Yandex

Yandex Sustainability Progress Report 2022

Contents

Opening Remarks

In 2022, we kept delivering quality services to our users while navigating unstable market conditions. Despite all the challenges, we stayed committed to using our products and services for social good, developing our business sustainably and helping our partners to transition to sustainability. These remained among our top priorities.

We understand that the ability of our users and partners to adapt in times of crisis depends on how successfully we act across our 12 sustainability streams. We therefore prioritized the wellbeing and predictable income of our employees along with equal opportunity. We focused on support programs for partners, including medical insurance schemes for drivers and couriers, tailored cost optimization and sales maximization features for sellers of all sizes on our e-commerce platform. We also continued delivering free educational training for people of different ages, enabling them to pursue careers in IT, while also donating digital services to relevant non-profit organizations, increasing the accessibility of our digital products and services and mitigating the environmental impact of our operations.

We are in the process of reviewing options to restructure the capital and corporate structure of our business. The aim is to ensure its future sustainability, preserve its value for shareholders as well as to unlock new opportunities for positive impact creation.

John Boynton

Chairman of the Board of
Directors of Yandex Group

Our sustainability effort is backed and shaped by our technology, the contributions of thousands of top-notch professionals and the input of millions of stakeholders. We are uniquely positioned to leverage innovation to address future sustainability challenges. Consistently gathering feedback from key stakeholders helps us to streamline our sustainability initiatives, and to ensure they are as relevant and targeted as possible.

A determination to develop technologies that are safe, socially oriented and impactful is what drives us in 2023. We invest in cybersecurity and child-friendly modes, work to make digital products more accessible, train future IT specialist, build capacity of non-profits, and introduce tools for environmentally responsible behavior.

We are committed to transparency and see sustainability reporting as a key component of this. We have been openly communicating our ESG accomplishments and challenges since we published our inaugural report in 2020 and will continue doing so going forward.

Daria Zolotukhina

Head of HR

Yandex in 2022

About Yandex

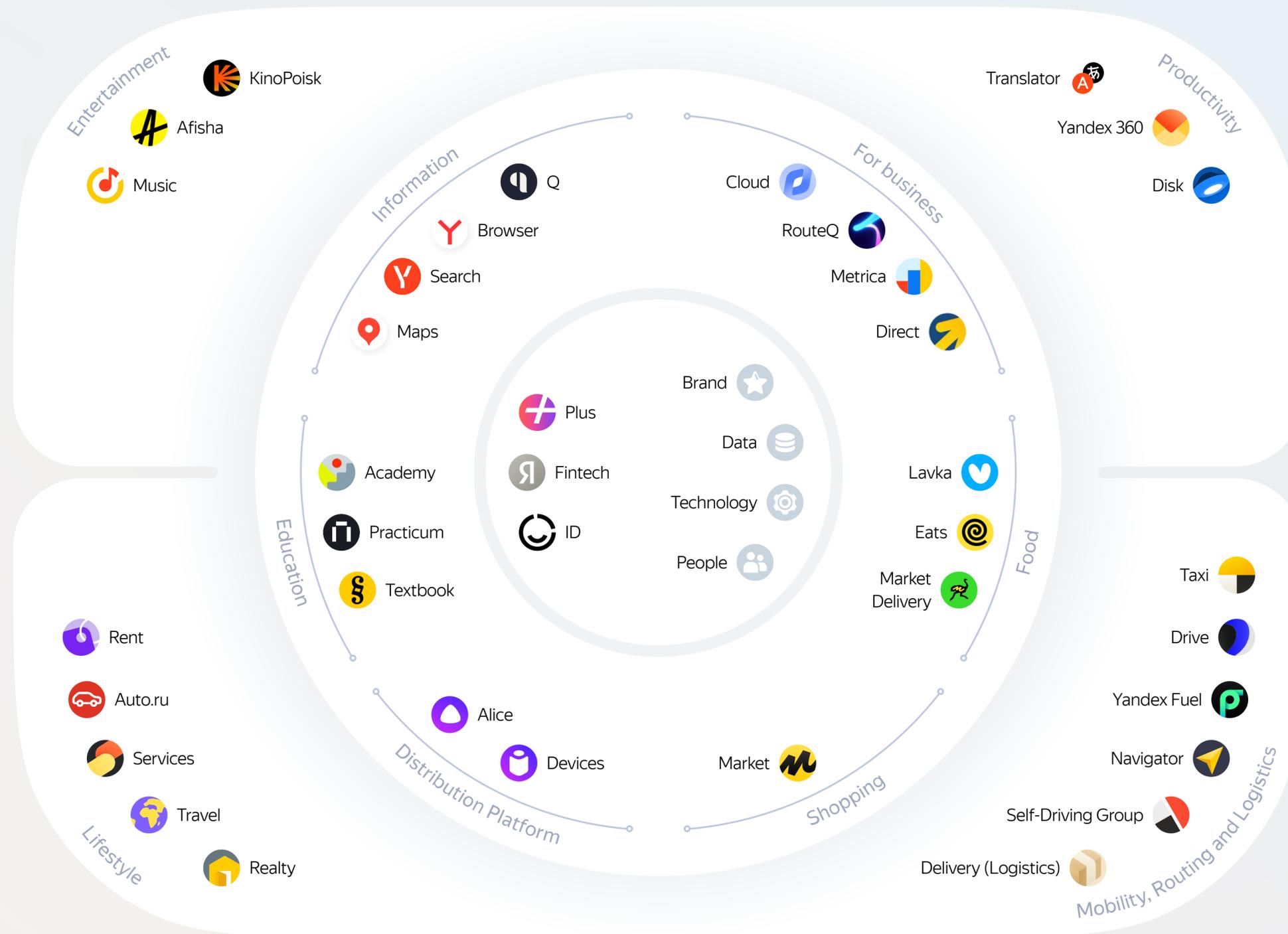GRI 2-1 GRI 2-6 GRI 2-12 GRI 2-23

Yandex (hereinafter the Company, Yandex) is an international technology company offering over 90 digital services to millions of consumers across the globe every day. Headquartered in Russia, we currently operate in Europe, Central Asia, Africa, and other regions.[1]

User-Centric Approach

Yandex designs its services with the aim to make people's lives better and easier. One of our most important goals is to create platforms that can be accessed by everyone, from individuals to various businesses, ranging from craftsmen to taxi fleet companies. To this end, we strive to develop solutions in collaboration with other market participants.

For a high-quality service that people love, the monetization model often appears naturally. We ensure that it takes into account the interests of the users. We also understand that some services may never become profitable, but we continue to develop them as we believe in their value and usefulness to people.

Ecosystem of Yandex Services[2]

Entertainment
KinoPoisk
Afisha
Music

Information
Q
Browser
Search
Maps

Productivity
Translator
Yandex 360
Disk

For business
Cloud
RouteQ
Metrica
Direct

Plus
Brand
Data
Fintech
Technology
ID
People

Food
Lavka
Eats
Market Delivery

Education
Academy
Practicum
Textbook

Lifestyle
Rent
Auto.ru
Services
Travel
Realty

Distribution Platform
Alice
Devices

Shopping
Market

Mobility, Routing and Logistics
Taxi
Drive
Yandex Fuel
Navigator
Self-Driving Group
Delivery (Logistics)

[1] The latest information about Yandex's global presence can be found on our website.

[2] Market Delivery (known as Delivery Club before June 5, 2023) became part of Yandex on September 8, 2022 after closing a deal resulting in deconsolidation of Yandex Dzen and Yandex News services.

Business Results[1]

Financial Results

521.7 RUB BN

consolidated revenues for 2022
↑ 46% increase over 2021

64.1 RUB BN

adjusted EBITDA in 2022
12%—adjusted EBITDA margin

10.8 RUB BN

adj. net income in 2022
↑ 34% increase over 2021

Operational Results

61.9 %

Yandex's share of the Russian
search market
average for 2022

19.3 M

Yandex Plus subscribers as of year-end 2022
×1.7 YoY

40.2 M

active monthly users of Yandex Go
in December 2022

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

Key Business Changes in 2022

December

Yandex released YaC 2022. This year, it took the form of a mini-series featuring our service technologies and the people behind them: from internally developed scooters, highly detailed maps, order placement panels on Yandex Market to advances featured of EdTech, and more.

Yandex received platinum status in the Forbes' List of Russia's best employers (RU) in 2022.

September

Yandex closed the deal to sell Dzen and Yandex News. As part of the deal, Delivery Club (known as Market Delivery from June 5, 2023) became a part of Yandex's business. Yandex continued developing the brand, its application and the website, while transitioning the operations to the Yandex Eats technological platform.

Due to the suspension of trading in the company's shares on the NASDAQ exchange, Yandex changed the structure of total employee compensation. To increase the predictability of income, Yandex replaced the issue of new options with higher base salaries and bonuses for employees participating in the stock option program.

November

Yandex announced preliminary plans to restructure the group's ownership and governance. Yandex N.V. is considering the possibility of developing international divisions of certain services (including self-driving technologies, cloud computing, data labeling, and EdTech) independently from Russia, while divesting Yandex N.V.'s ownership and control of all other businesses in the Yandex Group and transferring certain elements of governance to management.

Yandex was recognized among the top 10 best employers in Russia (RU) in 2022 according to RBC.

June

Introduced a scheme for restructuring our convertible debt following the approval of the holders of convertible notes. Under the scheme, the redemption price was set at $140,000 in cash plus 957 Yandex Class A shares for each $200,000 in principal amount of notes redeemed. As of year-end, we repurchased over 99% in aggregate principal amount of convertible notes originally issued.

[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.

Yandex and Open Innovation

We strive to make our technologies more accessible. Open-source products are instrumental in achieving this, as they enable thousands of software specialists all over the world to develop Internet technology and launch innovative solutions based on available know-how.

Yandex is **among the world's top-30 contributors** to open-source, as per Open Source Contributor Index. Over the past 15 years, we have released more than 100 products, including ClickHouse and CatBoost, into public repositories. The developer community can utilize these solutions outside of Yandex, building and advancing their own projects while providing valuable feedback to improve our services. For many developers at Yandex, the positive impact their products have on specific projects and the global developer community serves as a powerful motivation for work.

Key Open-Source Product Launches in 2022

YDB — GitHub

A distributed DBMS (Database Management System) developed by Yandex. It enables the creation of scalable and fault-tolerant services capable of handling high loads. YDB can process millions of requests per second and ensures availability even in the event of a server or data center going offline, thus enhancing the stability of products built on the basis of YDB.

Having undergone rigorous testing within Yandex for over six years, YDB is extensively used by various teams, including those operating Alice voice assistant, Yandex Taxi, Yandex Market, and Yandex Metrica. The YDB system is currently employed in nearly 500 projects and can be deployed on one's own as well as third-party servers, including Yandex Cloud and other cloud providers.

YaLM 100B — GitHub

A neural network language model designed for text processing in Russian and English. At the time of its publication, YaLM was the largest freely accessible GPT-like model.

Yandex employs neural networks from the YaLM family in more than 20 projects, including Yandex Search and Alice virtual assistant. These language models enable business support teams to handle inquiries, generate ads, and create website descriptions (snippets). Additionally, YaLM neural networks are widely used to generate quick answers in Yandex Search.

userver — GitHub

Tools for developing high-load applications with microservice architecture, i.e., independent components that can be upgraded autonomously and used in other applications. For instance, the ride-hailing microservice implemented in Yandex Taxi can be repurposed for matching couriers to orders in Yandex Delivery, as well as for calculating driver and courier arrival times, and more.

Userver has been extensively tested across the company and is employed in multiple Yandex services, including Yandex Go, Lavka, Delivery, Market, and FinTech projects.

Yatagan — GitHub

Tools for accelerating the assembly of Android apps. The framework automatically generates the code to connect application components seamlessly. In Yandex Browser, it links speech recognition modules, Alice virtual assistant, video translation, and other components.

Key Open-Source Product Launches in 2022

Divkit

 GitHub

Offers tools for accelerated development of mobile applications. With DivKit, developers no longer need to write separate code for each platform (iOS, Android, and web), having DivKit transform interface component descriptions submitted to the server into app components.

Divkit is used in many Yandex products, including the Yandex app home screen interface, Market, Alice virtual assistant, Yandex TV, Edadil, and other services.

Algorithm for Environmental Monitoring of Lake Baikal

 GitHub

This technology enables the analysis of water samples from reservoirs, identification and classification of microorganisms in the water, and tracking important environmental trends. Currently, the algorithm can analyze 70 plankton species and continues to be trained using Yandex Cloud.

The development of this technology involved collaboration between Yandex, MaritimeAI, and the Lake Baikal Foundation for Environmental Applications and Research.

Sustainability Agenda

Our sustainability agenda, introduced in 2020, includes four key focus areas that encompass 12 sustainability streams.

Some of these streams, such as information security, data privacy, service quality, and digital safety, among others, are integral to our business operations, enabling us to effectively manage sustainability risks. We recognize other streams as opportunities to leverage our technologies and expertise to drive sustainable transformation both within and beyond our business.

We used the **UN Sustainable Development Goals (UN SDGs)** as a framework for the agenda and selected ten goals that align closely with our current business objectives and 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 (UN SDGs)

- ■ Primary SDGs
- □ Supporting SDGs
- ▪ Other SDGs

Sustainability Agenda

Quality of Life

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

Ethics and Integrity

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

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

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

Quality of Life

	Goals	Metrics tracked by Yandex
Convenience, Quality and Safety of Services	• Ensure that Yandex services help users perform everyday tasks, maintain high quality, and ensure safety	• User and service partner satisfaction metrics tracked by various Yandex services and other metrics
Accessible and Inclusive Environment	• Ensure that Yandex services are accessible for all • Leverage technology to create a sustained charitable giving model	• Number of the Helping Hand Foundation program beneficiaries and other metrics

Investing in People

Yandex Employees	• Sustain corporate values and principles of openness and mutual respect by attracting and retaining like-minded, highly skilled talent everywhere • Create a comfortable working environment and equal opportunities for growth, development and innovation	• Undesirable staff turnover • Percentage of positive responses in Yandex job satisfaction surveys and other metrics
Yandex Service Partners	• Balance the economic interests of our businesses with the social and economic needs of our service partners	• Service partner satisfaction metrics tracked by various Yandex services and other metrics
Education for All	• Provide access to quality math and IT education for all and train highly skilled IT specialists	• Number of people who have used Yandex's free educational opportunities • Number of students aiming at learning a new profession and getting a job in their chosen field and other metrics

Sustainability Agenda

Ethics and Integrity

	Goals	Metrics tracked by Yandex
Information Security and Data Privacy	• Ensure a high level of personal data protection	• Absence of cases where fines or other penalties have been imposed for violations of personal data protection laws and other metrics
Responsible Procurement	• Offer various vendors equal opportunities to work with Yandex, build long-term relationships • Be a reliable partner and build awareness about the good business practices adopted by Yandex throughout the supply chain	• Number of small and medium business vendors and other metrics
Content Quality and Digital Safety	• Monitor the quality, safety, and legality of content on Yandex Internet resources	• Number of advertisements rejected due to violations • Response time to user complaints and other metrics
Regulatory Compliance	• Comply with all laws and regulations and adhere to the most stringent standards • Continuously maintain a culture of zero tolerance for corruption and restrictive business practices	• Percentage of employees who have completed business ethics training • Absence of legal decisions in which the Company was found to be in violation of anti-corruption / antitrust laws and other metrics

Environmental Impact

	Goals	Metrics tracked by Yandex
Energy Efficiency of Yandex Infrastructure	• Implement energy-efficient solutions and integrate opportunities to reduce costs and environmental impact	• Data center power usage effectiveness (PUE) and other metrics
Packaging and Waste Management	• Work to divert waste from disposal by investing in circular solutions	• Amount of waste generated by disposal method • Percentage of delivery packaging and our own branded label packaging from sustainable materials and other metrics
Carbon Footprint	• Monitor the carbon footprint of Yandex infrastructure and services and make strides towards net-zero carbon emissions • Drive the shift towards sustainability among businesses by offering solutions that help them reduce their corporate environmental footprint	• GHG emission factor of Yandex infrastructure (Scope 1 + Scope 2) per 1 MWh of consumed energy • GHG emissions of services (per 1 passenger km; per 1 delivered order) • Amount of GHG emissions avoided due to Yandex solutions and other metrics

Quality of Life

Convenience, Quality and Safety of Digital Products

Our services are designed to be helpful in different life situations, such commuting, purchasing goods, studying, running a business, spending leisure time, and many more. We apply user-centric approach to product development, striving to make our services equally useful, safe and easy-to-navigate for everyone while accounting for the preferences of each.

19.3 M

active Yandex Plus users

in December 2022

40.2 M

monthly Yandex Go users

in December 2022

14 M

active Yandex Market buyers

in December 2022

3.3 BN

monthly voice searches made through the Alice digital assistant

in December 2022

Safety and Fair Treatment

GRI 403-2   GRI 403-4   GRI 403-5   GRI 403-7

We are committed to the online and real-world safety of Yandex users and work to ensure fair use of our platforms. Refer to the **Quality Content and Safe Digital Environment** chapter to learn more about our approach to building digital safety.

Yandex Maps

To boost safe mobility and pedestrian safety, Yandex Maps and Yandex Navigator have launched new **voice navigations and tips**:

- **Tips about walk-with-traffic lights** allowing pedestrians to cross streets along with drivers making a turn. The navigation reminds drivers about the rules for crossing such junctions.

- **Interchange tips** helping drivers and motorcyclists stay on the route or perform complex manoeuvres. The app provides voice assistance on which lane to take in order to perform the required manoeuvre and not miss the turn. This is especially relevant in big cities where a driving error could lengthen the trip, while a hasty manoeuvre might cause an accident.

- **Railway crossing and speed bump prompts** alerting the driver to the need to slow down in advance.

- **Voice guidance for bike and scooter routes.** On any route selected, the virtual assistant Alice provides prompts on where and how to turn to reach the destination. Similar to driving routes, voice guidance in the background is offered as an option.

Yandex Maps users can **set a route** avoiding poor quality roads, as the app gives the option of selecting roads with solid surface, e.g., permeable paving, only.

For **truck drivers** Yandex Maps have introduced a feature for setting routes all over Russia that **account for restrictions on cargo trucks**, including weight, load per axle, carrying capacity, dimensions, and other parameters. Unavoidable obstacles on the route, such as road passes under a low bridge, are shown on the map in advance and preceded by vocal alerts. The feature allows for safer trips and mitigated risks of traffic offenses and penalties.
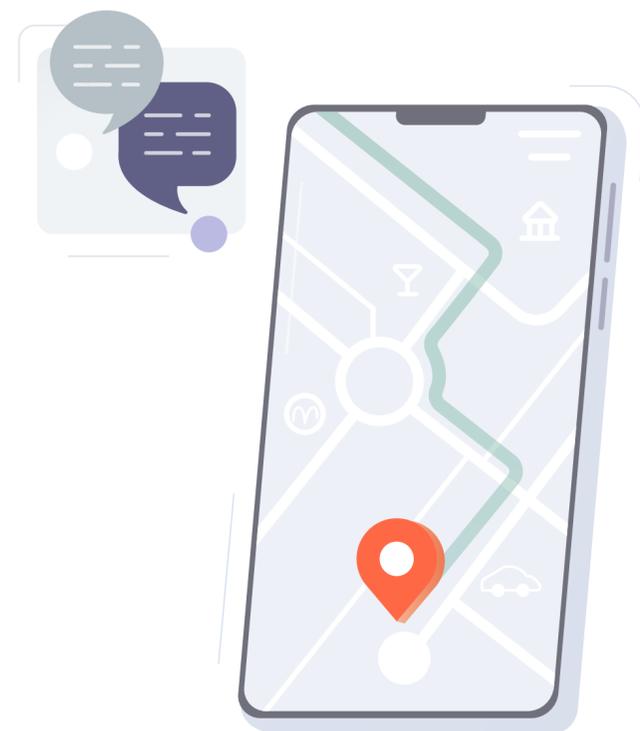
Yandex Go

Since 2022, we have been applying a special algorithm for analyzing taxi movement in real time and sending out **alerts of deviation from the route or abrupt stops**.

When a driver bypasses a traffic jam, the algorithm would "understand" that the route change is justified. Even so, an abrupt, unexpected route change would be security checked. The security team would contact the driver and the user to make sure the trip was going as planned. Most often, ordinary life circumstances are the reason, e.g., the rider left something at home or forgot to change the end destination point in the app. In the event of an incident posing a security threat to the user or the driver, our support team would immediately take measures as per the internal guidelines. The guidelines specify procedures on how to act following traffic accidents, improper behavior in the vehicle, etc.

We work to ensure the safety and comfort of children traveling with Yandex Go and develop special precautionary measures for them. In 2022, **we added an option to book a taxi ride with a baby car cradle** when selecting the Kids service class. So far, the option is available in Moscow and St Petersburg, and may be extended to all cities where Yandex Go operates. This new feature supplemented the existing option to book rides with child safety seats for toddlers weighing over 9 kg available in 220 Russian cities.

The service subsidizes the purchase of child car safety seats and boosters, and trains Yandex Go partner drivers to install child safety seats and cradles, as well as in how to respond to child behavior. In 2021–2022, Yandex committed RUB 180 million to these purposes.

We launched the **Yandex Taxi Technology Collection** mini-series to answer the most frequently asked questions about Yandex Go, e.g., fare calculation, safety of rides and technologies that are under the hood of the service. The mini-series is available here. For more detail on Yandex Go taxi ride safety, please also see this **issue** of our media project on urban safety.

Yandex Drive

In 2021, our car-sharing service Yandex Drive implemented a **Driving Profile**, a new ML model to track driver safety. From 2022, the model analyses a set of factors affecting driving safety (such as aggressive driving or speeding) and rates each driver individually.

The safer the driving, the higher the rating. The terms of access to the cars provided by the service depend on the driver's rating and status in the **Driving Profile**. For example, the most careful drivers are eligible for a 10% cashback in Yandex Plus points, which can be used on Yandex Drive and other Yandex services.

Yandex Drive was Russia's first car-sharing service to launch **usage-based insurance product jointly with the insurer** that relies on Big Data on actual car use and driving style. Careful drivers using Yandex Drive may acquire a CASCO policy from Renaissance Insurance at a discount calculated individually and depending on the status and rating in the **Driving Profile** (RU). The discount may reach 35%.

Auto.ru

In order to promote safe behavior among drivers and pedestrians, as well as to enhance safety awareness, Auto.ru, our platform for buying and selling used cars, partnered with Yandex Maps, Yandex Fuel, and other Yandex services to hold the **Big Traffic Rules Exams** (RU), the online tests checking traffic code knowledge. During the tests, participants are challenged to demonstrate their understanding of rules applied to adverse traffic situations, for instance, driving in whiteout conditions. To encourage more people to refresh and refine their knowledge of traffic rules, we plan to offer online tests on a regular basis.

>1.3 M

people took the Big Traffic Rules Exam

in 2022

Yandex Market

In August 2022, Yandex Market along with Ozon and Wildberries e-commerce platforms established a **joint system for combatting counterfeit goods.** The aim is to prevent sales of illegal products and build trust between users and marketplaces as well as sellers operating there.

As part of the quality control initiative, Yandex Market's quality assurance team has introduced highly accurate algorithms that help red-flag products or sellers that appear suspicious, as well as new tools for in-depth partner verification. As a result, the share of counterfeit goods on the marketplace in 2022 did not exceed 0.01% and was unaffected by a significant increase in the assortment.
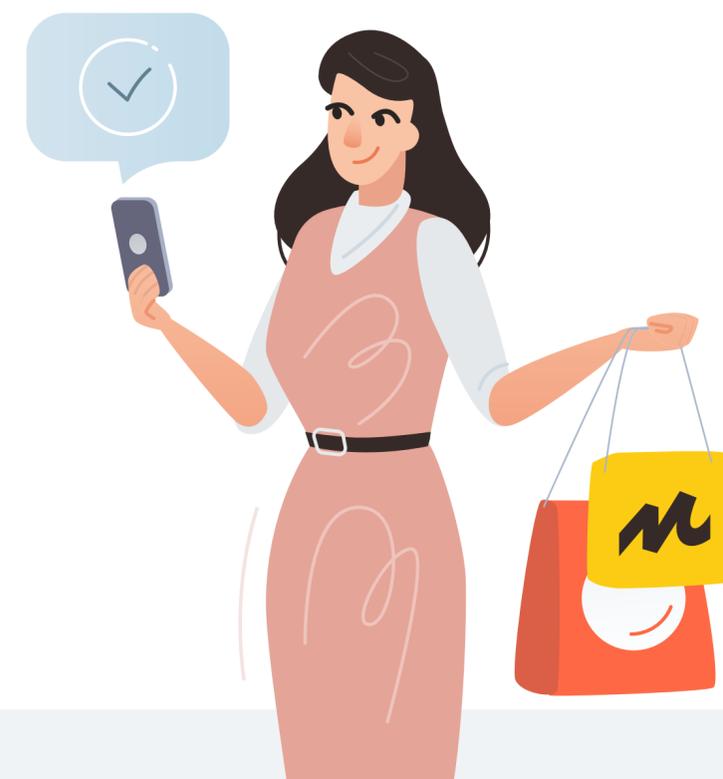
Usefulness and Usability

We strive to ensure that all product updates meet the latest needs and enhance the utility value of our services—from further optimizing routes and speeding up deliveries to making virtual assistant's answers more accurate and introducing edutainment.

Trips

In 2022, Yandex Travel launched the Tours into Cultures, a project that seeks to **promote and preserve Russia's cultural diversity**. Jointly with partners (Arzamas project, the archive that explores the history of cultures, and Ornamika Russian Ornament Laboratory), we collected folklore texts, music and traditional prints of 15 nationalities and ethnic groups living in Russia, and transformed them into playlists and visuals. With over 1 million website visitors and 2.5 million plays of folk lullabies on Yandex Music, the project drew attention of the travelers to Russia's hidden gems. The number of views of accommodations in the regions grew by third, with many users reporting that their main intention to travel to less popular destinations was to get to know the cultures introduced by the project.

Yandex Eats

Over the reporting year, **Yandex Eats delivery time forecasts became more accurate.** To achieve this, we installed Bluetooth beacons at pickup windows in restaurants for exchanging data with the courier's smartphone.

The equipment registers the precise times the courier arrives at a restaurant and picks up an order. The data collected with the beacons also helps streamline online order processing in restaurants, enables faster delivery and enhances the precision of status updates.

Nearly a

↓**50**%

decrease in the order waiting time in restaurants within half a year of applying the updated delivery time forecasting

Delivery

In 2022, Yandex Delivery, a last-mile delivery solution for individual consumers and businesses that initially operated within metropolitan areas, entered the **intercity delivery market**. The service assists individuals and entrepreneurs using the Yandex Go app with organizing delivery to over 400 Russian cities, while for corporate clients the number of available cities reaches 1,000. Parcels that are delivered to a different city need to be dropped and collected at the Yandex Market pick-up points.

Yandex Maps

In 2022, the municipal transit network in St Petersburg saw changes with more than 140 new routes introduced and over 200 ones cancelled. To help residents navigate public transit without confusion, Yandex Maps launched a webpage with information on updated routes way before the changes took place. The page became one of the top five resources for people to learn about the reforms as per user survey.

Kinopoisk

We invest in content that is not just entertaining but also relatable and exploring **important social issues**. In 2022, we produced the Patient Zero mini-series, an original program comissioned by Plus Studio and Kinopoisk. The series tells the story of the first HIV outbreak in the USSR. By leveraging an artistic form, the mini-series strive to build awareness about the disease and approaches to HIV and AIDS prevention.

Usefulness and Usability

Alice and Smart Devices

Alice is Yandex's AI assistant that simplifies information search and helps users with small tasks. These can include booking a ride with Yandex Go or tracking delivery status of orders made on Yandex Market or Yandex Lavka. It also **enables the visually impaired** to use Yandex services, stay informed and navigate their environment more easily.

Alice's skills are also **useful for the elderly.** With Alice, you can be reminded to take medication, do chores at the precise time, or receive calls via the smart speaker if the use of a cellphone is inconvenient. Alice can also locate your device, which is the feature used by around 9 million people in their homes.

As Yandex station with Alice is used by children for learning and playing games, we prioritize their safety and focus on **providing child-friendly information only** and ensuring appropriate control by adults. Alice can recognize the child's voice, and filter the content in the Kids or Toddler modes.[1] Alice also has a babyphone feature that is being used by over 100,000 parents. For more detail on protecting children online, please see the Quality Content and Safe Digital Environment chapter.

[1] In the Kids mode, Alice blocks adult content even when explicitly requested. In the Toddler mode, it plays age-appropriate, pre-approved content only.

TeamTicket: From In-House Tool to B2B Offering

In 2022, we introduced TeamTicket (RU), a B2B product enabling corporate clients to optimize business travel management. The product grew from an in-house service that automates most of the tasks, from provider selection, booking confirmations, managerial approvals to travel document submissions for reimbursements. On average, Yandex processes over 1,500 of its business trips monthly using the service.

TeamTicket features a platform for collecting deals from various travel agencies and serves as a single window for managing the entire process flow. The companies benefit from an opportunity to compare offerings from different providers and negotiate better deals, while employees get to manage their travel preferences independently selecting from a list of available transportation, accommodation and travel insurance options as well as adds-on such as extra luggage, airport transfers, and more. Travel requests approvals are seamless and fast.

The platform applies the fixed processing fee model vs dynamic pricing and does not charge extra for linking with third-party services, thereby helping companies cut corporate travel costs.

15–30 %

the average reduction in corporate travel processing costs

From 24 hours to

15 MINUTES

the reduction in time spent on corporate travel processing resulting from streamlined process flows

Services for Sustainable Development

Yandex's innovations and technologies help address a number of sustainability issues and create a sustained impact.

SDG 9: 9.1, 9.c   **SDG 10: 10.2**   **SDG 16: 16.10**

Search and information services contribute to connectivity and improving access to quality information in remote areas, as well as protecting users against online threats, such as malware and data theft. Our advanced search algorithms prioritize content relevance and quality when ranking search results. For more detail, please see the Quality Content and Safe Digital Environment chapter.

SDG 10: 10.2   **SDG 11: 11.2**

Mobility services (Yandex Taxi, Yandex Drive and Scooters) drive impact in the areas of connectivity, affordability and equal access to transportation modes, as well as wellbeing. They provide affordable transportation alternatives to those who do not own a private vehicle, have no access to public transit, or prefer to avoid crowds.

Yandex's ride-hailing service is blind-friendly and integrates custom accessibility settings for ride requests. A user can ask to travel with a guide dog, request sighted guidance to a car, set messaging as a preferred means of communication and more. The service is connected to the Helping Hand initiative, which draws upon service infrastructure to provide free taxi rides for people with disabilities. For more detail on accessibility and sustained community support, please see the Inclusive Environment chapter.

SDG 2: 2.1   **SDG 10: 10.2**

FoodTech services (Yandex's food delivery and e-grocery services) contribute to inclusion and improved nutrition. Door-to-door delivery model is convenient for people with reduced mobility, while in-app recommendations (such as healthy food categories, restaurant and menu reviews etc.) enable heathier food choices. Both Yandex Eats and Yandex Lavka services have a bill round-up feature allowing users to commit some extra payment to a charitable cause when making an order.

SDG 8: 8.3   **SDG 9: 9.1, 9.3**

With **Yandex Market**, people have access to a variety of goods, including necessity goods for which there is express delivery, while local businesses and small enterprises gain access to a wide customer base. Yandex Market serves as a single window taking care of displays of goods, customer communication and delivery management, thereby facilitating trade. For more detail, please see the Yandex for Business Partners section.

SDG 11: 11.4

Our streaming services (Yandex Music and Kinopoisk) boost creativity, amplify voices and preserve cultural heritage, as well as support learning and assist with maintaining mental health. For example, Yandex Music contains a variety of educational and professional development podcasts, and generates stress-relief, meditation playlists tailored to suit individual tastes.

SDG 9: 9.1

Classifieds (Auto.ru, Yandex Rent and Yandex Realty) improve reliability of used car / housing search, which is a pressing issue for those who seek affordable options. By introducing seller verification and property screening, the services increase the number of fair deals and develop a culture of accountability.

SDG 8: 8.3   **SDG 11: 11.6**

RouteQ and **Yandex Maps** help optimize routing and improve efficiency of logistics, thereby enabling carbon footprint reduction. For more detail, please see the Carbon Footprint chapter.

SDG 8: 8.2, 8.3   **SDG 9: 9.3**

Yandex Business is a standalone service that focuses on supporting SMEs. By subscribing to Yandex Business, SMEs gain access to customer management tools and have their ad strategy administered by Yandex: we run analytics to determine optimal advertising scenarios and initiate ad placement. A number of revenue-generating services offer special deals as well as free-of-charge tools to SMEs. These include Yandex 360, Yandex Webmaster, web and app analytics services, and many more.

Inclusive Environment

GRI 413-1

We work to develop digital solutions that enable different users to accomplish their everyday tasks. In doing this, we tailor our services and products to our customers' ages, interests, and special needs.

We are also uniquely positioned to leverage technology to address social challenges by providing sustained support to non-profits. We have been donating Yandex services to implement community support programs and have developed convenient tools for engaging our users in simple and regular charity.

To foster inclusiveness and accessibility, we strongly advocate for collaboration over competition. Achieving inclusivity is a massive undertaking that requires diverse insights and collective effort. We therefore commit to sharing our experience of developing accessible features, a path that had its successes and failed attempts, and guiding through the outcomes that have proven themselves the most effective.

Accessibility

The accessibility of an online or offline service is not its additional characteristic but a basic one. We are therefore determined to invest in adapting our products to the needs of different people just as much as we are committed to ensuring their quality and uninterrupted functioning. In 2022, around 500 of our employees contributed to making Yandex services more accessible by developing accessible interfaces and adapting service delivery models, e.g., by training partner drivers to accommodate for users' special needs.

Digital Accessibility

By investing in digital accessibility, we aim to ensure that the use of digital products is equally convenient for various people, including persons with disabilities and the elderly.

As a part of this effort, we work to introduce solutions that help remove barriers for blind people accessing services online. To this end, our dedicated team that includes visually impaired testers **evaluates Yandex services by accessibility on an annual basis** and rates them from the least to the most accessible. 22 online services were assessed in 2022 (16 in 2021).

In 2022, our **Smart Camera's text recognition feature was complemented by embedded scenarios for blind users**. The camera now reads cropped and inverted texts as well as instructs blind users on how to move the camera or select the right angle for the text to be recognizable.

There are also solutions **for people with hearing and speech disabilities. We updated the Yandex Conversation**, the application that uses the text recognition technology SpeechKit to convert the speech to text and vice versa. Today, the Yandex Conversation app is available for both Android and iOS. We increased speech recognition accuracy, and added phrase tips / templates instrumental in various situations, e.g., when making or attending doctor's appointments. The update, just like the first version of the app released back in 2015, was developed with the help from Yandex's Summer School students.

10

Yandex services[1]—had been adapted to visually impaired users
by the end of 2022
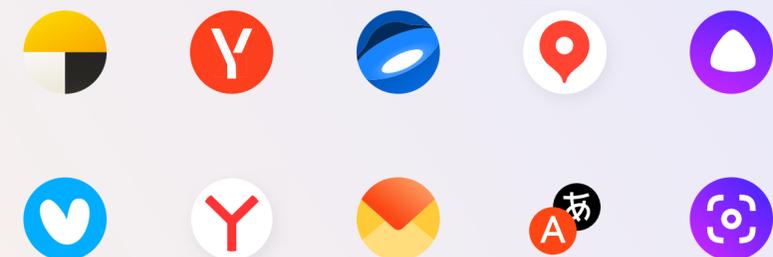
[1] Taxi, Search, Lavka, Browser, Disk (for PC and smartphones), Maps (Web version), Mail (application), Translate, Alice voice assistant and Smart Camera.
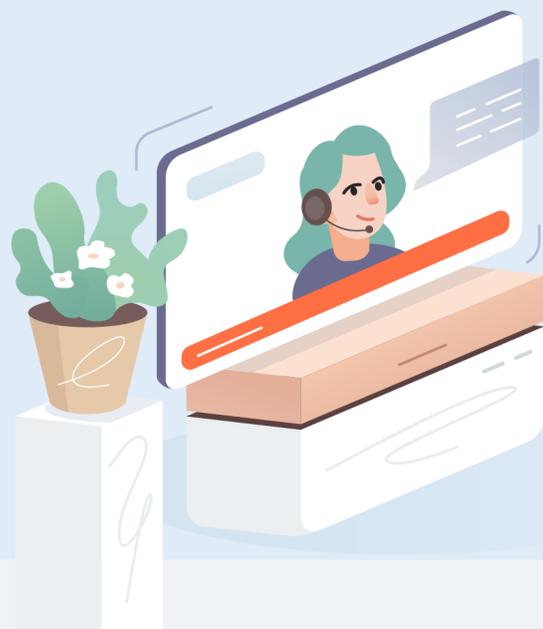
Digital Accessibility

Voice-Over Translation of Foreign Language Content

Digital accessibility is also about making foreign-language content understandable and hence useful for people lacking relevant language skills.

As early as 2021, Yandex Browser introduced English-to-Russian voice-over translation for videos on YouTube and other platforms powered by **an innovative neural network**. The network features speech recognition and translation in real time.

In 2022, we enabled **German, French, Spanish and Italian** interactive translation in addition to English (**Chinese** was added in April 2023), and introduced **automated voice-over live stream translation** on YouTube, first-of-its-kind feature offered by Yandex Browser only.

The live stream translation model is discussed in more detail in the **Content Quality and Safe Digital Environment** chapter.

Where to Learn More About Our Experience in Digital Accessibility

We share our experience in adapting digital products within and outside Yandex.

✓ **Yandex TECHNO magazine issue** (RU) on digital accessibility. In this issue, we discussed the importance of making digital resources inclusive and approaches to achieve this while running some demonstrations.

✓ Developer conferences on accessibility, including DUMP, Mobius, CodeFest, Holly JS, YaTalks, Techtrain, UFADVCONF and YACE

✓ Articles in **Yandex Blog** (RU) and **on Habr** (RU)

✓ Podcasts on digital accessibility: **Yet Another Podcast**, **Yet Another Mobile Party** (RU)

Inclusive Cities

With the help of Yandex services, people with disabilities or special needs, such as the elderly, parents with strollers, or those who are injured, can easily learn more about facility accessibility.

In 2022, **Yandex Maps added a special layer** showing whether there are ramps or fully accessible restrooms in a building. To gather and map the accessibility data, Yandex engaged its team of field assessors who checked the facilities and submitted data about sites they visited. We also sought advice from experts and activists with disabilities, including Yana Kuchina, the journalist and chief editor of a media outlet on social topics, and Ivan Bakaidov, the programmer living with cerebral palsy.

We consistently update and expand our database, ensuring that the information remains accurate. Both organizations and users of Yandex Maps can contribute by providing feedback and attaching photo evidence of accessible facilities.

>980 THSD
organizations in Russia had accessibility labeling on Yandex Maps
at the end of March 2023

19

Inclusive Cities

Inclusive Features in Yandex Go

In 2022, **a screen with inclusive options** was added to Yandex Go's functionality, now available in Russia, Belarus, Kazakhstan, and Uzbekistan. Users with special needs can now indicate specific assistance required during their taxi booking process. This includes requesting sighted guidance to the car, specifying speech disabilities with hearing capabilities, indicating the ability to only read, or mentioning the presence of a guide dog or a wheelchair.

>195 THSD

taxi rides were requested with at least one of the inclusive options selected

by the end of March 2023 since the functionality was launched in November 2022. In 2022, over 80,000 such trips were made

In Moscow, Yandex Go launched a **dedicated ride option for wheelchair users**, allowing them to book a minivan equipped with a wheelchair lift. This service is particularly helpful for those with heavy-duty power wheelchairs, as well as individuals who use portable wheelchairs. It eliminates the inconvenience of folding and unfolding their wheelchair before and after the trip.

All taxi drivers have undergone relevant accessibility training to qualify for giving inclusive rides. They are equipped with the necessary knowledge to handle wheelchairs, operate wheelchair lifts, and park the vehicle appropriately to accommodate the riders' special needs.

5,682

taxi rides in minivans with a wheelchair lift were given by the end of March 2023

1,001 trips as at 31 December 2022

In St Petersburg, **Yandex Eats** showcases a special **selection of inclusive cafés and restaurants**. The aim is to enable these businesses to grow the number of orders while raising awareness among customers about social inclusion initiatives. Yandex Eats' partners include the Cucumbers cafe (Ogurtsy) that successfully employs people with mental disorders, as well as the Street Entrance restaurant (Vhod s Ulitsy) run by the Night Shelter organization (Nochlezhka) training people with a history of homelessness as cooks, waiters, and bartenders to help them secure future employment.

Our ridetech and foodtech services continue to **collaborate with drivers and couriers with hearing disabilities**. In 2022, the number of Yandex Go partner drivers with hearing disabilities in Russia increased by 12%. To ensure seamless communication between users and partners with hearing loss, we have implemented special features. For instance, starting from September 2022, every user whose ride is assigned to a driver with a hearing disability receives a notification containing brief guidelines on effective interaction and expressing gratitude using sign language.

~2,000

drivers with hearing disabilities partnered with Yandex Go

at the end of 2022

Sustained Community Support

GRI 203-1

>400

non-profits supported

in 2022

478.6 RUB M

reserved by Yandex to fund free access to Yandex's services and digital products for non-profits[1]

113.2 RUB M

invested by Yandex to fund the Helping Hand operations[2]

186.5 RUB M

raised in donations from individuals via Yandex tools to support the ongoing programs of Helping Hand

via the rounding feature in Yandex apps, on the Yandex website and as part of charity campaigns

Breakdown of funds reserved to provide free access to Yandex's services and digital products,

by type of grant, RUB million

18.6

100

478.6
RUB M

360
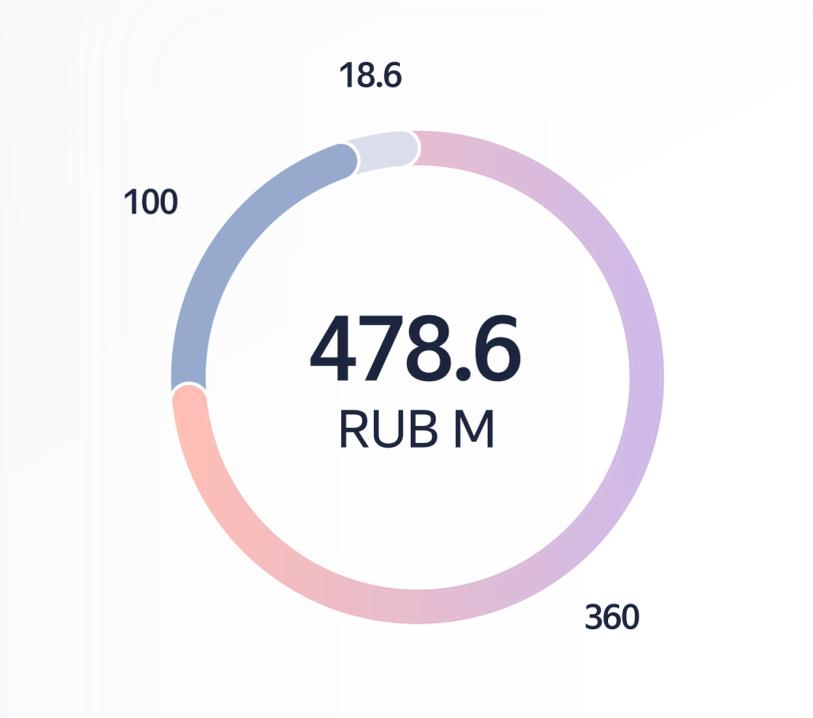
- non-profit ad grants
- Yandex Cloud grants
- grants for using other Yandex services

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

In 2020, as a response to the challenges posed by the COVID-19 pandemic, we launched the Helping Hand (RU) initiative, which later evolved into a charitable infrastructure foundation.[3] Today, the Helping Hand leverages Yandex services and technologies to engage more people in charity as well as to build the capacity of non-profits to create long-lasting impact. The foundation is currently implementing three core programs: Rides for Non-Profits, Goods for Non-Profits and Digital Solutions for Non-Profits.

We strive to aid non-profits that demonstrate commitment, effectiveness, and accountability in pursuing their missions. All non-profits collaborating with Yandex are **subject to mandatory verification**. We have established an internal procedure to have experts check compliance with legal requirements and transparency principles, as well as analyze the scope of outcomes and impacts.

The foundation's ongoing programs are funded through user donations and contributions from Yandex. To make charitable giving a part of users' daily routine, we have introduced a rounding-up feature integrated into Yandex services, allowing anyone to easily contribute small amounts to charitable causes.

[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 2022 may be less than the budgeted amount.

[2] Total donations to the ongoing programs of Helping Hand 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 2.09 billion in 2022.

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

Sustained Community Support

The Rounding-Up Feature

5

Yandex services have already implemented the rounding feature

>900 THSD

had activated and used the rounding feature in Yandex services by the end of May 2023 [1]

186.5 RUB M

raised in donations from individuals via Yandex tools to support the ongoing programs of Helping Hand [2]

The philosophy behind Yandex's **rounding-up feature** (RU) is that every small contribution makes a difference, especially if done regularly.
By activating the feature, users can increase the amounts they pay via Yandex Go, Yandex Market, Yandex Eats, Yandex Lavka and Yandex Fuel apps by rounding up the total of their order fees to the nearest whole number (that could be 10, 50, 1,000 roubles or any other amount of choice). The difference is then used to sponsor Helping Hand's ongoing programs.

Starting from 2022, users can easily manage their donations via Yandex through personal accounts on the Helping Hand platform. The account features a convenient interface to track and modify existing rounding-up subscriptions and amounts donated.

[1] 808,000 users by 31 December 2022. In 2022, a total of 238,000 users activated the rounding feature.
[2] Donations raised via the rounding feature in Yandex apps, on the Yandex website and as part of charity campaigns.

Rides for Non-Profits

The Rides for Non-Profits Program (RU) program focuses on arranging free taxi rides with Yandex Go for users with reduced mobility. These are people with disabilities as well as those who have difficulty using public transport. Free rides are also available for the employees of non-profits.

In 2022, the program introduced **a Minivan ride option** in Moscow, St Petersburg and Novosibirsk. This option is particularly useful when a single car is insufficient, such as when multiple individuals with reduced mobility are accompanied by an assistant and require a shared ride. In Moscow, charitable organizations can also request rides in **minivans equipped with a wheelchair lift**, providing the most suitable option for individuals in wheelchairs and their companions. We provide additional details about this option in the **Inclusive Environment** section.

During the New Year's Eve, the Rides for Non-Profits program collaborated with Yandex Delivery. The service provided promo codes worth RUB 1 million to foundations working with Helping Hand, allowing them to deliver gifts and essential goods to their beneficiaries.

Our ambition for 2023 is to expand the program's geographical coverage and grow the number of foundations participating in the program. We are also considering new formats of assistance, such as providing grants to non-profits for accessing the Yandex Delivery service.

Rides for Non-Profits: Key Results

107

non-profits supported by the program
in 2022

381.7 THSD

free rides provided to people with reduced mobility in 2022
or 2.4 times more than in 2021

11.7 THSD

people benefited from the Rides for Non-Profits program in 25 Russian cities
in 2022

22

Goods for Non-Profits

The Goods for Non-Profits Program's (RU) mission is to help non-profits free up more resources for growth, for instance, to launch new projects or expand their project or medical teams. For that, we allocate funds to finance purchase of essential goods, including food and personal hygiene products.

In February 2022, we doubled the monthly purchases budget allocations so that the non-profits could stock up on necessity goods to sustain operations in the turbulent environment.

In 2022, we **inaugurated a** contest (RU) for non-profit organizations interested in receiving grants through the Goods for Non-Profits program. Out of 133 applications, we selected twenty non-profit organizations to receive year-long financial support for establishing procurement processes and purchasing pre-approved goods. The annual grants for each non-profit organization ranged from RUB 1.2 million to RUB 6 million, resulting in a total aid of RUB 50 million. The finalists operate in various regions across Russia (with 65% of winners operating outside Moscow) and in very diverse areas, from assisting people with mental disorders and disabilities to financing guide-dog training and wildlife preservation.

The preparation for the contest helped the Helping Hand's team streamline program administration, resulting in more resources being released to aid partner NGOs.

Goods for Non-Profits: Key Results

32

non-profits supported
by the program
in 2022

98.5 RUB M

transferred to non-profits for
necessity good purchases
in 2022

Digital Solutions for Non-Profits

The Digital Solutions for Non-Profits Program (RU) offers non-profit organizations the opportunity to utilize Yandex services to enhance business efficiency and reduce administrative expenses. Donated services include Yandex Cloud and Yandex 360, a virtual office that encompasses corporate mail, a calendar, cloud storage, a text processor, and communication services.

As a part of the program, we also provide grants (RU) for placing non-profit ads in Yandex Direct,[1] raising public awareness about social issues and the efforts made by charities to address them. Non-profit advertising also enables NGOs to attract new volunteers and raise funds.

Recognizing the significance of skilled ad management in driving effective campaigns, we invest in supporting all grant recipients in launching their initial campaigns. To ensure that non-profits can then manage ads independently, we equip them with tailored training materials and instruments. Those include articles, video instructions and pre-recorded webinars led by Yandex ad experts.

We leverage our knowledge of effective non-profit advertising beyond the community of ad grant recipients, extending it to the broader network of nonprofit organization. In October 2022, we spoke at the Charity against Cancer conference discussing approaches to launching first campaigns, common mistakes, and tested solutions.

[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.

Digital Solutions for Non-Profits: Key Results

219

non-profits used Yandex services for business

in 2022

254

non-profits received grants from Yandex
for non-profit advertising by the end of 2022

All grant recipients that launched more than one
advertising campaign received double grants as part
of an anti-crisis support package

>5 BN

views of social ads placed by grant recipients
under the program

Investing in People and Business Environment

Yandex Employees

Our team is one of our most valuable assets. With 2022 bringing unprecedented challenges to many, we prioritized the safety and well-being of our employees more than ever. We invested in creating conditions in which employees could take care of themselves and their loved ones while feeling motivated and inspired by the work they were doing.
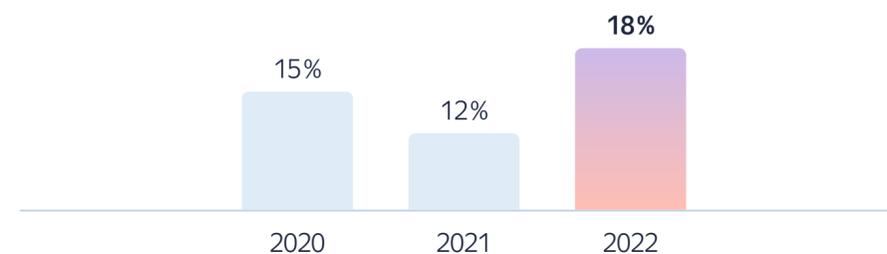
Yandex Team in Numbers

GRI 2-7

In 2022, Yandex employed 25,431 people, up from 21,151 in 2021 and 15,666 in 2020; this was an increase of 20% and 62%, respectively, driven by the growth of Yandex's business. We welcomed 6,650 new employees compared with 8,858 in 2021; the slight reduction was due to the hiring freeze introduced mid-year. In 2022, Yandex employees worked in Russia, Armenia, Belarus, Israel, Kazakhstan, Serbia and other counties.[1] Our biggest teams were Search & Portal (7,018 people), RideTech and FoodTech (4,911 people) and Market (3,670 people).

Number of employees in the reporting year, people

2020	2021	2022
15,666	21,151	25,431

Share of expert-level hires[2] among new hires during the year

2020	2021	2022
15%	12%	18%

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

Yandex overall employee turnover rate saw little change from previous periods and was at 20.7%[3] in 2022 (versus 20.5% in 2021 and 20.3% in 2020). Undesirable turnover, which is our key HR metric that accounts for top performers leaving the company, totaled 5.7%, slightly up from 4.9% in 2021 and 4.5% in 2020.

As in the previous reporting period, 98.6% of Yandex employees had permanent employment contracts, while the remaining 1.4% were project employees engaged for a specific undertaking. The proportion of full-time and part-time employees had not changed over several periods (98% and 2%, respectively). Those who cannot work full-time can usually negotiate with their manager to work flexible hours or switch temporarily to part-time employment.

18.5 RUB BN

were spent in the form of one-off salary payments in March 2022 and cash payments throughout the year as a substitute for regular equity grant vesting[4]

[1] The majority of people were employed in Russia (92.3%). This indicator includes both permanent and temporary employment contracts.

[2] Specialists with extensive professional experience, with a narrow and/or most in-demand specialization at the time of hiring.

[3] Voluntary and involuntary turnover rates were 15.1% and 5.7%, respectively.

[4] The crisis in late February 2022 affected the prices of Yandex shares and made it impossible to exercise options. As a result, we decided to freeze temporarily the vesting of equity-incentive awards and convert a portion of restricted stock units (RSUs) subject to vesting after February 2022 into cash payments denominated in local currency based on the stock price as of the RSU grant date. Under this system, new RSUs granted after February 2022 were replaced by deferred cash payments with effect until the end of 2022. Employees could choose either to take advantage of the new system or continue receiving RSUs. Beginning in September 2022, issue of new options was replaced with salary and bonus increases.

Yandex employees in 2022 by business unit

15%

28%

2%

2%

4%

4%

5%

25,431
EMPLOYEES

19%

8%

14%
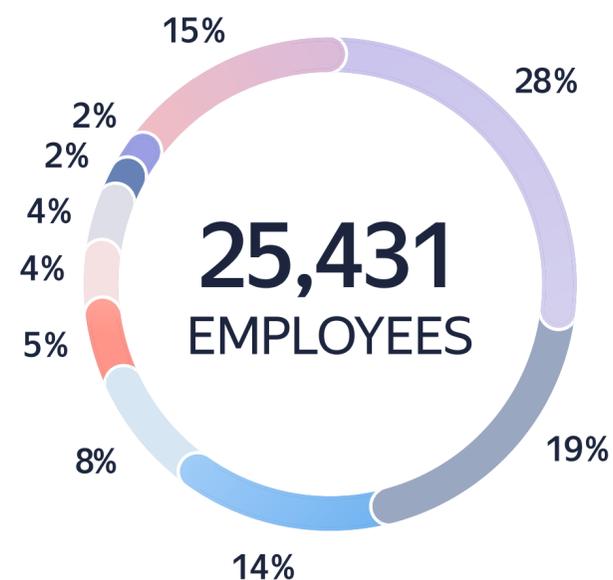
- 🟣 Search & Portal
- ⚫ RideTech, FoodTech and Delivery
- 🔵 Yandex Market
- ⚪ Yandex Cloud and Yandex 360
- 🔴 Other Business Units and Initiatives[1]
- 🟠 Yandex Plus and FunTech
- ⚪ Classifieds
- 🔵 FinTech
- 🟣 Self-Driving Technologies
- 🟠 Backoffice

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 of this chapter.

[1] Includes 2% of Zen before the service's divestment in September 2022.

Engaging the Youth

For Yandex, engaging with the youth is a strategic opportunity to grow new talent and prepare them to successfully drive innovation with us.

Internship Program

Students and young professionals are offered paid **internships** (RU) in a variety of fields, including software development, data analysis, cyber security, testing and DevOps. The intern selection process includes several mandatory steps that are designed to ensure equal, unbiased treatment of all candidates. We assess relevant skills and knowledge, as well as take into account internal referrals from both existing employees and other successful interns.

Successful interns (an average of 50% of both male and female from each intake) **are offered full-time positions in Yandex**. We have hired more than 6,000 interns since the program's launch. For interns who are unable to join a full-time role at Yandex at a particular point in time, which can happen when students need to graduate or for any other reason, we offer the opportunity to defer a job offer for a maximum of three years.

We have noticed that people who join Yandex after completing an internship are more likely to score higher on performance reviews than their peers, and they also grow faster. This may be because of the hands-on experience gained during the internship that drives higher levels of engagement and boosts productivity.

20 %

of successful internship candidates were recommended by Yandex employees or other interns

During the internship, all young professionals **work with real-world projects** while receiving guidance from their mentor, and get the opportunity to experience Yandex's corporate culture. All interns get access to corporate events and are provided with meal reimbursements when working on premises. As internships are held in Moscow, we also cover travel expenses and housing for interns from other regions.

26

Internship Program

1,284

new interns, more than 20% female
in 2022

2,029

current employees are former interns

Every **9**th

developer in senior positions started their career
at Yandex as an intern

Seasonal Schools by Yandex Academy

Seasonal Schools by Yandex Academy is an immersive learning opportunity that is well suited to both beginners and more experienced professionals. It is available in Russia, Kazakhstan and Serbia. The training programs include backend development (Python, Java, C++; Go (added in 2023)), mobile development (Android, iOS, Flutter), information security, interface development, product and project management, marketing and product analytics.

Training in the form of lectures and practical sessions is followed by hackathons where students can work on real-world team projects.
Some of their solutions are then used by Yandex. For example, an idea from seasonal school students gave life to a handy tool for Yandex employees. The tool helps match the people who need to deliver documents or items with their colleagues traveling to a particular address.

Many seasonal school graduates—up to 70% annually—subsequently land either an internship or a full-time job with Yandex. For more information about seasonal schools, see the **Education for All** chapter of this report.

HR Tech for Optimization

To speed up the search for relevant HR documents in the archive, free up office space and cut on paper, we have created a unified, secure e-repository. It employs a flexible access model, ensuring that each HR specialist can only see the documents they are assigned to work with.

All electronically signed documents are automatically transferred to the electronic archive, while paper documents are first scanned using a special scanner and dedicated software with computer vision capabilities. The software accurately recognizes document types, dates, legal entities, and other fields with 99.96% accuracy.

↓**90** %

less time needed to process an HR document thanks
to the migration to e-repository.

The effort has been reduced from an average of 4.5 hours
of work of ten specialists to 15–20 minutes of overall processing
by one employee.

27

Equality and Human Rights

Yandex strives to provide a fair work environment for professional development. We also believe that diversity and equality of opportunity are powerful tools for business growth and innovation, and therefore embed these principles through the following:

Investing in quality technical education for all

We believe that fostering an interest in IT at schools, along with providing continuous high-quality training in digital skills, will enable a larger number of people to choose digital professions without being constrained by gender stereotypes. To achieve this, we have been developing free educational initiatives, ranging from basic IT training for elementary school students to data science programs for university graduates. 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 cities in Russia 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 develop business ideas and offer assistance in realizing them. We have launched targeted programs to assist employees in evaluating their ideas and developing promising projects. This may involve market research or product prototyping. Additionally, we facilitate the transfer of successful experiences among colleagues. For more detail, please see the Employee Training and Development section of this chapter.

Equal footing for all job candidates

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

Transparent performance reviews

GRI 404-3

All Yandex employees undergo regular performance reviews.[1] We use a clear assessment framework that tales into account individual goal achievement, employee motivation and engagement, and work ethics. We 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, with the exception of top managers and Classifields employees, who are assessed once a year.

Ensuring compliance with ethical standards

We foster a culture of mutual respect, honesty, openness and equality of opinion. We provide training to employees on ethical conduct, acquainting them with our Code of Business Ethics & 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 business ethics standatds is discussed in the Ethics and Integrity chapter, while training completion stats are provided in the the ESG Data Tables Annex of this report.

Women in Our Workforce

GRI 405-1   TC-IM-330a.3   CG-EC-330a.3

SV-ME-260a.1   TC-SI-330a.3

35 %
of our employees are women

32 %
managers of all levels are women,
32% among CEO-1 and CEO-2 levels

24.3 %
employees in STEM roles are women[1]

800
women were hired for a tech job at Yandex
in 2022

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

In a journey to overcome intrinsic biases, a crucial step is fostering awareness. In 2022, we released a documentary called **"Mathematical Inequality"** exploring why there are still more men than women in STEM roles and how to address this issue. We examined the influence of upbringing and the societal conditioning children receive, which can impact their career choices, and discussed the importance of providing early access to quality IT education (which Yandex has adopted as one of the focal points of its **free educational programs**). We interviewed dozens of employees and experts when filming the documentary.

Watch "Mathematical Inequality" **here** and on Kinopoisk.

In 2022, over a third of our workforce was made up of women (35%). Women fill 32% of leadership roles at Yandex (32% in 2021, 30% in 2020). The number of female managers of all levels grew to 1,232 in 2022. Among CEO-1 and CEO-2 level managers, the number of women increased by 43% year-on-year to total 32% in 2022, compared to 32% and 27% in 2021 and 2020, respectively.

Over the reporting period, the number of women in STEM roles[2] grew by 800, reaching 24.3% of the total number of Yandex's technical specialists (23.3% in 2021, 22.3% in 2020), in line with industry trends. According to available industry statistics,[3] the share of women in STEM roles on the markets served by IT giants averaged 26.7% in 2022.

1 %
maximum gender pay gap

Compares average monthly pay of women and men at Yandex across all professional fields. The calculation does not include top managers
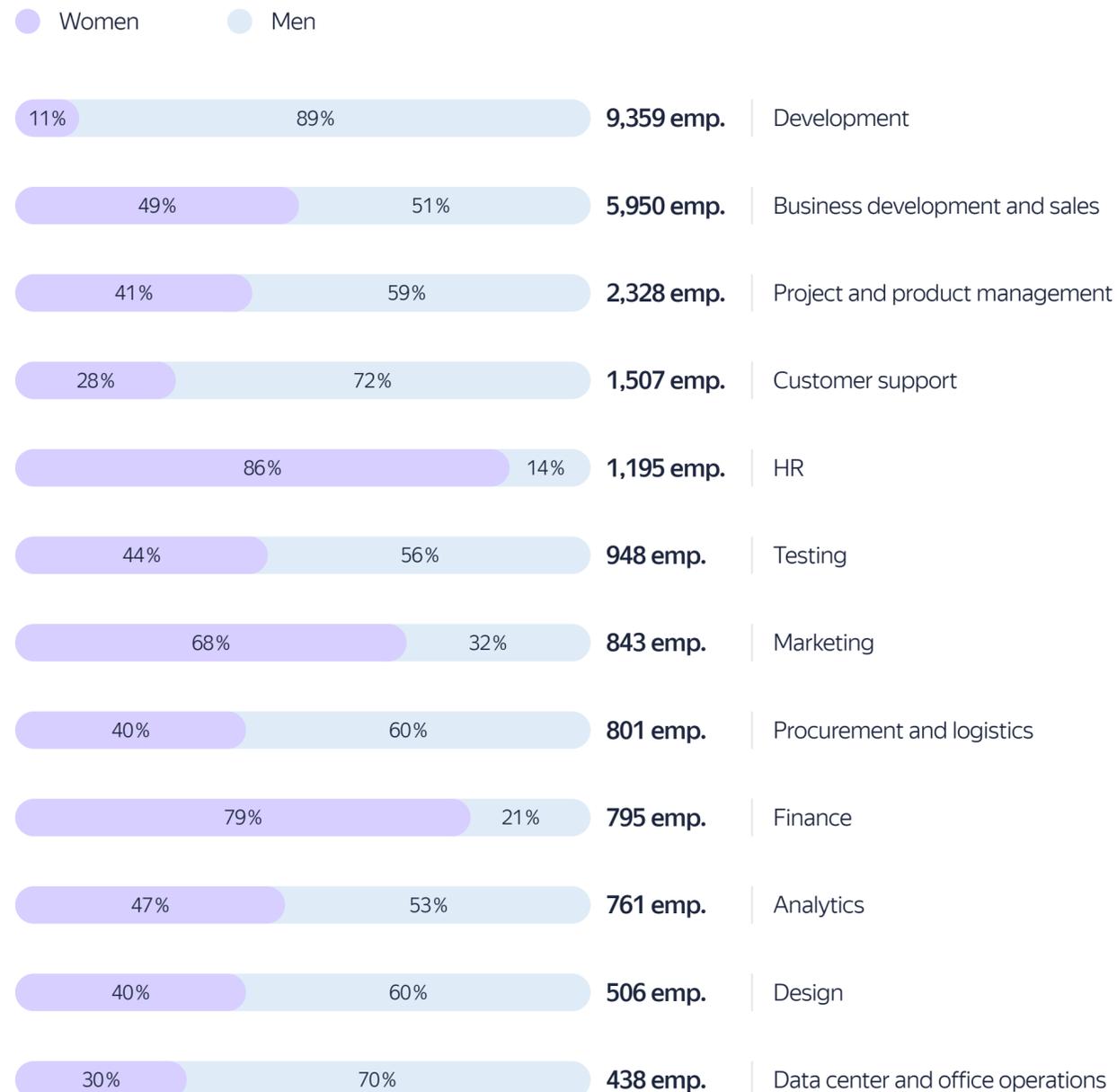
[2] Science, technology, engineering and mathematics.
[3] According to the **US job market research** by The Society of Women Engineers, 2023. The research relies on data from the U.S. Department of Labor's Bureau of Labor Statistics.

Women in Our Workforce
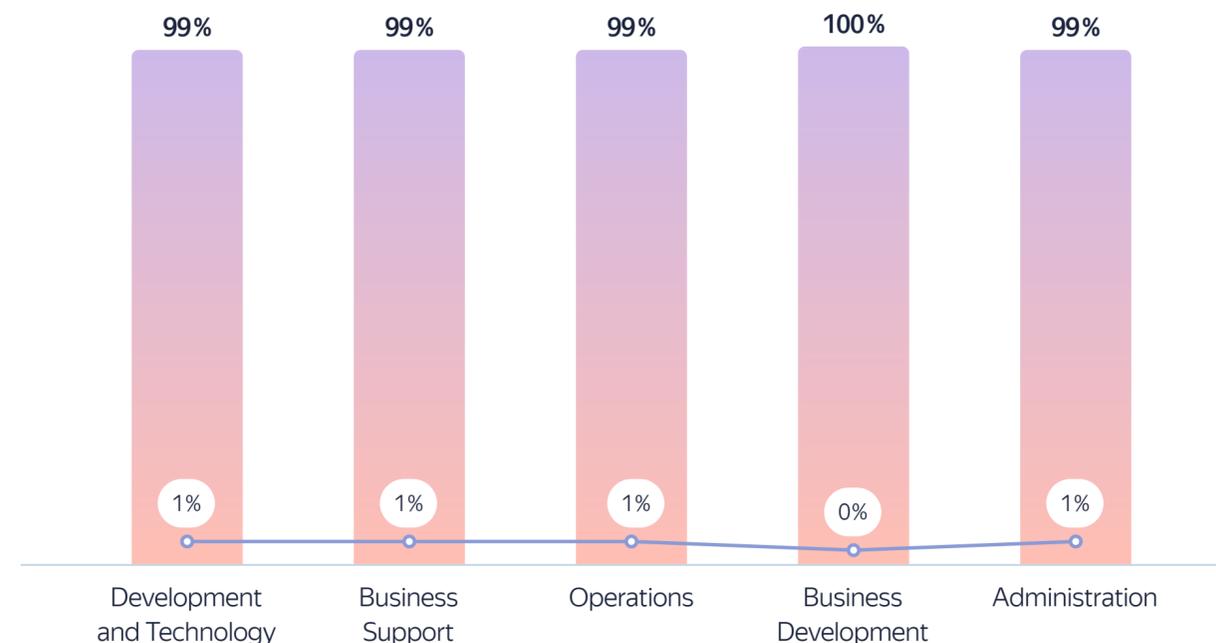
Representation of women at Yandex by professional field,
% of total Yandex employees in 2022

● Women   ● Men

11%	89%	9,359 emp.	Development
49%	51%	5,950 emp.	Business development and sales
41%	59%	2,328 emp.	Project and product management
28%	72%	1,507 emp.	Customer support
86%	14%	1,195 emp.	HR
44%	56%	948 emp.	Testing
68%	32%	843 emp.	Marketing
40%	60%	801 emp.	Procurement and logistics
79%	21%	795 emp.	Finance
47%	53%	761 emp.	Analytics
40%	60%	506 emp.	Design
30%	70%	438 emp.	Data center and office operations

GRI 405-2

Average monthly pay of women and men by professional field

○ Gender pay gap

Development and Technology	Business Support	Operations	Business Development	Administration
99%	99%	99%	100%	99%
1%	1%	1%	0%	1%

Calculated for full-time employees as of 31 December 2022. 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 |

We strive for employment at Yandex to be more than just a job. We invest in being there for our employees, offering support and assistance tailored to their needs, as well as providing opportunities to pursue exciting ideas, learn new things and unlock one's full potential.

Employee Engagement

According to the 2022 employee engagement survey,[1] the share of employees who enjoy working at Yandex remains high (at least 95% throughout 2020–2022). Ninety-seven per cent of respondents agreed that Yandex prioritizes employee wellbeing and satisfaction and demonstrates commitment to accommodating individual preferences.

In 2022, employees reported stability that Yandex provided in turbulent times to be among the things they appreciated the most, along with the opportunity to work on impactful products, be challenged and be part of a team of great professionals. More than 80% stated that they valued the social impact Yandex was making, while almost half the respondents said their teams regularly discussed how the product they work on could help address social or environmental challenges.
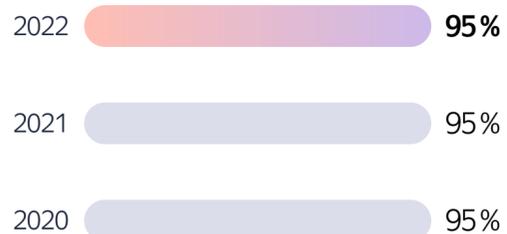
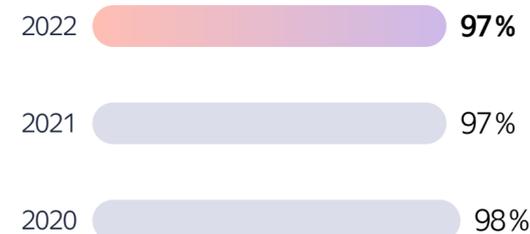**63**% of employees took part in the 2022 employee engagement survey

87% of employees were actively engaged[2] in 2022
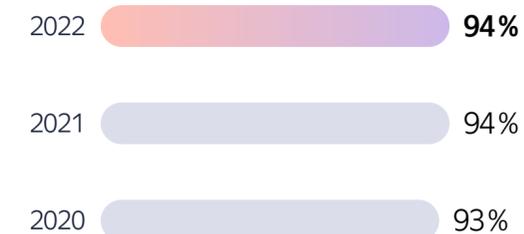
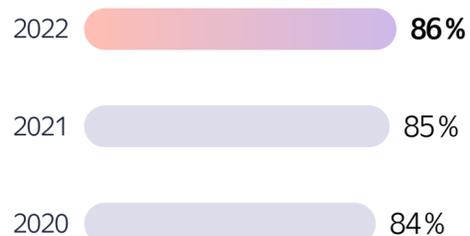## Percentage of affirmative responses to key questions[3]

"I enjoy working with Yandex"

2022	95%
2021	95%
2020	95%

"I believe that Yandex develops great products that are helpful for users"

2022	97%
2021	97%
2020	98%

"I have a great team"

2022	94%
2021	94%
2020	93%

"I feel like I'm growing professionally working with Yandex"

2022	86%
2021	85%
2020	84%

"At Yandex, I can openly voice my opinions and be heard regardless of job level and seniority of people I communicate with"

2022	87%
2021	85%
2020	82%

[1] We hold an engagement survey annually to determine overall employee job satisfaction, how they align with our mission, the basic needs of our teams and whether Yandex is doing enough to meet those needs.

[2] For the 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 chart shows only a sample of the responses.

Responses to Key Questions

Peer-to-Peer Connections

Fostering connections among employees is an opportunity to enhance their engagement and strengthen the company culture. Yandex offers various programs and events, as well as supports the formation of communities among employees. Currently, there are over 300 communities, ranging from colleagues driving environmental stewardship to esports enthusiasts participating in competitions.

In 2022, we launched **How to Yandex**, a company-wide multi-format project on living and working in a changing world. The project includes employee meetings with experts on various topics, covering mental and physical health, financial literacy, and the well-being of loved ones. It also features internal media showcasing life within the company, reaching an audience of over 7,000 people in 2022. Additionally, there is a landing page with valuable materials contributed by employees themselves.

The Professional Random Coffee service facilitates finding like-minded colleagues and conversation partners across the company. Employees are paired up based on their interests and then offered a meeting. By the end of the year, the service had over 800 active participants, with the number of meetings exceeding 1,800.

In the summer of 2022, we organized the **Summer Together** marathon, a series of events for Yandex employees, their families and friends. With activities ranging from sports and dance workouts to lectures by renowned speakers, performances, excursions, and creative workshops, the marathon brough together more than 8,500 people from 27 cities.

Onboarding Program

All new hires go through onboarding—in 2022, there were over 6,000 of them. The program lasts three months and is an essential part of our corporate culture.

During onboarding, newcomers get to know Yandex, its values, the team and work environment with the support of dedicated specialists.

We updated the process at the end of 2022, introducing a buddy program. **Every new employee is now to be assigned a buddy**—an experienced teammate who is tasked with providing guidance on many job-related questions. Before becoming a buddy, employees have to complete training in soft skills covering constructive communication and feedback, and more. We expect buddies to devote up to 30% of their work time to support new hires through their first weeks at Yandex.

Supervisor

Sets goals and objectives, assesses progress. Gives feedback to the employee and decides whether they have passed the probation.

Onboarding manager

Answers day-to-day questions, explains how the company operates, gathers feedback.

Buddy

Shares work-related experience and recommendations, introduces the new hire to their team and the company, helps them navigate through office life.

New hire

Asks questions, gains experience, integrates into the company culture.

32

Employee Social Benefits

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

Yandex offers a variety of employee benefits, from private medical insurance, dental 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 2022, we focused on **supporting employees' mental health**, mainly in response to the challenging emotional climate. Employees could benefit from psychological counselling at Yandex offices, via the Ya.Zdorovye and Yasno online services, at clinics covered by our private medical insurance, third-party clinics (ten sessions), as well as psychotherapy and psychiatric treatment. We also launched mental health support programs at Yandex's foreign offices and hubs.

Another focus is the promotion of preventive healthcare (disease prevention before they manifest). For this purpose, we extended our private medical insurance to include comprehensive health screening. These include a general health examination, targeted cardiovascular and gastrointestinal screening, cancer and post-COVID screening, as well as immunological, endocrinological and athletic checkups. Women at Yandex also have access to medically supervised pregnancy planning.

Based on employee requests, we have also partnered with popular clinics and added additional medical services to the insurance policy. For example, we now offer blood tests for vitamins A, B, and C (previously, vitamin D testing was already available), as well as tests for iron, ferritin, and magnesium.

742

employees received housing program benefits in 2022

The program is available in Russia, Kazakhstan and Belarus. In 2022, we introduced a grace period to mitigate the impact of market turbulence and the surge in the refinancing rate.

>700

employees are members of the Yandex Running Club

>2,000

employees participated in online sports activities with our corporate trainer
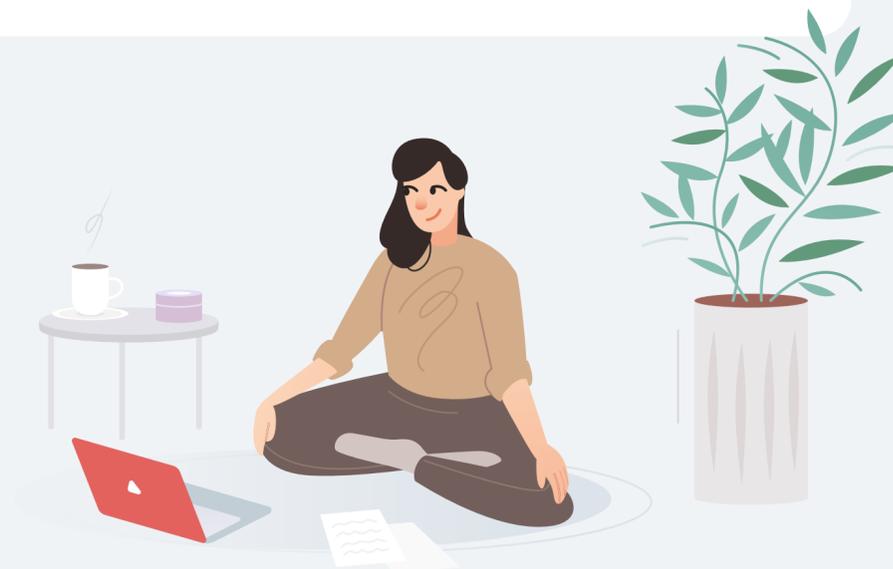
Employee Training and Development

GRI 404-1   GRI 404-2

In 2022, **experience sharing** remained a sought-after learning format. Experience sharing tools can be found on both Sphere (see next page for information about Sphere) and the **Ya.Mentor (I'm the Mentor)** platform.

Some business units have their own expertise sharing projects available to all Yandex employees. For instance, our E-commerce and RideTech Group launched **Prodlyonka (Afterschool)**, an educational project where Yandex employees give lectures and exchange advice. Sixteen lectures have been held so far, attended by over 1,000 employees.

Employee Training and Development

Recognizing the ever-evolving nature of our industry, even experienced professionals frequently encounter the need to acquire new knowledge and skills to stay relevant and effective.

We are committed to supporting employee growth at Yandex, which requires us to stay one step ahead and identify the skills and knowledge they need. To this end, we launched **Quantum, a unified learning platform** that aims to provide personalized development plans (read more in the box). By the end of 2022, we had had more than 300,000 enrolments for Quantum-based training courses and programs, and more than 128,000 completions.

We are also working to build **a uniform management culture** defined by consistent values, practices and shared understanding of leadership principles across all levels of management within Yandex. Owing to the scaling up of our business, the number of managers has grown by almost 50 per cent over the past three years. We therefore strive to provide these managers, each with their own management approach and experience, with the opportunity to access the best tools and explore new techniques aligned with a common set of expectations. We expect this to enable strong leadership and trust-based communication within the teams.

To facilitate this, we introduced **Sphere**, a unified digital space for leadership development (read more in the box). More than 3,400 managers used Sphere as well as an updated New Leader Training Course to receive leadership training in 2022.

About Quantum

Quantum is a new learning platform for Yandex employees, released in 2022. Quantum is Yandex's proprietary solution integrated into our extensive infrastructure. It offers over 1,000 courses and materials on a multitude of topics, both internally developed (including courses created by employees) and ones from external providers.

Quantum has two important features:

High personalization of learning experience. Personalization is crucial for effective learning. When individuals receive relevant and engaging content, they learn faster and with more interest. Thanks to integration with Yandex's other internal services and processes, Quantum understands the employee's professional field, role, responsibilities and other characteristics, identifies their interests and needs, and recommends suitable content. For example, Quantum will notice if the employee has rotated to another department and suggest materials to master the tools required in the new role.

Employee-developed courses. Quantum is a handy tool for finding and sharing knowledge within the company. Employees can use the platform to create and launch their own courses. Those interested undergo training on course creation, then prepare materials and submit them for moderation, where they are evaluated for script quality, presentation, grammar, and style. The course quality and relevance are assessed by learners.

About Sphere

Sphere provides a community and development environment for managers of all levels. The platform serves as a shared resource bringing together **knowledge and tools for self-development**, including training programs, consultations, and mentoring, to prepare employees for leadership roles.

Sphere's objective is to assist people in leadership roles in acquiring competencies that align with the leadership profile, first by determining any missing skills and knowledge (there is a self-assessment tool for that) and then by offering personalized learning recommendations. The learning profile is built on an understanding of Yandex's corporate culture, current business needs and role-specific expectations.

To make it easier for managers to receive up-to-date news from the training team, enroll in new courses, and discuss leadership-related topics, Sphere runs a social media account.

Education for All

GRI 3-3   GRI 203-1   GRI 203-2

Technological advances are transforming our lives at a breathtaking pace. To thrive in tis tech-savvy world, continuous learning is essential.

We firmly believe that an accessible and high-quality IT education plays a critical role in helping people adapt to the digital landscape and acquire relevant skills. Moreover, it serves as a powerful tool for businesses and economies to address the significant shortage of IT talent. In Russia alone, the estimated (RU) number of unfilled IT jobs has reached one million in recent years.

Spending on educational projects, RUB million[1]

Year	Value
2022	**1,077**
2021	1,011
2020	844

For over 15 years, we have been dedicated to investing in **IT education accessible to all and integrating continuous learning into everyday life**. Yandex educational programs cater to individuals at every stage of their professional journey, from junior school to academic and IT careers:

For a comprehensive overview of free educational programs offered by Yandex and their outcomes, see a standalone annual report (RU). For details about Practicum, please access the bootcamp's webpage (RU).

Elementary and Junior School

For schoolchildren, we develop Yandex Textbook (RU), an adaptable online learning platform, hold academic contests and festivals and offer free courses to develop IT skills. We also leverage Yandex Textbook to provide professional development support and EdTech tools to schoolteachers.

Senior High School

Yandex Academy (RU) programs target high school seniors, university students and entry-level specialists, guiding them towards relevant learning tracks that match their career aspirations. High school students (8th–10th grades) are offered a two-year training program by Lyceum by Yandex (RU) that prepares junior developers.

Undegrad and Grad Schools

Yandex and higher educational institutions offer joint degree programs tailored to the market needs. Recent graduates may join Seasonal schools (RU) and Open Lecture Courses by Yandex Academy (RU), while advanced specialists can enroll in the Yandex Schools of Data Analysis, a leading data analysis program introduced in 2007.

Post-Graduation

For established specialists seeking to reskill or upskill, Practicum by Yandex (RU) bootcamp offers immersive training in various digital professions such as data analysis, web development, backend development, QA testing, IT marketing, product and project management, and more.

[1] The chart shows spending per calendar year (1 January to 31 December), net of Practicum development expenses.

Free Programs for Schoolchildren, University Students and Graduates

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

For Schoolchildren and School Teachers

Yandex Textbook and Lyceum by Yandex

Yandex Textbook is a cutting-edge online educational platform that leverages the principles of evidence-based education (EBE). Operating on reliable facts and employing educational effectiveness research, Yandex Textbook offers an optimized learning experience, allowing schoolchildren to acquire knowledge and skills more efficiently. Additionally, it empowers teachers to design individualized educational trajectories.

4.3 M

schoolchildren from 40,000 Russian schools use Yandex Textbook resources

at the end of March 2023

209 THSD

teachers deliver training using Yandex Textbook

at the end of March 2023

Every **6**th

teacher of informatics in Russia used Yandex Textbook during school lessons

in 2022

In 2022, Yandex Textbook launched an **enhanced recommendation system for primary school**. This innovative system tailors the learning process to meet the specific needs of each student. It automates assignment checks, provides personalized educational tracks based on performance, and furnishes analytical data for teachers to fine-tune educational programs. By automating assignment checks, teachers can save valuable time and allocate it towards meaningful interactions with their students. As a result, schoolchildren demonstrate improved academic performance, with teachers and parents monitoring their progress in real time.

While Yandex Textbook helps children take their first steps in software programming, Lyceum by Yandex enables secondary school students to become entry-level developers within two years of training. **Lyceum by Yandex** offers free two-year software development courses for 8th–10th graders. In 2022, these courses were available at 380 locations in 167 cities across Russia and Kazakhstan. During the year, Lyceum's students embarked on impactful projects, such as developing digital literacy initiatives for special needs children, creating a volunteer search service, and building data systematization tools for educational institutions. These products have significantly benefited local communities.

2,057

schoolchildren graduated from Lyceum by Yandex

in 2022

In early 2022, Yandex launched **three-month courses in machine learning and web development tailored for 8th–10th graders,** which received over 3,000 applications. Through this program, students engage in collaborative teamwork and receive feedback from Yandex tutors and mentors.

Furthermore, we hosted the inaugural 8 Bits Festival, a remarkable event dedicated to showcasing IT professions for schoolchildren. Within a single week, over 9,500 students from more than 100 cities across Russia gained firsthand knowledge of the transformative Industry 4.0 technologies and explored opportunities within the field of IT.

Yandex Textbook and Lyceum by Yandex

Achieving Gender Parity: Girls and Boys Excel in the Informatics Olympiad

In 2022, Yandex Textbook and Alice, Yandex's AI assistant, held an Informatics Olympiad (RU) for 6th–11th graders. Building upon the success of the previous year, the Olympiad featured a hackathon where participants were challenged to develop and program new skills for Alice. The most outstanding skills were then incorporated into the AI assistant's extensive catalog. These are now a **total of 199 skills** developed by school students **benefitting a staggering 45 million users**.

Introducing innovative and engaging formats for studying informatics aligns with our commitment to nurturing the next generation of skilled professionals. Recognizing the significance of informatics, mathematics, and other STEM disciplines, which boys and girls can find equally interesting when properly motivated, we envision a future where gender parity is the norm in the IT field. Presently, women are underrepresented in bachelor's engineering programs, accounting for an average of only 24% of students in 2022.[1] We aim to install the understanding among schoolchildren that anyone regardless of gender can be technically minded and succeed in IT, and guide them towards independent career decisions later in their lives.

Remarkably, girls comprised 47% of the 90,000 participants in the Olympiad, with 41% of them emerging as winners. We analyzed the profiles of the Olympiad's participants and found that one third had studied informatics using the Yandex Textbook, with an even split between boys and girls.

47 %

female participants in the Olympiad and **41% female winners**

199

skills developed by the Olympiad's participants **for Alice** (virtual assistant) were made available for users

[1] According to the 2022 statistics released (RU) by the Ministry for Education and Science of the Russian Federation. The percentage is based on the number of women on bachelor's programs for the following majors: applied mathematics and informatics, applied mathematics, mathematics and computer science, fundamental informatics and information technology, mathematical support and administration of information systems, applied mathematics and physics, informatics and computing hardware, information systems and technology, applied informatics, software engineering and information security. Source: Form VPO-1 "Information on the organization engaged in educational activity related to higher education programs (bachelor's, specialist's and master's programs)".

For University Students and Higher Educational Institutions

Partnership Programs with Universities

Yandex has established partnerships with renowned higher educational institutions in Russia and the CIS, including the National Research University Higher School of Economics (NRU HSE), Moscow Institute of Physics and Technology (MIPT), St Petersburg State University (SPbU), Novosibirsk State University (NSU), Lobachevsky State University of Nizhny Novgorod (UNN), New Economic School (NES), Ural Federal University (UrFU), the European University at St Petersburg (EUSP), and Belarusian State University (BSU). Together, we develop comprehensive training programs for industry professionals.

>350

students graduated from joint degree programs in IT disciplines offered by Yandex and leading universities
in the 2021–2022 academic year

In 2022, jointly with MIPT's Department for Data Analysis, we launched the **Higher School of Software Engineering**, which aims to train software developers and architects. Right from the first year, students immerse themselves in a company-like environment, working on practical assignments and developing real products. Alongside technical skills, they also receive training in project management, startup development, and communication fundamentals.

217

applications received by the Higher School of Software Engineering

36

students enrolled

Another initiative in 2022 was the establishment of the Applied Centre for Machine Learning, Data Analysis, and Statistics (MAST) in collaboration with the European University. It is based on the Applied Data Analysis (PANDAN) joint educational program by Yandex and the European University. The MAST Centre focuses on research in the social sciences and humanities. Here, the University's students and graduates have an opportunity to join the permanent team of developers and researchers, contributing to the creation of advanced solutions for these disciplines. Examples of recently introduced solutions include tools for museum exhibit search database based on the data from the Museum Fund of Russia, a web application for video-based scanning of archive documents, and the RUSCAN interactive system for visualizing scenarios of oncological conditions.[1]

[1] Implemented jointly with the EUSP's Institute for Interdisciplinary Health Research (IIHR).

Yandex School of Data Analysis: Empowering IT Careers

Yandex School of Data Analysis (YSDA) is a two-year educational program designed to deliver training in developing machine learning-based services, as well as big data solutions. Since its inception in 2007, YSDA has been at the forefront of data analysis education, pioneering the field in Russia.

With over 1,200 graduates to date, YSDA has cultivated a pool of skilled talent, many of whom have embarked on successful careers in the IT industry. Many of these graduates have become an invaluable asset to Yandex, with 62% having previously worked or currently working at the company. Furthermore, in 2022, YSDA graduates accounted for a significant portion, one-third, of machine learning-related positions within Yandex.

An internally held analysis of workforce productivity reveals that recent YSDA graduates holding junior positions at Yandex demonstrate strong performance in their roles. This can be attributed to the comprehensive practical training they receive at YSDA, equipping them with the skill and knowledge to handle complex tasks and projects with ease.

62 %

YSDA graduates have worked or currently work at Yandex. Yandex extends a job offer to **one in two** graduates

>12 %

of YSDA graduates hold positions at Big Tech companies

For University Students and Higher Educational Institutions

Seasonal Schools by Yandex Academy

Seasonal Schools by Yandex Academy offer free, short-term, intensive in a wide range of IT fields, including frontend, backend, mobile development, information security, project management, product management, and design. This comprehensive educational program comprises engaging lectures, interactive workshops, and stimulating project work (hackathons) that challenge students to tackle real-world business tasks. Starting from 2023, we have extended our reach, enrolling students in Russia, Kazakhstan and Serbia.

Each year, the Seasonal Schools attract thousands of applications. In 2022 alone, the Summer Schools received over 20,000 applications from 59 countries. Recognizing the immense demand and the impossibility of accommodating every aspiring learner, we introduced the **Open Lecture Course**. The initiative grants free access to a part of the Summer School program, and is specifically tailored for students and junior professionals in IT management and marketing. Attending the Open Lecture Course does not require any prerequisite training, ensuring accessibility for all.

485

students enrolled in the Summer Schools in 2022, with female students accounting for **25%**

>100

lectures delivered by 45 specialists from Yandex, **40,000+** students attended the First Open Lecture Course

400

students of the Open Lecture Course were offered internships or full-time positions at Yandex

In 2022, the Yandex Academy published free Handbooks (RU), online textbooks for independent learners wish to gain knowledge in the most in-demand IT disciplines such as Python, C++, machine learning, and more. These comprehensive handbooks provide a platform where theory seamlessly merges with practical applications. To test their learning progress, Handbook users are encouraged to participate in the Yandex Contest, solve challenging problems, and submit their solutions for evaluation and feedback.

For Graduates

Award in Computer Science

In 2019, Yandex established the Ilya Segalovich Award in Computer Science to recognize outstanding young researchers and academic supervisors in Russia, Belarus, and Kazakhstan. Candidates demonstrate remarkable achievements in researching innovative applications of computer theory. In 2022, in addition to cash awards the winners received grants for utilizing Yandex services, including Toloka and Yandex DataSphere.

8

young researchers and academic supervisors received the Ilya Segalovich Award in 2022 for research in deep learning solutions for training neural networks and models, computer vision and statistical physics

Russian National Corpus (RNC)

For over 15 years, Yandex has served as a technology partner of the Russian National Corpus—the first-ever online database of Russian language texts compiled by a dedicated team of linguists. It features an extensive collection of nearly 4.5 million Russian language texts dating from the 11th century to 2022. Equipped with cutting-edge Yandex search tools, the RNC is capable of answering unusual search queries with pre-set linguistic parameters.

In 2022, Yandex has enhanced the RNC's usability and accessibility by adding a use-friendly design and interface, automating the collection of statistical data, providing user tips, making the website mobile friendly and launching an English version of the portal.
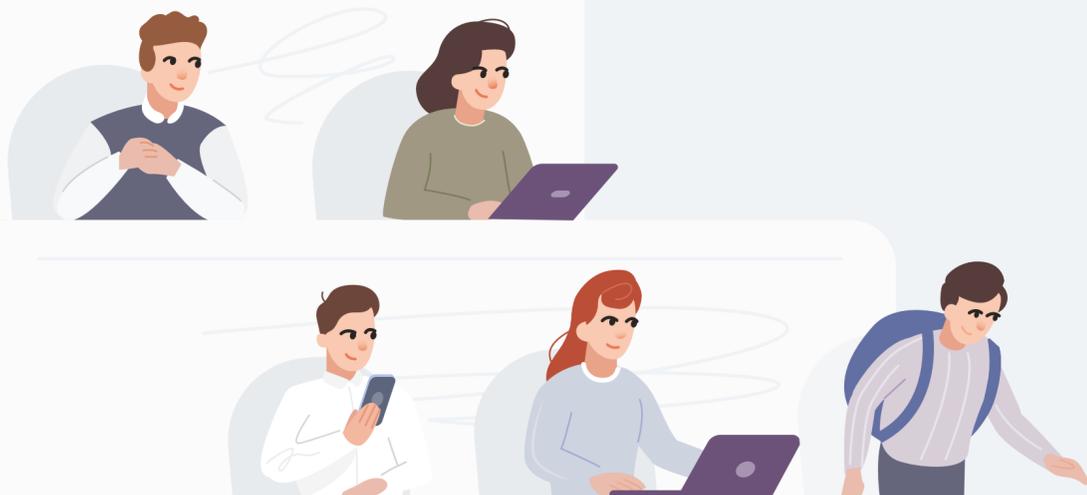
Training in Digital Professions

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

Practicum by Yandex is an online learning platform for acquiring new digital professions or the new skills needed for further professional development.

Offering **more than 50 digital professions** and **over 80 reskilling and upskilling programs**, Practicum equips learners with the knowledge and practical skills necessary to pursue careers in IT fields such as data analysis, web development, backend development, QA testing, data engineering, marketing, project and product management, and more. All programs provide immersive learning experiences, enabling students to immediately apply their newfound expertise in real-world scenarios.

With inclusivity at its core, Practicum welcomes learners of different ages, proficiency levels and backgrounds. Success stories include marine engineers transitioning to data analysts, taxi drivers becoming web developers, apparel production specialists embarking on careers as QA engineers, and barkeepers working as UX/UI designers.

From course completion to job interviews and first weeks at work, learners receive personalized guidance and assistance by Practicum's team of experienced tutors, reviewers, and career specialists. As of today, Practicum graduates can access job openings at more than 1,000 companies partnering with the platform.

Practicum is trusted by industry leaders who recognize the quality of training provided by the platform. In 2022, Practicum trained **over 6,000 employees of more than 2,000 companies representing IT**, telecom, retail, e-commerce, and fintech, including those of major players who comprise 40% of our corporate clientele.

>3.5 M

people have tried Practicum programs
since the platform was launched in 2019

>46,000

students were enrolled
in Practicum programs
at the end of March 2023

2,700

students with disabilities[1] have benefited from an opportunity to undergo free training at Practicum as part of the Digital Professions program
in 2022

>10,000

graduates of Practicum programs received job offers in their chosen field
as at the end of Q1 2023, 8,500—as at the end of 2022

On average

69 %

of Practicum graduates aiming at a new profession get a job in their chosen field[2]
90% of employments occur in the first six months after graduation

45 %

of graduates found a new job without any previous experience in IT[3]

[1] Categories of people with disabilities as defined by the Digital Professions program.

[2] We track employment success rate on a regular basis using the **survey** (RU) conducted by our partner—the Institute of Education (IOE) at the HSE University. The survey covers graduates who completed the course at least 180 days before the date of the survey.

[3] Students who graduated in 1H 2022.

Training in Digital Professions

48 %

of Practicum graduates in 2022 were female (37% in 2021)

47 %

of female graduates found a new job within six months of graduating[1]

Female students by training specialty in 2022

UX-Researcher	68%
Web Application Tester in Python	59%
Data Analyst	55%
QA Engineer	47%
Java Automation Testing Specialist	40%
Data Scientist	30%

Reskilling of Yandex Go Partner Drivers

On the 10th anniversary of the ride-hailing service, Yandex Go offered its partner drivers an opportunity to acquire new IT professions through Practicum for free. For more details about the undertaking, please see the Yandex Service Partners chapter. As a provider of the training, Practicum was tasked to ensure that partners do not just get access to course materials but also complete the training.

To this end, we developed a methodology that allowed drivers to assess their readiness to undertake the courses. During the enrollment stage, drivers were required to undergo a course trial a specified timeframe, complete motivation testing and pass individual interviews. A total of 375 drivers successfully passed the selection process and were enrolled, with over half of them completing the training by the end of 2022.

>190

partner drivers had completed training

by the end of 2022

We recognize the importance of equal access to quality education, and continue to partner with the Digital Professions program. Through this collaboration, the Russian Ministry for Digital Development, Communications and Media offers tuition fee coverage ranging from 50% to 100%. In 2022, we doubled the number of learning tracks available within the program from ten to 20, and added training in product management and IT recruitment. This expansion helped attract a diverse range of learners, leading to a significant increase in applications.

In 2022, over 20,000 students enrolled in the program, with half of them qualifying for complete tuition fee coverage by the Ministry for Digital Development, Communications and Media. Those included 2,700 individuals with disabilities,[2] all granted the opportunity to receive free training at Practicum.

[1] According to the report (RU) on the survey "Monitoring of Training Goal Achievement by Graduates of Practicum by Yandex".

[2] Categories of people with disabilities as defined by the Digital Professions program.

Yandex Cloud: Powering IT Education & Science

Yandex Cloud, a cutting-edge cloud platform providing scalable infrastructure, storage, machine learning capabilities, invests in leveraging tools to drive scientific research and quality IT education.

Yandex Cloud serves as a t**echnology partner of university programs**, expert centres, scientific laboratories, online bootcamps and e-learning platforms (Practicum, SkillFactory, ReBrain, among those) and offers **free courses in cloud computing** (RU) (completed by **over 15,000 people**). To further support teachers and student communities, we conduct open webinars and master classes on the application of cloud services. Additionally, we offer resources for developing cloud solutions for student accelerators and startups, resulting in **support for over 85 startups in 2022**.

To support science and help it benefit from digitalization, Yandex Cloud offers grants to higher educational institutions and research centers. These grants enable universities to test and **migrate** the educational services requiring protection against DDoS-attacks to the cloud. Moreover, universities can leverage Yandex Cloud's tools in areas such as machine learning, computer vision, and data analytics to **advance scientific research**. In 2022, our cloud solutions were successfully applied by the Altai State University (ASU) and the Institute of Biology at Irkutsk State University (ISU) to complete two joint projects in biological research and environmental monitoring.

AI-based Plant Monitoring in Altai

Through a partnership with Yandex Cloud, scientists from Altai State University have developed an advanced **plant monitoring system** (RU). Leveraging machine learning algorithms, this system accurately predicts the expansion of endangered plant species. Additionally, the system aids agricultural producers in combating crop loss caused by weeds, a significant factor responsible for 17% of grain crop losses in Russia.[1] By precisely forecasting weed spread and identifying optimal planting locations, farmers can enhance planning for harvesting and soil treatment.

Ten times

faster flora monitoring and forecasting

[1] According to "Weed infestation and crop yield for summer wheat based on cultivation technology" **report** (RU).

Monitoring the Lake Baikal Ecosystem

Jointly with the Institute of Biology at the Irkutsk State University, we have developed **a neural network for monitoring the Lake Baikal ecosystem,** which is now publicly accessible. To share the learning process of neural networks in identifying Baikal copepods and discuss the interdisciplinary effort of the undertaking, we have produced a short **film**. Today, the network's dataset has over five million entries on the weekly state of the ecosystem. With the ability to forecast the condition of the lake, this technology is uniquely positioned to assess the impact of climate change on its ecosystem and evaluate fish stocks as well. Due to its flexibility, the neural network can be applied by specialists worldwide, enabling them to develop their own systems for monitoring water body conditions and tracking vital environmental trends.

774

species of copepods are automatically recognized by the system. Before its introduction, the identification had been done manually for 75 years

Yandex Service Partners

GRI 2-8   GRI 203-2   GRI 413-1

At Yandex, we partner with both individuals and businesses, empowering them to earn through our platforms while offering excellent online tools to users of our products.

Ensuring convenience, safety, and profitability of partnerships is of utmost importance to us. We prioritize building relationships based on principles such as reliability, flexibility and transparent communication. Based on understanding the needs of our partners and actively seeking their feedback, we develop support programs to enhance their partnership experience.

Social Support for Drivers and Couriers

GRI 203-2   GRI 413-1

Yandex collaborates with thousands of drivers and couriers, allowing our users to effortlessly navigate the city and purchase goods with delivery. In 2022, partner fleet drivers and individual partner drivers made, on average, 8 million taxi rides a day, while Yandex Market, Yandex Lavka, Yandex Eats, Market Delivery, and Yandex Delivery customers had over 114 million orders delivered to them in the same year.[1]

1 M

monthly active drivers in 1,000+ cities in all countries of presence

>35,000

female drivers partnering with Yandex Pro in Russia

~20,000

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

[1] Figure provided for Russia and the CIS. For Yandex Eats and Market Delivery, only orders for deliveries from supermarkets connected to these services are taken into account. The Market Delivery data is recorded from the service's acquisition date (September 2022).

Social Guarantees and Financial Assistance Programs

GRI 403-6   GRI 403-7   SASB TR-RO 320a.3

Yandex is one of the few companies globally offering **medical insurance scheme** (RU) to drivers and couriers **in order to protect their earnings 24/7**. In the event of illness or accident, Yandex's insurance partner compensates the service partner (similar to sick pay) at a rate established for the particular region. **In 2022, we connected one more insurance company** to the scheme. Insured drivers may also use telemedicine services. The scheme supplements national social benefits under universal healthcare, which ensures free access to medical services in state or municipal healthcare institutions.

In the event of an accident (e.g., a road accident) occurring while giving a ride or delivering an order, the injured partner **is eligible for coverage of up to RUB 2 million**. By default, this insurance coverage applies to taxi drivers, couriers (including foot couriers and those using vehicles, bikes and scooters), as well as Yandex Go taxi users. Insurance payouts are made as per the approved procedure.

We also provide courier liability insurance for deliveries ordered through Yandex Go. The user is eligible for compensation of up to RUB 500,000 if a parcel or freight is damaged or lost during delivery. The insurance is free and becomes effective upon arrival of the taxi or courier and expires when the order has been executed. The insurance applies to deliveries within Russia.

1 RUB BN

committed to the medical insurance scheme for drivers and couriers

in 2021–2022

2 RUB M

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

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

Year	Value
2022	664
2021	519
2020	295

28%
125%
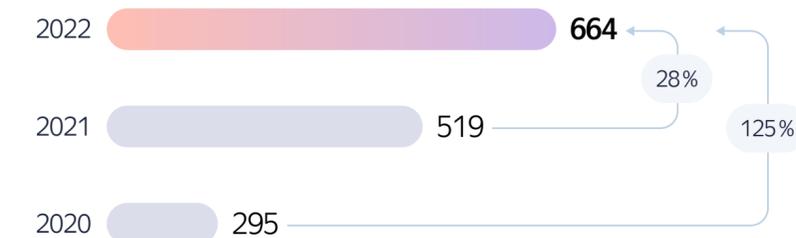
↑**8**%

average rise in the earnings of active drivers on all markets where the company operates compared to 2021[2]

↑ 14%—average rise in the earnings of active drivers in Russia.

[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.).

[2] The rise was due to more efficient use of the order distribution system. As a result, the number of orders per active driver increased by 6% on all markets on which the service operates (by 8% in Russia).

Support Programs and Benefits

Reskilling of Drivers and Couriers

In 2021, drivers that had partnered with Yandex Go for over three years were offered an opportunity to get free access to a reskilling program with 16 IT career tracks of choice, including data analysis, graphic design, web development, C++, Java or Python programming, and more. Yandex committed over RUB 20 billion to financing this initiative, which was implemented in partnership with Practicum by Yandex, an online bootcamp providing training in digital professions.

By the end of 2022, over 190 drivers had completed their courses, with 24 graduates reporting that they had already succeeded in finding employment in their chosen field. One of these graduates joined the Practicum by Yandex team and is helping develop our educational platform.

In 2022, the opportunity to acquire IT skills with Practicum was **extended to couriers** partnering with Yandex Eats, Yandex Lavka and Yandex Delivery.

>20 RUB M
committed to the IT reskilling of drivers

>190
partner drivers had completed training
by the end of 2022

For Drivers

Second Chance and Support Service

We strive to establish just interactions between drivers and users. We have learned to better understand when a user's rating is unfair and do not act on complaints related to events that drivers cannot control (such as poor road quality of heavy traffic).

To give the drivers who have been restricted from accessing the service can get a second chance, we have implemented **a process for reviewing access restrictions by request** in Russia, and since 2022, in Belarus, Kazakhstan and Kyrgyzstan. A driver now has the opportunity to restore their status by applying to lift the restriction. The application will be reviewed by an appeals review group as well as a special committee consisting of independent drivers. Those are drivers who have been partnering with the service for at least a year, giving regular taxi rides and with a rating of at least 4.9 out of 5. Their opinion is taken into account when making the final decision.

Since 2022, **24/7 voice support has become available to all drivers**, regardless of their status in the rewards program. Currently, drivers of 6,600 partner fleet companies are provided with voice support. In 2021, voice support was available only to Gold and Platinum partners, as well as self-employed individuals and individual entrepreneurs.

Mentorship Program

Yandex Go has a Mentorship program (RU) in place to help new drivers navigate the nuances of working with ride requests, such as establishing accountable behavior, accommodating to the needs of users and maximizing earning on the platform. Within the program, experienced drivers share their knowledge and recommendations. Mentors are carefully selected and supervise up to five mentees, each for a duration of two weeks. If the mentees succeed in demonstrating good performance, the mentor will receive incentives as recognition.

~1,700
drivers participate in the program
as mentors

Support Programs and Benefits

For Drivers

Rewards Program

In 2019, we launched a rewards program for drivers, where they **become eligible for a range of benefits** upon completing a certain number of ride orders. These benefits include priority in ride order distribution as well as other opportunities listed on the **program's website** (RU). The program is available in all Russia's cities where Yandex Taxi operates.

The rewards program has four levels: Bronze, Silver, Gold, and Platinum. Achieving the Bronze status is easy, requiring only ten rides without any negative user feedback. Drivers at the Platinum level receive the maximum benefits, provided they are actively online for an average of 40 hours per week, maintain a rating of no less that 4.9 out of 5, and have no complaints from users.

Vehicles for Partner Fleets

In recent years, the Russian market has experienced limited supplies of new vehicles. This is due to the logistical challenges during the coronavirus pandemic as well as the exit of a significant number of automakers from the market in 2022. In these circumstances, we have focused on finding new suppliers to help our partners replenish their fleets.

In 2022, as a result of negotiations with automakers, we have secured quotes for the delivery of thousands of vehicles. Taxi fleets partnering with our service can acquire these vehicles through a convenient scheme. We also entered into partnership agreements with suppliers and manufacturers of spare parts, motor oils and compressed-gas equipment to make the maintenance of existing vehicles more cost-efficient.

For Couriers

Wellbeing in Focus

In 2022, Yandex Eats, Yandex Lavka and Yandex Delivery, together with other delivery services, formulated **principles of ethical collaboration with couriers**. Market Delivery adopted the principles and joined the initiative after becoming part of Yandex. Among the principles are transparency of business cooperation terms, support in interactions with restaurants and users, and care for personal safety and wellbeing.

Couriers partnering with Yandex services can message or call the support team through the Yandex Pro app with any questions they may have during order fulfillment. In 2022, Yandex Delivery introduced the **option to submit a request to restore access to orders** for couriers who have been restricted from the service. The procedure developed is similar to the one available for partner drivers in the Taxi service and couriers partnering with Yandex Eats and Yandex Lavka. The request is evaluated by a special committee, which includes couriers with a minimum of two months' delivery experience with Yandex services and no negative user feedback. The committee's input is taken into account when making a decision.

In 2022, Yandex Eats launched the **Friendly Restaurants project**, which brings together establishments where couriers can rest, enjoy complimentary tea, or have discounted meals. We also collaborate with shopping centers, food malls, and markets, where we jointly create rest areas. These areas provide couriers with comfortable seating, charging outlets for phones and power banks, water coolers, sanitizers, and other amenities.

Support for the Self-Employed

In 2022, the number of drivers who registered with Yandex Taxi as self-employed partners[1] grew by 15%.

For such partners, as well as Yandex Eats partner couriers, including those delivering orders from Yandex Lavka and Market Delivery, we develop special support programs. They include providing access to free legal consultations, granting additional points under the rewards programs, and offering preferential auto loan programs jointly with regional authorities and banks. For instance, in 2022, Yandex Taxi self-employed partners could obtain a loan of up to RUB 1.5 million for purchasing a vehicle from a dealer or private individual through a low-paperwork procedure requiring only a passport, driving license and taxpayer identification number. The loan rate depends on the bank program and starts at 5.5%.
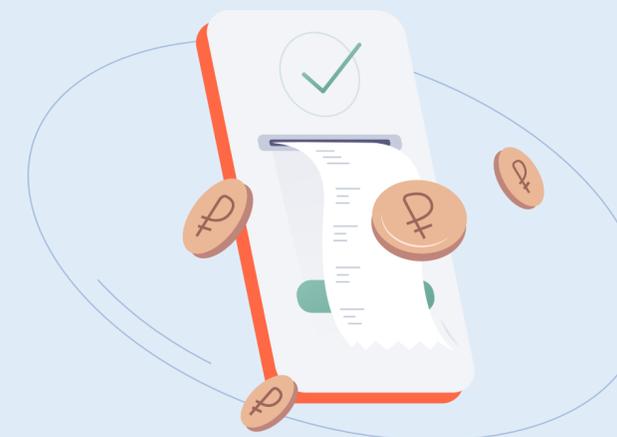
[1] This tax regime enables partners to collaborate with Yandex directly and apply reduced tax rate.

Driver and Courier Safety

GRI 403-6   GRI 403-7

Safe Driving

We apply various technological solutions and communications in order to mitigate the risk of traffic accidents. We monitor vehicle speed and driving style, remind drivers of the need to wear belts, take breaks, assess the traffic situation, alert them of difficulties enroute, and encourage to refresh knowledge of traffic rules. Please see the **Yandex Go website** for more detail.

In 2022, we introduced an innovative **technology for safe allocation of orders**. It is now used throughout Russia. The algorithm assesses the complexity of the route (such as trip distance, traffic intensity, road type, and more) and selects a driver based on their driving experience. Rides with complex and potentially dangerous routes are assigned to drivers with extensive driving experience (both overall and within the service) and without a history of violations, incidents of risky driving, or user complaints.

Furthermore, we have trained the algorithm to **respond to route deviations, early trip completions, or unplanned prolonged stops**. The technology analyses unforeseen route changes in real-time and notifies the security service personnel. The latter reach out to the driver and the user to make sure that everything is alright. Please see the **Convenience, Quality and Safety of Digital Products** chapter.

To ensure a comfortable ride for both the driver and the user, we have collaborated with the Alternative Consulting Center to develop a **training** (RU) **on safe communication and prevention of harassment**. In this training, we examine the most common interaction scenarios during rides and provide useful recommendations.

Safety metrics[1]

↓9 %

decrease in the risk of traffic accidents resulting in injuries[2] compared to 2021

−18% vs. 2020

0.0088

traffic accidents resulting in fatalities per 1 million km of passenger mileage

↓15 %

decrease in the risk of traffic accidents resulting in fatalities[3] compared to 2021

−29% vs. 2020

1.04

traffic risk in Yandex Go

VS

2.34

traffic risk in Russia[4]

[1] In 2022, the methodology for calculating the number of traffic accidents significantly improved, hence, the comparison of figures reported in 2022 and 2021 Sustainability Reports would be incorrect. In this report we compare the last year's performance to the 2021 data retrospectively recalculated in accordance with the updated methodology. The updated methodology accounts for traffic accidents occurring only during the booked taxi rides, even if the driver has been connected to the service for one day. Last year, we included accidents that took place during the personal rides of drivers with the active online status at the time.

[2] Calculated as the number of traffic accidents resulting in injuries during booked rides, divided by one million kilometers of mileage of the cars in the service.

[3] Calculated as the number of traffic accidents resulting in fatalities during booked rides, divided by one million kilometers of mileage of the cars in the service.

[4] Russia's State Traffic Safety Inspectorate (GIBDD) annually **publishes** (RU) the traffic risk index for Russia. It reflects the probability of traffic fatalities adjusted to the number of vehicles in the country. This risk is calculated as the number of road traffic fatalities per 10,000 vehicles registered with GIBDD. The traffic risk for the Yandex Go taxi orders reflects the number of fatalities in the order-related traffic accidents per 10,000 cars active in the service.

47

Safe Walking and Biking

In 2022, 70% of Yandex Eats' partner couriers used bikes. The percentage is even higher in Moscow (80%). Bikes are also used by all partner couriers of Yandex Lavka. To ensure safe cycling, we have **implemented speed monitoring for bike couriers**. The technology tracks their riding speed, and if it exceeds the permissible limit, the courier receives a notification in the Yandex Pro app with a request to slow down, along with a reference to the traffic rules course.

In 2022, before the start of the cycling season, Yandex Eats and Yandex Lavka organized **mobile bicycle service points** for partner couriers, as well as those of any other delivery service. Every courier had the opportunity to check their bike and have them repaired for free, if needed. At some Yandex Lavka dark stores in Moscow and St Petersburg, partner couriers could receive basic tools for bicycle maintenance and repair, and use the first aid kit.

For the winter season, Yandex delivery services developed a short guide for biking during cold weather as part of the **It's Time to Ride a Bike** project. This is the first **cross-service project of Yandex Eats, Market Delivery, Yandex Lavka and Yandex Delivery**.

Whether on foot, on bike or on scooter, each courier on active orders has a life and health insurance coverage of up to RUB 2 million.

Yandex for Business Partners

GRI 413-1   GRI 203-2

With the help of Yandex products and services, businesses of any size, from major producers and retail chains to small restaurants and individual entrepreneurs, can attract customers, increase sales and reduce operating costs. We analyze the needs of our business partners, their experience and feedback to offer tools that are convenient and helpful.

43.7 THSD

active sellers on Yandex Market as of December 2022 who had made at least one sale in the month prior to the reporting date

+83% compared to 2021

24 THSD

paying clients of Yandex Cloud per month at the end of 2022

1.5 times more than in 2021

For Partner Restaurants

In 2022, we launched an i**ndustry commission for partnership matters with Yandex Eats**, aiming to make the collaboration with this service more transparent. The commission, for instance, reviews applications for connecting to Yandex Eats platform, and decides whether to restore access to the service. It consists of store and restaurant representatives who collaborate with the service, as well as experts from the restaurant industry, the retail industry, and members of professional associations. After the merger of Market Delivery with Yandex, the new partner restaurants also gained the opportunity to participate in the commission's work.

To support the development of the restaurant industry, in the summer of 2022, we launched **a program for young entrepreneurs** in collaboration with Dmitry Levitsky, a Russian restaurateur. Within this program, entrepreneurs under the age of 30 who are opening a restaurant business for the first time are enabled to provide takeout orders and deliver them with their couriers without additional fees. They can also enjoy special delivery terms applying to delivery by Market Delivery partner couriers. The program also includes the opportunity to receive training from Dmitry Levitsky's team.
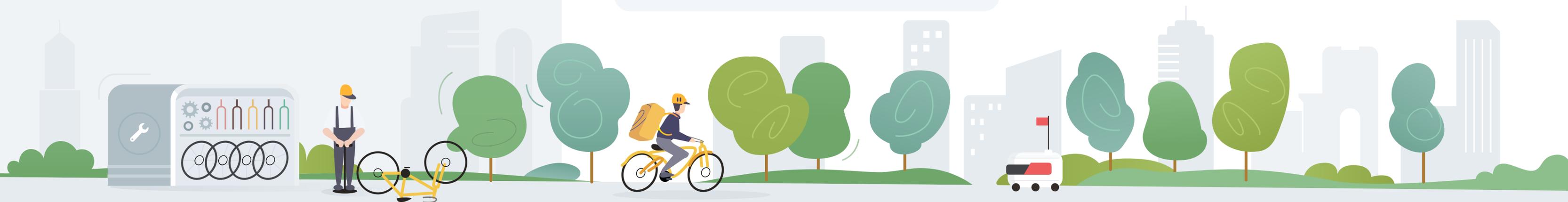
Yandex for Business Partners

For Suppliers of Yandex Lavka

To enable small-scale food producers to become Yandex Lavka vendors, we launched the **Select Together initiative** in 2022. Food manufacturers or farmers willing to place their products on Yandex Lavka can submit their applications, so that Yandex Lavka can carry our mandatory due diligence procedures such as food quality tests and production audits. Approved products are then added to the product mix and monitored for user feedback. Further collaboration is offered to manufacturers of goods that receive positive customer feedback and sell well.

In addition to selling products under their own brand, local producers have the opportunity to become Lavka's private label manufacturers. At the end of 2022, the share of local producers in Yandex Lavka's product mix selling either under their own or Lavka's brands exceeded 80%.
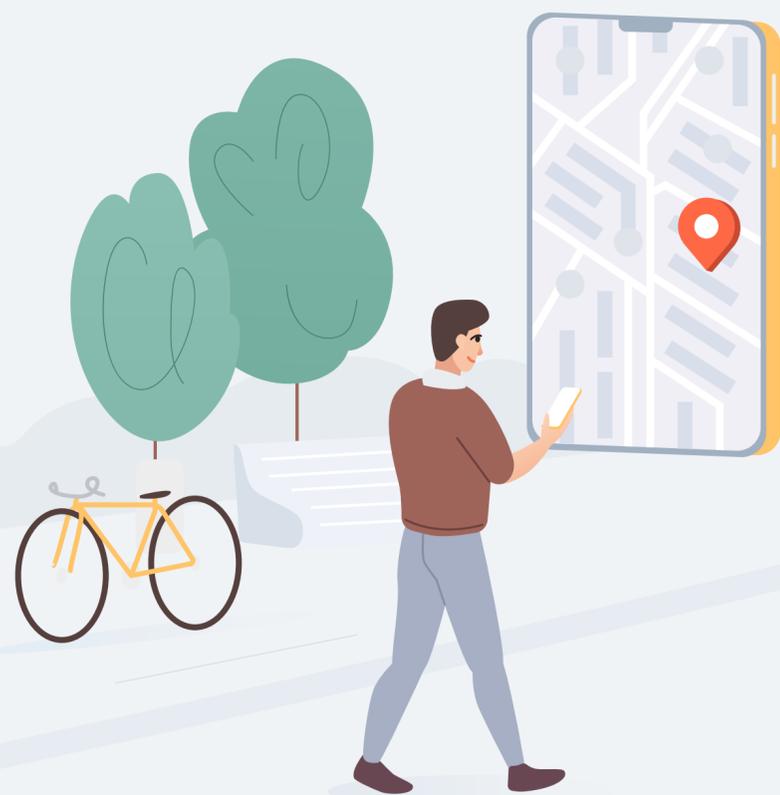
For Sellers and Pickup Point Owners Using Yandex Market

Yandex Market offers various **tools for promoting goods on the marketplace**, such as campaigns, promotional offers and codes, as well as Yandex Plus bonus accruals for subscribers. In the latter case, bonuses are provided by both the seller and the marketplace. To make purchases more accessible to users, we introduced the Split service, allowing buyers to pay for their orders in installments while ensuring that sellers receive full payment immediately.

Throughout 2022, we continued to develop seller support tools. For example, during the market uncertainty period in February—March 2022, Yandex Market became the first marketplace to offer daily payouts, a more flexible approach to handling delays and cancellations, and other support measures.

For sellers of budget-friendly goods (priced below RUB 499 and weighing up to five kilos), e.g., cosmetics or day-to-day items, we introduced **fixed rates** covering basic services provided by the marketplace, such as product placement on storefronts, order processing and logistics. This way, sellers can save on marketplace services and offer products by piece at more attractive prices without sacrificing profitability.

We have also developed **tools for supporting sellers who actively trade on the marketplace**. They **can receive additional funds for business development**, e.g., for working capital replenishment, additional inventory purchases, or other business goals. The payouts are not loans. When applying for funds, sellers must select the number of payment instalments. Active sellers are also eligible for the loyalty program that offers discounts on marketplace services, partial reimbursement of promotion expenses, and a dedicated support line.

Efficient Seller Logistics

To enable sellers to effectively develop their logistics infrastructure, we **created a zone map** in 2022, indicating **areas suitable for opening express delivery dark stores**. For that, we leveraged data on the demand for express delivery in specific areas, the number of competing sellers within the delivery radius, and the delivery cost for households. Sellers using the map can choose a location for a new dark store or optimize the operations of an existing one, e.g., by determining the assortment to store in a specific location based on user demand in the area. This can help reduce the environmental footprint of the logistics due to the last-mile operations being vehicle-free.

A similar tool is available for Market partners developing pickup points. An interactive map shows suitable locations for opening branded points. The map is regularly updated based on factors such as population size and the dynamics of opening new points in specific regions. When opening a new pickup location under the Yandex Market brand, our partners receive a one-time payout, free signage, a set of branded materials, and assistance with advertising.

In early 2023, we implemented a simplified procedure for opening pickup points in towns with a population of less than 50,000 and set up a working group to process enquiries from pickup point owners. We will provide more detail on this initiative in future reports.

For Sellers and Pickup Point Owners Using Yandex Market

Support for Craftsmen and Smaller Brands

Since 2022, we have been collaborating with self-employed entrepreneurs who can now place their **homemade goods on our marketplace in 800 categories**, such as kitchenware, accessories, souvenirs, toys, and more. Our platform assists in establishing online commerce and nationwide delivery from scratch, or launching a new sales channel for those already operating online.

Niche apparel brands have been given the opportunity to advertise on **Yandex Univermag, a dedicated section for local brands** on Yandex Market launched in 2022. Yandex Univermag selects new partners based on how unique their products are and some formal criteria. The store must have a certain number of products in its range, have own production or be an official brand distributor.

Crafts (RU) is another initiative that supports **small-scale production and traditional crafts**. The project brings together contemporary artists and local craftsmen such as weavers or blacksmiths who produce hand-made items for everyday use. There is also the **Link (Svyaz) project** implemented jointly with the Go Circle movement. As part of the project, we have engaged over 90 craftswomen from 59 Russian cities to knit sweaters using yarn made from recycled knitwear. In addition to supporting handicrafts, the Link aims to draw attention to the importance of responsible consumption.

>7,000

self-employed craftsmen placed their goods on Yandex Market as of the end of May 2023
Almost 3,000 as of the end of 2022

>100

niche local brands are represented at Yandex Univermag

40

workshops and manufactories have joined the Crafts project

Ethics and Integrity

Information Security and Personal Data Protection

GRI 3-3   GRI 2-27

Millions of people entrust Yandex services with their data, and we fully acknowledge the immense responsibility for keeping them safe under any circumstances.

In 2022, the landscape of information security became significantly more challenging, with a surge in cyberattacks targeting businesses in Russia, including Yandex. Our robust information security system was put to the test, and we successfully thwarted numerous hacker assaults. Strengthening our control measures and implementing the necessary corrective actions, we remain steadfast in our commitment to protect user data and fortify the Yandex infrastructure.
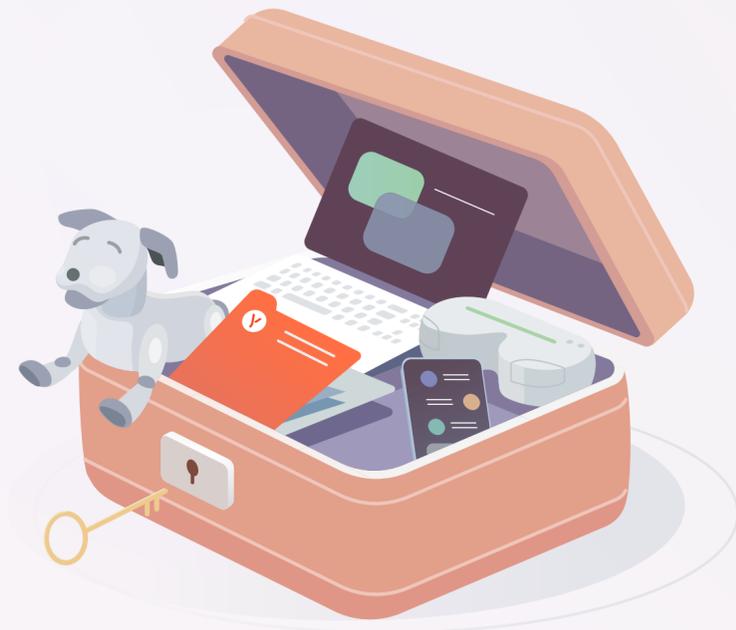
Information Security System

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

GRI 418-1   CG-EC-230a.2

Yandex has a designated Information Security Department that provides oversight of cybersecurity issues and is responsible for ensuring compliance with applicable legislation, international standards and Yandex's Information Security Policy, Security Development Lifecycle (SDL) procedures and other guidelines. It is also tasked with running vulnerability testing and monitoring risks, detecting and investigating incidents. The Chief Information Security Officer (CISO), who leads the department and is a member of the executive management team, provides regular updates to the Audit Committee of the Board of Directors.

We focus on proactive measures, continually enhancing our cybersecurity systems and procedures to meet the most stringent standards. Yandex services that handle, process, and store user data undergo regular internal and external audits, are certified to ISO 27001 and are SOC 2-compliant.

A Decade of Bug Bounty

In 2012, Yandex pioneered **Bug Bounty**, Russia's first program that rewards ethical hackers, or skilled volunteers who test our digital products for security vulnerabilities.

As our products continue to evolve and security controls become increasingly complex, the search for vulnerabilities requires even more skills and effort. To align with this heightened level of difficulty, we have doubled the rewards, starting with **vulnerabilities found on Yandex Eats** that could lead to data theft, promo code fraud, tampering with Yandex Plus points, and subsequently applying it **permanently** to all other types of bugs.

Since its inception, the Bug Bounty program has seen participation from approximately 4,500 researchers who have collectively reported over 16,000 vulnerabilities.

1.5 RUB M
maximum reward for reporting a vulnerability

Doubling
of the reward on a permanent basis

Incident Management

Cybersecurity risk monitoring is an ongoing process accompanied by proactive measures to detect vulnerabilities. We perform sensitivity testing and have clear protocols in place to guide our actions in the event of an incident. These measures are detailed in our **2021 Sustainability Progress Report**.

While we have been working hard over the years to build secure and reliable systems, greatly minimizing the likelihood of incidents, we remain vigilant. At Yandex, vulnerability monitoring is largely automated, with our systems tracking unauthorized access attempts to our services. To minimize the risk of malicious actions within the company, we regularly review access rights to our information security infrastructure, particularly regarding the processing of personal and sensitive data.

In 2022, we observed an increase in malicious interest targeting businesses' stored data. One such incident affected Yandex Eats in February 2022, resulting in a data leak related to food deliveries. User phone numbers and order details were exposed; however, logins, passwords, and banking information remained unaffected.

This incident stemmed from an attack on a third-party provider hosting our virtual machines and did not impact the Yandex infrastructure. We immediately engaged law enforcement upon discovering the incident and promptly notified all affected users. Yandex Eats has been recognized as the injured party; the official investigation is still ongoing. We are committed to transparent communication and share available information about the investigation's progress. The details about the incident are provided on **Yandex's official blog** (RU) and our **podcast** (RU).

We have taken measures to mitigate the risk of such incidents recurring. Notably, we have introduced an option to **delete order history within Yandex Eats** (RU). Furthermore, we have engaged ethical hackers through our Bug Bounty program to identify vulnerabilities in the service.

In early 2023, we experienced another incident wherein fragments of source code for certain services were leaked online. We issued a **press-release** (RU) addressing this matter. As of the publication of this report, we are conducting a comprehensive audit of the repository and implementing protective measures. These measures include reviewing employee access to internal systems and developing new guidelines for working with source code.

Personal Data Protection

Information Security and Personal Data Protection Certificates

All certifications are renewed annually.

- AICPA SOC2 **certificate**

- ISO 27001 **certificates** (AppMetrica and Yandex Metrica)

- ISO 27001, 27017, 27018, 27701 (obtained in 2022), PCI DSS and Cloud Security Alliance **certificates** (Yandex Cloud)

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. Additionally, we strictly adhere to a set of principles that guide our data processing practices. These principles include processing data for specific purposes only, not storing unnecessary data, limiting data retention to necessary periods, and empowering users to manage their own data. Detailed information regarding these principles can be found in our policies and regulations, including the **Privacy Policy**, **User Agreement for Yandex Services**, **Cookie Policy** and several other documents available on the **Yandex Legal Documents portal**.

We prioritize transparency in our handling of requests from the government agencies seeking personal data disclosure. Since 2020, our **Transparency Report** has been regularly updated on a semi-annual basis. In 2022, we received 40.5 thousand requests from government agencies, 26% up over 2021. The share of refusals to provide user data has remained stable over the last few half-years at 21%.

At Yandex, every employee is responsible for ensuring the safety of user data. Improper handling of personal data or any other confidential information is considered a violation of **Yandex's Code of Business Ethics & Conduct** (RU), subject to penalties that may include termination of employment. To prevent such incidents, we provide data protection training to our employees on an annual basis.

At the executive level, data privacy matters are overseen by the Chief Privacy Officer (CPO). The CPO acts as an intermediary between the Information Security Department and Yandex services that handle personal data. Their role involves ensuring the protection of user data across all operations, including data exchanges between Yandex services, data exchanges with partners, and other relevant instances.

Enhancing Personal Data Management

TC-IM-220a.1   CG-EC-220a.2   TC-SI-220a.1

In 2021, we introduced the **Personal Data Management Tool**, accessible through Yandex ID, to empower users with greater control over their personal information. This tool enables them to obtain a comprehensive copy of the personal data collected by Yandex services and request their deletion. By the end of 2021, deletion requests were supported by over 70 services, and in 2022, this capability was extended to **all major services**, including features such as order history in Yandex Eats. Upon receiving a user's request, the data are 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.

We have continuously worked to enhance the convenience of personal data management for our users. Previously, they received a single archive containing all their personal data collected by Yandex. However, we have now refined the system to enable users to request copies of their personal information accumulated by each individual service, providing them with more granular control.

Users of all

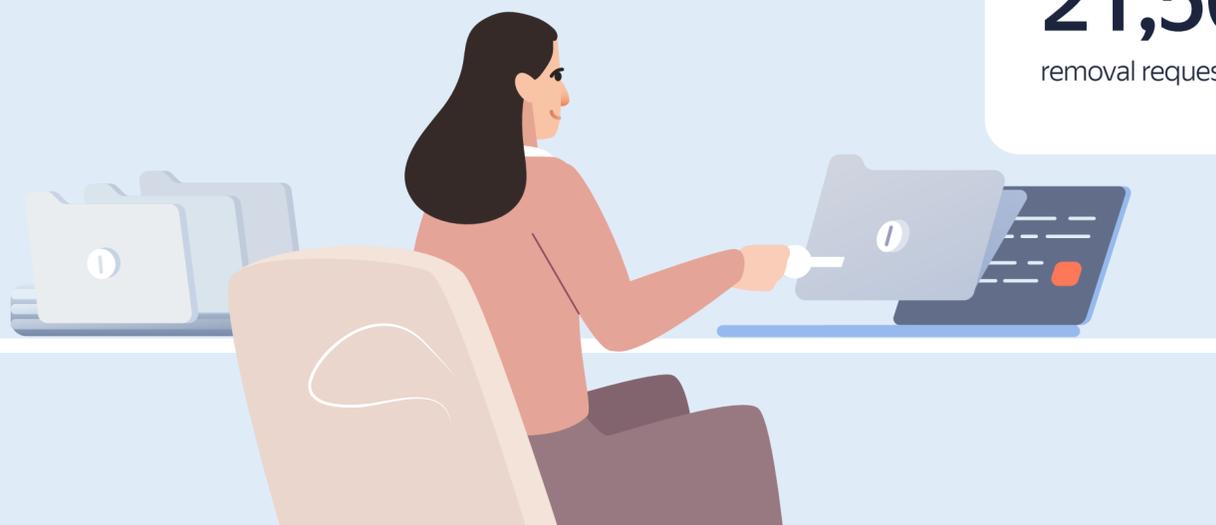major Yandex services can request and delete their archived data

An average of

7,200

download requests per month

An average of

21,500

removal requests per month

54

Personal Data Protection

Strengthened Account Protection in Collaboration with Mobile Operators

In 2022, we implemented an additional security mechanism to enhance the protection of Yandex ID accounts, complementing the two-factor authentication system introduced a year earlier. This innovative mechanism **verifies the user's phone number during login**. By analyzing anonymized data provided by our partner mobile operators, we can determine if there has been a change in SIM card ownership. This enables us to prevent unauthorized access to the account and keep it out of the wrong hands. If the SIM card owner remains the same, the system displays all accounts associated with the user's phone number. For users with multiple accounts, this new procedure ensures faster access to the intended account.

Furthermore, we prioritize the **security of user passwords** and compare password-related alerts[1] with databases of compromised passwords available in the public domain. Users with vulnerable passwords are promptly encouraged to update them.

250,000

phone numbers with changed ownership identified as of early 2023

These will be considered invalid when logging in to the previous owner's Yandex accounts

8 M

weak passwords identified during 2022 and recommended for updates
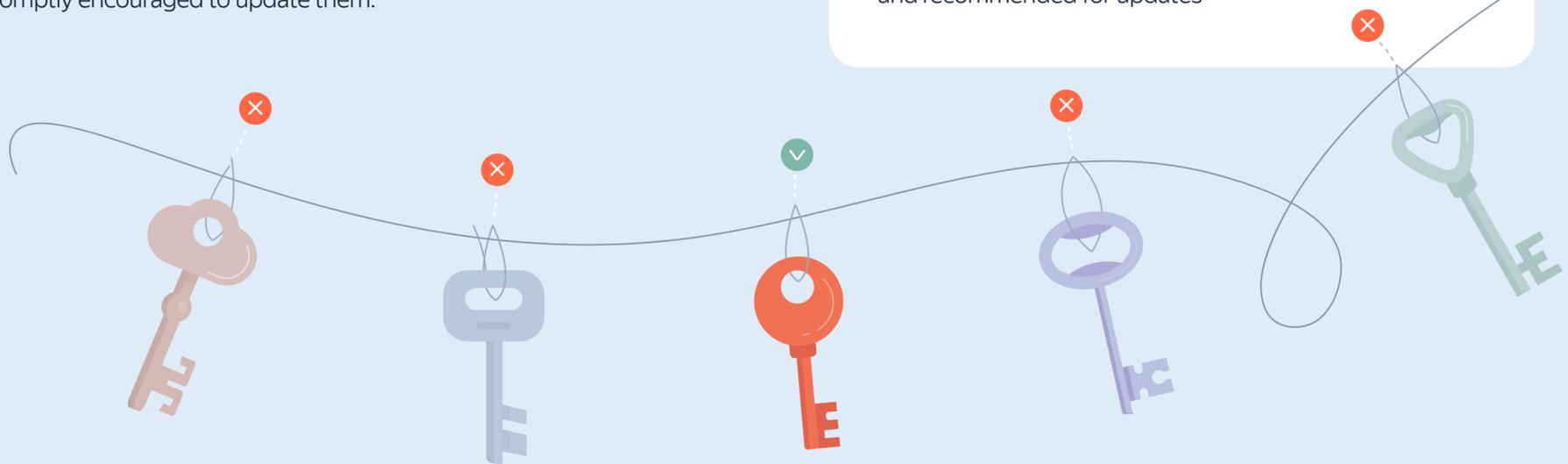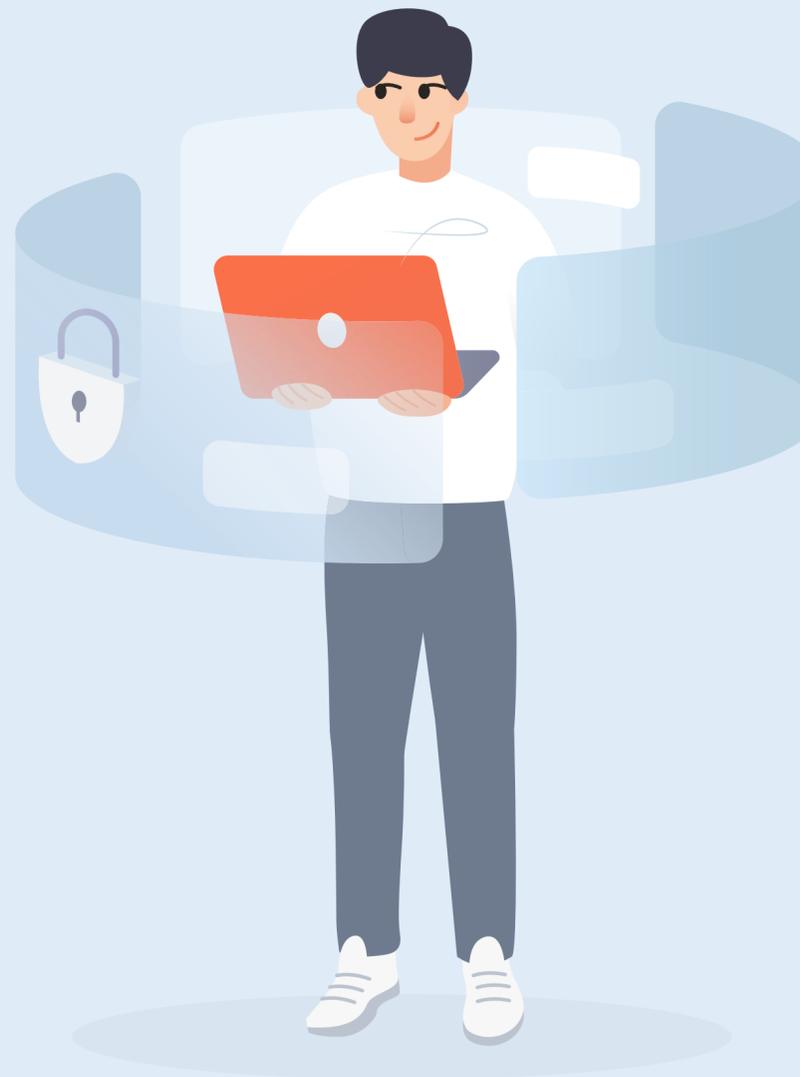
[1] For security reasons, Yandex does not store user passwords. When a password is entered, Yandex receives the information in encrypted form.

Quality Content and Safe Digital Environment

Digital solutions are increasingly integrated into people's lives, helping them quickly find what they need and access a wide range of services. However, just like in the real world, there are threats in the virtual space. Users may encounter actions from fraudsters and other malicious individuals.

We train our technology to identify malicious scenarios and protect users against online threats, and are working to create a safe digital environment for people of all ages.

Search Content

We strive to shield users of Yandex Search from inappropriate content and ensure that search results are of high quality. Yandex Search algorithms are attuned to make decisions based on an understanding of what users need and what information is valuable. Our search engine technology follows the ranking rules (RU) that determine low-quality pages. Forbidden links are removed from search results.[1]

Protection against Fraud and Spam

Yandex algorithms check web pages for malware and undesirable program files that may lead to data theft or compromised integrity of operating system components.

Our Yandex Protect Technology blocks suspicious and malicious webpages in Yandex Browser, scans downloaded files for viruses, prevents password theft and turns on a secure mode when the user accesses banking websites (disabling all browser add-ons and enabling strict validation of HTTPS certificates). As of late March 2023, the Protect database, which is updated regularly, contained tens of thousands of phishing and fraudulent website addresses.[2] We encourage users to report suspicious resources in order to help us improve the technology. In 2022, Protect blocked 75 million visits to potentially malicious websites.
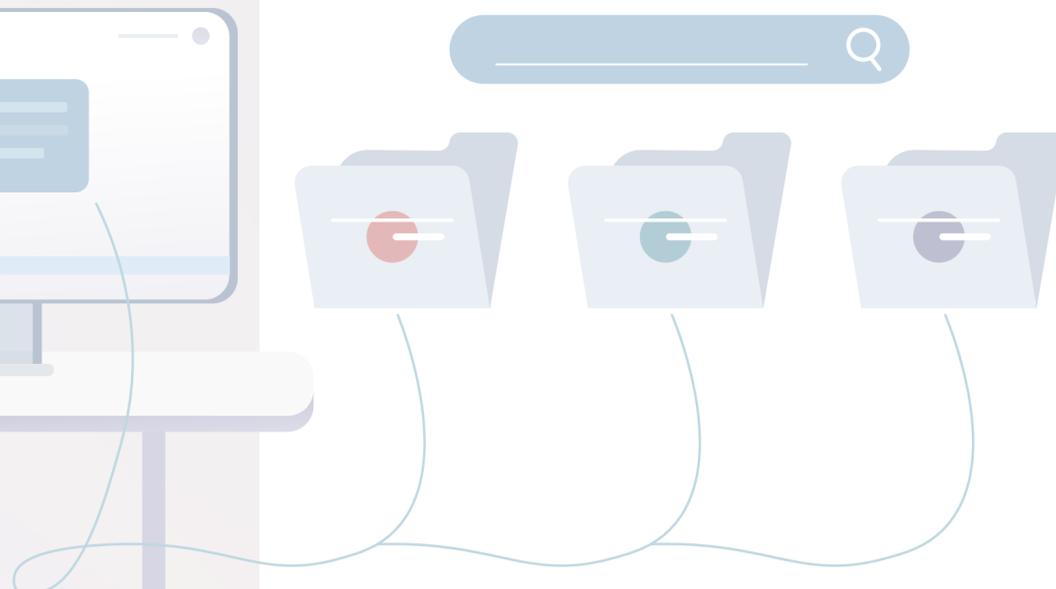
~75 M

clicks on suspicious websites prevented in 2022 with Yandex Protect

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[1] To comply with Russian laws, Yandex is required to remove search results that link to websites included on Roskomnadzor's register of prohibited websites. Results for such 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] Phishing is a type of fraud that involves gaining access to user passwords, bank card details and other personal or financial information. Phishing remains a key tool for cyber criminals. The stolen data is used to hack into accounts or transfer money from banks. According to the Anti-Phishing Working Group, the first quarter of 2022 saw a record number of phishing attacks (more than a million).

Protection against Fraud and Spam

Caller ID in Yandex App and Yandex Browser

Yandex App and Yandex Browser have a free Caller ID feature allowing users to identify spam calls, filter out text messages and protect themselves against scammers by blocking unsolicited calls. Some six million people take advantage of Yandex Caller ID every day.

The call blocker feature relies on a database of phone numbers compiled and updated by ML-algorithms based on call statistics, user feedback and data from the Yandex Business directory. Our call blocker has settings allowing users to select and block unwanted types of call manually. For instance, users interested in (micro-) loans may want to receive calls from lending organizations that are generally blocked. Spam calls are detected with an over 95% accuracy. The call blocker database includes more than 17 million phone numbers, with more than five million used at least once for fraud, advertising or surveys.

1.6 BN

calls handled by caller ID in Yandex app, of which 13% were identified as unwanted and one in a hundred as potentially fraudulent

Search Convenience and Accuracy

In 2022, we introduced the **Y2 update to our search engine**, which increased the **accuracy of search results for specialized enquiries related to programming**. This was enabled by **the CS YATI neural network** transformer, a new model trained on documents for IT specialists and assessments of programming experts. The neural network considers 1.5 times more parameters than its predecessor, YATI, leading to better search results for developers and ML specialists and more convenient query navigation. For instance, the user will see additional information on the topic directly in the search results, including possible questions with answers, and other comments that might be useful.

The Yandex App and Yandex Browser have acquired an updated video search feature that makes foreign-language content more accessible to Russian-speaking audiences. The search results now include relevant foreign videos with a Russian voiceover. For more information about Yandex's other solutions making digital products more accessible to various user groups, please refer to the **Inclusive Environment** chapter.

We introduced the Russian voiceover of English-language videos on YouTube and other video-hosting platforms in Yandex Browser in 2021. Subsequently, we added more languages, including German, French, Spanish, Italian and Chinese,[1] as well as interactive subtitles for YouTube videos. In 2022, we launched **automated voice-over live stream translation**,[2] a unique feature available on Yandex Browser only. We also taught Yandex Browser to provide Russian translation of **video lectures** (RU) on Coursera and trained Yandex Search to return videos in foreign languages to search queries in Russian, adding a voiceover translation into Russian.

How Yandex Browser Live Stream Translation Works

Translating and dubbing live streams presents significant engineering difficulties. Neural networks face the challenge of starting translation while the sentence is still being spoken, lacking the complete context or the full audio track necessary for high-quality translation.

To overcome this challenge, we have designed an entirely new architecture using five machine learning (ML) models to deliver fast and top-notch voiceover for live streams. One neural network recognizes the audio and converts it into text almost instantly. The second model determines the gender of the speaker using biometric data. The third model extracts semantic snippets from the text by incorporating punctuation. The subsequent model translates the extracted portions, while the final one synthesizes speech in Russian and synchronizes it with the video.

For more information on the architecture of our live stream translation mechanism, please refer to our article **on Medium**.

[1] The Chinese language was introduced in April 2023.

[2] Live stream translation on YouTube. Is being publicly beta-tested.

Search Convenience and Accuracy

GRI 203-1

The latest Y2 update **simplifies the search experience for finding goods and services**. In addition to comprehensive indexing, our search engine leverages accumulated information about items or services to present convenient content summaries in the form of rich snippets and cards. This feature proves especially valuable when searching for medical specialists or educational opportunities online, typically involving laborious efforts to sift through and compare information across various webpages. With Yandex Search's extensive database, including nearly one billion product offerings, over 700,000 medical specialist profiles, and 60,000 educational course profiles, users can now obtain the information they need in a matter of seconds.

Moreover, we have introduced a product search functionality that enables users to **compare offers from different sellers**, including individual sellers and marketplaces, while also **checking for discounts**. Notably, discounts are only displayed if the new price is lower than the historical price, simplifying the decision-making process of selecting the optimal time for making a purchase.

Searching with Smart Camera

The Yandex App features Smart Camera that helps users identify products by barcode, label, and more, as well as recognize objects and translate text displayed on them.

In 2022, Smart Camera introduced a text recognition capability, supporting 47 languages and enabling users to conveniently save or copy identified text into messaging apps or conduct searches. This text mode is designed with accessibility in mind, catering to users with visual impairments and serving as an inclusive tool. The camera can effectively read cropped and inverted texts, providing guidance to blind users on how to position the camera or adjust angles to ensure optimal text recognition. For more information about Yandex's inclusive solutions, please see the **Inclusive Environment** chapter.

Protecting Children Online

As children grow older, their curiosity expands to various aspects of the world. To ensure a safe exploration environment, we have introduced **children's accounts on Yandex**. These accounts are specifically designed to safeguard minors against inappropriate content, including adult content and profanities.

Parents can create these accounts through their personal Yandex ID account or a Family account, where they can specify the kid's name and birth date, create login credentials, as well as set an appropriate age restriction for Kinopoisk (for example, 6+ or 12+).

The child's account **seamlessly integrates with Yandex Search, Yandex Music, and other Yandex services**. When activated, **Yandex Search** and **Yandex Browser** will automatically hide any disturbing content and adult websites, even if intentionally searched for by the child. **Yandex Music app** applies filters to eliminate tracks and audio content that contain offensive language. **Kinopoisk** adjusts its recommendations based on the user's age, suggesting only age-appropriate films and animated shows. Moreover, parents have the option to manage their child's screen time and remotely power off TVs, tablets, or any other devices using the Kinopoisk app.

Advertising Content

Yandex generates a substantial part of its revenue from advertising. We enable advertisers to deliver targeted, cost-effective ads across different platforms, including our own search results and other Yandex webpages, as well as on thousands of third-party websites that make up our Yandex Advertising Network. As an advertising platform, we strive to be a reliable partner for advertisers, offer relevant ads to different users, and ensure responsible placement of ads that will benefit all.

4.5 BN

ads are shown daily on Yandex's and partner websites

5.6 bn on peak days

66 M

non-compliant ads were rejected by Yandex

in 2022

151,000

fraudulent Yandex Direct accounts were permanently blocked in 2022

77,000 in 2021

Yandex relies primarily on automated moderation, utilizing robots to verify ads for compliance with the relevant laws and advertising rules and requirements. Our neural networks continue to monitor advertiser resources even after ads have been published. If the algorithms detect any changes in the website's subject matter or content, we conduct an additional manual check.

In 2022, Yandex continued its efforts to enhance user experience by ensuring the quality of advertisements. For business sectors riddled with unethical advertising, we have implemented an additional requirement for the display of contact and legal information on advertised websites.

To **provide transparency to users**, we have introduced our **Ads Control Panel**, accessible for ads on both Yandex's platform and partner websites. Through Ads Control Panel, users can obtain information about the seller, such as office and offline store locations, the duration of ad placements, website ratings, and user feedback. Users can also verify whether the page uses a secure connection, as the absence of such may indicate a potential risk for providing banking information. The panel also serves as a convenient tool to report any violations of Yandex's advertising policies. Reported ads are additionally reviewed and are removed if found to be non-compliant.

From a content customization standpoint, user interactions with Ads Control Panel provide valuable insights for Yandex's algorithms to **improve the relevance of ads**. For example, types of ads that are frequently hidden by users will no longer be displayed.

73 M

advertiser checks users make via Ads Control Panel each month (on the average)

We prioritize the advertiser experience and strive to ensure that ad moderation is convenient, fast, and accurate. In 2022, Yandex successfully **expedited the ad moderation process** without compromising the quality of outcomes. Certain categories of advertisers now benefit from a simplified procedure where they no longer need to provide licenses and other documents, as we can retrieve this information from official registers.

<60 %

of advertisers await a moderation decision for longer than 20 minutes

Compliance and Business Ethics

| GRI 2-23 | GRI 2-24 | GRI 2-26 | GRI 2-27 | GRI 205-2 | GRI 205-3 | GRI 206-1 |

Business Ethics and Anti-Corruption

At Yandex, we are committed to conducting our business with the utmost honesty and integrity. We maintain a zero-tolerance policy towards corruption and bribery,[1] firmly advocate for fair competition[2] while upholding the **corporate values** that we have cultivated over the years. These values encompass the development of services that benefit people, even if they may never become profitable, fostering honesty and open dialogue with our users, supporting competition, and respecting the local markets and cultures.

These principles are articulated in the **Yandex Group's Code of Business Ethics & Conduct**, which is mandatory for all employees. The updated version of the code became effective on February 1, 2022. We also expect our business partners to uphold the same principles, as outlined in the separate **Supplier Code of Conduct**.

These documents integrate provisions of international conventions, including the Universal Declaration of Human Rights, United Nations Guiding Principles on Business and Human Rights (UNGPs), International Labor Organization (ILO) Convention, and the UN Global Compact, among others.

To facilitate the reporting of breaches of business ethics, we have established a dedicated **hotline** that can be accessed by all Yandex employees, partners, and users. The hotline is operated by an independent provider and supports anonymous reporting. All reports are treated with the strictest confidentiality. The findings of investigations inform our subsequent actions, including any necessary disciplinary measures against the wrongdoer. Retaliation against good-faith reporters of misconduct is strictly prohibited.
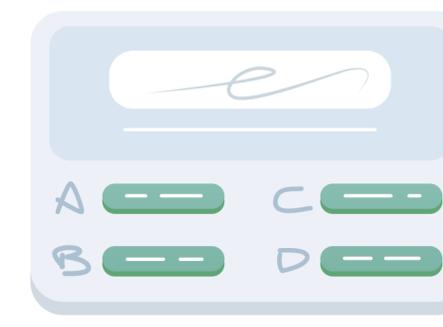
Ethics and Anti-Corruption Training

To reinforce our commitment to ethical conduct, all Yandex employees undergo mandatory annual training on business ethics.[3] The training is available in both Russian and English and covers topics such as anti-corruption measures, conflicts of interest, non-discrimination, respect for individual rights, protection of confidential information, and more. In 2022, we introduced a dedicated anti-corruption training course, providing employees with insights into high-risk situations and guidance on appropriate responses in accordance with our **Anti-Bribery Policy**.

During Yandex's annual **Compliance Week**, employees have the opportunity to test and reinforce their knowledge of ethical rules. In 2022, the program included engaging materials such as comics that depicted and addressed challenging ethical scenarios, a compliance quiz, and discussions on handling conflicts with the assistance of a certified psychologist. In 2023, we continued our comic series, delving into situations that pose risks of corruption, discrimination, conflicts of interest, and more. We also organized a meeting to foster discussions on communication free from harassment, setting personal boundaries, and respecting those of others. Additionally, we invited a film critic to our Film Club gathering, where we explored the selection of shows on Kinopoisk about ethical dilemmas in the workplace.


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[1] There were no violations of the applicable anti-corruption laws at Yandex in 2022: 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] Yandex was not found to be in breach of any antitrust laws in 2022. We are a big company that attracts considerable scrutiny. In 2022, Yandex received over 60 requests for information from the antitrust authorities.

[3] For statistics on completion of the business ethics and anti-corruption training courses, please see the **ESG Data Tables Annex**.

Compliance and Business Ethics

AI Ethics

We firmly believe that ethical principles must guide not only human actions but also artificial intelligence (AI). At Yandex, we have developed a set of **principles** that guide our AI solutions, encompassing safety, value for people, predictability, reproducibility, and lack of bias.

Similar concepts underpin Russia's first **Code of Ethics for Artificial Intelligence** (RU), which sets ethical guidelines for the development and implementation of AI. The Code represents a collaborative effort among industry leaders who have committed to upholding specific standards when creating AI-driven solutions. These standards include the respect for human rights, freedoms, autonomy, and will; the use of diverse data to mitigate the AI bias; the use of AI strictly for its intended purpose; and the safeguarding of personal data security.
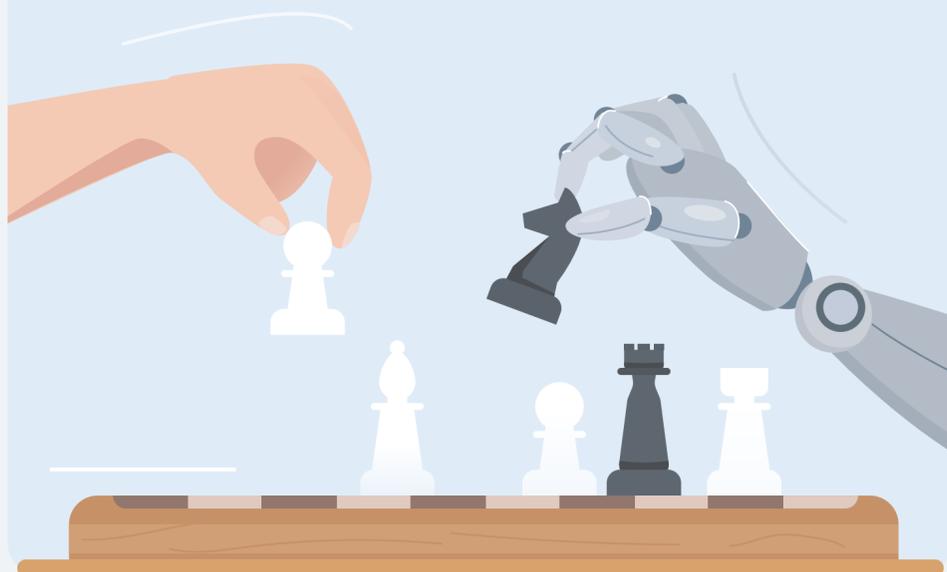
Intellectual Property and Copyrights

SV-ME-520a.1

Ensuring the protection of intellectual property and copyrights is of paramount importance in the development of safe digital products and the establishment of long-term partnerships. At Yandex, we safeguard our innovative products with patents, protecting our exclusive rights. In 2022 alone, Yandex received 873 patents, while an additional 248 patent applications were pending. Our focus lies in patenting complex technologies rather than individual products.

To protect third-party copyrights on the Internet, we remove links to web pages that might have been reproduced illegally, if these links are reported by the copyright holder. This procedure is outlined in the Memorandum of Cooperation for Protecting Exclusive Rights, which Yandex signed in 2018. The number of links removed at the request of copyright holders is disclosed in our **Transparency Report**.

43.8 M

links were removed from Yandex search results at the request of copyright holders

in 2022

76.4 M

links have been removed

since the signing of the Memorandum in October 2018

61

Responsible Procurement

At Yandex, we place a strong emphasis on cultivating trustworthy partnerships with our suppliers. Our objective is to collaboratively develop a resilient business environment and establish robust supply chains that can withstand external challenges. To achieve this, we have implemented rigorous procedures for supplier selection and fostered strong relationships that guarantee the delivery of high-quality services. We also provide convenient communication tools to facilitate effective communication and encourage open dialogue.

Throughout 2022, our supply chains faced various challenges, including exchange rate fluctuations, the departure of long-term partners from the market, and increased shipping times. However, we successfully developed an adaptable procurement model that enables us to meet our business needs while ensuring mutually beneficial conditions for both Yandex and our suppliers.

>20,000
suppliers[1] partnered with Yandex in 2022

>4,600
small businesses were Yandex's suppliers in 2022

GRI 204-1

[1] 75% of Yandex's procurement budget (excluding the MLU B.V. group) was allocated for purchases from local suppliers. The MLU B.V. group (as of 2022, a joint venture between Yandex Taxi and Uber managing Yandex Taxi and Yandex Drive services) maintains separate accounting. In 2022, it allocated 93.5% of the procurement budget for purchases from local suppliers. Local suppliers are legal entities operating in the Russian Federation.

We expect all our suppliers to adhere to the ethical principles outlined in the **Yandex Group Supplier Code of Conduct**. In addition to promoting good-faith practices such as anti-corruption compliance, we prioritize the respect for human rights and freedoms, the prevention of discrimination, the provision of safe working conditions, fair compensation, and a healthy work-life balance. Furthermore, we expect our vendors to share our environmental goals by responsibly utilizing resources, correctly disposing of waste, and optimizing material usage to minimize their environmental impact.

Supplier Engagement

GRI 2-6

The procurement process is regulated by supplier selection procedures. They serve as guidelines for the procurement department employees and procurement initiators, specifying the rules for placing orders for various goods and services, as well as the criteria that future contractors must meet. Basic supplier evaluation is automated, while special criteria are analyzed manually.

To make it easier for suppliers to interact with us, we launched a dedicated **Suppliers Section** on the company's website in 2022. It contains information on how to become a Yandex supplier, how the document flow is organized, and the points of contact for inquiries.

Supplier Engagement

Electronic Document Management System

In 2022, we continued connecting our suppliers to the Electronic Document Management System (EDMS), and by the end of the year, more than half of our contractors were using the EDMS. Transitioning to the EDMS helps improve the efficiency of procurement procedures by accelerating document processing, saving on consumables, and reducing administrative costs. As a result of the savings achieved through the EDMS in 2022, Yandex can purchase 67,000 snacks for our offices that are particularly loved by our employees.

>50 %

of suppliers used the EDMS when working with Yandex

as of early 2023

Sustainable Office Supplies

We purchase office equipment that has the necessary energy efficiency and sustainable material use certifications.[1] For instance, the plastic components of procured computer mice contain a recycled content ranging from 60% to 75%.

At Yandex, we have established environmental requirements for the procurement of office consumables. These requirements encompass the use of sustainable materials, environmental certification, and the promotion of refillable products.

We have made conscious choices in selecting personal hygiene products. Products such as wipes are made from recycled materials, while cleaning supplies have environmental certificates.[2] Additionally, we have transitioned from aerosol sprays to water-based and gel air fresheners. In 2022, we discontinued the use of disposable paper cups, which were previously distributed at office kitchens as a part of anti-COVID measures. Furthermore, we have implemented refillable dispensers to replace cartridge dispensers.

Our procurement team leverages office attendance statistics to effectively plan and optimize the purchase of food products, office stationery, and cleaning supplies. This data-driven approach enables us to make informed decisions and streamline procurement processes.
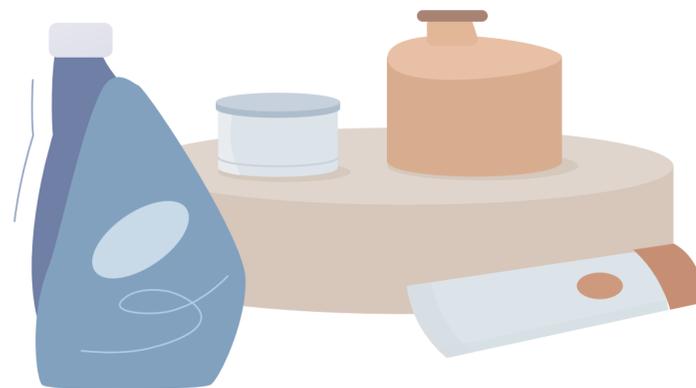
The use of

28 MT

of disposable paper cups was avoided in 2022 as we ceased to offer them in office kitchens

[1] The use of recyclable content is confirmed by SCS Global certificates.

[2] Cleaning products (e.g., detergents) are EU Ecolabel certified.

Environmental
Impact

Energy Efficiency

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

We have been investing in energy efficiency to make sure we do more with fewer resources, reducing operational costs, prolonging the lifetime of the equipment powering Yandex's services, as well as optimizing our environmental footprint. Additionally, we have implemented energy-saving service features and modes for users, allowing them to improve battery life on their devices.

Yandex Data Centers

As of the end of 2022, Yandex operated four data centers in Russia and one in Finland, and is currently constructing a new data center facility in Russia.

In 2022, the total electricity consumption of our data centers was up 6% compared to 2021. This growth is attributed to the expansion of our data centers, resulting in higher loads on our computing equipment. Heat consumption also experienced an 11% rise. 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 has also increased year-on-year due to the need for diesel power generation at the Mäntsälä facility for a few months. This was necessary due to challenges faced during the renegotiation of the energy supply contract.

On the other hand, natural gas consumption decreased by nearly a quarter (24%). 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. These units come into play when the outside air temperature exceeds the permissible operational threshold, prompting the free cooling mode to automatically switch to air recirculation mode with air cooling. The decrease in natural gas consumption can be attributed to the cooler summer experienced in 2022.

1.15

average annual PUE[1] of Yandex data centers commissioned in the past ten years. This level has been maintained since 2020.

The efficiency metric includes all sources of overhead energy and facility performance throughout the year.

4 TIMES LESS

overhead energy used by server equipment compared with the global average[2]

↓25–50%

less power consumed by Yandex supercomputers to do the same job as a computer with a conventional architecture
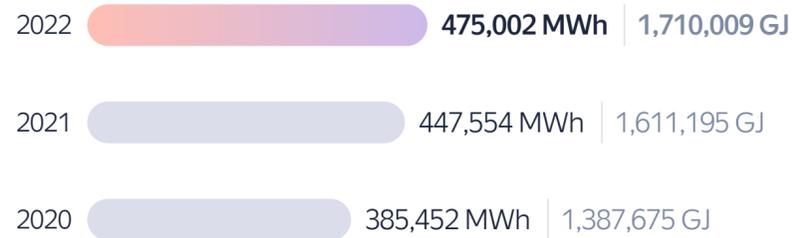
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[1] PUE (Power Utilization Efficiency) is the ratio of the total power consumption of a data center to the energy delivered to computing equipment. The lower the PUE, the more efficient the energy consumption. The ideal PUE is 1.0.

[2] Energy consumed by a data center for maintenance on top of every watt used for computing. The overhead energy consumption at Yandex data centers commissioned in the past ten years was 15% in 2022. According to the Uptime Institute' 2022 Data Center Industry Survey Results, the global average was four times higher at 55%.
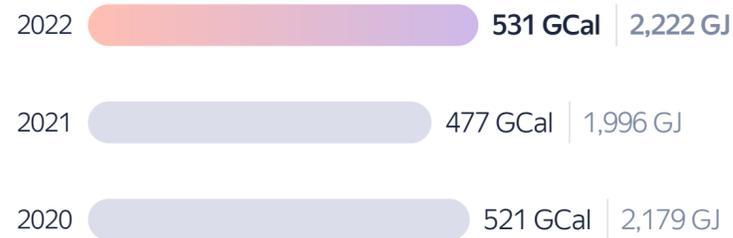
Yandex Data Centers

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

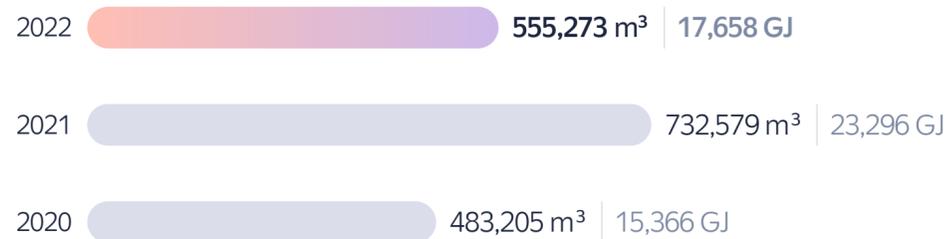GRI 302-3

Total electricity consumption, MWh and GJ

Year		
2022	**475,002 MWh**	1,710,009 GJ
2021	447,554 MWh	1,611,195 GJ
2020	385,452 MWh	1,387,675 GJ

MWh/GJ conversion factor: 3.6

Heat consumption, GCal and GJ

Year		
2022	**531 GCal**	**2,222 GJ**
2021	477 GCal	1,996 GJ
2020	521 GCal	2,179 GJ

Gcal/GJ conversion factor: 4.184

Natural gas consumption, m³ and GJ

Year		
2022	**555,273 m³**	17,658 GJ
2021	732,579 m³	23,296 GJ
2020	483,205 m³	15,366 GJ

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

Diesel consumption, liters and GJ

Year		
2022	**1,076,559 l**	36,172 GJ
2021	80,852 l	2,717 GJ
2020	60,783 l	2,042 GJ
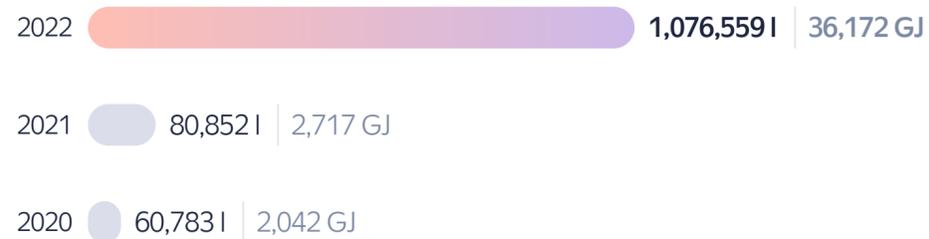
Inputs used for conversion to GJ: petrol calorific value per liter = ~0.0336 GJ

In 2022, the average PUE[1] for all data centers was 1.25 (1.26 in 2021; 1.25 in 2020; 1.28 in 2019). The average PUE of the data centers commissioned in the past ten years was 1.15 (1.15 in 2021; 1.14 in 2020; 1.18 in 2019), in line with global peers and by 26% better than the global average (1.55 in 2022). The insignificant decline in this efficiency metric compared with the previous year is due to the rounding up of the average PUE of individual data centers.

In 2022, data centers consumed 24,611 MWh of green electricity: from January through April 2022, the energy needs of the Mäntsälä data center were covered with wind power. In the total annual electricity consumption of data centers, the share of green energy reached 5%.

[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.
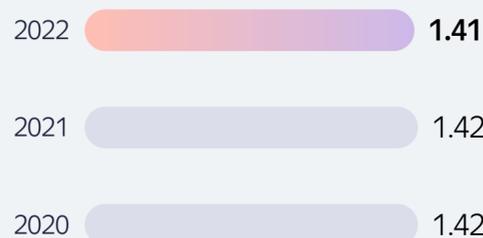
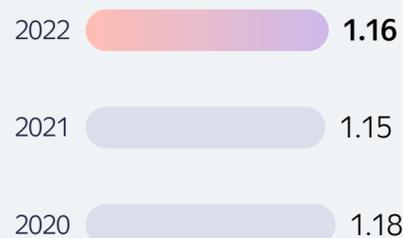# Yandex Data Centers

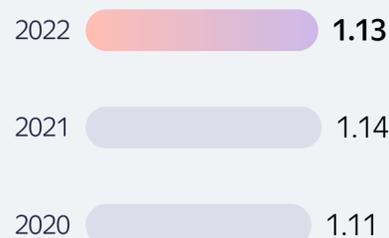## PUE of Data Centers

GRI 302-4

DC Ivanteevka
Constructed in 2008

2022	**1.41**
2021	1.42
2020	1.42

DC Sasovo
Constructed in 2012

2022	**1.16**
2021	1.15
2020	1.18

DC Vladimir
Constructed in 2017

2022	**1.13**
2021	1.14
2020	1.11

DC Mytishchi
Constructed in 2009

2022	**1.41**
2021	1.42
2020	1.41
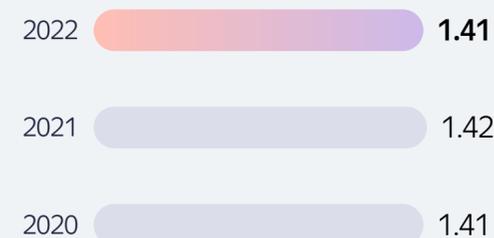
DC Mäntsälä
Constructed in 2014

2022	**1.17**
2021	1.16
2020	1.14
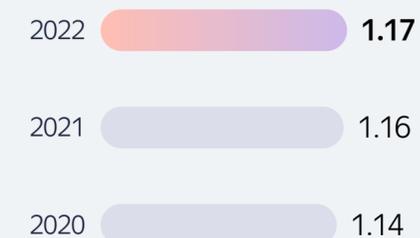
Energy Efficient Solutions

To maintain the world's leading levels of energy efficiency, Yandex invests in cutting-edge solutions, 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, positioning them among **the top 50 most powerful supercomputers globally** in 2022. These supercomputers consume 30% to 50% less energy for computations than servers with standard architecture, all while delivering twice the performance. Additionally, they incorporate an optimized heat dissipation system, effectively minimizing energy consumption required for cooling purposes.

Free Cooling

Server equipment gets heated during operation. To cool the server racks, our data centers utilize a technology called free cooling. The free cooling systems bring filtered outdoor air into the server rooms, while returning the heated air back into the atmosphere. To increase the efficiency of free cooling and reduce energy consumption for ventilation, the buildings are designed to separate the hot and cold air streams. The implementation of free cooling also eliminates the need for water and refrigerants in air conditioning systems.

Waste Heat Recovery

Waste heat recovery helps reduce energy expenses. Heat recovery is employed in the Mäntsälä data center. Here's how it works: during the cold seasons, the hot air generated by the servers, which can reach temperatures of up to 55°C, is used to heat water. Municipal utilities further heat the water to the required temperature using heat pumps, which is then directed for heating residential buildings. On average, 20,000 MWh of server heat per year is recovered to heat the town, equivalent to the energy consumed by approximately 2,500 Finnish households for heating their homes throughout the year.[1]

Heat sales, Mäntsälä Data Center,
MWh

2022	**20,103**
2021	21,850
2020	20,983
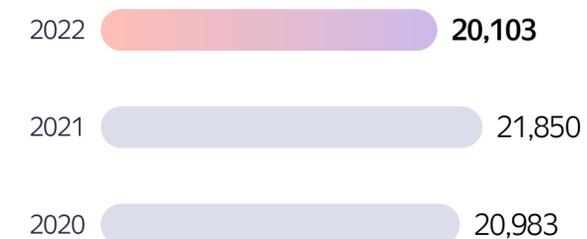
[1] Assuming that a household consists of three people living in a detached house. According to **data** provided by a Finland-based energy producer, such a household may consume up to eight Mwh of electricity per year to heat their home.
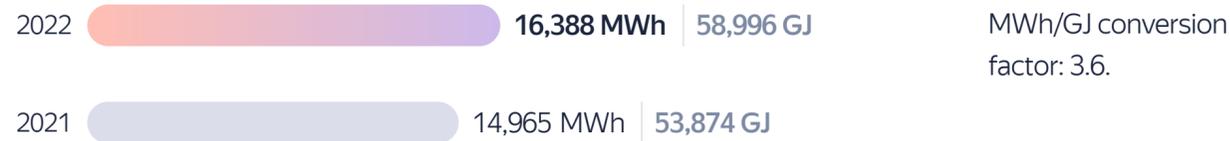
Yandex Offices

In 2022, energy use in Yandex offices grew by 14% compared to 2021. This can be attributed to both the expansion of office space and an increase in the number of employees working on site. The aggregate energy consumption of offices in the Krasnaya Roza, Avrora, Lotte Plaza and Oko business centers in Moscow (over 60% of Yandex's office area in 2022) increased by 10%, while their aggregate heat consumption fell by 4% due to milder temperatures during the heating season.
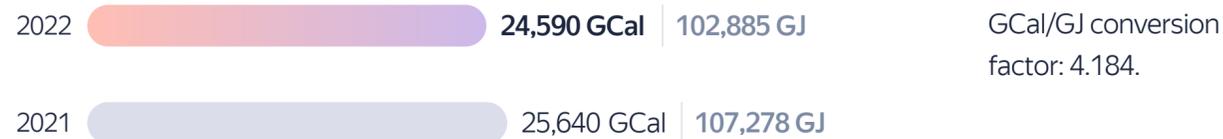
Energy use figures for Yandex offices are provided in the **ESG Data Tables Annex**.

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

Electricity consumption at offices in the Krasnaya Roza, Avrora, Lotte Plaza and Oko business centers, MWh

| 2022 | **16,388 MWh** | 58,996 GJ | MWh/GJ conversion factor: 3.6. |
| 2021 | 14,965 MWh | 53,874 GJ | |

Electricity consumption at offices in the Krasnaya Roza, Avrora, Lotte Plaza and Oko business centers, GCal

| 2022 | **24,590 GCal** | 102,885 GJ | GCal/GJ conversion factor: 4.184. |
| 2021 | 25,640 GCal | 107,278 GJ | |

Saving Energy with Yandex Services

We integrate solutions that enable efficient electricity consumption by devices during user interactions.

Kinopoisk and **Yandex Music** employ advanced algorithms to compress media files, thereby optimizing traffic consumption when users engage with audio and video content. This approach maintains high sound and video quality while reducing the load on user devices, communication networks, and server equipment, resulting in lower electricity consumption. With a growing subscriber base and expanding content libraries, traffic optimization has become increasingly crucial. In 2022, Kinopoisk and Yandex Music users consumed over 400 petabytes of streaming traffic per month.

Yandex Weather utilizes an **energy-efficient computing** model powered by machine learning. This model streamlines the operation of weather modeling algorithms that analyze satellite images, radar data, user feedback, and other inputs to calculate the probability of various weather conditions, including precipitation, in the upcoming hours.

In **Yandex Browser**, users can benefit from the **energy saving mode** (RU), which optimizes device energy consumption when not connected to a power source. For example, it reduces background tab activity, stops playing videos and disables animations. Additionally, the **Yandex Smart Home** system supports automated modes for home devices and appliances, helping users save energy. Users can turn off lights or adjust their brightness and schedule the shutdown of devices as needed.

30 %

average monthly traffic savings per Kinopoisk and Music user thanks to media file compression algorithms
in 2022

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

Even digital businesses inevitably generate waste, which comes in many forms, from office waste, such as outdated equipment, to waste from operational processes, such as the packaging used for damage-free delivery of orders made through Yandex services.

Effective handling of waste is important, both for the success of the business and the preservation of the environment. The initiatives we have implemented in recent years serve as evidence of cost-cutting through packaging optimization and material reuse, with recycling allowing to capitalize on secondary materials.
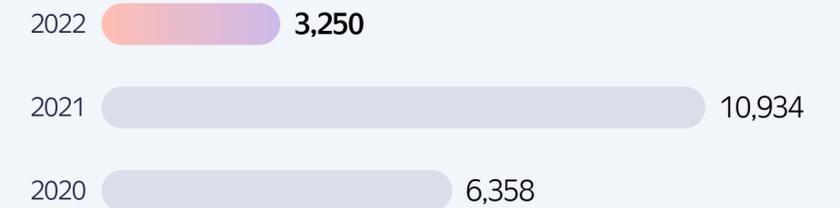
Delivery Services

Yandex Market

Delivery Packaging Optimization

Yandex Market works to balance the convenience of shopping experience, damage-free storage and shipment of products purchased on our marketplace with the sustainability of the delivery process. In 2021, we set the goal of optimizing delivery packaging to ensure its reduced environmental impact while not compromising the safety of goods during transportation.
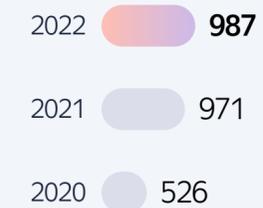
In 2022, Yandex Market delivered twice as many orders to users as in 2021. At the same time, use of packaging materials decreased by 70%, from 10,900 metric tons in 2021 to 3,200 metric tons in 2022, owing to the delivery packaging optimization measures introduced in late 2021.

97 %

of Yandex Market delivery packaging is recyclable
and 70% is made of reused or recycled materials.

>3,000 MT

of packaging waste generated at Yandex Market's logistics centers were sent for recycling
in 2022

>5,000 MT

of wooden pallets were reused

Volume of packaging used in Yandex Market, metric tons

Total packaging used

2022	**3,250**
2021	10,934
2020	6,358

Of which from virgin materials

2022	**987**
2021	971
2020	526

69

Optimization Measures

↓ Two-fold

reduction in packaging costs per order in 2022

against the backdrop of a doubling of monthly orders and a materials procurement price rise of **up to 45% year-on-year**[1]

The use of

>1,600 MT

of cardboard and paper filler was avoided thanks to the packaging diversification measures in 2022

The use of recyclable courier envelopes that substituted cardboard packaging increased by 154 metric tons

Fit-to-Size Packaging

Packaging is automatically selected according to the size of goods specified by partner sellers. Our packers additionally check that the size data are correct. For goods with non-standard measurements, the system's choice can be adjusted manually.

Optimization of packaging size allows empty spaces to be eliminated and the amount of fillers reduced, as well as for fewer vehicles to be used for transporting the orders.

Diversified Delivery Packaging

In January 2022, we started introducing courier envelopes featuring adhesive flaps as an alternative to carton boxes, the then-major delivery packaging option used by Yandex Market. The envelopes are designed with sustainability in mind: are composed of 30% recycled materials[2] and can be recycled in locations of Yandex Market operation.

The envelopes are used to deliver orders consisting of non-fragile goods in various categories, such as apparel, books or everyday goods in damage-proof original packaging. By employing courier envelopes, we eliminate the need for additional filler materials typically required when using boxes. The envelopes provide a secure and snug enclosure, safeguarding the items during transit. This not only helps us save on paper-based fillers but also conserves valuable resources required for their production. To prevent shipping damage, we continue packaging fragile and high-value items in cardboard boxes, which are made from 100% recycled materials.

Elimination of Redundant Packaging

We have analyzed the conditions required for damage-free delivery of different categories of goods, revised the rules for delivery packaging, and have been deploying solutions for using the quantity of materials precisely needed to ensure safe transportation.

We no longer wrap or box goods that are in damage-proof original packaging, such as pet food or drink packs. We have also determined that the proper assembly and closure of small- and medium-size delivery boxes can be ensured by one layer of adhesive tape instead of two. As a result, we used 64% less adhesive tape in 2022 than in 2021. Use of additional protection inside the transport packaging is still required for fragile goods or goods where separate storage is necessary (e.g., due to food safety requirements).

In late 2022, Yandex Market started experimenting with packaging-free solutions for order transportation between fulfillment centers and pickup points. Rather than dispatching fully packed orders in boxes or courier envelopes, we place individual items into secure returnable crates. The items then get sorted into orders by pickup point operators. By the end of May 2023, over 50,000 orders were delivered in returnable crates to over 300 order pickup points in Moscow participating in the experiment.

Over

50,000 ORDERS

were delivered in returnable crates to pick-up points in Moscow
as of the end of May 2023

[1] This rise in cardboard box procurement prices is calculated based on data from our accounting system. The procurement price for courier envelopes fluctuated within 10%.

[2] An option of increasing the share of secondary materials was unavailable owing to production limitations.

The Second Life of Goods on Yandex Market

GRI 306-2

From 2022, Yandex Market has been developing its **Discounted Goods department** (RU), which builds on the principles of responsible consumption. It offers new items in damaged packaging as well as used goods from trusted partners in a number of categories, including consumer electronics, car tires, baby pushchairs and constructor sets, premium accessories (handbags, sunglasses and accessories), as well as clothes and shoes of premium and mass brands.

> **>70** THSD

discounted goods were given second life
by the end of March 2023

since the Discounted Goods department was introduced in the Yandex Market app in December 2022. The most popular categories include mobile phones, car tires, headphones and memory modules

FoodTech Services

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

Sustainable Packaging Solutions

Yandex Lavka's Sustainable Packaging[1]

100 %

of delivery bags and item wraps

76 %

of food packaging units produced under the Yandex Lavka brand

63% is packaging from recyclable materials,
13% is packaging containing recycled materials

65 %

of the packaging units in the Ready-to-Eat food category of our own production and from suppliers

In 2022, **Yandex Lavka's** dark stores[2] and the ready-to-eat food plant sent nearly 2,000 metric tons of waste for recycling.[3]

The service strives to use sustainable packaging alternatives. **All delivery bags used by Lavka are made of sustainable materials**—high-density polyethylene (HDPE), 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 CO_2-equivalent was found to be 65% and 53% lower than that of two available alternatives, the kraft paper bag and the LDPE bag, respectively.[4]

Yandex Lavka has developed **sustainable packing guidelines** for private label suppliers. 76% of the packaging units for food products released under the Lavka brand were made from sustainable materials (recyclable or containing recycled content). The percentage has slightly decreased from 84% in 2021 due to a greater sales of meat and frozen semi-finished products, for which recyclable alternatives are not available in the market— as well as because of the forced replacement of some packaging types due to supply chain disruptions.

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[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 of secondary materials cannot be used to pack some food products.

[2] To explore how express delivery works and what infrastructure it uses, please see this **article** (RU).

[3] The known volume of waste, may differ from the actual. Availability of data on waste generation and transfer for recycling at some warehouses is limited. The quantitative data are presented in the **ESG Data Tables Annex** to the Report.

[4] Within the LCA, we compare the global warming potential (measured in CO_2-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 packing selection process, and was performed in accordance with ISO 14040 and ISO 14044.

FoodTech Services

Sustainable Packaging Solutions

Circular Solutions in Yandex Lavka

Yandex Lavka employs pooling when transporting goods from its own ready-to-eat food production facility in St Petersburg in reusable plastic crates and pallets. This approach allowed the service to avoid using over 180 metric tons of cardboard boxes and 300 metric tons of non-returnable wooden pallets in 2022, which would have become waste. Reusable containers, such as returnable warehouse crates, are also used to move goods between dark stores and distribution centers. In 2022, we leased 170 tons of such crates, which is a 68% increase compared to 2021.

The use of

487 MT

of non-returnable packaging and pallets[1] was avoided by Yandex Lavka in 2022 by adopting circular solutions for delivering ready-to-eat food from production to distribution centers.

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

For instance, Yandex Eats and Market Delivery[2] **stopped including disposable utensils in orders**. Ready-to-eat food from restaurants now comes with utensils only if the user explicitly requests it. In 2022, 79% of restaurant and café orders were delivered without utensils, resulting in saving over 200 metric tons of plastic.

To make it easier for users to understand whether packaging is recyclable, Yandex Lavka **has added recycling codes** to the cards of private label goods and ready-to-eat food supplied by vendors. We have also updated the **portal with useful tips** (RU) on preparing packaging for recycling. Recyclable waste collection points can be found on Yandex Maps, where we have added a dedicated layer with more than 24,000 collection points that have been verified by our external partners.

Recycling Collection Points on Yandex Maps

Now, finding where to recycle various types of waste, from paper and plastic to fluorescent lamps, household appliances, and car tires, is as simple as using Yandex Maps. Filters for different materials have been added to the profiles of organizations. Users can also simply type in their query in the search bar in a free-form manner, e.g., "Where to dispose of batteries", or scan QR codes that we have added to Yandex Market delivery boxes.

To ensure up-to-date information on Maps, we collaborate with an external partner who works with more than 40,000 volunteers and 100 program moderators.

>24 THSD

verified recyclable waste collection points in 54 Russian cities have been added to Yandex Maps

21

filters by material are available

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[1] This includes 185 metric tons of cardboard boxes and 303 metric tons of non-returnable wooden pallets. The calculation of the cardboard box equivalent uses the box weight, size and volume that corresponds to a reusable crate, while the calculation of the wooden pallet weight is based on their average weight (20 kg).

[2] The purchase Delivery Club (known as Market Delivery from June 5, 2023) was completed on 8 September 2022.

FoodTech Services

Processing of Write-Offs

GRI 306-2   GRI 306-3   CG-EC-410a.2

Yandex Lavka prioritizes the delivery of fresh, spoilage-free products to its users. To minimize write-offs resulting from products that do not meet these criteria, the service employs a range of innovative solutions.

An automated assortment management system diligently monitors inventory levels and facilitates accurate procurement calculations. Additionally, the **automatic ordering software, Avtozakaz**, leverages extensive historical data to forecast demand at specific dark stores and generate orders for suppliers. This strategic approach ensures that the warehouse receives precisely the quantity of products that Yandex Lavka is highly likely to sell before the next delivery.

Furthermore, we continuously explore opportunities to enhance the user experience through sales optimization. For more details about our successful experiment in banana management, please refer to the box.

Managing Bananas

↓72 %

reduction in average monthly write-offs of bananas following the introduction of user features

To calculate the reduction, we compared average monthly write-offs in 1Q 2023 with the reference period of 1Q 2021, which preceded the launch of the ripening stage choice and individual banana purchase features

↓15 %

reduction in price of a single banana on Yandex Lavka

resulting from the lower cost of preparing the product for sale

Bananas are one of the most difficult food product categories to sell due to their rapid spoilage. Throughout the complex supply chain, preserving their freshness and delivering them to end consumers before they perish is of utmost importance. Yandex Lavka works closely with suppliers to ensure the product's quality remains intact during transportation. Additionally, the company employs a range of operational and product solutions to minimize banana write-offs and reduce their environmental impact.

With the help of advanced algorithms, the service calculates the inventory needs based on demand, seasonality, and user preferences. This enables us to determine the precise quantity of bananas to be supplied to each specific warehouse.

Previously, overripe bananas were typically removed from the shelves, but now they can be sold if requested by a user. In 2021, we introduced the **sale of bananas based on ripeness**, improving user experience and optimizing inventory management.

In late 2022, we implemented another solution: the option to purchase bananas individually. This provides users with the opportunity to reduce waste while also allowing Lavka to minimize additional costs associated with packaging. Previously, bananas could only be purchased in bundles of five, resulting in two bananas often going uneaten. More than half of our users have already chosen to buy individual bananas, **saving up to 33% of products** that would otherwise have been disposed of.

Office Waste Recycling

GRI 306-2   GRI 306-3   GRI 306-4   GRI 306-5

In 2021, we launched the green office Initiative to cultivate eco-friendly habits among our employees, who are important stakeholders of our environmental effort. This initiative not only promotes environmentally responsible behavior but also aims to maximize the benefits derived from it. In 2022, we reinvented a waste collection system and aligned it with Yandex's environmental and social responsibility principles. Currently, the funds raised from sending office waste for recycling are allocated to support Yandex's ongoing charitable initiatives.

514 RUB THSD

raised from sending office waste and e-waste for recycling allocated to the Helping Hand to support ongoing charitable initiatives

in 2022

10 %

of the revenue received from e-waste recycling program to be committed to community support programs

in 2023

Waste Collection System

Highlighted Results

Figures cover the period from July 2022 (the introduction of the revised waste collection system) to year-end

65 MT and 13 MT

of paper and plastic, respectively, were sent for recycling from Moscow-based offices

354 RUB THSD

raised in 2022 from recycling office waste,[1] to allocated to the Helping Hand to support ongoing charitable initiatives

Yandex introduced separate waste collection in its offices several years ago. In 2022, we **revamped the waste collection system in Moscow**, which encompasses 82% of the company's total office area. We have also implemented separate waste collection at eight regional offices (St Petersburg, Novosibirsk, Nizhny Novgorod, Ekaterinburg, Rostov-on-Don, Sochi, Kazan, and Voronezh), as well as at the AV service facility in Moscow. Our plan is to expand these best practices to other regions and our international hubs.
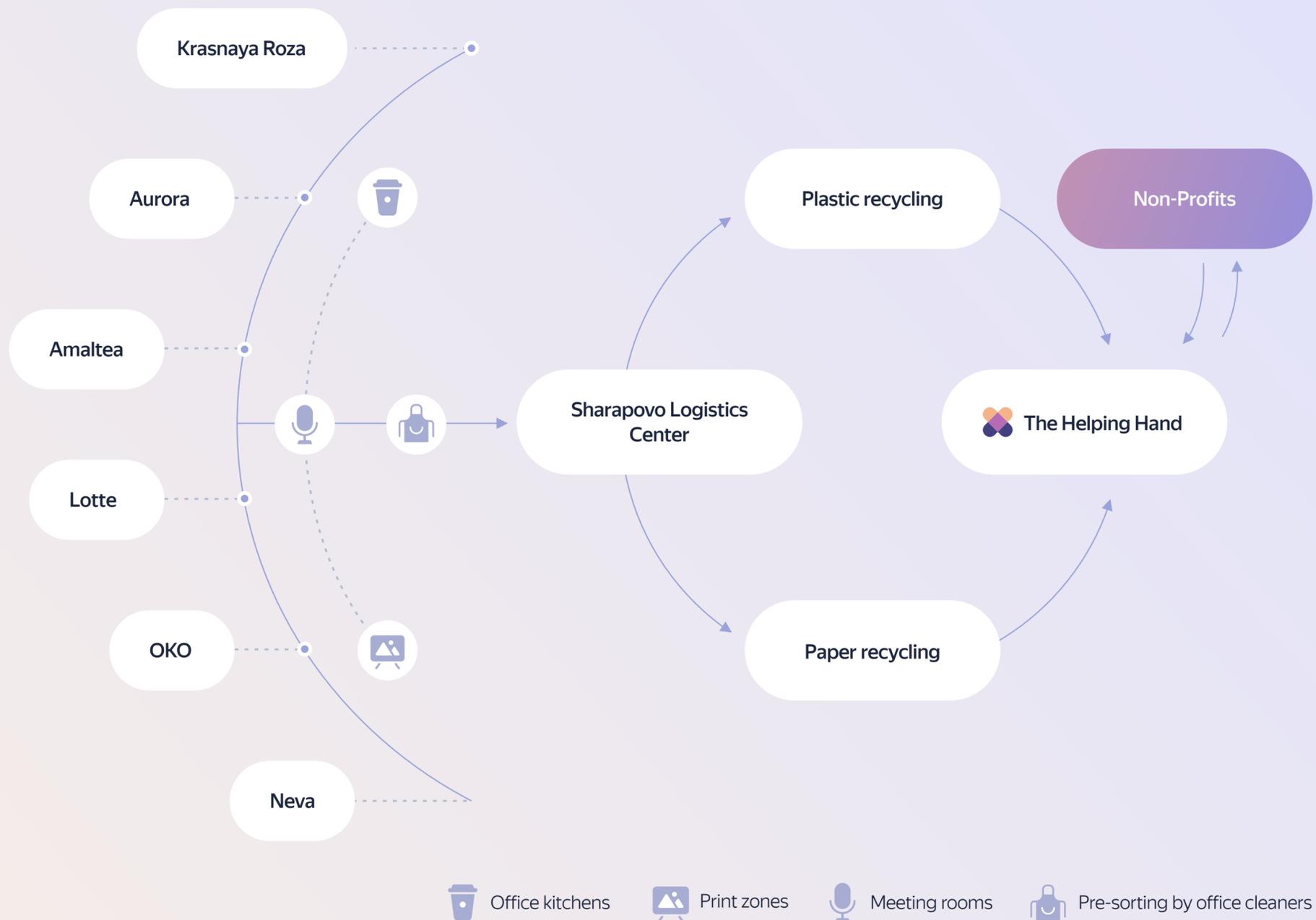
The new separate waste collection system is **fully transparent** and **efficient in terms of logistics**. In previous years, we sent waste separately from each office to regional operators. Now, we transport and store office waste at our logistics facility in the Moscow Region before sending it for recycling. We maintain precise knowledge of the route and destination of the recyclables through our collaboration with reliable partners who provide regular reports.

We have leveraged the system and **transformed it into the opportunity for employees to support our social effort**. Within six months of launching the separate waste collection (from July to December 2022), we earned RUB 354,000 from recycling cardboard and plastic. These funds were donated to the Helping Hand Foundation to support ongoing charitable programs.

[1] Funds accrued from the sale of recyclables collected in Moscow offices. In regional offices, waste collection incurs expenses for the company, as the amount of waste collected is small and Yandex bears the costs of waste sorting.

Waste Collection System

From Eco-Responsibility to Charitable Contribution: Waste Collection in Moscow Offices

Krasnaya Roza

Aurora

Amaltea

Lotte

OKO

Neva

Sharapovo Logistics Center

Plastic recycling

Non-Profits

The Helping Hand

Paper recycling

Office kitchens | Print zones | Meeting rooms | Pre-sorting by office cleaners

In 2022, we used some of the recycled office waste as raw materials for producing branded products for the Yandex Museum. In early 2023, a set of office stationery was introduced for sale, including memo pads made from wastepaper collected at offices, and pens crafted from coffee packaging and plastic bottle caps collected from office kitchens and meeting rooms.

In order to make it easier for employees to embrace eco-friendly habits, we use internal communications to deliver training in waste sorting. We also promote a culture of collaborative consumption at Yandex and engage colleagues in various environmental initiatives. For example, we arrange stuff swaps and organize bookcrossing.

To facilitate employees' adoption of eco-friendly habits, we provide training on waste sorting through internal communications. We also foster the values of the sharing economy by engaging employees in swap-and-share initiatives such as bookcrossing or "dejunking". The latter event took place in Moscow, St Petersburg and Yekaterinburg offices. Overall, we collected 350 kg of used items from workplaces (equivalent to the weight of seven refrigerators). Most of the items were returned to common areas, and those that could not be utilized were sent for recycling.

Our dedicated efforts in promoting environmentally friendly practices within office spaces have been recognized by the **Green and Healthy Office** and **Green Office Awards**. Yandex has been acknowledged for reducing solid waste generation, prioritizing employee comfort and wellbeing in offices, and demonstrating transparency in communicating environmental performance results.

75

Waste Collection System

Unconventional Waste Types

GRI 306-4

In addition to cardboard, paper, plastic, glass, metal, and Tetra Pak, we collect and recycle more uncommon waste fractions, such as textiles, batteries, and even electronic cigarettes. Clothing collection containers have been installed within our office premises in Moscow and St Petersburg. By the end of 2022, we successfully collected over 2 metric tons of textiles, with 55% being reused and 14% sent for recycling.

Battery collection is available in all our Russian offices, and we managed to collect nearly a ton within a year. In 2022, we also equipped our offices in Moscow and St Petersburg with bins for electronic cigarettes, and by the end of the year, these were also installed in other regional offices.

Other items in excellent condition that are no longer in use for various reasons are donated to charitable organizations. In 2022, Yandex donated 1.6 metric tons of such items to non-profit organizations.

E-Waste Recycling Program

GRI 306-4

Under an e-waste recycling program, we collect retired office equipment for reuse and recycling, and provide our employees with the opportunity to purchase fully functional but outdated equipment at discounted prices.

In 2022, we expanded the program to include personal devices previously owned by employees, which we now help collect and send for recycling or proper treatment.

Recycling of Personal Devices

We arrange for the recycling of personal devices or help them find new owners wihin Yandex.

583 KG

of personal equipment have been collected from employees and sent for recycling

>500 KG

of valuable materials containing metals, plastic, glass, etc. have been extracted[1]

the recovery rate exceeded 96%

Offices in

8 REGIONS

have implemented the initiative

[1] These materials can be transformed into ten vehicle hoods, more than 500 copper power cables, over 2,500 plastic hangers, or more than 300,000 paper clips. Additionally, 7.8 kg of precious metals were recovered.

E-Waste Recycling Program

Twice a year, we organize three types of collection points at our offices: for consumer electronics, power adapters, and data storage devices.

The bins for consumer electronics are specifically designed for small appliances such as microwave ovens, dryers, irons, kettles, routers, and fans. Desktop lamps without bulbs are also accepted, while air conditioners and split systems are not. Power adapters can be placed in the designated bins along with used cables, computer mice, keyboards, and headsets. Devices with data storage components, including laptops, computers, telephones, smartphones, tablets, flash drives, and hard drives, are collected separately in dedicated bins.

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, in which case the responsibility for deleting personal data lies with the original owner.

At a recycling plant, the devices undergo sorting, disassembly, compression, or melting, depending on their components. Materials and metals are extracted with the application of various methods including magnetic, eddy current, and induction separation. Our recycling partner provides detailed reports specifying the weight of materials recovered.

Reuse & Recycling of Retired Office Equipment

We re-use obsolete office equipment, offer it for sale to employees at affordable prices or send it for recycling. Starting from 2022, we have been offering some equipment in the **Discounted Goods department** on Yandex Market.

2,027

units of retired office equipment have been purchased by employees

85

pallet positions were reduced, resulting in lease expense savings of over RUB 700,000

>5.5 THSD

units of retired office equipment have been sent for recycling

Those include laptops, laptop accessories, monitors, displays, headsets and power adapters.

>3.7 THSD

computer accessories were being reused within Yandex

including cables, power adapters, computer mice and keyboards

160 RUB THSD

raised from the sale of company-owned cellphones in the Discounted Goods department on Yandex Market were allocated to the Helping Hand to support ongoing charitable initiatives

Carbon Footprint

We recognize the significant role that digital technologies, including those offered by Yandex, can play in mitigating and adapting to climate change.

However, we are also mindful of the carbon footprint associated with the lifecycle of digital products, which stems from the energy consumption required for computing and the offline operations supporting online services. Consequently, we annually assess the direct and indirect GHG emissions[1] associated with the operation of Yandex's data centers and other service infrastructure, along with monitoring the climate performance of individual services. The understanding of performance trends and factors positively and negatively affecting our carbon footprint is essential for us to effectively plan decarbonization measures.

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

In 2022, we focused on maintaining high level of energy efficiency as a key part of our decarbonization effort. In 2021, we also made an important step towards the greening of our electricity supply by entering into a power purchase agreement that was to ensure 100% coverage of the Mäntsälä data center with wind power. The agreement took effect in January 2022, and the data center procured 24,611 MWh of green energy through April 2022. Unfortunately, unforeseen external circumstances prevented us from sustaining cooperation beyond that period. We are currently exploring new opportunities to implement our plans for decarbonizing energy consumption.

[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. curs. 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

GRI 305-1   GRI 305-2   GRI 305-4   TR-RO-110a.1

Yandex's direct and indirect carbon footprint is attributable to its infrastructure, such as movable and immovable property managed by Yandex and supporting its operations.[2] The includes data centers, offices, logistics centers, as well as vehicles owned or leased by Yandex, such as self-driving cars and vehicles of the Yandex Drive car sharing service.

↑**4** %

increase in gross infrastructure GHG emissions (Scope 1 and 2)

compared to 2021

↓**29** %

decrease in the carbon intensity of the infrastructure per RUB 1 M of consolidated revenue
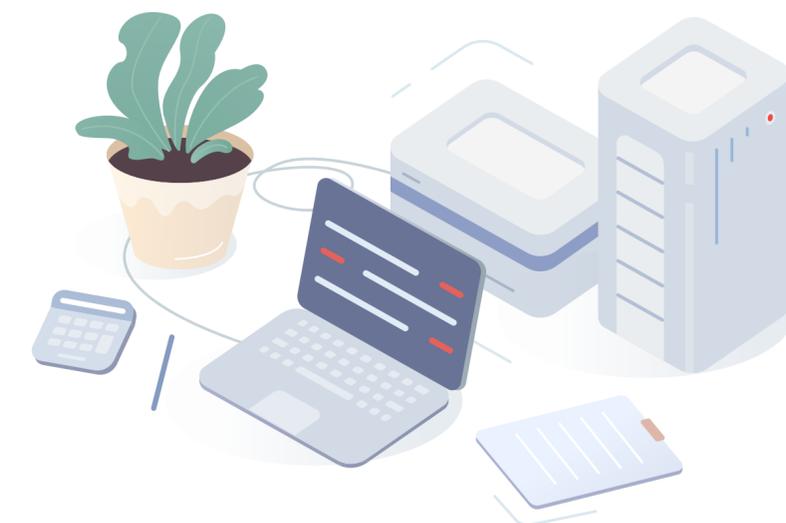
compared to 2021

↓**7** %

decrease in the carbon intensity of the infrastructure per 1 MWh of energy consumed

compared to 2021

In 2022, gross infrastructure GHG emissions grew by 3%, reaching a total of 264 thousand metric tons of CO_2e: direct emissions from the fuel used by vehicles and consumed for own energy generation (Scope 1) decreased by 9%, while indirect emissions from purchased energy consumption (Scope 2) increased by 12%. The decrease in direct emissions is associated with reduced fuel consumption by vehicles, while the increase in indirect emissions is attributable to business development and commissioning of new infrastructure facilities, resulting in higher energy and heat consumption.

Carbon intensity per million rubles of consolidated revenue decreased by 29% compared to 2021, from 0.72 to 0.51 tons of CO_2e. Among other things, this is a result of optimization that allowed profitability to be increased without any significant rise in energy cost. The optimization also allowed for the reduction in carbon intensity per 1 MWh of energy consumed[3] from 0.27 to 0.255 tons of CO_2e.

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.

[3] The total Scope 1 fuel consumption, as well as Scope 2 electricity and heat consumption converted to MWh.

Carbon Footprint of the Yandex Infrastructure

GRI 305-4

Carbon intensity (Scope 1 and 2),
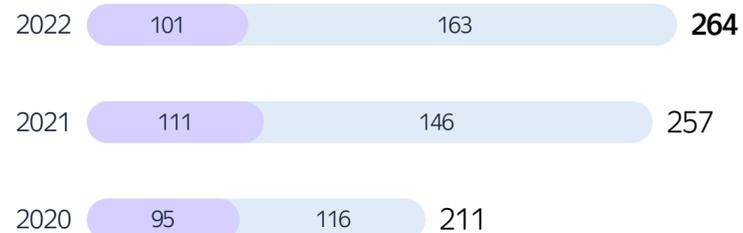metric tons CO_2e/RUB 1 bn of consolidated revenue

Year	Value
2022	0.51
2021	0.72
2020	0.97

GRI 305-4

Carbon intensity (Scope 1 and 2),
metric tons CO_2e/MWh

Year	Value
2022	0.26
2021	0.27
2020	0.27
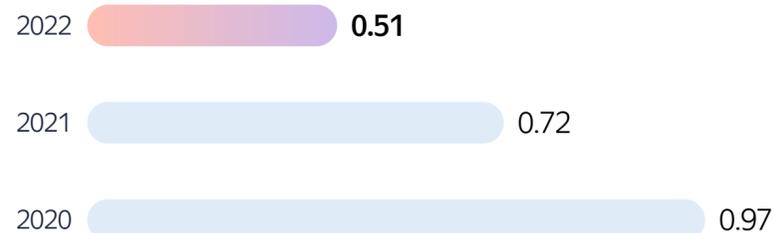
GRI 305-1   GRI 305-2

Gross GHG emissions (Scope 1 and 2),
thousand metric tons of CO_2e

Year	Scope 1	Scope 2	Total
2022	101	163	264
2021	111	146	257
2020	95	116	211

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

Carbon Footprint of Yandex Services

Digital Services for Decarbonization

GRI 203-1   GRI 305-5

Many of Yandex's digital products are designed to assist users in streamlining their activities, resulting in economic advantages and positive environmental impacts. For instance, minimizing travel time, cutting down the number of delivery vehicles, and migrating to an energy-efficient cloud infrastructure present opportunities to lower operational costs while simultaneously reducing the overall carbon footprint. Let us examine some of these solutions in more detail.

📍 Yandex Maps

Yandex Maps now offers the capability to optimize routes with multiple destinations, providing users with enhanced convenience and efficiency. Whether a person needs to visit up to ten places, they can enter them in any order within the application, and Maps will intelligently suggest an optimal route. This feature is applicable for walking, driving, and public transport routes, offering versatility for different modes of transportation.

Furthermore, users can select a specific departure date and time to plan their routes in advance. This is particularly useful for evening travel, long-distance journeys, or visits to public places like airports. By allowing users to plan ahead, this feature not only saves time but also has the potential to reduce fuel consumption and minimize the carbon footprint of travel, especially in high-traffic areas and during congested periods.

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Digital Services for Decarbonization

RouteQ

RouteQ 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, freight dimensions, traffic forecasts, and more, which cover all delivery models and any means of transportation. With RouteQ, customers can fulfil on average 20% more orders per delivery with fewer rides and vehicles, resulting in cost saving and improved carbon performance.

On average

19%

reduction in vehicle mileage following the application of RouteQ

>2 M LITERS

of diesel and petrol saved by RouteQ-optimized logistics fleet of Yandex Market

in 2022

5,035 MT CO$_2$E[1]

avoided by Yandex Market in 2022 thanks to mileage optimization

This is **equivalent** to the GHG emissions from 1,085 gasoline-powered passenger vehicles driven for one year

Yandex Cloud

Yandex Cloud offers scalable infrastructure, storage, machine learning technologies, and tools for information security development and management. 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.

4 TIMES LESS

overhead energy used by server equipment
compared with the global average

[1] The assessment covered the full year of 2022. The figure is calculated in accordance with the guidance in the GHG Protocol for estimating emissions from mobile sources. The amount of emissions saved is the difference between the amount of GHG emissions from mileage in the scenario of not using RouteQ (scenario value) and that from the actual mileage (actual value). The scenario value is obtained by multiplying the actual value by the RouteQ efficiency factor derived on the basis of the reduction in mileage (total and idle) for service customers. The actual value is calculated from the total fuel consumption data where fuel consumption is the sum of vehicle mileage multiplied by the average fuel consumption per kilometer.

Y 360

Yandex Mail provides users with convenient management of unsolicited mailings. The spam control feature effectively blocks spam emails or filters them into a dedicated folder. In addition, a new feature was introduced in 2022, allowing users to unsubscribe from all unwanted newsletters with a single swipe. These options not only save users time but also help conserve battery life on their devices when interacting with the service. In 2022, Yandex blocked or filtered over 25 billion spam emails.

>4,000 MT CO$_2$E[2]

prevented with Yandex 320 spam filter in 2022 and almost 10,000 metric tons of CO2e throughout 2021 and 2022

This **would require** over 4,000 hectares of forest to be sequestered (the area of about 6,100 football fields)

[2] According to available research, a single spam email is associated with an average of 0.3 grams of CO$_2$ equivalent 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 3.4 grams of CO$_2$ equivalent, 11 times higher than the average value, i.e., exactly as much as an average email with an attachment (1228 KB) was larger than the average size of an email without attachments (106 Kb) in 2022. We multiplied this value (0.3 grams for emails without attachments and 3.4 grams for emails with attachments) by the actual number of filtered and undelivered spam emails (25 billion emails without attachments, 187 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.

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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 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[1] in 2022 compared to 2017

−2 p. p. compared to 2021. Average value for all reviewed regions

82%

of Yandex Taxi mileage was on-trip[2]

+13 p. p. in 2022 compared to 2017. Average value for all reviewed regions

GRI 305-4

Since 2017, 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 mileage[3]) was down by 17% for rides in Moscow, by 24% in St Petersburg and by an average of 18% in other Russian metropolitan areas reviewed. In 2022, for every passenger kilometer in Russia, there were an average of 1% less emissions than in 2021.

GHG intensity of Yandex Go rides in Moscow and St Petersburg, g of CO_2 equivalent per passenger km

● Moscow
● St Petersburg

GHG intensity of Yandex Go rides in other Russian cities,[4] g of CO_2 equivalent per passenger km

Other cities with populations of over one million

Other cities with populations of 500,000–1 million

Other cities with populations of 300,000–500,000

[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 production or disposal of a vehicle operated by a contractor, production of fuel used by the vehicle, as well as emissions generated by personal use of the vehicle (mileage during a period of inactivity on the line).

[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 point.

[3] Passenger mileage is the mileage between the passenger pickup and drop-off points multiplied by the average number of passengers in the vehicle, or the sum of the distances travelled by each passenger. For example, a ten km taxi 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.

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 order or between orders.

By the end of 2022, the share of on-trip mileage in almost all cities had already reached or surpassed 80%. This is a significant percentage, and further increases are challenging to achieve as it does not solely depend on our capabilities and technologies. Reaching the maximum of 100% would require each driver to have the exact same drop-off and pickup points for current and subsequent passengers, which is not realistically achievable. Although our algorithm strives to provide near-perfect matches, there may not always be another order at the same address or the order may belong to a fare not serviced by the driver. As a result, the rate of efficiency growth naturally slows down, and the reduction in emissions intensity follows suit.

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

Year	Share
2022	82%
2021	81%
2020	78%
2019	76%
2018	74%
2017	69%
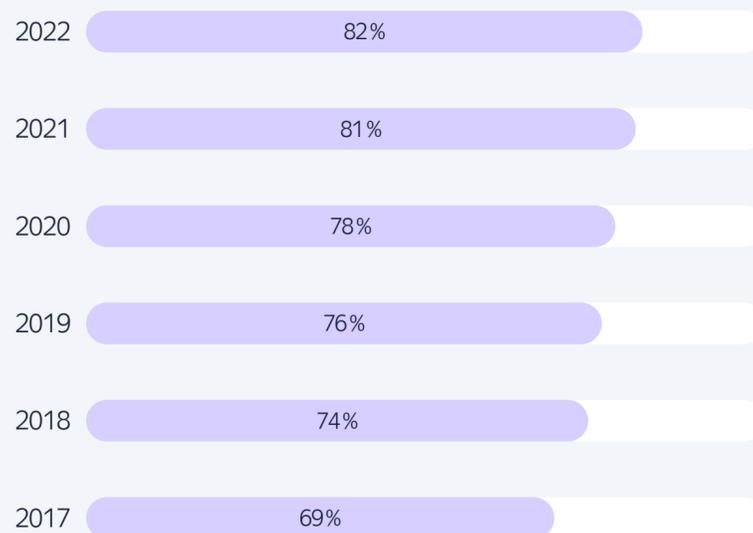
[1] If a user wants to take a taxi during off-peak hours or if the algorithm determines a low probability of finding a rideshare, the shared ride option may be unavailable.

[2] An accurate assessment of the fare's impact on the carbon intensity of Yandex Go rides is not possible at the time of the report as it requires more extensive data on fare trips over a longer period.
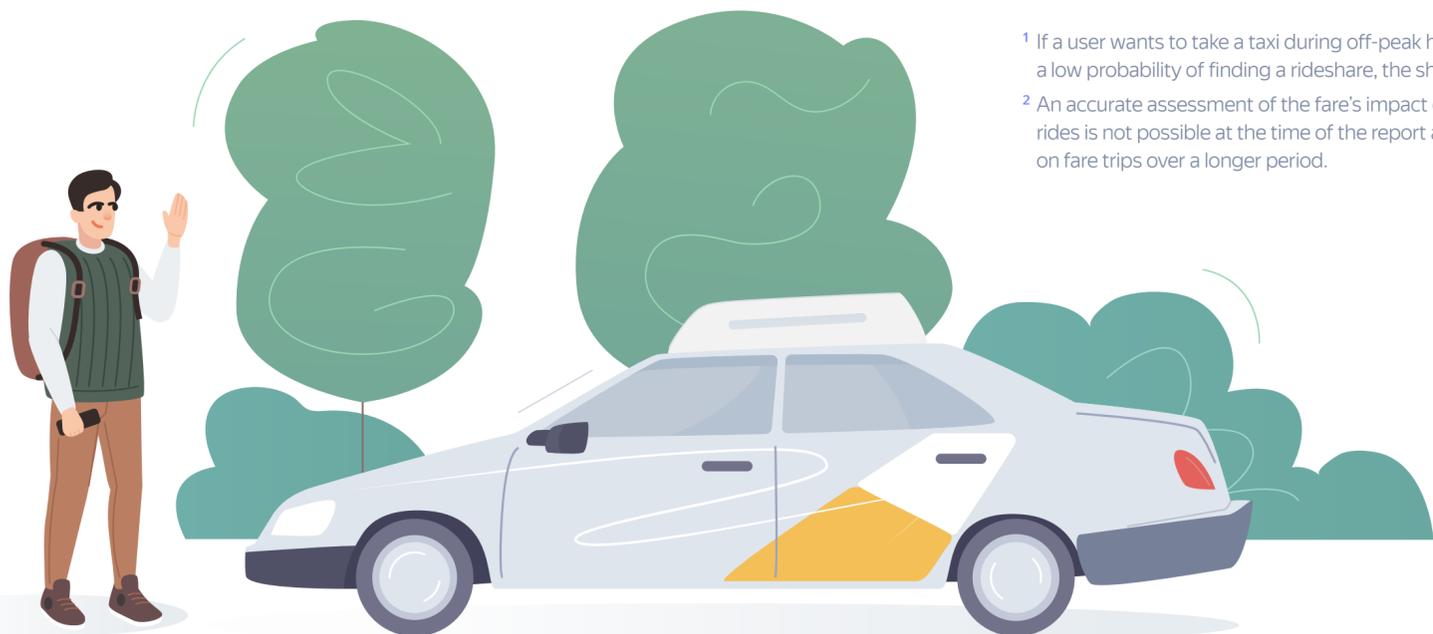
New Features of Yandex Go

By the end of 2022, Yandex Go introduced a carpooling fare option that allows passengers traveling in the same direction to share a single taxi.[1] Currently available in eight Russian cities, this feature offers cost savings of up to 40% for each passenger, while enabling drivers to earn more by taking multiple orders at once. Not only does it provide financial benefits, but it also contributes to a smaller environmental footprint, as several passengers sharing the same taxi reduces the carbon intensity for each individual.[2]

Additionally, Yandex Go now offers users the option to **wait a little longer for a car** or select **an alternative drop-off point**. The "waiting" option becomes available during periods of high demand, allowing users to opt for a cheaper fare if they do not mind the extra wait time. This also presents an opportunity to optimize car mileage, as the order is transferred to a nearby available driver when they become free.

In situations where the original destination is inconvenient, such as being located in a backyard, requiring a U-turn, or experiencing heavy traffic congestion, Yandex Go provides the option of an alternative drop-off point. Users can choose to exit the taxi a few minutes early (within an eight-minute walk) to save both travel time and costs (with an average savings of 10%). This not only benefits the passenger but also reduces fuel consumption by the vehicle. For safety reasons, the alternative drop-off point is not available for night trips, orders made on behalf of others, or destinations to airports or train stations.

Carbon Footprint of Deliveries

5,035 MT CO₂E

avoided by Yandex Market thanks to mileage optimization
in 2022

↓13 %

smaller carbon footprint of click-to-click delivery
compared to standard delivery

Yandex Market is one of only a few e-commerce services that currently assess the climate impact of its business processes. For this purpose, the service relies on proven methodologies, i.e., the GHG Protocol and ISO 14040 and 14044 standards.

In 2021, we conducted an analysis of different delivery scenarios within Yandex Market and discovered that the average delivery had a substantial carbon footprint, reaching up to 3.24 kg of CO₂e.[1] Approximately 15% of these emissions were attributed to order movement and shipment, such as transportation between fulfillment and sorting centers (FC and SC), or between a sorting center and the end user. To address this, Yandex Market implemented various logistics solutions to mitigate the carbon footprint at different transportation stages. One of our key initiatives was the adoption of RouteQ, Yandex's AI-powered service specifically designed to optimize logistics routes.

By applying RouteQ, the service **avoided over five thousand metric tons of CO₂e of GHG emissions and saved more than two million liters of fuel** during order transportation in 2022.

Since 2021, Yandex Market has leveraged the infrastructure of Yandex Lavka dark stores to establish highly efficient supply chains and provide timely order deliveries. This approach lies at the core of our one-click delivery option, where small or medium-sized products are initially stored in a nearby mini-warehouse, conveniently located in close proximity to the user's address. Subsequently, a courier swiftly transports the order from the mini-warehouse directly to the user's doorstep within a mere ten minutes of placing the request through the Yandex Market app.

Through our research, we have determined that one-click delivery has a smaller associated carbon footprint, with emissions measuring up to 2.92 kg of CO₂e. In comparison to the standard delivery scenario, this represents an average reduction of approximately 13%. This outcome is achieved by eliminating the need for traditional transportation methods, such as delivering orders from sorting centers (SC) to the user's address via auto delivery (in the standard scenario, more than 60% of orders rely on auto delivery).

To further enhance the efficiency of deliveries, we introduced a zone map in 2022 outlining areas suitable for opening express delivery dark stores. This initiative provides significant benefits to sellers who operate on the Market platform. By strategically locating dark stores in these designated zones, sellers can establish closer proximity to their customers, ultimately reducing the need for auto delivery services.
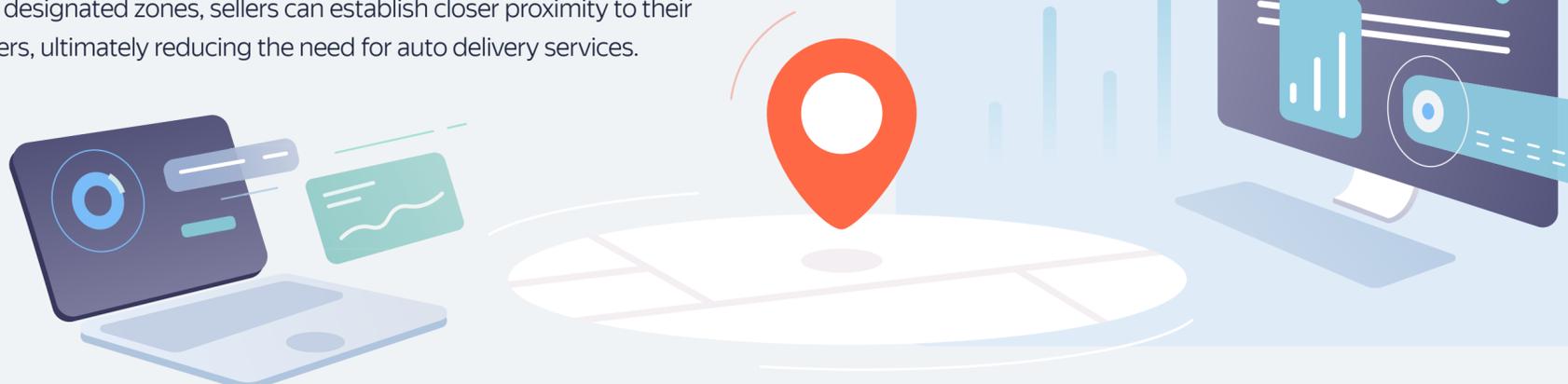
Streamlining Deliveries with Yandex Delivery

The **order batching technology** in Yandex Delivery enhances courier efficiency and helps manage the carbon footprint of delivery. It forms the basis of the same-day delivery option in Yandex Go, which was launched in 2022. The algorithms analyze order chains and distribute them among couriers in a way that allows one courier to deliver multiple shipments along their route. This offers users the benefit of up to a 30% reduction in delivery costs compared to the Express Delivery option.

Moreover, Yandex Market offers corporate and individual customers the option to send parcels through over 13,000 Yandex Market pickup points nationwide. Pickup point delivery is available within cities and across Russia, allowing senders to save on costs and minimize delivery fleet mileage.

[1] For each scenario, we estimated the amount of emissions generated at various transportation stages for an average order, as well as during the order storage period. We also took into account the accompanying emissions, for example, those related to support of the online service by data centers. For detailed results and the calculation methodology, please see **2021 Sustainability Report.**

Carbon Footprint of Deliveries

↓ Three-fold

reduction in the lifecycle carbon footprint of a carboard box, the staple packaging option of Yandex Market, can be achieved through recycling

Similarly, recycling all courier envelopes can result in a 33% reduction in their lifecycle carbon footprint

A portion of Yandex Market's delivery carbon footprint is attributed to delivery packaging waste generated during business processes, such as unpacking pallets and packaging goods at Market warehouses. Packaging waste can account for up to 16% of emissions in the carbon footprint structure of an average Yandex Market delivery. Additionally, there is an invisible aspect of the environmental impact of delivery packaging that is beyond Market's control, including GHG emissions generated during its production and end-user disposal.

To understand the carbon footprint associated with the production of cardboard boxes and courier envelopes, which are frequently used by Yandex Market for product delivery, we **conducted a life cycle assessment.**[1] Within this study, we also modelled user habits and drew conclusions on how their behavior can influence the environmental performance of a particular packaging type.

We found that the carbon footprint of a cardboard box's life cycle is 7 times greater than that of an LDPE courier envelope, which contains 30% recycled material. Furthermore, if paper fillers are used to fill the voids within the box, the carbon footprint of the box increases by an additional 1.5 times. This increase is attributed to the more carbon-intensive production processes of boxes and kraft paper compared to plastic bags, as well as the emissions produced when paper waste decomposes in landfills, releasing landfill gas.

The outcome changes when **users recycle cardboard boxes**. In this case, the overall carbon footprint is reduced by three times (as there are no landfill gas emissions), and the remaining emissions **are offset with a margin** by the volume avoided at production of a new product through the use of recycled materials instead of virgin materials. To put it in numbers: a landfilled cardboard box would result in approximately 177 grams of CO_2e emissions, whereas achieving a 100% recycling rate[2] would result in a net-negative carbon footprint of minus 7 grams.

Similarly, **recycling courier envelopes can completely offset their overall carbon footprint**. In the case of incineration as a disposal method, the carbon footprint reaches 21 grams of CO_2e, equivalent, while in a scenario with 100% recycling, the carbon footprint becomes net-negative, reaching minus 6 grams.

Yandex Market: Managing the Carbon Footprint of Delivery Packaging

- ✓ **Diversifying packaging materials.** Since the carbon intensity of packaging is influenced by various factors, many of which are beyond Market's control, the use of different sustainable materials provides an opportunity to offset negative effects in one case with positive effects in another.

- ✓ **Optimizing packaging.** For detail, please see the Packaging and Waste chapter.

- ✓ **Guiding to recycling points.** In 2023, QR codes were introduced on Market's packaging materials, which, when scanned, open Yandex Maps with marked recycling points in the chosen city. We have added over 24,000 of such collection points.

[1] The study was performed pursuant to the Life-Cycle Assessment (LCA) methodology as per the ISO 14040 and 14044 standards, with subsequent external verification. The study covered all life-cycle stages for two types of packaging: production of raw materials, production of material and product, delivery to Market, processes within Market, and disposal by the end user. For modelling purposes, we used both data collected by Market (package characteristics, information on packaging manufacturers, transport data and statistics on how users handle packaging) and research data taken from specialized LCA databases, such as data on extraction and production of materials, packaging production, as well as waste disposal and recycling.

[2] Meaning that all users recycle the boxes.

Corporate Governance

Governance Structure

GRI 2-9

At Yandex, we prioritize best corporate governance practices and adhere to the highest standards. This includes meeting the requirements of stock exchanges where our shares are listed and following the Dutch Corporate Governance Code. The core of our corporate governance system is an independent board of directors, a professional management team, and stakeholder engagement. These pillars ensure strong business development and uphold governance integrity.

In 2022 and early 2023, there were changes to the Board of Directors, with three members departing from their positions. The Board remained quorate, and the changes did not affect the Board's ability to exercise its full authority, nor did it affect the implementation of sustainability projects: the Board of Director's Corporate Governance Committee, led by the Chairman of the Board, continued to review the social and environmental results of our sustainability efforts and to support the management.

The latest information about the corporate governance system and shareholder structure can be found on the Company's **website** in the sections on Corporate governance and For shareholders.

On November 25, 2022, we **announced** that the Board of Directors had launched a strategic process of reviewing options for restructuring the Group's ownership and governance in Yandex N.V., to ensure sustainable development of the Group's diverse portfolio of businesses in the longer term. As part of the restructuring process, Yandex N.V. is considering divesting ownership and control of a number of its core businesses, including all Russia-based businesses, which would retain the Yandex brand. The Board is also considering developing the international divisions of certain services (including self-driving technologies, cloud computing, AI training / data labeling, and ed-tech) independently from Russia. Our goal is to come to shareholders for approval of a restructuring proposal later this year.

For more detail on the restructuring, please see the **2022 Annual Report** (page 49) and our press releases from **November 25, 2022** and **May 25, 2023**.

Sustainability remains at the focus of Yandex management at all restructuring stages. The corporate culture based on respect for human needs and the environment, ethics and high governance standards developed within the company since its inception will become the cornerstone of the new ownership and governance structure.

Sustainability Governance

GRI 2-14

Sustainability governance is integrated into our business at all levels, from the Board of Directors to product management and operational teams. At the top level, the Board of Director's Corporate Governance Committee, led by the Chairman of the Board, is responsible for reviewing the sustainability agenda and progress made (the competencies are defined in the Committee's **Charter**). The Committee discusses and approves the ESG goals and is responsible for reviewing and approving annual sustainability reports. Meetings of the Committee are held at least once a quarter. Leaders of the teams implementing sustainability initiatives are invited to present and discuss recent performance results and future actions.

In 2021, we introduced the role of the Chief Sustainability Officer tasked with executive-level oversight of Yandex's sustainability agenda and coordinated activities of different business units and divisions. The role of the Group Sustainability Manager was introduced in 2020 to provide support to different business units in planning, carrying out and monitoring the ESG initiatives and to communicate the results within the company and to external stakeholders.

The Company has also set up a sustainability project office to support and manage Yandex's social and environmental projects. Most of the twelve priority sustainability streams have their own dedicated teams and are headed by members of the executive board. For example, the Chief Privacy Officer manages information security and data privacy matters.

Diversity

We recognize the importance of diversity and strive to procure conditions so that the opinions of as many people as possible can be heard. We also advocate for the equality of opportunities. We abide by the principle of equality from the very start, when electing the Board of Directors, as we evaluate all candidates regardless of their gender, age and other personal characteristics, looking at such criteria as professional experience and industry expertise. At the end of 2022 and at the date of this report, the Board of Directors consisted of seven members with a variety of professional backgrounds and skills.

To incorporate necessary practices, we monitor the development of recommendations and guidelines concerning diversity matters issued by the regulatory authorities and securities exchanges. These already include recommendations for the companies registered in the Netherlands (applicable to Yandex N.V.) concerning the introduction of policies aimed at increasing the representation of women on boards of directors, as well as NASDAQ's provisions on disclosing the board diversity matrix. We provide the latter in our sustainability reports and on the Company's website.

In 2022, the geopolitical environment was challenging for the Company, making the Board focus on such important matters as debt and corporate restructuring in an environment of extreme uncertainty. These complex tasks required much attention from the Board, preventing it from looking for new candidates. This will be our priority once the restructuring is complete.

Compensation

GRI 2-19   GRI 2-20

In light of the halt to trading in our Class A shares on NASDAQ, our Board of Directors approved an amendment to the outstanding equity incentive awards scheme for all participating employees including the top management: all awards with vesting between 28 February 2022 and the end of 2023 were replaced with cash payouts on the vesting dates of the relevant RSU equity awards, in an amount equal to the target value of each tranche of such awards. As part of the new approach, the new awards were also replaced with cash payouts from the end of February 2022 until early 2023.

The variable pay of our senior management is linked to key performance indicators (KPIs). These KPIs encompass overarching corporate metrics, such as revenue growth and adjusted EBITDA of the Yandex Group, as well as business unit-specific KPIs. In order to meet the business unit-specific KPIs, it is crucial for teams to deliver strong performance across various sustainability dimensions, including user satisfaction, talent retention, resource conservation, and information security. We are keen to explore the best practices and consider potential links between ESG activities and the variable part of senior management compensation. This review will take place following the restructuring.

For information about executive compensation, please refer to our 2022 Annual Report.

Board diversity matrix, number of people

Total number of directors	7
Part I. Gender Identity	
Male	7
Female	0
Non-binary	0
Did not disclose gender	0
Part II. Demographic Background	
Underrepresented Individual based on national, racial, ethnic, indigenous, cultural, religious, linguistic or other identity	0
LGBTQ+	0
Did not disclose gender	0

Information is provided as of May 31, 2023. These disclosures are prepared as per the new Nasdaq listing rules.

About
the Report

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, 2022, unless otherwise indicated.

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 GRI 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.

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

In the absence of the Universal Sector Standards for the IT industry, we applied relevant indicators from GRI 200, 300 and 400 topic standards series, SASB industry metrics, or, in some cases, Yandex's own metrics with detailed explanations. To achieve comparability of the performance disclosures of various Yandex businesses with those of other companies, 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. The list of the GRI and SASB indicators disclosed is provided in the GRI Standards and SASB Index Annex to the Report.

The performance disclosures herein are aligned with the **UN Sustainable Development Goals** (SDGs). Detailed information about Yandex's contribution to the UN SDGs is included in the Services for Sustainable Development section.
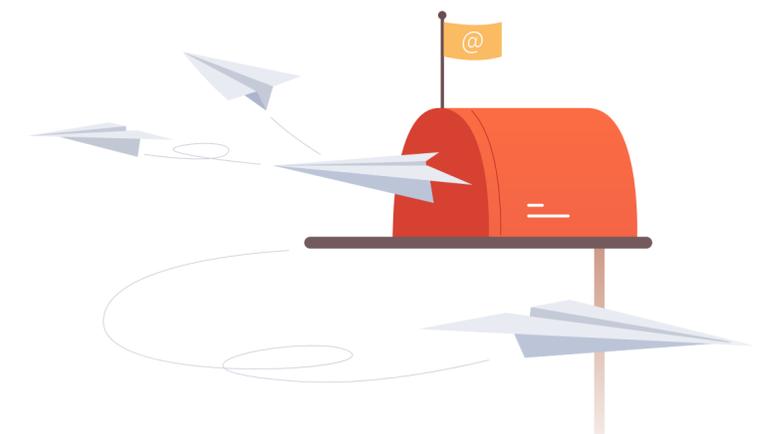
Contacts

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Daria Gerasimova
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We welcome your feedback at
sustainability@yandex-team.com

Reporting Principles

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

Accuracy

The report provides reliable and sufficiently detailed quantitative data enabling stakeholders to assess Yandex's sustainable development 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.

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 when the report is being drawn up is presented for initiatives that are dynamic. We also provide links to public websites where data are regularly updated.

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.

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 2021, with the exception of first-time disclosures compared with several prior periods so the reader is able to see year-on-year dynamics. Trend overviews are included.

Sustainability Context

The report reflects Yandex's contribution to 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 relevant and the latest market research.

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.

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 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.
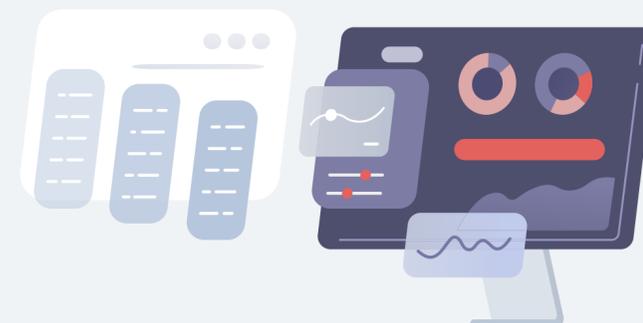
Material Topics

GRI 2-29   GRI 3-1   GRI 3-2

We consistently assess the materiality of sustainability-related topics to ensure the relevance of Yandex's disclosures and to understand the risks and opportunities associated with our sustainability initiatives.

Our materiality assessment process involves a comprehensive analysis at various levels. Firstly, we analyze the potential business, social, and environmental impacts of Yandex's initiatives. We actively seek honest feedback from our stakeholders, including users, employees, service partners, and shareholders. A complete list of Yandex stakeholders can be found on page 138 of our 2020 Sustainability Report. We engage with stakeholders through multiple channels, such as service support teams, thematic surveys, and direct communication. Each year, we carefully review and consider the opinions of several thousand respondents.

Additionally, we closely examine sustainability practices and emerging trends within the IT industry to incorporate information on topics that are critical to sustainability but may not be standard disclosures. Examples of such topics include online safety and AI ethics.

Finally, all identified topics are ranked based on their materiality, considering both the scale of our impact and the level of stakeholder interest.

Material Topics
and most impacted stakeholders

— High estimated level of impact — Medium estimated level of impact

Information security and personal data protection
- ⊙ Users
- ⊙ Business partners
- ⊙ Government agencies

Product and service quality
- ⊙ Users
- ⊙ Business partners

Online & offline safety and convenience
- ⊙ Users
- ⊙ Local communities
- ⊙ Business partners

Talent attraction, development & retention
- ⊙ Business partners
- ⊙ Employees

Respect for human rights and equal opportunities
- ⊙ Employees
- ⊙ Users

Support for drivers, couriers and other Yandex service partners
- ⊙ Yandex service partners
- ⊙ Business partners

Use of technologies for the social good
- ⊙ Users
- ⊙ NGOs
- ⊙ Local communities

Promoting quality education in IT
- ⊙ Users
- ⊙ Local communities
- ⊙ Business partners

Climate change and decarbonization
- ⊙ Business partners
- ⊙ Local communities

Responsible resource use
- ⊙ Business partners
- ⊙ Users

Basic topics
Not applicable →

Economic performance and growth
- ⊙ Employees
- ⊙ Business partners
- ⊙ Shareholders and investors

Corporate governance
- ⊙ Employees
- ⊙ Business partners
- ⊙ Shareholders and investors

Ethics and integrity
- ⊙ Employees
- ⊙ Business partners
- ⊙ Shareholders and investors

Innovation
- ⊙ Employees
- ⊙ Business partners
- ⊙ Shareholders and investors

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