable as of the date hereof. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results to be materially different from any future performance results expressed or implied by the forward-looking statements.

¹ GRI Standards 2016, updated in 2018. At the same time, we used the Universal Standards published in 2021 when preparing quantitative disclosures.

This report was prepared in accordance with the **GRI Standards¹** and **Sustainability Accounting Standards Board (SASB)**, sector-specific standards. The preparation of climate disclosures was guided by the recommendations of the Task Force on Climate-Related Financial Disclosures (**TCFD**), as well as the Greenhouse Gas Protocol (**GHG Protocol**).

In the absence of specific GRI Standards for the IT industry, we applied relevant indicators from the GRI 200, 300, and 400 topic standards series, SASB industry metrics, and, in some cases, Yandex’s own metrics with detailed explanations. We used the Internet Media & Services guidelines that apply to our line of business under the SASB’s industry classification system, as well as selected standards for the E-Commerce, Software & IT Services, Media & Entertainment, and Road Transportation sectors. This helps ensure the comparability of results from different businesses within Yandex with the disclosures of other companies.

We also support the global trend towards continuously improving the quality of disclosures on sustainable development and therefore take into consideration the requirements of the new European Sustainability Reporting Standards (**ESRS**), despite the fact that we are not subject to them.

The performance disclosures herein are aligned with the UN Sustainable Development Goals (SDGs). Information about Yandex’s contribution to the UN SDGs is included in the **Sustainability Agenda** section.

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Reporting Principles

We applied the following reporting **principles**, as defined in the updated Universal Standards:

Accuracy

The report provides reliable and sufficiently detailed quantitative data to assess Yandex’s achievements. For each quantitative disclosure that is an estimation, the calculation methodologies are described. Possible inaccuracies in the data are insignificant. The information disclosed in various parts of the report is not self-contradictory.

Balance

The reported information provides an unbiased overview of the Company’s performance, including positive and negative trends. Quantitative data are shown in comparison with 2022, with the exception of first-time and certain other disclosures compared with several prior periods. Trend overviews are included.

Comparability

The report includes information for the current and previous reporting periods, so changes in the Company’s performance over time can be tracked. Key trends are explained.

Timeliness

The report is published annually in 2Q, or at the beginning of 3Q, of the year following the reporting year. The most up-to-date data or the latest data available when the report is being composed are presented for initiatives that are dynamic. We also provide links to public websites where data are regularly updated.

Sustainability Context

The report reflects Yandex’s contribution to the achievement of the UN SDGs. To place the results of our initiatives in a broader context, we provide overviews of regional and country-wide social and environmental trends, supported with links to research.

Clarity

The information presented avoids unnecessary detail and is sufficient for the reader to form objective conclusions. The report presents information in the most convenient formats for the reader. The report is published in English and Russian.

Completeness

The data provided in the report suffice for the reader to form objective conclusions on all material topics. In line with the “at Yandex, we never twist facts” principle of communication, we do not omit any information from the report that might lead readers to conclusions that are misleading and do not reflect reality.

Verifiability

The reported information was gathered using specially designed data collection forms that integrate the updated requirements of the GRI and SASB Standards and the GHG Protocol (for climate metrics). The data collection process is documented: we record data sources and the names of data owners. For nonstandard metrics published for the first time, the report describes the calculation methodologies in detail.

Material Topics

GRI 2-29

GRI 3-1

GRI 3-2

In the report, it is important for us to address issues that are truly relevant and interesting to our audience. For this reason, we consistently assess the materiality of sustainability-related topics. It also helps us understand the risks and opportunities associated with our sustainability initiatives.

Firstly, we analyze the current and potential business, social, and environmental impacts of Yandex’s initiatives. We actively seek honest feedback from our users, employees, service partners, and other stakeholder groups. We ensure that we take into account diverse opinions from people of different ages and from different regions who may be recent or long-time users or partners of our services. The users surveyed as part of this report noted that the availability of information about the Company’s projects helps them assess their importance and motivates them to take useful actions. Therefore, we have added the **Technology and Innovation** section to highlight the key technological launches and the opportunities they create for Yandex and the general public.

We also analyze industry experience and trends in sustainability to disclose information on topics that are not standard in ESG reporting but important to sustainability; for example, issues of digital security.

Finally, all identified topics are ranked based on their materiality, considering both the scale of our impact and the degree of importance to our stakeholders.



Material Topics

and Stakeholder Focus Groups

High estimated level of impact Medium estimated level of impact

Information security and personal data protection

Users

Yandex & business partners

Government agencies

Product and service quality

Users

Business partners

Yandex business

Online & offline safety and convenience

Users

Local communities

Business partners

Talent attraction, development, and retention

Yandex business

Employees

Respect for human rights and equal opportunities

Employees

Users

Support for drivers, couriers, and other Yandex service partners

Yandex service partners

Business partners

Yandex business

Use of technologies for the social good

Users

NGOs

Local communities

Promoting quality education in IT

Users

Local communities

Yandex business

Climate change and decarbonization

Yandex business

Local communities

Responsible resource use

Yandex business

Users

Basic Topics

Not applicable



Economic performance and growth

Employees

Yandex & business partners

Shareholders and investors

Corporate governance

Employees

Yandex & business partners

Shareholders and investors

Ethics and integrity

Employees

Yandex & business partners

Shareholders and investors

Innovation

Employees

Yandex & business partners

Shareholders and investors