









The IT job market in 2022

Salaries, specializations, and requirements in job ads

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Methodology of the analysis

This is the 5th edition of the annual No Fluff Jobs report on the IT job market – the most popular and the most specific publication on remuneration in the technology sector, enjoying unflagging media recognition.

The publication is based on the content of the nofluffjobs.com website – the largest IT job board with salary ranges in every ad in Poland. The analysis is based on job advertisements published between 1 January and 31 December 2022.

The design of the portal, which requires employers to publish informative and detailed **advertisements**, allows us to collect and compare data on proposed earnings, technological requirements, employment location, benefits, and other elements of the ads.

For a more enjoyable read, we encourage you to familiarize yourself with the explanation of the vocabulary that frequently appears in the report.

Report partner



WHAT IS THE MEDIAN SALARY RANGE?

The median is the middle value of a given set. For example, for a set of numbers: 1, 1, 3, 5, 10, the median is 3. Since nofluffjobs.com publishes salary ranges (the range from minimum to maximum proposed salary), the earnings presented in the report are always given as the median of the lower and the median of the upper range.

WHY DO WE SHOW THE MEDIAN, NOT THE AVERAGE?

The medians show the actual distribution of wages much more accurately than the average. By showing both the median of the lower salary and the upper salary, we can outline a realistic range in which the offered earnings usually fall.

WHO IS AN IT SPECIALIST?

Whenever the term "IT specialist" is used in the report, we mean an employee of the industry (or a candidate for a job in it) regardless of their level of experience, skills, or seniority.

WHAT IS A TECHNOLOGY?

To make it easier to sort out information about requirements in a job ad, when the term "technology" is mentioned, we mean the employer's requirement for a programming language, library, framework, or tool.

WHAT IS EC (EMPLOYMENT CONTRACT)?

EC (Polish Umowa o pracę) is a contract between the employer and the employee, whereby the latter does services for the former, and gains the right to receiving agreed remuneration and rights such as paid leave, sick leave, health insurance, etc.

WHAT IS B2B (BUSINESS TO BUSINESS)?

It is a form of cooperation whereby an independent contractor provides services to other businesses, usually temporary. B2B contractors do not work under an outside authority and can provide services to multiple entities simultaneously.

NO FLUFF JOBS COO Magdalena Gawłowska-Bujok NO FLUFF JOBS CEO Tomasz Bujok

The past year was marked by challenges. Undoubtedly, it was a difficult time for both employees and employers in IT.

> Russia's invasion of Ukraine, the looming economic crisis, the hiring freeze in the West, and constant legislative changes. It's a lot for one year and an industry that has been very resistant to crises so far. Suffice it to say that at the start of the coronavirus pandemic in March 2020, when the entire sector also "pulled to a halt," we were only expecting stagnation for a period of one quarter. Now, stagflation has entered the tech industry for good, although we stay optimistic and trust that this is a temporary "turbulence."

We believe that in difficult times, a lot depends on our approach. We often lose sight of the important, essential things, but it's returning to the basics that usually gives us an opportunity to set the optimal course again. At No Fluff Jobs, we never forget what

een the fo

Additionally, the decision of the European Commission that brings us closer to obligatory disclosed earnings in job ads ignited a spark of hope. We have been fighting for this for over 8 years, being the only IT job board in Poland with salary ranges in each job offer.

The year 2022 has shown us that these days it is difficult to predict what will happen tomorrow, let alone a few months ahead. Still, some things remain unchanged. For us, it's following our values – we can see that it makes sense and brings about a real

transparent, fair, and respectful, providing our clients with quality applications, and creating a workplace where people feel good and believe that our internal values can become commonplace in the job market have always been the foundations of our operations. With the "Respect Yourself" campaign, we have returned to our roots to show the world that we exist for a reason, and that our fight for transparency in the European market makes sense and is necessary. We are proud to say that the words "Respect yourself" have become the watchword for many candidates in their job search, making them aware of how they should be treated by potential employers.

Our mission to make recruitment standards more

change in the market. We are at a turning point for several new trends in the entire IT sector to reveal themselves, and their beginnings were already noour operations. With the "Re ticeable in 2022. What exactly are they? You'll find out from this report, which we invite you to read. · ... bave returned to

ROCKWOOL HEAD OF ROCKWOOL GBS **Ewelina Płocieniczak**

Me Mair he competencies we TE CISCODEN to people with the development of the ROCKWOOL Group, the ROCKWOOL GBS center is also growing. In addition to the extensive IT department of the ROCKWOOL GBS center is also growing. In addition to the extensive IT department of the ROCKWOOL GBS center is also growing. In addition to the extensive IT department of the ROCKWOOL GBS center is also growing. In addition to the extensive IT department of the ROCKWOOL GBS center is also growing. In addition to the extensive IT department of the ROCKWOOL GBS center is also growing. In addition to the ROCKWOOL GBS center is also g



as well as research and development (R&D). In 2022, we increased employment by 50 people, which was more than 18%. While the number of employed specialists was growing, so were the areas of competence that we have been developing in Poznan and our new location in Warsaw.

We were looking for specialists in technologies and systems used in our organization – various SAP, CRM, Cloud, Linux, databases, or web developers creating and maintaining solutions for selling products. Our global reach gives us the opportunity to work with large-scale solutions, and this, due to their complexity, allows us to gain a broader experience. Last year was a time of development not only for our organization, but our employees, too: 15% of them have been promoted within their

tion or benefits, but also organizational culture, the systems we use, or development opportunities. For example, Gen Z employees feel that it is very important to work on projects that have meaning and significance, and ROCKWOOL's goal is to increase its positive impact on people and society. ROCKWOOL's products are designed to serve them while minimizing the impact of our activities on the environment, which resonates both with ourselves

dtionar develop ities For example, Ge

Availability of jobs for IT/ICT specialists

How many job advertisements were published in 2022?

| NUMBER OF JOB ADS | 07 |
|--------------------------------|----|
| MOST POPULAR JOB AD CATEGORIES | 09 |

Number of job ads

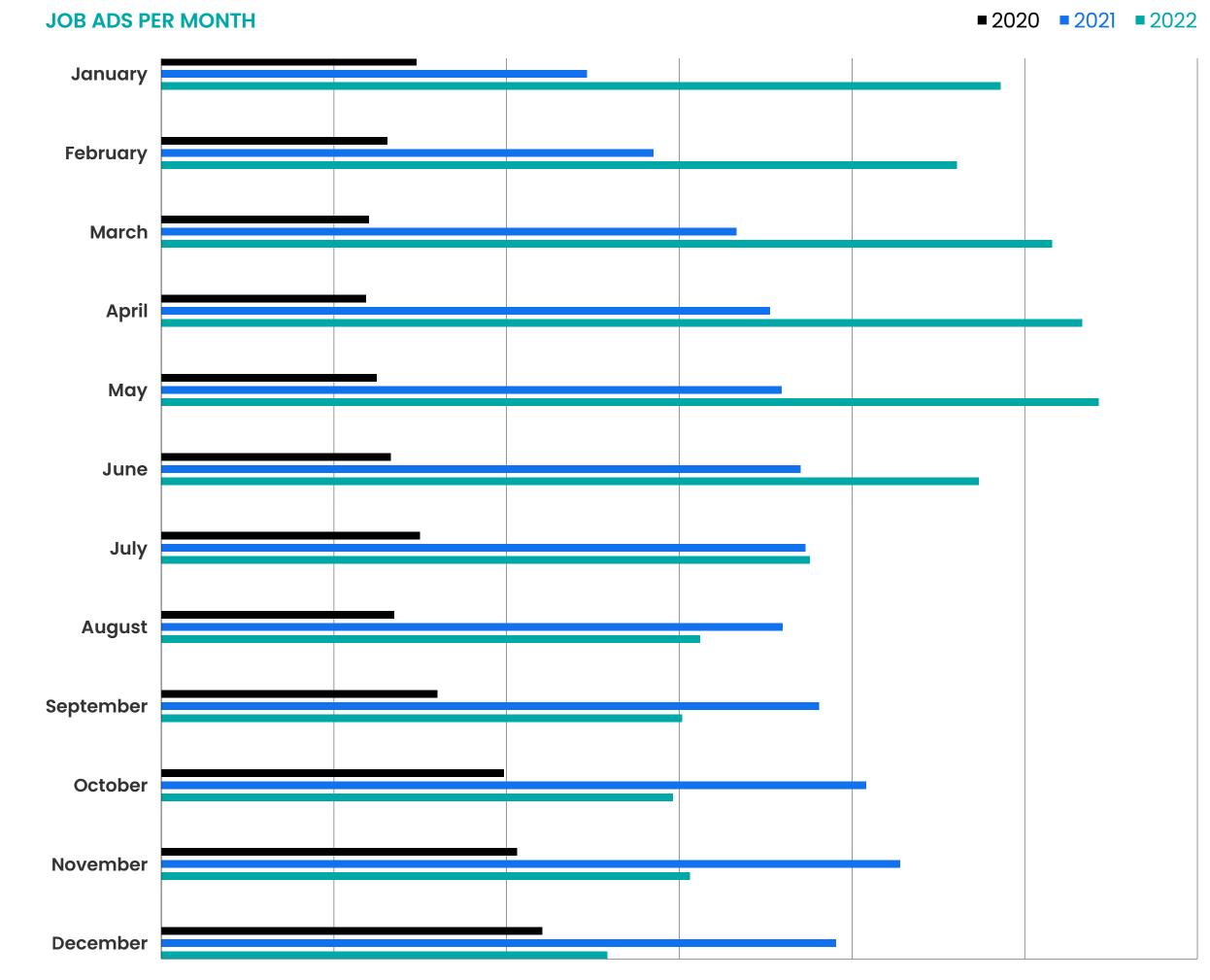
In 2022, **8.2% more** job ads were published on nofluffjobs.com than a year earlier.

After a very promising first half of the year, employers began to react to the worsening economic situation and reports from the West about *hiring freezes*.

This was reflected in a smaller increase in new ads in Q3 and Q4, while employers' activity was historically higher in this period than in previous quarters.

EXCUSE ME, WHICH INDUSTRY ARE YOU FROM?

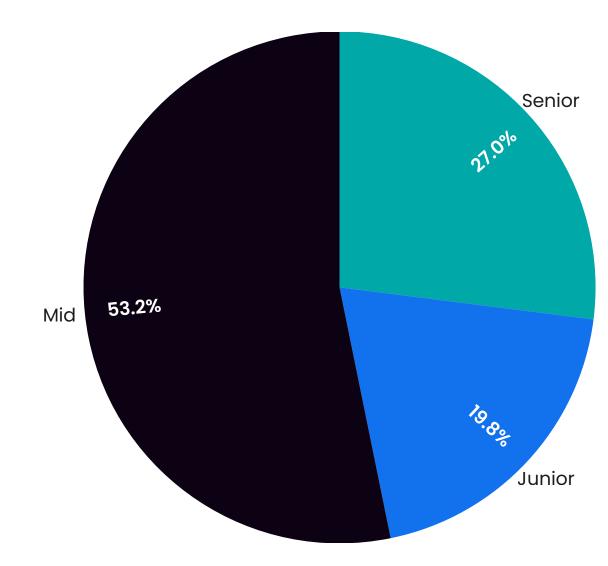
Employers on nofluffjobs.com are dominated by representatives of two branches: Information Technology & Services (27.4% of ads) and Software Houses (26.6%). Companies working on their own product (17.7%) close the top three of the most important industries represented on the portal. HR Agencies (7.8%) took fourth place.



Number of job ads

Increases and decreases in the number of job ads depend, of course, on the economic situation. The statistics showing the number of new job advertisements month after month already tell us a lot.





After a great start to the year, when the trend of increased demand for IT specialists from the end of 2021 continued, the industry lost its momentum before the summer. The growing uncertainty about the economic future and the effects of the ongoing conflict in Ukraine have unfortunately resulted in the employers' weakening activity, as they revisited their priorities.

The market situation also has an impact on the experience levels most often found in job ads. In this case, the quantitative criterion is influenced not only by the activity of employers and their need for employment in a given period, but also by the sales and marketing campaigns of job boards.

Our strengthened focus on the acquisition of offers for those taking their first steps in IT meant that the **overall share of junior offers** reached **almost 20%** (12 pp more than a year ago).

Ads directed at Mids (their share has shrunk as those of Junior offers increased, but it is still more than a half) and Seniors (a small decrease of 2 pp) invariably account for the lion's share of all offers.

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The most popular job ad categories

When it comes to categories...

Traditionally, the three main categories related to programming (Backend, Frontend, and Fullstack) account for about half of all job ads in the IT market. Across Central and Eastern Europe, Backend holds a strong position. Each of the analyzed countries' biggest number of specialists falls into this category, and in 2022 ads in this area accounted for 27.7% of all publications.

The largest increases in the number of ads for the main IT categories were recorded in Support (58% more), Big Data (39%), and Business Analysis (17%). The demand for the latter two specializations in particular has been growing successively for years.

We should also remember that nowadays, technology companies employ people from many fields, including those that are not related to "hard" IT. Therefore, it should not come as a surprise that 2022 was a year of substantial growth in areas such as HR, Sales, Marketing, and Back Office. This trend will become even more pronounced in the coming years.

IT specialists in Central and Eastern Europe, 2021, No Fluff Jobs

(i)

ects ie sues. We will not be able RINGIER AXEL SPRINGER TECH HEAD OF ENGINEERING AREA AD & DATA In the projects related to the will force change. Błażej Pytloch We are entering 2023 in an atmosphere of growing economic uncertainty, which will force changity. In the light of macroeconomic challenges, reduces in the paradigms that companies operate in. On not be able to distinguish between content created the one hand, this will mean further evolution of the by humans and content created by artificial intelliing technological complexity, e.g. by basing activities on managed service models, will determine the efmodels of work and continuous adaptation to the gence, whether in written content, video, art, or other means. A new generation of chatbots like ChatGPT is changing reality. On the other, questioning the infectiveness of a given organization. elligence, Willer Celligence, application will increase dynamically. a great example of this. We should expect that their vestments made in technology. video, art, or other means eration of chatbots like hatGPT is a great example of this. W

The IT job market in Central and Eastern Europe

What influenced the situation in the tech industry in 2022?

| POLAND | 12 |
|--------------------|----|
| UKRAINE | 14 |
| THE CZECH REPUBLIC | 16 |
| HUNGARY | 18 |
| SLOVAKIA | 20 |
| THE NETHERLANDS | 21 |

Poland



Ilu specjalistów IT brakuje w Polsce? (How big is the IT specialists shortage in Poland?), 2022, Polski Instytut Ekonomiczny (Polish only) The demand for specialists in the IT sector is hanging on strong in Poland. The Polish Economic Institute estimates that the talent **gap is close to 150,000 people** if we aim at achieving the same share of IT employees as in the European Union (4.5% of all employees).

Interestingly, this deficit does not change, even though in the last decade the number of IT specialists in Poland has increased by as many as 192,000 people. Considering the EU estimates that total employment in the IT/ICT sector is expected to increase from the current 9 million people to 20 million by 2030, there is a lot of catching up to do.

One of the possible solutions to the problem may be a more favorable view of Juniors and people who switch careers to IT. According to the Enterthecode.pl survey from 2022, up to 60% of Poles were thinking about changing their careers to the technology sector. Still, satisfying the need for more experienced specialists is a long way off.

The endless legislative changes are a hurdle, too, when it comes to devising hiring plans for the next year. The legislator introduced a new law at the beginning of 2022, which was subsequently amended several times and still perplexes HR and payroll departments.

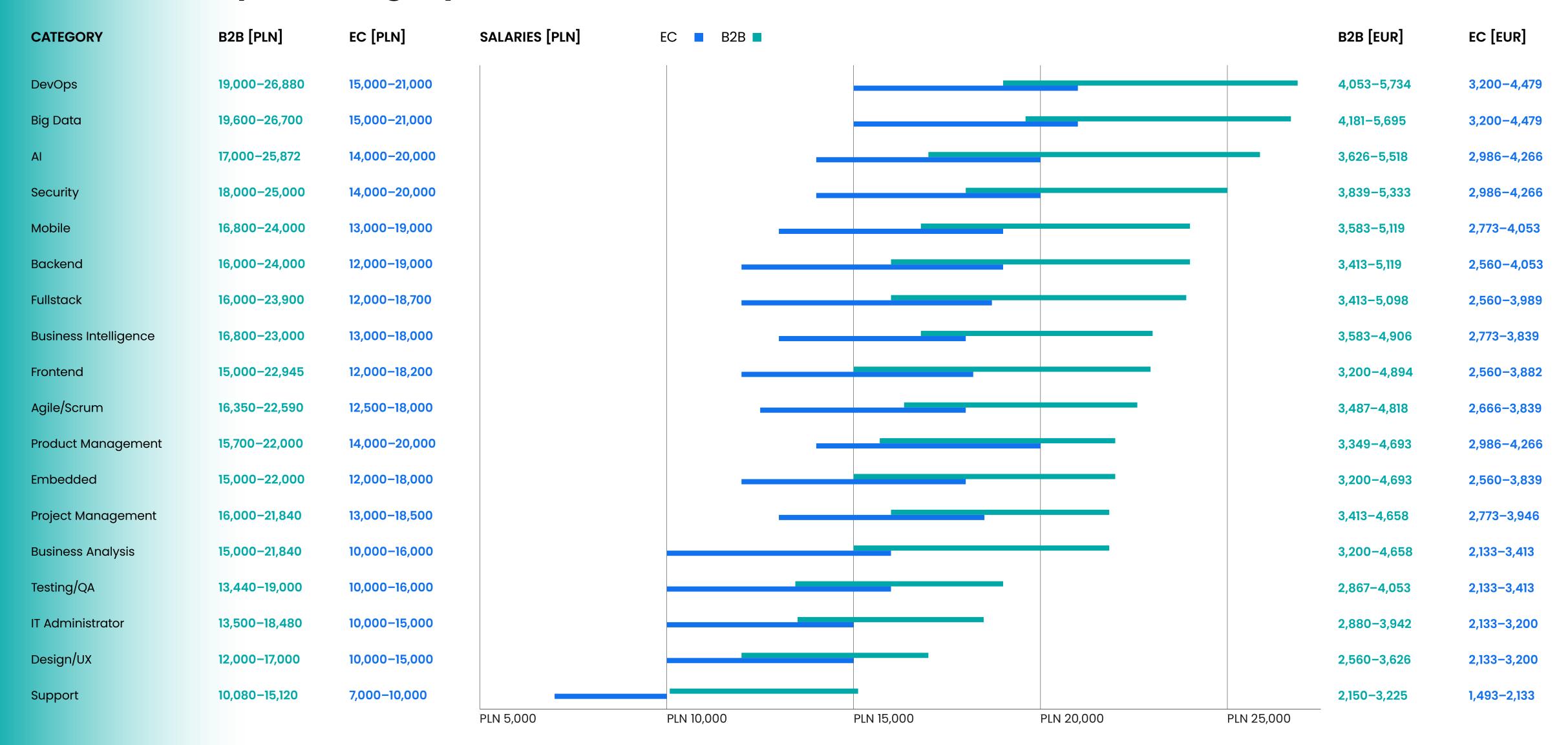
Uncertainty is not the best state to run a business, let alone think about employment. It seems that we will all have to face this challenge in the new year as well. (i)

Przebranżowienie do IT (Switching careers to IT), 2022, Enter the Code (Polish only)

read 🖊



Salaries per category – Poland



Salaries on B2B in amounts of PLN net (+VAT), salaries on the Employment Contract in amounts of PLN gross. Salaries in EUR at the averaged exchange rates from 2022 (NBP, as of 29.12.2022).



Uncertainty is perhaps the word that best describes the dramatic situation in Ukraine over the past year.
Unfortunately, not much has changed since February 24 – people are still working in wartime conditions, companies are not sure where to operate, and candidates and employees think more about whether there is a future at all instead of planning it.

Taking all of this into consideration, the data we've collected from the region is all the more surprising. We knew perfectly well that the Russian invasion would not defeat the Ukrainian spirit, but the situation in the labor market was intriguing. The employers' activity has been weakening since March, and at the same time, the number of applications from candidates has been rising significantly. At the beginning of the second quarter, it stabilized, and new job ads began to appear again in June.

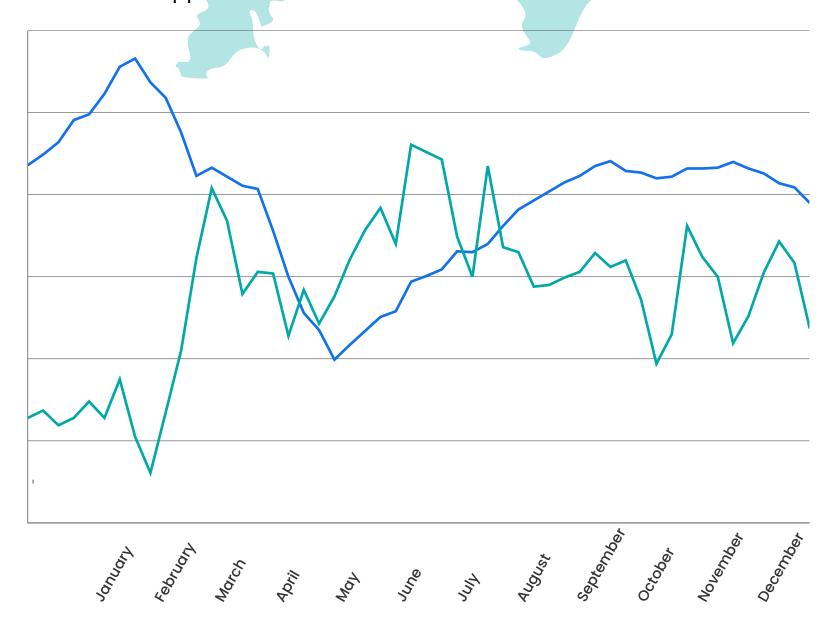
It gives us some hope that we can still have a scrap of normality even when the situation is far from normal.

Further adaptation to rapidly changing conditions will be crucial in maintaining the stability of the labor market. Ukrainians have mastered it very quickly: enough to mention the relocation of employees and offices to the west of the country or solving, one would think trivial problems, with the availability of electricity or the Internet.

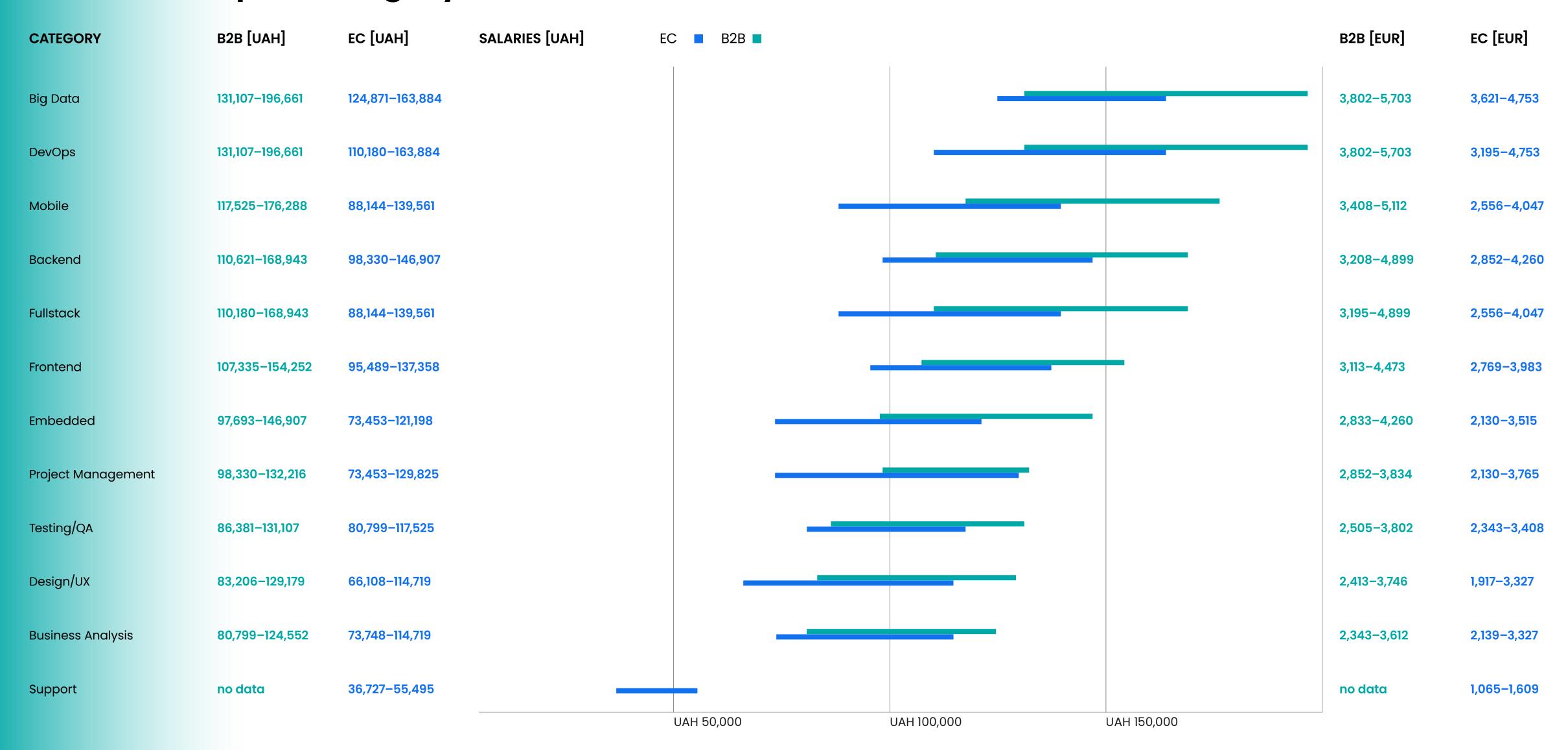
However, the challenges are still many. The country suffered a great emigration, and some foreign companies suspended planned investments in Ukraine. Time will tell if this will also affect the job market.

ACTIVE JOB ADS AND CANDIDATES' APPLICATIONS IN UKRAINE

Job ads ■ Applications ■



Salaries per category – Ukraine



Salaries on B2B in amounts of UAH net (+VAT), salaries on the Employment Contract in amounts of UAH gross. Salaries in EUR at the averaged exchange rates from 2022 (NBP, as of 29.12.2022).



NO FLUFF JOBS™

REPORT: THE IT JOB MARKET IN 2022

The Czech Republic

Over the past year, we could observe mood fluctuations in the Czech market. It seemed that once the pandemic, which strongly affected the Czechs, had ended, business would return to the state of growth that we had been experiencing since the beginning of our operations in the region (July 2020).

Yet, just when everything was about to return to the right track, a slowdown in the hiring rate began in the second half of 2022. Nevertheless, it was a very successful year for the No Fluff Jobs' Czech branch.

Employers from the Czech Republic appreciate our development in Central and Eastern Europe and see us as an effective means to reach a wider group of talents and diversify their sources of candidate acquisition.

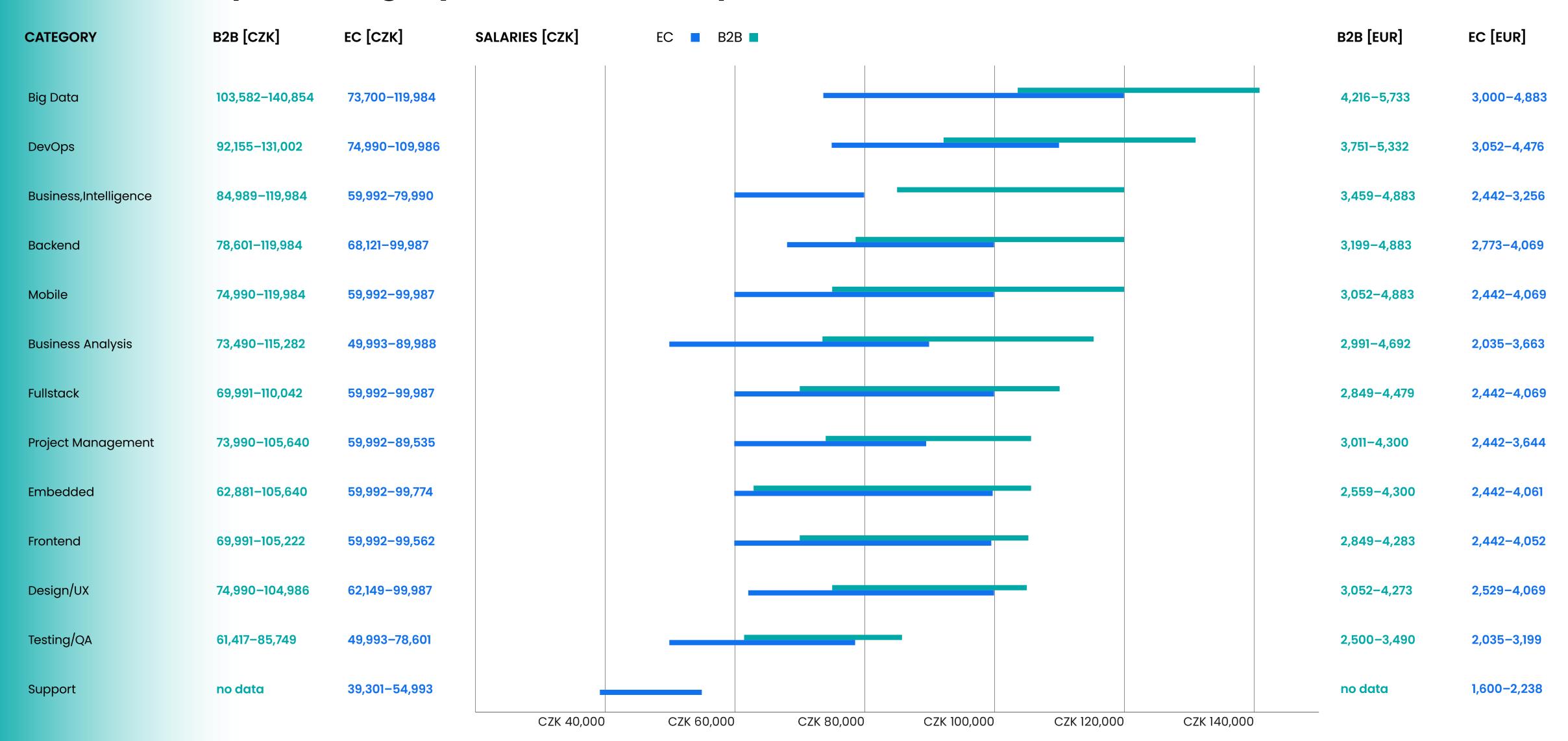
Their ties with Slovakia are still particularly strong.
For companies based in Prague, Brno, or Ostrava,
Slovakian candidates are especially attractive since
they speak a similar language.

Generally, communication issues often come to the forefront here. The Czechs are strongly attached to tradition, cherishing their local values. Knowledge of the Czech or Slovak language is very important to employers. It has not lost its importance even in the time of ubiquitous remote work. Consequently, some might consider the Czech market to be "clubby" and inaccessible, although, for us, it is another region where adaptation to local requirements simply takes more time.





Salaries per category –the Czech Republic



Salaries on B2B in amounts of UAH net (+VAT), salaries on the Employment Contract in amounts of UAH gross. Salaries in EUR at the averaged exchange rates from 2022 (NBP, as of 29.12.2022).

Hungary

It has been a very busy year in the Hungarian job market. It was influenced by both the internal situation (inflation, changes in the law) and the war in Ukraine. All these factors made companies rather reluctant to invest in new jobs, or at least slow down with their hiring plans.

In the spring of 2022, two main trends prevailed. Companies from Ukraine opened their offices in Hungary to continue meeting the high demand for qualified IT specialists.

At the same time, inflation in the country began to spiral out of control, which made recruitment processes even more difficult. People changing jobs expected wages approx. 20-25% higher than those paid to current employees. In general, the expected earnings increased by 5% to even 40% quarter to quarter!

Some companies have introduced salary increases every 3 to 6 months to offset the cost of living for their employees, including utility bills for employees working from home.

Interestingly, the changes in the law on self-employment (the so-called KATA), which at one point shocked employees in Hungary, had a lesser impact on the job market. This is due to the fact that Hungarian IT specialists most often used this form of cooperation for side projects.

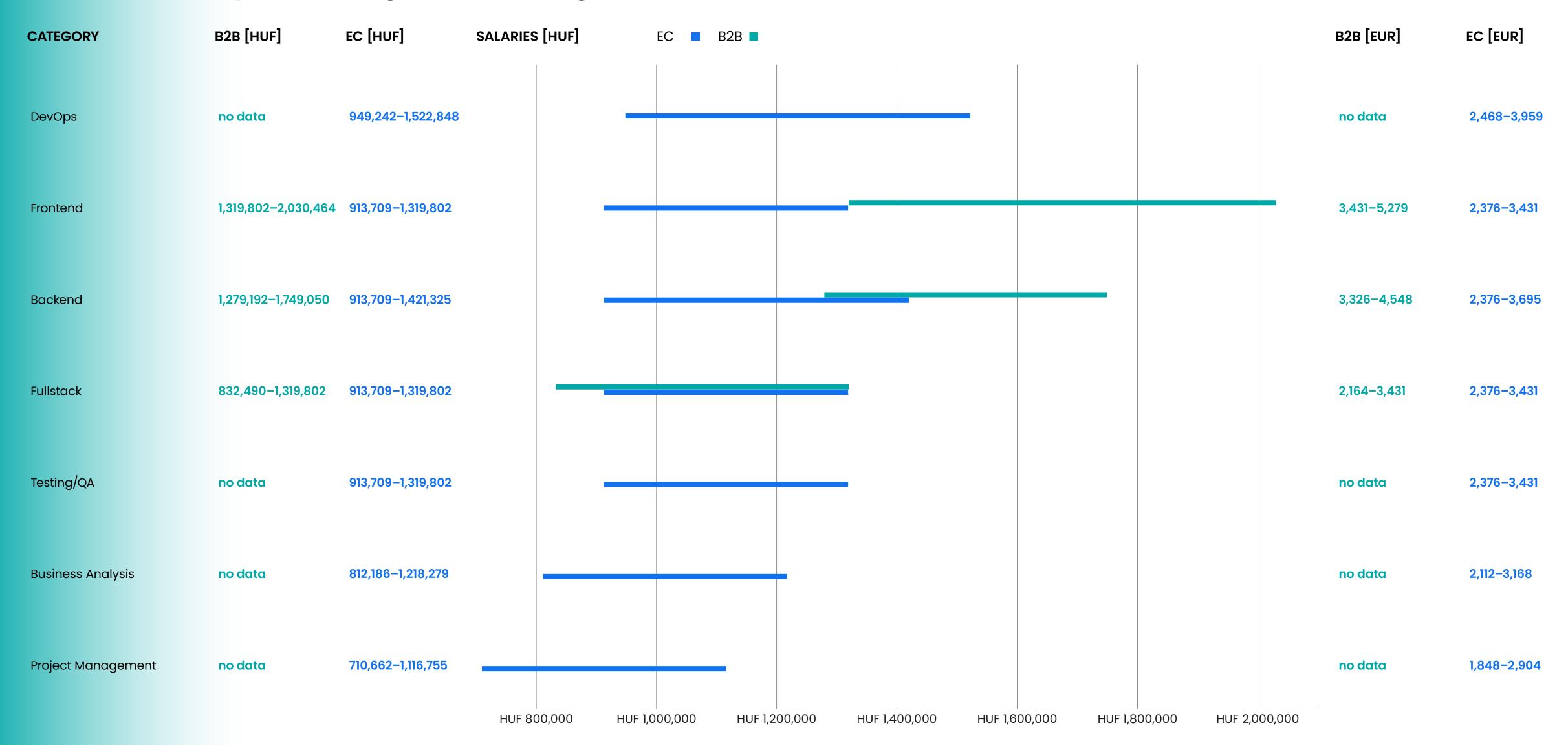
Specialists with medium to extensive experience are still most in demand in Hungary (Mids, Seniors, and Experts). Though there are more and more Juniors, the current market situation makes it difficult for them to find jobs.

(

Busy bees in IT.
B2B contractors and other freelancers,
2022, No Fluff Jobs

read /

Salaries per category – Hungary



Salaries on B2B in amounts of HUF net (+VAT), salaries on the Employment Contract in amounts of HUF gross. Salaries in EUR at the averaged exchange rates from 2022 (NBP, as of 29.12.2022).



Slovakia NEW REGION OF OPERATION SINCE JUNE 2022

Ahoj Slovensko! The missing piece in the No Fluff Jobs CEE puzzle

It might seem obvious that after entering the Hungarian and Czech markets earlier, Slovakia was next in line as our new region of operation. But our appearance in the land of the Tatra Mountains was not simply completing the "puzzle" with the missing element in Central and Eastern Europe, or filling another contour on the map with our color.

Slovakia is a textbook example when it comes to the approach to wage transparency. The law requiring companies to disclose proposed earnings in job ads has been in force since 2018. As you can imagine, this makes it much easier to persuade employers to implement transparent recruitment processes.:)

Also, Slovakia is part of the Euro zone, which is helpful in terms of No Fluff Jobs' global expansion. It facilitates our efforts to acquire new clients, especially from outside Europe, who can easily compare rates applicable in the common currency area.

Our short presence in Slovakia has already shown the potential of this market. The feedback from local companies is very good, and employers are pleased with the quality of applications they receive through the Slovak version of nofluffjobs.com. Strong ties with the Czech Republic help a lot, since the Czech market has a larger pool of IT talents. When considering working abroad, Czech IT specialists naturally gravitate to jobs based in the country of their Eastern neighbor.

AHOJ

The Netherlands NEW REGION OF OPERATION SINCE OCTOBER 2022

Hallo Nederland! Why we decided to expand to Western Europe



For us, 2022 was a time of further expansion. After entering the Slovak market in the middle of the year, No Fluff Jobs also appeared (for some perhaps unexpectedly) in the Netherlands in Q4.

The official entry into our first Western European market proves that the global development strategy is not only a slogan to us, and that we are doing everything to implement it as planned. The Netherlands is our gateway to new possibilities, expanding our presence to 6 countries of the Old Continent.

Why the Netherlands? Simply put, the Dutch market has everything to be an ideal starting point for international expansion. It is twice as small as Poland, and at the same time characterized by a higher number of IT/ICT specialists (620K vs. 540K).

Nevertheless, it is facing a challenge, since recruitment needs are no smaller here than in other parts of the continent. In 2021, the Netherlands recorded the highest rate of "difficult to fill" positions in the tech sector in Europe. More than half of the job posts remained vacant 60 days after the job ad was published.

State of European Tech 2021,

Such a challenge gives us a unique opportunity to address the expectations of employers from this innovative market. With access to a pool of nearly 1.5 million talents from the CEE region, we can provide an excellent foundation for our Dutch business partners to meet their recruitment plans.

Employed ICT specialists, Eurostat, accessed: 01/13/2023

OOKIUI rioritize candidates with DIGITAL ROCKWOOL GBS PEOPLE & SITE MANAGER eve that our success teamwork skills.

We look for ambition to the skills. Elżbieta Drozdowska At ROCKWOOL Group, we believe that our success depends on commitment and teamwork skills. We expect our employees and co-workers not only with the expected competencies and experience. to have knowledge and skills consistent with the On the other hand, diversity is very important to us. requirements of the role, but also a specific attitude.



That is why it is not geography, gender, religion or health, but skills that affect our recruitment decisions

Our Digital team is globally structured, so we are working in many countries. The largest part of the team is located in Poland, but even here some of its members come from different countries. ROCKWOOL is a multicultural and international organization by design, which makes us a friendly working environment for everyone, including IT specialists from Central and Eastern Europe.

portant to us. I traphy, gender, religion of skills that affect our recrui ment decisions and choices. Our Digi

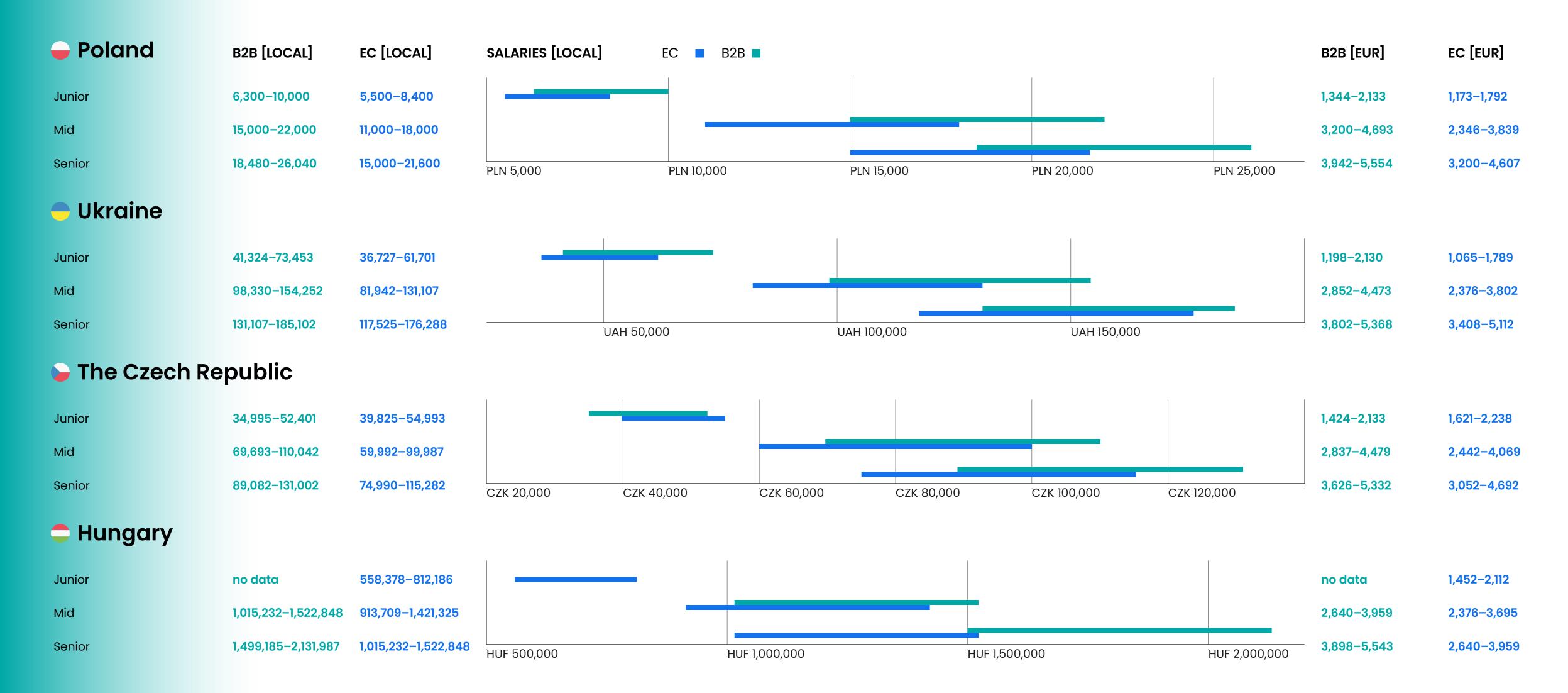
Salaries offered in top IT categories

How much can you earn in the most popular specializations?

| BACKEND | 24 |
|-----------|----|
| RONTEND | 25 |
| ULLSTACK | 27 |
| ESTING/QA | 28 |



Backend

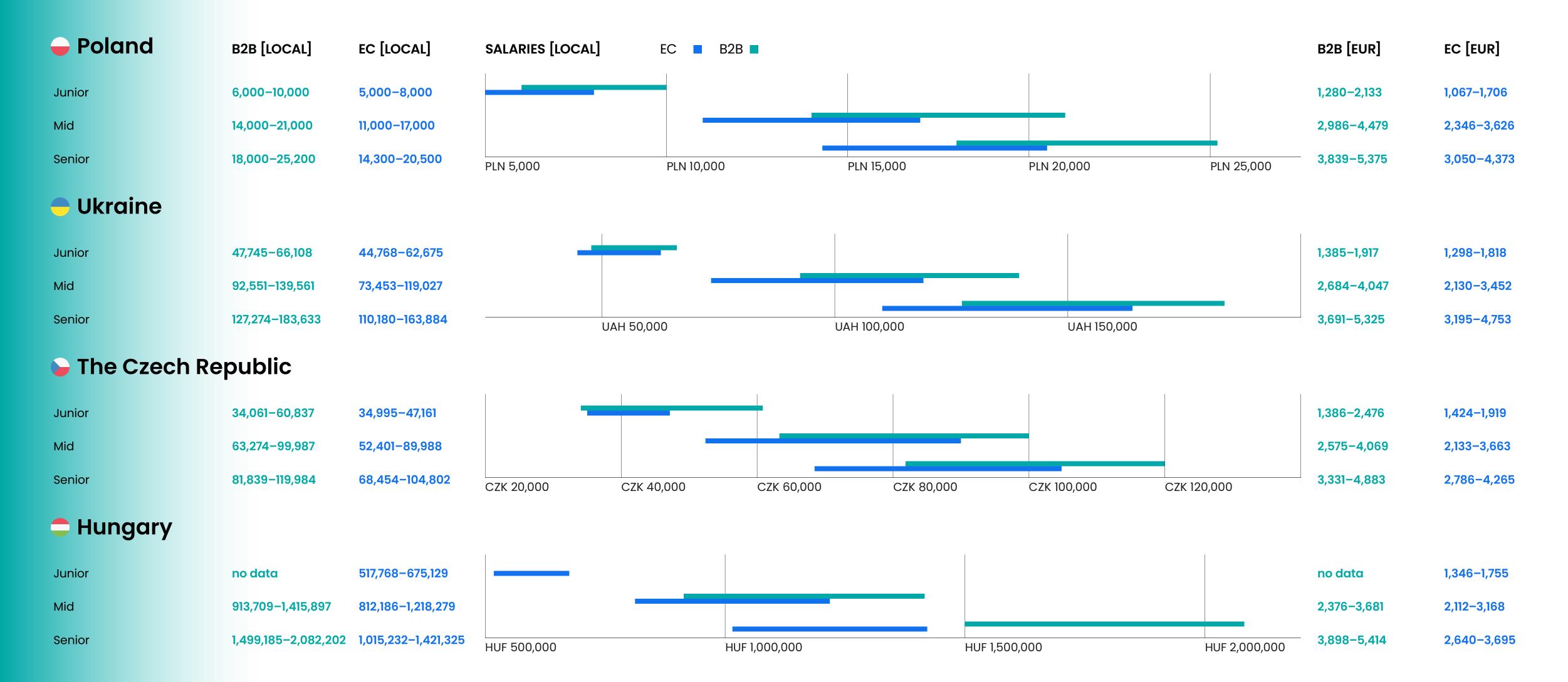


Salaries in local currencies on B2B in net amounts (+VAT), Employment Contract in gross amounts. Salaries in EUR at the averaged exchange rates from 2022 (NBP, as of 29.12.2022).

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Frontend



Salaries in local currencies on B2B in net amounts (+VAT), Employment Contract in gross amounts. Salaries in EUR at the averaged exchange rates from 2022 (NBP, as of 29.12.2022).

NO FLUFF JOBS™ REPORT: THE IT JOB MARKET IN 2022

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Psst...

Let's take a little break.

We know that numbers are very important, but there are even more important things.

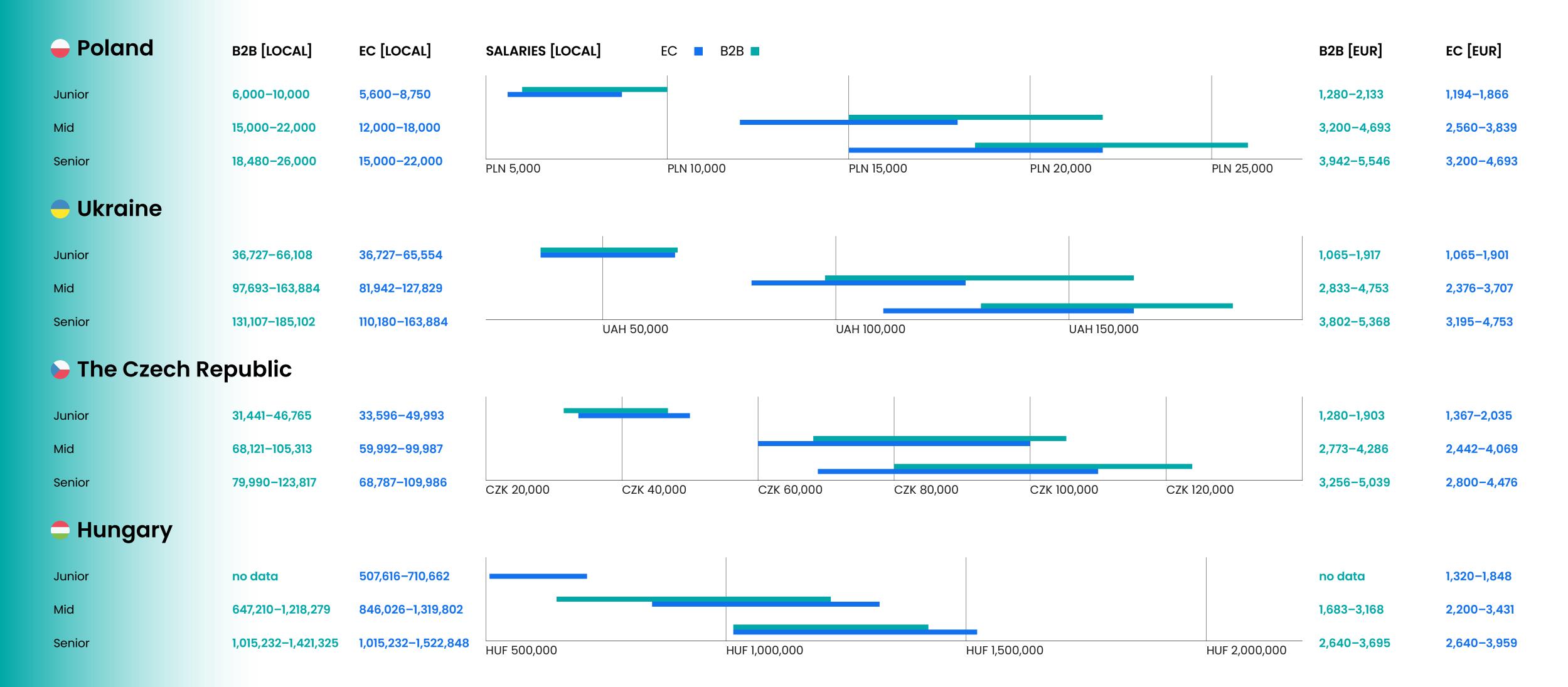
As a value-based company, last year we launched the "Respect Yourself" social campaign to draw attention to recruitment processes unsuited to modern times. We believe that each and every one of us – people who are part of the job market – has a story connected to this. That is why we have created the right conditions to share it. Billboards and banners appeared across cities, and online we carried out multichannel activities.

The campaign was a great success. It has been mentioned more than 400 times in the media, we have collected over 13,000 signatures on an open letter asking for disclosing salaries in every job ad, and the reach of the action has exceeded 3 million people. All of this only confirmed our conviction that the issues raised by us are important, and that the candidates want to be treated with respect.



If the ideas behind the campaign matter to you, visit respectme.eu and get inspired by those who have already made the change.

Fullstack

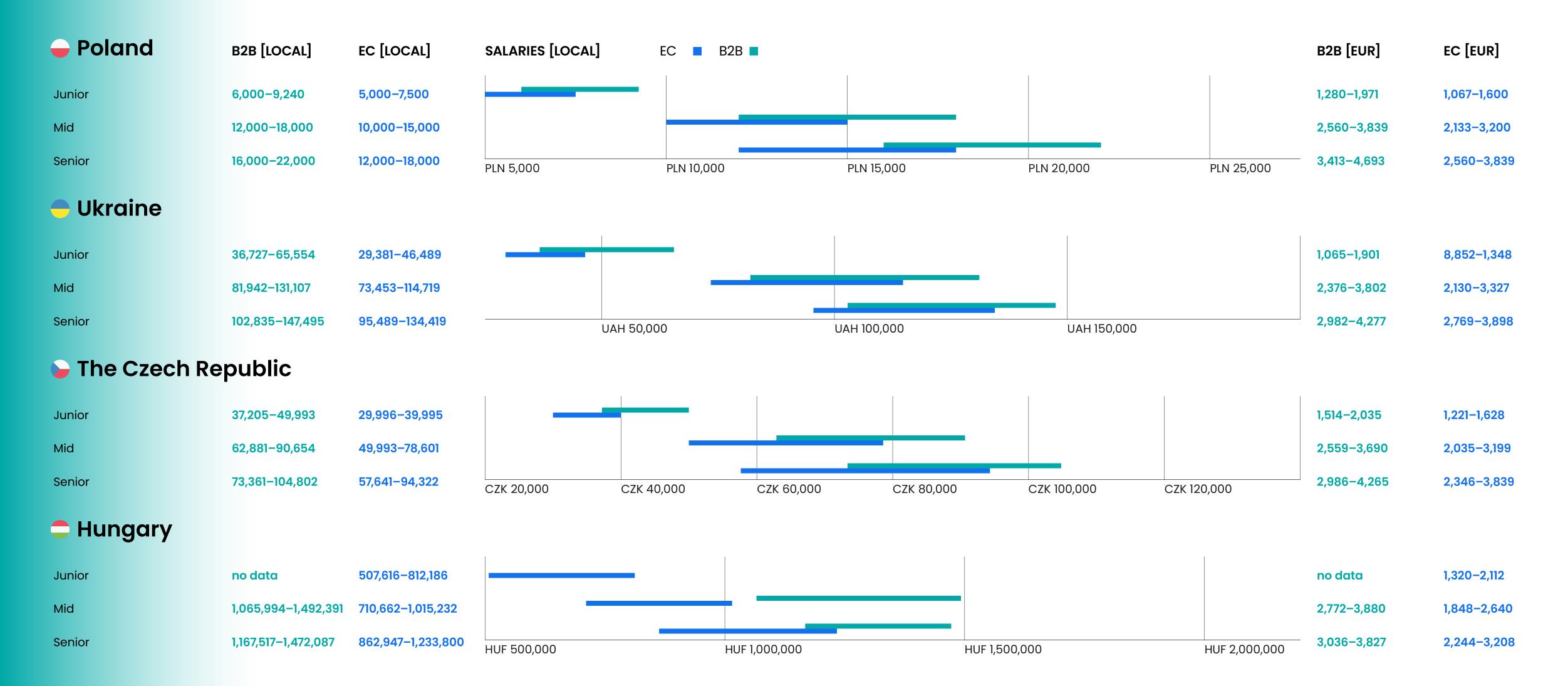


Salaries in local currencies on B2B in net amounts (+VAT), Employment Contract in gross amounts. Salaries in EUR at the averaged exchange rates from 2022 (NBP, as of 29.12.2022).

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Testing/QA



Salaries in local currencies on B2B in net amounts (+VAT), Employment Contract in gross amounts. Salaries in EUR at the averaged exchange rates from 2022 (NBP, as of 29.12.2022).

tore deciding Raking a look at the cu DYNATRACE LAB LEAD ig models and geos, looking for talents in
sly is Michał Bojo tic also and upsk In the era of flexible working models and geographically dispersed teams, looking for talents in employe several markets simultaneously is a natural strattaking a look at the currently available resources. egy in the IT sector. Regardless of their specializa-■ We live in a time of full automation, reskilling, and uption, external experts can bring an entirely new and Carakilling. These processes require employees to move fresh perspective, e.g. in the work of a local prodaway from the typically task-oriented nature of work uct team. Nowadays, the strength of business lies towards a broad, issue-based thinking, maximally may turn out to be exactly what we needed, but could not find on the market so far.

COY FROM THE LYP SQLY TOSK: focused on the final value of the product. Employees in diversity. Taking into consideration many, often e of work towards a broad ented he are or work to a maximally focus

Salaries offered in other IT categories

How much can you earn in other specializations?

| DEVOPS | 31 |
|-----------------------|----|
| PROJECT MANAGEMENT | 31 |
| MOBILE | 32 |
| SUPPORT | 32 |
| IT ADMINISTRATOR | 33 |
| BUSINESS ANALYSIS | 33 |
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| EMBEDDED | 35 |
| SECURITY | 36 |
| DESIGN/UX | 36 |
| BUSINESS INTELLIGENCE | 37 |
| PRODUCT MANAGEMENT | 37 |
| | |

DevOps

| Poland | B2B [PLN] | EC [PLN] | SALARIES [PLN] | EC ■ B2B ■ | | | | B2B [EUR] | EC [EUR] |
|--------|---------------|---------------|----------------|------------|------------|------------|------------|-------------|-------------|
| Junior | 9,000-14,000 | 6,000-10,000 | | | • | | | 1,920-2,986 | 1,280-2,133 |
| Mid | 17,000-25,000 | 14,000-20,000 | | | | | | 3,626-5,333 | 2,986-4,266 |
| Senior | 21,840-29,000 | 17,000-23,700 | | | | | | 4,658-6,186 | 3,626-5,055 |
| | | | PLN 5,000 | PLN 10,000 | PLN 15,000 | PLN 20,000 | PLN 25,000 | | |

Project Management

| Poland | B2B [PLN] | EC [PLN] | SALARIES [PLN] | EC ■ B2B ■ | | | | B2B [EUR] | EC [EUR] |
|--------|---------------|---------------|----------------|------------|------------|------------|------------|-------------|-------------|
| Junior | 6,000-8,750 | 6,000-8,000 | | | | | | 1,280-1,866 | 1,280-1,706 |
| Mid | 14,000-19,320 | 11,800-17,000 | | | | - | | 2,986-4,121 | 2,517-3,626 |
| Senior | 17,000-23,520 | 15,000-20,000 | | | | | | 3,626-5,017 | 3,200-4,266 |
| | | | PLN 5,000 | PLN 10,000 | PLN 15,000 | PLN 20,000 | PLN 25,000 | | |

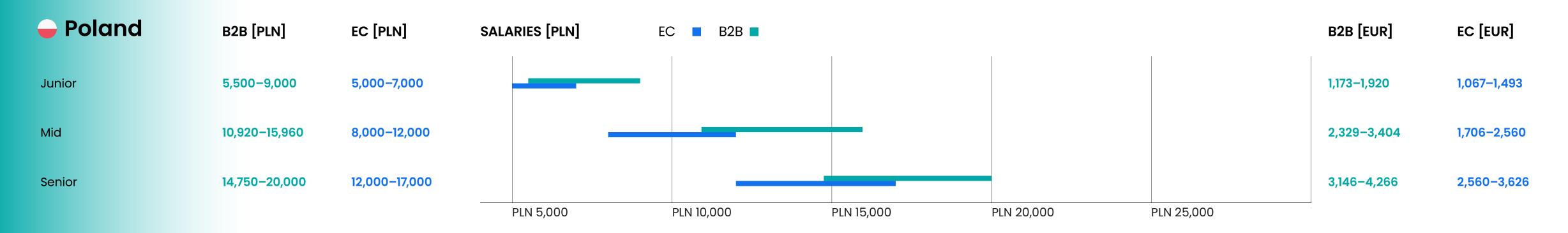
The presented salaries concern Poland. For the rest of the countries, there will not always be enough advertisements for a representative sample.

To get an idea of the rates and compare them with other main categories from other countries, we also show amounts converted to EUR.

Mobile

| Poland | B2B [PLN] | EC [PLN] | SALARIES [PLN] | EC ■ B2B ■ | | | | B2B [EUR] | EC [EUR] |
|--------|---------------|---------------|----------------|------------|------------|------------|------------|-------------|-------------|
| Junior | 7,000-11,000 | 6,000-9,000 | | | | | | 1,493-2,346 | 1,280-1,920 |
| Mid | 15,120-22,025 | 12,000-18,000 | | | | | | 3,225-4,698 | 2,560-3,839 |
| Senior | 19,000-26,000 | 15,000-22,000 | | | | | | 4,053-5,546 | 3,200-4,693 |
| | | | PLN 5,000 | PLN 10,000 | PLN 15,000 | PLN 20,000 | PLN 25,000 | | |

Support



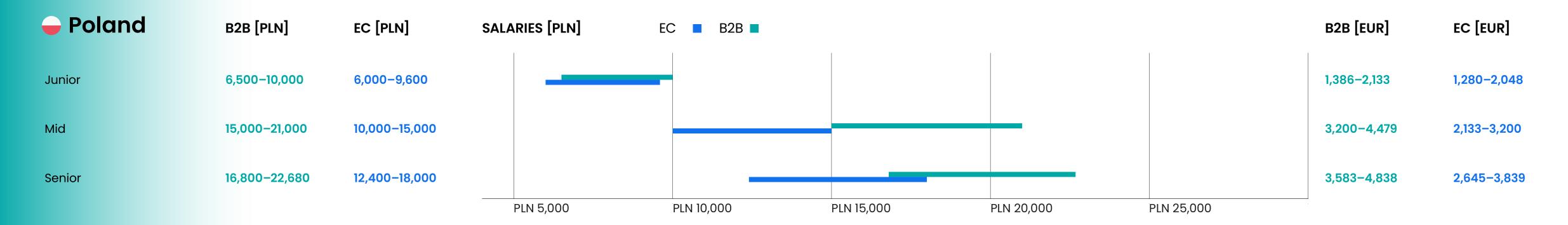
The presented salaries concern Poland. For the rest of the countries, there will not always be enough advertisements for a representative sample.

To get an idea of the rates and compare them with other main categories from other countries, we also show amounts converted to EUR.

IT Administrator

| Poland | B2B [PLN] | EC [PLN] | SALARIES [PLN] | EC ■ B2B ■ | | | | B2B [EUR] | EC [EUR] |
|--------|---------------|---------------|----------------|-------------|------------|--------------|------------|-------------|-------------|
| Junior | 7,000-10,000 | 5,000-8,000 | | | | | | 1,493-2,133 | 1,067-1,706 |
| Mid | 13,440-18,480 | 10,000-15,000 | | | | | | 2,867-3,942 | 2,133-3,200 |
| Senior | 15,000-20,160 | 12,000-17,000 | | DIAL 10.000 | DIN IE 000 | DI NI 00 000 | DIALOF 000 | 3,200-4,300 | 2,560-3,626 |
| | | | PLN 5,000 | PLN 10,000 | PLN 15,000 | PLN 20,000 | PLN 25,000 | | |

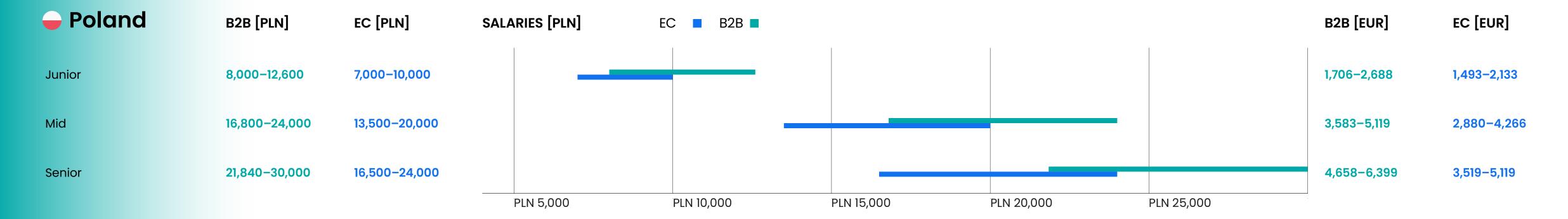
Business Analysis



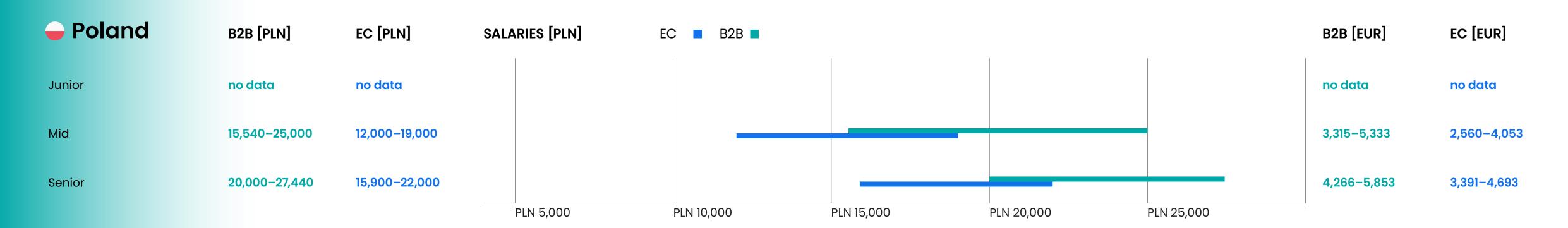
The presented salaries concern Poland. For the rest of the countries, there will not always be enough advertisements for a representative sample.

To get an idea of the rates and compare them with other main categories from other countries, we also show amounts converted to EUR.

Big Data



A



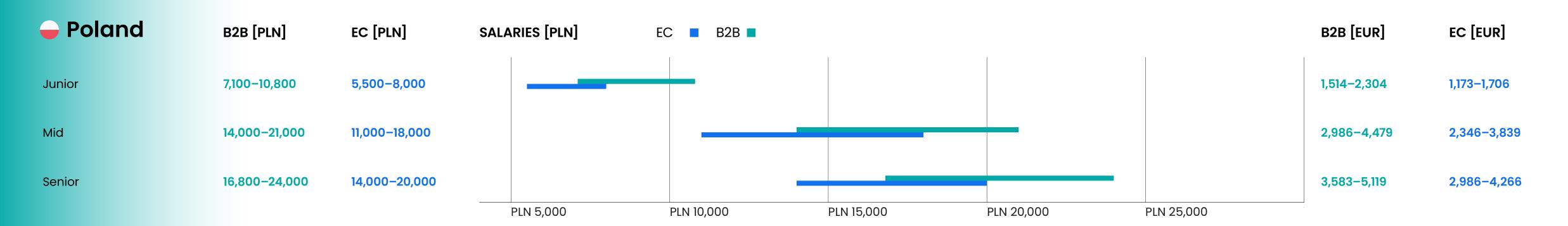
The presented salaries concern Poland. For the rest of the countries, there will not always be enough advertisements for a representative sample.

To get an idea of the rates and compare them with other main categories from other countries, we also show amounts converted to EUR.

Agile/Scrum

| Poland | B2B [PLN] | EC [PLN] | SALARIES [PLN] | EC ■ B2B ■ | | | | B2B [EUR] | EC [EUR] |
|--------|---------------|---------------|----------------|------------|------------|------------|------------|-------------|-------------|
| Junior | no data | no data | | | | | | no data | no data |
| Mid | 14,700-20,125 | 12,000-16,500 | | | | | | 3,136-4,293 | 2,560-3,519 |
| Senior | 18,480-24,000 | 14,000-19,700 | | | | | | 3,942-5,119 | 2,986-4,202 |
| | | | PLN 5,000 | PLN 10,000 | PLN 15,000 | PLN 20,000 | PLN 25,000 | | |

Embedded



The presented salaries concern Poland. For the rest of the countries, there will not always be enough advertisements for a representative sample.

To get an idea of the rates and compare them with other main categories from other countries, we also show amounts converted to EUR.

Security

| Poland | B2B [PLN] | EC [PLN] | SALARIES [PLN] | EC ■ B2B ■ | | | | B2B [EUR] | EC [EUR] |
|--------|---------------|---------------|----------------|------------|------------|------------|------------|-------------|-------------|
| Junior | no data | 6,000-9,000 | | _ | | | | no data | 1,280-1,920 |
| Mid | 17,000-23,520 | 13,000-18,000 | | | | | | 3,626-5,017 | 2,773-3,839 |
| Senior | 20,000-26,000 | 15,000-21,000 | | | | | | 4,266-5,546 | 3,200-4,479 |
| | | | PLN 5,000 | PLN 10,000 | PLN 15,000 | PLN 20,000 | PLN 25,000 | | |

Design/UX

| Poland | B2B [PLN] | EC [PLN] | SALARIES [PLN] | EC ■ B2B ■ | | | | B2B [EUR] | EC [EUR] |
|--------|---------------|---------------|----------------|------------|------------|------------|------------|-------------|-------------|
| Junior | 4,000-7,000 | 4,500-7,000 | | | | | | 853-1,493 | 960-1,493 |
| Mid | 10,000-16,000 | 8,500-13,300 | | | | | | 2,133-3,413 | 1,813-2,837 |
| Senior | 15,000-20,000 | 12,300-18,000 | | | | | | 3,200-4,266 | 2,624-3,839 |
| | | | PLN 5,000 | PLN 10,000 | PLN 15,000 | PLN 20,000 | PLN 25,000 | | |

The presented salaries concern Poland. For the rest of the countries, there will not always be enough advertisements for a representative sample.

To get an idea of the rates and compare them with other main categories from other countries, we also show amounts converted to EUR.

Business Intelligence

| Poland | B2B [PLN] | EC [PLN] | SALARIES [PLN] | EC ■ B2B ■ | | | | B2B [EUR] | EC [EUR] |
|--------|---------------|---------------|----------------|------------|------------|------------|------------|-------------|-------------|
| Junior | 6,720-10,080 | 6,000-8,000 | | | | | | 1,433-2,150 | 1,280-1,706 |
| Mid | 16,000-22,000 | 12,500-18,000 | | | | | | 3,413-4,693 | 2,666-3,839 |
| Senior | 18,000-25,000 | 15,000-20,000 | | | | | | 3,839-5,333 | 3,200-4,266 |
| | | | PLN 5,000 | PLN 10,000 | PLN 15,000 | PLN 20,000 | PLN 25,000 | | |

Product Management

| Poland | B2B [PLN] | EC [PLN] | SALARIES [PLN] | EC ■ B2B ■ | | | | B2B [EUR] | EC [EUR] |
|--------|---------------|---------------|----------------|------------|------------|------------|------------|-------------|-------------|
| Junior | no data | 5,000-7,000 | | | | | | no data | 1,067-1,493 |
| Mid | 14,000-20,000 | 13,000-18,000 | | _ | | | | 2,986-4,266 | 2,773-3,839 |
| Senior | 18,000-25,000 | 16,000-22,000 | | | | | | 3,839-5,333 | 3,413-4,693 |
| | | | PLN 5,000 | PLN 10,000 | PLN 15,000 | PLN 20,000 | PLN 25,000 | | |

The presented salaries concern Poland. For the rest of the countries, there will not always be enough advertisements for a representative sample.

To get an idea of the rates and compare them with other main categories from other countries, we also show amounts converted to EUR.

The most frequent technologies in job ads

What are the most prevalent employer requirements?

| THE MOST POPULAR TECHNOLOGIES IN JOB ADS | |
|--|--|
| THE MOST POPULAR MUST-HAVES | |
| | |

The most popular technologies in job ads

The list of the most popular requirements encountered in job advertisements has not changed much for years. The top skills are universal and widely used in several categories and specializations.

The first place in 2022 belonged to SQL, which appeared in over 18.4% of all ads. It was followed by Java (17.1%) and JavaScript (16.9%). Python took fourth place in the

It should come as no surprise that these technologies since 2018, and today it is the most popular programming language according to the TIOBE ranking.

Comparing the graph with publicly available data shows us that the expectations of employers based in

ranking, gaining popularity year by year (in 2022 it appeared in 4% more ads).

dominate the list of the most popular requirements. Their use in the development of technological products and services is widespread. Interest in Python itself has been growing at an extraordinary pace

(i)

(i)

NO FLUFF JOBS™

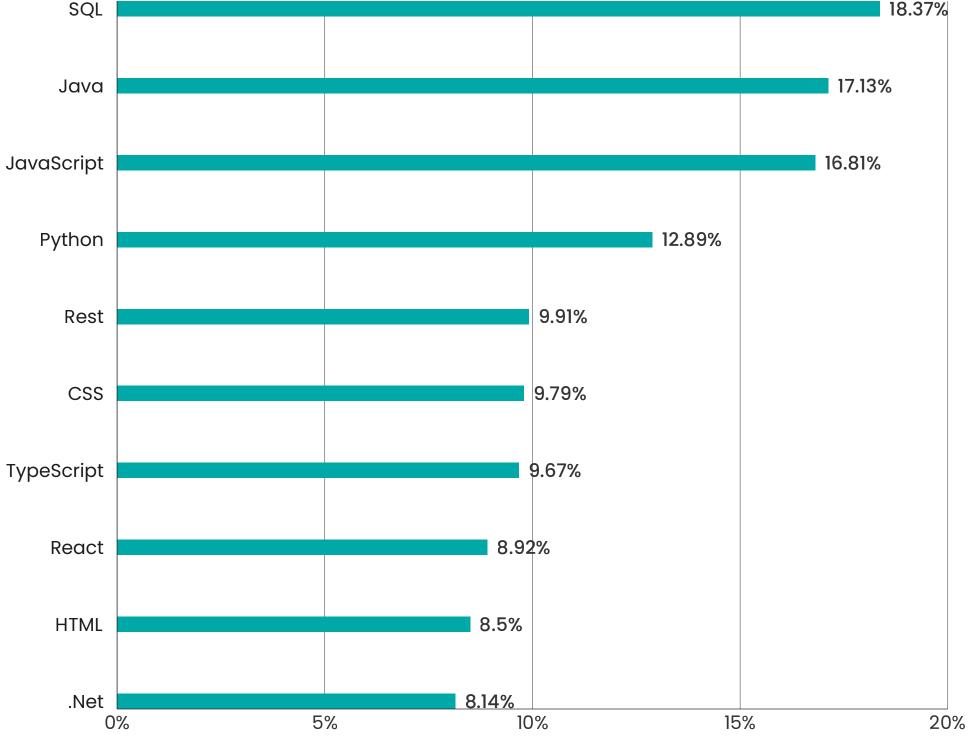
Developer Survey, 2022, Stack Overflow

REPORT: THE IT JOB MARKET IN 2022

December 2022, accessed: 01/04/2023

Central and Eastern Europe go hand in hand with the popularity of these technologies globally. The knowledge of individual programming languages is geographically independent. The same technologies top the list of the most frequent requirements, only the proportions change.

THE MOST POPULAR TECHNOLOGIES IN JOB ADS



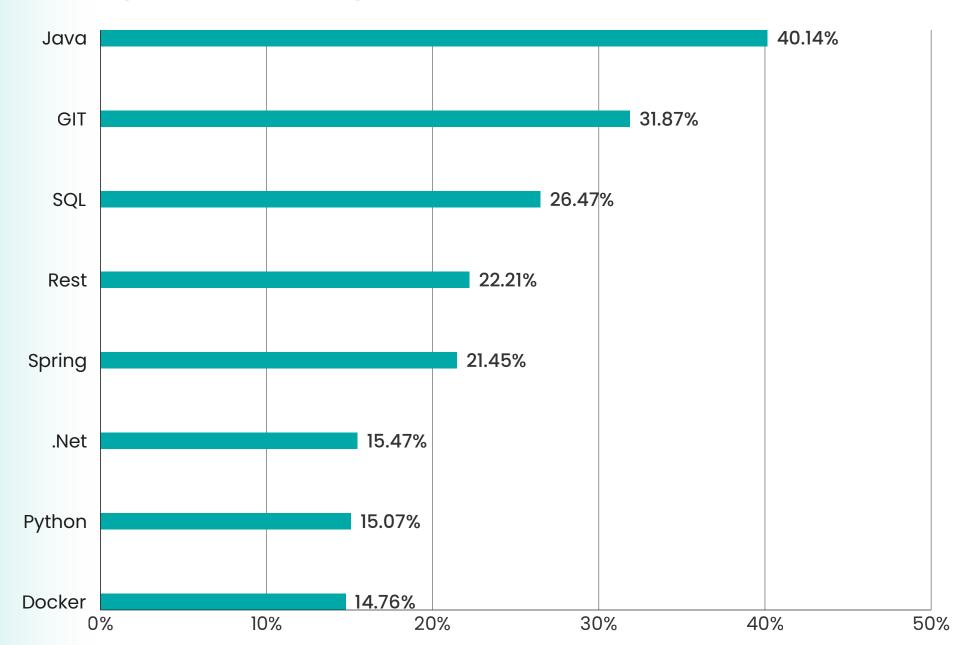
Most job ads (especially those directed at more experienced specialists) require knowledge of 2 or even 3 technologies.

The most popular must-haves

BACKEND

Java has been the most important requirement in the Backend category for years. It appears in 40% of all job ads. The second most frequent must-have is Git, despite the fact that its presence in ads decreased by 11% over the whole year. Demand for three other technologies, .Net, SQL and Python, increased (each of them was present in a few percent more ads than in 2021).

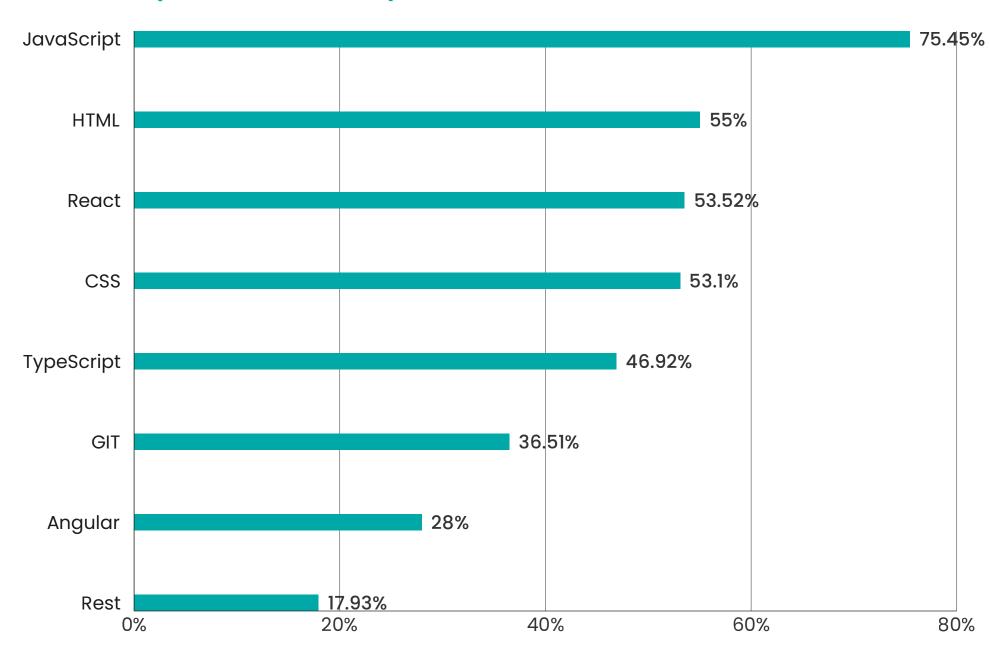
THE MOST FREQUENT MUST-HAVE REQUIREMENTS FOR BACKEND



FRONTEND

Requirements for Frontend specialists are countless. Of course, it is **JavaScript and HTML/CSS** that dominate here, but when we go a little deeper, **React** (54%) and **TypeScript** (47%) will come to the fore. The high rates of occurrence of these requirements (also those outside the aforementioned five) show that employers value Frontend specialists for their knowledge of a wide set of libraries, tools, and frameworks.

THE MOST FREQUENT MUST-HAVE REQUIREMENTS FOR FRONTEND



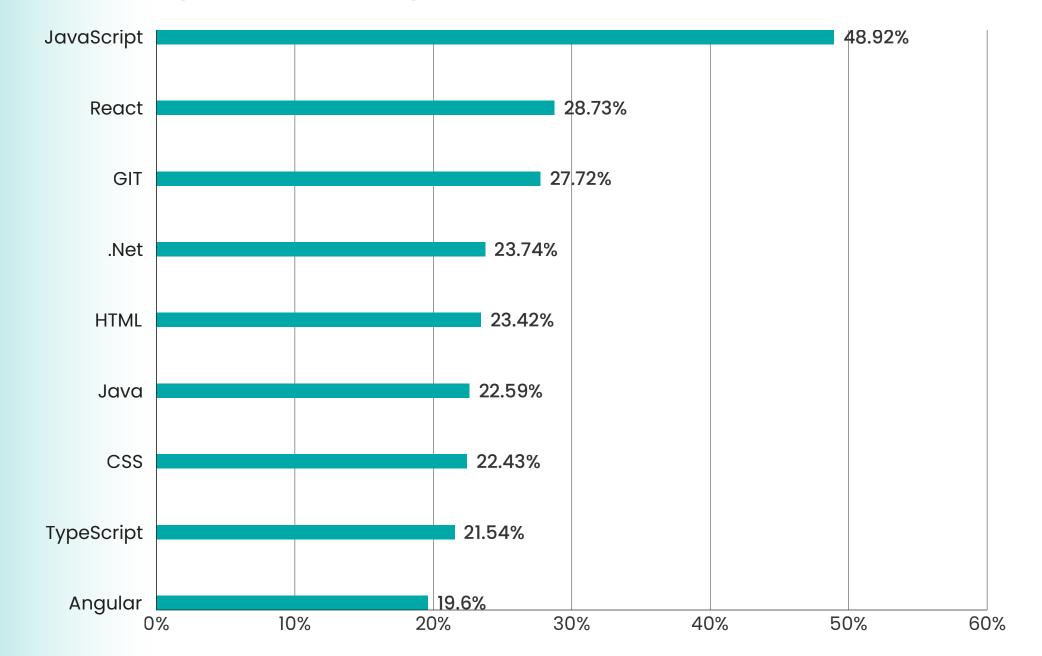
Most job ads (especially those directed at more experienced specialists) require knowledge of 2 or even 3 technologies. The presented requirements are obligatory for a candidate to be considered for the given role.

The most popular must-haves

FULLSTACK

In this category, the knowledge of **JavaScript** has been a must-have for years. Nearly **50%** of all ads include it as a mandatory requirement. Apart from JS, Fullstack offers mainly require technologies characteristic of Frontend (React, HTML, CSS, TypeScript), and Backend: Java and .Net.

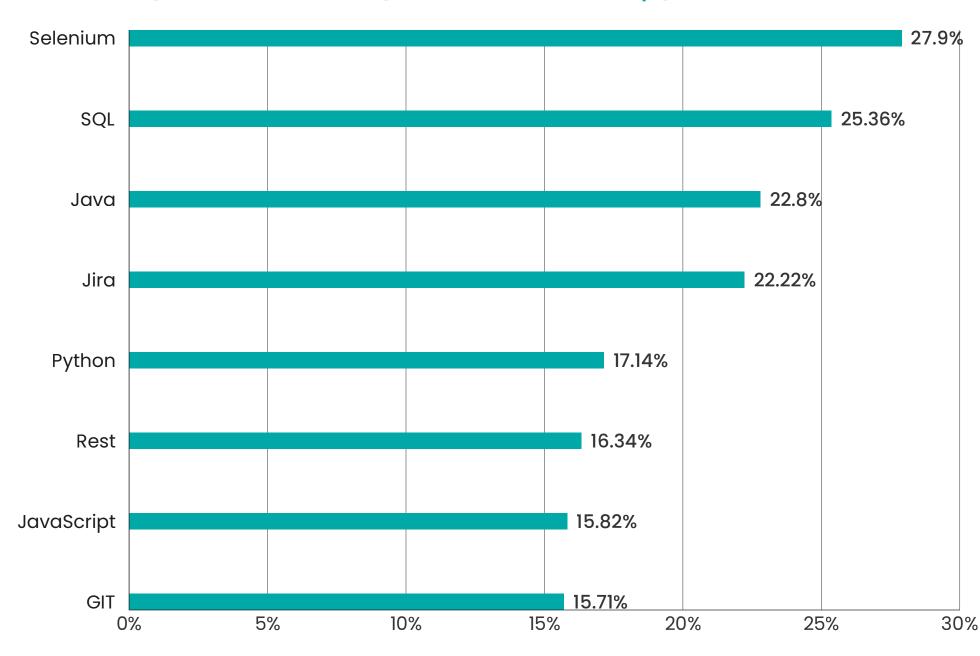
THE MOST FREQUENT MUST-HAVE REQUIREMENTS FOR FULLSTACK



TESTING/QA

Selenium had been the number one for years as the most common requirement for testers. In 2022, the tool slightly lost its relevance. Employers looking for testers are increasingly interested in hiring people skilled in **SQL** (6% increase in share y/y) and **Python** (18% increase). JavaScript and Git also became more popular.

THE MOST FREQUENT MUST-HAVE REQUIREMENTS FOR TESTING/QA



Most job ads (especially those directed at more experienced specialists) require knowledge of 2 or even 3 technologies. The presented requirements are obligatory for a candidate to be considered for the given role.

ernployment, though Lanis to main FABRES HR BUSINESS PARTNER Samanta Kurkowiak 2023 with great optimism. Our In the sales gree
the current pace of employment is bigger We look ahead to 2023 with great optimism. Our plan is to maintain the current pace of employment, though our appetite is bigger and we are not hiding it. This is a part of the company's strategy of organic growth and increasing turnover by 25% per year, which has been consistently implemented for years.

still quite substantial. To illustrate, it is estimated that around 40,000 new ICT hires are planned in Norway by 2030. Large companies in European markets slowing down their recruitment processes, or possible redundancies in smaller companies, are great opportunities for us to attract competent specialists.

Fabres, which has always been part of our personnel

vth ana in of organic y rnover by 25% per year, peen consistently implewhich has been continued.

Which has been continued and the sales area, we mented for years. In the sales area, we mented for years, illy on the Scandinay.

Locations in job ads

Is remote work here to stay?

| OCATIONS IN JOB ADS | 44 |
|--|----|
| OCATIONS IN JOB ADS - INDIVIDUAL COUNTRIES | 45 |
| THE MOST FREQUENT LOCATIONS FOR IN-OFFICE WORK | 46 |

Locations in job ads

Remote and hybrid work in IT, 2022, No Fluff Jobs

read /

It is not surprising that remote and hybrid work both occupy bigger and bigger slices of the "cake" of work models. During the year, the share of ads offering remote work increased by more than 8 percentage points, and currently, they account for almost 62% of all ads. Hybrid work also gained popularity, albeit slightly. Both of these models got ahead in-office work in growth, which lost more than 10 pp and appeared

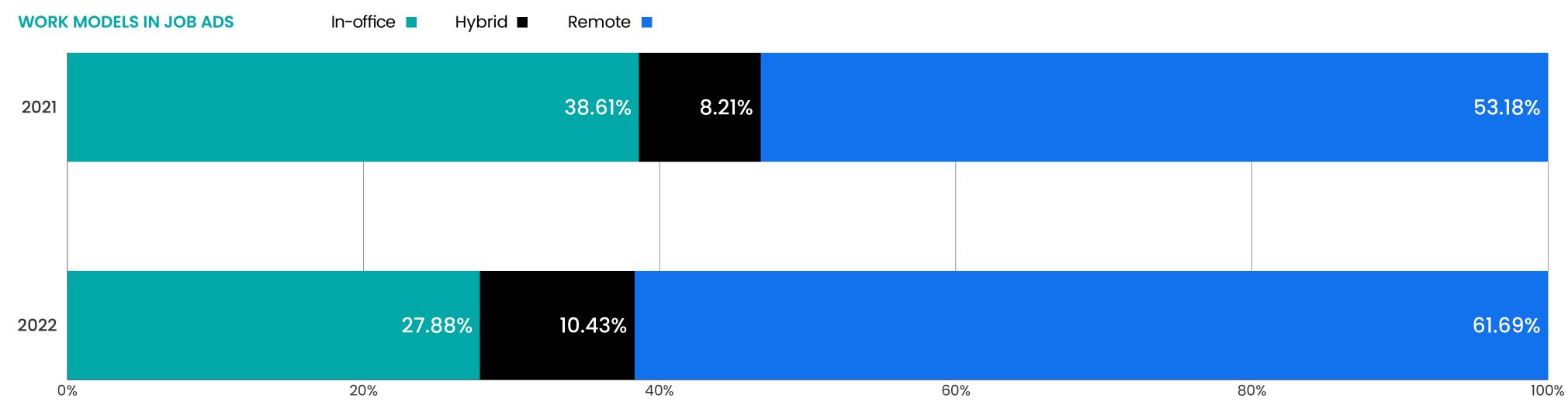
only in 27.9% of advertisements.

Talent shortages in the market result in the need for employers to agree to the candidates' "terms" and to be more flexible in accepting remote work.

Especially when the tech sector employees clearly and explicitly declare that they are not interested in full-time in-office work at all.

REMOTE WORK PAYS OFF

Remote work has opened us up to the world, but it has also opened up the employers' wallets. Companies already seek IT specialists around the world, and the more experience they have, the more accepting the employers – Mids and Seniors have better chances of getting companies to agree to their working from home. This also determines the amounts of proposed earnings. In job ads that offer fully remote work (5 days a week), salaries are 20%-25% higher than those where stationary or hybrid work is offered.



Locations in job ads – individual countries

Poland

In Poland in 2022, only 1 in 4 ads offered in-office work.

This percentage decreased by 10 pp compared to 2021.

The number of ads for remote work increased significantly, achieving a share of 66% of all ads addressed to the Polish market.

▶ The Czech Republic

The hybrid work model appeared in 29% of job advertisements. It is a 10 pp growth compared to the previous year, and the highest share in the whole Central and Eastern European region. At the same time, the percentage of ads for in-office work fell radically by 15 percentage points, to 41%.

Ukraine

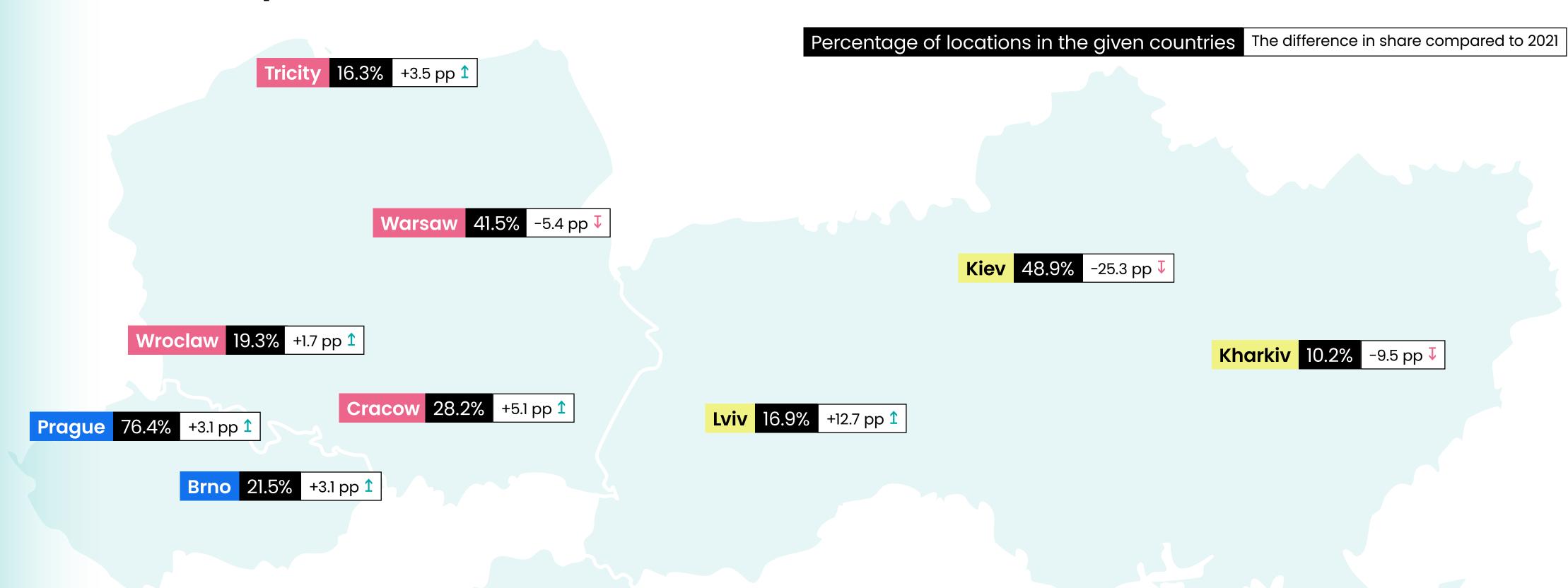
During the year, the percentage of advertisements in which **fully remote work** appeared increased by as much as 14 percentage points and reached over **74%**. This is the highest share in the region. Interestingly, hybrid work is **very rarely** offered in Ukraine – only 4% of ads included it.

Hungary

The Hungarian market noted the smallest changes in terms of working models in ads. Remote work remained at the level of 24%, and the same percentage was recorded in the case of hybrid work (an increase of 5 percentage points during the year). Despite a slight decrease during the year, in-office work arrangements still dominate, appearing in more than half of the ads.

The most frequent locations for in-office work

Budapest 93.5% +3.4 pp **1**



Ads may contain information about 2 or more available locations.

Firs and Life It is important for us ROCKWOOL GBS HEAD OF HR Paula Szymańska etter than working hackwool is maintain the em Is working from home really better than working Of course, we care about work-life balance as well. from the office? Is it possible to maintain the emships and the culture of the organization. It is im-It has become an extremely important aspect ployees' commitment and the culture of the organiportant for us that our employees have a sense of employees' lives in the last two years. Hence, in 2023, we will continue and promote the hybrid zation at the same level? of belonging and continue building relationships, having interactions and working towards a common work model. It allows working from home, but also goal. We believe that employees build relationships prevents the line between work and home from blurby spending time together in the office – expressing 🖊 ring, which often makes it difficult to "unplug" and rards a common goal. We leave the challenges of working life behind after hours. their opinions, and exchanging ideas. They are more employees build relation hips by spending time together in th

NO to scraping and fictional localizations. YES to salary ranges in every ad!

Is it possible to run a successful job board with real job offers only?

You're a curious one, aren't you?

It was clear to us from the very first sentence you read!

And since you've reached this page, we know that numbers are really (like, really, really) important to you.

That's great, actually, because they are the basis of our operation.

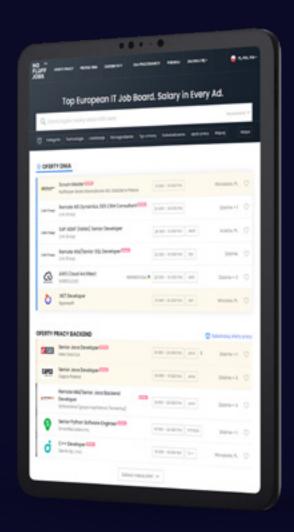
Do you want more TRUTH? How about a job board that doesn't take the line of least resistance, but actually requires employers to do so? A platform that makes sure only real job advertisements are published?

Real ads? What are those? We appreciate your curiosity, so here's your answer.

No Fluff Jobs requires employers to publish job advertisements that contain all the specifics that you need, including, above all, the offered salary range.

We do not tolerate spam, half-truths or "fluff" in the contents of the ads. This is something we always emphasize, and at the same time we do not allow:

- adding unrealistic locations in the ad, just to make it show up more often in the search engine (you can only add other locations of your offices if you have them in cities other than your primary one, and you can actually work from there)
- setting a broader salary range than x-2x (you know who you are looking for, so give as narrow a salary range as possible)
- filling job descriptions with long phrases devoid of a real meaning, such as "attractive remuneration" or "work in a dynamic environment."



Despite all these non-negotiable requirements, we are still the largest IT portal publishing job ads with salary ranges in Central and Eastern Europe. We believe that the truth will always prevail. See for yourself how we are changing the industry day by day.

Benefits and job perks

What conveniences did employers offer most often?

| THE MOST POPULAR BENEFITS IN JOB ADS | 50 |
|--------------------------------------|----|
| THE MOST POPULAR PERKS IN JOB ADS | 51 |
| WORK EQUIPMENT | 52 |

The most popular benefits in job advertisements

This is the third year in a row that we analyzed benefits and perks and for the third time, private medical care is the absolute winner (present in 80% of ads).



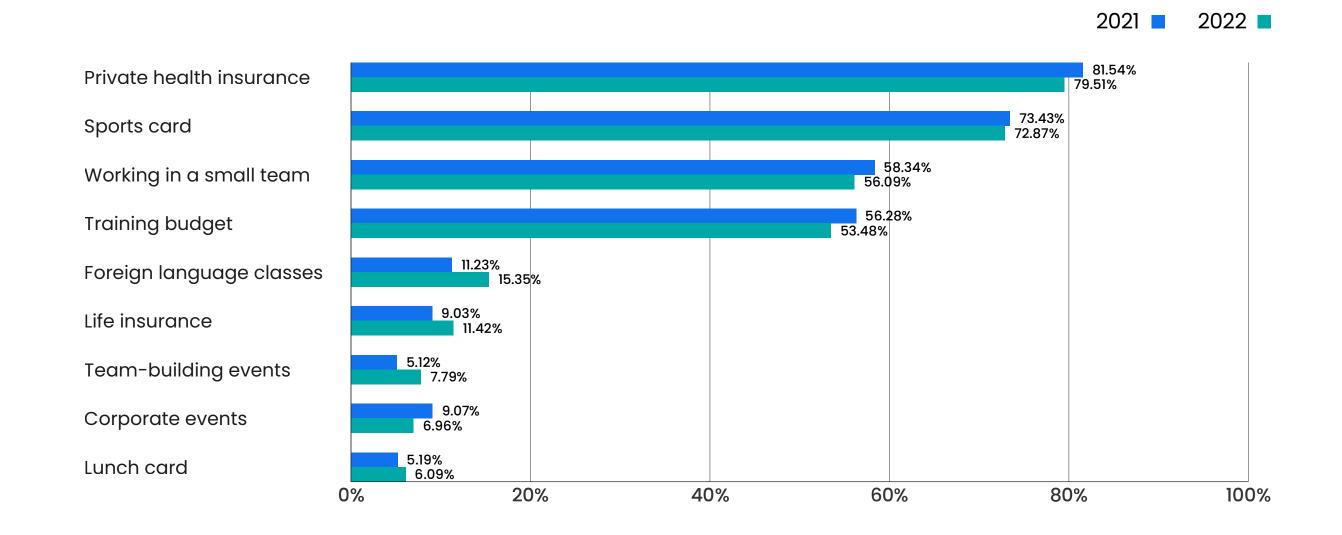
Ranking benefitów 2022 (2022 Benefit Ranking), Enter the Code (Polish only)

read /

As it turns out, this goes hand in hand with the candidates' expectations. According to the 2022 report by enterthecode.pl, private medical care is **the most**desirable benefit for employees – 57% of respondents indicated so.

Speaking about health, we cannot forget about sports. **Subscription cards** for sports activities were just as popular as in 2021, with a share of **73**%.

Among other benefits, foreign language lessons (15% share), life insurance (11%), team-building events (8%), and lunch cards (6%) were offered more frequently than in 2021.



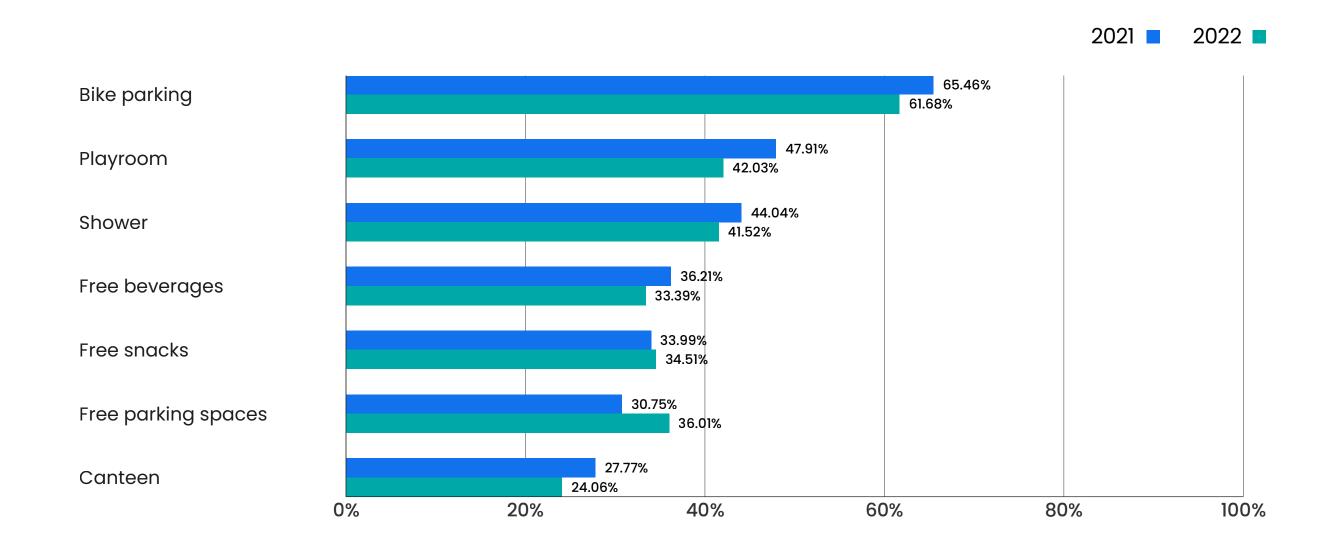
Job ads usually include several perks, so the graph shows the percentage of occurrence of a single perk in all ads

The most popular perks in job ads

Despite a slight decline in 2022, bicycle parking is still a very common perk appearing in job advertisements. It could be found in nearly 62% of all ads.

This is good news for people who like to commute to the office in other ways than public transport. In this context, the data on **free parking spaces** is also optimistic. This perk was offered more frequently than in the previous year – its occurrence **increased by 6 percentage points**, which is related to some of the companies returning to offices in the second half of 2022.

Playrooms and showers in workplaces also deserve mentioning – both perks were offered less frequently than the previous year, but they are still among the key incentives, appearing in approx. 42% of all ads on average.



WAIT, WHAT ABOUT COFFEE?

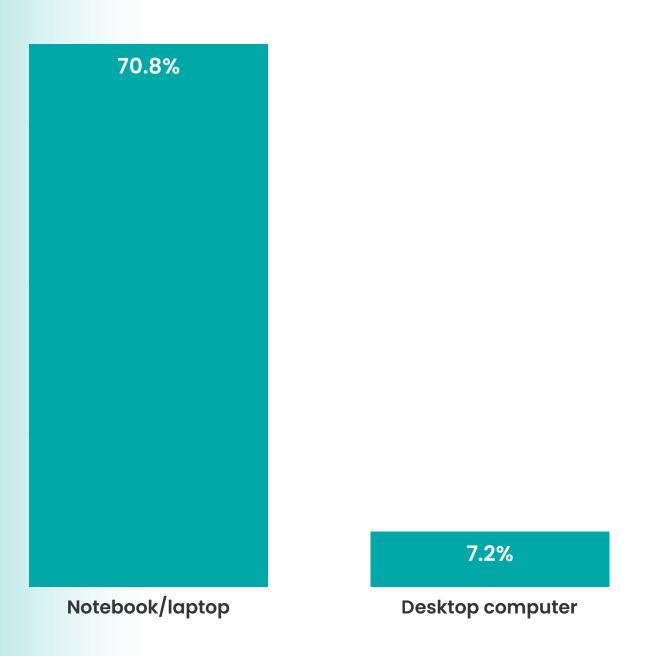
Despite what the popular movie quote says, coffee is not just for closers. It's (almost) for everyone. Free coffee is still the most frequent item in the "Perks in the office" sections on job boards (88.6% of ads on nofluffjobs.com include it). Starting with this year's ranking, we will not publish information about such "perks" as coffee, a modern office, or a startup atmosphere, so that we can draw the employers' attention to real benefits.

Job ads usually include several perks, so the graph shows the percentage of occurrence of a single perk in all ads

Work equipment

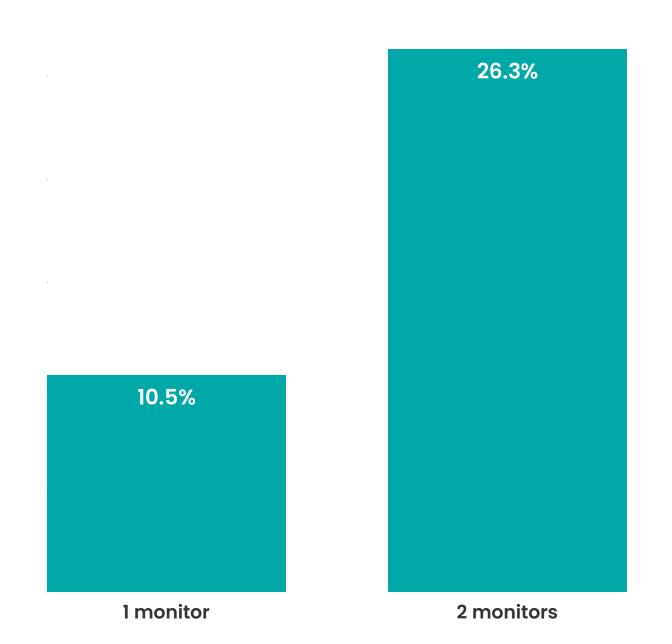
Laptops for the win!

In 2022, not much has changed when it comes to the types of computers offered for work. Notebooks/laptops appeared in job ads over 9x as often as desktop computers. It's no surprise, considering ubiquitous remote work or workation.



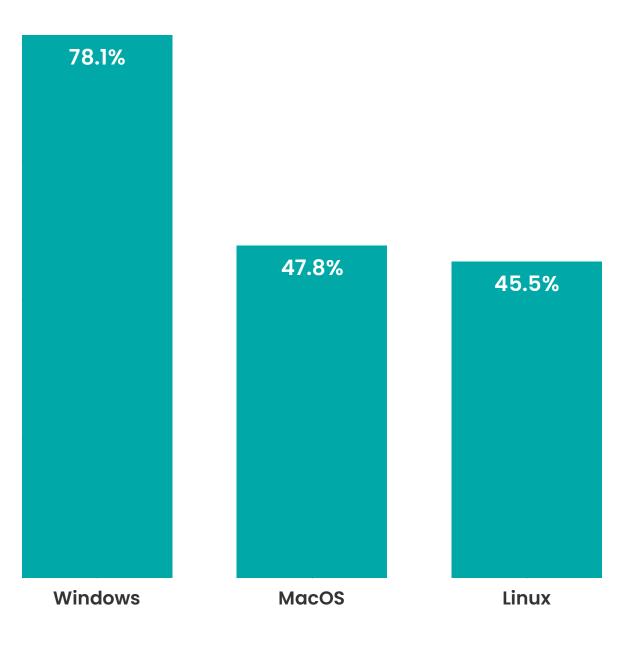
A monitor? More like three

As far as additional screens go, the standard holds. Most often, employees need **2 connected monitors** for work. Every fourth ad offers such a convenience. Every tenth person has to make do with just one additional screen.



Windows still rules

Windows is, once again, the top OS mentioned in IT job ads. Microsoft's operating system appears in more than 3/4 of all of them. During the year, the share of ads that included working on Mac systems increased slightly. It is currently the second most popular OS, just ahead of Linux.



Job ads often inform that it is possible to work on different operating systems

The IT job market in 2022

Salaries, specializations, and requirements in job ads

Gdynia 2023, ISSN 2720-4308

Publisher:



No Fluff Jobs sp. z o.o., Gdynia

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of the following people:

The publication was created with the participation

Written content, proofreading, translation Marek Jarząbek Anna Żbikowska Milena Kotelba

Data collection and analysis Sylwia Giedrys **Justyna Szulter** Aleksandra Płóciennik Michał Malicki **Dominika Nowak**

Piotr Syrokwarz

Partnerships **Ewa Kuik**

Graphic design and typesetting Michał Rogoziński

Report partner



Media partner

ringier axel springer

Have a question or an idea for collaboration?

Contact us

marketing@nofluffjobs.com

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