

Yandex Sustainability Progress Report



2021

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Opening remarks

GRI 2-22



In 2020, we formalized and presented our sustainability agenda for the first time and set overarching goals for each of the priority areas. A number of those areas, such as information security, quality of service and employee wellbeing, had been in focus for us since day one and they continue to support the resilience of our business model. Other areas, for example engagement with service partners and climate-related issues, were relatively new to us. However, we recognize the positive impact we can make here, and we are committed to leveraging our technology to do so as we grow.

In 2021, we went a long way to refine our sustainability objectives and to ensure that each of them aligned with our key business priorities. We wanted to ensure they were feasible to implement, while at the same time making sure they were sufficiently ambitious so we could keep the bar high.

We made significant progress in 2021. We succeeded in scaling educational and community support projects, maintained the high level of energy efficiency of our infrastructure, and better managed our carbon footprint. We continued to provide equal opportunities and fair compensation to our employees, and showed strong diversity figures—for example, female representation in STEM-roles at Yandex is on par with global IT leaders. The usefulness, safety and quality of the digital products we offer also remained a priority as we worked to make them more accessible.

In 2022, our core sustainability objectives remain unchanged, albeit adapted to the changing market environment. We will aim to achieve maximum impact while staying transparent about our progress.

For now, we have decided not to make time-bound commitments about the future, though we can assure our stakeholders that we will challenge ourselves and make all efforts to apply leading sustainability practices to everything we do.



John Boynton

Chairman of the Board
of Directors of Yandex Group





01

Yandex in 2021

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About Yandex

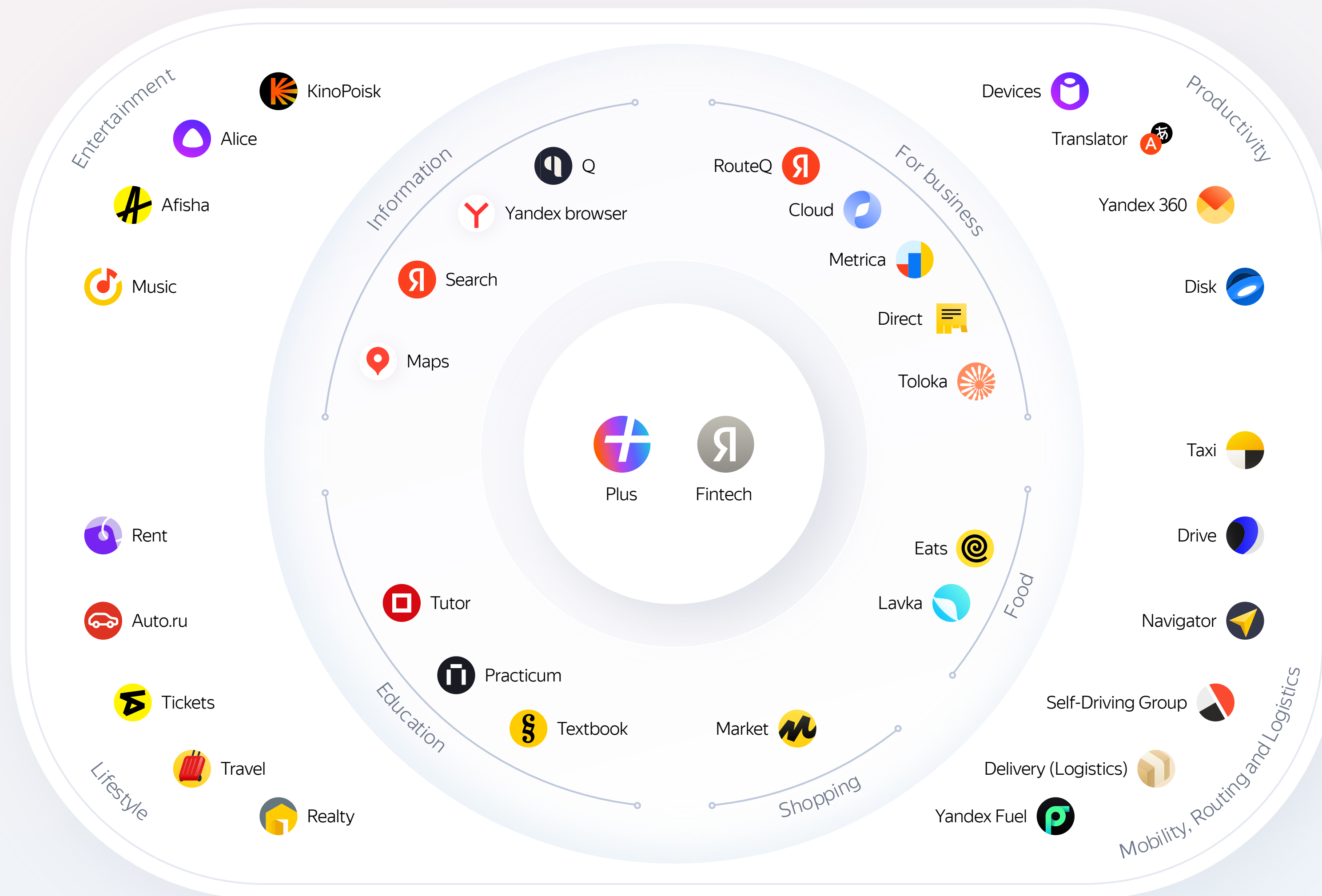
GRI 2-1 GRI 2-6 GRI 2-12 GRI 2-23

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 and the CIS, Africa, and other regions.¹

Our goal is to leverage technology and innovation to help consumers and businesses better navigate the online and offline world.

We strive to make people's lives easier and better, improve their conventional environment, and help them do things that once seemed impossible. To this end, we are continually developing our services and experimenting based on certain principles that help us make better decisions. These guidelines were established over the years and are constantly being updated.

Yandex ecosystem of services²

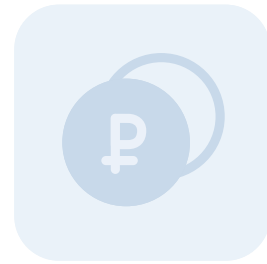


¹ The most up-to-date information about Yandex's global presence can be found on our [website](#).

² In April 2022, Yandex LLC has reached agreement in principle with VK to sell Yandex's news aggregation platform and infotainment service Zen.

Business Results¹

Financial results



356.2 RUB BN

consolidated revenues for 2021
↑ a 54% increase over 2020

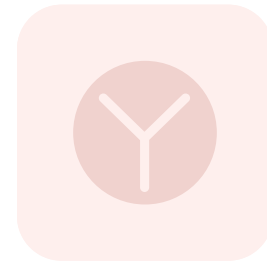
32 RUB BN

Adjusted EBITDA for 2021,
the adjusted EBITDA margin reached 9%

41%

adjusted EBITDA margin
of our profitable segments
(Search & Portal, RideTech, Classifieds)

Operational results



60%

Yandex's share of the Russian
search market

12 M

Yandex Plus subscribers
×1.8 YoY

2.4 BN

rides made by Yandex Taxi
users in 2021

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

Key business changes

December

Yandex became a constituent of the Dow Jones Sustainability World Index. Yandex performed among the top 5% of companies (the 96 percentile) in the Interactive Media, Services & Home Entertainment (IMS) industry.

October

Yandex established an Ecosystem Development Advisory Board to develop an approach to the self-regulation of the Company's ecosystem in cooperation with partners and users.

August

Yandex announced a restructuring its joint ventures, as a result of which Yandex acquired all remaining indirect Uber's interest in the Yandex Eats, Lavka, Delivery and Self-Driving Group as well as an increased of its share in the MLU joint venture to 71% (consisting of mobility businesses post restructuring, i.e. ride-hailing and car-sharing). Yandex also received a call option to acquire the remaining stake at an agreed price over a two-year period.

February

Yandex acquired call centers and the cargo business of Vezet Group

2021

November

Yandex was labeled Platinum in Forbes list of **Russia's Best Employers** (RU) for 2021.

September

Yandex spun off ClickHouse in partnership with Benchmark Capital and Index Ventures. ClickHouse will develop services based on an open-source database management system (DBMS).

July

Yandex acquired a universal banking license, which is required to develop the company's FinTech business.

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.

Business Results

Ecosystem Development Advisory Board

It is important for us to align the development of the Yandex ecosystem with the interests of users, society and the online community. Therefore, in October 2021, we created a **platform for sharing views with all stakeholders**: the Company's **Ecosystem Development Advisory Board** (RU).

The Advisory Board is tasked with:

- initiating research on digital ecosystems;
- maintaining a dialogue with representatives of the IT industry, society and business;
- preparing recommendations for the self-regulation of the Yandex ecosystem.

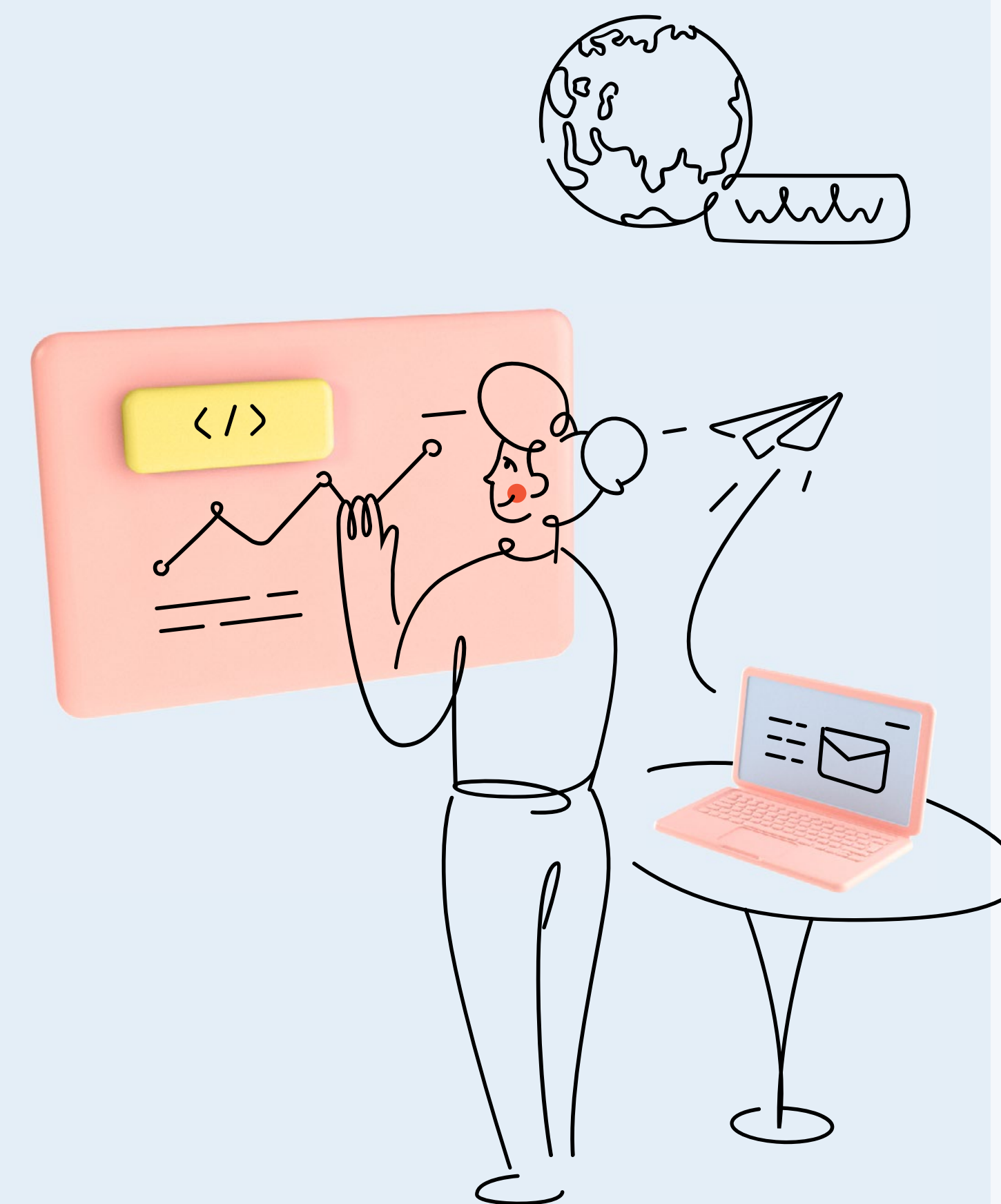
The Board has three committees: the Partner and User Data Protection Committee, the Digital Ethics Committee and the Ecosystem Openness Committee. The Board includes representatives of business, academia and public sphere.

Open Innovations

Our services and products are based on our own technologies. We like to share our latest developments with others and believe that open innovation plays a significant role in driving digitalization and technological breakthroughs.

We promote platforms for collaborative development and project hosting, such as [GitHub](#), where we publish our projects with open source code. Developers can use our unique solutions to accelerate the launch of their own products and services, while we are able to expand our user audiences, obtain feedback and improve our technologies.

In early 2022, Yandex **published the source code** of the **distributed DBMS Yandex Database (YDB)**, which is widely used by more than 200 projects, including Yandex Cloud, Market, Taxi, Metrica, and Alice. This platform is designed to create scalable services, handle an increased workload and is available for the deployment on-premises, on third-party servers, as well as in the cloud. YDB can serve millions of requests per second and ensures availability even if a node or availability zone goes offline. We also published our **YaLM 100B neural network language model**, which is used by our voice assistant Alice and helps generate search results in Yandex Search. We talk more about this technology in our [blog on Medium](#).



Sustainability Agenda

Our sustainability agenda, which we presented in 2020, includes four main areas combining 12 sustainable development streams.

Some of these streams are at the core of our business which allows us to manage sustainability risks: information security and data privacy, service quality, digital safety¹ and others. Other streams are opportunities for Yandex to use our technologies and expertise to drive sustainable transformation within and beyond our business.

We used the **UN Sustainable Development Goals (UN SDGs)** as a framework for the agenda and chose to pursue the 10 goals that best align with our current business objectives and where we can have the greatest impact. These include five primary goals that we consider immediate priorities for Yandex and five supporting goals aimed at implementing and maintaining best practices. For more detailed information about how our sustainability agenda and initiatives align with and contribute to the UN SDG targets, see the annex of [2020 Sustainability Report](#).



- Primary SDGs
- Supporting SDGs
- Other SDGs



¹ Resilience to threats (malware, phishing, spam, unreliable information and other) that a user may encounter whilst engaging with digital services



Sustainability Agenda

Quality of Life

	Goals	Metrics tracked by Yandex
Convenience, Quality and Safety of Services	<ul style="list-style-type: none"> Ensure that Yandex services help users perform everyday tasks, maintain high quality, and ensure safety 	<ul style="list-style-type: none"> User and service partner satisfaction metrics tracked by various Yandex services and other metrics
Accessible and Inclusive Environment	<ul style="list-style-type: none"> Ensure that Yandex services are accessible for all Leverage technology to create a sustained charitable giving model 	<ul style="list-style-type: none"> Number of the Helping Hand Foundation program beneficiaries and other metrics

Environmental Impact

	Goals	Metrics tracked by Yandex
Energy Efficiency of Yandex Infrastructure	<ul style="list-style-type: none"> Implement energy-efficient solutions and integrate opportunities to reduce costs and environmental impact 	<ul style="list-style-type: none"> Data center power usage effectiveness (PUE) and other metrics
Packaging and Waste Management	<ul style="list-style-type: none"> Work to divert waste from disposal by investing in circular solutions 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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



Sustainability Agenda

Ethics and Integrity

	Goals	Metrics tracked by Yandex
Information Security and Data Privacy	<ul style="list-style-type: none"> Ensure a high level of personal data protection 	<ul style="list-style-type: none"> Absence of cases where fines or other penalties have been imposed for violations of personal data protection laws and other metrics
Responsible Procurement	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Number of small and medium business vendors and other metrics
Content Quality and Digital Safety	<ul style="list-style-type: none"> Monitor the quality, safety, and legality of content on Yandex Internet resources 	<ul style="list-style-type: none"> Number of advertisements rejected due to violations Response time to user complaints and other metrics
Regulatory Compliance	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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

Investing in People

	Goals	Metrics tracked by Yandex
Yandex Employees	<ul style="list-style-type: none"> Sustain corporate values and principles of openness and mutual respect by attracting and retaining like-minded, highly skilled talent everywhere Create a comfortable working environment and equal opportunities for growth, development and innovation 	<ul style="list-style-type: none"> Undesirable staff turnover Percentage of positive responses in Yandex job satisfaction surveys and other metrics
Yandex Service Partners	<ul style="list-style-type: none"> Balance the economic interests of our businesses with the social and economic needs of our service partners 	<ul style="list-style-type: none"> Service partner satisfaction metrics tracked by various Yandex services and other metrics
Education for All	<ul style="list-style-type: none"> Provide access to quality math and IT education for all and train highly skilled IT specialists 	<ul style="list-style-type: none"> Number of people who have used Yandex's free educational opportunities Number of students aiming at learning a new profession and getting a job in their chosen field and other metrics

02

Quality of Life

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Convenience, Quality and Safety of Digital Products



GRI 413-1

Creating digital products that are trusted and enjoyed by millions of people is a big responsibility. Our users do their part to help: we never stop analyzing their experiences and feedback. We do not hesitate to ask what worked well and what did not. As we are the users of Yandex solutions ourselves, exchanging honest opinions with different teams is very common and is considered vital for success. To steer forward, we need to make sure that our products are relevant, secure, of high quality and user-friendly—and are continuously improved.



10 BN
monthly queries
on Yandex Search
in 2021



2.3 BN
monthly voice searches made
through the Alice digital assistant
in 2021



35 M
monthly Yandex Go users
in 2021



52 M
active Yandex Maps users
in mobile browser
as of the end of 2021



12 M
active Yandex Plus users
as of the end of 2021



9.8 M
active Yandex Market
customers
as of the end of 2021



User-Centric Product Development

We aim to make our digital products useful and easy to navigate as well as build an environment where users feel protected from possible threats. For example, we safeguard them against online fraud, data theft and the misconduct of Yandex service partners and other users.

The examples of how we approach product development and put our users first can be found on page 55 of Yandex's [2020 Sustainability Report](#). Here we will cover some additional product features introduced in 2021.

Flagging Ingredients in Yandex Lavka

Gluten × Milk × Nuts × Sugar ×

Since 2021, users have been taking advantage of the new Yandex Lavka feature—filtering products in our catalog by desirable or undesirable ingredients or cooking methods. For example, they can indicate that they have an allergy or intolerance to nuts, gluten, lactose or sugar, prefer low-calorie or low carb foods, and the system will reflect that in search results, allowing them to buy healthier foods without sacrificing taste.

¹ Yandex services can be personalized through processing the personal data of users, as is stipulated in our [Privacy Policy](#). However, they may opt out of personalization and request that the personal data accumulated by individual Yandex services be deleted. This can be done with the new Personal Data Management Tool available in Yandex ID accounts. For more information, please see the [Information Security and Personal Data Protection](#) section of this report.

Usefulness and Usability

TC-IM-220a.1

CG-EC-220a.2

TC-SI-220a.1

As we aim not just for usefulness but for usefulness for everyone, so we teach our algorithms to suit the preferences and demands of all sorts of people.¹

Our needs change as we get older, so many Yandex products are specifically geared towards adults or children.

Yandex Music introduced a kid's section in 2021 featuring **edutainment**—entertaining and educational content. It simplifies the job of being a parent by offering audio materials for children, including songs, audio books and stories based on their favorite cartoons, as well as educational podcasts featuring beloved fictional characters to help children get up in the morning, learn new things, or get ready for bed. Kids' content from Yandex Music is available on smart devices. In addition, we have taught Alice to make fairy tales together with children.

Yandex Music also has content for **adult listeners** designed to help **cope with stress** and **make sense of current social issues**.

We have recently introduced content to support people's physical and mental wellbeing. Examples include meditations to relieve stress, increase concentration and improve sleep quality; quarantine shows from Alice containing useful tips for healthier daily routines during the lockdown; and mental health podcasts. The **In Order with a Disorder** («Одно расстройство») podcast (RU), created in collaboration with the Libo/Libo studio, invites guests with mental health issues to share their daily experiences and challenges. The goal is to change our perception of psychological disorders, learn to accept them and not be afraid to seek help. The second joint podcast with Libo/Libo, **A History of Russian Sex** («Истории русского секса») (RU), focuses on sex and all the stereotypes that come with it. Yandex Music also offers podcasts on topics such as parenthood and women's rights.

In 2021, on top of our sustained focus on various age groups, we improved the **accessibility and usability of our digital services for people with disabilities**. In particular, we adapted all the basic features of the Yandex Go ride-hailing app for blind users. They can now enter a destination, learn and select a ride fare and payment method, book a ride, and leave comments for the driver. For more details, please see the [Inclusive Environment](#) section of this report.

We want Yandex services to keep up with users' expectations and simplify their lives, so we are constantly monitoring how the world around us—the urban environment in particular—is evolving.

Last year saw an increase in the number of Yandex customers owning an electric vehicle (EV). In 2021, over a million drivers used the **Yandex Fuel** service every month. To help them move around the city easier, we added more than 60 stations in Moscow where they can top up their batteries completely free of charge. We also opened EV charging stations near Yandex's Moscow headquarters in the Red Rose business center. The Yandex Fuel app was redesigned with electric car users in mind: we added filters so drivers could see EV charging points on our maps, check to see if they are available, and get directions.

Safety and Fair Treatment

We are committed to the safety and fair treatment of all Yandex users, and we work to ensure that our services, from taxi rides to deliveries and everything in between, charge fair prices.

Yandex Go implemented several solutions to mitigate the risks of road accidents, including a fine-tuned speed monitoring system and an updated vehicle-monitoring feature using image processing. Please see the [Yandex Service Partners](#) section of this report to learn more.

Any driver who wants to partner with Yandex Go must prove their identity by sending us a picture of their ID, their driver's license and vehicle documents, including a selfie holding their driver's license, which are verified by an automated system (introduced in 2021). This system has access to all the drivers' data accumulated during preliminary checks by Yandex Go, and it can detect signs of fraud. If a driver who has been blocked for unscrupulous behavior tries to sign up again under a different name or with a different document number, the system will recognize this and keep them blacklisted.

In 2021, **Yandex Maps** and **Yandex Navigator** added support for Apple CarPlay and Android Auto. Now drivers can create routes and search for parking spaces right on their car screen. Among other benefits, this will improve safety, because smartphones can be a distraction while driving.

Another safety-related update is the opportunity to switch to a phone call directly from the Yandex App or Yandex Maps using Alice. She can recognize names (including rare ones) in your smartphone contacts if granted access and dial a number. You can also ask her to call emergency services.

Apart from physical safety, we care about cybersecurity and protecting users from online threats. We always strive to be one step ahead of the perpetrators who are highly adaptable.

For example, we introduced the free-of-charge [Secure Transaction](#) (RU) service in 2021 for **Auto.ru** users (developed together with Tinkoff Bank) to make **buying and selling used cars safer**: money is transferred to a secure bank account and kept there until the purchase and sale agreement is signed. Users upload a scan or picture of their passport to their account, and the system generates and fills out the agreement form automatically in a matter of minutes. Secure Transaction checks the vehicle using the public databases of the Russian traffic police and, if the car has any pending fines, the deal does not go through. If everything is OK, the parties sign the agreement, and the money is transferred to the seller's account.

We have also strengthened protection for **Yandex ID** accounts, added a new call blocker in the **Yandex App and Yandex Browser**, significantly decreased map spam on **Yandex Maps**, introduced new tools to monitor content quality in **Yandex Q** and **Yandex Zen**, and joined the Alliance for the Protection of Children in the Digital Environment. Please refer to the [Quality Content and Safe Digital Environment](#) and [Information Security and Personal Data Protection](#) sections to find out more.

For information on how Yandex monitors pricing on Yandex Market and Yandex Eats, as well as the reliability of our service partners, please see pages 61–62 of our [2020 Sustainability Report](#).

Driving Profile in Yandex Drive

Our car-sharing service **Yandex Drive** has introduced a new ML model to track driver safety. We use algorithms to analyze the user's last 200 kilometers (or the total mileage for new users) based on a number of criteria, including aggressive driving, sudden lane changes, and speeding. The data is gathered by in-car telematics such as accelerometers or CAN buses. We also trained Yandex algorithms to consider the technical characteristics of each vehicle that may influence driving patterns.

The model rates each user individually and generates a Driving Profile. Safer drivers score higher, and the most responsible ones get 10% cashback in Yandex Plus points, which can be used in multiple Yandex Services.

Since the launch of Driving Profile in June 2021, sudden accelerations have declined 49%, sharp turns dropped almost 29%, hard braking—28%, while aggressive lane changes decreased 31%.¹

↓ **28–49%**

reduction in risky maneuvers in the six months since the launch of Driving Profile

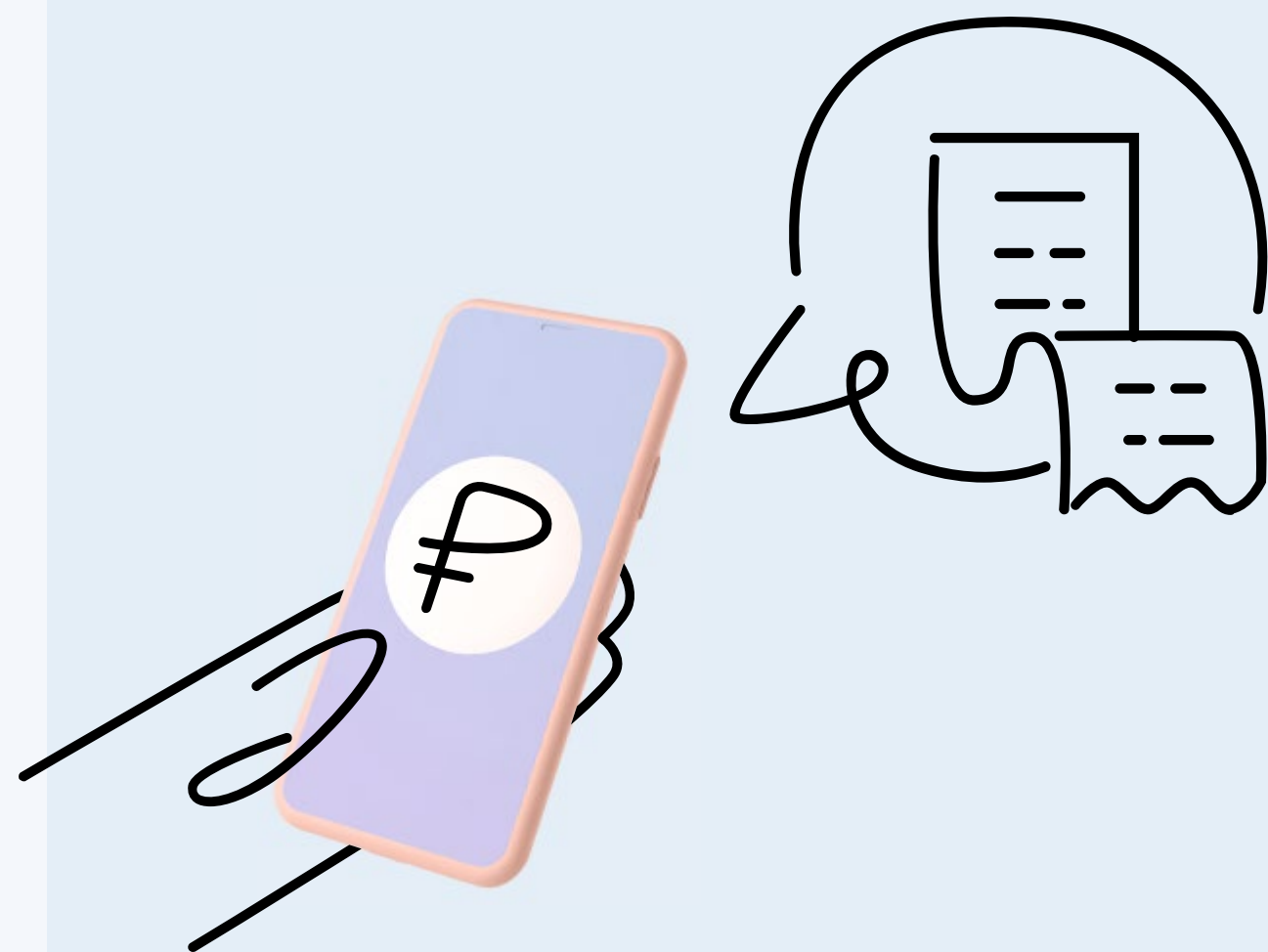
¹ We compared the numbers six months before and after the implementation of Driving Profile.

Safety and Fair Treatment

Yandex Go Ride-Hailing Pricing

The Yandex Go platform uses dynamic pricing algorithms. They maintain an optimal balance between the demand for cars and the availability of nearby vehicles. As a result, taxis arrive faster and drivers do not remain idle.

Algorithms are constantly monitoring supply and demand and can briefly increase the minimum fare to encourage more drivers to go online (e.g., during peak hours, when fewer cars are available). Prices fall back again automatically as soon as there are enough vehicles in the area. The final cost of the ride (its upper limit) is based on the route, its duration and the amount of traffic, and is never affected by the user's ride history or type of device used to order the ride (phone model, etc.).



Yandex Services for Sustainability

GRI 203-1

GRI 305-5

All Yandex services are designed to benefit society. Some of our digital products, such as RouteQ, Yandex Cloud and Yandex Geolocation Services, also help people live more sustainably. Other services, like Yandex 360 and Yandex Browser, have built-in features that lower the negative environmental impact of emails and web browsing.

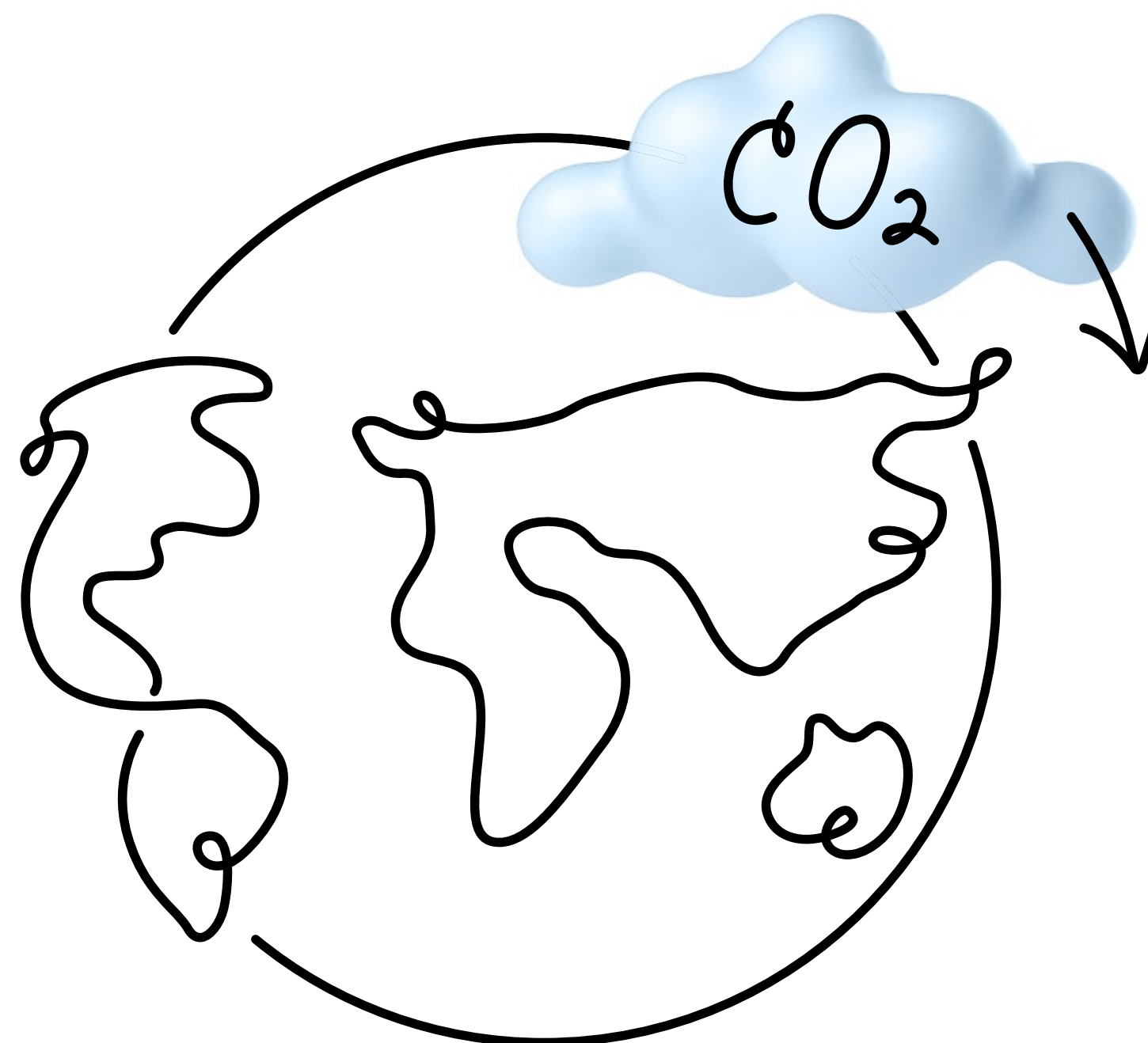
RouteQ is a technology platform that leverages smart algorithms to figure out the best delivery routes. It automates logistics resource planning and calculates optimal paths, making it possible to deliver more with fewer vehicles. The algorithms keep the share of empty trips minimal so that drivers always have orders and do not remain idle.

The use of RouteQ reduces both logistics costs and carbon footprints. For example, according to our estimate, nearly 4,975 metric tons of CO₂ equivalent GHG emissions associated with Yandex Market logistics were avoided¹ through optimized mileage alone that the service enabled. This equals the carbon footprint of over 1,000 passenger vehicles in one year.² We also plan to introduce a carbon-saving calculator for customers and determine the environmental effect of RouteQ as used by our current partners.

Approximately

5,000 METRIC TONS

of CO₂ equivalent GHG emissions were avoided by Yandex Market thanks to the application of RouteQ between April 2021 and March 2022



¹ The assessment covered the period of 12 full months between April 2021 and March 2022. The figure is calculated in accordance with the guidance in the GHG Protocol for estimating emissions from mobile sources. The volume of emissions avoided is the difference between the amount of GHG emissions from non-RouteQ mileage (scenario value) and the amount of GHG emissions from actual mileage (actual value). The scenario value was calculated by multiplying the actual value by the RouteQ efficiency ratio, derived based on the reduction in the total and empty mileage of service partners. The actual value was calculated based on the total fuel consumption being the sum of the products of vehicle kilometers traveled and the average fuel consumption per kilometer traveled.

² Based on data from the Environmental Protection Agency.

Yandex Services for Sustainability

Yandex Cloud is a cloud platform that provides B2B clients and individual developers with scalable infrastructure, storage, machine learning technologies and development tools to build and hone cutting-edge digital services and apps.

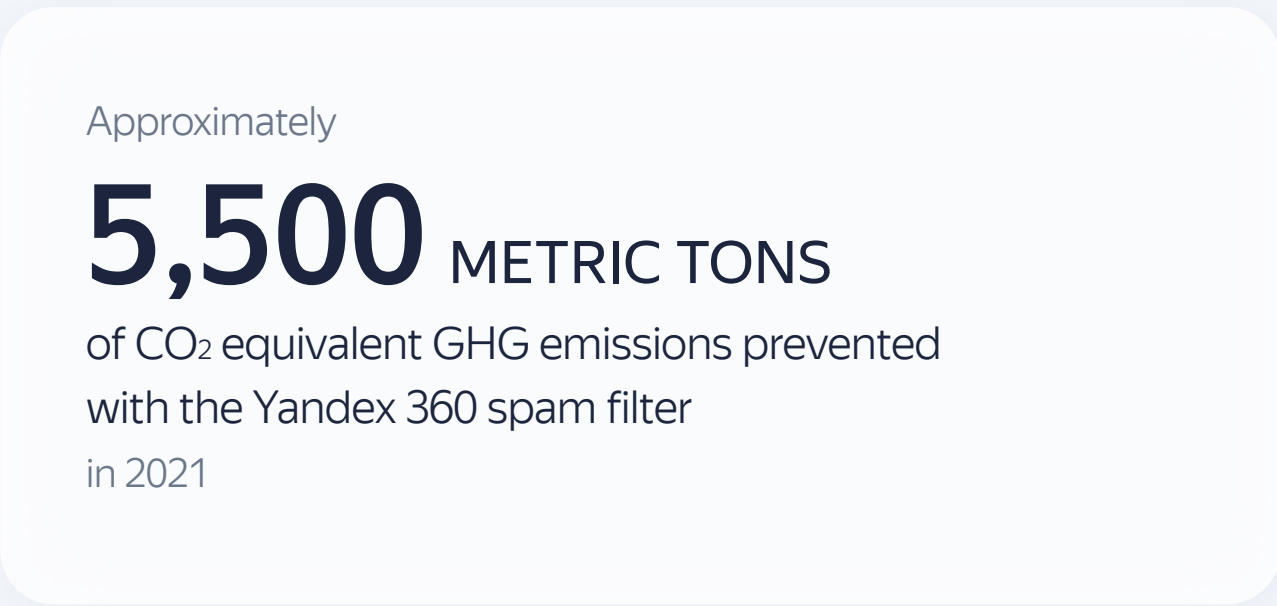
By transitioning to our cloud solutions, customers not only remove their carbon footprint through outsourcing their emissions (computing) to Yandex, but they also reduce the environmental impact of their computing by using the advanced infrastructure of our data centers. Yandex Cloud is powered by energy-efficient servers. For more details, see the [Energy Efficiency](#) section of this report.

Yandex's **Geolocation Services** help users create the perfect route taking into account public transport and bicycle lanes, traffic, road works, and many other factors. Our algorithms automatically suggest the shortest route in terms of distance and time. Customers can also use Yandex Maps to improve their public transport experience: by simply clicking Moving Transport in the app, they will see buses, trams, trolleybuses and other public transport traveling in real time and check their current schedules.

Meanwhile, **Yandex Browser** and Yandex 360 help reduce the users' impact on the environment. Yandex Browser has a [power-saving mode](#) to optimize energy consumption when a device is running on battery power. For example, it automatically reduces the activity of the background tabs and disables background animation, animation in the browser interface elements, and video playback.

GRI 305-5

Yandex 360 has a filter that keeps email spam out of the inbox or sends it to a separate folder. Over 30 billion unsolicited emails were blocked or filtered out in 2021. According to our estimates,¹ if they had been opened and read, these emails would have resulted in an additional 5,500 metric tons of GHG emissions measured in CO₂ equivalent, which would need over 2,300 ha (6,500 acres) of forests (equals to the area of 3,200 soccer fields) to be sequestered.²



¹ According to [research](#) by McAfee and ICF International, a single spam email produces an average of 0.3 grams of CO₂-equivalent GHG emissions, of which 52% come from opening and viewing it. We assumed that the carbon footprint of a spam email containing an attachment totals 14.6 grams of CO₂-equivalent, which is 48.51 times higher than average and is proportional to the difference in size of an average email with attachments (6,840 KB) and the ones without (141 KB). We then multiplied the emission values (0.3 grams for emails without attachments and 14.6 grams for emails with attachments) by the actual number of filtered and undelivered spam (30.5 billion emails without attachments and 95 million emails with attachments) and arrived at a share of 52%. We assumed that all undelivered spam emails were without attachments and that spam emails were not opened by recipients.

² Based on data from the [Environmental Protection Agency](#).



Inclusive Environment



GRI 413-1

A culture of giving and a passion for promoting social good are at the very core of the Yandex ecosystem. We create services and solutions that make day-to-day life easier, endeavoring to build an inclusive society and reduce barriers between people and technology. We work hard to make our services accessible, with a particular focus on sustained community support.

One of our objectives is to ensure equal access to Yandex services for all users, whatever their needs and abilities. We also see great potential to develop partnerships with non-profit organizations, whose consistent efforts facilitate effective resolutions to social problems. Yandex allocates resources to support non-profits, helping them excel and encouraging our users to engage in simple, yet regular charitable giving.



Sustained Community Support

GRI 203-2

In our [2020 Sustainability Report](#) (page 87), we described the Helping Hand initiative, which Yandex launched in March 2020 as a response to the COVID-19 pandemic. The project involved leveraging our products to fight the coronavirus crisis: offered free Yandex Go rides to doctors and medical workers and delivered essential goods to people in need. As the charitable model we built has proved to be effective, we have decided to grow and scale it.

In 2020, **the Helping Hand initiative has been transformed into a community support foundation¹** that seeks to build capacity of non-profits through the application of Yandex's technologies.

Here is how it works: we create convenient tools for users to engage in charitable giving, e.g., offer the rounding-up functionality in Yandex apps. The money raised, topped by Yandex's own donations, is then used to fund the Helping Hand's programs. Those include free Yandex Go rides for people with reduced mobility and purchases of essential supplies for non-profits and their beneficiaries.

The Helping Hand also donates access to Yandex digital products to non-profits, which they can leverage to streamline their administrative processes, boost visibility, reach out to target audiences, attract donors, and more.



¹ The foundation's bylaws and monthly reports (RU) are available on the official [website](#) (RU) of the Helping Hand initiative.

Sustained Community Support

GRI 203-1

250+

non-profits supported in 2021

501.9 RUB M

allocated to fund free access to Yandex's services and digital products for non-profits¹

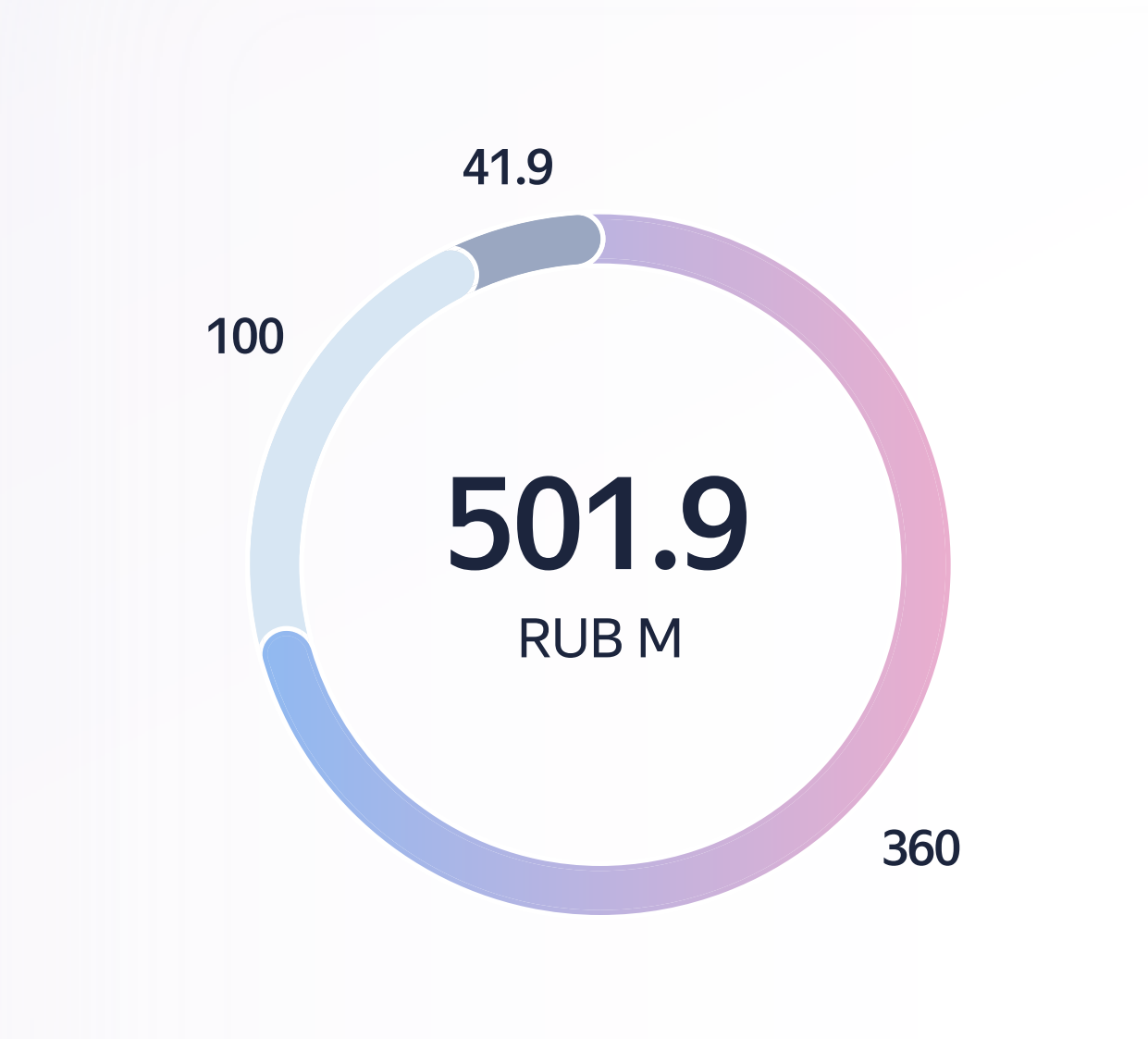
86.1 RUB M

million donated by Yandex to fund the Helping Hand operations²

73.4 RUB M

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

Funds allocated to provide free access to Yandex's services and digital products, by type of grant, RUB million



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

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 from individuals collected via the rounding-up initiative (these will be disclosed separately), or Yandex's donations to other social causes, such as educational institutions, conferences, and industry events. These latter donations amounted to RUB 348 million in 2021.

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 2021 may be less than the budgeted amount

The Rounding-Up Feature

The philosophy behind Yandex's rounding-up initiative is that every small contribution makes a difference, especially if done regularly. By activating the Helping Hand feature in the Yandex Go app, users can round up the total of their orders to the nearest 10, 50, or 100 rubles. The difference is then used to sponsor the Helping Hand's ongoing programs aimed at supporting non-profits and their beneficiaries.

Regular giving enabled by the feature is convenient for both donors and recipients. Modest donations are not a strain on users' finances, and collectively they create a sustained inflow of funds, making charitable programs more manageable.

Rolled out in December 2020 for the users of the Yandex Go ride-hailing service, the feature had been activated by roughly 570,000 people by the end of 2021; this figure has risen to 600,000 as of late May 2022. In 2021, the list of Yandex services where the feature was made available was expanded to include Yandex Market, Yandex Eats, and Yandex Lavka.

600+ THSD

users have opted in for the rounding-up to support community initiatives as of late May 2022

100+ RUB M

have been collected through the rounding-up feature since it became available in Yandex apps and on the Helping Hand website RUB 73.4 M for the 12 months of 2021

Free Taxi Rides

The Helping Hand has been working with partner non-profits **arrange free taxi rides for people with reduced mobility** since 2020.

In 2021, nearly 6,500 people completed more than 150,000 rides. In late 2021, free rides were available in 25 cities for the total of 71 participating non-profits and charitable foundations. We plan to expand our partner network in 2022 and ensure the program's solid presence across Russia with the focus on areas outside of the capital region.

In 2021, we **developed and implemented standards for communicating (RU) with disabled passengers**, which all Yandex Go partner drivers who opt in for the Helping Hand rides are obligated to follow. We also **educate our partner drivers** accordingly. All new service partners can access a checklist for serving users with special needs in the app; there are also newsletters and a **video manual (RU)** that provide helpful information. We have also developed guidelines for our support team, who are now trained to handle requests from drivers experiencing problems transporting low-mobility passengers.

In December 2021, we collaborated with DonorSearch to offer **free taxi rides to blood transfusion centers** and thereby attract more donors. The demand for donors is especially high during the Christmas and New Year holiday season, which is when the blood stocks run low. Free rides were provided to about 2,000 blood donors in 31 Russian cities.

Assessing Social Impact of Free Yandex Go rides

In late 2021, in order to better understand the impact that has been made, as well as to validate that the chosen operational model serves the program's purpose effectively, we conducted a social impact assessment. We looked at the effects of improved commute on the physical and emotional well-being of Yandex's low-mobility users, as well as their parents and caretakers. As a part of the research, we also reached out to the NGOs whose beneficiaries could take advantage of the program to discuss its usability. Key findings and insights will be published on the Helping Hand official website.

In 2021

156+ THSD

free rides were provided to people with reduced mobility

Nearly

80,000

partner drivers have joined the program



Purchases of Essential Goods

7

non-profit organizations purchased goods through the Helping Hand program

17,6 RUB M

were donated to non-profits for the purchase of essential goods in 2021¹

In 2021 we launched a new stream for our donations: some of the money raised through the rounding-up initiative **now sponsors purchases of essential goods from Yandex Market and other suppliers**. We also allocate RUB 4 million from the Yandex budget to this cause each month.

These funds help non-profits and the people they support meet their basic needs. Charities can subsequently free up more resources for growth, e.g. to launch new projects or expand their teams.

There are special terms for non-profits, including discounted prices, zero commission, and free deliveries. The goods purchased through the raised funds and our donations in 2021 included essential food packages, home care products, furniture, rehabilitation and personal hygiene products, pet supplies, and more. We are seeking to expand this initiative in the future.

¹ of which RUB 8.2 million were spent on 33 metric tons of goods ordered from Yandex Market

Digital Solutions for Non-Profits

The ability of a charity to make and upscale an impact highly depends on how effective it is at managing its activities and engaging with partners and donors. We therefore invest in building the capability of non-profits by donating access to Yandex services for businesses and providing **non-profit ad grants**.

With free access to Yandex’s services for business like Yandex 360 or Yandex Cloud, non-profits can manage their workflow and correspondence or host CRM systems. Yandex covers all the subscription costs: we budgeted more than RUB 140 million to this end in 2021.

129

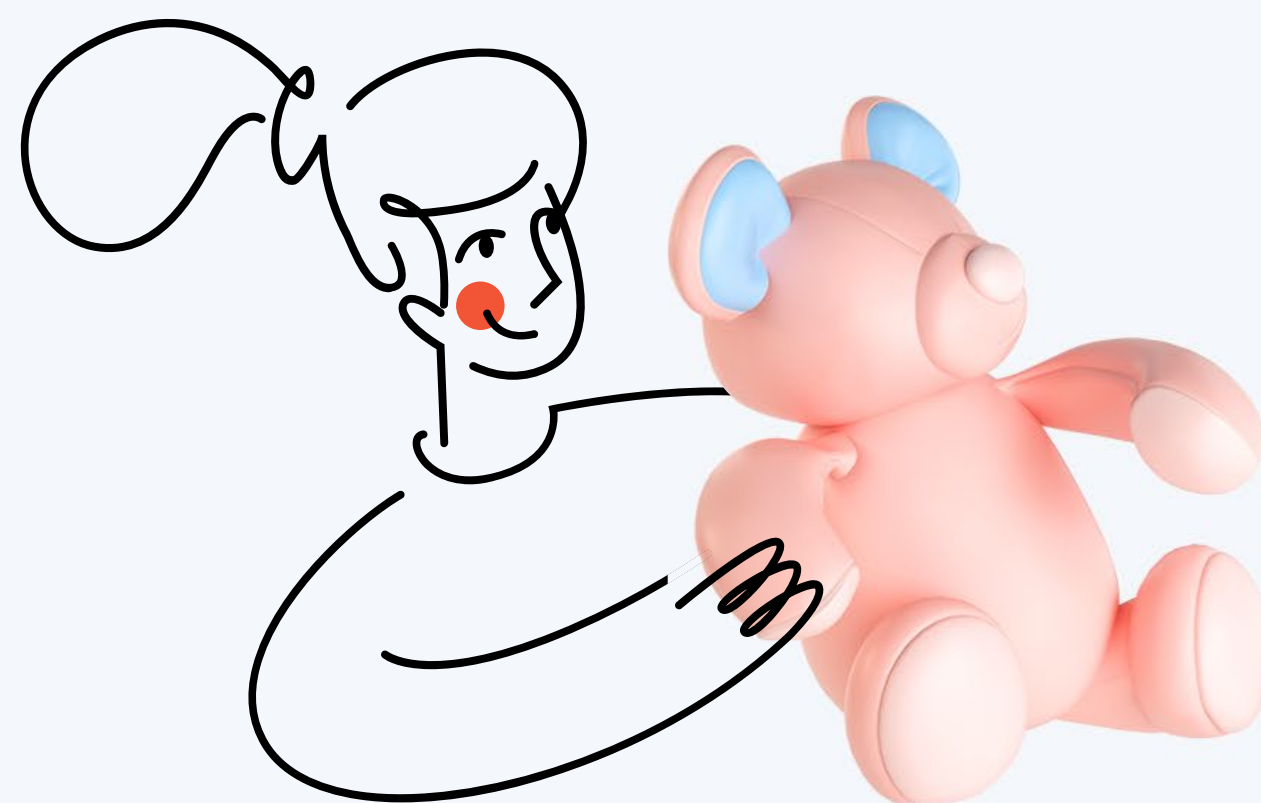
non-profits have been granted free access to Yandex services for businesses as of the end of 2021

138

organizations have received grants for non-profit advertising as of the end of 2021

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 in 2021 are disclosed in a [special report](#)¹ (RU).

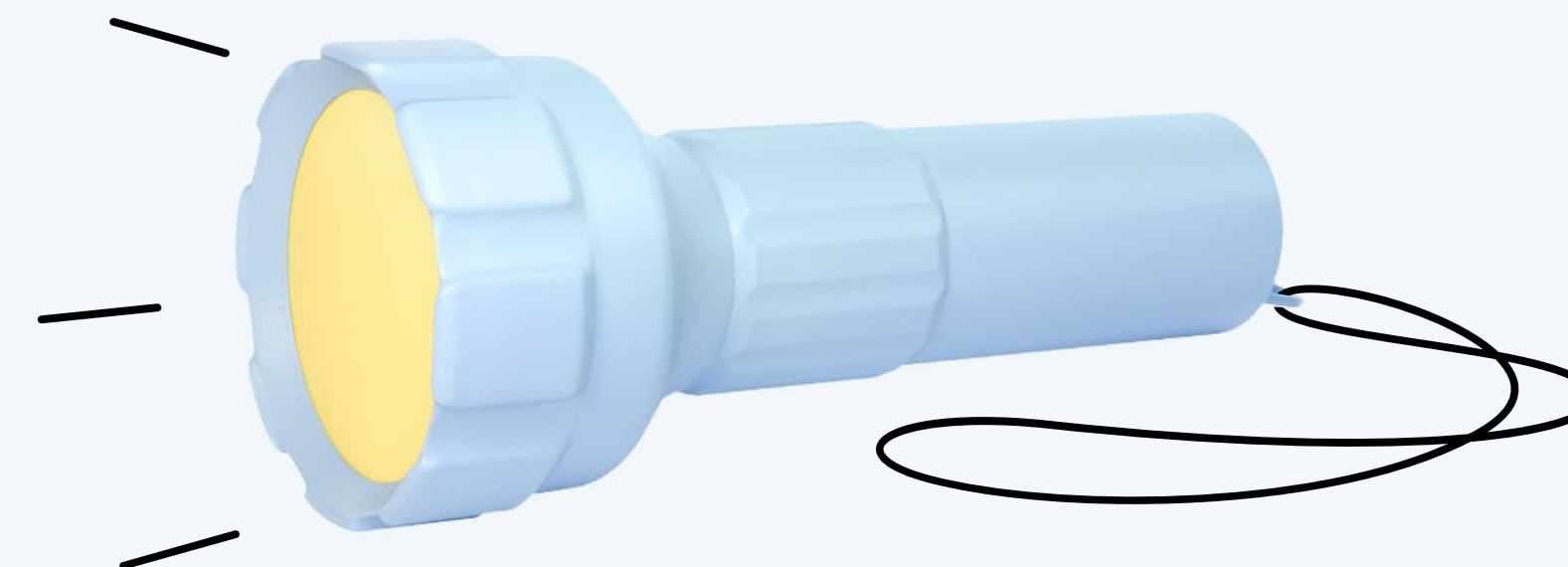
Non-profit adverts draw the public’s attention to social problems and charities’ efforts to address them. Yandex strives to boost the impact of social ads and make the ad placement process more convenient for non-profits. We have introduced social ad grants of RUB 150,000 per month (maximum RUB 1.8 million per year) for all eligible non-profit organizations, whom we assist in setting up and launching their ad campaigns. For this, each partner non-profit is assigned a dedicated campaign coordinator. In 2021, the grant program delivered a total of 146 ad campaigns and 1.5 billion ad impressions.



Search for Missing People with Yandex Solutions

The Liza Alert search and rescue team was one organization that received free access to Yandex services in 2021. We teamed up with Liza Alert to speed up the search for people who go missing in hard-to-access areas like swamps or deep woods.

Rescuers use drones to create images of the terrain and upload them into Yandex Cloud, where they are accessed by Toloka crowd-service partners. Tolokers are tasked with processing photographs and annotating places in which missing people might have been spotted, feeding the information back to rescuers to instruct foot searches. This approach has been applied to over 200 searches as of the end of 2021.



¹ The report provides 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.

Accessible Digital Products

We aim to develop inclusive services that benefit users, making their lives easier. Yandex believes that a truly inclusive service is accessible to everyone.

In 2021, **we revisited how we tailor our digital products to the needs of people with disabilities and special requirements.** Previously siloed across the business, this task is now managed by a single center of excellence that employs skilled accessibility experts and visually impaired testers. The team analyzes various Yandex services, provides internal training on accessibility guidelines,¹ and develops testing tools. It also advises other Yandex departments on matters of inclusion, e.g., HR staff and recruiters who deal with candidates with disabilities.

In 2021, we achieved a significant milestone with **the Yandex Go ride-hailing app, which we have made fully accessible to blind users.** We discuss it separately in this chapter.

We tested all Yandex services to understand how convenient they are for blind users. After completing more than 40 tests (of both web versions and Android/iOS mobile apps), we concluded that many of our services, including Yandex ID, are already well adapted to users with sight impairments; the number of product features that remain inaccessible is minimal. At the same time, some other products, like Yandex Disk and Yandex Maps, may remain somewhat inconvenient to use.

Going forward, we will strive to ensure that our existing digital products are more accessible, and our new products are designed with accessibility in mind.

Accessible Ride-Hailing with Yandex Go

In 2021, we fully optimized the Yandex Go ride-hailing app for blind users, building on our work from previous years.

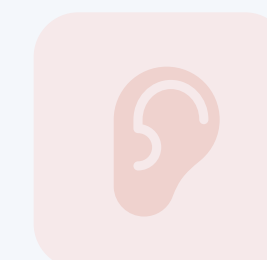
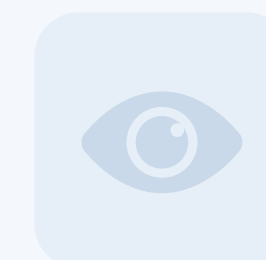
Such users can now easily navigate all the app's features: they can enter a destination, learn and select a ride fare and payment method, book a ride, and leave comments for the driver. Both the Yandex Go app and the website have built-in VoiceOver and JAWS screen readers that produce text-to-speech outputs.

We focused on improving UX by eliminating dead-end scenarios where a blind person cannot complete a desired action (such as when they are not prompted accordingly). During the design phase, we looked at the accessibility of each action in order to assess overall usability. We then used this understanding to design clear layouts for screen readers. We marked up text and visual elements (buttons, headings, etc.), as well as user actions (e.g. tab closing or swiping to discard).

We shared our experience—challenges, lessons learned, and solutions found—on Yandex's blog at habr.com (RU). The blog post also contains helpful tips for those attempting to improve the accessibility of their digital products.

↑ 20%

increase in the number of Yandex Go rides requested by blind users following our improvements to the app's accessibility



In addition to customizing Yandex digital products for the visually impaired, we seek to provide a seamless experience to our service partners with hearing disabilities, allowing them to easily use our platforms to earn a living. For more details, refer to the [Yandex Service Partners](#) section of this report.

¹ Yandex applies the [Web Content Accessibility Guidelines 2.2 \(WCAG\)](#) and the national accessibility standard GOST R 52872-20.



Investing in People and Business Environment



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Yandex Employees



We believe that the best way to take care of your business is to take care of people who are a part of it. At Yandex, we cultivate a culture of brilliant, like-minded, understanding individuals with bold ideas and the drive to work together to make them a reality. In times of crisis, our main focus is our people, their safety and wellbeing.



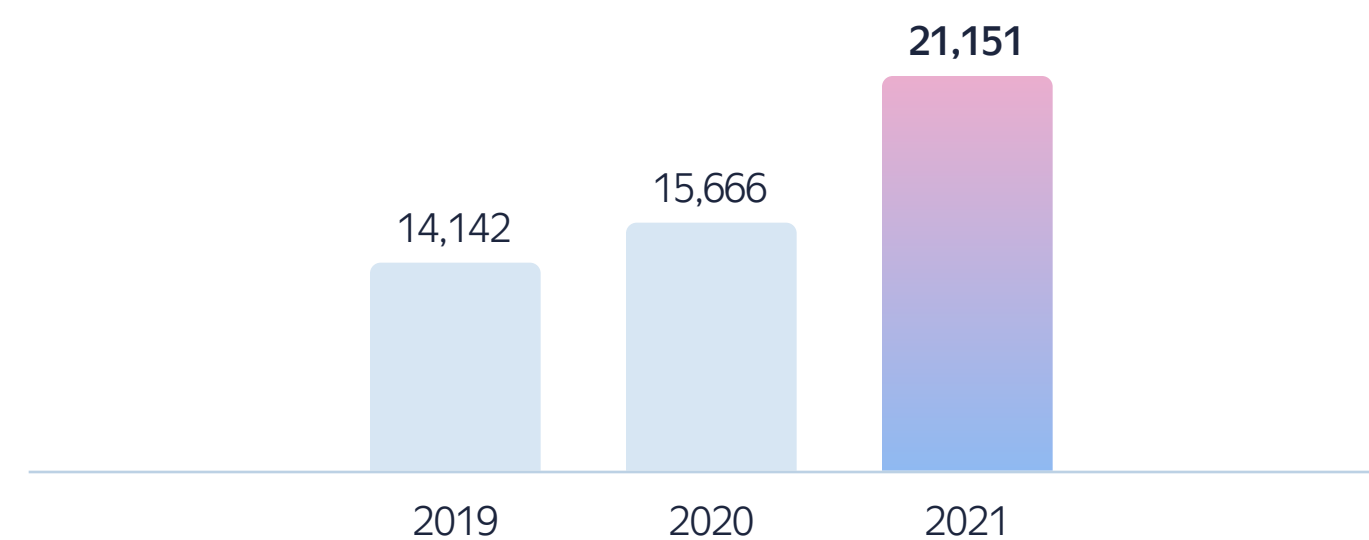
Yandex Team in Numbers

GRI 2-7

In 2021, Yandex employed 21,151 people, up from 15,666 in 2020 and 14,142 in 2019; this was an increase of 35% and 49.5%, respectively. Most of our employees—almost 97%—were based in Russia.¹ Our largest teams in 2021 were Search & Portal (5,114 people), RideTech and FoodTech (3,903 people) and Market (3,717 people).

This increase was largely due to the scaling of Yandex businesses. Our adaptation to the COVID-19 pandemic was a driver as well: it was more difficult for our businesses to plan staff changes at the peak of the pandemic and arrange for new hires to join our workforce. We welcomed 8,858 new employees in 2021, almost 2.5 times as many as in 2020 (only 3,662 newcomers joined Yandex that year amid tight lockdown restrictions).

Number of employees in the reporting year, people



¹ Belarus accounted for 1.6% of the workforce, while each of the other countries (Israel, Germany, Kazakhstan, the U.S., and others) accounted for less than 1%.

GRI 401-1

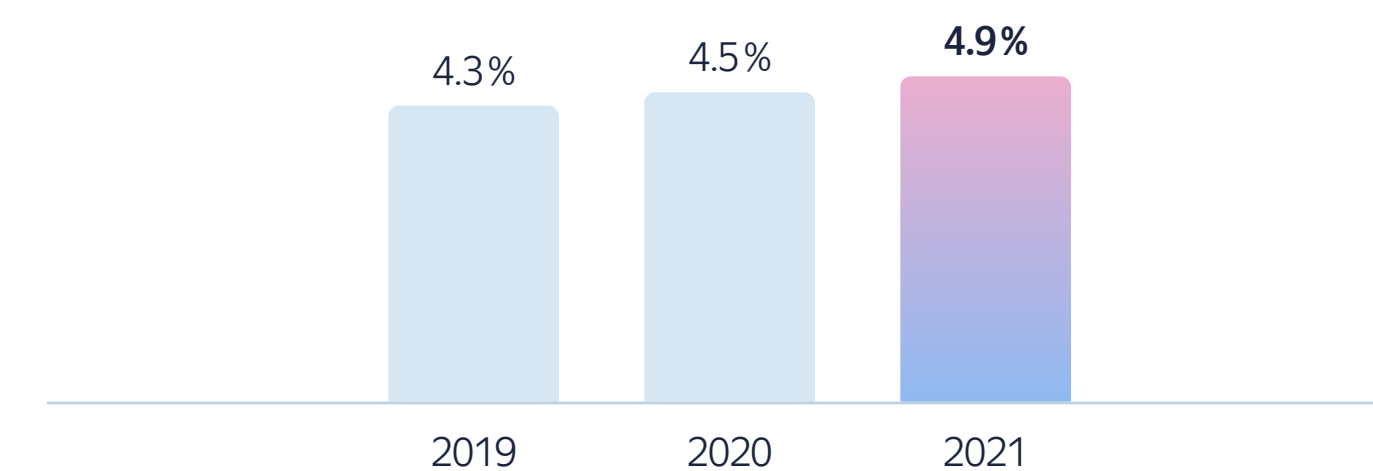
CG-EC-330a.2

TR-RO-320a.2

Yandex employee turnover rates saw little change from prior periods. In 2021, the overall turnover rate was 20.5%²—slightly higher than in 2020³ (20.3%) and 2019³ (17.6%)—due to a downturn in the economy, including the ongoing spread of the coronavirus. Undesirable turnover (top performers leaving the company) totaled 4.9%, up from 4.5% in 2020 and 4.3% in 2019.

Some indicators demonstrated no change on the previous reporting period. In particular, 98% of Yandex employees had permanent employment contracts, which was the same as in 2020. The remaining 2% were project employees engaged for a specific undertaking. The proportion of full-time and part-time employees did not change either (98% and 2% respectively). Those who cannot work full-time can usually negotiate to work flexible hours or temporarily switch to part-time employment.

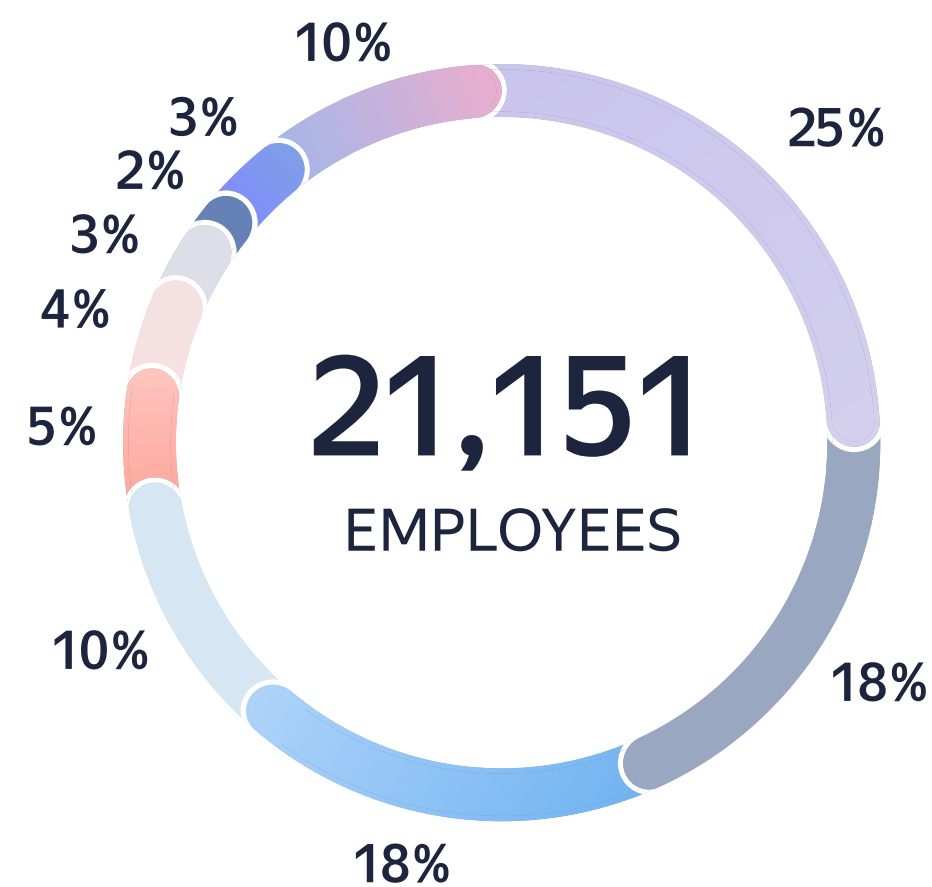
Undesirable turnover rate, %



² Voluntary and involuntary turnover rates were 18.7% and 1.8%, respectively.

³ The turnover rates for 2019 and 2020 were adjusted to reflect our refined approach to calculating the number of employees who left Yandex during a particular reporting period. For details, please refer to the ESG Data Tables Annex of this report.

Yandex employees in 2021 by business unit



- Search & Portal
- RideTech and FoodTech
- Market
- Geolocation Services
- Yandex Cloud
- Classifieds
- Media Services
- Zen
- Other business units and initiatives
- Backoffice

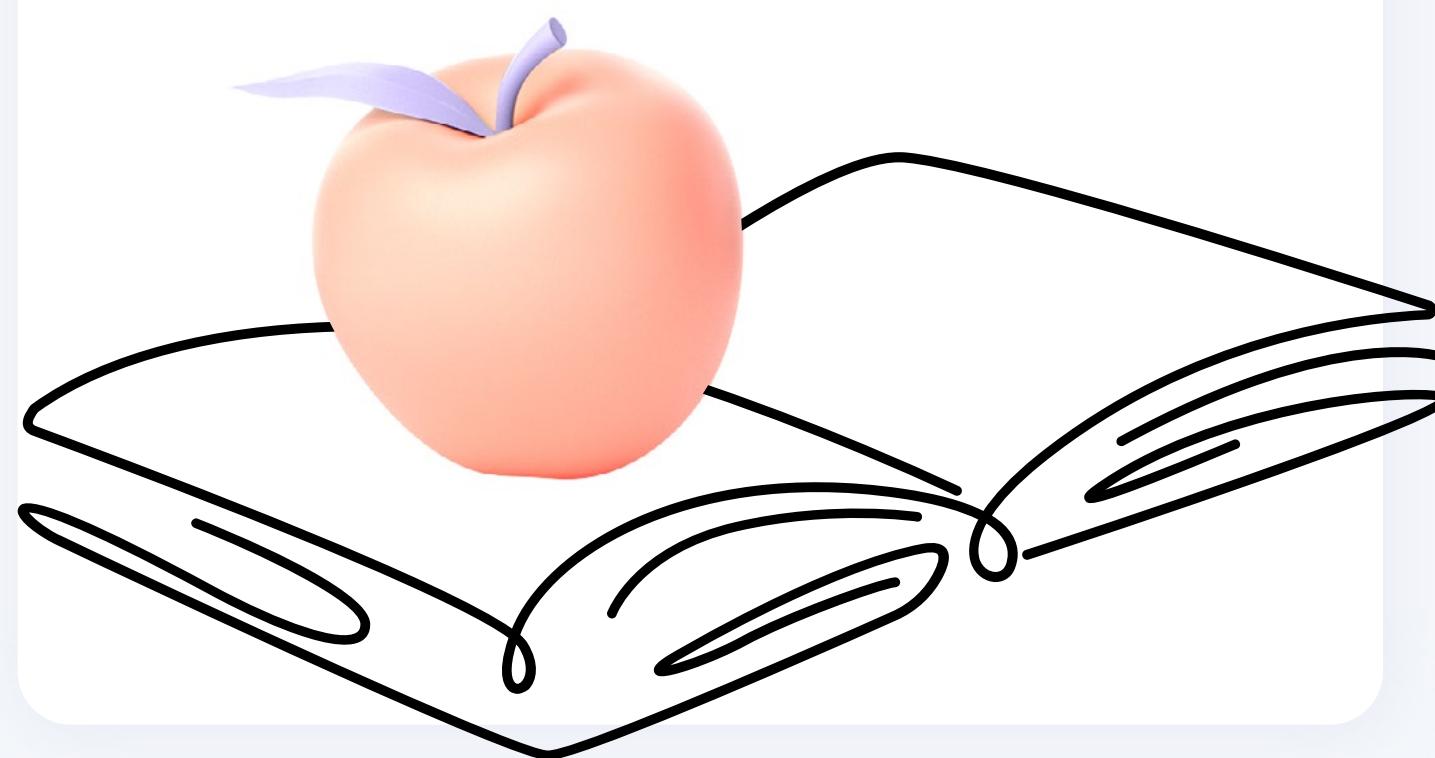
For detailed employee-related data and more, please see the [ESG Data Tables Annex](#); the gender composition of the Yandex team is disclosed in the [Women in our Workforce](#) section of this chapter.

Equality and Human Rights

Yandex aims to bring in top talent and empower them to demonstrate their strengths and faculties, regardless of their gender, age, cultural or religious background, or any other characteristics. To ensure this, we follow a number of principles:

Investing in quality technical education for all

The path to IT begins long before joining Yandex. Children get their first hands-on experience at school, just as they are developing the aspirations that will shape their future career. We believe that equal access to quality IT education from an early age helps address issues like gender stereotypes, and our free programs provide top-notch technical education that is affordable, engaging and career-oriented. For more information, refer to the [Free Educational Projects](#) section of this report.



Equal footing for all job candidates

Yandex uses a uniform procedure to assess all candidates applying for the same position: everyone gets the same knowledge test, and we apply the same clear-cut criteria specifically developed for the role. We welcome candidates with disabilities and ask no questions about their medical condition. They are free to share health-related information at their job interview if they think it could be relevant. We select the best candidates in a fair competition and offer jobs to those with the strongest performance throughout the selection process. All candidates are treated equally irrespective of their age, sex, ethnic origin, place of birth, sexual orientation, religion, or other characteristics unrelated to their professional qualities.

One in four

female candidates who applied for a technical role received a job offer from Yandex in 2021

One in five

male candidates who applied for a technical role received a job offer from Yandex in 2021

Nearly

250

people with disabilities¹ worked at Yandex in 2021

¹ Number of employees who disclosed that they had a disability.

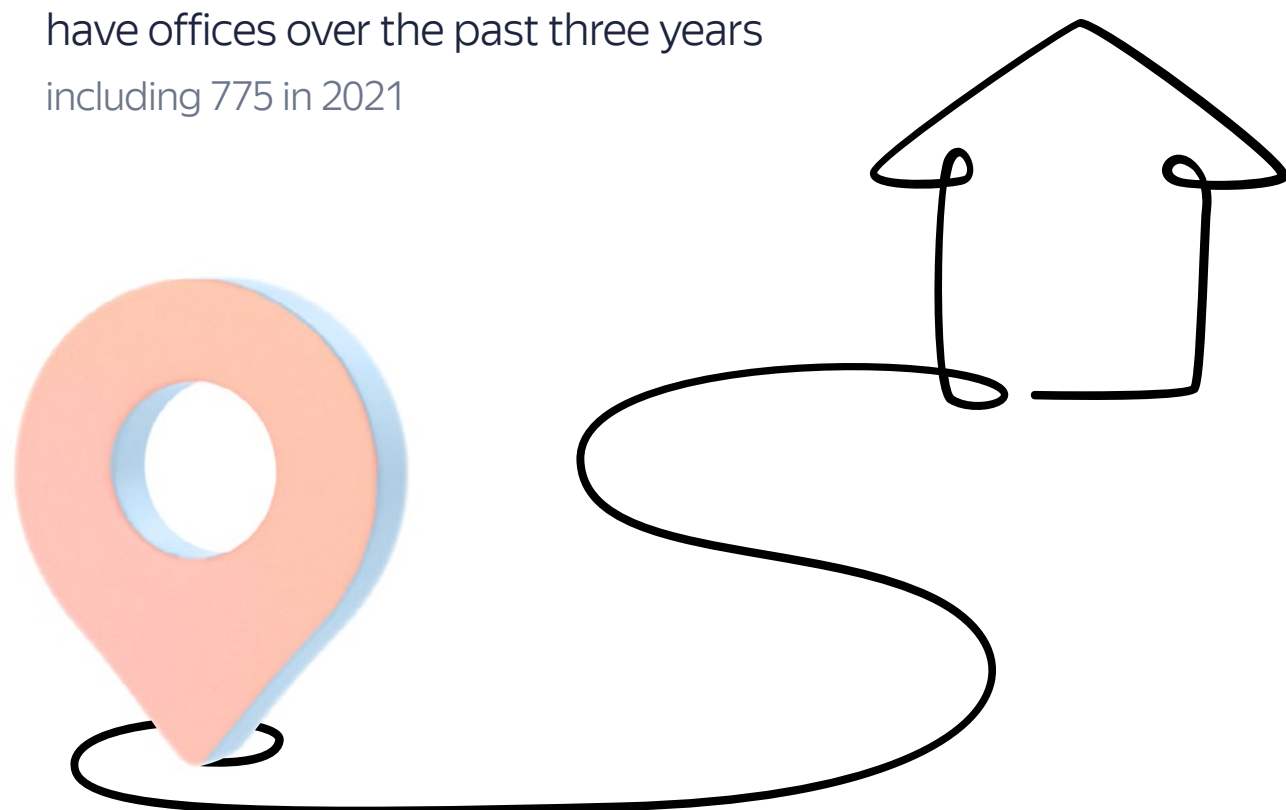
Equality and Human Rights

Hiring from different regions and helping with relocation

We value cultural diversity, and we are proud that Yandex employees speak different languages and regional dialects.¹ Yandex offers relocation assistance to successful applicants, and the relocation package we described on page 102 of our [2020 Sustainability Report](#) includes reimbursement of transportation expenses, assistance in finding housing and schools or kindergartens for children, rent reimbursement for a certain period, and other benefits.

1,500+

employees used Yandex's assistance to relocate to Russian cities where we have offices over the past three years including 775 in 2021



¹ In 2021, we conducted a [survey \(RU\)](#) to find out which words in the Russian language are specific to certain parts of the country.

Transparent performance reviews

GRI 404-3

Everyone should be given equal opportunities to manage their career. Yandex employees undergo straightforward transparent performance reviews twice a year² based on project results and feedback from coworkers and managers, who also evaluate employee work ethics. To ensure objectivity, we compare the performance of employees with similar tasks and calibrate the results. Based on their review results, employees may receive bonuses. A number of job levels come with restricted stock units (RSUs).³ The RSUs and bonuses are awarded based on performance results as well as employee's grade. Pay size for each level is transparent and can be found in the employee memos as well as personal corporate accounts. Yandex's approach to compensation for top managers is described in the [Corporate Governance](#) section of this report.

² Except top managers and Classifieds employees, who are assessed once a year.

³ The crisis in late February 2022 affected prices of Yandex shares and made it impossible to exercise options. As a result, we decided to temporarily freeze the vesting of equity-incentive awards and convert a portion of RSUs subject to vesting after February 2022 into cash payments denominated in local currency based on the stock price as of the RSUs grant date. Under this system, new RSUs granted after February 2022 will be replaced by deferred cash payments. This will remain in effect until the end of 2022, but it may be reconsidered at an earlier date. Employees can choose to either take advantage of the new system or continue receiving RSUs.

Nearly

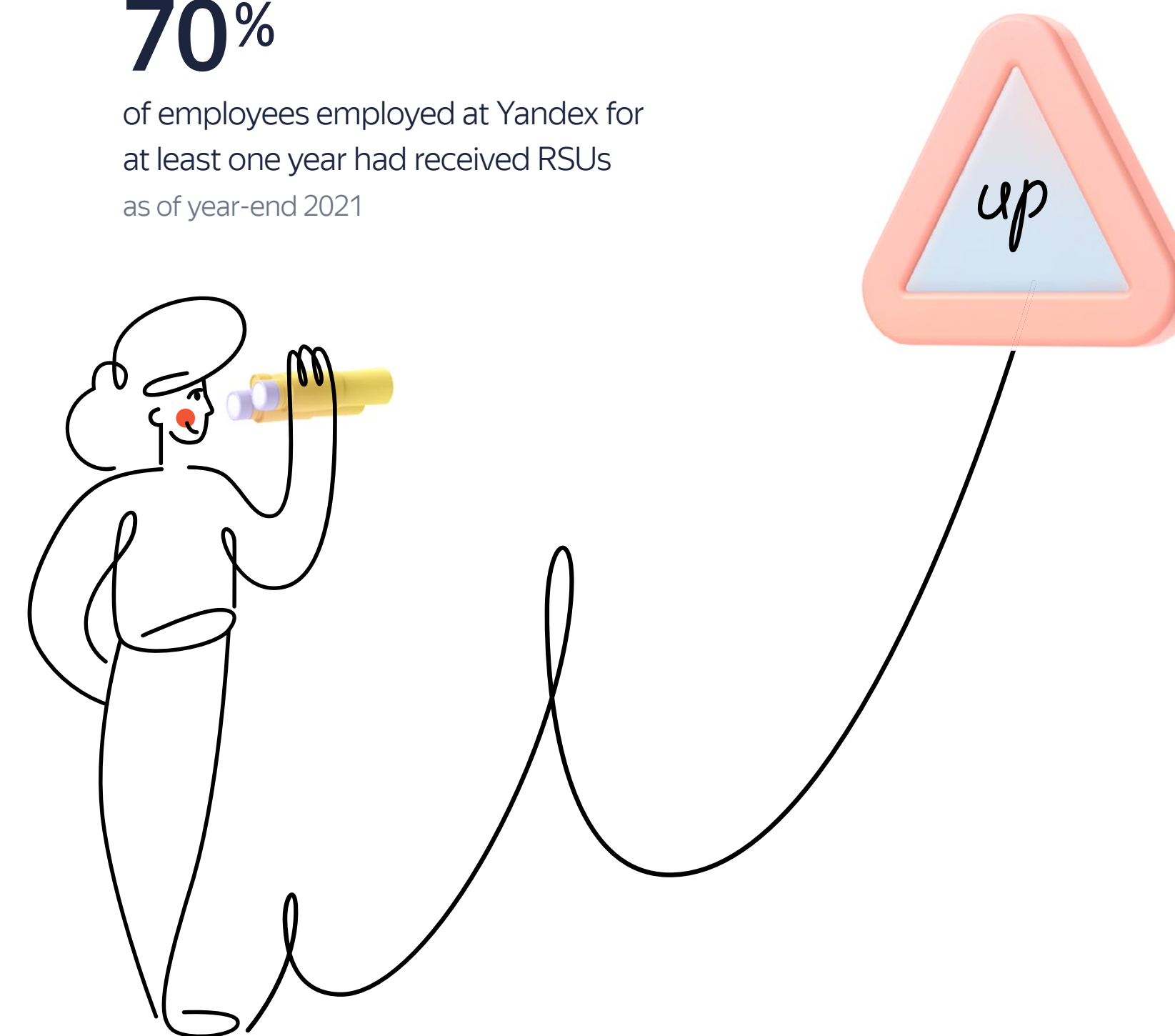
100%

of employees (99.9% of women and 99.7% of men) received bonuses and/or RSUs during the reporting year

More than

70%

of employees employed at Yandex for at least one year had received RSUs as of year-end 2021



Equality and Human Rights

Career advice for employees

GRI 404-2

Each division has a dedicated HR partner who specializes in strategic workforce planning. Supporting employees in their careers is an important responsibility for HR partners, who are always open to talk about opportunities within teams or in Yandex as a whole. They help our people find the right training and provide assistance with changing roles or transferring to another business unit as part of the rotation program. For more information about the rotation program and its advantages, please refer to page 105 of our [2020 Sustainability Report](#).

Ensuring ethical standards

We have created a work environment where mutual respect, honesty, equality of opinion and freedom of thought are everyday norms. Candidates are assessed against Yandex values as early as at their job interview, and we follow the [Code of Business Ethics and Conduct](#), which applies to all of our employees. It provides guidance on how to act in certain situations (e.g., reporting unethical actions or alleged corruption) and outlines what kind of behavior is unacceptable at Yandex. For example, any act of discrimination is a gross violation that can lead to disciplinary action and termination of contract.

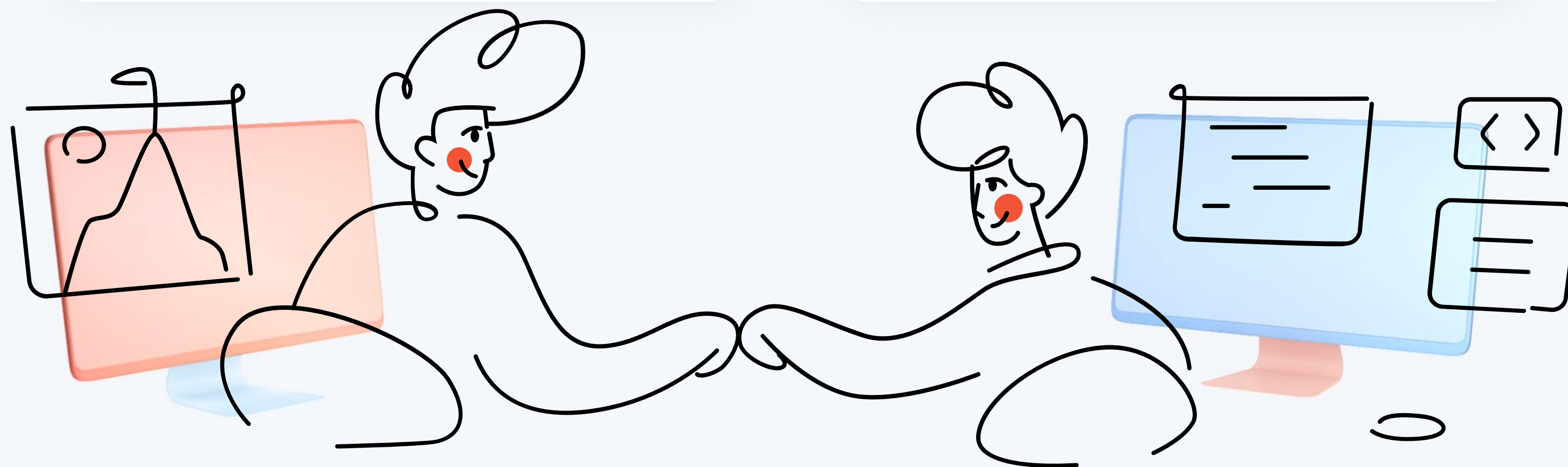
Regular mandatory trainings on business ethics (launched in a new format in 2021) help employees understand and learn principles of ethical behavior. Yandex business ethics standards are described in more detail in the [Ethics and Integrity](#) section, and training completion stats are provided in the [ESG Data Tables Annex](#) of this report.

Women in Our Workforce

Yandex strives to assist women in building successful IT careers. In 2021, over one-third of our workforce was women (36%), which is slightly above the industry average. According to market research,¹ the percentage of women at major global technology companies averaged 31.5% in 2020 and is projected to grow to 33% by the end of 2022.

Women make up one-third of leadership roles at Yandex (32%), which is two percentage points more than in 2020. Among CEO-1 and CEO-2 level managers, women account for 32%, up from 27% in 2020. In absolute terms, the number of female managers increased by more than 350 in 2021, including through internal promotions. In the spring of 2021, more women than men were promoted to more senior positions following a performance review.

Yandex continues developing free youth IT training programs, which are equally available for girls and boys (for more information, see the [Free Education Projects](#) section). We believe this long-term investment will gradually narrow the gender gap among tech graduates entering the labor market. The current level of female representation in technical positions at Yandex is in line with global trends. Over the reporting period, the number of women in STEM roles² grew by more than 900, reaching almost a quarter (23.3%) of the total number of Yandex's technical specialists by year-end 2021. According to available industry statistics,³ the proportion of women in STEM roles at global IT companies averages 23%.



¹ TMT Predictions 2022, Women in the Tech Industry: Gaining Ground, but Facing New Headwinds (Deloitte, 2021)

² Science, technology, engineering, and mathematics

³ TMT Predictions 2022 (Deloitte, 2021)

Women in Our Workforce

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

36%

employees in our workforce are women

32%

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

23.3%

employees in STEM roles are women¹

900+

women were hired for a tech job at Yandex
in 2021

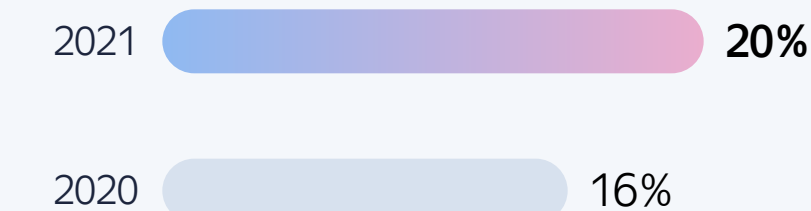
Representation of women at Yandex by professional field

(% of total Yandex employees in 2021)



We saw an increase in the share of female applicants for technical jobs at Yandex from 16% in 2020 to 20% in 2021, and one in four of them received a job offer. Women also demonstrate strong competencies and often score higher in tests than men.

Share of female applicants for technical roles



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

Women in Our Workforce

Parental Support

GRI 401-2

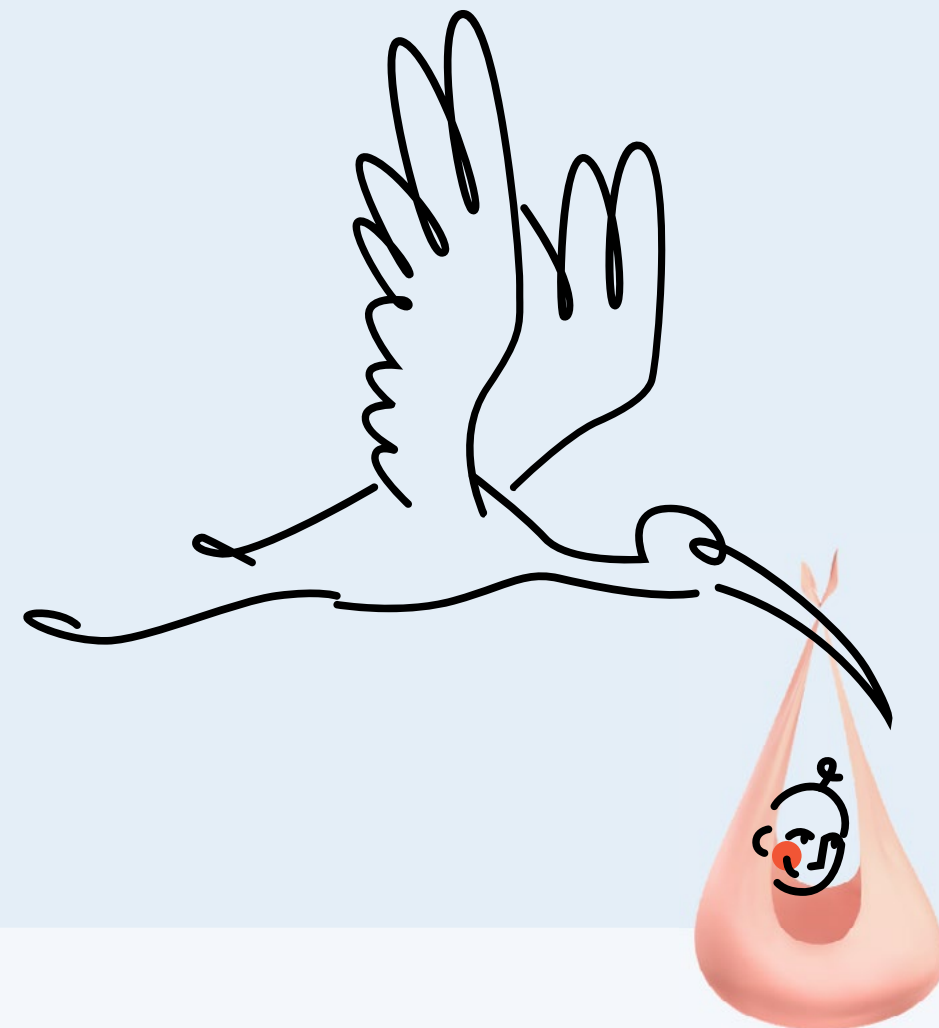
GRI 401-3

Bringing a child into this world is a huge responsibility for parents. We know how important it is for people to be with their families without having to worry about work.

Yandex employees in Russia who have a new addition to their family can take up to three years of parental leave. This benefit is available to all employees who look after a child, including parents, adoptive parents, guardians, and caregivers. They retain their employment at Yandex and receive a child allowance from the state. Mothers in Russia are also eligible for a statutory 140-day maternity leave, and Yandex continues remunerating them based on their average annual earnings.

In addition, we provide **two full salaries** (or average monthly earnings, if paid by the hour) to all mothers who go on maternity leave. For the number of employees who took parental leave during the reporting period, please see the [ESG Data Tables Annex](#) of this report.

We also support employees who would rather get back to work right after the birth or adoption of a child. Yandex offices have nursing rooms. Employees can take advantage of flexible work hours after consulting with their supervisor. They can also take out health insurance for children under the age of 19 at discounted corporate rates starting from their first day at work, with Yandex covering 80% of the policy cost.

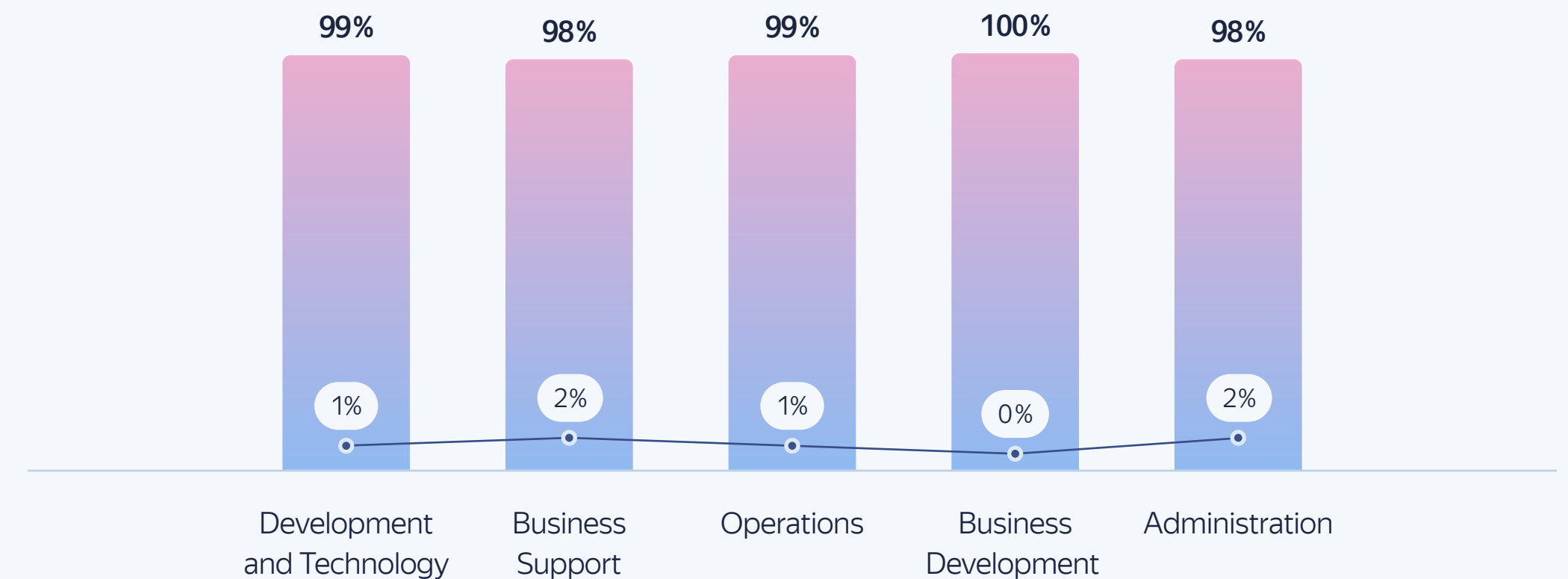


GRI 405-2

At Yandex, women and men in like-for-like roles and with similar performance results are remunerated equally. Salaries of new hires are always determined based on their professional qualities, as well as competitive salaries on the market. In 2021, the gender pay gap across all professional areas was at a maximum of 2%.

Average monthly pay of women and men by professional field

● Gender pay gap



Calculated for full-time employees as of 31 December 2021. 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

Employee Engagement

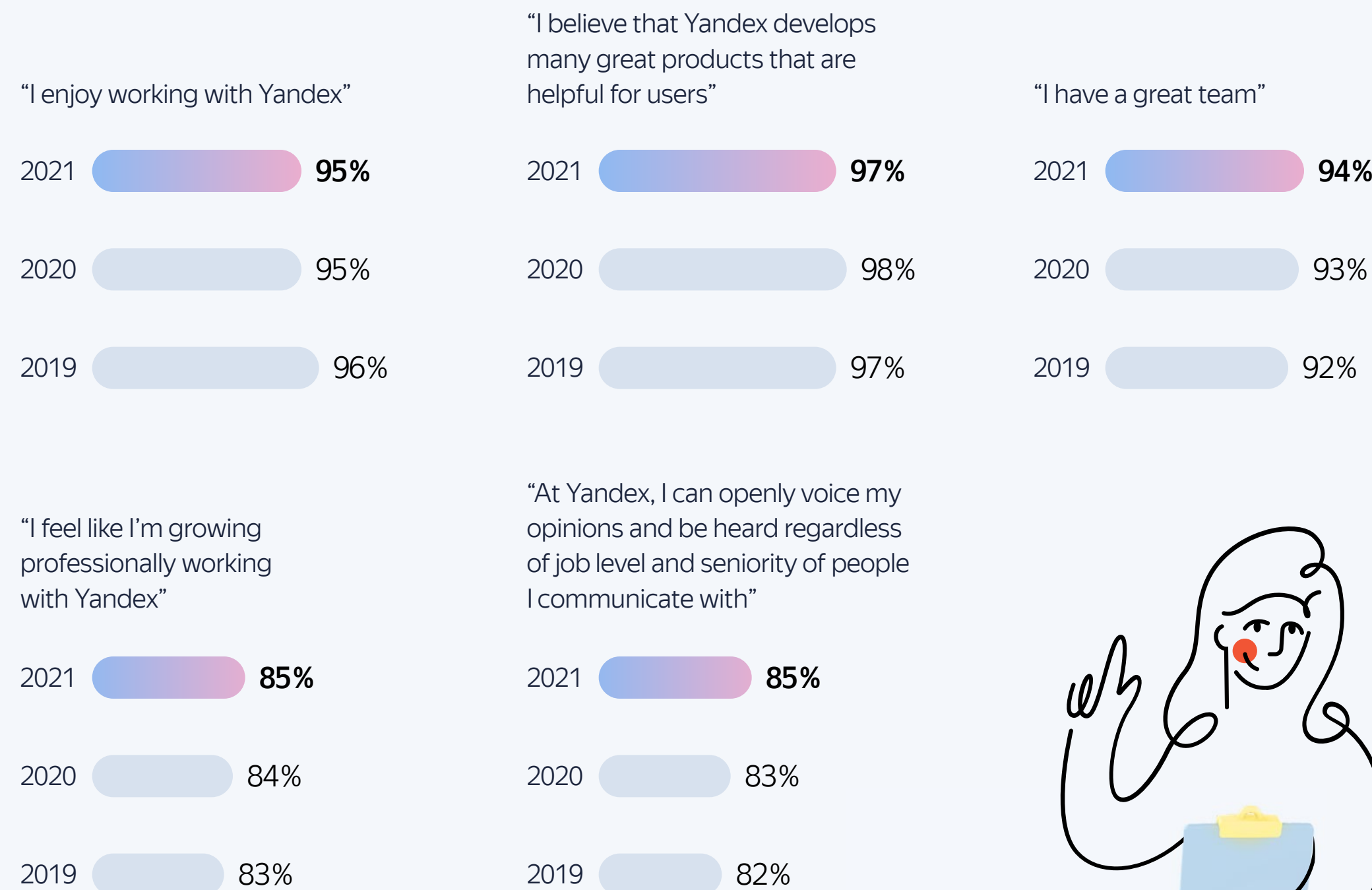
TC-IM-330a.2 CG-EC-330a.1 TC-SI-330a.2

In 2021, we held our annual employee engagement survey to determine overall job satisfaction, how employees align with our mission, their degree of motivation, and the levels of emotional safety in the workplace. By doing this, we were able to identify the basic needs of our teams and make improvements to better meet those needs.

The percentage of employees who enjoy working at Yandex remains high (at least 95% throughout 2019–2021). They have told us once again how much they valued the professionalism of their colleagues and the opportunity to create useful products, grow professionally, and take on interesting and challenging tasks. Many of them also appreciate our culture of openness and equal communication between employees of all levels.

In 2021, we added questions to measure employee involvement in Yandex's social and environmental initiatives. Over half of surveyed employees believe that Yandex can and must double down on social and environmental issues. However, respondents demonstrated an uneven level of awareness about our corporate initiatives. For example, more than 80% were able to explain the value of our free educational projects, yet only 20–40% could name at least a few environmental undertakings. However, most respondents were positive about the importance of our educational, charitable and environmental streams. Eighty-four percent of respondents stated that it was important for Yandex to benefit society.

Percentage of Affirmative Responses to Key Questions²



74%

employees took the 2021 employee engagement survey in 2021

87%

employees were actively engaged¹ in 2021

84%

of employees think it's extremely important for Yandex to create value for society

¹ Please refer to page 106 of Yandex's 2020 Sustainability Report for the methodology

² The engagement survey consists of more than 10 questions. For the purposes of this Report, the chart shows only a sample of responses.

Employee Social Benefits

GRI 401-2

GRI 403-3

GRI 403-6

Yandex offers social benefits that include extended private health insurance. Our employee benefits package is among the best on the Russian market and is comparable to those offered by major multinational companies. Please refer to page 102 of Yandex's [2020 Sustainability Report](#) to learn more about benefits available to our employees.

We review the benefits every year to make sure that they are relevant and meet the current needs of employees. We learn about their expectations through regular surveys and insights produced by our analysts. For example, we keep track of the most sought-after medical services not covered by our private health insurance and do our best to include them.

In 2021, **we added COVID-19 treatment**, including hospitalization and doctor's house calls, **for insured employees and their insured and uninsured immediate family members** (parents, spouses, and children). Our people could get a COVID-19 vaccine in private hospital rooms and undergo post-COVID health screens and rehabilitation. Upon request, insurance coverage **now includes popular clinics** (including pregnancy clinics) in Moscow and a number of Russian regions, allergy tests, the removal of wisdom teeth, and medical certificates for sporting events.

We also added popular services such as blood tests for vitamin D levels and orthopedic treatment.

We asked employees whether they were satisfied with the range of services provided under Yandex's private health insurance program, and almost all of them answered that their insurance policies fully covered their needs and even exceeded expectations.



688

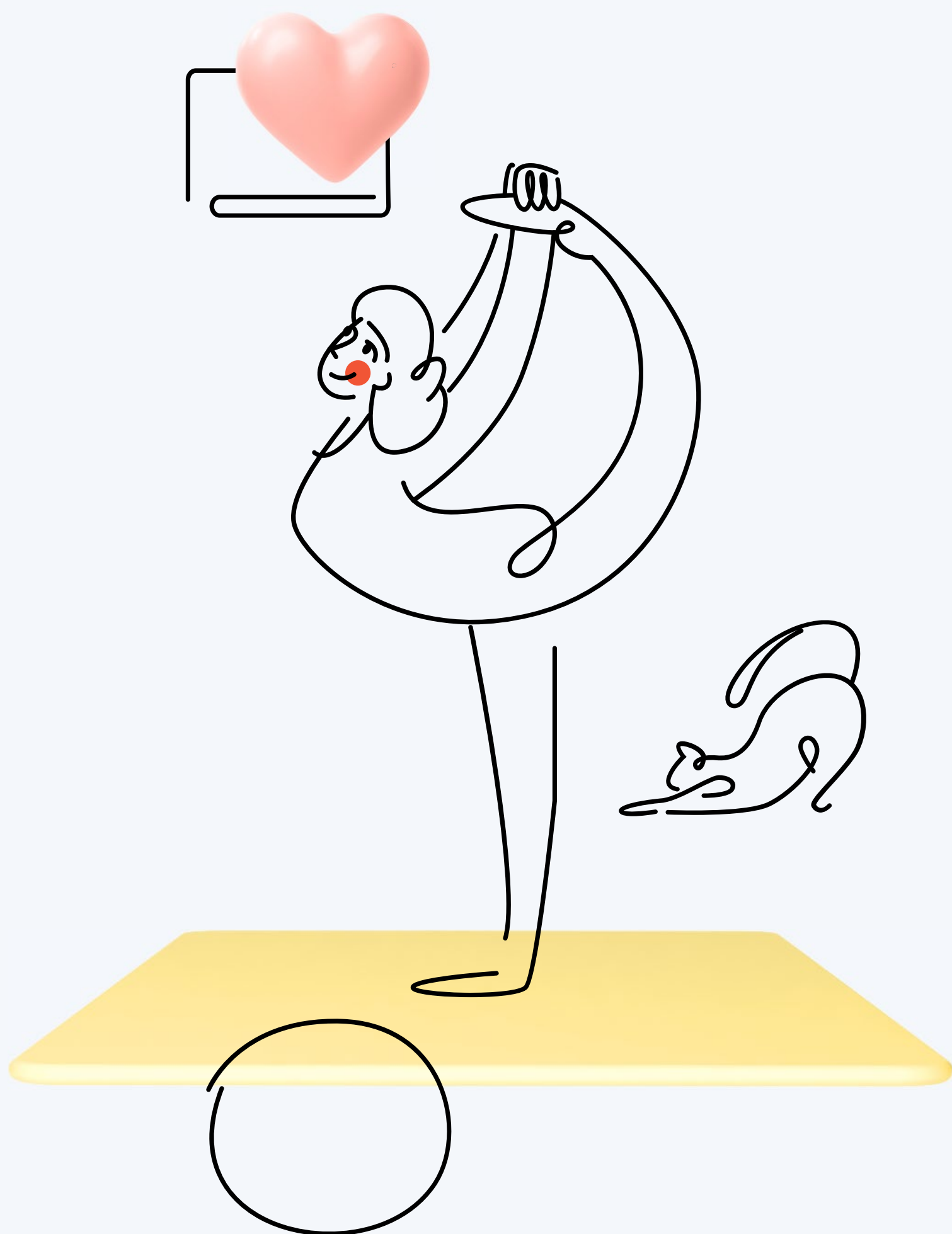
employees received housing program benefits¹ in 2021

2,000+

employees participated in online sports activities with our corporate trainer

¹ For more information on Yandex's Housing Program, please see page 103 of our [2020 Sustainability Report](#).

Employee Social Benefits



GRI 401-2

GRI 403-3

GRI 403-6

Yandex’s **mental support program** was an important focus area in 2021 as we worked to combat persistent workplace anxiety after a long period of lockdown and remote work. We conducted regular pulse surveys to gather and analyze employee sentiment and did everything we could to help our people cope with stress.

In addition to the mental health support covered by private health insurance,¹ employees were provided with preferential terms for using services such as Meta (trusted mental health therapists) and YouTalk (online psychological counseling). We also invited highly qualified therapists to hold internal stress management webinars. Those who took part learned about the difference between stress, fatigue and burnout and the tools for building resilience during times of hardship, quarantine or uncertainty. Employees also continued taking advantage of our free sporting activities aimed at improving their physical wellbeing. These sessions were available both online (with a corporate trainer or on the Fitmost platform) and in-person (our running club went live again after being held online during the lockdown).

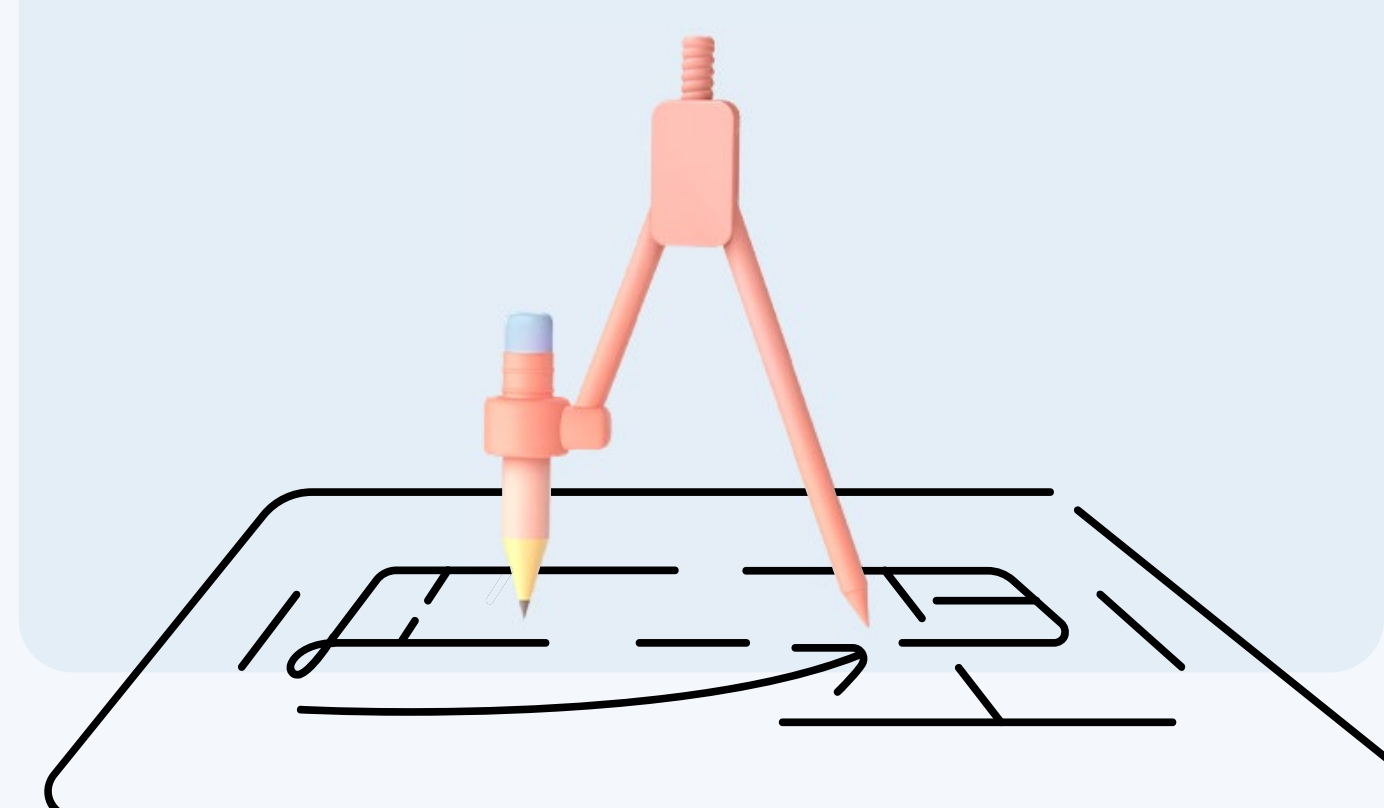
We believe that our benefits and support helped employees improve their mental wellbeing. A comparison of employee survey findings indicates a positive trend: in late 2021, more than 90% of Yandex people rated their mental health as “good” or “excellent”, up from 60–70% in late 2020, during the second COVID-19 outbreak.

¹ Including mental health care as part of the private health insurance at covered offices and clinics and in Yasno and Yandex Health services, as well as the reimbursement of counselling expenses not covered under the employee’s insurance policy (up to 10 sessions).

Ergonomic Offices

GRI 403-7

Having an ergonomic office means providing employees with a convenient working space, while also caring about their health. Yandex offices are truly ergonomic: we have well-designed lighting and ventilation, comfortable furniture, separate work and rest zones, and quiet and social zones. Offices are set up to ensure that employees can move between their destinations using different routes so they can walk more without disturbing their colleagues. Each floor has kitchens located at a convenient distance from workstations. In 2021, we updated our food offerings to include more healthy items such as fruits, vegetables, nuts, and wholesome snacks.



Employee Training and Development

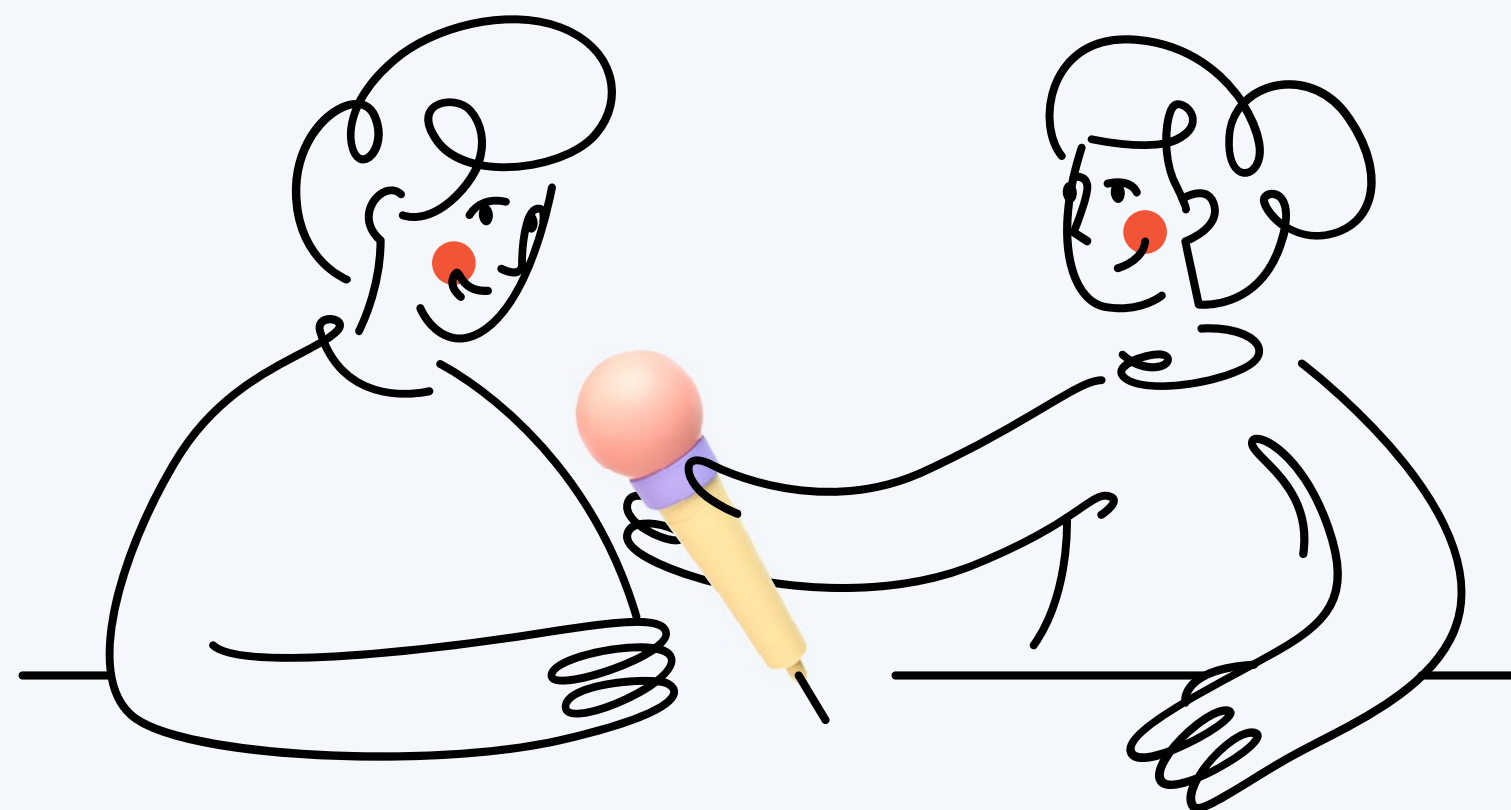
GRI 404-2

We encourage our employees to learn and develop so they can come up with competitive products and be in demand both inside and outside our company.

There are different ways to grow as a professional: you can take on new challenges at work or enroll in a training course to improve your skills or acquire new ones. Yandex has a wealth of training and educational programs updated on a regular basis, which are available to all employees.

In 2021 we worked on new internal training formats to help employees learn faster. We try to ensure that our training sessions are not too long, contain only important information, and meet employees' expectations.

We also **focused on the training of managers** in view of the rapid growth of Yandex services. For instance, Yandex Lavka and Yandex Cloud revenues **increased** 1.5–2 times in 2021. As many as 675 employees were promoted to a leadership role in the same year.



We trained both new and experienced managers. A total of 345 managers received leadership training (versus 317 in 2020), including 36 experienced functional and departmental leaders.

We also introduced additional formats for improving leadership skills and made them available to all employees. For example, the **Ya.Leader (I'm the Leader) cluster** launched in 2021 integrated a variety of knowledge- and experience-sharing resources, including interviews with top managers that touched upon real-life business cases, success stories and mistakes, as well as recommended materials (books, podcasts, etc.). We chose this format because each executive at Yandex has their own unique experience, and many of them utilize a one-of-a-kind approach to decision-making. Our new managers and future leaders thus get the opportunity to learn from their seniors and follow in their footsteps, as well as "embrace the freedom of coming up with their own ideas.

The **Ya.Mentor (I'm the Mentor) platform** finalized in 2021 is another useful tool for Yandex employees who wish to benefit from more experienced co-workers. This platform is now a complete proprietary solution with convenient functionality. Any employee can register as a mentor by providing a summary of their skills and expertise and specifying their desired field of mentorship, number of mentees, and frequency of mentoring conversations. As at year-end 2021, we had more than 150 active mentors and over 450 mentees.

Other updates to Yandex leadership skills programs

New Leader Training Course

We added more lectures from experienced Yandex leaders and mentors who had completed the New Leader Training Course.

Let's Talk Podcast

We recorded three episodes with Yandex leaders on work planning and control, work-life balance, as well as "self-assessment and appreciation techniques.

Business Correspondence E-Learning

We launched a new e-learning module to teach employees how to deal with difficult emails.

Strategy and brainstorming sessions

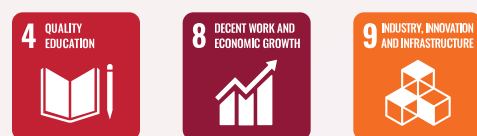
We delivered 64 sessions, expanding our outreach. There were only 26 in 2020.

Training sessions on managing remote teams

We updated the content of our training sessions to incorporate the lessons learned during the COVID-19 pandemic and emphasize the importance of engagement in hybrid teams.



Education for All



GRI 203-2

High-quality educational tools and programs for navigating the digital age are a key priority for Yandex, and they give us a meaningful opportunity to respond to pressing social challenges. As the labor market continues to struggle with the undersupply of IT talent, Russia is short of one million IT professionals a year, according to some official statistics.¹ There is also a continuing gender imbalance among tech students. Studies conducted in recent years have revealed that women make up less than a third of tech major graduates in Russia.²

GRI 203-1

We leverage Yandex technologies and our expertise to consistently improve IT skills among different groups of people, from schoolchildren and students to experienced professionals either with or without a background in IT. Our flagship products comprise **free educational projects**, such as Yandex Academy and Yandex Texbook, and **Practicum by Yandex**, an online educational boot camp for digital reskilling.

¹ According to the Russian Ministry of Digital Technology, Communication and Mass Media (RU) 2021 data, the annual shortfall of IT talent in Russia totals 500,000 to 1 million people.

² The Gender inequality in Russian regions (RU) study showed that the share of women among science, technology, engineering and mathematics (STEM) graduates did not exceed 32%, and the share of CVs submitted by female applicants to IT and telecom companies was at 26% in 2020.

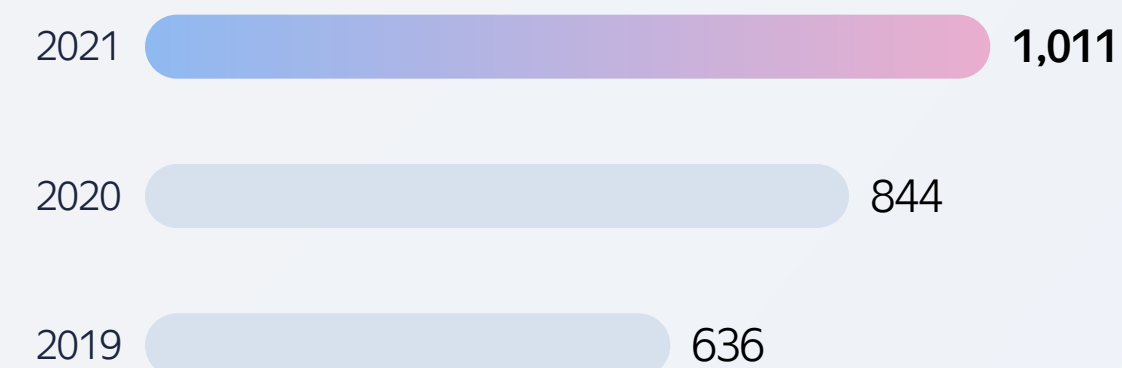
6.3+ M

people have benefitted from Yandex's free educational programs in the 2020–2021 academic year

3,000+

Practicum by Yandex students landed a job in their chosen new field in total since the service was launched in 2019

Spending on educational projects, RUB million³



³ The chart shows spending per calendar year (1 January to 31 December), net of Practicum development expenses.

Free Educational Projects

GRI 413-1

Our effort in providing quality IT education started in 2007 when we introduced the Yandex School of Data Analysis (YSDA), our first free educational program. Since then, we have considerably expanded our no-cost programs—by introducing tailored training for new audiences, such as IT training for schoolchildren, as well as extending the programs' geography and engaging students from a number of regions beyond Moscow.

In 2019, we consolidated our experience and introduced the Yandex Educational Initiative, a comprehensive pro bono program that focused on making education in math and tech accessible to all. To learn more about its mission and goals, please refer to [2020 Sustainability Report](#).

In 2021, the Initiative continued delivering educational programs in IT and math to everyone, regardless of gender, as well as supporting teachers and the professional community, developing educational infrastructure, promoting science and outreach programs. A comprehensive overview of these activities over the past academic year can be found in a [standalone report](#) (RU).

Training IT Specialists to Work in the Digital Economy

Key Projects:

- ✓ Yandex Academy
- ✓ Mathematics, programming and linguistics contests

GRI 203-1

GRI 203-2

GRI 413-1

The **Yandex Academy** (RU) trains future IT professionals. Since 2021, we have been gradually transforming it into an educational platform to offer learning opportunities and a continuous learning experience to people of different ages.

The Yandex Academy runs a number of educational projects, such as the **Lyceum by Yandex** (RU) (for 8th-10th graders), joint undergraduate and graduate degree programs with Russian universities, the **Yandex School of Data Analysis** (for university graduates and undergraduate students), seasonal intensive courses in different IT fields, and more.

On top of that, the Yandex Academy develops helpful educational materials accessible to everyone. In 2021, the YSDA **introduced a digital handbook in machine learning** (RU) that provides theoretical and practical knowledge about ML algorithms and data processing.

3,000+

people graduated from the Yandex Academy
in the 2020-2021 academic year

We encourage continuous self-development, which is also spurred by healthy competitive environment. Yandex was the first IT company in Russia to facilitate programming contests. We partner with the International Collegiate Programming Contest (ICPC), the largest championship in competitive programming among the world's universities, and run the Yandex Contest, an online platform for programming competitions and training. The Yandex Cup, an annual online public programming contest, saw 18,000 participants in 2021.

We provide technical, financial, and organizational support for various knowledge competitions, including the International Bioinformatics Olympiad, the International Linguistics Olympiad, the All-Russian Computer Science Olympiad for Schoolchildren, and the I am a Professional Olympiad.

Collaboration with Universities to Foster Development in IT

447

people graduated from Yandex's joint programs
with Russian universities
in the 2020-2021 academic year

We believe that anyone should have a chance to learn relevant skills for the most in-demand careers in the IT industry. To this end, we work with universities to develop educational courses and programs based on real-life business cases and provide students with sought-after skills and opportunities to apply them in practice.

In 2021, we **expanded our university partnerships** by introducing a joint YSDA and Lobachevsky State University of Nizhny Novgorod (UNN) graduate program on cognitive systems, and an undergraduate program in artificial intelligence in mathematics and IT education delivered together with Moscow Institute of Physics and Technology (MIPT), Astrakhan State University (ASU) and Sirius University of Science and Technology.

Another milestone was the new department of software engineering launched by Yandex and MIPT in early 2022. This department will offer innovative degree programs that cover both technical and business skills, such as product and project management.

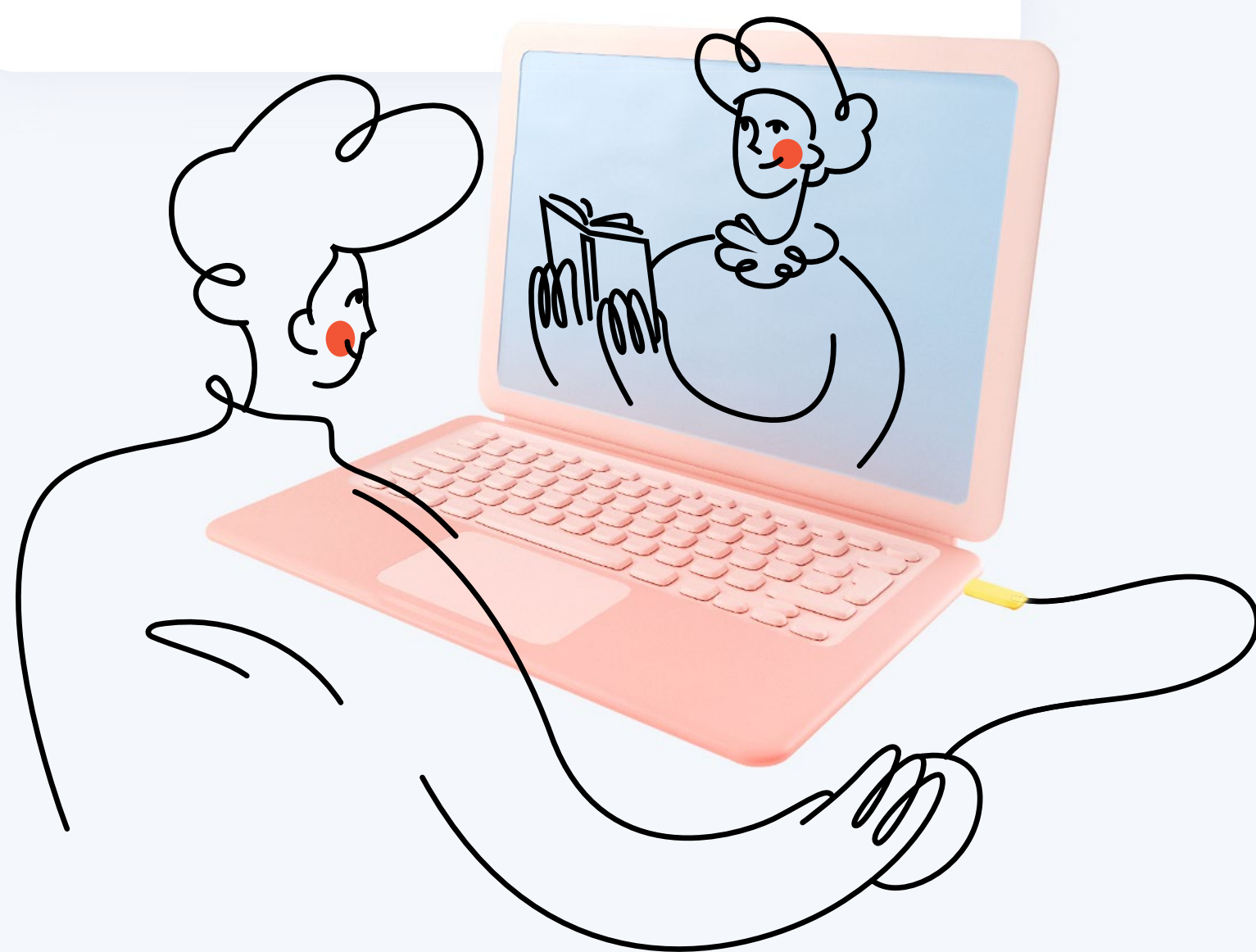
Support for Teachers and the Professional Community

Key Projects:

- ✓ Yandex Textbook
- ✓ Yet another Conference on Education (YaC/e)

Yandex Textbook used in their classes:

1.9 M schoolchildren **100+ THSD** teachers



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

Yandex Textbook is a free online platform for teachers and students with assignments for primary school and some middle school subjects. In 2021, Yandex Textbook **introduced a course in informatics based on** cutting-edge teaching techniques.

The platform has also **conducted a few studies¹ to understand teachers' current needs and identify gaps in teaching for specific subjects.** The insights obtained from these regular surveys help us improve our educational programs and develop useful recommendations for teachers.

In the 2020–2021 academic year, each of the surveys covered over 70,000 respondents. According to the survey on professional burnout, 75% of the teachers had experienced burnout symptoms due to their high levels of emotional involvement and moderately low satisfaction with career opportunities. Amid the rising need for an individual approach and more frequent misbehaviors (aggression, truancy, etc.), teaching is becoming ever more difficult.

Yandex's dedicated **courses, webinars and intensive training sessions** help teachers cope more easily. All the materials for these training programs are developed together with mental health professionals, teachers, and other experts. Over 100,000 teachers took Yandex Textbook courses and intensive sessions in the 2020–2021 academic year.

Second YaC/e Conference

30,000+

viewers tuned in for YaC/e in 2021

In November 2021, Yandex held its second online conference on education: Yet Another Conference on Education (YaC/e). The event featured a number of tracks aimed at academics, educational designers, researchers, schoolteachers, parents with kids of various ages and anyone interested in learning opportunities.



The recordings are available on the [YaC/e website](#) (RU)

¹ In 2020, we conducted three surveys: Professional Burnout for Teachers (see [findings](#)) (RU), Competencies of Russian Teachers: Digital Literacy, Flexible Skills, and the Ability to Develop Functional Literacy (see [findings](#)) (RU), and Challenging Behavior in the Classroom: Signs and Coping Strategies (see [findings](#)) (RU).

Educational Infrastructure

Key Projects:

- ✓ Yandex's digital solutions for universities
- ✓ Research and open data

Yandex **offers tailored products and infrastructure solutions** to help universities embrace digitalization. These solutions include Yandex Cloud services and Yandex 360 (a set of collaborative tools that includes a document editor, file storage and messenger application).

We **invest in evidence-based education**, i.e., educational practices that are based on the best available scientific evidence. In doing that, we work together with research organizations.

In 2021, we partnered with the National Research Institute Higher School of Economics (HSE) to prepare **a report¹ on digital transformation and the challenges of remote learning** in Russia and the world. We found that advanced technologies alone cannot make online learning as effective as traditional learning. There are a few barriers to achieving comparable outcomes. These challenges, including teachers' digital proficiency, up-to-date educational infrastructure, and equal access to technology and education for families, must be addressed by the entire educational community. Free educational initiatives strive to make a valuable contribution to these efforts.

¹ The full text of the report Digital Transformation: The Experience of Teachers and Educational Organizations in Russia and around the World can be found [here](#) (RU).

Supporting Science and Fostering a Knowledge Society

Key Projects:

- ✓ The Ilya Segalovich Award
- ✓ Digital Classroom
- ✓ Cultural Marathon
- ✓ Russian National Corpus (the largest open linguistic database of the Russian language)

Our product innovations are driven by and benefit from research. We have a dedicated Yandex Research unit which employs scientists, and we believe it's crucial to **support basic research and fundamental applied research in computer science** outside of Yandex. In 2019, Yandex **established the Ilya Segalovich Award** to recognize breakthrough achievements in computer sciences made by young researchers and their academic supervisors in Russia, Belarus and Kazakhstan. The 2021 award went to six winners.

Technological breakthroughs come from the thirst for new knowledge and exploration. We **encourage children's interest in learning across a plethora of subjects** through projects such as Cultural Marathon, Digital Classroom and Total Dictation. For details, please refer to the **annual report on free educational projects** (RU).

Ilya Segalovich Award in Computer Science

29

young researchers and academic supervisors, including five female scientists, have received the Ilya Segalovich Award in Computer Science since 2019



Practicum by Yandex

GRI 203-2

Practicum by Yandex is an e-learning platform offering IT-courses aimed at specialists who already have a profession and work experience. It complements numerous educational initiatives focused on schoolchildren and students.

With Practicum, you can quickly¹ learn a new in-demand digital profession from scratch or get new skills for advancing your IT career. According to the HSE [survey](#) (RU) **of Practicum graduates** conducted in late 2021, 78% of the students who had studied a new profession landed a job in their new field, and 79% of them found employment within four months of graduating.

In 2021, **Practicum by Yandex joined the Digital Professions** (RU) program which offers a 50% coverage of tuition fees by the government. Financial support is currently available for 10 Practicum programs lasting 5 to 11 months (data scientist, data analyst, C++ developer, middle front-end developer, QA developer, web developer, Python and JavaScript engineer, Java test automation engineer, and project manager). In 2022, we will aim to expand the list to 30 programs.

As of the end of 2021, several thousand students had enrolled in the Practicum's state co-funded courses. We plan to double or even triple this number in 2022.

Practicum offers a money-back guarantee for three advanced programs in web development, data analytics, and data science. **We will refund the full price if a graduate fails to get a job offer or promotion.** By offering this opportunity, we hope to encourage more people to start a new career.

In 2021, Yandex allocated RUB 20 million to **provide Yandex Go partner drivers the opportunity to train for an IT profession on Practicum free of charge.**

We also launched a free refresher [course on basic math](#) (RU) to help Practicum students navigate the programs that require basic knowledge. It expands our offering of free intensive courses for students, which includes Excel, data visualization and tutorials on cloud essentials.



20,000

students were enrolled in Practicum programs at the end of 2021

1,000+

women studied data science and analytics

48.5 %

students in data analysis
44%—QA engineer students were female



78 %

of students aiming at a new profession get a job in their chosen field

65 %

of graduates boost their income

×2.5 TIMES

the median monthly salary of a Practicum graduate than the average for Russia²

¹ At Practicum by Yandex, IT profession programs generally last 1 to 1.5 years.

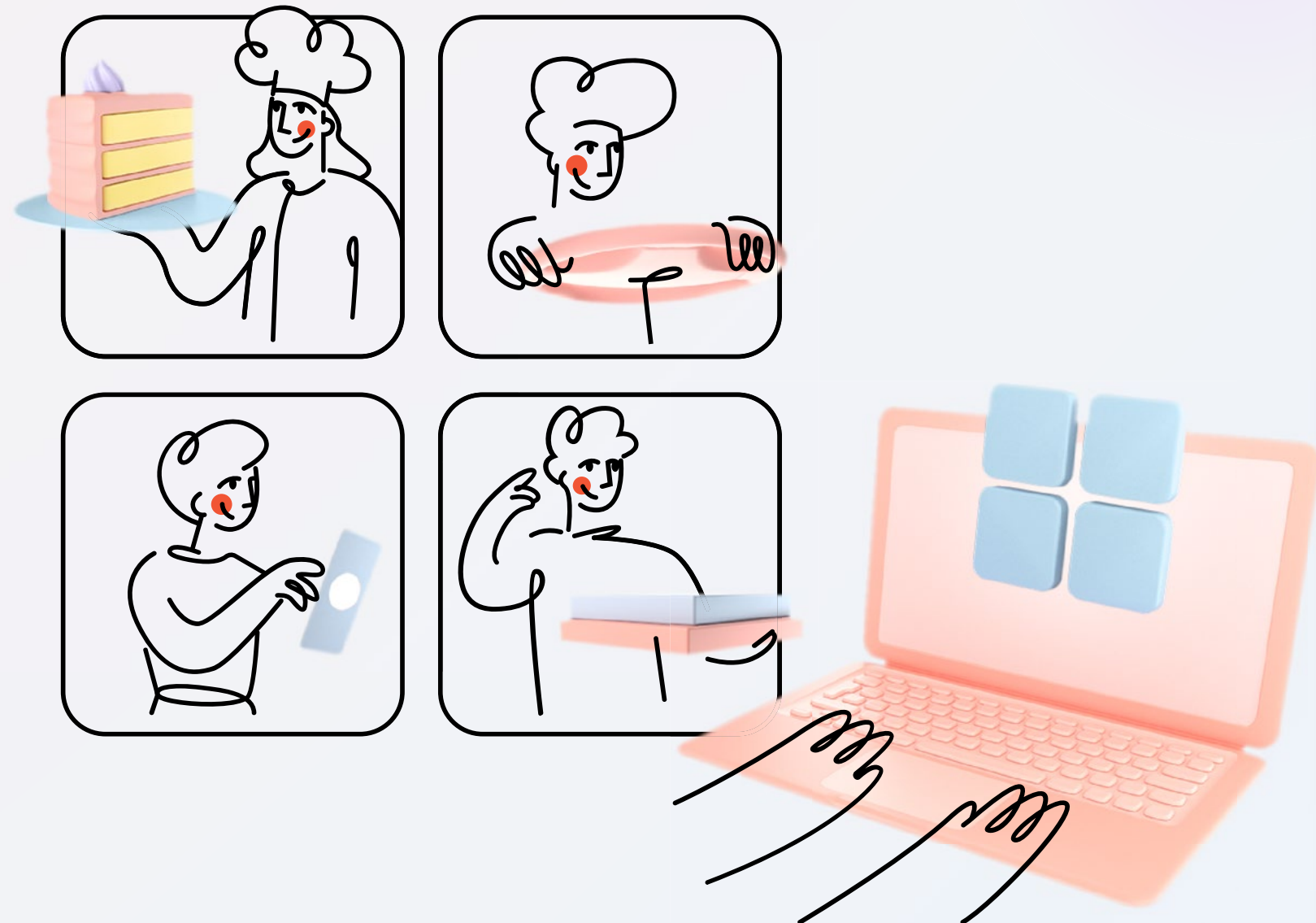
² According to the Russian statistics agency ROSSTAT, the median monthly salary in Russia totaled RUB 32,422 in 2020

Yandex Service Partners



At Yandex, we partner with businesses and individuals such as drivers, couriers, crowd workers, and many others. Details about the network of our partners can be found in the [2020 Sustainability Report](#) (page 66).

We do our best to be a reliable partner for everyone by implementing rigorous quality control for our products and services; furthermore, we provide social support to the service partners engaged on our platforms and welcome all feedback.



Social Support for Drivers and Couriers

GRI 203-2

GRI 413-1

Yandex collaborates with thousands of drivers and couriers. In 2021, our Yandex Go service partners carried 35 million passengers on average each month, while Yandex Market customers received almost 30 million deliveries in the same year.

1 M

monthly active drivers in 1,000+ cities in all countries of presence
 ↑ 32% Y-o-Y growth

30,000+

female drivers

30,000+

monthly active couriers partnering with foodtech services (Yandex Eats and Lavka) in all countries of presence
 ↑ 50% Y-o-Y growth

To make partnering with Yandex even more convenient, in 2020 we offered a unified Yandex Pro platform to our drivers and couriers. It is designed to enhance partner experience by offering opportunities to choose between different roles or upgrade skills, all in one space.

A single interface was launched in 2021, and we plan to develop a feature allowing seamless role-switching within the same account in the future.

Our partnership with drivers and couriers is based on **flexibility, reliability, and fairness**. These principles reflect the values that service partners appreciate most in their work with Yandex.

To identify these values, we interviewed over 3,000 current, potential and former service partners with the help of independent experts.

- ✓ **Flexibility.** We strive to offer as many partnership opportunities as possible, while minimizing any roadblocks to using these opportunities.
- ✓ **Reliability.** We make sure that our services run smoothly 24/7: new bookings are coming steadily, payments arrive on time, and updates are not disruptive.
- ✓ **Fairness.** We ensure that our rules are transparent and our partners are aware of them. We do not do anything without good reason, and we can always clearly explain our decisions when resolving a grievance or delivering a product release.

Social Guarantees and Financial Assistance Programs

GRI 403-6

GRI 403-7

TR-RO-320a.3

In 2021, we focused on providing social support to our service partners; thus, we introduced a **medical insurance scheme**.

The scheme supplements national social benefits¹ and compensates service partners in the event of illness or an incident (similarly to sick leave). Yandex became the first company on the Russian market—and one of only a few companies worldwide—to introduce such an opportunity. RUB 1 billion were allocated to the program through the end of 2022.

The pilot scheme was launched in March 2021, and by the end of the year it became available across Russia for drivers and couriers (the self-employed, individual entrepreneurs, or taxi fleet drivers). Yandex **fully or partially reimburses the cost of the insurance policy depending on the service partner's status**.

In addition to the medical insurance scheme, which our partners can voluntarily sign up for, there is **road accident insurance** with coverage of up to RUB 2 million. By default, all drivers and couriers are covered by insurance while they are on the clock. Insurance also covers passengers during their taxi ride.

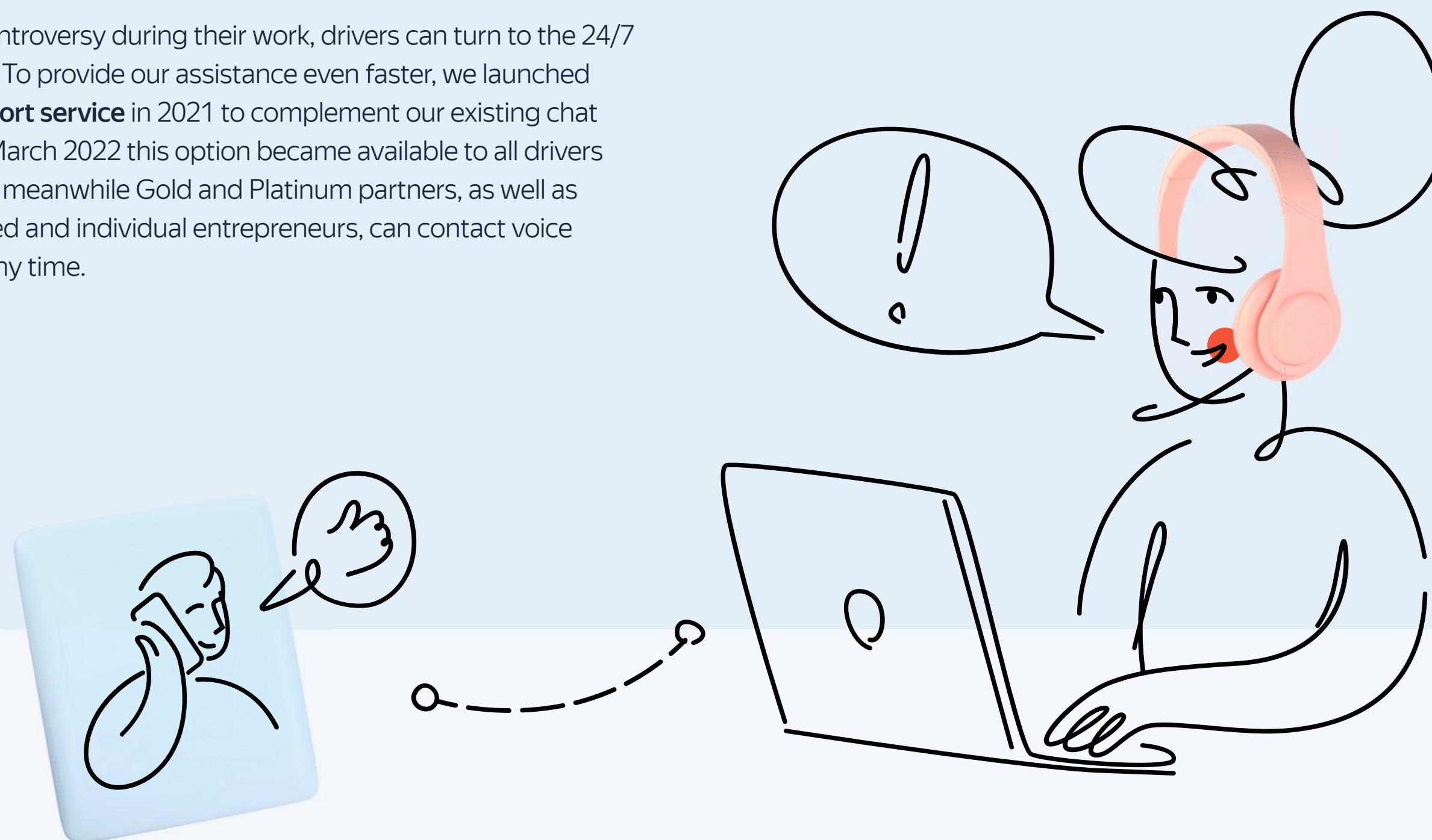
Due to the continued spread of COVID-19 in 2021, we **we extended our financial assistance for the time of the pandemic and expanded its coverage**. In 2021, compensation was made available to service partners who fell ill or had to self-isolate, as well as to those who felt unwell after vaccination. The latter group was offered compensation for up to three working days.

Protecting Drivers' Interests

We wish to ensure that our partner drivers can protect their interests. In 2021, **we implemented a review process (RU) for appealing against restrictions to our services**. Drivers can appeal our decision to block access to a service if they believe that we registered a violation erroneously. Such appeals are considered by the Drivers' Committee. The committee is designed to foster dialogue between the service and service partners, giving drivers a voice in the final decision. The committee reviewed over 1,000 appeals over the past 12 months.

In case of controversy during their work, drivers can turn to the 24/7 support line. To provide our assistance even faster, we launched a **voice support service** in 2021 to complement our existing chat support. In March 2022 this option became available to all drivers during rides; meanwhile Gold and Platinum partners, as well as self-employed and individual entrepreneurs, can contact voice support at any time.

Drivers dealing with conflicts or unruly user behavior can defend their interests by activating the Conflict function in the Yandex Pro app: it starts an audio recording to document everything that is happening in the car. We described this tool in our **2020 Sustainability Report** (page 71). Moreover, we have developed **guidelines on how to handle conflict situations**. These are available in multiple formats, including Yandex Music **podcasts** (RU).



¹ As per the legislation of the Russian Federation and some other countries of the Company's presence, medical services are provided by state and municipal healthcare institutions free of charge.

Support for the Self-Employed and Individual Entrepreneurs

GRI 203-2

GRI 413-1

Many of our service partners are self-employed or individual entrepreneurs, and some of our social support programs are designed for them specifically, as we discussed in the [2020 Sustainability Report](#) (page 68).

In 2021, **we launched a special legal support program.**

All self-employed drivers or drivers who are individual entrepreneurs have access to three free consultations per month. The program was in high demand in 2021, and most service partners were happy with its quality: the number of consultations provided over the year reached 19,000, while an average satisfaction score was 4.7 out of 5.

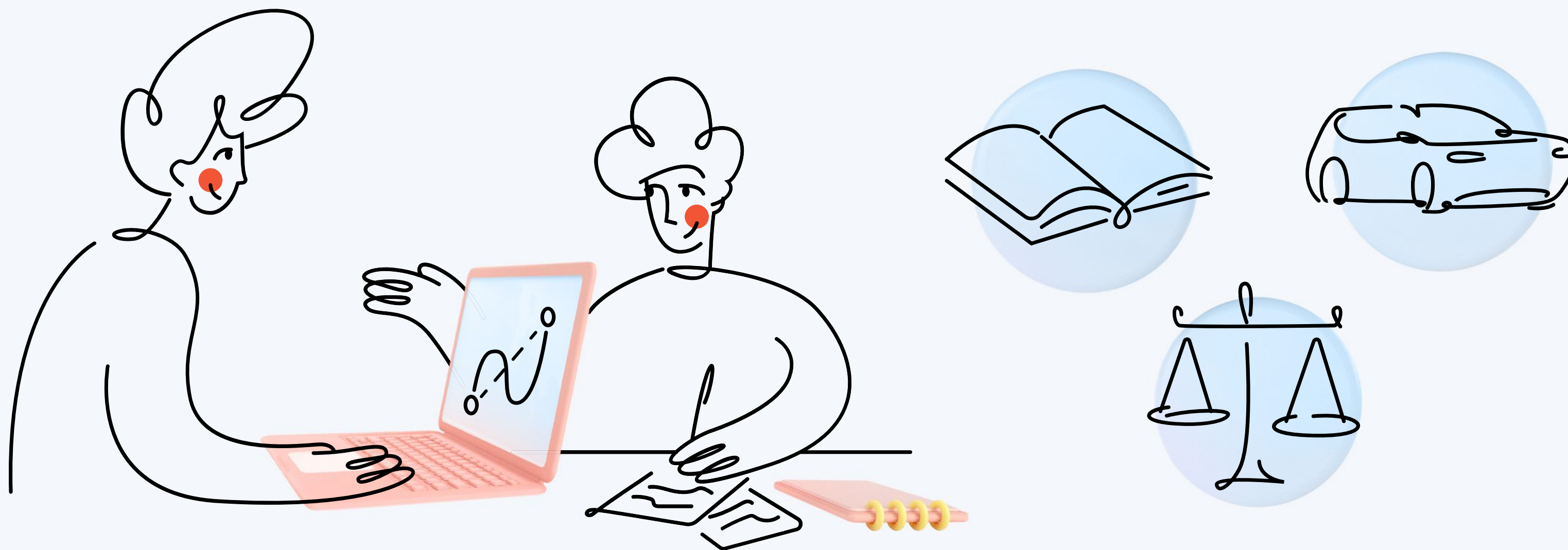
Moreover, self-employed service partners have access to **preferential loans** under the programs offered by Yandex jointly with regional governments. As of the end of May in 2022, such programs were available in almost 70 regions of Russia. Borrowed funds can be used to buy, rent, or repair a car.

Educational Support

Service partners are offered **free educational opportunities.**

In 2021, we launched **special financial literacy training** developed jointly with the Financial Research Institute of Russia's Ministry of Finance. The training focuses on the basics of personal financial management, while addressing various real-life situations like taking out a loan. As of early 2022, the training had been completed by over 200,000 service partners.

In the fall of 2021, we allocated over RUB 20 million to reskilling drivers who had been partners of Yandex Go for more than three years: drivers were offered **free training in a digital profession at Practicum by Yandex.** The training programs were designed to last 18 months. As of the beginning of 2022, more than 300 drivers in different cities across Russia (90% of the original number enrolled in the program) were continuing their studies. The most popular professions included test engineer, Python developer, and web developer.



No Barriers: Partnering with Hearing-Impaired People

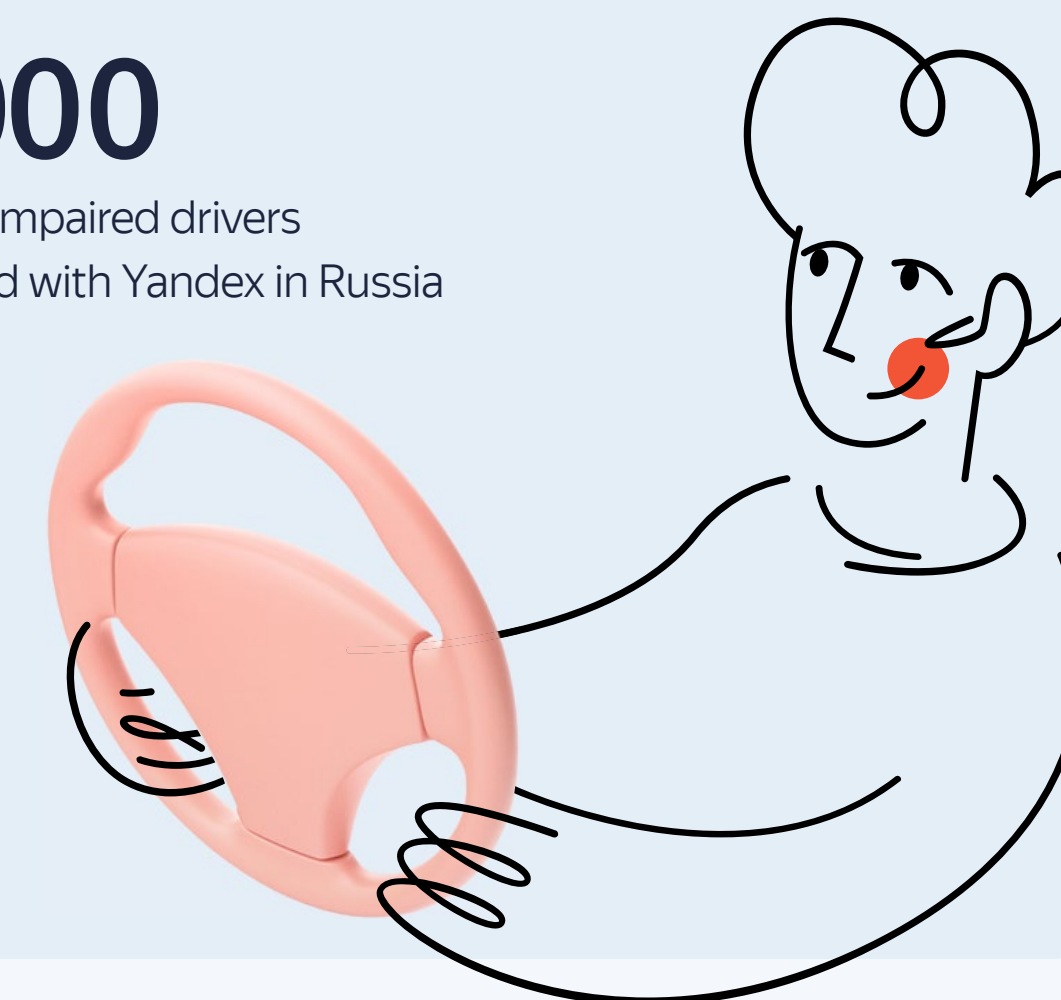
According to the All-Russia Society of the Deaf, there are 13 million hearing-impaired people in Russia, including 300,000 deaf individuals. Only 30% of them have jobs.

Since 2018, we have been adapting to the needs of our hearing-impaired service partners so that they can more easily earn a living through our platforms. Thus, our training videos have a sign language option, and hearing-impaired partners receive communications via chat or light alerts instead of calls or audio notifications. Likewise, hearing-impaired service partners can use special cards that help them clarify details, such as what time an order will be ready for pick-up at a restaurant. Our customers and restaurants are notified when their order is being handled by a hearing-impaired driver or courier and asked to explain all details in writing.

Nearly

2,000

hearing-impaired drivers
partnered with Yandex in Russia
in 2021



GRI 203-2

How Much Do Drivers and Couriers Make?

Yandex Go partners can **earn the regional average monthly income or more**, if they work 40 hours a week. This is evidenced by earnings information revealed by Yandex Go drivers,¹ as well as an **independent study** (RU) on courier earnings.

In 2021, the combined earnings of independent drivers and drivers working at partner fleets on Yandex Go grew by 76% compared with the previous year, reaching RUB 519.4 billion. Average driver income increased 34%, while the average salary growth in Russia in the same period did not exceed 10%, according to Rosstat. **The net take rate of the service**, i.e. the share of funds withheld from orders and not returned to service partners as subsidies, was less than 10%, which is **lower than international practice**.

In 2021

<10%

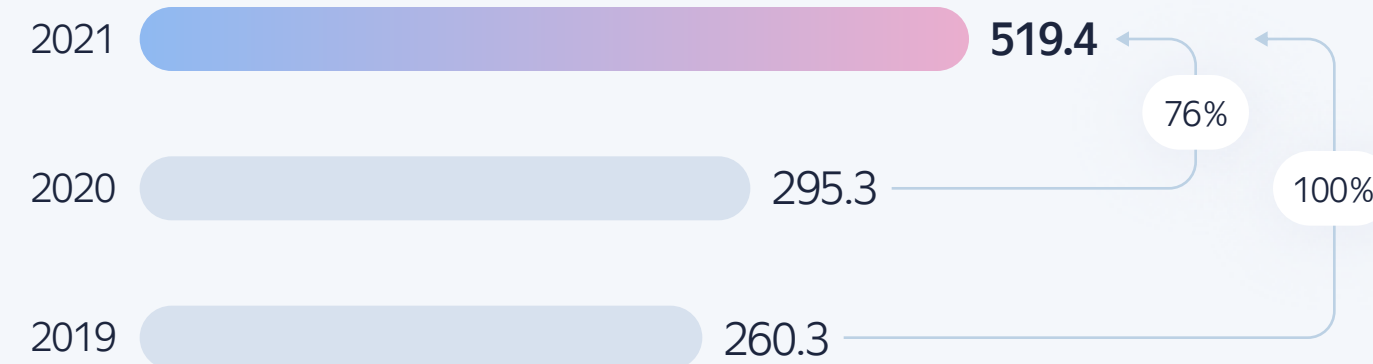
net take rate of the Yandex Go ride-hailing service

In 2021

↑34%

average income growth of drivers

Combined earnings of drivers and taxi fleet companies partnering with Yandex Go, RUB million



¹ Yandex Go drivers from Novosibirsk (RU), Kazan (RU), Ryazan (RU), Omsk (RU) and some other cities revealed their earnings to the media. Data on average monthly salaries in the constituent entities of the Russian Federation is available on the Rosstat website (RU).

Service Partner Safety

Engaging with Drivers and Developing Safety Technologies: Behind the Reduced Risk of Accidents

↓18%

decrease of the accident rate² in the service compared to 2020
↓34%—compared to 2019

<1 ACCIDENT

leading to an injury per 1 million km of driving in 2021

↓21%

decrease of the risk of fatal road accidents (transportation risk)³ compared to 2020
↓25%—compared to 2019

² The rate is calculated as the number of road accidents leading to injuries of vehicles that were active in the service in the week before the accident, divided by one million kilometers of mileage of the cars in the service.

³ The rate is calculated as the number of fatal road accidents of vehicles that were active in the service in the week before the accident, divided by one million kilometers of mileage of the cars in the service. The transportation risk in Russia for the period of 2020 to 2021 decreased by 15%. According to the methodology used by the State Traffic Safety Inspectorate (GIBDD), this risk is calculated as the number of road traffic fatalities per 10,000 vehicles.

Service Partner Safety

GRI 403-7

GRI 403-8

SASB TR-RO-320a.3

We regularly monitor health and physical safety risks that could arise during our partners' activities. For more information on measures and technological solutions aimed at emergency prevention (especially minimization of road accidents), please refer to the [2020 Sustainability Report](#) (page 69) and Yandex Go's [official website](#) (RU).

In 2021, we improved the efficiency of some of our existing technologies. We **refactored data used in speed monitoring to identify traffic offenders**, thus making the data more accurate. This technology has been in use since 2020, and we discuss it in the [2020 Sustainability Report](#) (page 69). In 2021, our geolocation data became more precise, and the system now understands which lane a driver is in, enabling it to determine permissible speed limits. Furthermore, units of speed (e.g., mph or kph) were unified on devices with different operating systems.

We have also **enhanced the technology for checking the condition of vehicles via photos**. We supplemented it with our proprietary SDK Protector system, which analyzes the integrity of the photo and the source from which it was uploaded. Cheating the system is harder than ever: the system is capable of identifying images sent from a source other than a cell phone camera (e.g., from a computer or from a smartphone gallery). Pictures for photo checks must be uploaded directly from the camera of a mobile device. Vehicles whose owners provide fake photos are blocked from the service.

Since 2020, we have been developing a **SignalQ2 computer vision camera that monitors driver fatigue**. As of the end of 2021, such cameras were installed on approximately 4,000 partner cars.

The algorithms used to detect signs of fatigue are described in more detail in the [2020 Sustainability Report](#) (page 70). The support team analyzes signals received from the camera, including AI outputs on how severe a driver's lack of focus is, and decides whether to limit the driver's access to the service for up to six hours so that they can rest. This helps reduce the risk of accidents: a study performed by one of our partner fleet companies noted a 42% reduction in traffic incidents after installing the cameras.

The camera is also used for recording what happens inside the vehicle in case of unruly user behavior. Recordings are transferred to the support team so that drivers' interests always remain protected. Moreover, data obtained from cameras (e.g., the driver's attention level, observance of road markings, proper distance from other cars, etc.) will be used to improve incident forecasting in the future.



Consequences of Violating Safety Rules

It is the responsibility of each service partner to comply with safety rules, the observance of which we monitor using automated systems. Our speed and driving behavior monitoring technologies detect violations (creating "safety alerts") and notify our support team. We also analyze customer feedback. Users who rate their taxi trips below the maximum (5/5) are asked to choose the reason for the low rating from a drop-down menu (they can also write-in their own response). In 2021, we added more response options related to unsafe driving and made the feedback system cumulative: the parameters selected by users are stored and processed, and if enough complaints accumulate, then action is taken against the driver.

Measures vary depending on the degree and frequency of violations. Negligent drivers will receive order requests less often, while persistent violators may be blocked by the service and prevented from restoring access.

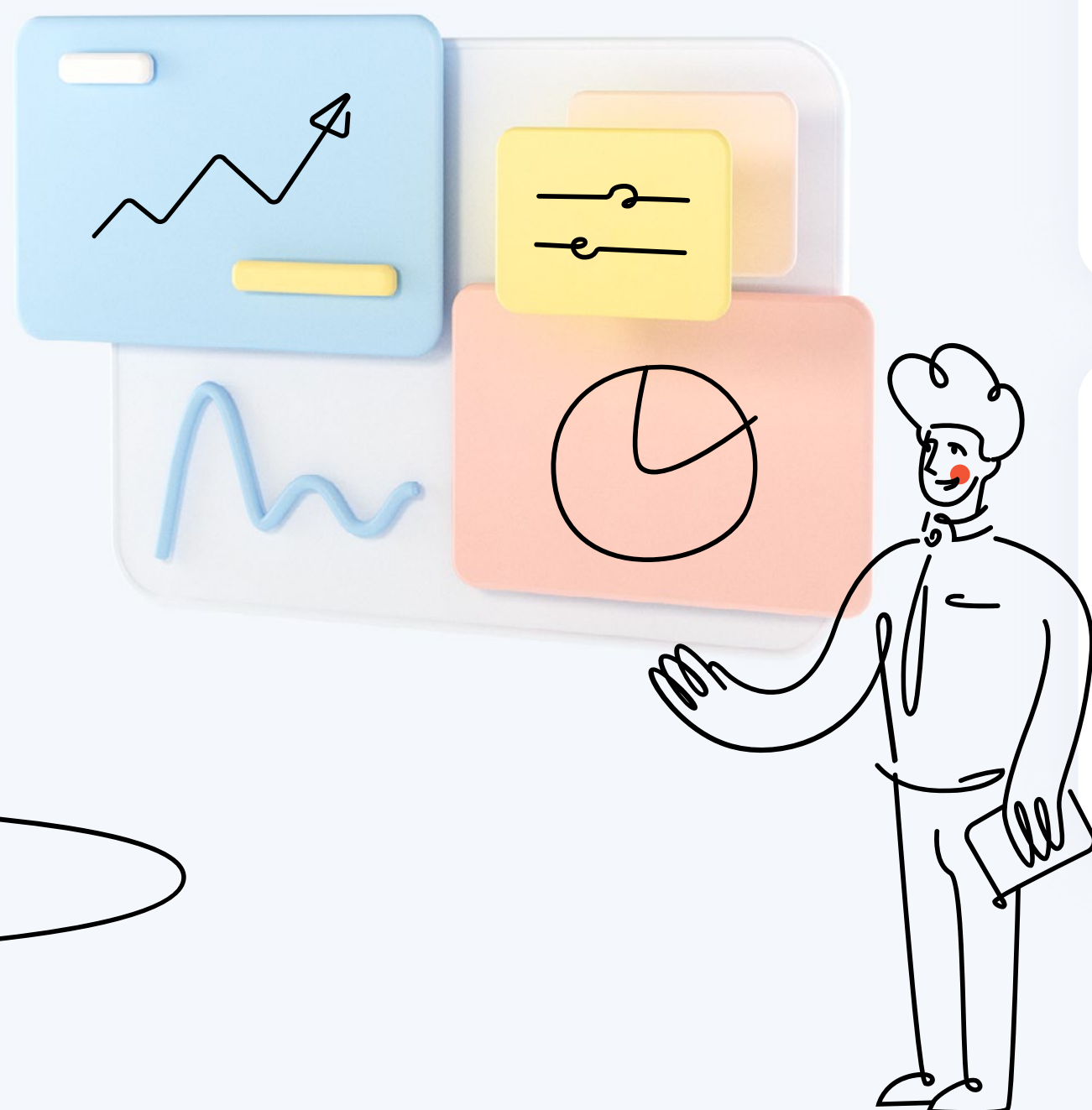
Yandex for Businesses

GRI 203-2

Yandex services and products benefit not only individual users, but also entire businesses. They can help attract new customers and optimize business processes. Certain products, such as Yandex Business, are designed specifically for small and medium-sized enterprises. For more details about our B2B services please see the [2020 Sustainability Report](#) (pages 74–79) and partner information on relevant service websites.

In 2021, we continued to **support entrepreneurs** through tailored business training and solutions to boost their visibility and customer engagement. Together with the Moscow government, we implemented over the course of the year a program to compensate 90% of advertising costs of Yandex Business subscribers. The offer covered 13,000 small businesses, ranging from cafes and beauty salons to dental clinics and hotels.

During the year, we also held more than 50 training events that reached in total over 2 million people. At the events, we talked about tools for promoting business, reaching new customers, and automating business processes. In October, we organized a **podcast conference** (RU) where we discussed how various Yandex services (including Business, Direct, Market, Delivery, and Uslugi (Services)) could help a business to develop.



600+ THSD

partners use Yandex advertising services as of the end of 2021

35,000+

restaurants collaborated with Yandex Eats as of the end of 2021

23,900

active sellers on Yandex Market as of December 2021 who had made at least one sale in the month prior to the reporting date × 3,1 times more than in 2020

43

retail chains collaborated with Yandex Eats as of the end of 2021

600+

enterprises monthly paid users of Yandex cloud services as of the end of 2021

30,000

business partners collaborate with Yandex Delivery as of the end of 2021

Yandex for Businesses

How Toloka Helps Businesses, Society, and Trains AI

GRI 203-2

GRI 413-1

Toloka is an international data labeling solution for machine learning. It helps machine learning teams collect and label data while providing the service's partners (crowd workers, also known as 'tolokers') with a reliable source of additional income. Over the past few years, Toloka has grown significantly: in 2021, an average of 200,000 tolokers performed their tasks on the crowd platform each month (compared with 170,000 platform users in 2020).

These tasks are extremely varied: users may check search-engine results, evaluate chatbot responses, classify goods, transcribe audio recordings, or act as secret shoppers. Task requestors include both Yandex services and third-party businesses, with the latter accounting for 42% of all payments made to tolokers in 2021.

Tolokers also support social projects. For instance, in 2021 tolokers inspected more than 6,000 facilities in Accra, the capital city of Ghana, to improve navigation and update information about local services. In Russia, tolokers helped provide accessibility information on Yandex Maps to people with limited mobility. Tolokers also contributed to a large-scale inspection of waste accumulation sites in 58 regions of Russia, assessing the sites' quality in terms of waste sorting, regularity of garbage collection by the provider, etc. Moreover, tolokers were engaged in search for missing people. For more information, please refer to the **Inclusive Environment** section.

In 2021, the service hosted a number of events as part of the NeurIPS, VLDB, and ICML international conferences, which focused on AI ethics. Toloka also launched a **grant program** for scientists whose research pertains to crowdsourcing and the ethics of AI. In 2021, the grant was awarded to eight people.

200+ THSD
 active tolokers each month
 including **80+ thsd** from countries other than Russia, Belarus, Kazakhstan, Uzbekistan, and Ukraine





Ethics and Integrity

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Information Security and Personal Data Protection

Millions of people use Yandex services and trust us with their data. Acknowledging our responsibility to ensure security and confidentiality of our users' data, we work hard to meet the most rigorous security standards, safeguard our infrastructure and mitigate risks.

Useful Links: Information Security Certificates

- AICPA SOC2 [certificate](#)
- ISO 27001 [certificates](#) (AppMetrica and Yandex Metrica)
- ISO 27001, 27017, 27018, PCI DSS, and Cloud Security Alliance [certificates](#) (Yandex Cloud)
- ISO 27001 [certificates](#) (Toloka)



Information Security System

TC-IM-230a.2

CG-EC-230a.1

TC-SI-230a.2

Our Information Security Department deals cybersecurity issues and implements world-class industry standards, monitors vulnerabilities, conducts information security audits, investigates incidents, and more. The Department is headed by Chief Information Security Officer (CISO), who reports directly to Yandex's executive management and presents a regular performance update to the Audit Committee of the Board of Directors.

Yandex has a set of internal policies and guidelines that regulate how IT assets should be used and managed to ensure data protection. These include the Information Security Policy, the Incident Management Policy, the Security Development Lifecycle (SDL) procedures, and other documents. For more information, refer to pages 17–21 in our [2020 Sustainability Report](#).

All Yandex services that process and store user data are subject to external certifications and regular audits.

The initial and refresher certifications completed in 2021 are disclosed below:

- The crowdsourcing platform **Toloka** was certified in accordance with **ISO 27001:2013**.
- The unified authentication service **Yandex ID** successfully completed another **annual SOC2 audit**.
- **Yandex Pay, Yandex Fuel, Yandex Eats, Yandex Music, KinoPoisk,** and **Yandex Classifieds** received **PCI DSS** certification.



Vulnerability and Incident Management

TC-IM-230a.2

CG-EC-230a.1

TC-SI-230a.2

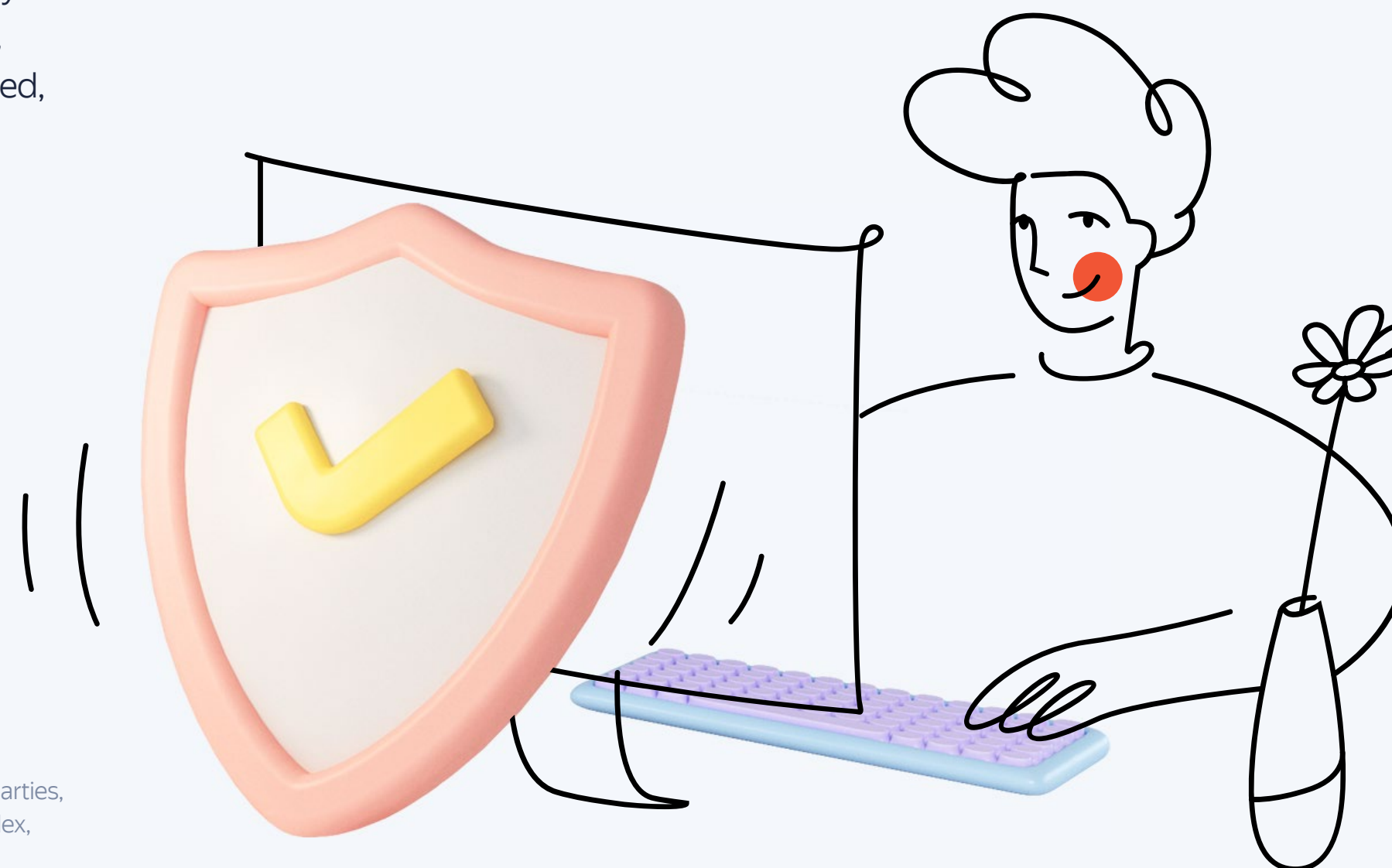
One way to mitigate the risk of incidents is through continuous vulnerability monitoring. Yandex conducts **internal information security audits**, including regular code audits. These audits are performed across various business units and departments to make sure all digital products are well-protected and compliant with the relevant rules and standards. Many of these activities are automated; however, the key tests are performed manually by business unit engineers, who check for vulnerabilities¹ in line with the SDL procedures.

Our internal auditors also work to strengthen the existing information security framework by simulating cyberattacks, testing Yandex defenses, and making recommendations for improvement.

The Security Operations Center (SOC), the subdivision of the Information Security Department responsible for incident management at Yandex, enforces the rules. The SOC continuously monitors cybersecurity systems and looks for security events, i.e., occurrences that could lead to vulnerabilities, which, when detected, get carefully investigated and remediated.

We also run the **Bug Bounty program**. Designed to complement in-house security controls, the program rewards individuals for reporting previously undetected weaknesses. Developers and security researchers are invited to test the Yandex Browser as well as the infrastructure, services and apps that work with personal data. In 2021, we added a new stream that involves testing Yandex's anti-spam architecture, and plan to make smart devices available for testing going forward.

In 2021, there were 132 bugs (none being critical) disclosed to us by the program's participants. The number of detected vulnerabilities has been declining over time (e.g., compared to previous year), which is the trend we attribute to code security improvements.



¹ This procedure is called vulnerability testing. For non-Yandex codes purchased from third parties, testing is performed by their respective developers. They provide testing protocols to Yandex, and our engineers make the necessary updates.

Yandex Fends Off the Largest DDoS Attack On Record²

In September 2021, Yandex thwarted the largest known DDoS cyberattack, which peaked at over 20 million requests per second (RPS). This is far more than the average range of a few dozens to a few hundred RPS. The attack came from the Mēris botnet, which has been associated with numerous cyber incidents globally, including in New Zealand and the United States.

Despite the unprecedented scale of this particular assault, our infrastructure was able to ensure that Yandex services were uninterrupted and user data was protected. This success was greatly due to our multilevel security architecture: all requests sent to Yandex servers go through several infrastructure components, each designed to detect suspicious activity. Malicious traffic that may have gone unnoticed through the first level is detected by controls on subsequent levels. The system is thus secured, and users retain access to services even at the peak of the attack.

² A Distributed Denial-of-Service (DDoS) attack is carried out simultaneously from multiple connected devices to overwhelm a company's servers and prevent users from accessing its websites, apps, or services.

Vulnerability and Incident Management

TC-IM-230a.1

CG-EC-230a.2

TC-SI-230a.1

Approach to Managing Incidents

At Yandex, incident management starts with regular monitoring of security controls by the SOC as part of internal audits and the screening of external sources. For example, we keep track of any information in the public domain related to the sale of Yandex service passwords. We also review employee and user feedback that may indicate the existence of cybersecurity threats.

After being alerted to a potential incident, we assign a responsible manager and set up a team of investigators. First, the team must determine whether an incident has actually occurred. If it has, it examines the causes¹ of the incident and locks down the code until the vulnerabilities are patched, for the code not to be exploited by cybercriminals. At this stage we also decide on how to effectively notify affected users as well as on corrective actions to be taken. The effectiveness of response and the quality of its outcomes are evaluated both internally and by independent auditors.

¹ When an incident is not caused by a system vulnerability but results from improper employee behavior, we include the Legal Department in the investigation process.

In 2021, we had one² information security incident, which we reported in a [press release](#) on our official website and on page 21 of [2020 Sustainability Report](#). A routine screening revealed that the mailboxes of 4,887 users had been compromised. Pursuant to Yandex's internal regulations, we immediately communicated the breach to the mailbox owners, blocked unauthorized access to the compromised mailboxes, launched an internal investigation, and contacted law enforcement. An independent auditor confirmed that our remedial actions were sufficient.



² In March 2022, we found a leak of data on food deliveries ordered through the Yandex Go app between late summer 2021 and February 2022. The leak revealed user delivery addresses, phone numbers and names as they are displayed on the app, as well as order dates, times and amounts. The leak did not include users' logins, passwords or banking details. We described the subsequent corrective measures on Yandex's [official blog](#) (RU). All users affected by the leak were notified without delay. Yandex launched an internal investigation, and most of the web resources disseminating the leaked data were blocked by the end of March 2022. This incident will be reflected in the 2022 statistics.

Personal Data Protection

How We Handle Personal Data:

- **We are committed to complying with all applicable laws.**
- **We process personal data for a specific purpose only** and only the data that is directly relevant to accomplish this purpose.
- **We do not store unnecessary data about users.** We keep only the data that helps us hone Yandex services, and we constantly review and erase data that is no longer necessary for this purpose.
- **We do not store data longer than necessary.** We keep it either for as long as we use the data to achieve the purpose for which it was collected or for the period stipulated by law.
- **We empower users to manage their data.** We have introduced a special [tool](#) they can use for this purpose.
- **We are transparent about how we handle user data and requests from government agencies.** Our [Transparency Report](#) has been updated semiannually since 2020.³

TC-IM-220a.4

TC-SI-220a.4

³ In 2021, we received 40.5 thousand requests from government agencies, up 26% compared to 2020. The share of refusals to provide user data has remained stable over the last half-years at 21%.

Personal Data Protection

TC-IM-230a.1

CG-EC-230a.2

TC-SI-230a.1

Yandex takes our users' personal data very seriously. We have introduced the position of **Chief Privacy Officer (CPO)** as an intermediary between all Yandex services and the Information Security Department to make sure that personal data is protected and user rights are respected. The CPO's responsibilities are described in more detail on page 20 of [2020 Sustainability Report](#). It is not just dedicated specialists that are responsible for safeguarding the user data: all employees share this duty, and they receive the necessary training on a yearly basis.

GRI 2-24

GRI 418-1

We regularly monitor legislative changes to ensure that Yandex is fully compliant with all applicable legal requirements.¹ Our approach to handling personal data is outlined in our [Privacy Policy](#), [User Agreement for Yandex Services](#), [Cookie Policy](#), and several other documents, which can be found on the [Yandex Legal Documents portal](#).

In 2021, we continued unifying our procedures for accepting data from third parties across various services and developing and implementing service policies regulating the shared use of such data. These efforts aim to minimize repeated processing and storage of the same data. We have also **reduced the storage time for some personalized data**, including most types of geolocation data. It is now kept for a maximum of 14 days and then anonymized.

¹ In 2021, Yandex was not subject to any fines or other penalties for violating personal data legislation.

Personal Data Management Tool

We are convinced that users have a basic right to know what Yandex knows about them. They should be also entitled to choose whether to keep sharing their data with Yandex, helping us personalize their experience, or opt for greater confidentiality.

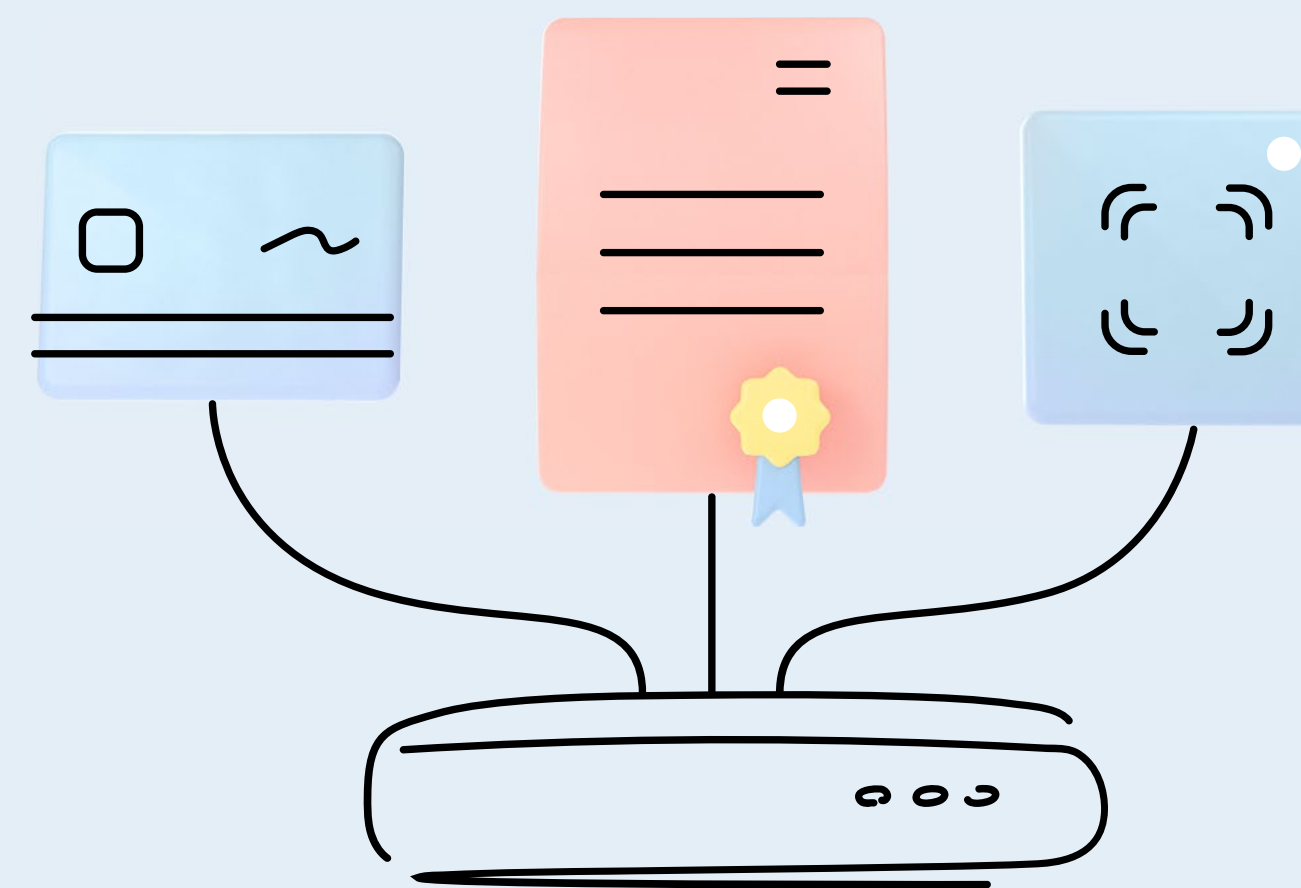
Since early summer 2021, all users can access an advanced personal data management tool available in their Yandex ID accounts. The tool allows each user to receive a full copy of their personal information accumulated by over 70 Yandex services (e.g., Alice request history, recent geolocation information, etc.), and to request its erasure. A similar tool is available to Yandex's business partners, who can now request and delete archived data about their business accounts. The data is removed from our servers within 24 hours of receiving a request from a user. If the request concerns data that is legally required to be stored for a certain amount of time, we stop processing it immediately and remove it after the specified period.

Yandex has analyzed the tool's statistics since its launch. Details can be found in our [Transparency Report](#). In June 2021, we received 22,000 download requests and over 54,000 removal requests.² From July to December 2021, the number of requests has dropped to an average of 17,000 download requests and 21,000 removal requests per month.

All user requests were granted except for those that were subject to legal requirements for data storage.

An average of
16,700
download requests
per month

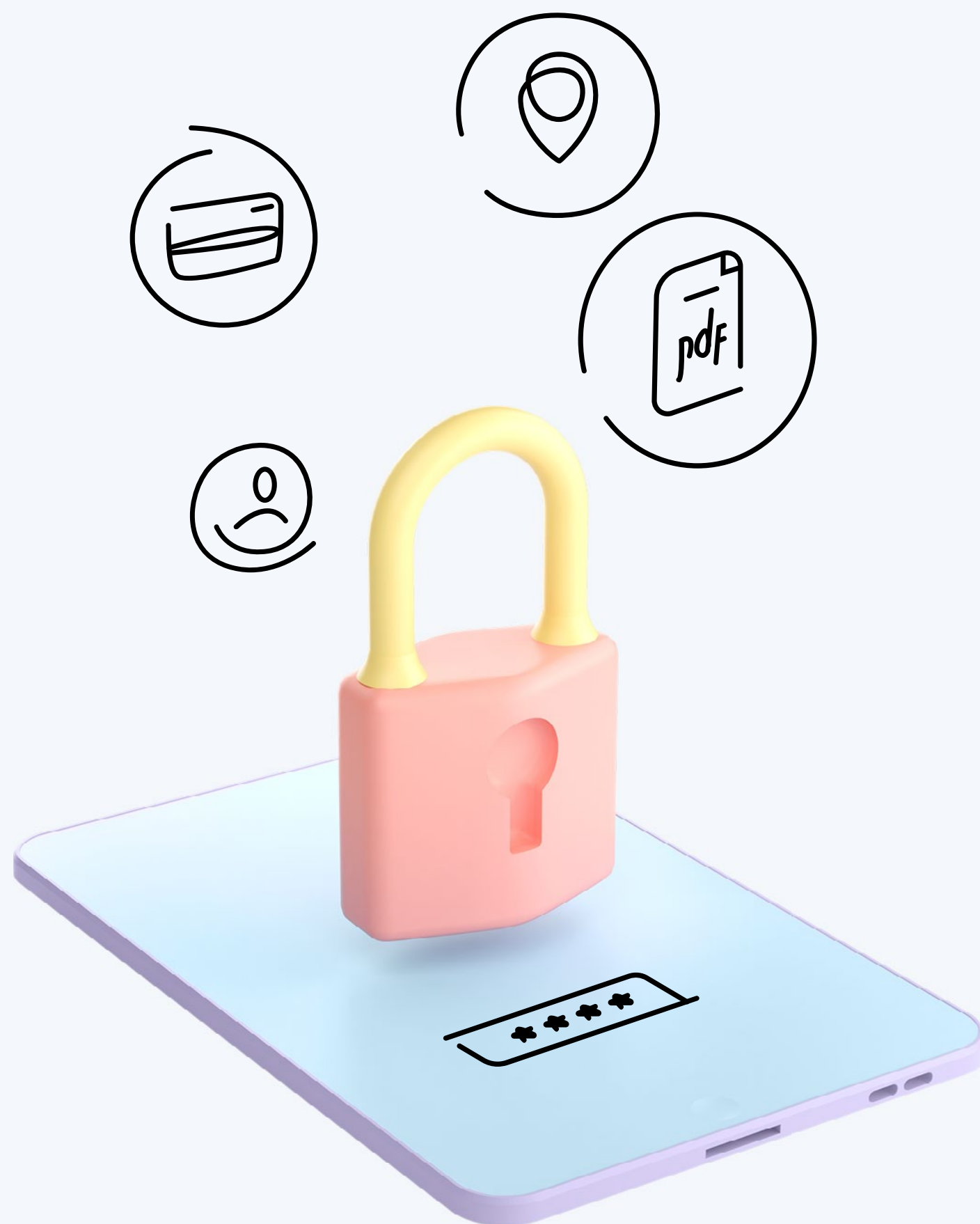
An average of
21,100
removal requests
per month



² Multiple requests may come from the same user.

Personal Data Protection

GRI 203-1



Protection of User Accounts

Over the past year, we have **enhanced the protection of Yandex ID accounts**. Since September 2021, we have been **checking all user passwords for security** and contacting all users with login credentials that may have been exposed, asking them to set stronger passwords. Every password is checked when entered. Yandex receives password-related alerts in encrypted form only¹ and compares them with databases of 1.2 billion compromised passwords available in public domains.

We also send push notifications about all Yandex ID logins to ensure that no suspicious account activity goes unnoticed and that users are able to protect their accounts as soon as possible. In addition, we have implemented **two-factor authentication**, which prevents malevolent actors from accessing a user’s account, even if they know the password. Two-factor authentication is now mandatory for all new Yandex ID accounts. All other users are encouraged to set up two-factor authentication when the system discovers that their password is vulnerable.

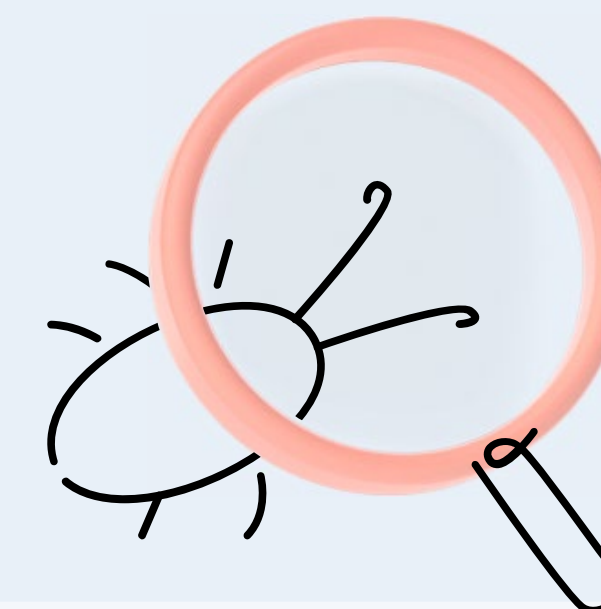
4+ M
weak passwords
 identified
 as of early 2022

¹ For security reasons, Yandex does not store user passwords.

Third-Party Tracker Blocking

In 2021, Yandex Browser introduced **the Your Tracking Protection (YTP) feature**. Trackers are scripts installed on websites to derive information about user activity and preferences. Third-party trackers can measure the number, frequency, and duration of webpage visits, however, some may also store the information that users leave on web pages and pass it on to third parties. For example, after a user enters a phone number and a tracker collects it, the user may receive an unsolicited call from a provider of a service that has not been requested.

With the YTP technology, users are free to decide which resources can be trusted with their data. Yandex Browser now has a control panel where they can choose which trackers to allow or deny—by clicking on the shield icon in the address bar, which will display the number of filtered trackers. The YTP feature complements the Protect technology, safeguarding Yandex Browser users from malicious files and scams that steal passwords and banking information.



Quality Content and Safe Digital Environment



Thanks to digital technologies, including Yandex solutions, we manage our daily routines faster and more efficiently, be it at work, school, home, or leisure. However, the digital space can pose threats to users ranging from misleading or harmful information to theft of important data. We take responsibility for protecting our users, and leverage our technology and expertise to create an online environment built around integrity and respect for human rights.

Search Content

In 2021, we introduced the [Y1 update of our search engine](#) that featured over 2,100 improvements, including streamlined search results.¹

Our search index has been integrating **page quality** rating since late 2021, which reflects the reliability and credibility of web pages and content creators. This parameter is determined by a neural network that reviews content and predicts how a professional assessor would have rated the web page. The assessors are engaged to curate training data for the algorithms, especially on topics that require deep subject knowledge, such as medicine, finance, law, etc.

Yandex has **doubled down on internet fraudsters**, with the key goal of protecting users from websites that offer suspicious paid or non-existent services. The identification of such web pages is automated and is performed by algorithms that analyze user reviews as well as look for signs of fraudulent activity from across Yandex services.

Scam pages appear lower in the search results or get delisted as per our [indexing and ranking principles](#). These measures have already yielded tangible results: the click-through rate (CTR) for fraudulent appliance repair services in Moscow² has dropped from 45% before the program's launch to 7% in December 2021. Going into 2022, we will continue improving the speed and accuracy with which we spot malevolent actors, even as they adapt and rapidly change their tactics.

Reliable Search for Doctors

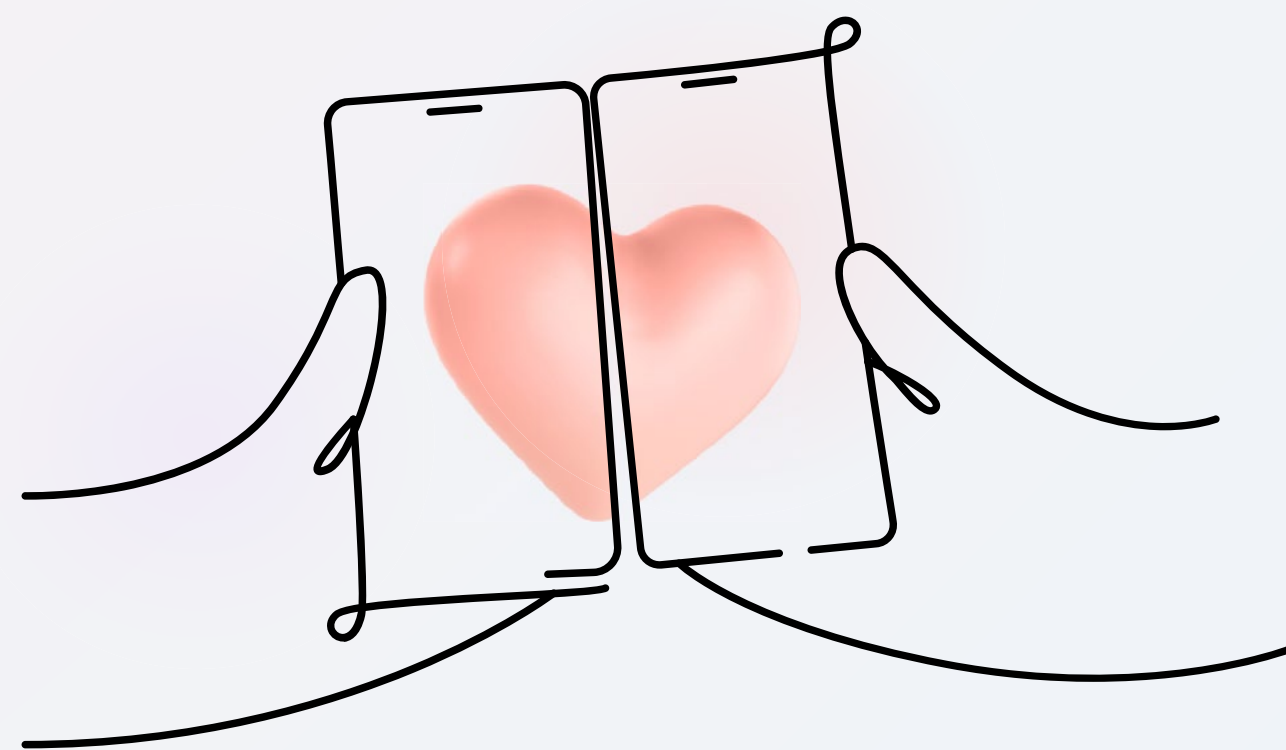


GRI 203-1

The new update has made it easier and safer for patients to search for doctors online. After a user enters a search query, Yandex algorithms carefully analyze information from partner sources and return profiles of doctors with the relevant expertise and location, along with reviews from real patients. These profiles are ranked based on a number of criteria, including the doctor's experience, degree, and popularity in the search results. Our database currently contains 450,000 practitioners.

¹ We described how Yandex Search works on page 26 of our [2020 Sustainability Report](#). Detailed information can be found on our [official website](#). Search results are ranked automatically according to the [Yandex Search Ranking Rules \(RU\)](#) and our guidelines on [site quality](#). To comply with Russian laws, Yandex is required to remove search results that link to websites included in Roskomnadzor's register of prohibited websites. Results for such websites are removed automatically as soon as they appear in the register. All users who attempt to visit a prohibited webpage receive a notification that it has been removed in accordance with legal requirements. In 2021, we started disclosing the number of removed links in our [Transparency Report](#).

² The share of the total number of clicks on similar web pages in Moscow, including official websites.



Search Content

Phone Call Security: Automated Caller ID and Blocking

5+ M

monthly users of caller ID
as of December 2021

Since 2021, users of our Yandex and Yandex Browser apps can take advantage of the enhanced caller ID feature on their mobile phones, allowing them to identify callers and ignore spam. In addition to caller ID (which also works for text messages on iOS devices), users can filter out and mute unsolicited or fraudulent calls with the automated call block feature.

Our trained algorithms effectively detect spam calls with over 95% accuracy, based on user feedback and other data. We understand that certain calls may be intrusive to some but useful for others. For instance, users interested in (micro-) loans may want to receive calls from lending organizations that are generally blocked. Our call blocker has settings that let users manually select and block unwanted types of calls. If the system cannot tell for sure whether a call is undesirable, the user will see it, thus minimizing the chance of missing important calls.

Tackling Spam on Yandex Maps

About

500 THSD

suspicious organizations have been identified on Yandex Maps
as of April 2022

91 %

of them were found to be fraudulent and subsequently blocked

In 2021, Yandex continued to confront “geospam”, or tags of organizations that do not actually exist at the specified location on the map. Such tags are usually made by dishonest businesses that want to lure away more customers, including those from locations where the organization is not physically present. This affects both users who cannot get the service they need in the vicinity and honest competitors who lose customers.

To clamp down on organizations that create fake tags on Yandex Maps, we have updated our automated algorithms and adjusted manual checks. Potentially fake tags identified by robots are reviewed and verified by human moderators, and the verification process is now more transparent to business owners.

Throughout 2021, the **Yandex Q** team had been contributing to improving search quality by offering **the service’s own solutions** developed in line with its goal, which is to help users find credible answers. Since early 2022, Yandex Q has officially joined the Yandex Search business group to jointly refine tools for the assessment of search results quality.

Yandex Q at a glance



- ✓ The largest online expert community in Russia
- ✓ Fact-checked answers from experts across a variety of fields
- ✓ A respectful space for sharing opinions, including unpopular ones

5,000+
active, verified experts
per month

2,000+
active communities
per month

Search Content

Yandex Q is the largest social network of experts in Russia today, and it continues to grow. In 2021, Yandex Q has focused on **raising public awareness of COVID-19** and helping a growing number of coronavirus-affected users to find a reliable advice on disease prevention and treatment. Over 10 million people have received prompt answers from the medical community using the new **COVID-19 Q&A hotline service**. We have also created **COVID-19 vaccination community**(RU) bringing together medical professionals, biologists, geneticists, and other life science experts to provide science-based answers about vaccination. Expert opinions provided by the community are now shown in quick answers on Yandex Search in response to queries about the novel coronavirus.

Furthermore, **the platform hides all publications about COVID-19 that have not been peer reviewed and validated by experts** (materials that do not meet our general **content requirements** (RU) are rejected by moderators and not published), despite the fact that this brought about a temporary decline in daily site visits.

Yandex Q consistently combats the spread of pseudoscientific information as well as information that is not science-based across a variety of topics. The service **introduced an author rating system** (RU) in 2021 that shows how much the expert community trusts a particular contributor posting answers on Yandex Q. The platform has discontinued the use of advertising banners and introduced expert promotion campaigns instead. Examples include a series of personal branding webinars for doctors.

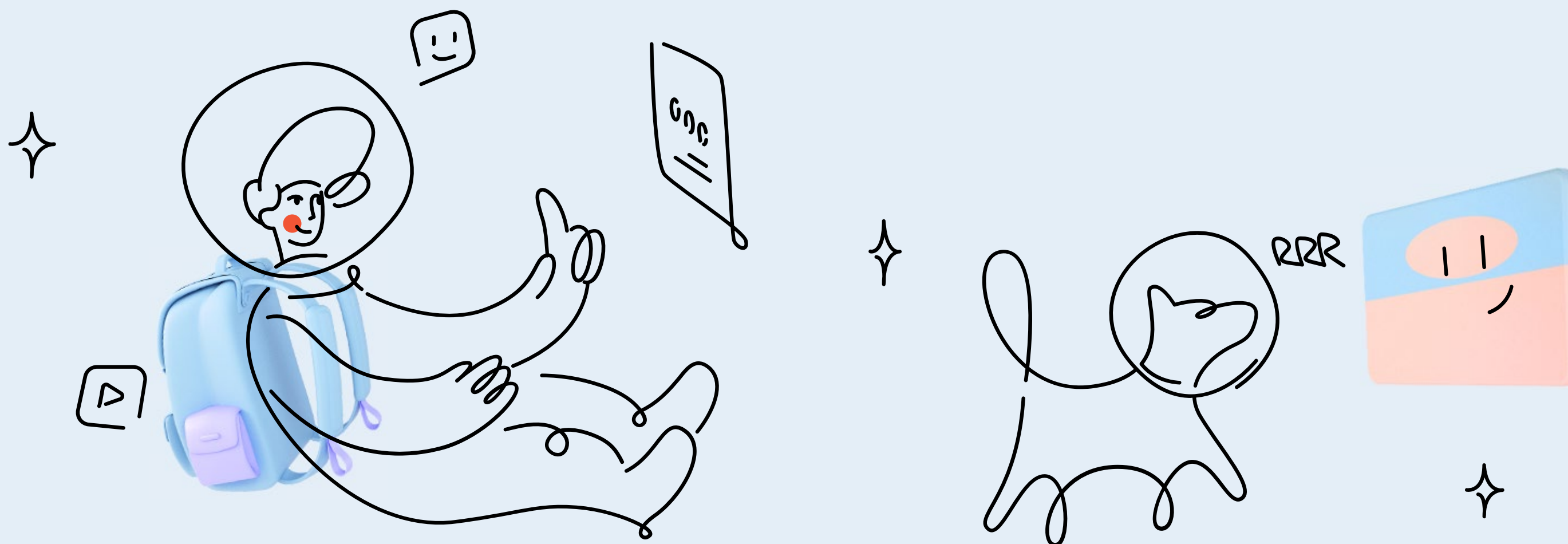
Protecting Children Online

In 2021, Yandex supported an industry initiative by joining the **Alliance for the Protection of Children in the Digital Environment**. It aims to create a safe internet space for children, where they can study, make friends, and have fun. Yandex will be developing free educational programs to promote digital literacy, safe ways of browsing the web (such as kids mode), and several other projects.

For several years now, Yandex has been cooperating with the **Internet Watch Foundation**, an organization that leverages partnerships to locate and take down internet content showing child abuse. This collaboration helps us improve our content-filtering methods.

Yandex services integrate child-friendly modes. In the kids mode of Kinopoisk, Yandex's subscription streaming service, users can set age and viewing-time restrictions for their children. The Yandex Music app introduced a kid's section in 2021 that offers fairy tales, songs, audiobooks, podcasts, and educational materials. The app also has a safe search setting that filters out adult content.

All smart devices featuring Alice (Yandex's AI assistant) automatically switch to family mode when addressed by a child. Family mode blocks content that contains rude and obscene language. Alice also has a safe mode, which is even stricter than the family mode: it only plays content created specifically for kids, such as fairy tales or verbal games for **speech development** (RU) and teaching healthy habits like **brushing teeth** (RU) and **washing hands** (RU).



Blogging Content on Yandex Zen

Yandex Zen at a glance



In April 2022, Yandex LLC has reached an agreement in principle with VK to sell Zen.

- ✓ A platform for blogging on trending topics
- ✓ New topics in 2021: responsible consumption, sustainable urbanism, new ethics, equality and freedom

At the end of 2021

50,000

authors collaborated with the platform

About

22 M

users—daily audience

1+ M

Yandex Zen materials have been restricted or blocked due to violations of the platform's rules or the law¹

98 %

of publications that violate the platform's rules or the law are removed before users report them

8 %

of comments are deleted or hidden from users due to violations of the platform's rules or the law

¹ Content that does not violate the Yandex Zen rules can only be removed at the official request of the regulator (Roskomnadzor or the court). When content removal is required by law, we notify users by adding a banner. To learn how many publications were removed at the regulator's request, see our [Transparency Report](#).

In February 2022 we announced that we are exploring strategic alternatives for Zen, including divestment.

Yandex Zen was growing throughout 2021, hosting content from 50,000 bloggers by the end of the year. We monitor the quality of content to ensure that it complies with the law and the platform's **content requirements**. For more information about manual and automatic content moderation on Yandex Zen, refer to page 27 of our **2020 Sustainability Report**.

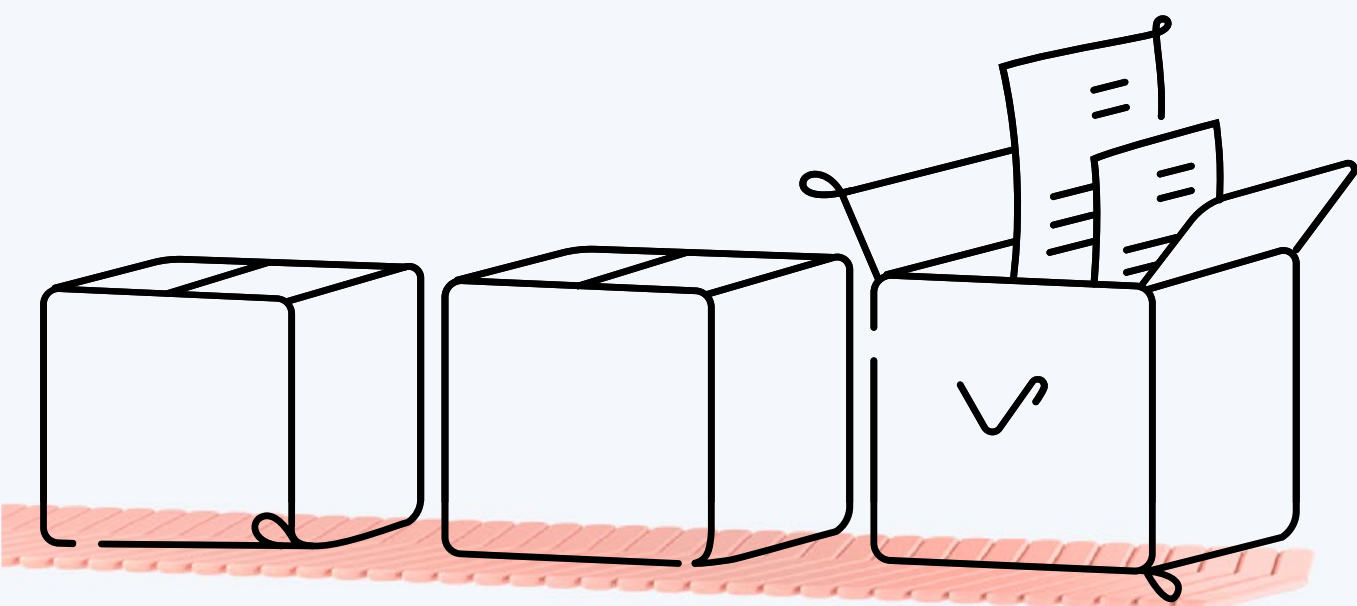
In 2021, we began to transparently **notify bloggers about moderation decisions** and our reasoning behind restrictions, for them to produce better quality material in the future. We have also **introduced a technology for profiling willful violators** that uses known patterns of dishonest behavior on the platform (e.g., platform exploitation for profit) as input data. Creators whose activity meets such profiles get automatically blocked.



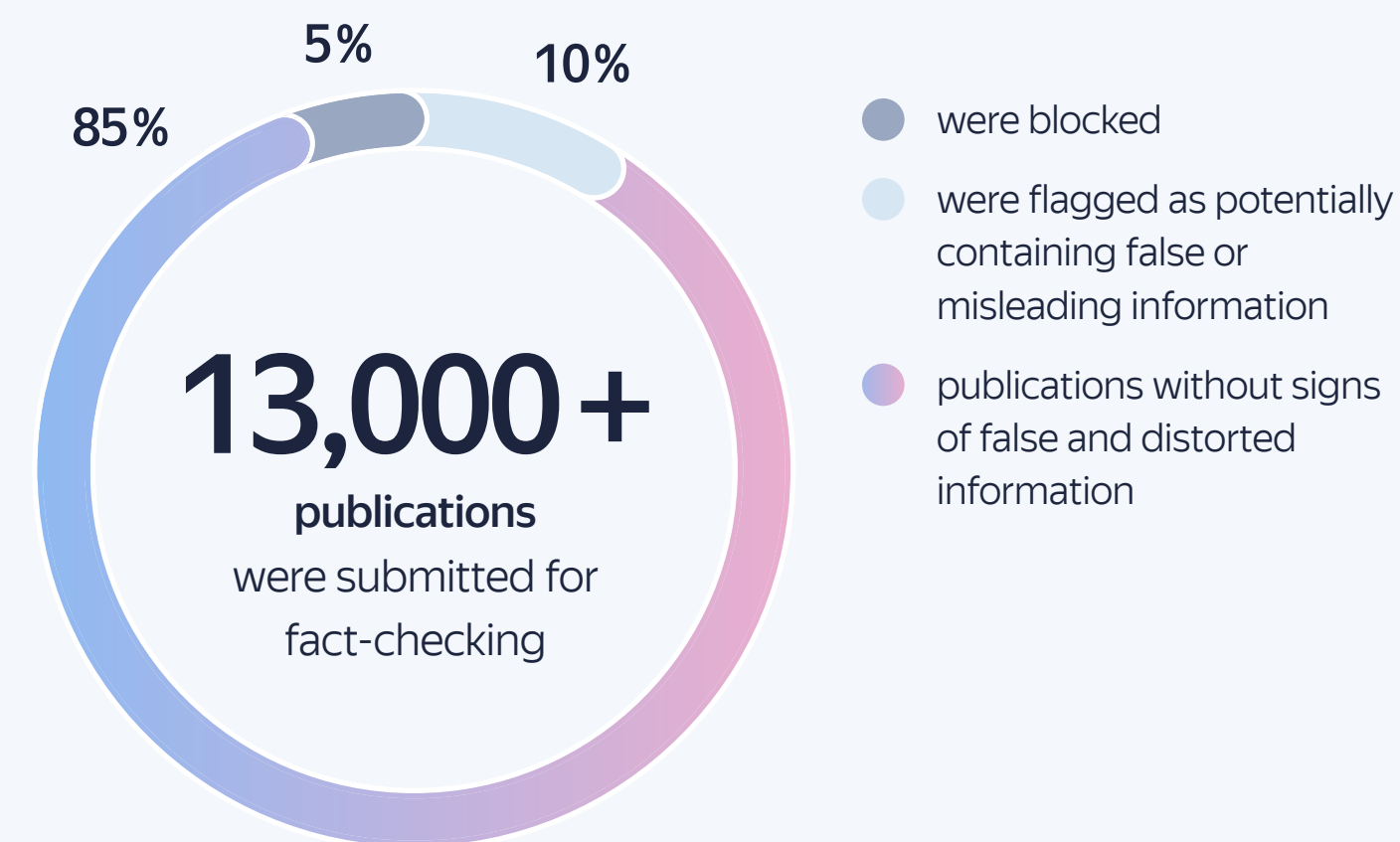
Blogging Content on Yandex Zen

The spread of misinformation online remains a pressing concern. In 2021, Yandex Zen enhanced its **publication requirements**, introducing additional checks for COVID-19-related information and blocking unreliable content. In September 2021, we **reviewed the results of our fact-checking program¹ (RU) for the 12 months since its launch**. Over this period (September 2020—September 2021), 11,000 publications were submitted for verification, of which 13% were blocked or flagged as potentially false or misleading. Verification is performed by independent experts engaged by the platform.

In October 2021, Yandex Zen signed a Memorandum of Cooperation for Countering False Information² and reaffirmed its commitment to ensure content verification. This move was driven by the soaring demand for reliable information amid the COVID-19 pandemic. The memorandum is an industry self-regulation tool that is based on principles similar to those underlying Yandex’s fact-checking program.



The fact-checking program’s performance in 2021



¹ The fact-checking program **does not cover politicized content** but does apply to areas such as health, finance, business, education, and science, where false, inaccurate or misleading information can be harmful to an individual and the society as a whole.

² The Memorandum is an open initiative that welcomes all interested web resources. Yandex Zen was among the first signatories, alongside VK Group, Rambler&Co, RUTUBE, Avito, Likee, and MirTesen.

Protection of Copyright Holders

We want to see more high quality, legal content available online. To this end, we develop streaming services where users can easily and legally access creative content, including movies, TV shows, music, and other media. We also support copyright holders and create tools to combat infringements online.

Since 2018, Yandex has been collaborating with other IT companies to reduce copyright infringements on the internet. We signed the Memorandum of Cooperation for Protecting Exclusive Rights, which resulted in the creation of a register of web pages that may have been reproduced or distributed in a way that violates copyrights. Continually updated by copyright holders, this register enables us to quickly remove links to such pages from Yandex search results. The number of links removed at the request of copyright holders is disclosed in our [Transparency Report](#).

23 M

links were removed from Yandex search results at the request of copyright holders in 2021

A total of

32.6 M

links have been removed since the signing of the Memorandum in October 2018

Advertising Content

Advertising remains a key business for Yandex, although the share of our non-advertising revenue has been growing steadily from year to year, exceeding 50% in 2021. Many of our services provide a platform for advertisers. Yandex also acts as an intermediary by running ads on the partner websites that make up the Yandex Advertising Network (YAN).

Recent years have seen a rise in digital advertising as companies' preferred means of promoting their products and services. Yandex strives to ensure the responsible placement of ads, seeking to protect both advertisers and audiences. Detailed information about our ad placement processes, including moderation and compliance checks against the [Advertising Requirements](#), can be found on pages 23 and 24 of our [2020 Sustainability Report](#).

In 2021, we issued a regular update of the Yandex Direct [advertising policies](#). The key changes include **stricter rules regulating ads for moneymaking opportunities**. Under the new requirements, all ads must clearly indicate how the money will be earned (e.g., through a franchise). The promised returns should be realistic: promoting get-rich-quick schemes like Become a Millionaire in One Hour or Get 70% Per Annum in A Month is banned. Furthermore, we **have clarified the definitions** of political advertising for unambiguous identification of **political ads, which are not accepted for placement by Yandex advertising services**.

Other updates include rules on marking ads of authorized service centers to distinguish their products and services from other providers. Only providers whose web sites appear on approved manufacturers' lists can call themselves official, authorized, or certified centers in their ads.

4.5+ BN

ads are shown daily on Yandex's and partner websites

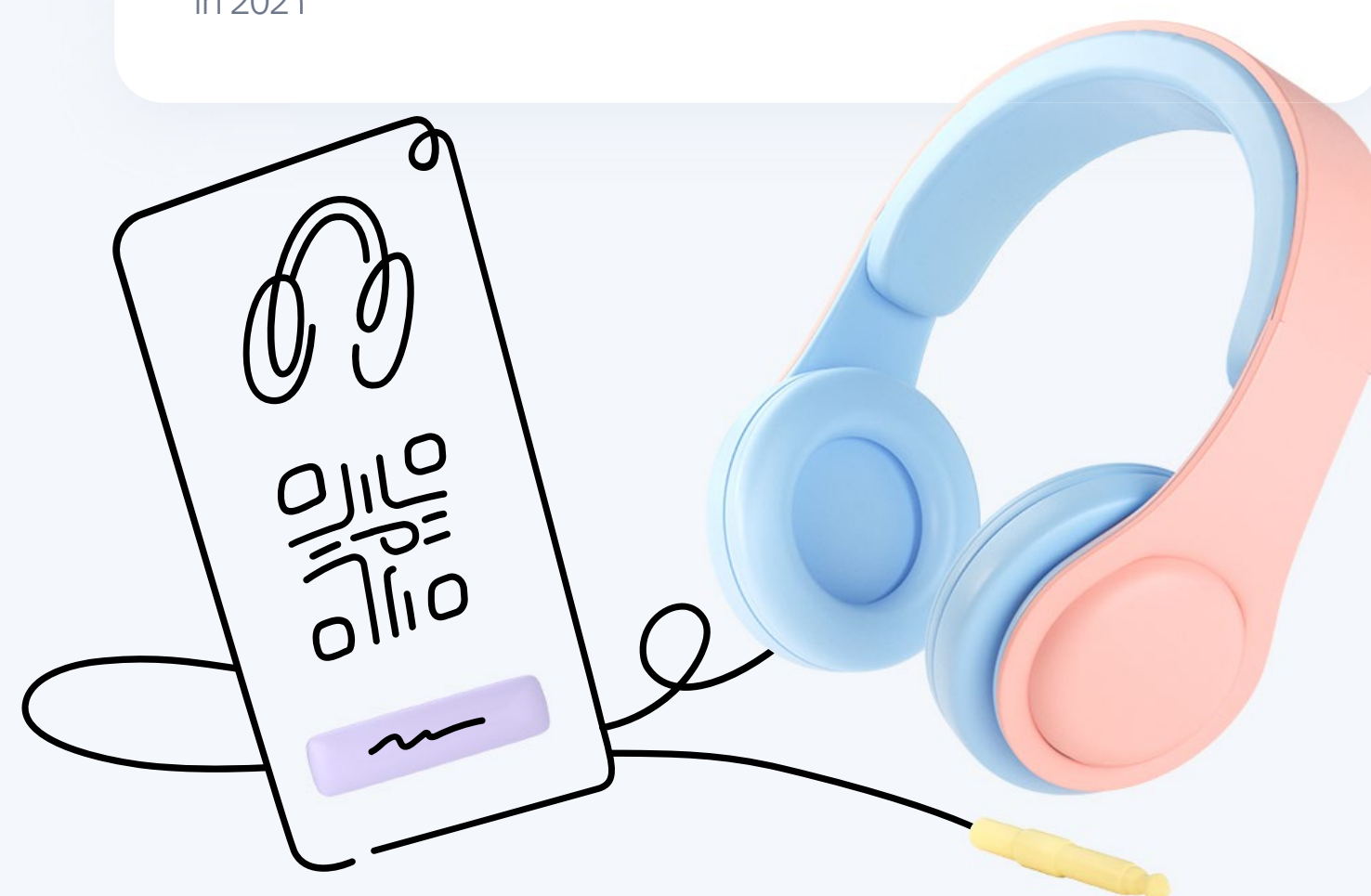
6.5+ bn on peak days

144 M

non-compliant ads were rejected by Yandex in 2021

77 M

fraudulent Yandex Direct accounts were permanently blocked in 2021



Over the past year, we have been revising some of our procedures focusing on **advertiser satisfaction**. To remove entry barriers for reliable partners and speed up ad placement, we no longer require documents to be submitted for evaluation where we can retrieve them from official sources. Among those are, for instance, certain certificates for medicine, pharmacy, and medical service advertising.

We have also **updated our internal approach to assessing the quality of moderation**, to identify new opportunities for improved, client-oriented performance. Prior to 2021, moderation quality was assessed based on the accuracy of delivered verdicts, i.e. decisions about whether an ad has been cleared for placement. The higher the accuracy, the higher the moderation quality. As this indicator has remained continually close to 100% from year to year, we thought it would be worthwhile to examine our performance from a new perspective. Therefore, we factored in a new metric that assesses the consistency of moderation decisions. A high consistency ratio indicates that similar ads have previously been allowed or rejected based on a similar logic, and that advertisers can easily understand moderation decisions.

Streamlined approaches to monitoring the quality of moderation and handling client requests, coupled with revised ad placement requirements, have improved the overall clarity of the ad approval process to clients—the number of advertiser inquiries into moderation results has declined by 55%.¹

¹ Based on the average monthly number of inquiries in 2021 compared to 2020.

Compliance and Business Ethics



GRI 2-23

GRI 2-24

GRI 412-2

At Yandex, we do business with honesty, integrity, and respect for laws and ethical standards. This commitment is set out in the [Code of Business Ethics & Conduct of the Yandex Group](#), which all employees are obliged to follow.

In 2021, we **updated our Code by expanding provisions** on labor rights and relations, adding a new environmental responsibility section, and including a more detailed description of our complaints handling and disciplinary procedures entailed by the failure to comply with the Code or laws and regulations governing our business. When updating the Code, we were guided by international conventions, including the [Universal Declaration of Human Rights](#), [United Nations Guiding Principles on Business and Human Rights \(UNGPs\)](#), [International Labor Organization \(ILO\) Convention](#), [UN Global Compact](#), and others. Our counterparties are encouraged to adhere to the principles established in a separate Supplier Code of Conduct. Please see the [Responsible Procurement](#) section to read more.

GRI 2-26

We described how Yandex manages ethics and compliance matters on pages 29–32 of our [2020 Sustainability Report](#), which contains more information on responsible departments, their tasks, and the role of the Ethics Committee.

Ethical Artificial Intelligence

Ethics define the rules of the game not only for humans, but also for artificial intelligence (AI). To cultivate trust in Yandex technologies, we design and develop our solutions based on clearly articulated [principles](#). These include user-centricity, safety, reliability, lack of bias, transparency, and more.

In 2021, we teamed up with technology companies to **sign** the first Russian [Code of Ethics for Artificial Intelligence \(RU\)](#). The code establishes ethical guidelines for developing, implementing, and using AI, as these aspects are not currently regulated by Russian law.



Fair Competition

A highly competitive environment is essential to success, as it drives perpetual improvement of products and services.

GRI 2-27

GRI 206-1

Commitment to fair competition underpins Yandex's business practices. We regularly monitor potential violations of anti-monopoly laws. All transactions and other events that could potentially impact competition are carefully analyzed and, if necessary, agreed with anti-monopoly authorities. Yandex was not found to be in violation of anti-monopoly laws in 2021. We are a large company that attracts considerable scrutiny. In 2021, Yandex received over 80 requests for information from anti-monopoly authorities.

In early 2022, we **reached** (RU) a settlement with the Federal Antimonopoly Service of Russia (FAS) and a consortium of Russian Internet companies in connection with a claim brought against Yandex relating to our search engine tools. In May, the case **was dropped** (RU) with no penalties imposed on Yandex. The FAS concluded that Yandex had taken all necessary steps to protect competition on the search-engine market and create a non-discriminatory environment for all participants. Yandex has undertaken additional obligations to support competition and will provide FAS with information to enable regular compliance monitoring. We will also conduct an annual independent audit to verify that search rankings and the display of data in search results are unbiased.

Anti-Corruption

GRI 2-24 GRI 2-26

Yandex has zero tolerance for any form of corruption or bribery.¹ This principle is enshrined in the Yandex Group Code of Business Ethics & Conduct and our **Anti-Bribery Policy**. Both established and alleged cases of corruption can be reported to our hotline.

GRI 205-2

Compliance with anti-corruption regulations is the responsibility of every Yandex employee. Therefore, we provide our staff with anti-corruption training to explain which situations pose risks and what they need to do in response. In 2021, anti-corruption training was offered as part of a business ethics e-learning course, which was updated, translated into English, and moved to Yandex's own platform. High-risk functions were additionally trained by the compliance team in an offline format.

In 2022, we **launched a separate anti-corruption training course**, which is available in Russian and English and covers all the basic requirements of anti-corruption laws and Yandex policies. For statistics on the completion of the business ethics and anti-corruption training courses, please refer to the **ESG Data Tables Annex** of this report.

Anti-corruption and anti-bribery matters are discussed at Yandex's annual Compliance Week event, for which we create useful and engaging material that we distribute among employees, including FAQs, comics about ethics rules, videos, and quizzes.

In the beginning of 2022, we launched an updated compliance portal with helpful guidelines and information about policies and procedures.

GRI 2-27 GRI 205-3

¹ There were no violations of applicable anti-corruption laws at Yandex in 2021: 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 violations of applicable anti-corruption requirements among Yandex's business partners within the scope of their relationship with the company.



Intellectual Property

SV-ME-520a.1

Protection of intellectual property is an important focus area for Yandex. This is true for our own property and that owned by third parties (e.g. those who publish their content on Yandex services; for more information, please see the **Quality Content and Safe Digital Environment** section of this report).

While compliance with intellectual property laws is monitored by dedicated Yandex specialists, protection of intellectual property is a responsibility shared by all employees.

699

patents² have been granted as at the end of 2021

349

patent applications were pending in 2021

² Each patent application is filed for a stack of technologies.

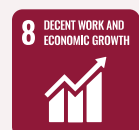
Ethics Hotline

GRI 2-25 GRI 2-26

All Yandex employees, partners, and users can seek advice or report a violation of business ethics using a dedicated **hotline**.

The hotline is run by an independent provider, and all reports are dealt with in strict confidentiality. Every report is assigned a unique identifier so that its status can be tracked. Reports received via the hotline are investigated by a review panel that includes members of the Ethics Committee. The results are used to decide on further steps, including action against the violator. Retaliation against anyone who makes a good faith report of wrongdoing is strictly prohibited.

Responsible Procurement



Engaging with the supply chain is not just an operational necessity, it is an opportunity for us to develop our business environment by working together with other market players. Yandex seeks to remain a trusted, long-term business partner and to create room for sustainable development. To this end, we strive to meet our obligations, embrace the highest ethical standards, and foster open dialogue with our partners.

13,000

vendors¹ partnered with Yandex in 2021

5,500+

small businesses are Yandex suppliers

GRI 204-1

¹ 45.5% of Yandex's procurement budget (excluding that of MLU B.V.) was allocated to purchases from local vendors. MLU B.V. Group (a joint venture between Yandex.Taxi and Uber that had operated Yandex Go, Yandex Drive, Yandex Eats, Yandex Lavka and Yandex Delivery services until 21 December 2021—and Yandex Taxi and Yandex Drive services after 21 December 2021) keeps separate records. Local vendors accounted for 99% of MLU B.V. procurements. Local vendors are legal entities operating in the Russian Federation.

Vendor Engagement

GRI 2-6

GRI 2-23

GRI 2-24

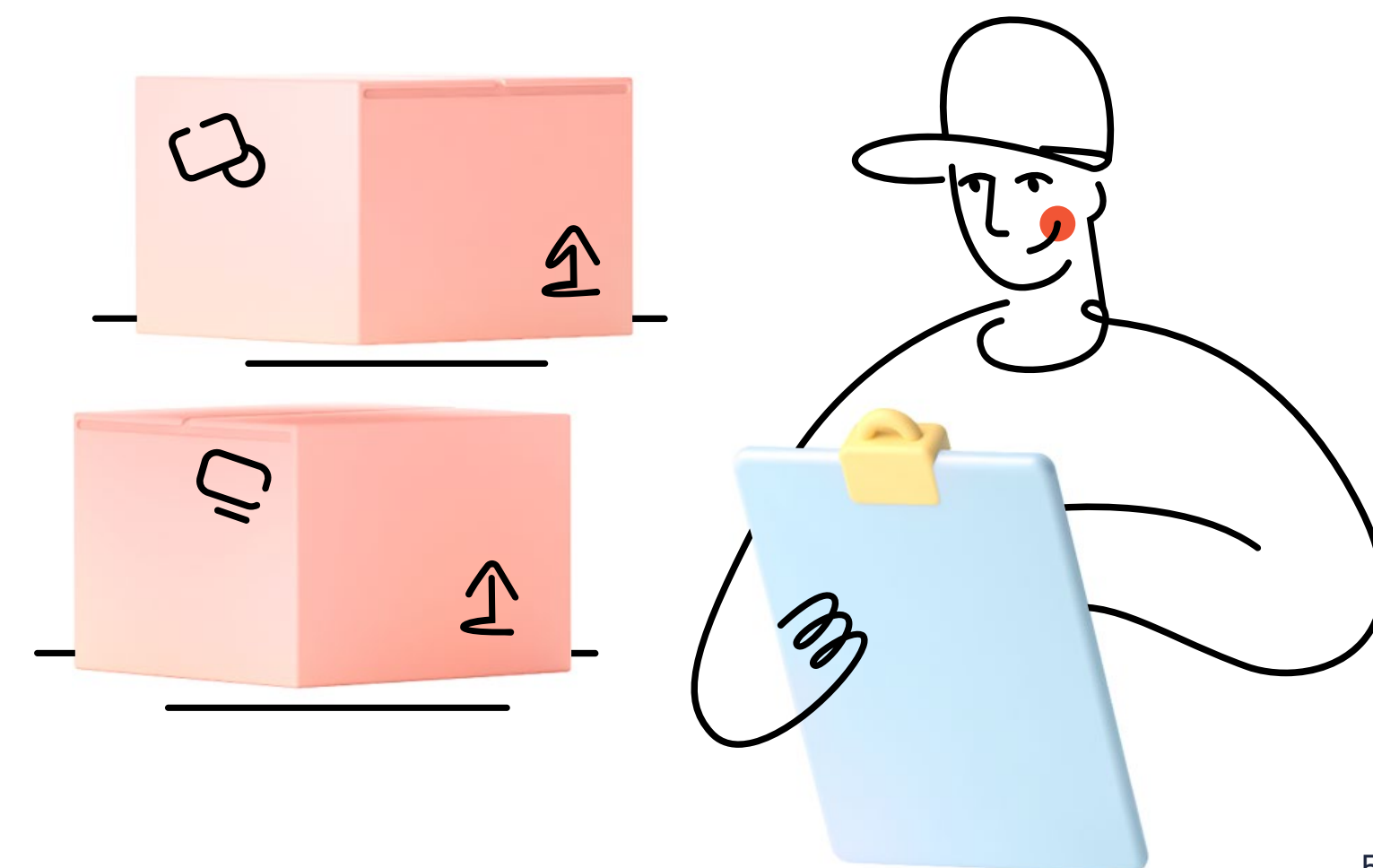
In 2021, Yandex worked with 13,000 vendors of all sizes in Russia and abroad, from major companies to small enterprises and individual entrepreneurs. For a description of Yandex's procurement process (the vendor selection procedure, background checks and vendor engagement tools) please refer to page 36 of our [2020 Sustainability Report](#).

In 2021, we developed principles for all our counterparties to follow and **published** a standalone [Supplier Code of Conduct](#). The Supplier Code is based on the [Code of Business Ethics & Conduct of the Yandex Group](#). It is aligned with international conventions such as the [Universal Declaration of Human Rights](#), [United Nations Guiding Principles on Business and Human Rights \(UNGPs\)](#), [International Labor Organization \(ILO\) Convention](#), [UN Global Compact](#), and others. It covers occupational health and safety, human rights and freedoms, and environmental stewardship within supply chains. We expect to refine Yandex's social and environmental criteria for vendor selection based on the provisions of the Code.

We informed all our existing business partners about the new Code: a link to the document was sent to them a few weeks before the Code came into force, and counterparties were encouraged to ask questions. We also updated the contract template that Yandex uses for all new deals and added a link to the Code to reflect changes in compliance guidelines.

In 2021, we **continued to implement SAP Ariba**, seeking to simplify the procurement process and boost transparency. Vendor due diligence and onboarding now take less time than before, and communication with vendors has become more efficient both ways.

For additional simplicity, the procurement team at MLU B.V. (the joint venture of Yandex.Taxi and Uber) introduced a chatbot to monitor compliance with the procurement procedure. The chatbot helps employees place orders, prompts them about applicable procedures and their proper sequence, passes on processes to the appropriate teams, and blocks individual vendors upon the request of authorized specialists.



Vendor Engagement

EDM Implementation

In 2021, Yandex introduced electronic document management (EDM) for transactions with over 2,000 suppliers. EDM streamlines procurement procedures by reducing document processing time to four business days. In 2021, we also introduced online document builders to make the procurement experience even more frictionless. Suppliers can now create and fill out documents on their own and instantly send them to Yandex's procurement service for approval.

Among other benefits, EDM has a positive impact on the environment: by working with vendors that have gone paperless, Yandex saves at least 12 reams of A4 paper every year (provided that the list of requisite documents is minimal and they are exchanged only once). In practice, however, savings are much higher. A single counterparty can have dozens of projects with Yandex, each traditionally requiring dozens of copies of documents to be exchanged. To learn about other measures that we take to drive resource efficiency, see the [Environmental Impact](#) section of this report.

Procurement of Components for Smart Devices

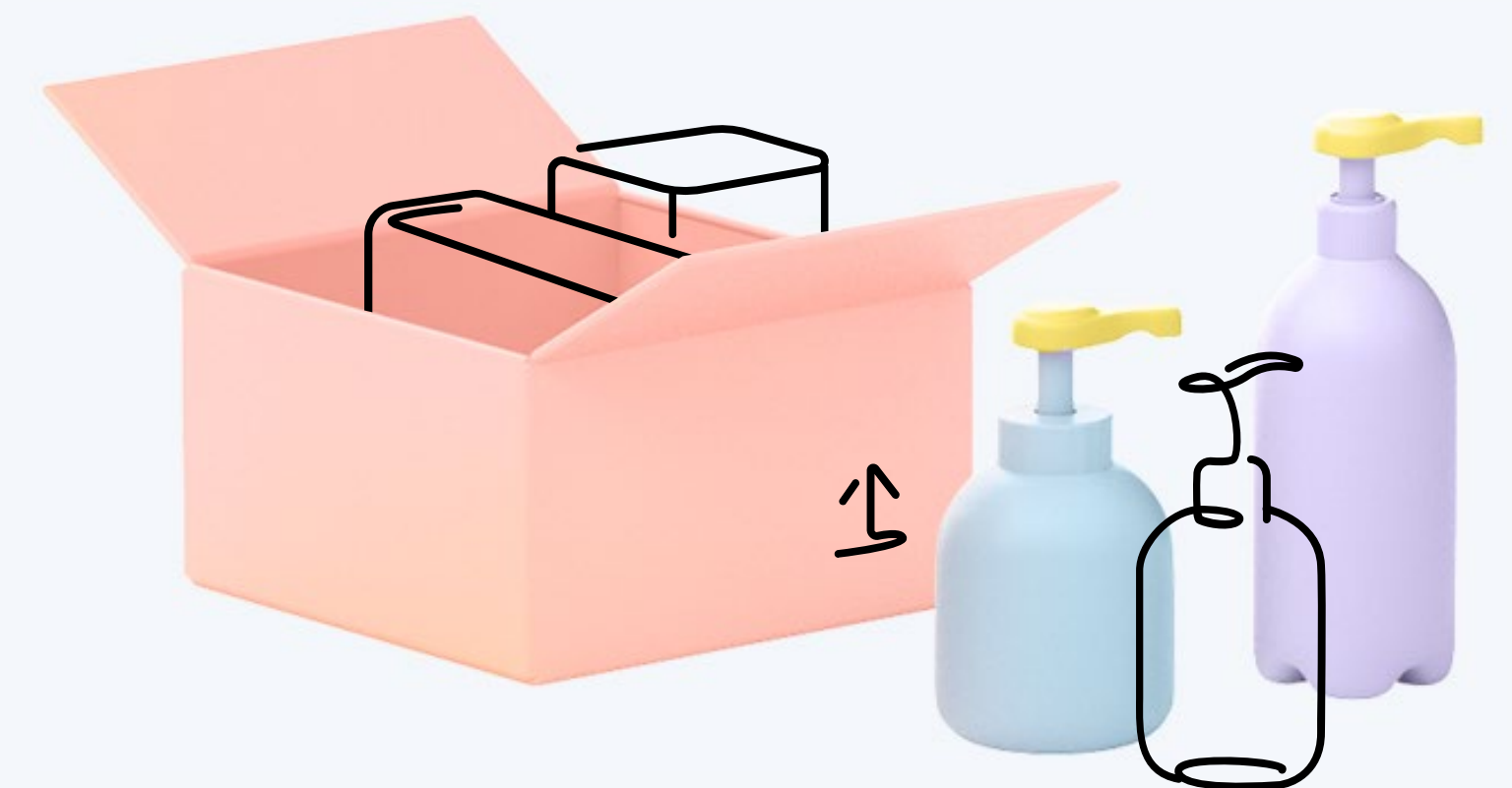
Many components of Yandex Stations and other smart devices are purchased from our partner manufacturers. Before signing a supply contract, we perform due diligence to check whether a particular partner has the necessary licenses and certificates and meets ethical standards.

We may also ask current and potential partners to provide evidence of responsible business conduct. Such proof could include, for instance, a document certifying the completion of the Responsible Business Alliance Validated Audit Process, which assesses factors such as working conditions, business ethics, occupational health and safety, and environmental impact. Some of our existing partners have already successfully completed VAP audits, while others share their sustainability goals and plans publicly.

Sustainable Office Supplies

In mid-2021, we revised our criteria for purchasing office supplies and switched to more sustainable products with social or environmental certifications. These include personal hygiene products (e.g. wipes) made from recycled materials, EU Ecolabel-certified cleaning products, and printing paper sourced from responsible forestry.¹

Responsible procurement helps Yandex save resources. By transitioning to concentrated dishwashing detergent that is more economic to use, Yandex decreased its consumption by 14%: from 83 to 71 liters per month. This makes it possible to stock up on supplies while reducing packaging waste, as a smaller volume of product is needed to meet office needs.



¹ This includes certifications from the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC).

Environmental Impact

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Energy Efficiency



TC-IM-130a.3

CG-EC-130a.3

TC-SI-130a.3

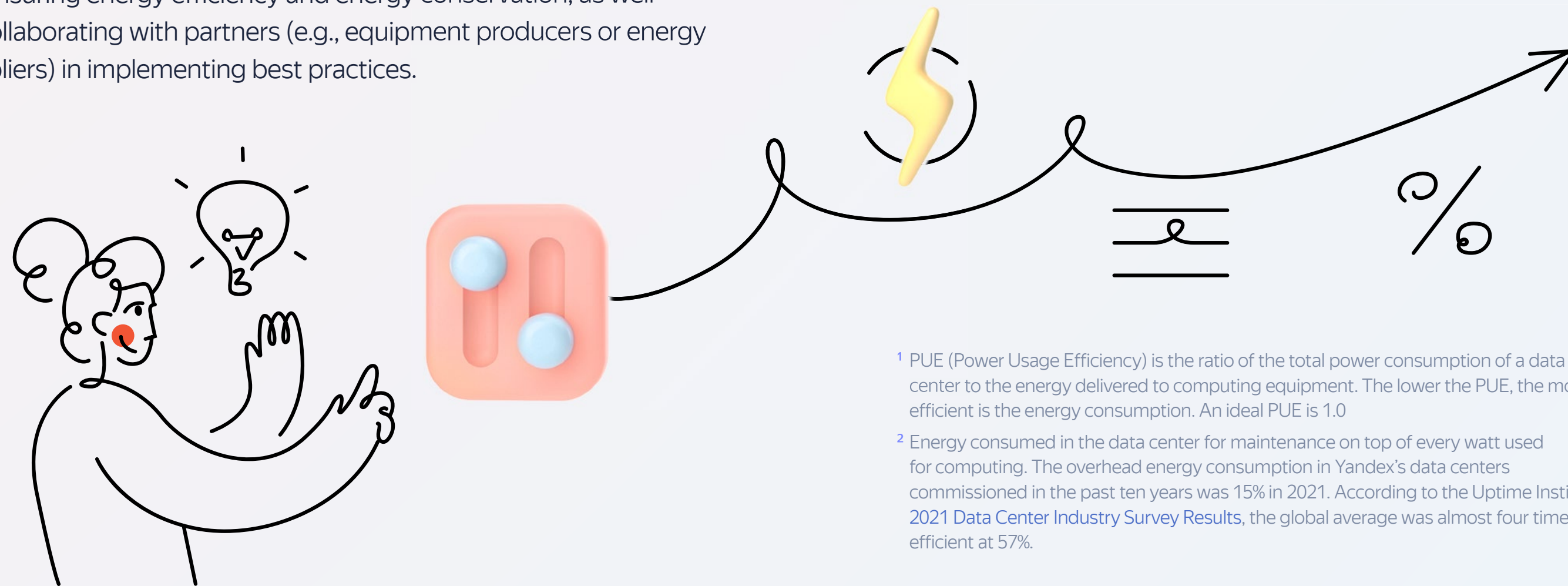
What makes a digital product environmentally responsible is, first and foremost, an environmentally friendly physical infrastructure supporting it.

In a pursuit of reduced environmental footprint and resilient business operations, we work to maintain high energy efficiency across our data centers and offices using cutting-edge solutions and technology. It is beneficial from both financial, operational and environmental point of view, where the cost-saving advantage that results from lower power consumption, as well as longer technical lifetime of energy-efficient equipment, is an opportunity to invest in improvement initiatives and business development in general.

Energy management falls under the responsibility of the Operations and Construction Department, which is tasked with designing and servicing facilities, developing internal regulations and guidelines for ensuring energy efficiency and energy conservation, as well as collaborating with partners (e.g., equipment producers or energy suppliers) in implementing best practices.

1.15
average annual PUE¹ of Yandex's data centers commissioned in the past ten years

×4 TIMES LESS
overhead energy used by server equipment compared with the global average²



¹ PUE (Power Usage 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 is the energy consumption. An ideal PUE is 1.0
² Energy consumed in the data center for maintenance on top of every watt used for computing. The overhead energy consumption in Yandex's data centers commissioned in the past ten years was 15% in 2021. According to the Uptime Institute's 2021 Data Center Industry Survey Results, the global average was almost four times less efficient at 57%.

Yandex Data Centers

As of the year-end of 2021, Yandex operated five data centers in Russia and Finland. As new, more energy efficient data centers are launched, the company plans to phase out the legacy ones.

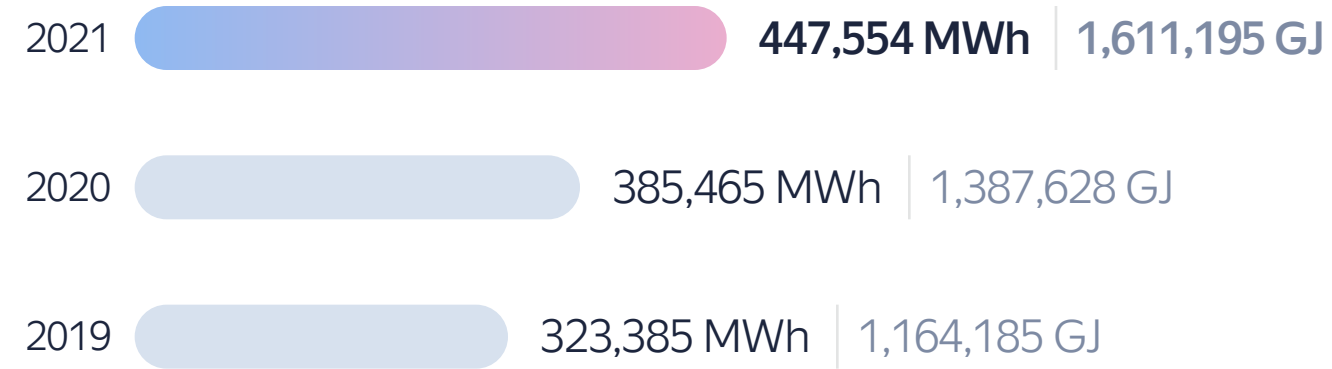
In 2021, the total electricity consumption in data centers increased 16% compared with 2020. This is due to business expansion and, consequently, the higher load on computing equipment. Consumption of diesel (used for backup energy generation) increased by 33% due to the need to ensure an uninterruptible electricity supply during power outages in external electrical networks, which were more frequent in 2021.

Natural gas consumption rose 52%, as the abnormally hot summer forced data centers to employ mechanical cooling (using natural gas to power absorption refrigeration systems) in addition to free cooling. Heat energy consumption fell 8%. Only Mytishchi and Ivanteevka data centers purchase heat; the rest reuse excess heat from servers to heat facilities.

Yandex Data Centers

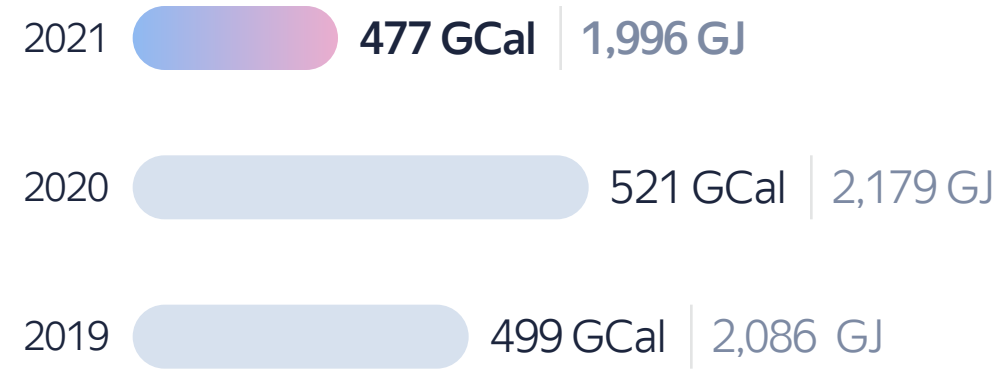
GRI 302-1 TC-IM-130a.1 CG-EC-130a.1 TC-SI-130a.1

Total Electricity Consumption, MWh and GJ



MWh/GJ conversion factor is 3.6

Heat Consumption, GCal and GJ



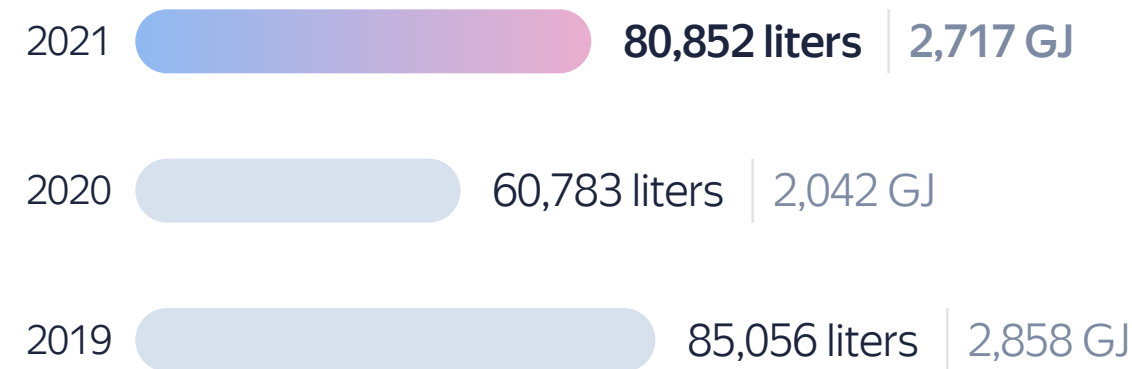
GCal/GJ conversion factor is 4.184

Natural gas consumption, m³ and GJ¹



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

Diesel Consumption, liters and GJ¹



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

GRI 302-3

In 2021, the average PUE² for our data centers, including the legacy ones that were commissioned over ten years ago, was 1.26 (1.25 in 2020; 1.28 in 2019). The average PUE of the data centers commissioned in the past ten years was 1.15 (1.14 in 2020; 1.18 in 2019), in line with global peers and 27% below the **global average** (1.57 in 2019). The insignificant increase in PUE compared with the previous year is due to the construction of new modules in the data centers, which involved the use of additional electricity.³

¹ The 2019 and 2020 data for consumption in GJ was adjusted and differs from the data presented in the 2020 Report as a result of updating the calculation methodology.

² An 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 on overhead to support server operation (cooling, capacity allocation, etc.).

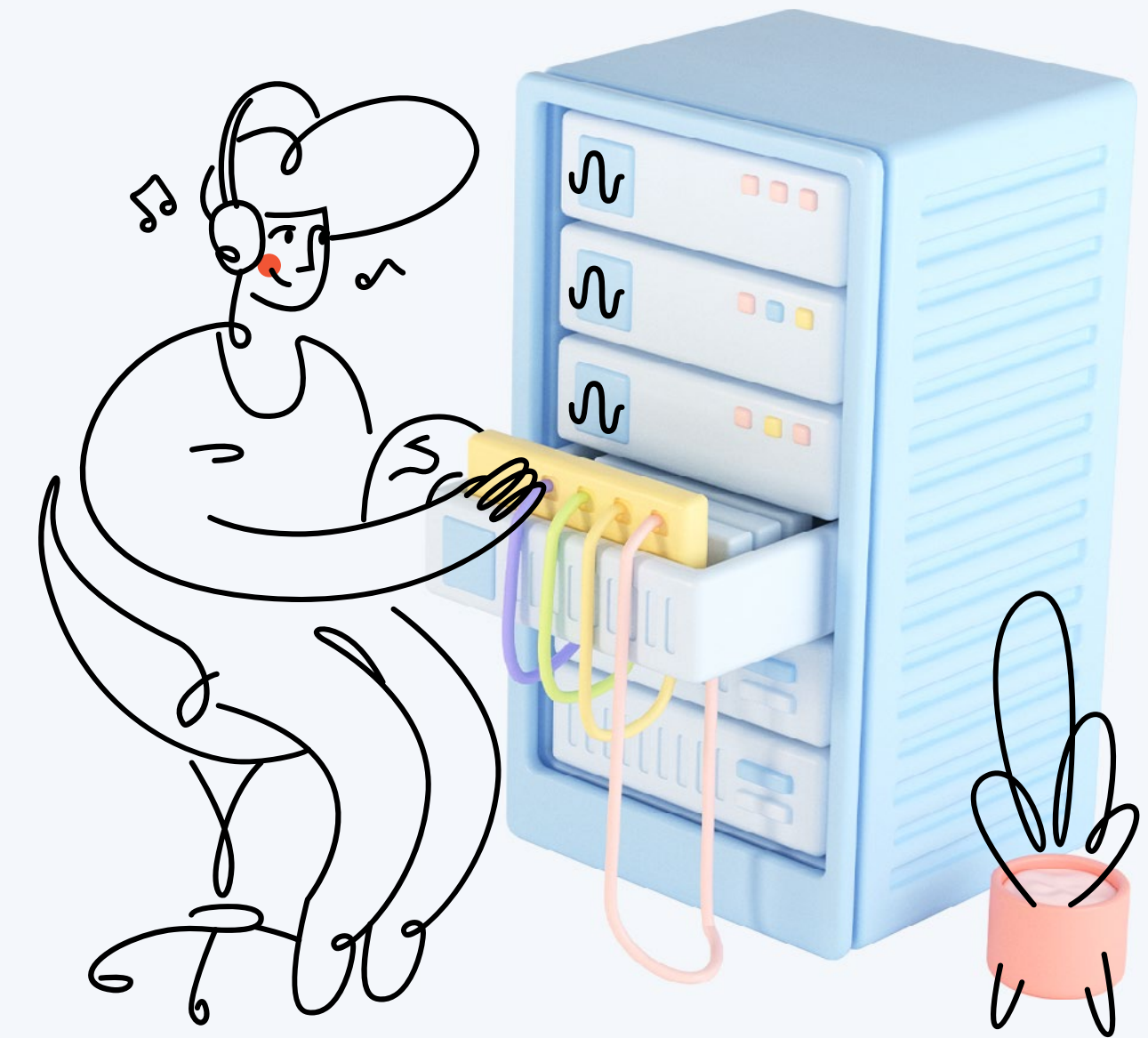
³ The antecedent used for calculating PUE comprises all electricity consumed by a data center, e.g., lighting in halls, construction works, etc.

Yandex Data Centers

GRI 302-3

The high energy efficiency of the data centers is ensured by comprehensive solutions applied throughout their entire life cycles. As early as at the facility design and construction stage, we **use the most advanced solutions and technology** available at the time. Many of these we **develop ourselves**. For instance, we have designed the equipment for the computing servers which runs without active cooling and has distributed power systems, as well as cold- and hot-air removal systems for circular cooling and heating. Our proprietary solutions account for infrastructure architecture nuances and regional geo-climatic conditions where the facilities are located.

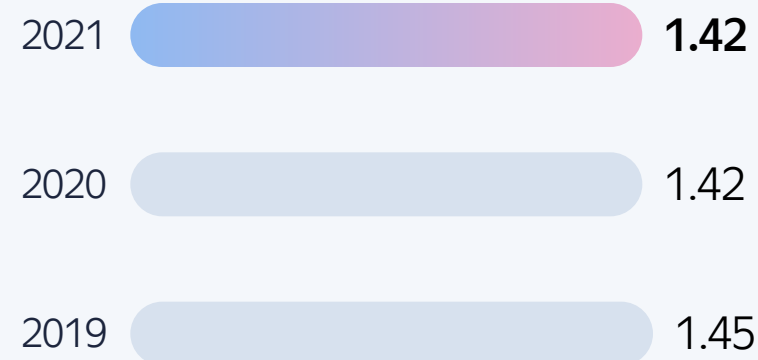
Free cooling is another example of innovation used by our data centers. The solution harvests the cold air outside to cool server equipment, thereby eliminating the need for water and refrigerants to fill air conditioning systems. To increase the efficiency of free cooling, we have introduced specially designed building and server room layouts with separated hot and cool air flows, to prevent heated air from staying in the room. As a result, the equipment cools faster with less power used for ventilation.



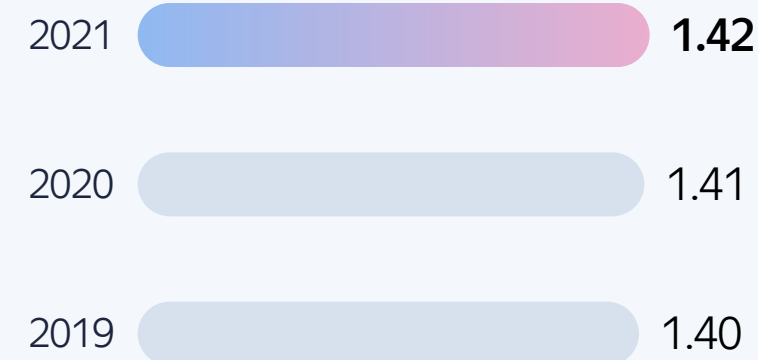
PUE of data centers

GRI 302-4

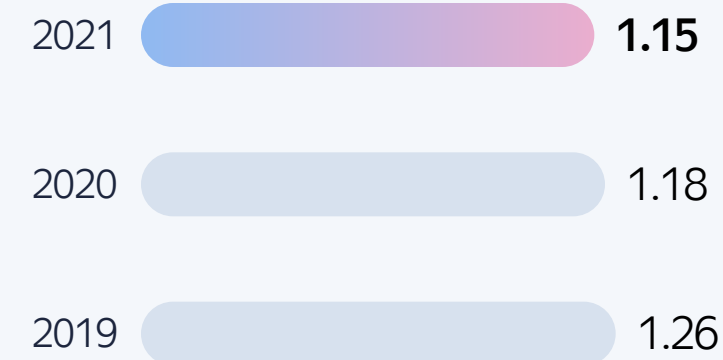
DC Ivanteevka
Constructed in 2008



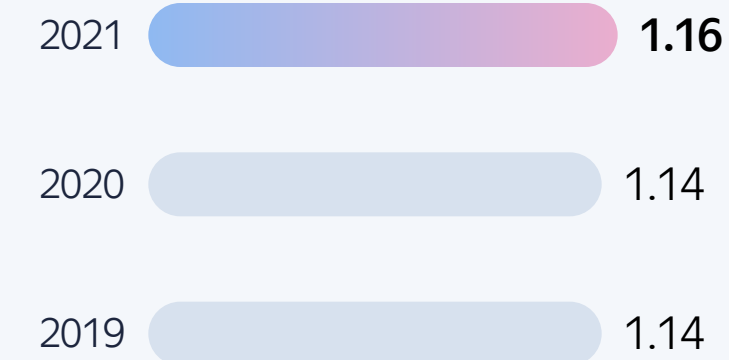
DC Mytishchi
Constructed in 2009



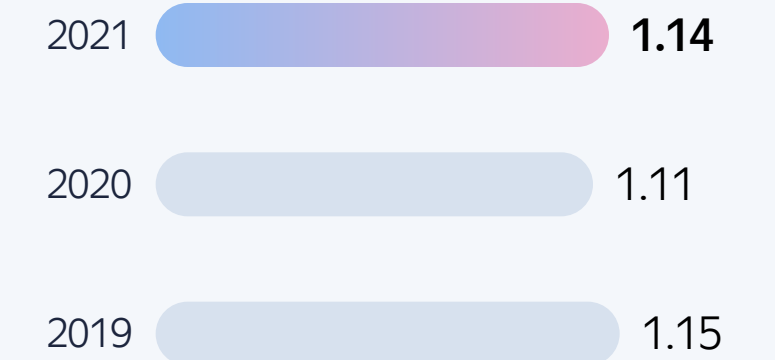
DC Sasovo
Constructed in 2012



DC Mäntsälä
Constructed in 2014



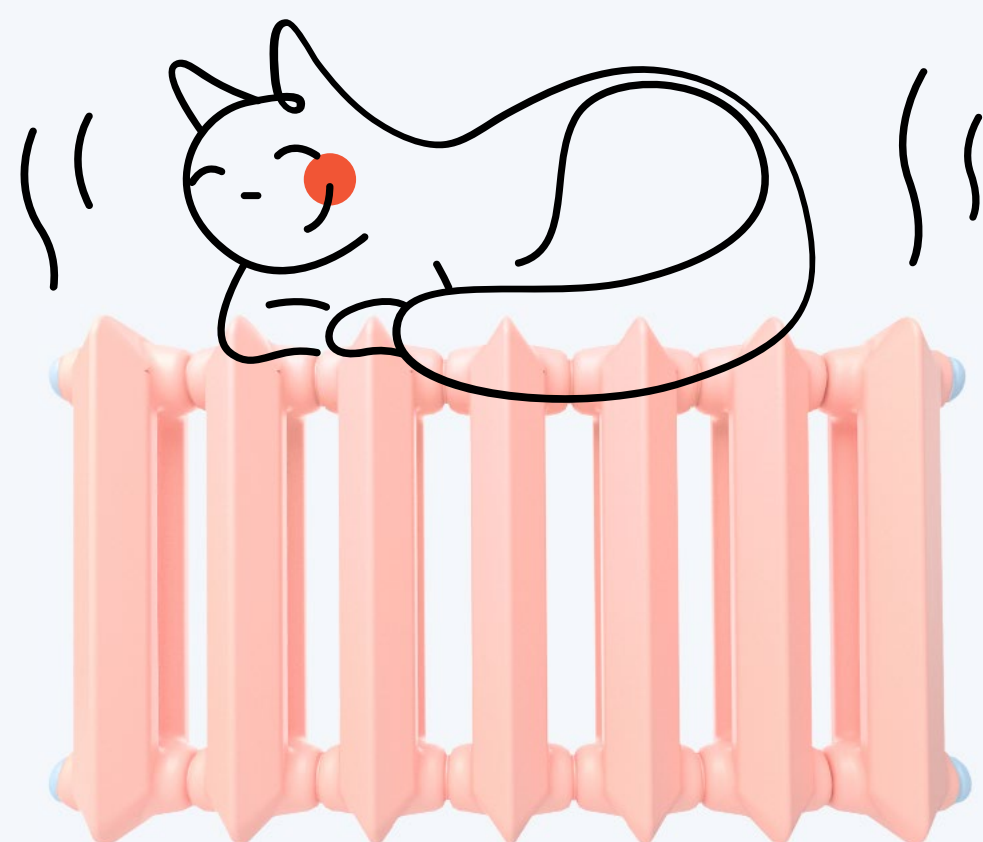
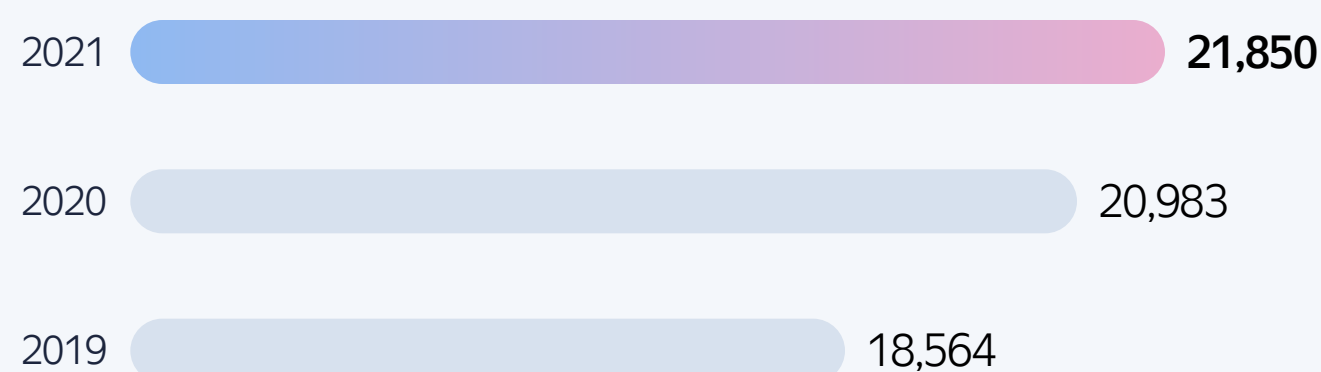
DC Vladimir
Constructed in 2017



Yandex Data Centers

In cold seasons, server waste heat is recovered to warm up data center facilities, lowering heating costs. **Heat recovery systems** are applied by data centers in Sasovo, Vladimir and Mäntsälä. Since 2015, an innovative heat recovery technology that we introduced in Mäntsälä has been helping warm up local homes: the waste heat produced by servers is reused to heat water that municipal utilities redirect to the residential heating system. Yandex became one of the first companies to develop and implement such technology.

Heat Sales, Mäntsälä Data Center, MWh



Reuse of Server Heat in Mäntsälä

61,400 MWh

of server heat was reused for municipal heating in 2019–2021.

This is the equivalent of energy consumed by approximately 2,500 Finnish households for heating their homes within the three-year period.¹

Over

50%

of the annual heating needs of the town were covered by the waste heat from our data center

Up to

12%

of household annual heating costs and up to **30%** of the data center electricity costs were saved over in recent years

¹ Assuming that a household consists of three persons living in a standalone house. According to the [data](#) provided by a Finland-based energy producer, such a household may consume up to 8 MWh of electricity per year to heat their home.

Yandex supercomputers and energy efficiency

up to

3,500

tasks executed simultaneously

up to

30–50%

less energy consumed for executing tasks when compared with standard architecture

In 2021, three Yandex supercomputers, Chervonenkis, Galushkin and Lyapunov, joined the list of the world's 50 most powerful supercomputers and were recognized as having the highest performance in Russia.² Supercomputers are used to perform the most complex computing processes and train the largest machine learning models. Machine learning methods underpin Yandex service algorithms, which help Yandex Search provide precise answers, help the voice assistant Alice communicate, and more.

The specially designed architecture of supercomputers is customized to Yandex's needs and enables us to fulfill our operating tasks twice as fast as standard architecture. Supercomputers also help us save energy, as they require 1.5–2 times less power to do the same job as a computer with conventional architecture, as well as allow for optimized heat removal and saving electricity for cooling. For more details on Yandex's supercomputers, please refer to our [website](#).

² According to the [Top500](#) supercomputer rating.

Yandex Offices

In 2021, many offices increased energy consumption compared with 2020, largely due to the return of employees to offices and the extension of office space. For example, the aggregate energy consumption of offices in the Krasnaya Roza (Moscow) and Avrora (Moscow) business centers (over 50% of our office space) increased by 30%. They also consumed 1.5 times more heat in 2021, as the average winter temperature was 2–3°C colder than in 2020. More information about energy consumption at Yandex offices can be found in the [ESG Data Tables Annex](#).



There is a number of energy saving measures that have been put into place: switching off the ventilation system and regulating the brightness of artificial lighting using smart systems during off-times (nights, weekends and holidays). We also are gradually replacing fluorescent lamps with LED lighting. According to our estimates, the 2021 replacement at the Krasnaya Roza business center allowed us to achieve annual energy savings of 180 MWh. That would be enough for an energy efficient electric car to travel more than 700,000 km without recharging. The replacement of lamps across the Avrora and Benois business centers, which will be completed in 2022, should ultimately lead to aggregate annual savings of over 400 MWh.

GRI 302-4

180 MWh

of electricity was saved thanks to the replacement of lighting fixtures at our biggest office facility, the Krasnaya Roza business center in 2021

We also plan to equip underground parking facilities and conference rooms with automated lighting control systems using motion sensors to adjust the lighting depending on the presence of a person in the room.

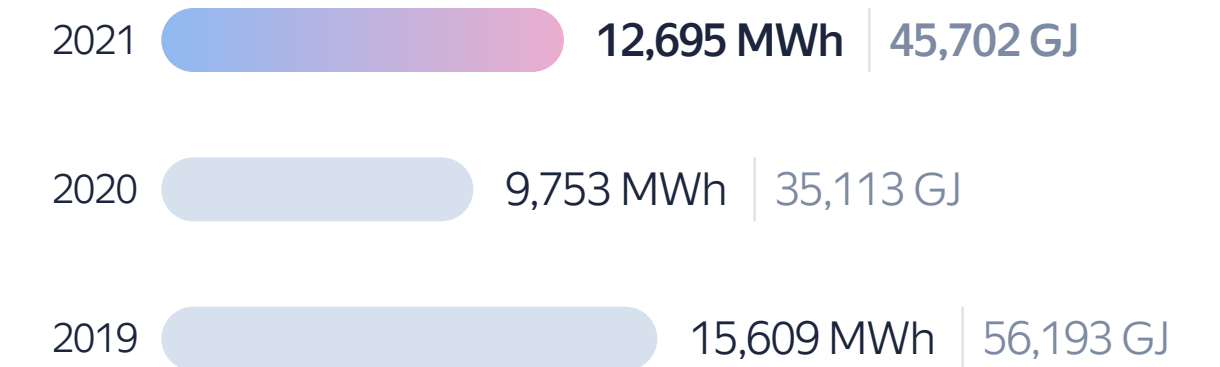
GRI 302-1

TC-IM-130a.1

CG-EC-130a.1

TC-SI-130a.1

Electricity Consumption at offices in the Krasnaya Roza and Avrora business centers, MWh



MWh/GJ conversion factor is 3.6

Heat Consumption at offices in the Krasnaya Roza and Avrora business centers, GCal



GCal/GJ conversion factor is 4.184

Packaging and waste



GRI 306-1

Even the most digitalized economic activity cannot fully avoid waste generation. Used office supplies, obsolete devices, and broken equipment are among the byproducts of such activity. Digital services may rely on offline processes, some of which can be material-intensive. For instance, online marketplaces that offer delivery services use packaging materials to ensure damage-free storage and shipment of goods.

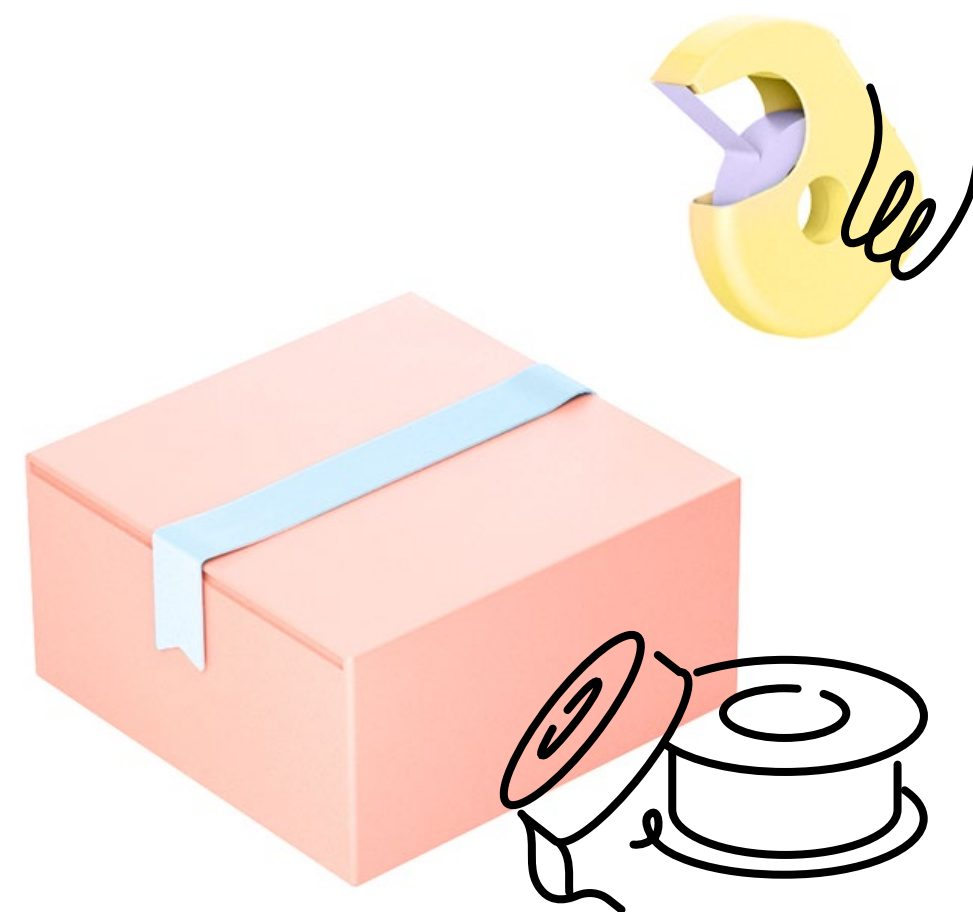
We aim to build effective processes optimizing the use of materials and accounting for their recyclability and reusability. To achieve this, we draw upon feedback and improvement ideas shared by our teams and users who care about environmental impacts of our products and expect us to demonstrate high level of efficiency. While striving to meet their demands, we work to encourage eco-friendly habits among those who are, just like ourselves, are still learning about circularity and ways to reduce environmental footprint.

Delivery Services

GRI 306-2

CG-EC-410a.2

In 2021, Yandex delivery services (Yandex Market, Yandex Lavka and Yandex Eats) defined action areas to improve environmental performance over time, which included **reducing waste and packaging, replacing materials with sustainable¹ options** where possible, and encouraging **eco-friendly habits** through special service settings (e.g., by offering customers to opt-out from supplementary plastic utensils by default).



¹ We understand sustainable materials as recyclable, reusable or those containing recyclable materials.

Yandex Market

91 %

of all Yandex Market delivery packaging is made from recycled or reused materials e.g., 100% of shipping boxes are made from recycled cardboard

54 %

of waste generated at Yandex Market warehouses was recycled or reused in 2021

FoodTech

65 %

less climate impact of using HDPE delivery bags in Lavka compared with using similar bags made from paper 53% less compared with using bags made from LDPE²

66 %

of known waste generated in dark stores and in the production of Yandex Lavka private label products was sent for recycling³ in 2021

² Comparing climate change impacts (calculated in CO₂-equivalent) of cradle-to-grave lifecycles of delivery bags made of HDPE plastic, LDPE plastic, and paper under the scenario of their use by Lavka in Moscow. The lifecycle assessment was performed under ISO 14040 and ISO 14044.

³ Data collection on the volumes of waste generated and transferred for recycling was limited at some dark stores and other facilities.

Yandex Market

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

Yandex Market marketplace strives to offer convenient and economically attractive shopping experience, while keeping delivery and packaging sustainable. Before reaching the buyer, goods pass through logistics centers, where they are stored, assembled into an order, packaged and sent for delivery. You can [see](#) (RU) how this happens.

Due to a three-fold increase in the number of orders in 2021 (nearly 30 million), the amount of packaging materials has also increased. In 2021, Yandex Market used 10,900 metric tons of packaging materials, which is 72% more than in the previous year. Altogether, this is equal to the weight of 19 double-deck Airbus A380 airliners with passengers and cargo. Packaging is often necessary to protect the original packaging of goods (or the product itself, if it has no packaging), as well as ensure that products do not damage other goods and are transported separately in compliance with hygiene or health and safety requirements.

In 2021, we took a few important steps to reinvent our approach to packaging in line with the environmental and economic perspectives. We improved the **accuracy of fit-to-size packaging**, **eliminated redundant repackaging** of goods that objectively did not need it, started to **replace packaging materials with more eco-friendly options** (secondary or recyclable materials), and continued sending **packaging waste** generated in warehouses **for recycling**. Moreover, we are now openly encouraging users to reuse or properly dispose of packaging left from their orders. For this purpose, we have launched a special sustainability-conscious [landing page](#) (RU) on the Yandex Market website.

In 2021, the share of delivery packaging made from recycled or reused materials remained at a high level of 91%. All Yandex Market boxes are made of sustainable recycled cardboard, and, since the beginning of 2022, we have been using courier and delivery bags made from 30% recycled materials.¹

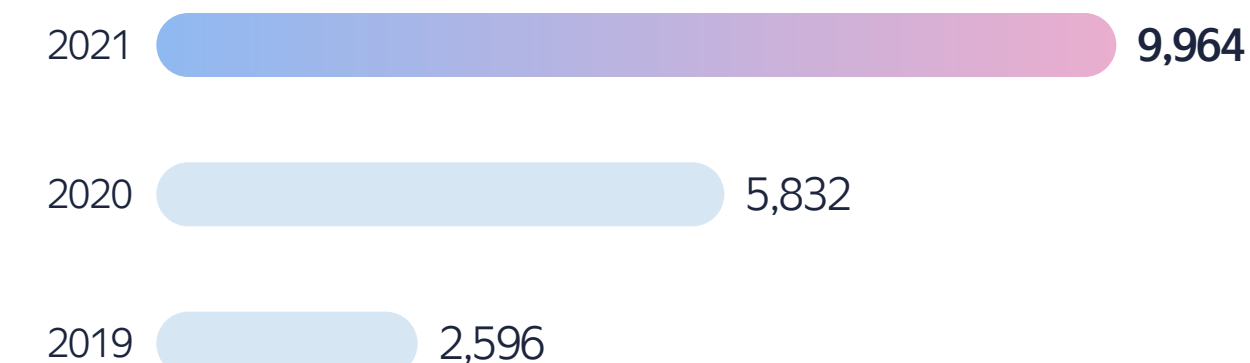
Replacing boxes with bags for small- or medium-sized goods helps us reduce the consumption of boxes, paper void filler and wrapping materials (film and duct tape). If the order volume remains unchanged, we estimate that savings could reach 7 million boxes and 157 metric tons of void filler per year. Using plastic bags that follow the shape of the objects makes it possible to reduce empty space by up to 40%, meaning that one vehicle can carry more goods. Plastic bags can be recycled (there is a recycling reminder for customers on them), while boxes can be recycled or repurposed, e.g., to collect waste. We developed a special box design that is functional as a waste container and includes helpful waste sorting information.

When evaluating packaging alternatives, we employ material testing as well as science-based approach to measuring impacts. At the end of 2021, we launched a study of the environmental footprint of the packaging of Yandex Market's orders delivered to pickup points. Our goal was to analyze the impact of the packaging alternatives at all stages of their lifecycle until they reach the user, as well as to understand what users do with the packaging. The findings of the study due to be completed in 2022 will be used to refine our internal packaging guidelines.

¹ In testing, materials with a higher proportion of recycled materials failed to show the required durability.

Volume of packaging used in Yandex Market, metric tons

Packaging from recycled or reused materials



Packaging from virgin materials



The increase in packaging materials is the result of business growth. In 2021, Yandex Market's GMV grew 2.8x and the number of orders grew more than 3x vs 1.7x increase in the amount of packaging materials used. This suggests a decrease in the amount of per order packaging due to optimization measures.

Data for 2019 and 2020 was revised following improvements in the packaging data accounting and is not significantly different from the values shown in the 2020 Sustainability Report.

Yandex Market

Reducing Excess Packaging During Order Assembly

GRI 306-2

GRI 306-4

CG-EC-410a.2

In 2021, we rethought our approach to order packaging, seeing it as an opportunity to go greener and save more.

Packaging is automatically selected according to the size of goods specified by partner sellers. Since 2021, packers have been additionally checking that the size data is correct and the system has suggested the best packaging option, especially for goods with non-standard measurements.

Moreover, we now avoid wrapping and boxing products where their own packaging is sufficient, such as blocks of bottled drinks in a shrink wrap or pet food. In other cases, we have reduced additional packaging to a minimum to ensure the conditions necessary for the damage-free delivery of various product categories. Now only one turn of duct tape is used to fasten small and medium-sized boxes. At the same time, large heavy boxes are taped crosswise, since one turn is not sufficient to secure the goods. Where stretch film packaging is unavoidable, we have reduced the number of layers to one in order to minimize material consumption while keeping its protective properties.

About

900 THSD

delivery boxes and bags

and ~60 metric tons of packaging materials¹ were saved within a month after the measures had been implemented

↓ **17%**

reduction in monthly packaging costs while orders grew 40%²

↓ **32%**

reduction in packaging cost per order³

¹ Duct tape, stretch film, craft paper filler.

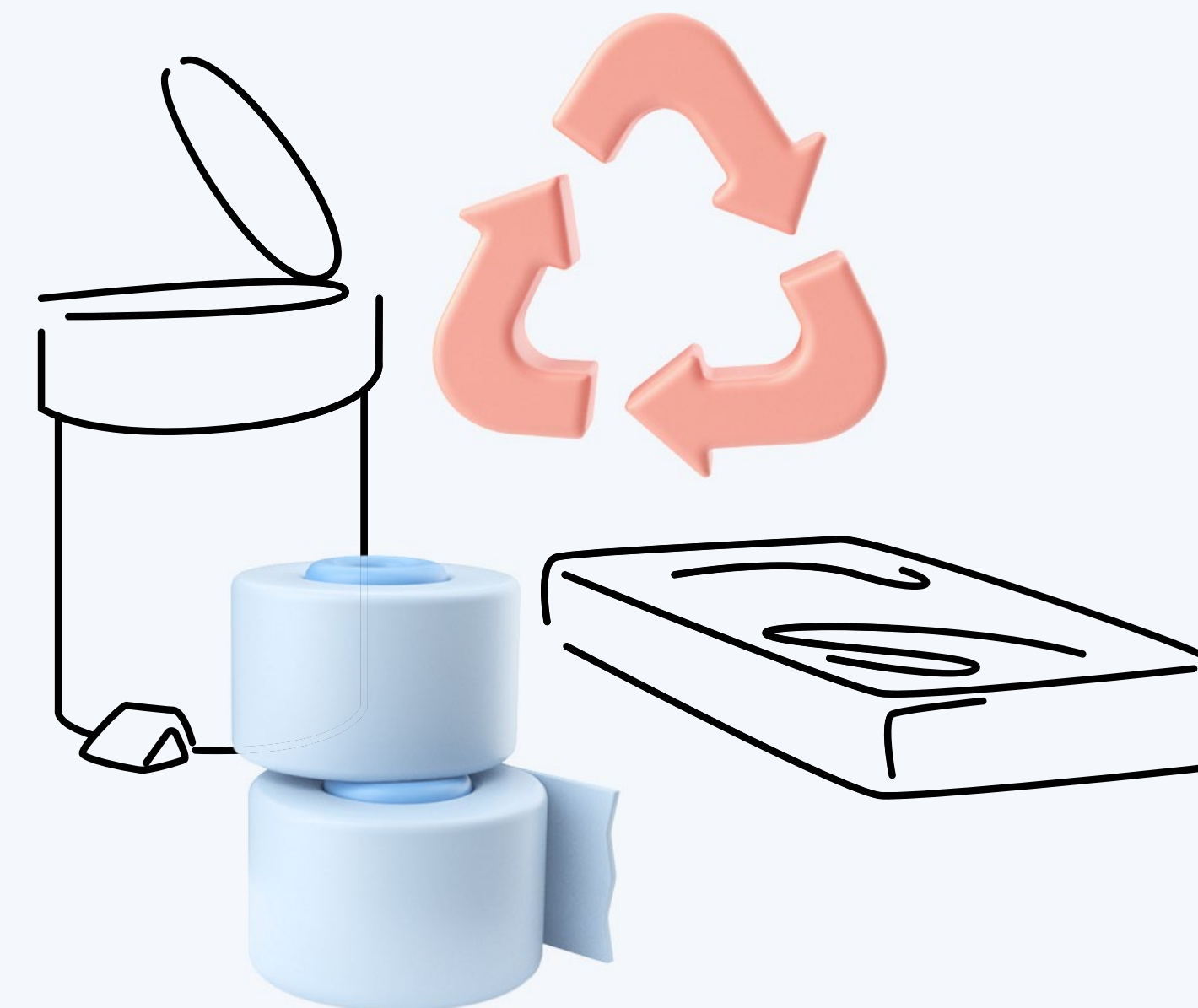
² We compared costs and the number of shipped orders per month before and after the new approach to packaging was introduced.

³ Comparing the packaging costs per one order in the months before (averaged) and in the month after the new approach to packaging was introduced.

GRI 306-3

GRI 306-4

In 2021, 3,930 metric tons of packaging were transferred for recycling, amounting to 54% of all annual packaging waste (7,282 metric tons). Cardboard and film (used by sellers to pack goods arriving at our warehouses) are sent for recycling, while wooden pallets are reused. We also recycle defective or damaged items that are not resalable or have already been returned by the user, such as devices and equipment. In 4Q 2021⁴ 2,399 metric tons of decommissioned products were sent for processing.



⁴ In 4Q 2021, we changed the waste operator and introduced a data accounting system.

Foodtech Services

GRI 306-2

GRI 306-3

GRI 306-4

CG-EC-410a.2

In 2021, **Yandex Lavka** distribution centers and warehouses, as well as the production facilities of private label goods, generated approximately 2,000 metric tons of waste,¹ of which 66% was transferred for recycling (mainly cardboard boxes, wooden pallets, and film). Lavka also uses returnable plastic containers to move goods between distribution centers and dark stores, thus reducing the amount of transport packaging waste.

In 2021, their use grew tenfold. The **smart stock management system** helps reduce food waste by forecasting the need for inventory in different dark stores, taking into account demand, seasonality and user preferences.

At Lavka, we try to use recyclable or recycled packaging alternatives when possible. For example, recyclable low-pressure polyethylene (HDPE) was selected for delivery bags. It proved to be the most environmentally friendly material based on the results of lifecycle modeling covering various packages.

We ask all suppliers of **Lavka's private label products to follow our sustainable packaging recommendations**. In 2021, 84% of Lavka's private label food items and over 60% of our containers with ready-to-eat food had sustainable packaging. There are a number of restrictions that make a switch to fully sustainable packaging challenging and not always possible: for example, Russia's regulatory requirements do not permit the use of secondary raw materials for food packaging, and there are no fully recyclable packaging options available on the market for some categories of goods (such as cheese and frozen foods). We support an ongoing dialog with manufacturers and follow innovative solutions which we can apply in the future.

Eco-friendly habits are promoted by information resources raising awareness about waste sorting (Lavka **has used them** (RU) for a few years now), as well as in the app. In 2021, **Yandex Eats** stopped adding disposable utensils to restaurant and cafe orders by default. This initiative was supported by over 4,000 partner restaurants. Based on initial estimates, annual plastic savings can reach 50 metric tons given that 30% of orders made through Yandex Eats do not include disposable utensils.

Lavka's Sustainable Packaging²

100%

delivery bags

84%

of food packaging units produced under the Lavka brand

80%

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

² Sustainable packaging is understood as recyclable and/or made of recycled materials. Russia's health and safety regulations do not allow the use of secondary raw materials for packaging certain categories of food.

Knowing Your Favorite Bananas to Optimize Stocks

3,5 TIMES LESS

monthly write-offs of bananas at the beginning of 2022³

In 2021, we added a feature to the Yandex Lavka app that enabled users to select the ripening stage when ordering bananas. The feature was developed following a survey that covered thousands of Lavka users from various Russia's regions, which found that people like different bananas: some would always choose green ones while other prefer them riper. This simple yet out-of-the-box solution did not just improve user experience, but also helped streamline sales as well as reduce write-offs.

To make it work, we equipped dark store personnel with illustrated instructions for determining the ripening stage of the fruit, as well as arranged separate shelves for storing three types of bananas: green, yellow, and spotted.

³ We compared write-offs in January 2022 and in the month before the feature was added.

¹ The known amount of waste may differ from the actual amount. The ability to collect data on the volumes of waste generated and transferred for processing is limited in some dark stores and other facilities. Quantitative data is presented in the [ESG Data Tables Annex](#) to the Report.

Infrastructure waste

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

Yandex offices and data centers mostly generate non-hazardous waste; small numbers of batteries and fluorescent lamps are classified as hazardous waste and therefore are collected separately and transferred to certified organizations for disposal. The total volume of waste amounted to 1,018 metric tons. For detailed statistics, please refer to the [ESG Data Tables Annex](#).

In 2021, we started building a **systematic approach to office waste sorting and recycling**. We also continued developing initiatives aimed at reusing and recycling office and server equipment.

Between 2019 and 2021, 4,892 units of outdated, but still usable, office equipment (laptops, displays, mobile phones, and hard drives) were purchased by employees at a reduced price. Moreover, in 2021, we sold 536 pieces of server equipment¹ (mainly hard drives and network drives). Over 200 units of office household appliances (microwave ovens, coffee machines, kettles, and other equipment) were sent for recycling. We reuse usable parts from decommissioned devices as spare parts, extending their life and reducing repair costs.

¹ The "sold" category comprises equipment sold to third parties for recycling, spare parts, resale to third parties or scrapping. In 2021, 15,359 pieces of server equipment were properly disposed. The decommissioned equipment is sent to storage and booked for sale while the company looks for potential buyer. At the end of 2021, there were 140,629 pieces of decommissioned server equipment in the warehouse booked for sale or disposal.

Green Offices

Green offices is a comprehensive initiative that has been implemented using a systematic approach starting from 2021. A separate team was established within the real estate management division of the Operations and Construction Department to streamline office procurements and search for eco-friendly alternatives (for more details, please refer to the [Responsible Procurement](#) section), set up a convenient waste sorting system, keep records of waste generation and disposal, and encourage development of eco-habits among employees.

143.5 METRIC TONS
of office waste² was transferred for recycling in 2021

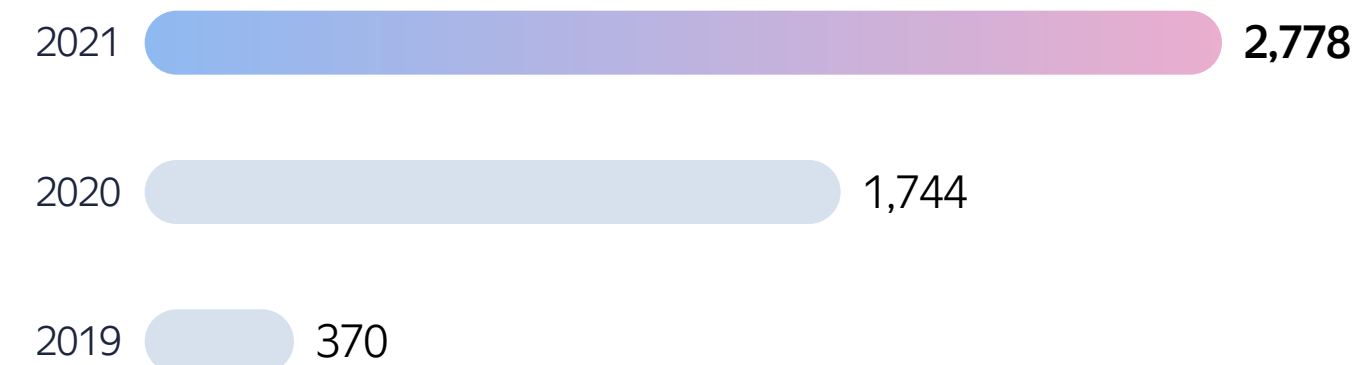
Almost

1 M

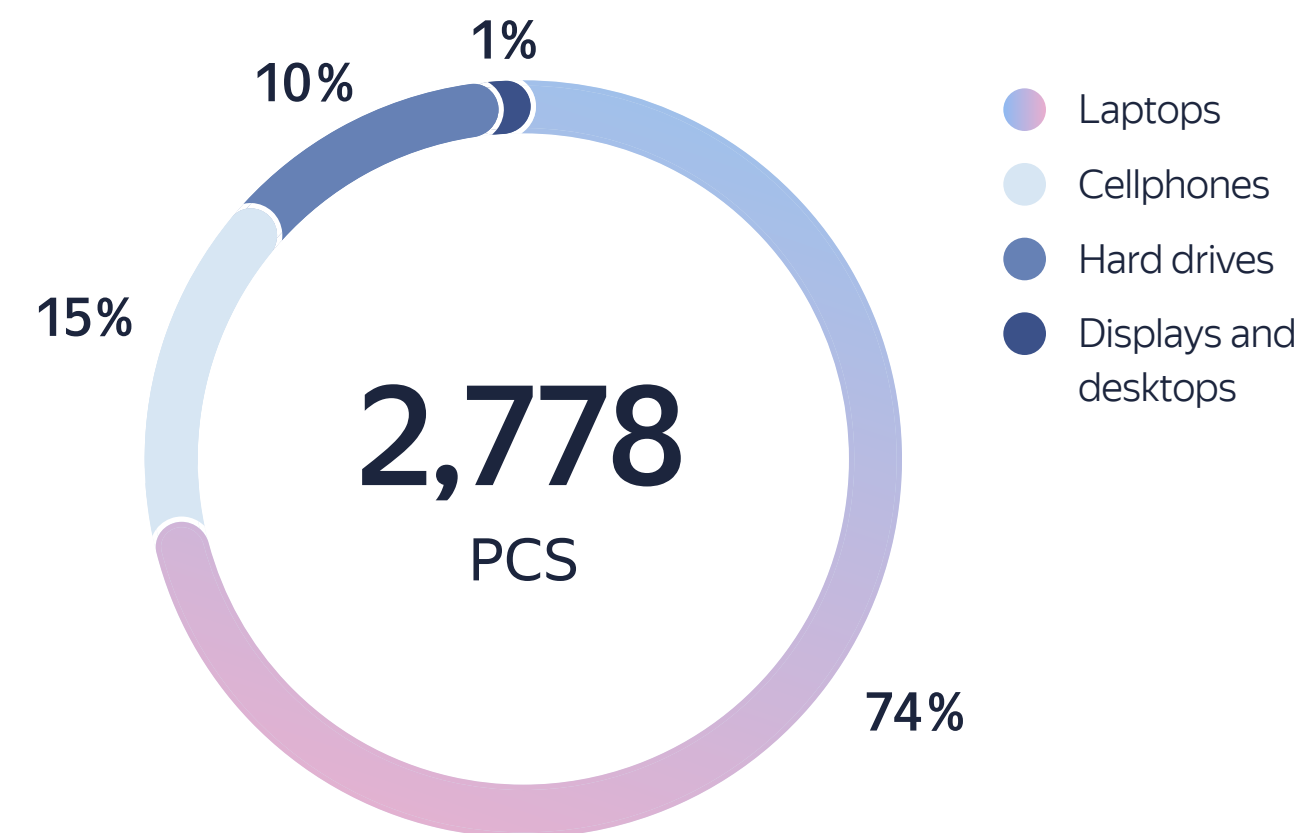
sheets of paper (an amount equal to 20 cubic meters of wood) was saved in 2021 thanks to e-signatures in 2021

² Including 117 metric tons of cardboard and paper; 13 metric tons of plastic; 11 metric tons of metal, glass and Tetra Pak packaging; and 2.5 metric tons of other materials

Office equipment sold, pcs



Types of office equipment sold in 2021, %



Since 2020, we have been running a recycling program for Yandex smart devices that include Yandex Stations with a production defect or returned by customers. They are sent for processing to extract useful parts. The first batch of equipment was disposed in 2021. As a result, over 98% of boards and microcircuits, metals, plastics, and rubber used in devices was available for reuse.

Carbon Footprint



When we were setting up our business, we knew that we wanted to create technologies that would benefit society without causing any harm to the world. Today, with climate change becoming one of major global concerns, we are fully committed to our journey towards decarbonization. This is key to both building resilience to business risks as well as accelerating and strengthening innovation.

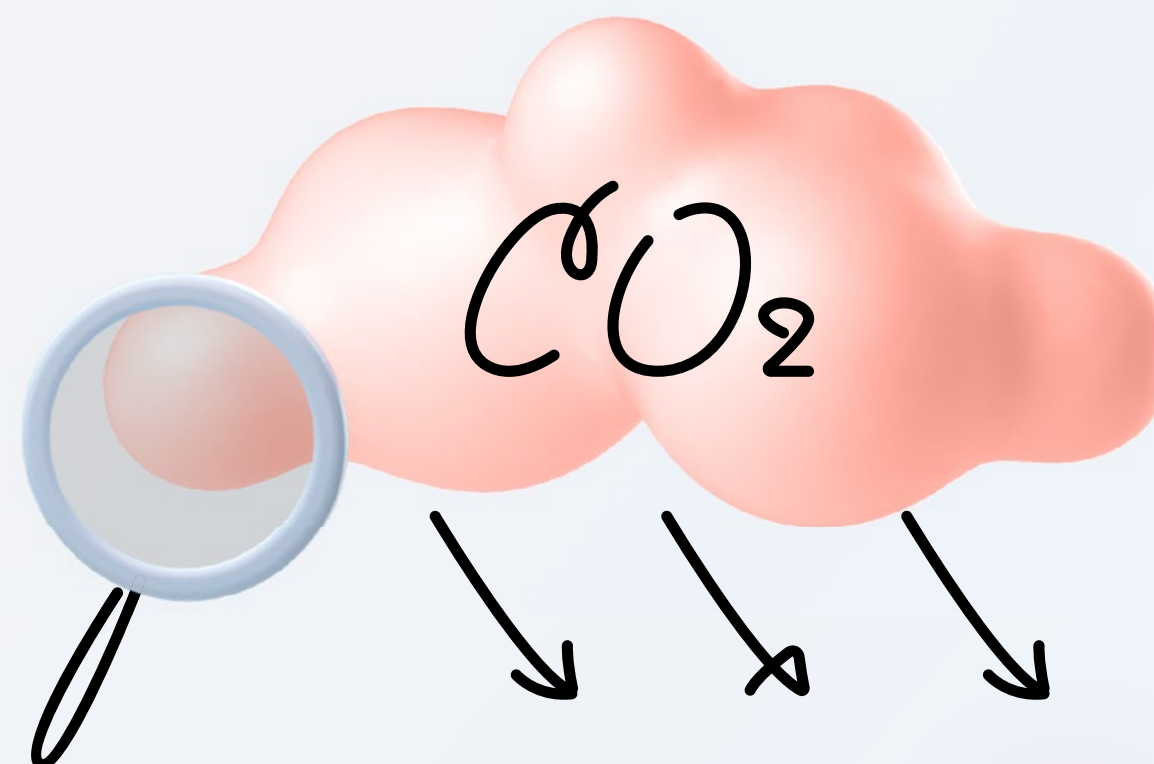
One crucial part of this journey is gaining an accurate understanding of our carbon footprint,¹ including where the emissions occur and what they are caused by, and how different changes in operations may affect their dynamics.

We have been measuring our infrastructure’s direct (Scope 1) and indirect (Scope 2) GHG emissions² since 2020. In 2021, Yandex became the first company in the CIS region and one of only a few companies globally to **assess the climate-related performance of its ride-hailing (Yandex Taxi) and e-commerce (Market) services**. The assessment is based on the [Greenhouse Gas Protocol](#) methodology. More details about the results can be found in this section.

We use the information obtained during the assessments to set goals and develop measures for further decarbonization. Last year’s analysis showed that over half of Yandex’s carbon footprint was associated with electricity consumption, 90% of which was attributed to data centers (DCs). With this in mind, we have prioritized a route to **net zero electricity supply** and focused on maintaining a **high level of energy efficiency** (see—the [Energy Efficiency](#) section), and searching for **greener energy sources for our DCs**.

We also believe part of our mission is to develop **digital solutions**, that will help our users **improve their climate performance**. For more details, see the [Yandex Services for Sustainability](#) section.

The climate agenda information, compiled based on TCFD recommendations, can be found in the [Climate Aspects of Yandex’s Agenda Annex](#).



¹ Total direct and indirect GHG emissions.

² Scope 1 emissions cover direct GHG emissions from stationary and mobile sources controlled by the company. Scope 2 emissions cover indirect emissions induced by the consumption of heat and electricity purchased from third parties. Scope 2 emissions are calculated using a location-based method reflecting the average carbon intensity of national grids where the consumption occurs. A market-based method involving the use of supplier-specific emission factors is not applied due to data unavailability.

Carbon Footprint of Yandex Infrastructure

GRI 305-1

GRI 305-2

TR-RO-110a.1

Yandex infrastructure includes movable and immovable property managed by Yandex³ that supports our activities, i.e. DCs, offices, logistics centers, and company-owned or leased vehicles (self-driving cars and Yandex Drive carsharing fleet).

↑ **22%**

growth in gross GHG emissions generated by Yandex infrastructure (Scope 1 and 2) compared with 2020

↓ **25%**

decrease in carbon intensity of infrastructure per RUB 1m of consolidated revenue compared with 2020

0%

growth in carbon intensity of our infrastructure per 1 MWh of energy consumed compared with 2020

³ We apply the operational control method to define the assessment scope envisaged by the GHG Protocol.

Carbon Footprint of Yandex Infrastructure

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

Gross GHG emissions generated by Yandex infrastructure totaled 257,281 metric tons of CO₂ equivalent in 2021, a 2.2% increase over the previous year: direct emissions associated with fuel consumption by vehicles and for internal power generation (Scope 1) increased by 17%, while indirect emissions driven by the consumption of purchased energy (Scope 2) increased by 26%. This growth is attributable to the expansion of our business in 2021, specifically an increase in the volume of computing at DCs and, as a result, an 18% increase in energy consumption for server equipment maintenance, the commissioning of new facilities, and the increased mileage of Yandex Drive cars, whose GMV grew by 42%.

GRI 305-4

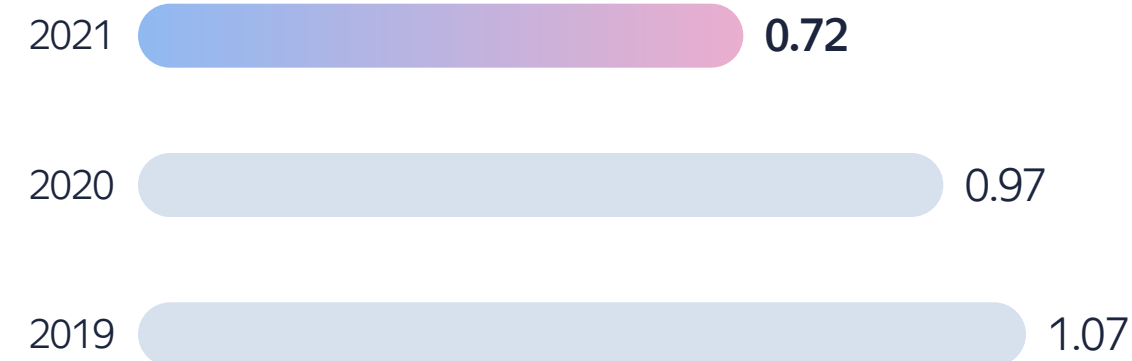
Carbon intensity decreased from 0.97 metric tons in the previous year to 0.72 metric tons of CO₂ equivalent per RUB 1m of consolidated revenue. One of the reasons for this is a focus on improvements, which contributed to the overall growth in profits with streamlined energy consumption.

Carbon intensity per 1 MWh of energy consumed¹ remained unchanged and amounted to 0.27 metric tons of CO₂ equivalent. This stability is attributable to a continuous energy balance, i.e., the types of fuel consumed and the sources of purchased electricity making up the national energy mix. As long as energy balance remains unchanged, a growth in energy consumption directly results in an increase in gross emissions, while the intensity trend remains flat. Going forward, we will aim to ensure a declining intensity trend per unit of energy consumed, and we have been considering low-carbon renewable energy purchases as one of the ways to achieve that.

¹ The total amount of fuel (Scope 1), electricity, and heat consumed (Scope 2) calculated in MWh.

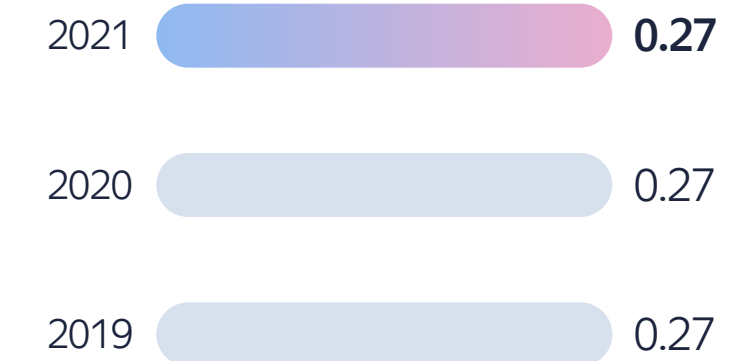
GRI 305-4

Carbon intensity (Scope 1 and 2), metric tons of CO₂ equivalent/RUB 1 million of consolidated revenue



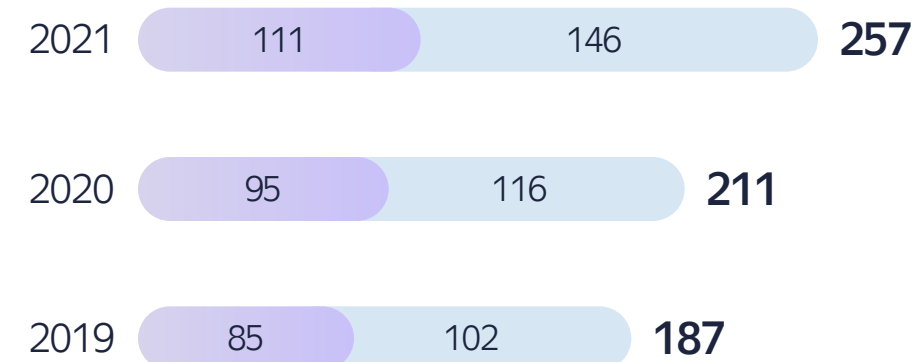
GRI 305-4

Carbon intensity (Scope 1 and 2), metric tons of CO₂ equivalent/MWh



GRI 305-1 GRI 305-2

Gross GHG emissions (Scope 1 and 2), thousand metric tons of CO₂ equivalent



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

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

In 2021, Yandex introduced a green energy procurement scheme for the data center in Mäntsälä (Finland). We signed an agreement on the purchase of wind power to cover 100% of the facility's energy needs (or approx. 20% of the energy needs of all Yandex DCs). The agreement took effect in January 2022, however, we were unable to continue this collaboration after February 2022. We will use this experience and seek out new opportunities to decarbonize our electricity consumption. To do this, we have been holding a dialogue with members of the Russian energy market, where four of Yandex's DCs are located.

For the detailed GHG emissions data associated with the infrastructure, see the [ESG Data Tables Annex](#).

Carbon Footprint of Yandex Taxi Rides

In 2021, we conducted an inaugural **carbon footprint assessment of Yandex Taxi rides**¹ across a number of Russian regions for the period of 2017 to 2021. We analyzed the correlation between the GHG emissions associated with the rides and the efficiency of the platform. For a detailed description of carbon footprint calculation methodology, please refer to the **ESG Data Tables Annex** of this report. We plan to regularly improve the accuracy of input data, refine our methodology and seek external validation of results.

↓ **17%**

reduction in GHG emissions per passenger kilometer in 2021 (average for all reviewed regions) compared with 2017

81%

of Yandex Taxi mileage was on-trip² (average for all reviewed regions) ↑ 12 p.p. in 2021 compared with 2017

¹ As per GHG Protocol guidance, the carbon footprint associated with Yandex Taxi partner rides is not included in Yandex's direct (Scope 1) or indirect (Scope 2) GHG emissions, and we therefore treat it as other indirect (Scope 3) GHG emissions under the Use of Sold Products category (Category 11), where a ride is the product of a ride-hailing business. The assessment did not cover Scope 3 emissions associated with the manufacturing or disposal of partner vehicles, nor did it cover emissions from the production of fuel used by such vehicles or emissions resulting from personal use of the vehicles (non-Yandex Taxi mileage).

² Distance traveled between the pickup and drop-off points. On-trip mileage does not include distance driven while waiting for a ride request or to pick up a passenger.

GRI 305-4

We found that GHG emissions intensity, measured as the ratio of a vehicle's total GHG emissions associated with Yandex Taxi rides to passenger mileage³, has been decreasing steadily: by an average of 5% per passenger kilometer annually. During the evaluated period, GHG emissions intensity for rides made in Moscow, St Petersburg, and other reviewed Russian cities fell by 18%, 24%, and an average of 17% respectively.

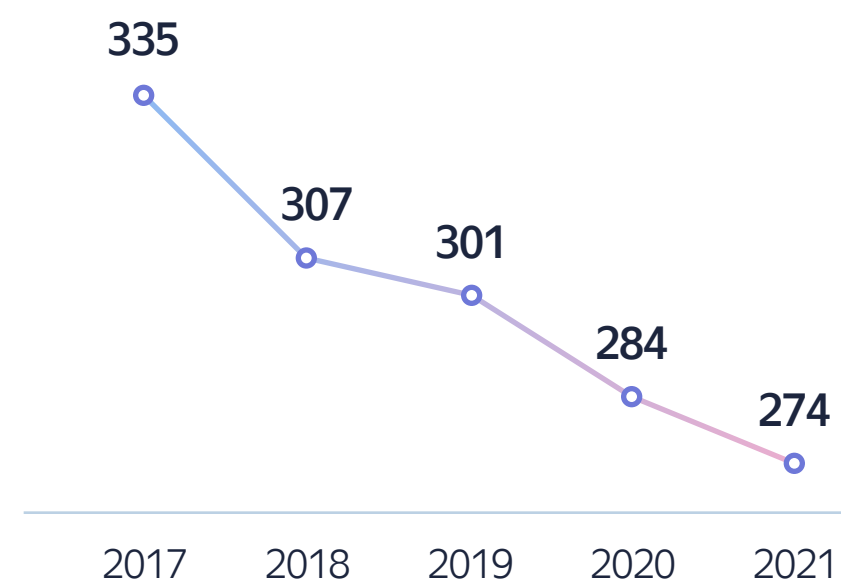
GHG intensity of Yandex Taxi rides in Moscow and St Petersburg,
g of CO₂e per passenger km



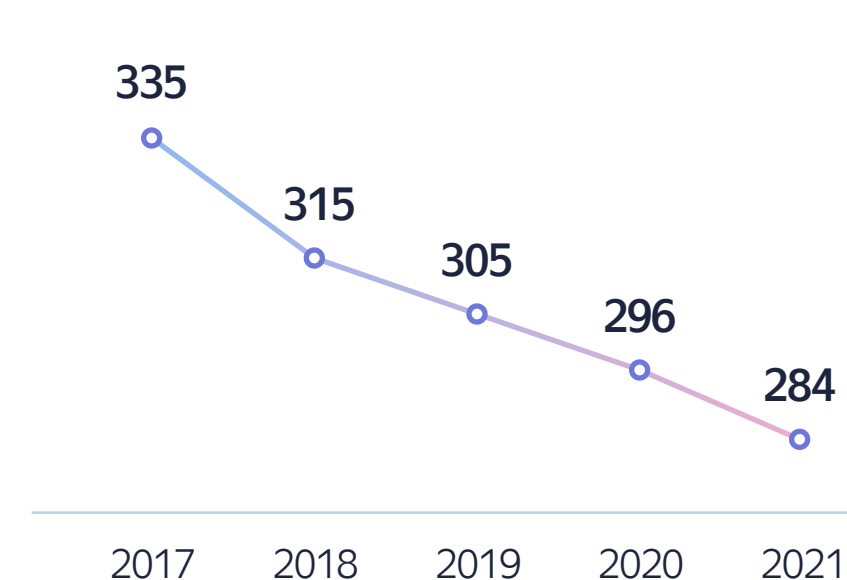
GHG intensity of Yandex Taxi rides in other Russian cities,

g of CO₂e на 1 per passenger km (the graphs show the average intensity figures for each group of cities)

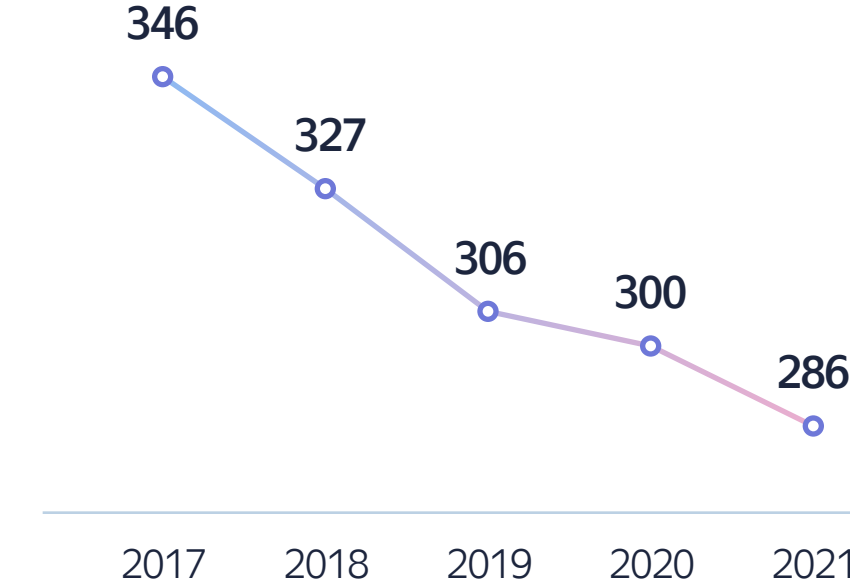
Other cities with populations of over one million people



Other cities with populations of 500,000—one million people



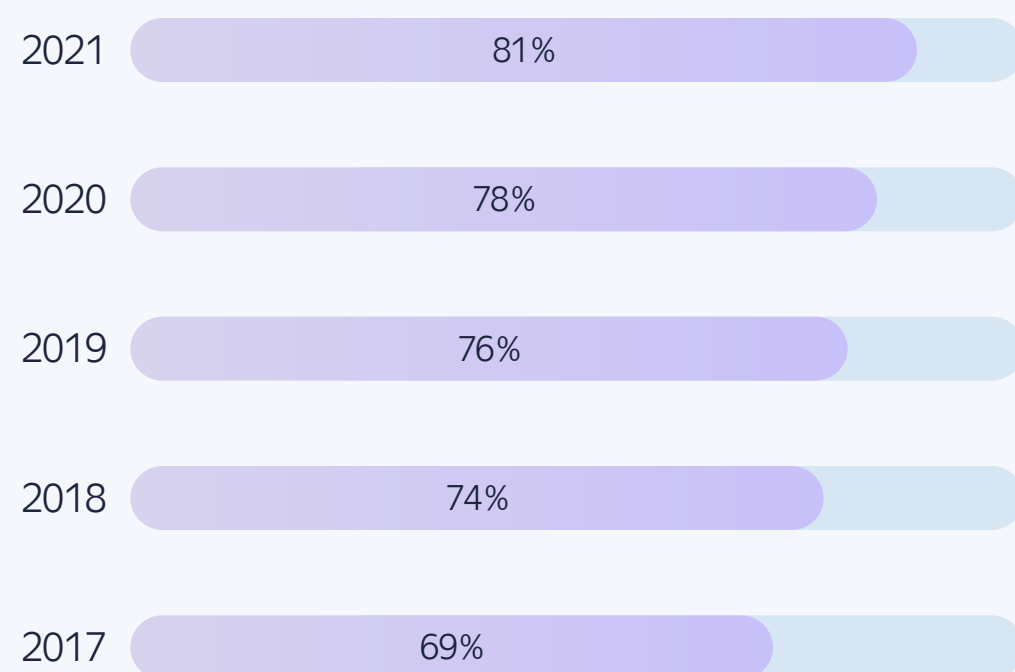
Other cities with populations of 300,000—500,000 people



Carbon Footprint of Yandex Taxi Rides

The reduction in GHG emissions intensity was largely due to an increase in platform efficiency. For instance, the share of on-trip time¹ was on average 16 p.p. higher in 2021 than in 2017. The share of on-trip mileage in Moscow reached 80% in 2021, an 11 p.p. improvement on 2017. In some other cities, such as St Petersburg, Kazan, Novosibirsk, Yekaterinburg, and Orenburg, this figure exceeded 80%.

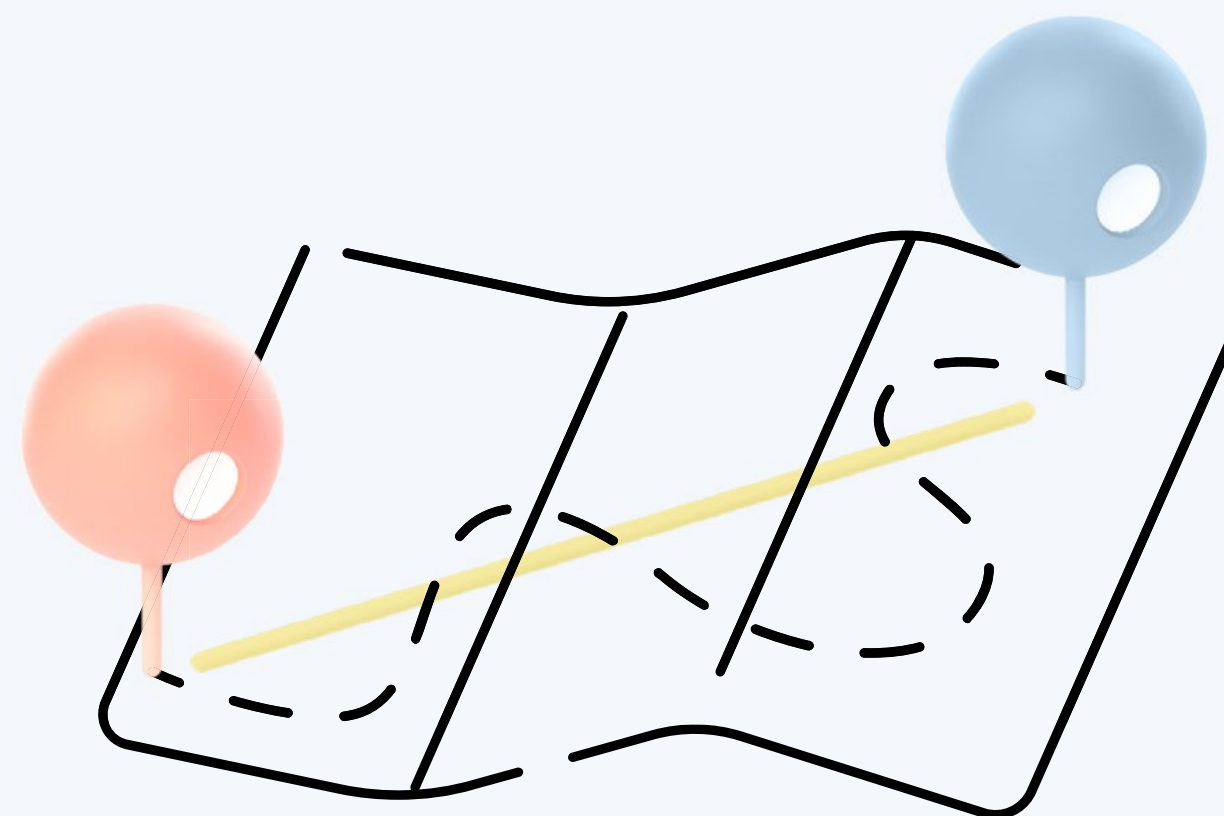
Share of on-trip Yandex Taxi mileage, averages for all regions



¹ The share of time spent transporting passengers in the total time being active on the platform. Does not include the time taken to drive to or wait for the customer.

The boost in efficiency suggests that the platform is maturing both technologically and operationally. Yandex Taxi algorithms are mastering the generation of an uninterrupted chain of ride requests for each driver, while regional development teams are becoming more effective at analyzing the platform’s operational performance, leveraging this knowledge to develop models for supply and demand management. By enabling thousands of taxis travel shorter distances to the next passenger, efficiency efforts unlock opportunities for GHG emissions avoidance at a significant scale.

Our ambition is to continuously improve the platform’s efficiency to deliver an outstanding customer and driver experience as well as to reduce the climate impact of ride-hailing. We also expect to join public-private dialogue in Russia focusing on the development of infrastructure, e.g., charging stations, to enable the transition to low-carbon electric vehicles. As of the end of 2021, the number of EV charging points in Russia was still insufficient.²



² Per data reported by Rostech (RU) and certain regional governments (RU), Russia had no more than 400 charging stations nationwide in 2021. Market reports (RU) also point to infrastructure-related barriers to developing electric transport.

Carbon Footprint of Yandex Market

In 2021, we conducted our inaugural assessment of the carbon footprint associated with the operations of Yandex Market, an e-commerce service with a rapidly developing infrastructure that focuses on making shopping convenient and accessible for customers. We focused on all three scopes of GHG emissions that cover the following processes:

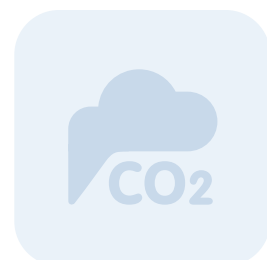
- **Energy consumption:** We measured direct and indirect GHG emissions related to energy consumption at Market data centers, offices, and logistics centers.³
- **Transportation:** We measured the carbon footprint from the transportation of goods to our logistics center, between warehouses, and to our order pickup points or end users.⁴
- **Packaging and waste management:** We took into account the impact of various packaging options at the order processing and transportation stages as well as disposal methods for waste generated by our warehouses.
- **Other business activities:** Commutes to work and business trips by Market employees.

For more about the calculation approach, specifically the assessment of Scope 3, see the [ESG Data Tables Annex](#).

³ Gross Scope 1 and 2 emissions by Yandex Market are accounted for in the gross emissions of Yandex infrastructure.

⁴ All goods sold in 2021 were included in the calculation, except for those delivered directly from our selling partners to customers without using Yandex’s logistics centers. The size of goods was not considered for the calculation. The calculation also excluded transportation from warehouses or other Yandex Market facilities by our selling partners due to the complexity of collecting inputs.

Carbon Footprint of Yandex Market



25.4 THSD MT CO₂-EQ

gross GHG emissions (Scope 1 and 2) of Yandex Market in 2021

95 %

of Market's carbon footprint is other indirect emissions (Scope 3)
490,169 metric tons of CO₂ equivalent in 2021

15.3 KG

of CO₂ equivalent Scope 1, 2, and 3 emissions per one order delivered in 2021
0.76 kg of CO₂ equivalent Scope 1 and 2 emissions

GRI 305-1

GRI 305-2

GRI 305-3

Yandex Market's gross emissions (Scope 1, 2, and 3) totaled 515,561 metric tons of CO₂ equivalent in 2021 (241,534 metric tons of CO₂ equivalent in 2020). Gross direct and indirect Scope 1 and 2 emissions made up 5 % of total emissions: 25,392 metric tons of CO₂ equivalent (vs 6,208 in 2020).¹ Indirect Scope 3 emissions of 490,169 metric tons of CO₂ equivalent (235,326 in 2020) accounted for 95 % of total emissions.

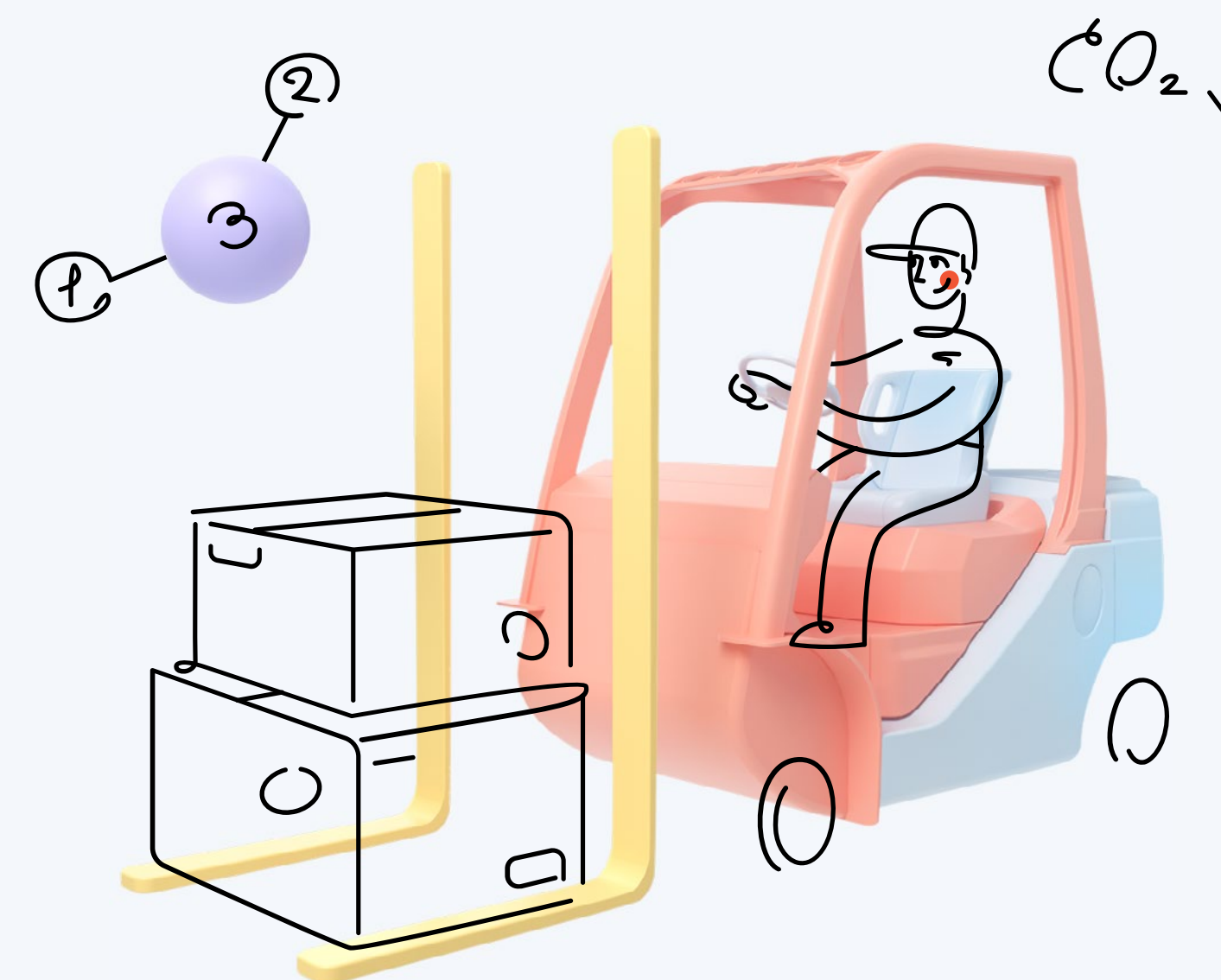
Scope 1 and 2 emissions are mainly generated from electricity and heat consumption by logistics centers and fuel consumption by the fleet involved in transporting goods as part of Market's logistics chain. The fleet's mileage accounted for almost half of total Scope 1 and 2 emissions (49%) in 2021. The dominance of Scope 3 emissions in the overall carbon footprint was fully expected due to the nature of business: Market's purchasing goods for resale accounted for 79% of Scope 3 emissions in 2021.

GRI 305-4

One order delivered resulted in 15.3 kg of CO₂ equivalent in 2021, a 2% decrease compared with 2020. The structure of emission intensity correlates with the structure of gross emissions: 14.6 kg (95%) of Scope 3 and 0.76 kg (5%) of Scope 1 and 2 emissions.

The expanded gross carbon footprint in 2021 primarily reflects the growth in business, specifically the scaling up of infrastructure and logistics. The lower intensity is due to the rapid increase in the number of orders that outpaced the increase in gross emissions over the same period. We also assume that the final results have a margin of error due to limited input data for Scope 3 calculations, in particular for 2020.

For example, due to the absence of actual data on the proportion of energy consumed by data centers to support Market operations in 2020, we used estimated values based on actual data for 2021 (using a discount factor that adjusts for the lower scale of business in 2020). We were also unable to use complete data for waste generated by our logistics centers in 2020 since records were not kept systematically, and thus excluded some emissions.²



¹ Gross Scope 1 and 2 emissions by Yandex Market are accounted for in the gross emissions of Yandex infrastructure, except for emissions associated with vehicles controlled by Market Operations LLC.

² A number of data points for 2020 were unavailable due to organizational changes. Until mid-2020, Yandex Market was a part of a joint venture with Sberbank. The acquisition of the Sberbank interest in Yandex Market was completed in July 2020.

Carbon Footprint of Yandex Market

GRI 305-5

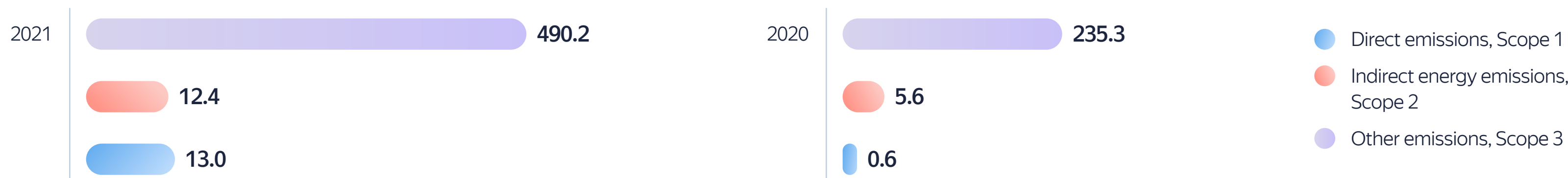
We are inspired by the idea of separating climate impacts from Market business growth, while acknowledging what a big challenge it is. As a step towards decarbonization, we work to **optimize the logistics**: provide effective distribution of deliveries to **reduce the number of runs and the amount of empty mileage**. To do this, Yandex Market's own fleet uses the RouteQ technology, Yandex's AI-powered delivery route optimization solution. Based on our assessment, the RouteQ solution made it possible to avoid 4,975 metric tons of CO₂ equivalent (Scope 1) within 12 months from March 2021 to April 2022. For more information, please see the [Yandex Services for Sustainability](#) section.

We also introduced a **new One-Click delivery¹ model** in 2021, which enables customers to receive orders almost instantly upon request as opposed to selecting a drop-off time slot which normally takes a few hours. Under this model, small- and medium-sized goods are first shipped to mini warehouses located close to customers and then delivered by couriers to the door within 20 minutes from the moment the delivery is requested by user through the app. In addition to making online shopping more convenient and enhancing customer experience, the innovative approach makes the most out of our existing infrastructure (such as Yandex Lavka dark stores which are used as transit warehouses) in an effort to optimize logistics chains and, as a result, reduce operating costs and the service's climate impact.

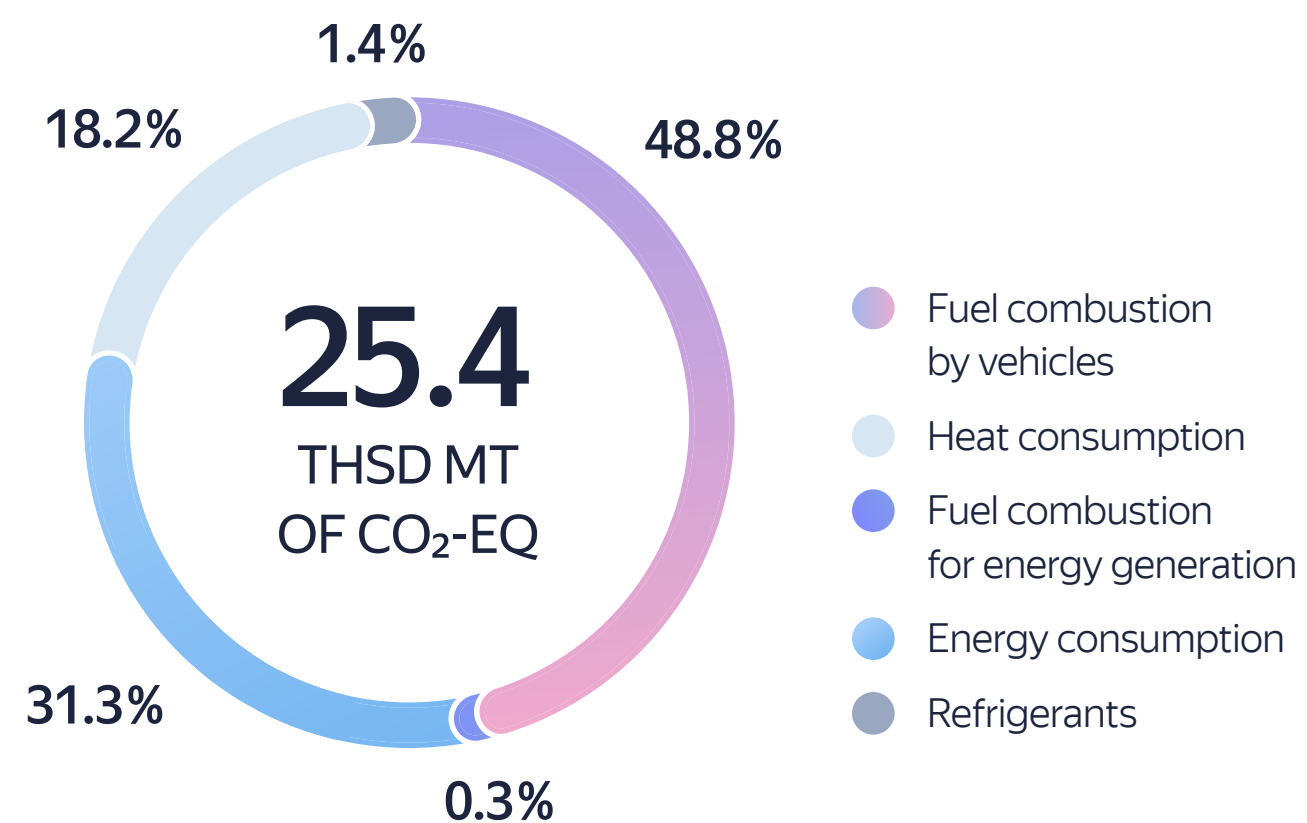
¹ One-Click deliveries are available in Moscow, St Petersburg, Volgograd, Voronezh, Yekaterinburg, Kazan, Krasnodar, Nizhny Novgorod, Novosibirsk, Rostov-on-Don, Ufa, and Chelyabinsk.

GRI 305-1 GRI 305-2 GRI 305-3

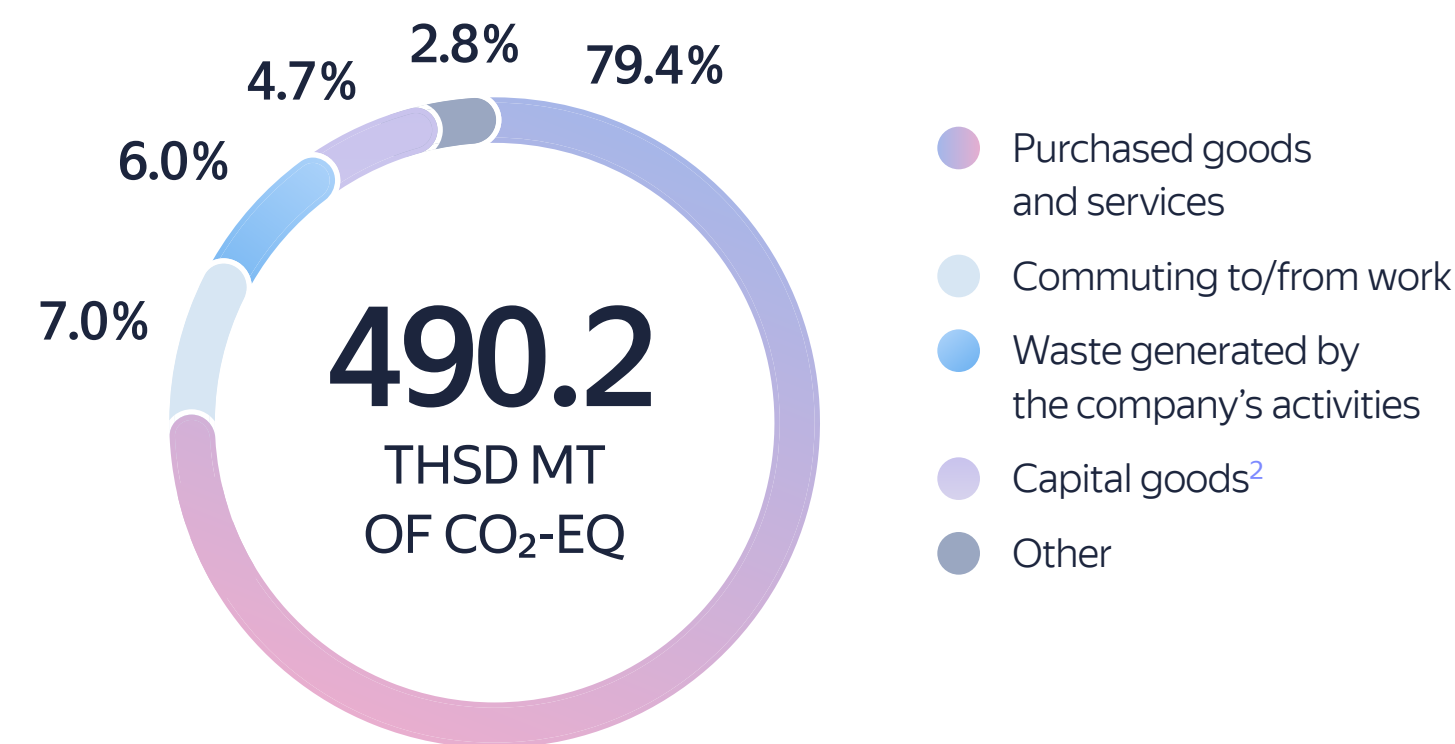
Gross GHG emissions by Market (Scope 1, 2 and 3), thousand metric tons of CO₂ equivalent



Scope 1 and 2 emissions breakdown in 2021



Scope 3 emissions breakdown in 2021



² The category includes emissions from goods purchased for professional activities (e.g., electronic devices and equipment) not included in the Purchased Goods and Services category.

Carbon Footprint of One-Click vs Standard Delivery

In 2021, Yandex Market became the first e-commerce service in the CIS region to assess the carbon footprint of various delivery scenarios.¹ Such scenarios included standard and One-Click delivery, with the latter offering a unique design of the last leg of an order journey.

Under standard delivery scenario, goods are shipped to a fulfillment center where they are stored, packed, and then transported to a sorting center to be prepared for delivery. Orders leaving the sorting center are then transported to pickup points, parcel lockers, or customers. In some instances, orders are packed by sellers: in this case, goods skip fulfillment centers and are transported directly to sorting centers, while the remaining downstream chain remains the same. Under the One-Click delivery scenario, goods leaving the sorting center are first transported to a transit point closest to the customer (Lavka's mini warehouse² or a pickup point), where they are stored until the user requests door-to-door delivery in the app.

We measured the GHG emissions associated with various stages of transportation of average orders and during the storage period within each of the two scenarios. We also took into account emissions resulting from the consumption of energy by data centers to maintain the online service. More details about the measurement methodology can be found in the [ESG Data Tables Annex](#).

¹ Each scenario envisaged three delivery models by Market: FBY (storage, batching, packing, and order processing by Yandex), FBY+ (batching, packing, delivery, and order processing by Yandex), and FBS (delivery and order processing by Yandex). For more, see the [ESG Data Tables Annex](#).

² Emissions from energy consumption at mini warehouses (Lavka) were not taken into account for the assessment of the carbon footprint of One-Click delivery since the proportion of energy consumption attributable to Yandex Market activities could not be measured reliably.

We found that the carbon intensity of one order delivered via the One-Click option was, on average, 13% lower than that of an order delivered via the standard scenario, regardless of the delivery model.³ The underlying reason is the redundancy of last-mile car delivery to transport orders from sorting centers to end users (over 60% of standard scenario orders are delivered this way). The last mile of the One-Click delivery is usually carried out on foot (up to 70%) or by bike, and the transportation of Market parcels from sorting centers to mini warehouses (Lavka dark stores) is performed within regular deliveries to Lavka, which helps reduce ton-kilometers.

↓ **13%**

decrease in the carbon intensity of order delivery when opting for the One-Click delivery instead of standard delivery

Almost

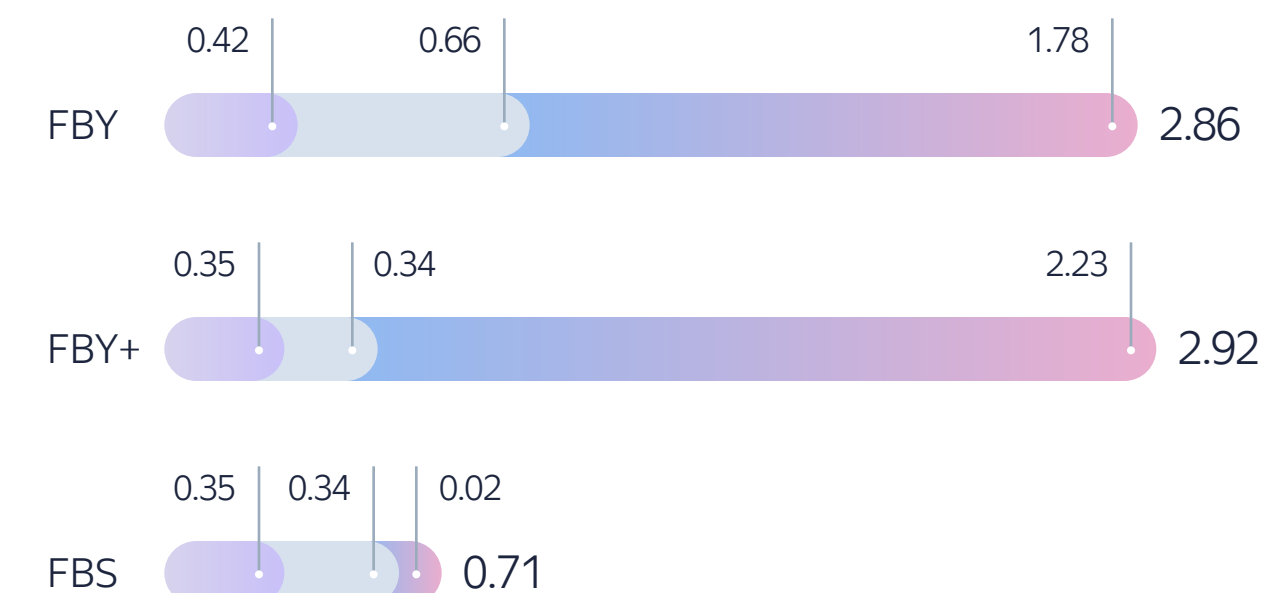
50%

fewer emissions are associated with fuel consumption by vehicles under the One-Click delivery scenario compared with standard delivery

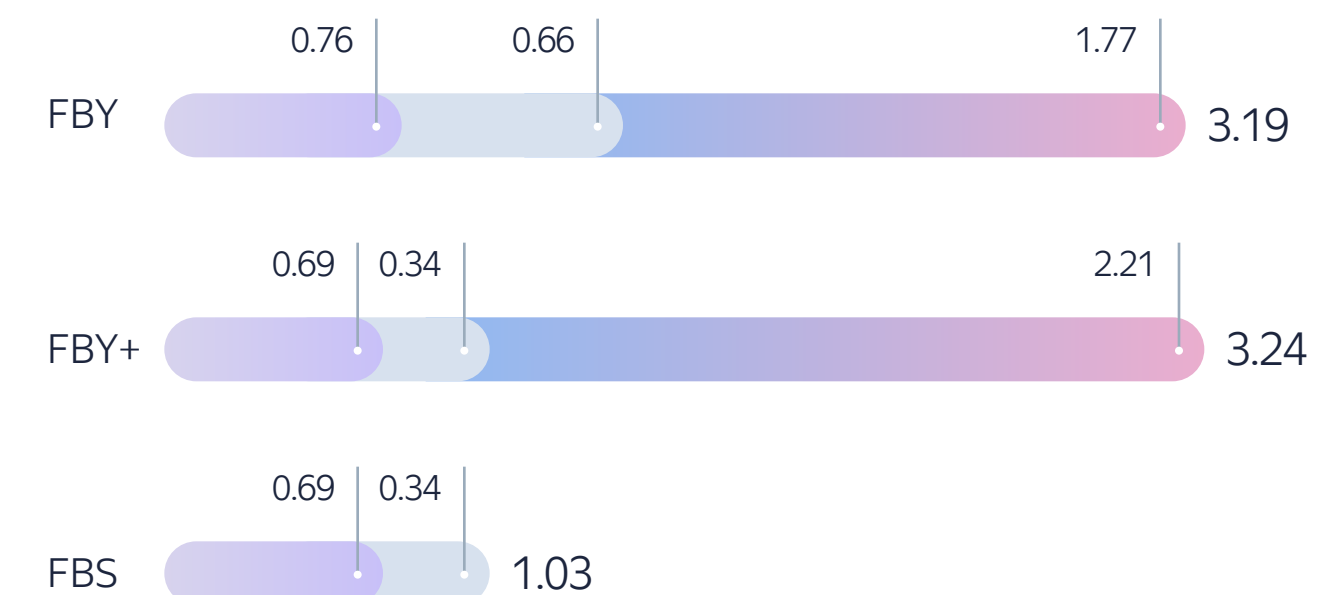
³ The measurement was made using the best available data and assumptions. We assume that we could have excluded some of the factors due to the limitations of data collection.

Carbon footprint of an average order delivery, kg of CO₂ equivalent

One-Click delivery



Standard delivery

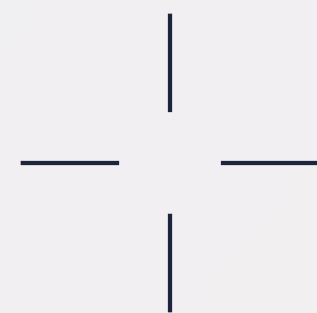


● Scope 1 ● Scope 2 ● Scope 3

Corporate Governance



06



Governance Structure

77



Governance Structure

GRI 2-9

GRI 2-11

GRI 2-12

GRI 2-13

GRI 2-17

GRI 2-24

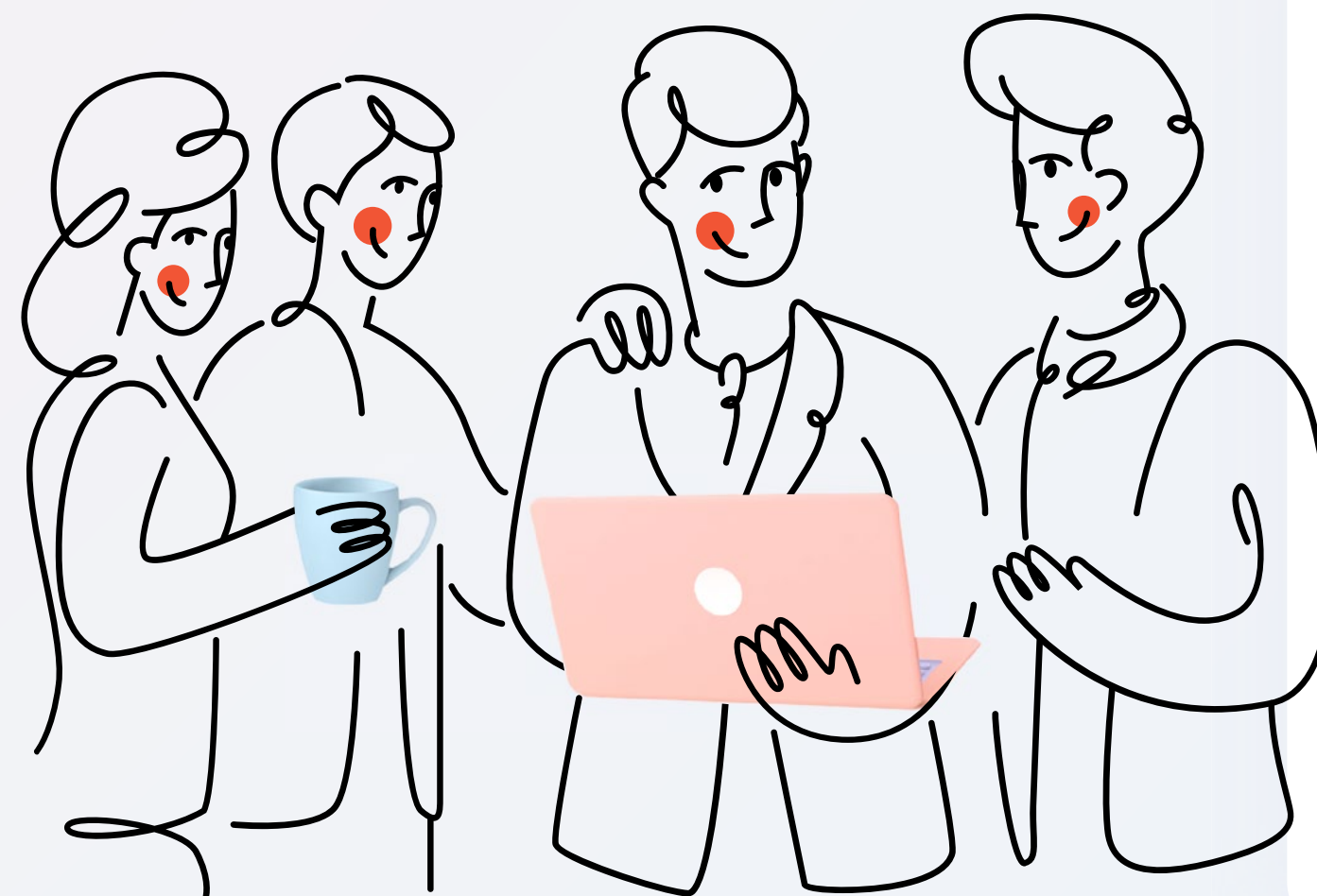
We adhere to the best practices of corporate governance and strive to conform to the highest standards applicable for our businesses, including the provisions of the Dutch Corporate Governance Code and the requirements of the stock exchanges where our shares are listed. Over the years, we have established a sustainable framework relying on oversight from an independent board of directors and a highly professional and experienced management team, as well as promoting responsible decision-making, information transparency, and stakeholder engagement.

In the reporting year, there were no significant changes in the corporate governance system or any of the risk management processes described in our [2020 Sustainability Report](#) (page 114).

The most up to date information about the corporate governance system and the shareholder structure can be found on the company's [official website](#) in the sections on Corporate Governance and For Shareholders.

We recognize the value of diversity and seek to create an environment where all opinions are heard and taken into account. As at the end of 2021, the Board of Directors consisted of eleven members, including one woman, with a wide range of experiences and skills.

We have already discussed our plans to increase Board diversity and the number of women in Board positions. At the same time, a candidate's professional experience and industry expertise will remain the main selection criteria to ensure equal career opportunities. We have not abandoned our previously announced plans and are currently working on developing the relevant Group-level policies.



Sustainability Governance

GRI 2-14

Sustainability governance is integrated into our business at all levels. The Board of Director's Corporate Governance Committee led by the Chairman of the Board is responsible for reviewing sustainability agenda and progress made (the competencies are defined in the committee's [Charter](#)). The Committee plays an important role in discussing and approving sustainability goals set for Yandex and its business units. It is also responsible for reviewing and approving of annual sustainability reports. The 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 a Chief Sustainability Officer, who is tasked with the executive-level oversight of Yandex's sustainability agenda and coordinated activities of different business units and divisions.

The role of Group Sustainability Manager was introduced in 2020 to provide support to different business units in planning, carrying out and monitoring initiatives and communicates the results within the company and to external stakeholders.

Most of the twelve priority sustainability streams have dedicated teams and are headed by members of the executive board (for example, the roles of Chief Information Security Officer and Chief Privacy Officer are in place to manage information security and data privacy issues; more information can be found in the [Information Security and Personal Data Protection](#) section). There is also a sustainability task force working with Yandex's community support initiatives and projects.

Compensation

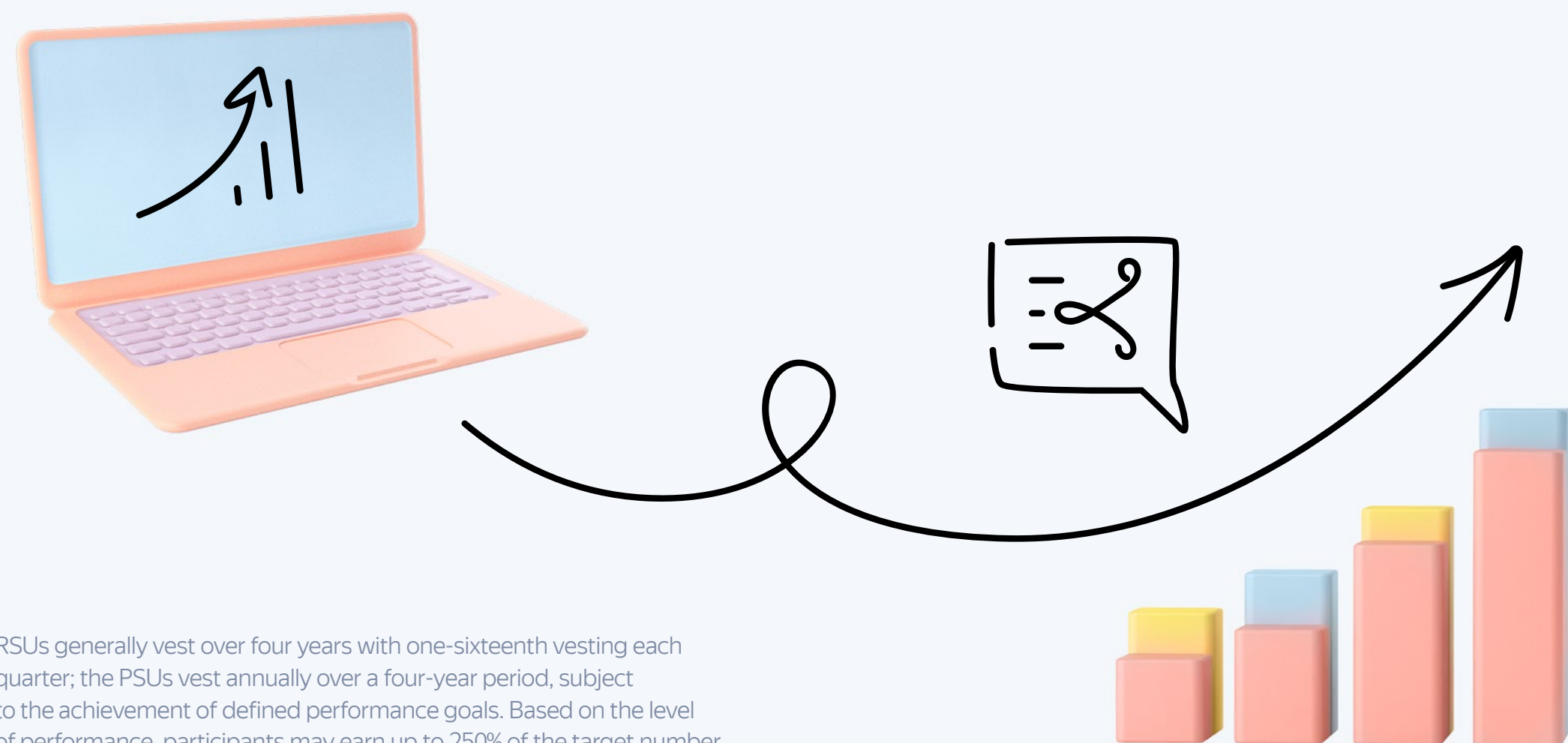
GRI 2-19

GRI 2-20

The most up to date information at the date of this report about the compensation of Board members and senior management can be found in our [2020 Sustainability Report](#) (page 119).

The aggregate cash compensation accrued in 2021 for the members of our senior management (a total of 10 persons), as a group, was RUB 144 million (\$1.9 million). We have also granted¹ an aggregate of 650,000 share options, 572,413 RSUs, 173,846 PSUs (target number) and 90,000 synthetic options to members of this senior management group. The share of variable pay (bonuses and equity-based grants) reached 80% in 2021.

The variable pay of the company’s senior management is tied to KPIs such as revenue growth and the adjusted EBITDA of Yandex Group, as well as of key business streams. Business unit-specific KPIs reflect our performance across various aspects of sustainable development, e.g., information security, user satisfaction or BU undesirable staff turnover. Therefore, ESG metrics are monitored along with key business indicators. We are still keen to explore the best practices and consider potential links between ESG activities and the variable part of senior management compensation.



¹ RSUs generally vest over four years with one-sixteenth vesting each quarter; the PSUs vest annually over a four-year period, subject to the achievement of defined performance goals. Based on the level of performance, participants may earn up to 250% of the target number of PSUs. Share options and synthetic options will vest 25% after one year and the remaining part on a quarterly basis over three years. The share options, RSUs, PSUs and synthetic options have ten-year terms.

Board diversity matrix, number of people

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

Information is provided as of June 30, 2022. These disclosures are prepared in accordance with the new Nasdaq listing rules regarding board diversity and disclosure, and rely on the **format** deemed acceptable.

For information about recent changes in the composition of the Board, refer to press releases available on the [website](#).

07

About the Report

Reporting Principles	80
Material Topics	82



Reporting Principles

GRI 2-3

- ✓ The data disclosed in this report covers the operations of the Yandex Group, i.e., Public Limited Liability Company Yandex N.V. and its subsidiaries, from 1 January to 31 December 2021, unless otherwise indicated.

- ✓ The terminology used to present quantitative data, as well as accounting categories, may differ from the terms and classifications specified in Russian laws regulating this area. The report uses terminology and classifications as 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 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** (Core option), as well as sector-specific standards from the **Sustainability Accounting Standards Board (SASB)**. We also followed the requirements of the revised **GRI Universal Standards**, in particular, the revised guidelines for general disclosures (insofar as this did not conflict with the GRI Standards disclosure guidelines), and the updated guidance to determine material topics.

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 a 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 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 GRI and SASB indicators disclosed is provided in the [GRI Standards and SASB Index Annex](#).


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 dedicated annex of our [2020 Sustainability Report](#).

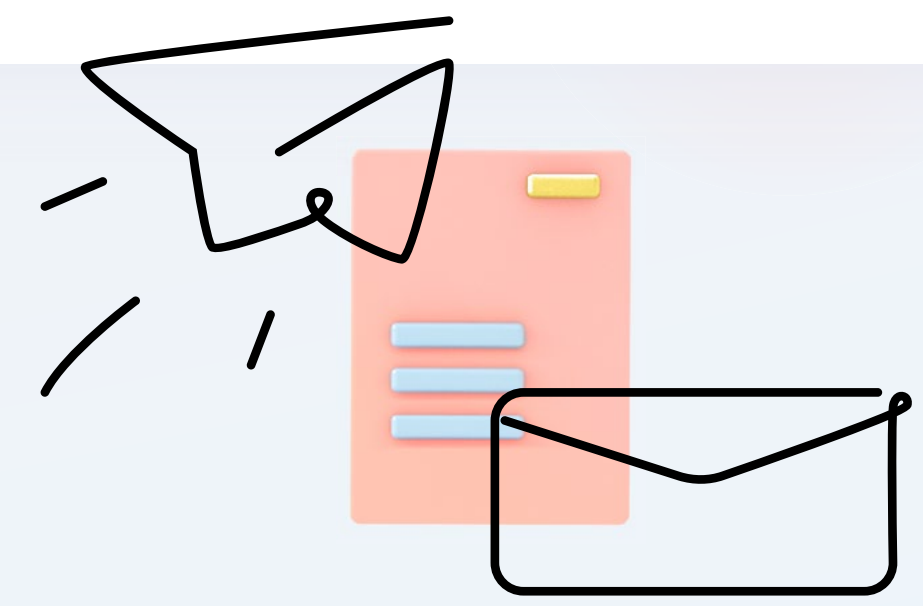
Contacts

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Yandex Group Sustainability Manager

Yulia Gerasimova
Head of Investor Relations

Nino Donadze
ESG Press Office

 You welcome your feedback at: sustainability@yandex-team.com



Reporting Principles

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

Accuracy

The report provides reliable and sufficiently detailed quantitative data that enables stakeholders to assess Yandex's achievements in sustainable development. For each quantitative disclosure that is an estimation, there are descriptions of calculation methodologies provided. Possible inaccuracies in the data are insignificant. The information disclosed in various parts of the report does not contradict itself.

Balance

The reported information provides an unbiased review of the company's performance, including positive and negative results. Quantitative data is shown in comparison with 2020, with the exception of first-time disclosures that are compared with several prior periods for the reader to see year-over-year dynamics. Trend overviews are included.

Comparability

The report includes information for the current and previous reporting periods, making it possible to track changes in the company's performance over time. Key trends are explained.

Timeliness

The report is published annually in 2Q or the beginning of 3Q of the year following the reporting year. The most up-to-date data as of the time of report preparation is presented for initiatives with fast-paced development. We also provide links to public websites where data is regularly updated.

Sustainability context

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

Clarity

The information presented avoids unnecessary details and is sufficient for the reader to form objective conclusions. The report uses multiple reporting formats, e.g., narration, charts, data tables and infographics, to ensure that the data is easy to understand and analyze. The report is published in English and Russian.

Completeness

The data provided in the report is sufficient 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 would 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 provides detailed descriptions of calculation methodologies.

Material Topics

GRI 2-29

GRI 3-1

GRI 3-2

We regularly assess the materiality of sustainability-related topics to make sure that Yandex's disclosures are relevant, as well as to understand the risks and opportunities associated with implementation of sustainability initiatives. Materiality assessment involves several layers of analytical work: we rank topics by relevance; analyze the potential business, social and environmental impacts of Yandex initiatives; and examine industry experience and trends in sustainability.

We also solicit honest feedback from our stakeholders (a full list of Yandex stakeholders is presented on page 138 of our [2020 Sustainability Report](#)). We **engaged with and processed feedback from over 3,000 people** during the reporting year.



Material Topics

and most impacted stakeholders

High estimated level of impact Medium estimated level of impact

<p>Information security and personal data protection</p> <ul style="list-style-type: none"> ⊕ Users ⊕ Business partners ⊕ Government agencies 	<p>Product and service quality</p> <ul style="list-style-type: none"> ⊕ Users ⊕ Business partners 	<p>Online & offline safety and convenience</p> <ul style="list-style-type: none"> ⊕ Users ⊕ Local communities ⊕ Business partners 	<p>Talent attraction, development & retention</p> <ul style="list-style-type: none"> ⊕ Business partners ⊕ Employees 	<p>Respect for human rights and equal opportunities</p> <ul style="list-style-type: none"> ⊕ Employees ⊕ Users 				
<p>Support for drivers, couriers and other Yandex service partners</p> <ul style="list-style-type: none"> ⊕ Yandex service partners ⊕ Business partners 	<p>Use of technologies to create social good</p> <ul style="list-style-type: none"> ⊕ Users ⊕ Nonprofit organizations ⊕ Local communities 	<p>Promoting quality education in IT</p> <ul style="list-style-type: none"> ⊕ Users ⊕ Local communities ⊕ Business partners 	<p>Climate change and decarbonization</p> <ul style="list-style-type: none"> ⊕ Business partners ⊕ Local communities 	<p>Responsible use of resources</p> <ul style="list-style-type: none"> ⊕ Business partners ⊕ Users 				
<p>Fundamental topics → Not applicable</p> <table border="1"> <tr> <td> <p>Economic performance and growth</p> <ul style="list-style-type: none"> ⊕ Employees ⊕ Business partners ⊕ Shareholders and investors </td> <td> <p>Corporate governance</p> <ul style="list-style-type: none"> ⊕ Employees ⊕ Business partners ⊕ Shareholders and investors </td> <td> <p>Ethics and integrity</p> <ul style="list-style-type: none"> ⊕ Employees ⊕ Business partners ⊕ Shareholders and investors </td> <td> <p>Innovation</p> <ul style="list-style-type: none"> ⊕ Employees ⊕ Business partners ⊕ Shareholders and investors </td> </tr> </table>					<p>Economic performance and growth</p> <ul style="list-style-type: none"> ⊕ Employees ⊕ Business partners ⊕ Shareholders and investors 	<p>Corporate governance</p> <ul style="list-style-type: none"> ⊕ Employees ⊕ Business partners ⊕ Shareholders and investors 	<p>Ethics and integrity</p> <ul style="list-style-type: none"> ⊕ Employees ⊕ Business partners ⊕ Shareholders and investors 	<p>Innovation</p> <ul style="list-style-type: none"> ⊕ Employees ⊕ Business partners ⊕ Shareholders and investors
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