NEXT TECHNOLOGY
PROFESSIONALS

REPORT

Prepare for the IT recruitment process in 2023

IT JOB MARKET IN POLAND

Table of contents

We are an IT recruitment agency and outsourcing company

✅ ## 3-5 days

Within 3-5 days from the start of the cooperation
we present an average of at least **2 candidates.**

✅ ## 95%

That many candidates work with our clients
for at least **12 months.**

✉ **contact@nexttechnology.io**

Are you looking for an effective support?

Let's talk about IT recruitment
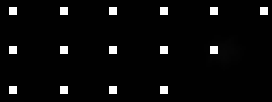
Introduction

Recruitment in the IT industry has never been an easy task and 2022 has shown us that the challenges can be even greater. We will remember the previous 12 months as full of emotions and uncertainty, but we believe that the situation will improve in the near future.

We observe positive trends: more and more offers include visible salary ranges, most companies offer remote work, employers are better able to identify good candidates despite fewer recruitment stages.

When preparing for a recruitment process, both as an employer and a candidate, it is worth reaching for specific information. And this was the thought that inspired us to create the 2nd edition of the report on the IT industry in Poland. This time we present data collected from **156 000 job offers** and **1018 responses** left in our survey.

We wish you a pleasant reading and effective implementation of the acquired knowledge. May 2023 be full of recruitment successes! :)

in Dominik Jurek
CEO Next Technology Professionals

in Piotr Jurek
COO Next Technology Professionals

Methodology

The report is based on **156 000 job offers**, which in 2022 could be found on itradar.io - an aggregator of job ads from 4 of the most popular portals: Pracuj.pl, No Fluff Jobs, Bulldogjob and Just Join IT. Thanks to the data unified by the website, we were able to make our comparisons and look at the offered salaries, as well as the required skills, depending on the job title. Additionally, in the period between 15th September 2022 and 20th November 2022, we conducted an anonymous survey in which we collected **1018 responses** from active IT employees at all seniority levels from all over Poland.

In the report, we present the offered salaries, which were included in the job offers. For the purposes of aggregation, we do not divide the salaries from offers according to the type of contract and we present the arithmetic mean of the extreme values of the ranges (the lowest and the highest).

Both in offers and surveys, the amounts for the B2B contract are expressed in PLN net on the invoice without VAT, while for the employment contract as gross amounts.

Report's partners:

Key insights

In 61% of job offers there was a possibility of **100% remote work.**

57% of respondents want to work completely remotely, 42% in a hybrid model, and only 1% fully from an office.

43% of IT specialists work in a company whose **head office is not in Poland.**

Most job offers in 2022 were addressed to **Mids**, i.e. people with 2-4 years of professional experience.

Senior and Expert employed on B2B receive **higher salaries** than those presented in the job advertisements.

According to the data collected from job advertisements, people who work with: **Kubernetes, Amazon Web Services and Big Data**, could count on receiving **the highest earnings.**

The most common programming languages in job offers were **JavaScript, Python and Java.**

66% of Polish IT specialists would like to be paid in a **foreign currency.**

The highest salary increase (30%) when changing jobs is expected by **Mids** (people with 2 - 4 years of experience) employed on B2B.

Almost every second employee in the IT industry **does not receive a bonus.**

The most sought-after specialists are: **Quality Assurance (QA) Engineer, Frontend Developer, DevOps Engineer, Fullstack Developer, Mobile Developer, Data Scientist and Backend Developer.**

IT specialists want to participate in recruitment processes consisting of a maximum of **2 stages.**

The most preferred form of competence verification among IT specialists is **a technical interview.**

72% of IT specialists indicated the possibility of **remote work** as the most important benefit.

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1.1. **The most popular voivodeships and cities**

Most offers in 2022 were located in the Mazowieckie (29%), Małopolskie (15%) and Dolnośląskie (12%) voivodeships. Accordingly, among the cities with the largest number of job offers on the podium were: Warsaw (28%), Kraków (14%) and Wrocław (12%). The demand for IT specialists coincides with their place of residence, as the respondents most often indicated these areas.

Interesting fact

In 2022, every third offer addressed to people working in IT was from a company based **in Warsaw.**

Share of job offers by voivodship

Source: Own elaboration based on data from itradar.io for 2022

Voivodship	Share
mazowieckie	29%
małopolskie	15%
dolnośląskie	12%
pomorskie	9%
śląskie	8%
wielkopolskie	8%
łódzkie	4%
kujawsko-pomorskie	3%
zachodniopomorskie	2%
lubelskie	2%
podlaskie	2%
podkarpackie	2%
warmińsko-mazurskie	1%
świętokrzyskie	1%
lubuskie	1%
opolskie	1%

1.1. The most popular voivodeships and cities

10 cities with the biggest number of job offers

Source: Own elaboration based on data from itradar.io for 2022

Warszawa	28%
Kraków	14%
Wrocław	12%
Gdańsk	7%
Poznań	6%
Katowice	4%
Łódź	4%
Lublin	2%
Szczecin	2%
Białystok	2%
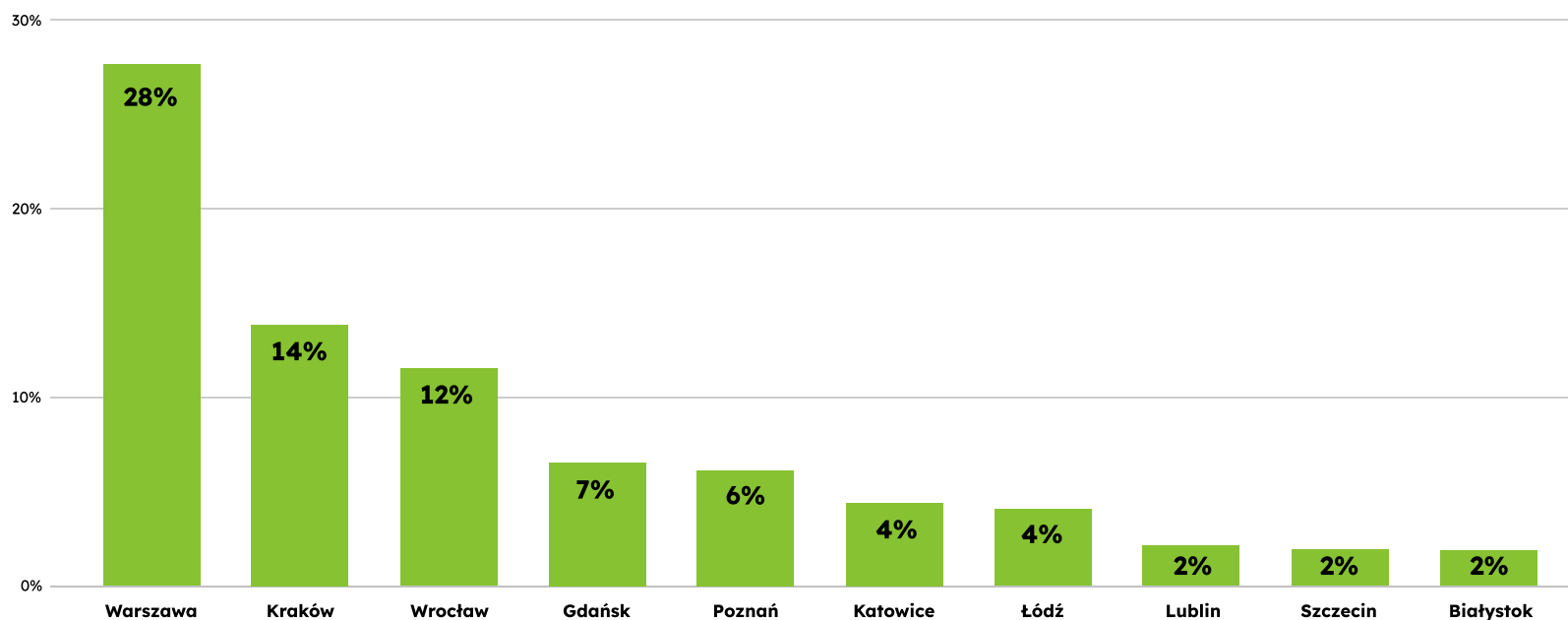
Expert's comment

"Locations that have been consistently popular with companies from the IT sector, served as part of the investment portfolio of the Polish Investment and Trade Agency, have been the 3 most mature markets in Poland for years, i.e. Warszawa, Kraków and Wrocław. The availability of talent, excellent infrastructure, transport connections and university facilities, are the key factors indicating the advantages of given locations. In the case of projects in the area of IT services, the availability of investment incentives seems to be a factor rarely considered as a critical one for making a positive investment decision. Investors eagerly reach for solutions in the area of tax incentives, available regardless of location, such as relief for R&D or IP box."

Radek Pituch
Expert at the Polish Investment and Trade Agency

Polish Investment
& Trade Agency
PFR Group

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1.1. **The most popular voivodeships and cities**

Permanent place of residence of the respondents

Source: Own elaboration based on data from an online survey conducted between September and November 2022

- 3%
- 97%
- Poland
- Foreign countries
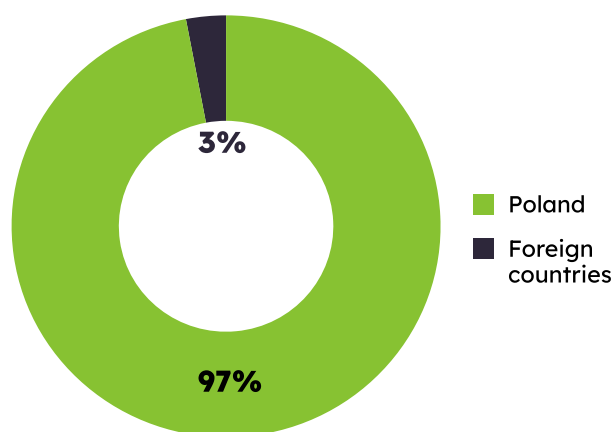
Location of respondents (voivodships)

Source: Own elaboration based on data from an online survey conducted between September and November 2022

- mazowieckie 28%
- małopolskie 15%
- dolnośląskie 11%
- śląskie 9%
- pomorskie 9%
- wielkopolskie 7%
- łódzkie 4%
- kujawsko-pomorskie 3%
- lubelskie 3%
- zachodniopomorskie 3%
- podkarpackie 2%
- warmińsko-mazurskie 2%
- podlaskie 1%
- lubuskie 1%
- świętokrzyskie 1%
- opolskie 1%
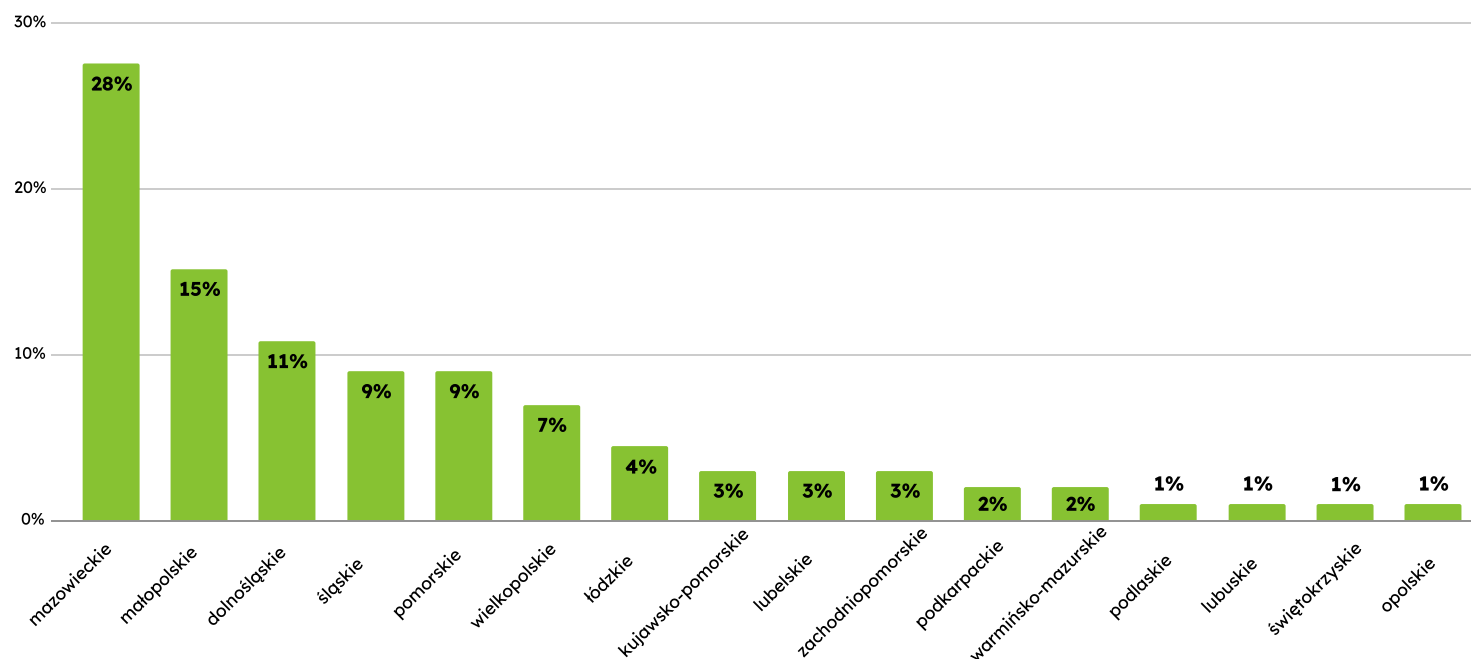
Interesting fact

To the question „What area/industry do you work in?" the respondents most often answered: software house, banking, telecommunications, FinTech and retail.

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1.2. Remote work

Despite resigning from stationary work in many companies, 38% of offers still did not include the possibility of performing professional duties 100% remotely. According to the results of our research, 57% of specialists prefer fully remote work, while 42% chose hybrid work as the optimal model. Only 1% of respondents are in favor of working 100% from the office.

Possibility of 100% remote work in job offers

Source: Own elaboration based on data from itradar.io for 2022

1%
38%
61%

- No possibility of 100% remote work
- Possibility of 100% remote work
- No information about the mode of work
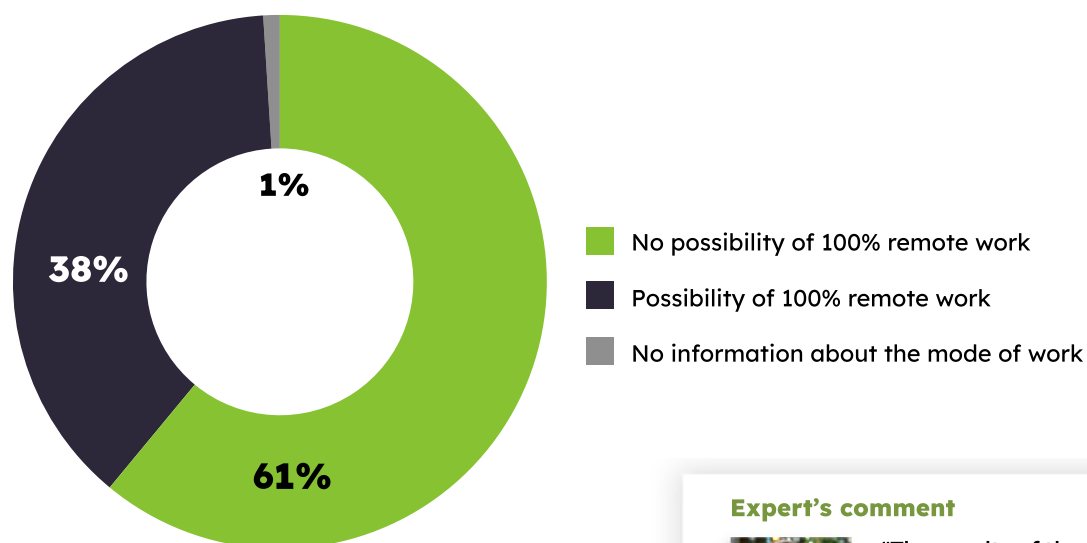
🔍 **Comparison with 2021**

The number of job offers with the possibility of full remote work increased by 17 pp.

Expert's comment
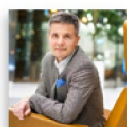
"The results of the study confirm my observations - foreign companies offering salaries in a foreign currency and remote work can compete for a Polish specialist more and more boldly. This is exactly what domestic IT experts expect, which will translate into more and more difficult employment of specialists by domestic companies and a further increase in salaries. The pandemic has opened Pandora's box, or if you prefer, released the genie from the bottle called remote work - there is no turning back from it."

Piotr Mieczkowski
Managing Director, Digital Poland Foundation

digitalpoland

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1.2. Remote work

The current number of remote work days per week

Source: Own elaboration based on data from an online survey conducted between September and November 2022

- 100% remote work
- 4 days
- 3 days
- 2 days
- 1 day
- 100% work from the office

24% hybrid work

70%, 9%, 6%, 6%, 3%, 6%
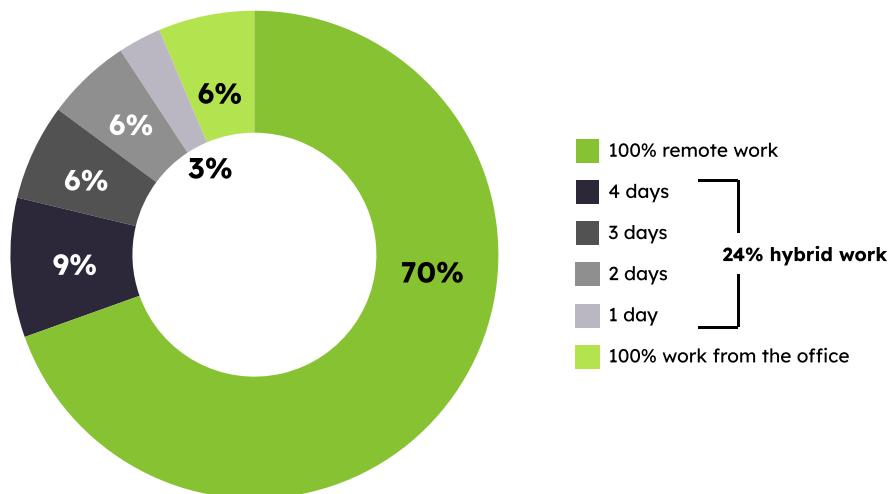
Optimal number of remote work days per week

Source: Own elaboration based on data from an online survey conducted between September and November 2022

- 100% remote work
- 4 days
- 3 days
- 2 days
- 1 day
- 100% work from the office

42% hybrid work

57%, 19%, 15%, 7%, 1%, 1%
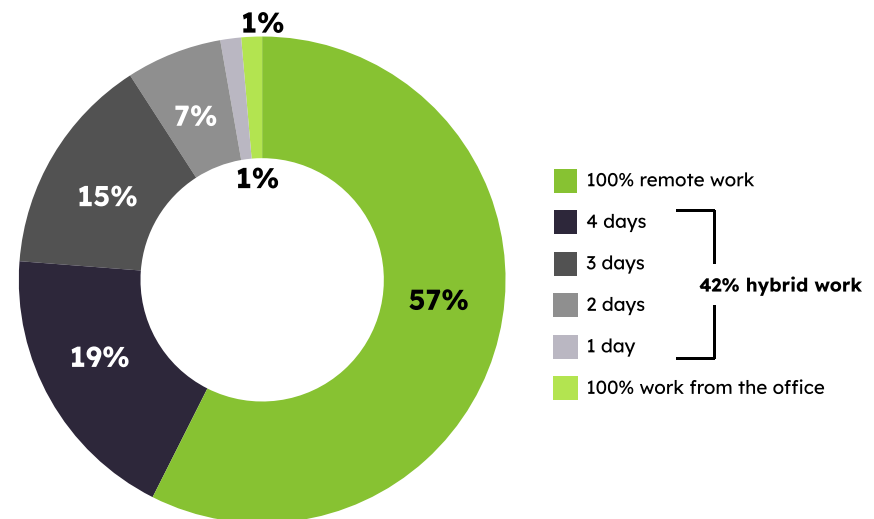
Expert's comment

"The results of the survey show how much IT specialists value remote work. In my opinion, this is due to the need to be independent and work in a flexible environment full of trust in employees.

It may come as a surprise that employees care about the possibility of hybrid work. In my opinion, the key word here is: **POSSIBILITY**. If a company offers flexibility in choosing a place to work - at least at the team level - then it becomes an almost ideal environment and a place where everyone wants to work!"

Piotr Korlaga
Senior DevOps Engineer and Founder of „Zakoduj Pomoc" Foundation

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1.2. **Remote work**

Polish IT specialists mostly work for companies headquartered in Poland (57%), followed by the United States (22%) and Germany (10%).

Do you work for a company that is headquartered in Poland?

Source: Own elaboration based on data from an online survey conducted between September and November 2022

43%

57%

■ Yes

■ No
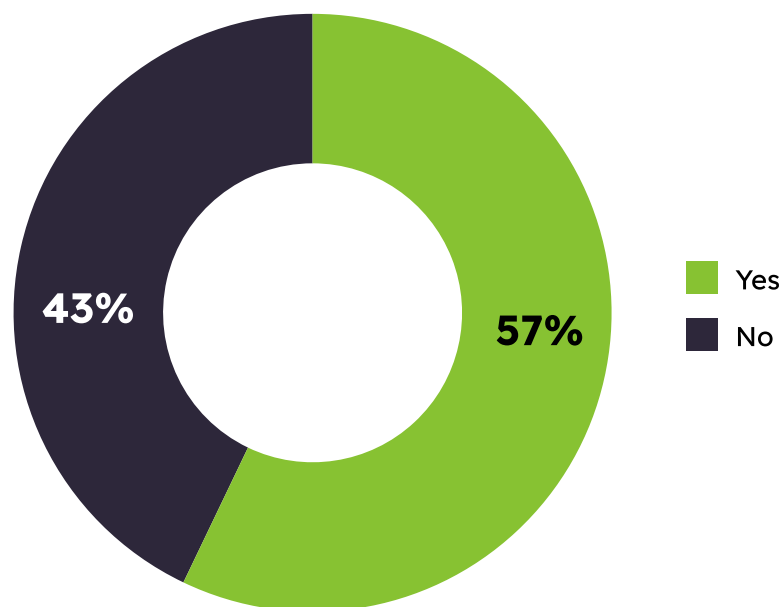
Interesting fact

70% of IT specialists work completely remotely, while less, because 57% of them, consider it the most optimal solution.

1.2. Remote work

Location of the company's headquarters

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Country	Percentage
Poland	57%
USA	22%
Germany	10%
Great Britain	6%
Switzerland	2%
France	2%
Other	1%
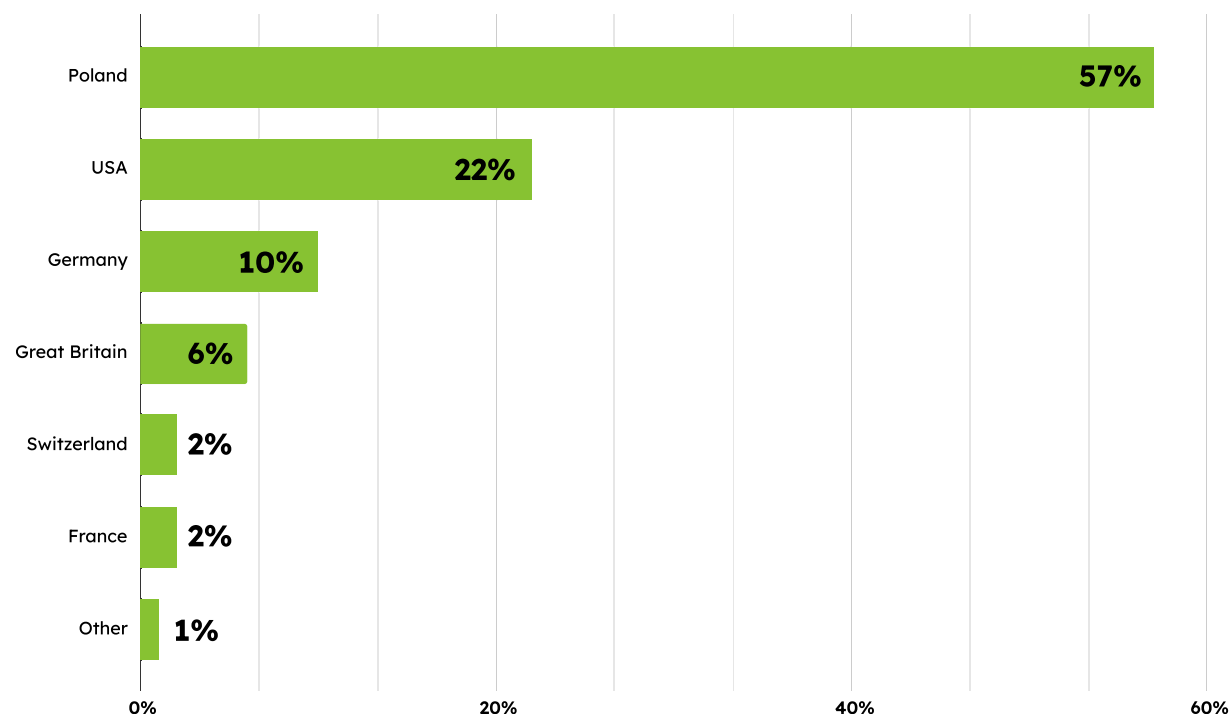
Expert's comment

"From fall 2022, a slowdown in IT employment in the United States is clearly visible. This is mainly due to the difficult macroeconomic situation, as a result of which companies do not open new positions or even reduce employment in significant numbers. Companies that have decided to open a branch in Poland, such as Box, are still employing, what's more, we are observing a trend that other large players from the USA are entering the Polish market."

Aga Rachwalak

HR enthusiast, with particular attention to sourcing. Good cooperation from the soucer, through the recruiter and the EB team, to the manager, is a recipe for success. At Box, she looks for candidates on a daily basis, writes messages, explores new tools and ways of searching and carefully observes the IT market, especially in Poland.

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1.2. Remote work

Share of countries in the total number of foreign job offers published on Polish portals in 2022

Source: Own elaboration based on data from itradar.io for 2022

Germany	Great Britain	USA	Ukraine	Czech Republic	Spain	Netherlands	Sweden	Austria	Romania	Hungary	Switzerland	France	Sloviakia	Bulgaria
17%	13%	9%	7%	5%	4%	3%	3%	3%	3%	2%	2%	2%	2%	2%
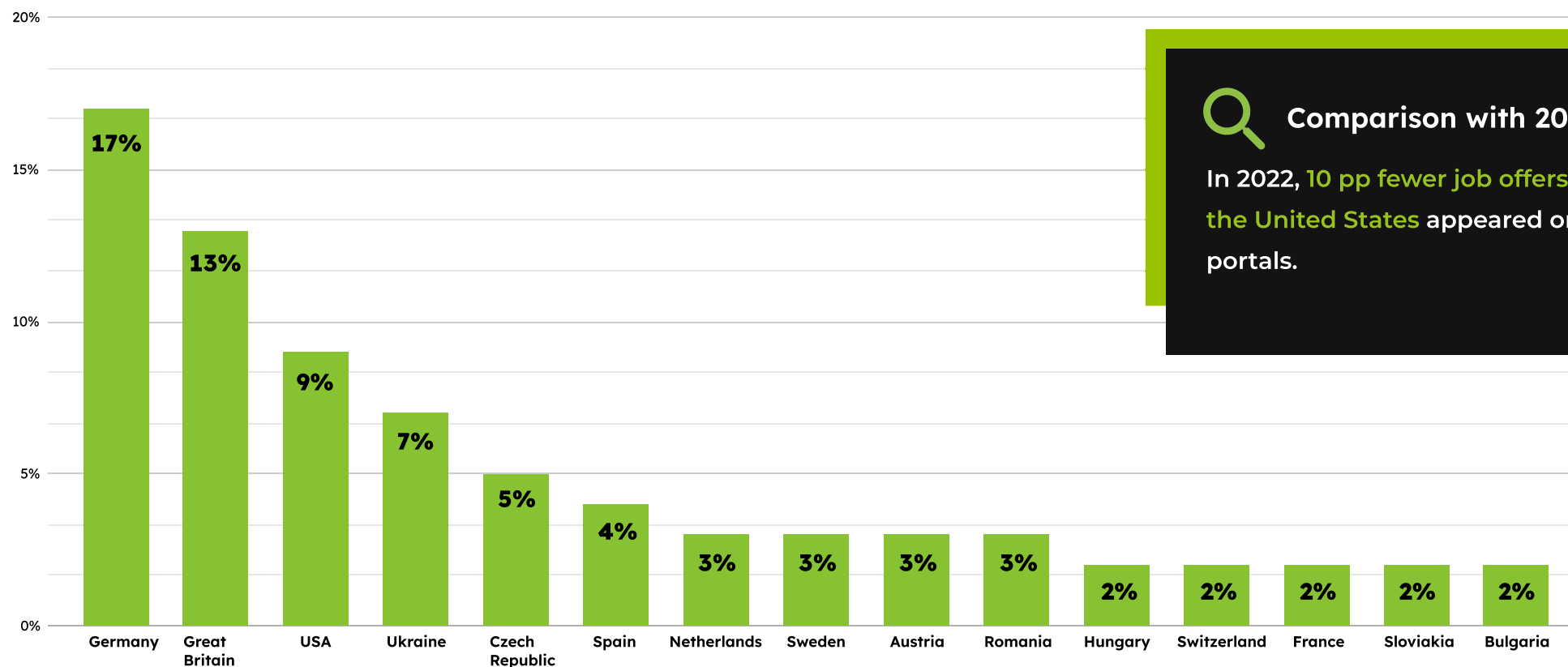
Comparison with 2021

In 2022, 10 pp fewer job offers from the United States appeared on Polish portals.

1.3. Seniority level

In the IT industry, the use of the words „Junior/Mid/Senior" to describe the level of seniority is the subject of many heated discussions, as it can be very subjective. However, in order to systematize the data, we decided to use the division presented below, both in the survey and in the report itself.

Seniority level of the respondents

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Legend:
- Trainee
- Junior
- Mid
- Senior
- Expert
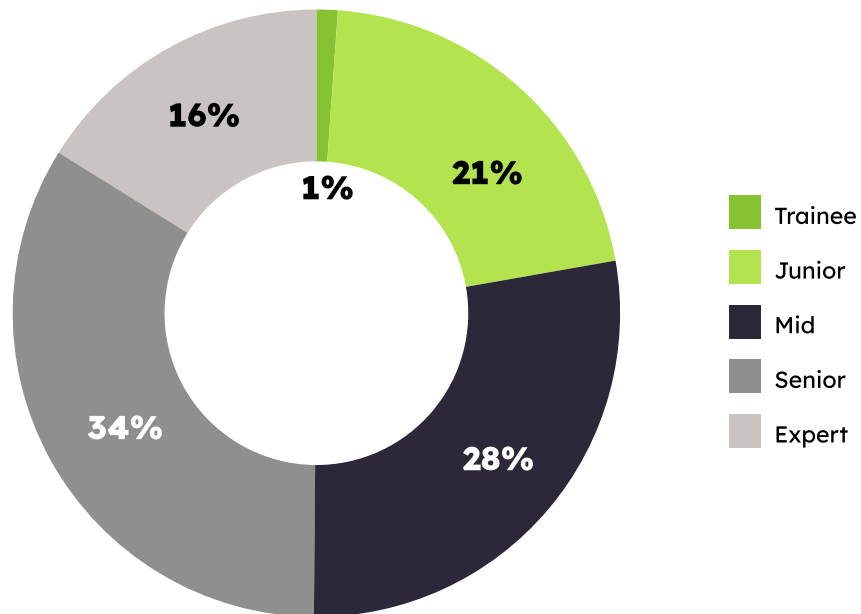
☑ **Trainee - currently on internship**

☑ **Junior - up to 2 years of professional experience**

☑ **Mid - 2 - 4 years of professional experience**

☑ **Senior - 4 - 10 years of professional experience**

☑ **Expert - over 10 years of professional experience**

1.3. Seniority level

Many job offers included two, sometimes even three levels of seniority level; however, in 2022 in Poland, the greatest number of job offers were addressed to people referred to in the industry as Mids (44%). The second most sought-after group were Seniors (42%), and the third were Juniors (10%).

Seniority level in job offers

Source: Own elaboration based on data from itradar.io for 2022

- 3%
- 10%
- 1%
- 42%
- 44%

Legend:
- Trainee
- Junior
- Mid
- Senior
- Expert
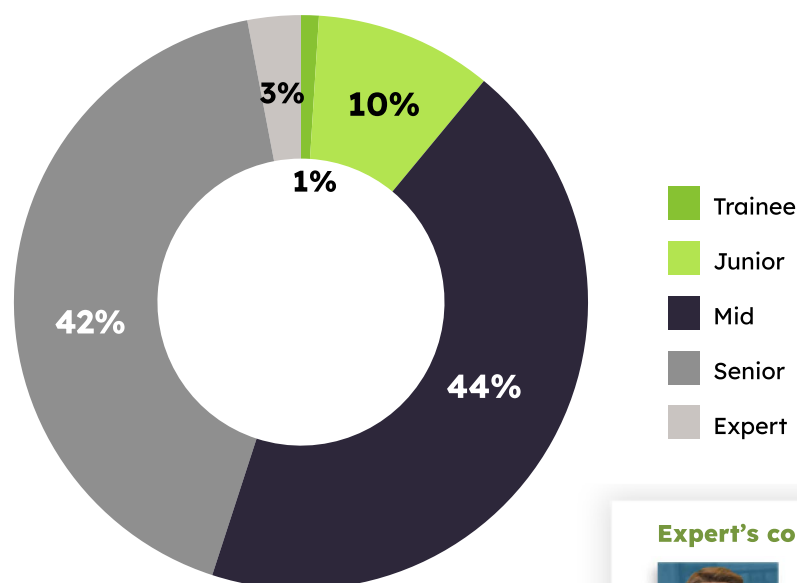
Comparison with 2021

In 2022, we recorded a **decrease in the number of advertisements for Juniors by 4 pp,** which translated into an increase in demand for Seniors.

Expert's comment

"The prevailing belief is that it is better to acquire experienced talent from the market than to train it. In the rapidly changing IT industry, companies are looking for people to solve current problems and requirements that are often difficult to predict in advance. Unfortunately, the tendency of beginners to quickly change employers does not help in this situation. It seemed that the demand generated by the pandemic would reverse this trend. Paradoxically, the rapid acceleration of the globalization of the IT labor market does not help juniors, due to easier access of IT companies to experienced specialists from around the world."

Krzysztof Kempiński
Programmer. Creator of the „Porozmawiajmy o IT" podcast

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1.4. Relationship between seniority level and type of contract

In the IT industry, the type of contract is largely related to the level of professional experience. 65% of Juniors and 54% of Mids indicated that they were employed under a contract of employment. In turn, 60% of Seniors and 57% of Experts, whose earnings are higher, most often cooperate on the basis of a B2B contract.

Seniority level and the type of contract

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Junior

17%
18%
65%

- Contract of employment (CoE)
- B2B
- Civil law contract(contract of mandate/commision contract)

Mid

9%
37%
54%

- Contract of employment (CoE)
- B2B
- Civil law contract(contract of mandate/commision contract)

Senior

1%
39%
60%

- Contract of employment (CoE)
- B2B
- Civil law contract(contract of mandate/commision contract)

Expert

1%
42%
57%

- Contract of employment (CoE)
- B2B
- Civil law contract(contract of mandate/commision contract)

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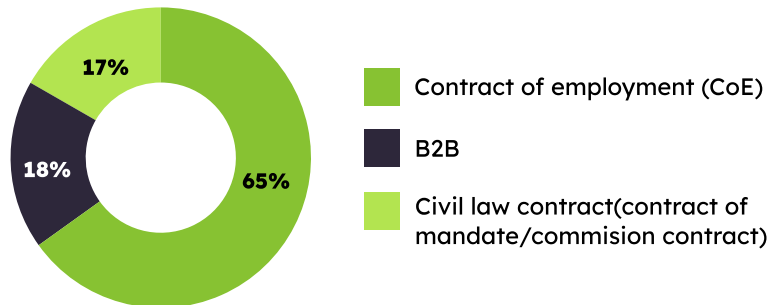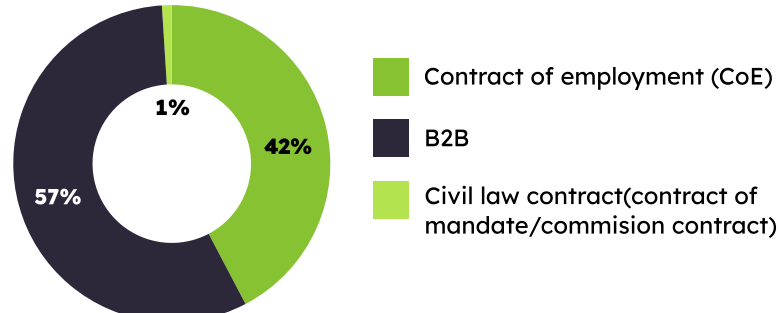
2.1. Job change

Most IT specialists (64%) did not change their employer in 2022. When the change happens, the main reason is "inadequet salary". In second place there is "lack of development opportunities", while 11% of IT professionals changed their last job because of "unsatisfactory project(s)" or... for the change itself.

Frequency of job change in 2022

Source: Own elaboration based on data from an online survey conducted between September and November 2022

3%

1%

32%

64%

- I have not changed
- 1 time
- 2 times
- More than 2 times
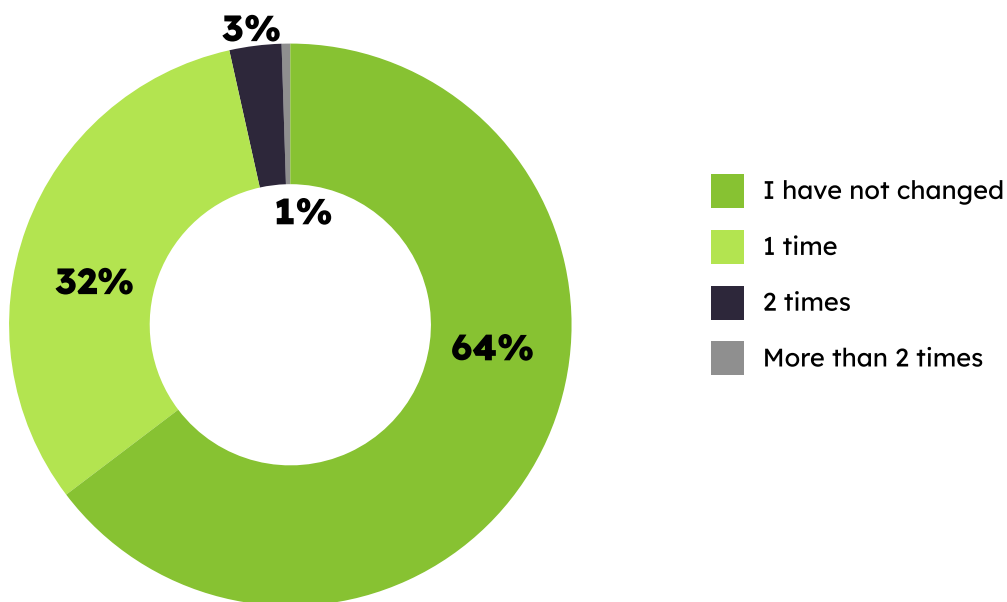
Ciekawostka

Every fifth IT employee changes jobs due to inadequate salary.

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2.1. Job change

Top 5 reasons for the last job change

Source: Own elaboration based on data from an online survey conducted between September and November 2022

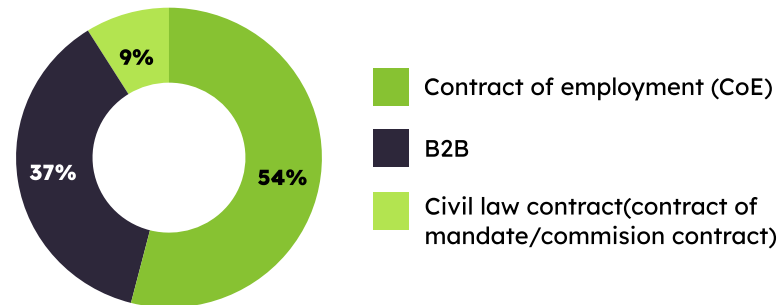|	
Inadequate salary	20%
Lack of development opportunities	16%
Desire to change	11%
Unsatisfactory projects	11%
Supervisor	7%
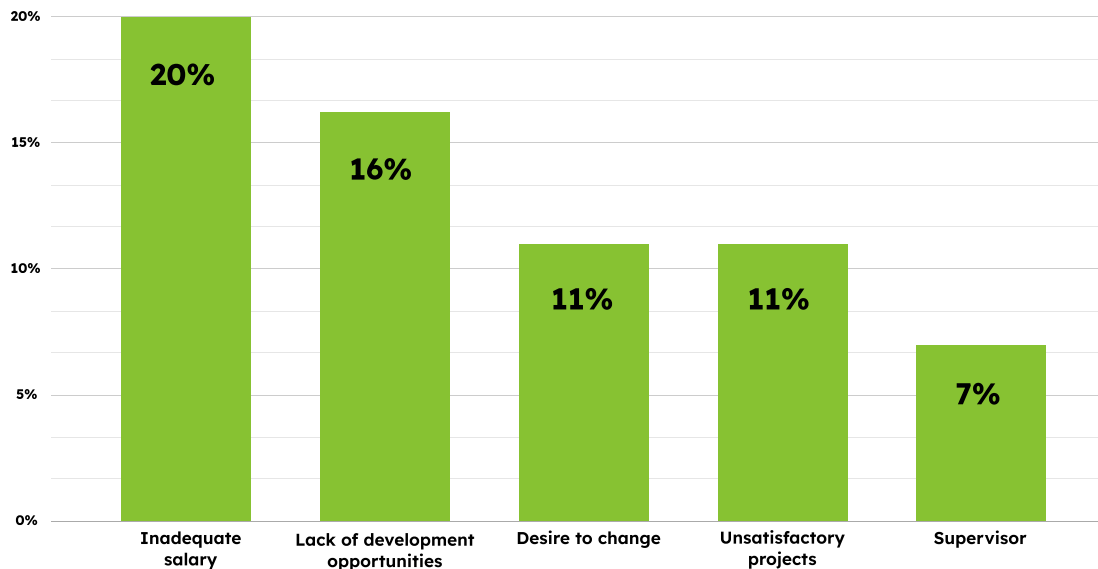
Expert's comment

"Employees, often looking for opportunities to increase their earnings, see changing employers as the only option. A perfect example are the results of the study presented in the report, where inadequate salary received the most votes as the reason for changing jobs. This is mainly due to the fact that many companies still do not have clearly defined rules for getting raises.Therefore, employees seeking to improve their financial conditions open up to new professional opportunities.

Another motivator for changing jobs, ranked slightly lower, is the lack of development opportunities in the current workplace. Both the first and second reasons are closely related. Promotion conditions should go hand in hand with defined employee development paths.

These are two key areas that any company facing high employee turnover should focus on. Not granting promotions to current team members and not taking the time to indicate the path of development is only an apparent „saving", because when hiring new people, it is very likely that they will expect a higher salary, plus recruitment and onboarding costs. That is why it is worth investing a budget for raises for current employees and time to prepare clear development paths, because it will help organizations increase retention in their teams."

Anika Osmólska

People and Culture Manager, Traffit

TRAFFiT

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2.1. Job change

How did IT professionals get their last job? Most of them applied themselves through job boards (34%), 22% used the referral program, and 18% were employed with the help of a recruitment agency employee.

Way of last job change

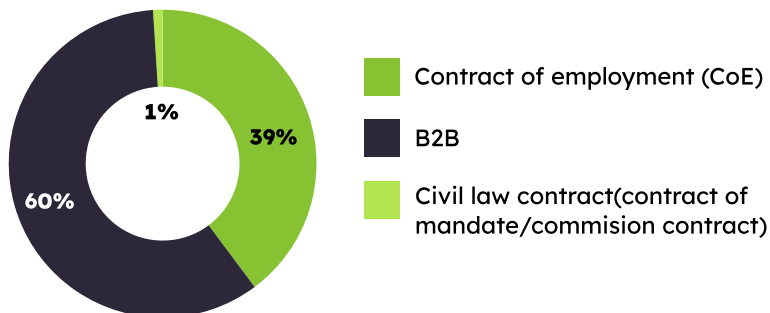Source: Own elaboration based on data from an online survey conducted between September and November 2022
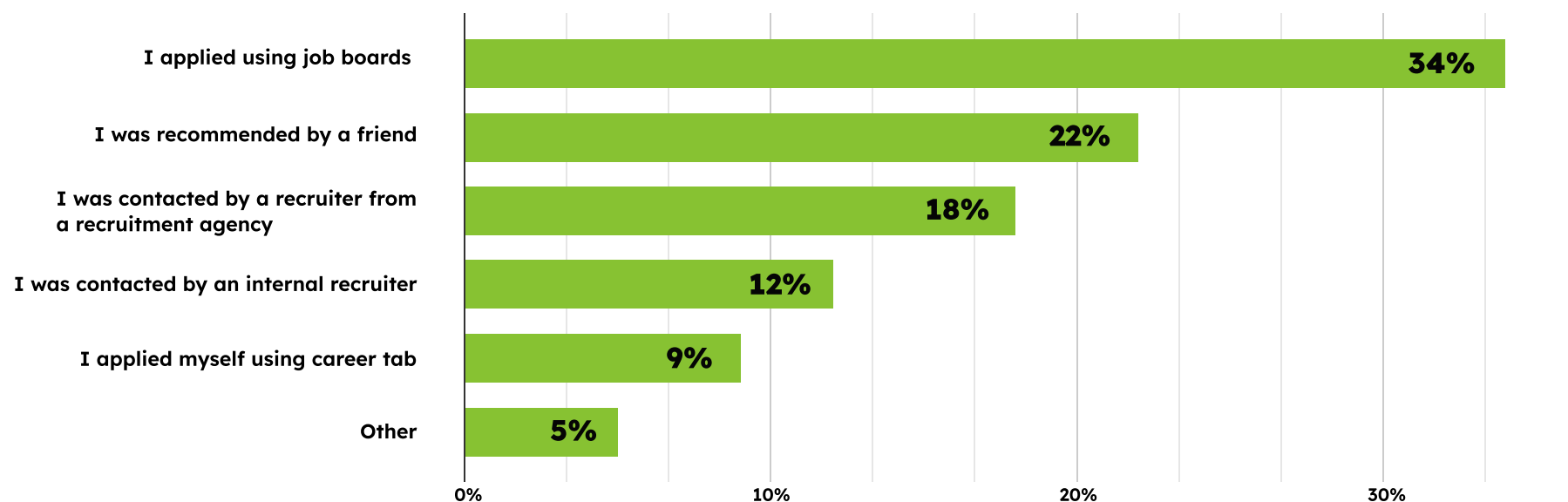
2.1. Job change

### Way of last job change divided by seniority level

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Junior

- 32% — I applied myself using job boards
- 18% — I was recommended by a friend
- 7% — I was contacted by a recruiter from the recruitment agency
- 16% — I was contacted by an internal recruiter
- 26% — I applied myself through the career tab

Mid

- 22% — I applied myself using job boards
- 22% — I was recommended by a friend
- 31% — I was contacted by a recruiter from the recruitment agency
- 39% — I was contacted by an internal recruiter
- 35% — I applied myself through the career tab

Senior

- 28% — I applied myself using job boards
- 33% — I was recommended by a friend
- 47% — I was contacted by a recruiter from the recruitment agency
- 27% — I was contacted by an internal recruiter
- 28% — I applied myself through the career tab

Expert

- 9% — I applied myself using job boards
- 28% — I was recommended by a friend
- 24% — I was contacted by a recruiter from the recruitment agency
- 18% — I was contacted by an internal recruiter
- 11% — I applied myself through the career tab

Legend:
- ■ I applied myself using job boards
- ■ I was recommended by a friend
- ■ I was contacted by a recruiter from the recruitment agency
- ■ I was contacted by an internal recruiter
- ■ I applied myself through the career tab

Interesting fact

Seniors most often change jobs after **contacting a recruiter from an agency** (47%), while Experts change their jobs through **recommendations** (28%).

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25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

2.2.1. Division into experience

In our study, we checked whether the rates in the offers match the actual earnings of IT specialists. Juniors' offered salary is in line with what they receive, regardless of the type of contract. In the same situation are Mids. On the other hand, people working as Seniors on B2B and Experts (both on B2B and CoE) can count on higher earnings than those presented in the advertisements. It is also worth mentioning that IT specialists expect an average wage increase of 25% with the change of job.

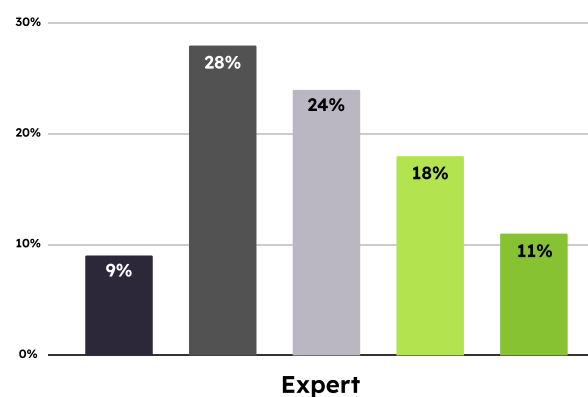### Average salary offered and received depending on seniority level

Source: Own elaboration based on data from an online survey conducted between September and November 2022 and itradar.io for 2022

Seniority level	Average min and max salary ranges in job advertisements*	Type of contract	Average received salary of respondents*	Received salary in relation to the ranges in the job advertisements
Trainee	3,800 zł - 4,800 zł	B2B	ND	ND
		CoE	ND	ND
Junior	6,400 zł - 10,000 zł	B2B	9,483 zł	✅
		CoE	8,806 zł	✅
Mid	12,900 zł - 19,200 zł	B2B	17,091 zł	✅
		CoE	16,342 zł	✅
Senior	18,000 zł - 26,100 zł	B2B	27,768 zł	⬆
		CoE	25,293 zł	✅
Ekspert	20,200 zł - 29,600 zł	B2B	34,849 zł	⬆
		CoE	29,879 zł	⬆

Interesting fact

Compared to 2021, the minimum wage range at each seniority level in job advertisements increased by 24 p.p. on average.

ND - no data

✅ - the received salary is within the specified range

⬆ - the received salary is higher than the maximum range

*B2B: net on the invoice, excluding VAT
CoE: gross

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2.2.1. Division into experience

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

Expert's comment

"The amount of salaries received being higher than that presented in the job advertisements is mainly due to the lack of good, experienced IT specialists. It is very hard to find a good employee in today's labor market. A real software engineer is now precious and knows his worth. He negotiates rates beyond the scope proposed in the offer and often companies are willing to meet the requirements, just to get such a good and experienced programmer."

Mateusz Rus
.NET Developer. Author of the blog mateuszrus.pl and the book „Programistą być"/ "To Be a Programmer"

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2.2.2. Division into experience

Growth dynamics of the received salary

Source: Own elaboration based on data from an online survey conducted between September and November 2022

B2B

+80% Junior → Mid
+62% Mid → Senior
+26% Senior → Expert

*B2B: net on the invoice, excluding VAT
CoE: gross

CoE

+86% Junior → Mid
+55% Mid → Senior
+18% Senior → Expert
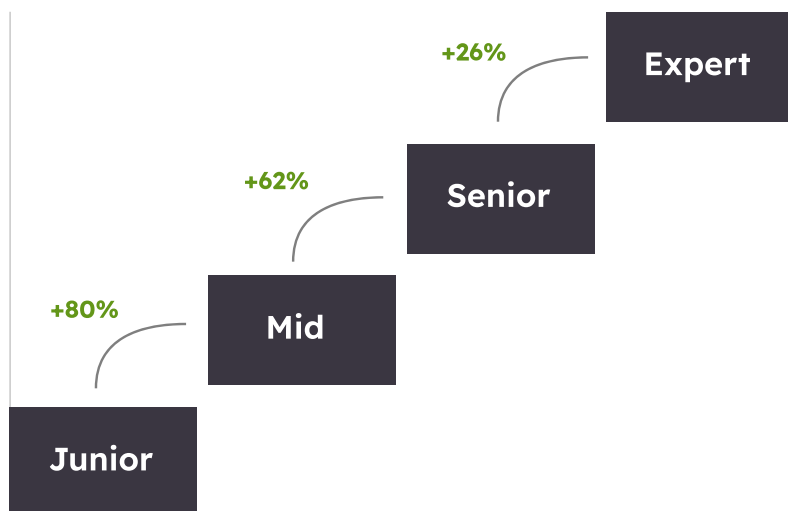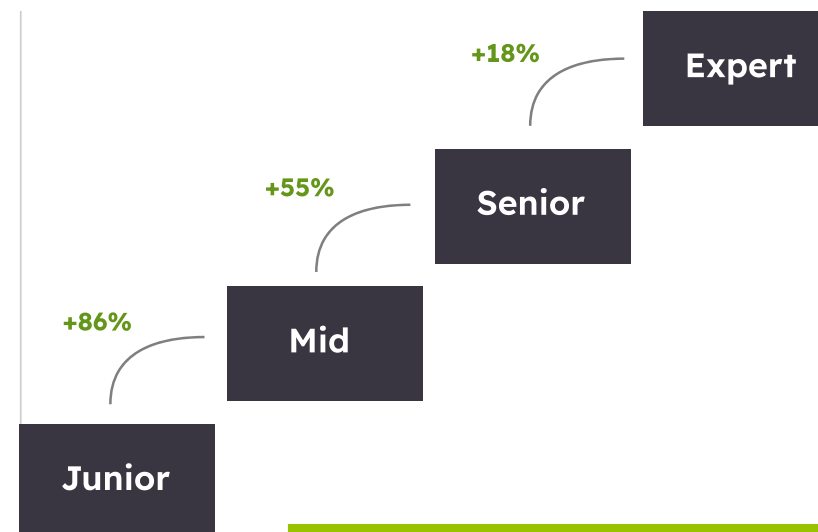
🔍 **Comparison with 2021**

Compared to 2021, the minimum salary range in job advertisements increased by 24 pp on average.

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2.2.2. Division into the type of contract (B2B vs employment contract)

When analyzing the salaries appearing in the advertisements in terms of the type of contract offered, we can see that the highest salary ranges appeared in the advertisements where cooperation was on the basis of a B2B contract. In the case of salary based on an employment contract and a civil law contract, gross amounts are presented.

Average salaries offered depending on the type of contract

Source: Own elaboration based on data from itradar.io for 2022

■ Average (min)   ■ Average (max)

Contract type	Average (min)	Average (max)
B2B	15 500 zł	21 600 zł
Contract of employment (CoE)	12 300 zł	17 600 zł
Contract of mandate	8 100 zł	12 700 zł
Comission contract	7 600 zł	11 200 zł

0 zł   5 000 zł   10 000 zł   15 000 zł   20 000 zł

NEXT TECHNOLOGY
PROFESSIONALS
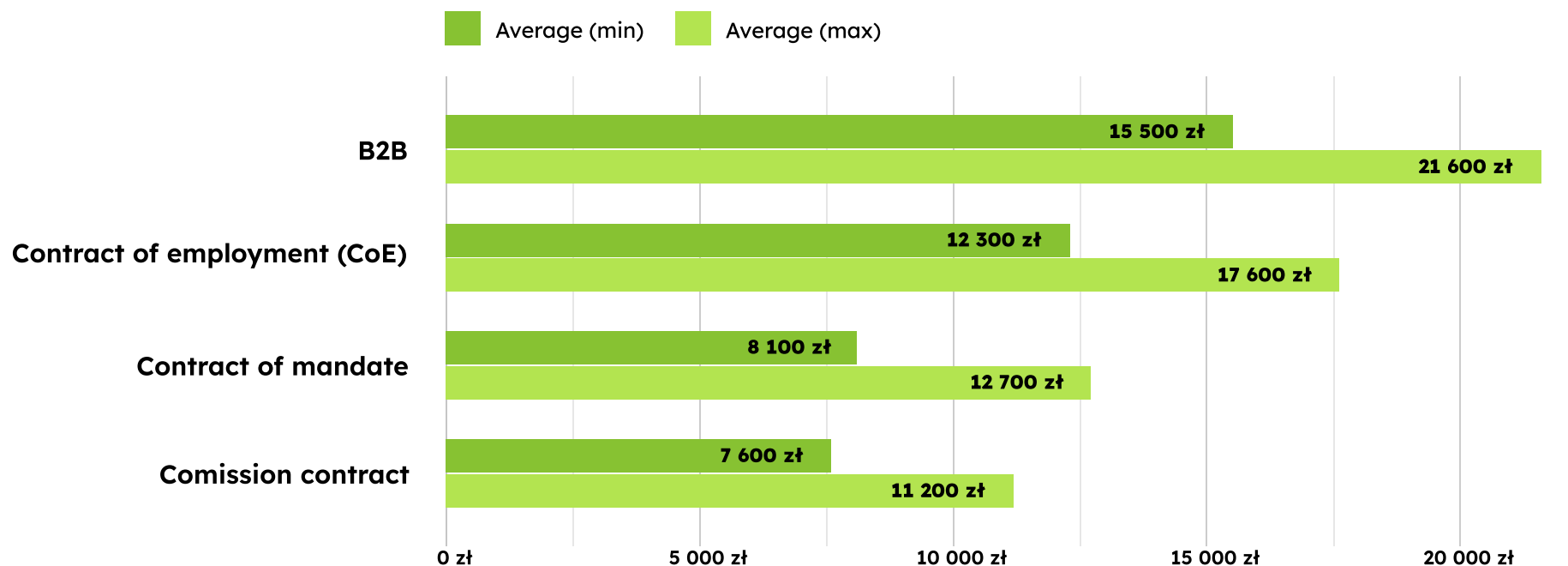
2.2.2. Division into the type of contract (B2B vs employment contract)

Every second respondent working on a B2B contract indicated that the employer offers paid days without the need to provide services ("paid leave").

Having paid days without the need to provide services ("paid leave") on a B2B contract

Source: Own elaboration based on data from an online survey conducted between September and November 2022

46%

54%

■ Yes
■ No
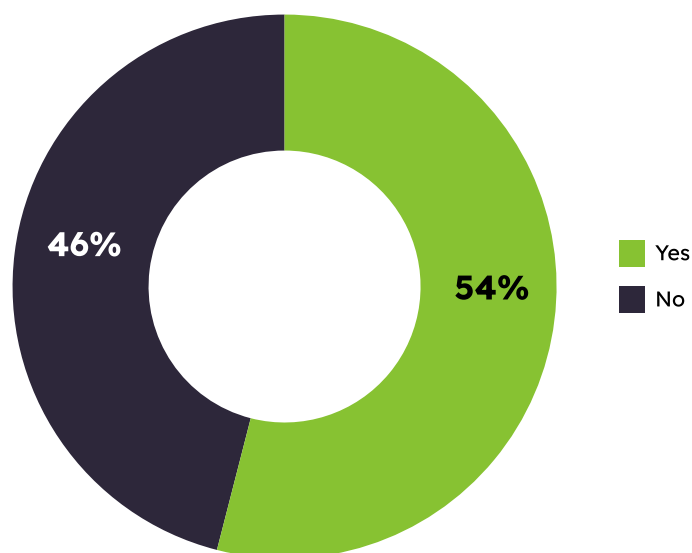
🔍 **Comparison with 2021**

Compared to 2021, 4 pp more IT specialists can count on paid leave when being employed on B2B.

NEXT TECHNOLOGY
PROFESSIONALS

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

2.2.3. Division into technologies

According to the data collected from job advertisements, people who work with: Kubernetes, Amazon Web Services and Big Data, could count on receiving the highest earnings.

Average salaries offered depending on the skills

Source: Own elaboration based on data from itradar.io for 2022

Chart 1

Legend: ■ Average (min) ■ Average (max)

Technology	Average (min)	Average (max)
Java	16,100 zł	23,600 zł
JavaScript	14,500 zł	21,400 zł
TypeScript	15,972 zł	23,870 zł
PHP	12,214 zł	18,265 zł

Chart 2

Legend: ■ Average (min) ■ Average (max)

Technology	Average (min)	Average (max)
Python	16,423 zł	24,233 zł
C#	14,399 zł	21,349 zł
.NET	14,538 zł	21,486 zł
Node.js	15,937 zł	24,447 zł

NEXT TECHNOLOGY
PROFESSIONALS

2.2.3. Division into technologies

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

Average salaries offered depending on the skills

Source: Own elaboration based on data from itradar.io for 2022

■ Average (min)   ■ Average (max)

Next.js
- Average (min): 16,307 zł
- Average (max): 23,419 zł

SQL
- Average (min): 14,484 zł
- Average (max): 22,086 zł

C++
- Average (min): 14,783 zł
- Average (max): 22,635 zł

Bash
- Average (min): 13,937 zł
- Average (max): 21,199 zł

■ Average (min)   ■ Average (max)

React
- Average (min): 15,802 zł
- Average (max): 22,944 zł

Angular
- Average (min): 15,351 zł
- Average (max): 23,523 zł

Vue
- Average (min): 14,778 zł
- Average (max): 22,094 zł

Spring
- Average (min): 15,012 zł
- Average (max): 22,681 zł

29

NEXT TECHNOLOGY
PROFESSIONALS

2.2.3. Division into technologies

Average salaries offered depending on the skills

Source: Own elaboration based on data from itradar.io for 2022

Average (min) **Average (max)**

	Average (min)	Average (max)
AWS	18,574 zł	27,590 zł
Azure	17,520 zł	25,726 zł
GCP	17,194 zł	25,728 zł

Average (min) **Average (max)**

	Average (min)	Average (max)
MongoDB	18,101 zł	26,150 zł
PostgreSQL	16,938 zł	24,985 zł
MS SQL	14,165 zł	21,221 zł
MySQL	13,313 zł	19,599 zł
Oracle	13,606 zł	21,615 zł

NEXT TECHNOLOGY
PROFESSIONALS

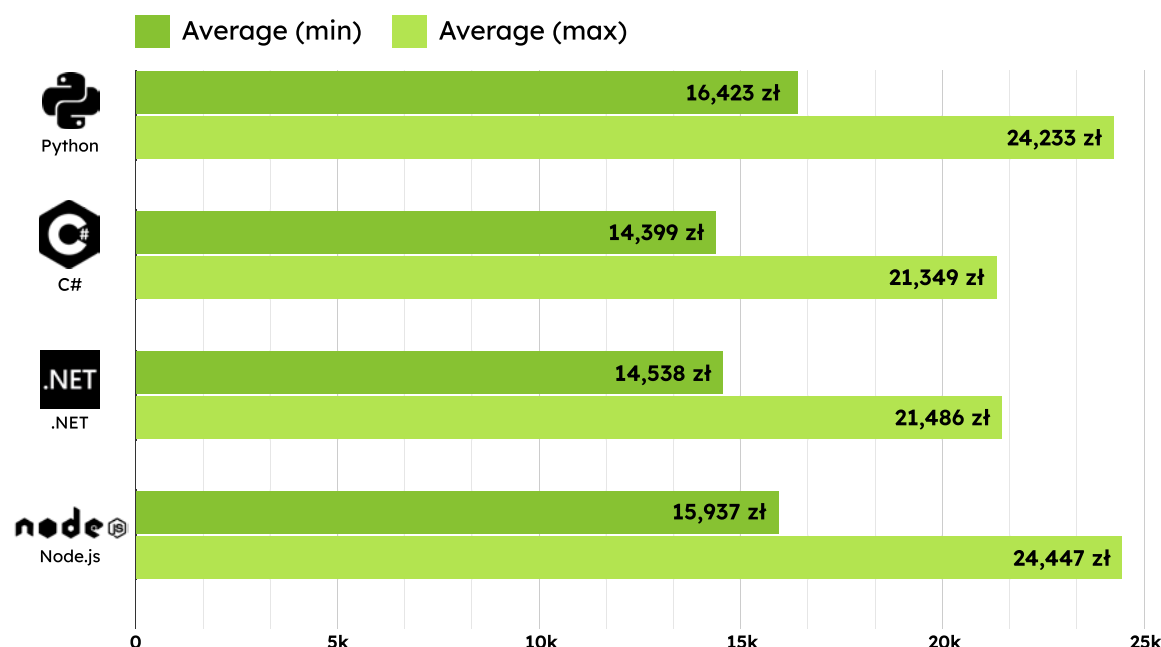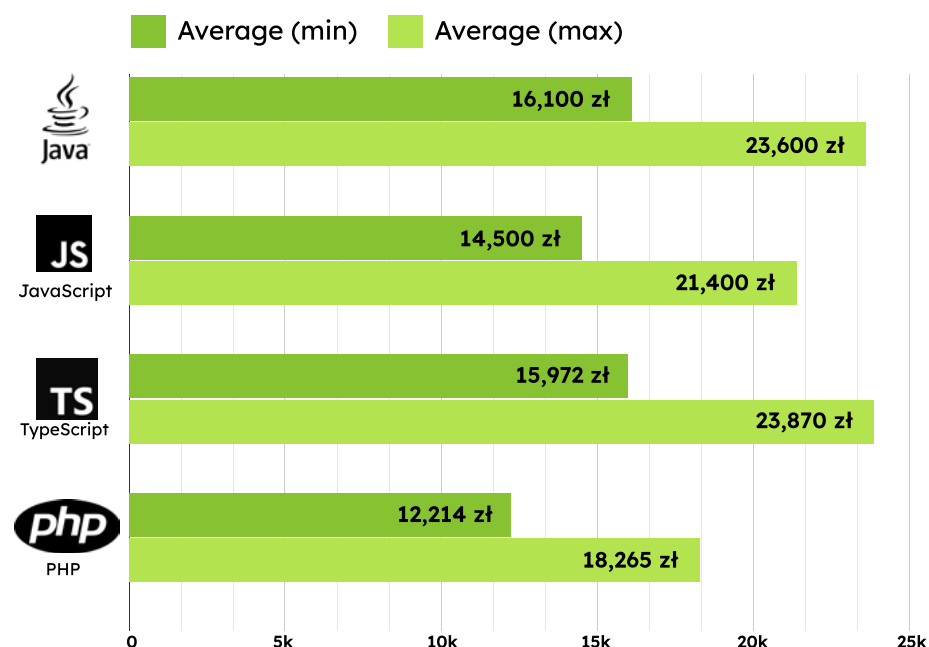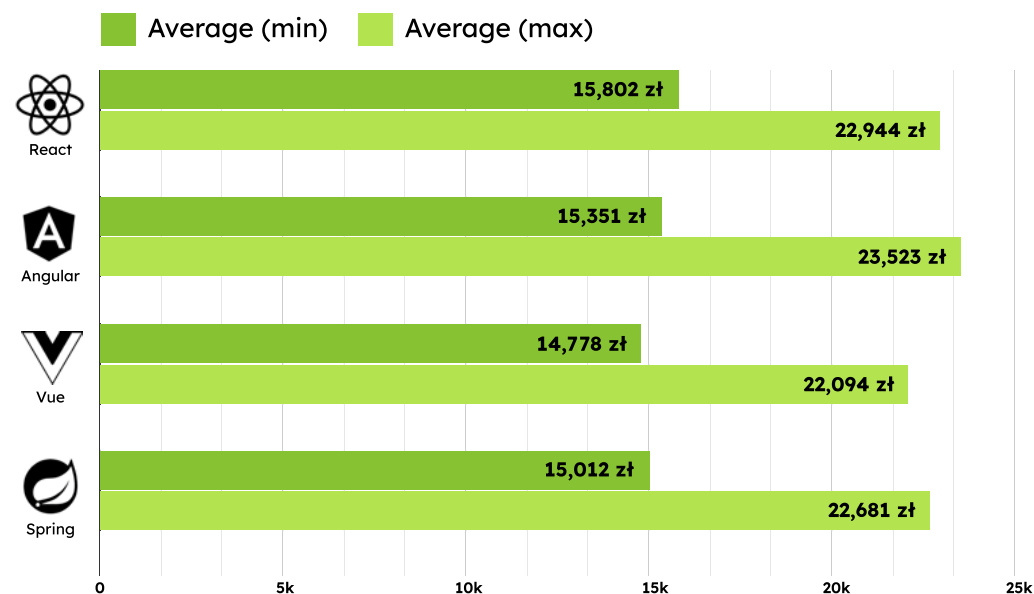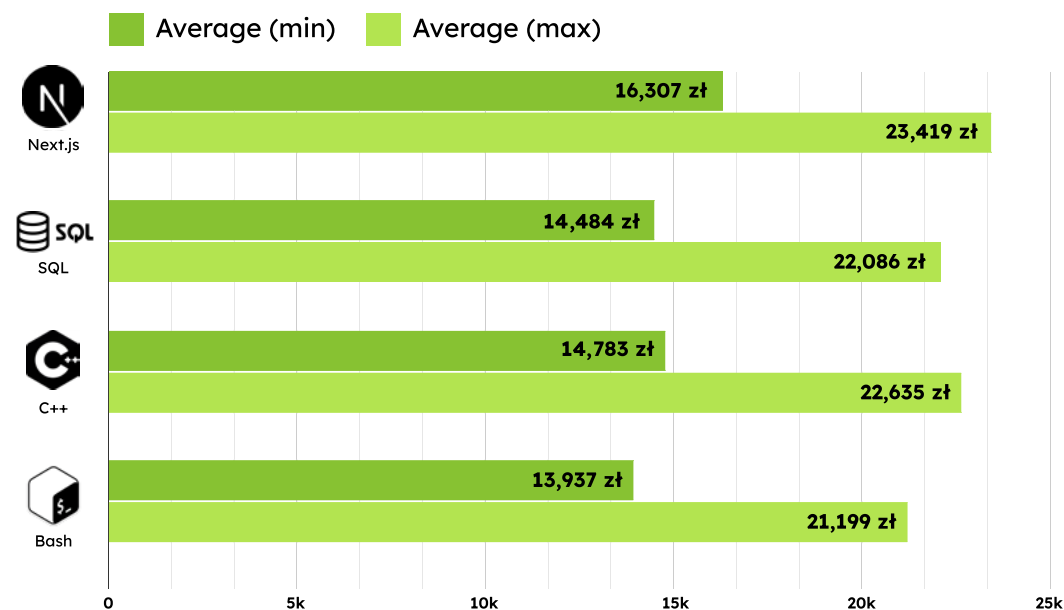**25%** – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

2.2.3. **Division into technologies**

Average salaries offered depending on the skills

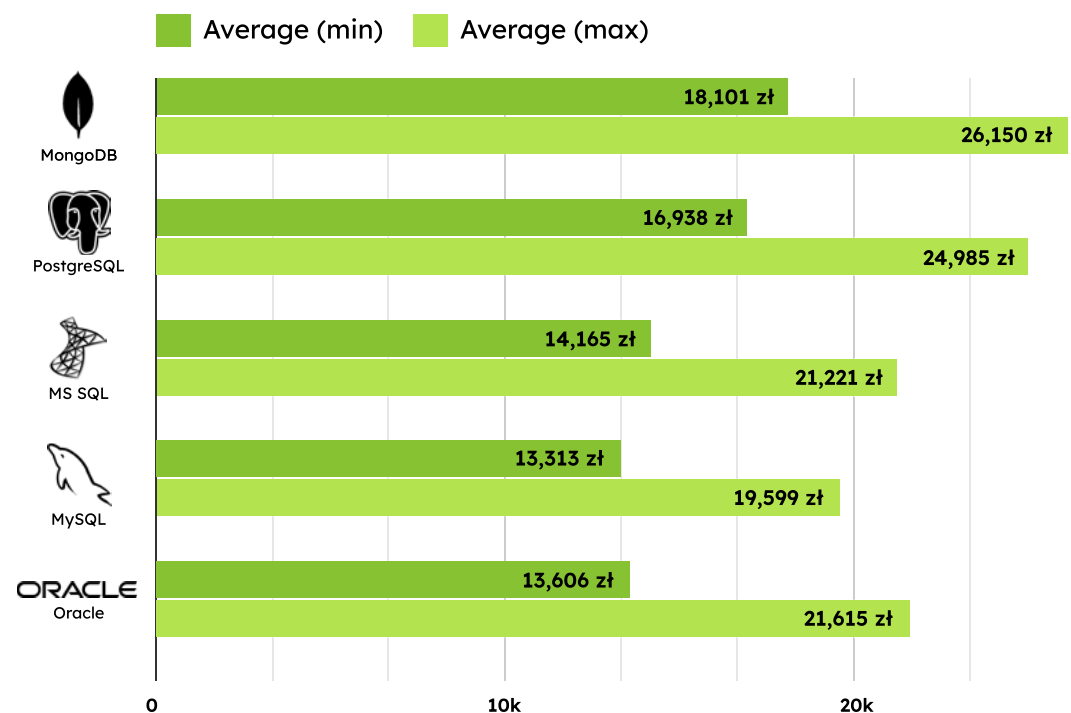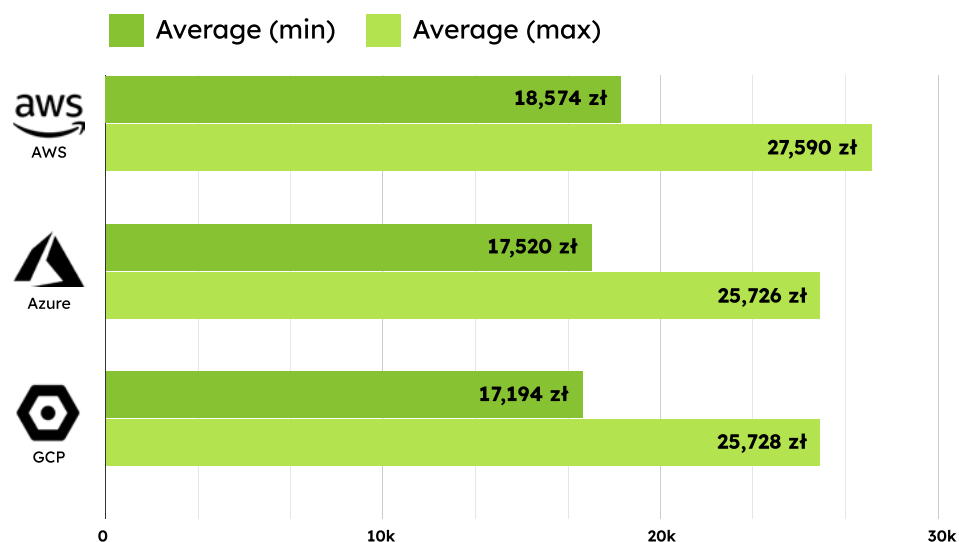Source: Own elaboration based on data from itradar.io for 2022

Left chart

Legend: ■ Average (min) ■ Average (max)

Technology	Average (min)	Average (max)
Docker	16,243 zł	24,325 zł
Kubernetes	19,433 zł	27,212 zł
CI/CD	17,223 zł	24,750 zł
Ansible	16,672 zł	25,273 zł
Windows	11,738 zł	17,657 zł

Right chart

Legend: ■ Average (min) ■ Average (max)

Technology	Average (min)	Average (max)
Linux	14,308 zł	21,636 zł
Microservices	18,241 zł	26,443 zł
Big Data	18,896 zł	26,681 zł
Machine Learning (ML)	17,745 zł	26,371 zł
SAP	14,644 zł	20,692 zł

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2.2.3. Division into technologies

What technologies did employers most often look for in potential employees? The top three included: JavaScript, Python and Java.

Number of offers divided by technology

Source: Own elaboration based on data from itradar.io for 2022

Technology	Percentage
JavaScript	19%
Python	17%
Java	17%
SQL	16%
Docker	15%
Linux	14%
AWS	12%
Azure	11%
React	10%
Kubernetes	9%
TypeScript	8%
HTML	8%
CSS	8%
Angular	7%
Windows	7%

Chapter: 2. Salaries of Polish IT specialists**
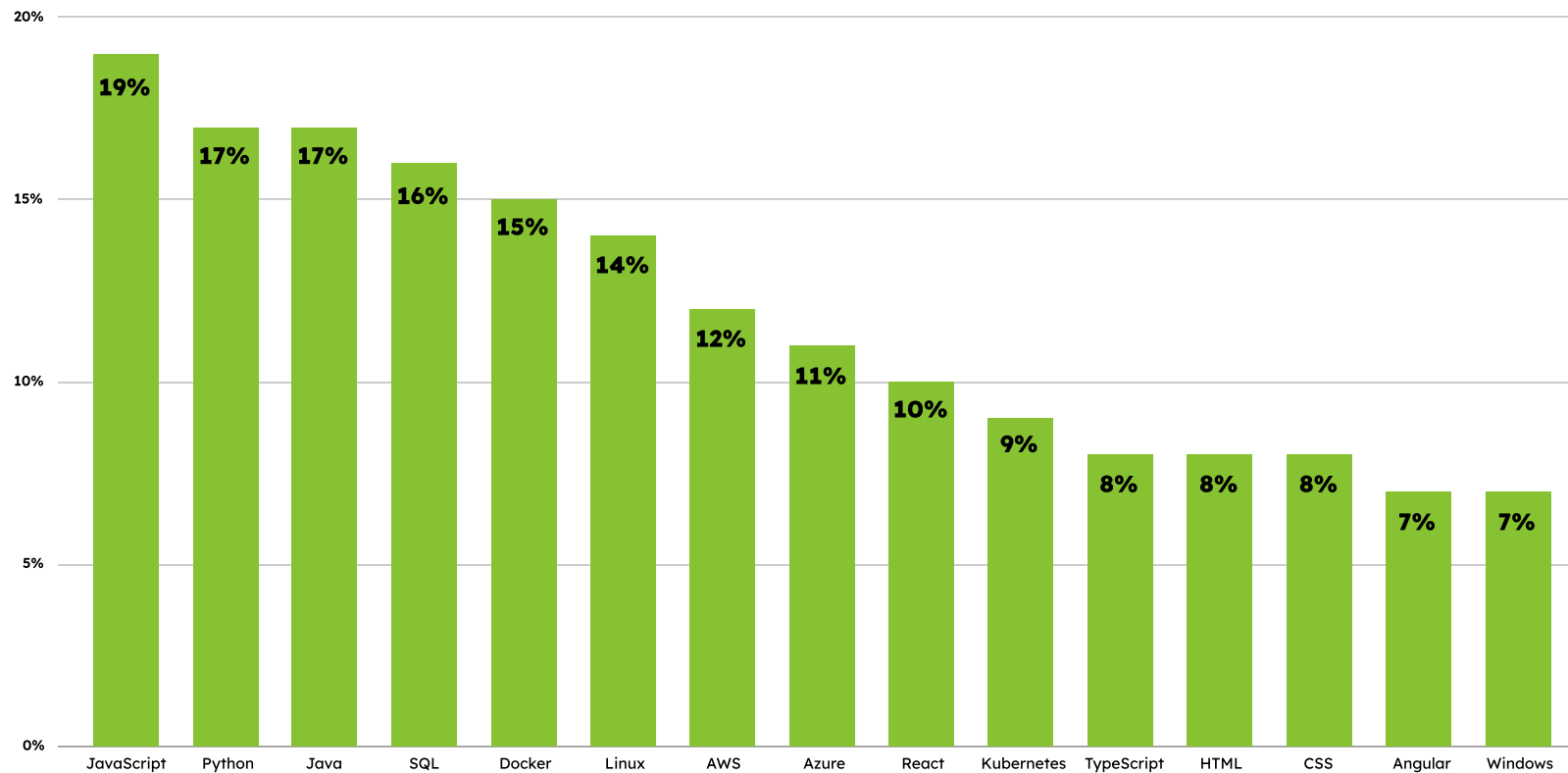
2.2.3. Division into technologies

It turns out that the demand for selected technologies largely matches with those in which the **respondents** specialize. Among the top 5 technologies they use most often are JavaScript, Java, TypeScript, Python and C#.

Areas in which the respondents specialize

Source: Own elaboration based on data from an online survey conducted between September and November 2022
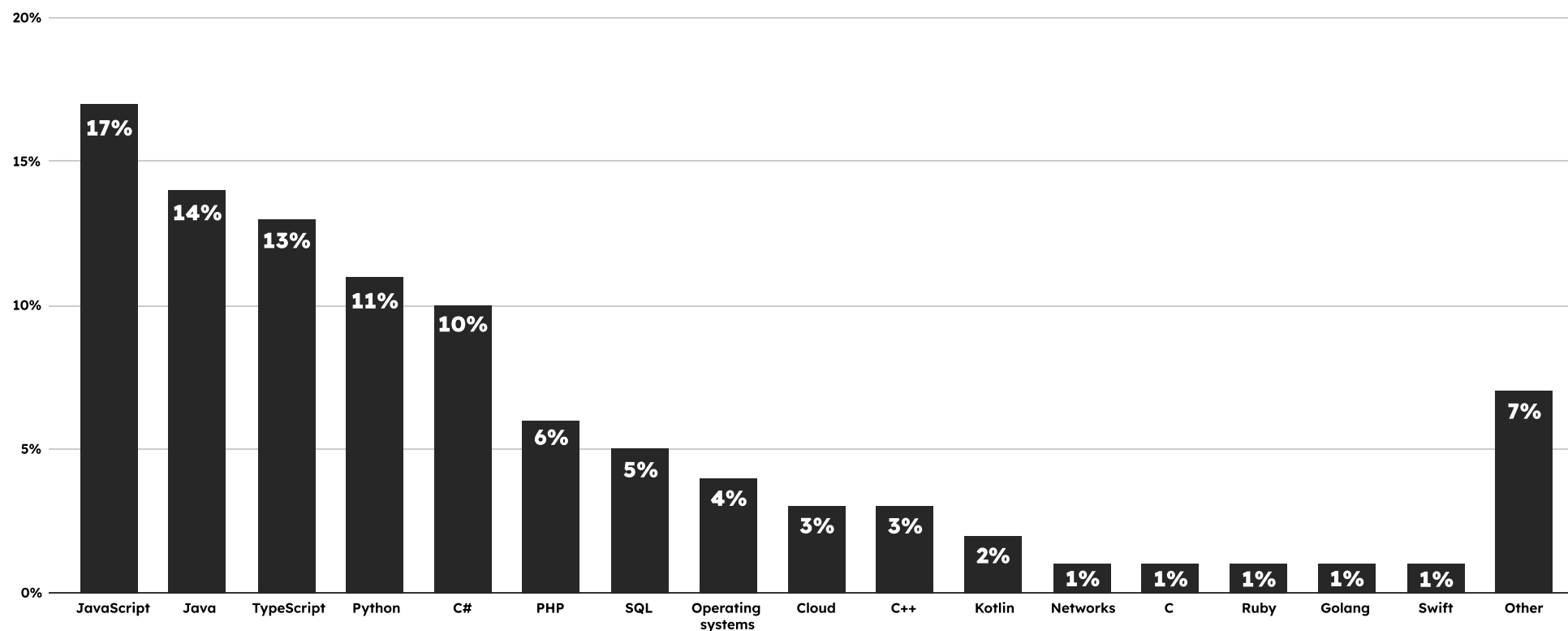
2.2.3. Division into technologies

Expert's comment

"The crises of recent years that have affected us, made it clear that there is no turning back from the hybrid work model. Wherever possible, work is hybrid and will remain so - interestingly, more and more professions that are perceived as traditional can use such form, e.g. using augmented reality.

Digital competencies, at an ever-higher level, are now an element of every profession and, regardless of the turmoil on the markets, the need for talents and strong competencies does not weaken.

Areas such as cloud computing, cybersecurity, data analysis or software development are constantly in need of talented employees.

The number of people who either retrain or broaden their skills in other fields with digital competencies is also growing, which is clearly visible both in studies of all kinds and in courses that enable it. This is a natural trend and as business leaders, we should adapt to this change. What's more, one of the elements of a responsible approach to business by bigtechs is to support these changes on the labor market.

In addition, solutions based on artificial intelligence, increasingly appearing on the broad market, will force the acceleration of transformation and, by supporting our activities, will allow us to be more and more effective.

For even more analysis and insights, check out our remote work report: **Work Trend Index: Microsoft's latest research on the ways we work.** "

Michał Furmankiewicz
Country Engineering Lead for Azure, Microsoft

NEXT TECHNOLOGY PROFESSIONALS

2.2.3. Division into technologies: Java

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

Technology and the average offered and received salary

Source: Own elaboration based on data from itradar.io for 2022

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Technology	Seniority level	Average offered salary
Java	Junior	6,500 zł - 10,300 zł
	Mid	13,800 zł - 20,700 zł
	Senior	19,700 zł - 27,900 zł
	Expert	20,100 zł - 30,200 zł

Technology	Seniority level	Type of contract	Average received salary*
Java	Junior	B2B	8,369 zł
		CoE	7,547 zł
	Mid	B2B	18,107 zł
		CoE	17,016 zł
	Senior	B2B	29,289 zł
		CoE	25,320 zł
	Expert	B2B	33,143 zł
		CoE	28,937 zł

*B2B: net on the invoice, excluding VAT

CoE: gross

NEXT TECHNOLOGY
PROFESSIONALS

2.2.3. **Division into technologies: .NET**

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

Technology and the average offered and received salary

Source: Own elaboration based on data from itradar.io for 2022

Technology	Seniority level	Average offered salary
.NET	Junior	6,300 zł - 9,700 zł
	Mid	13,900 zł - 20,600 zł
	Senior	17,900 zł - 26,200 zł
	Expert	20,900 zł - 29,700 zł

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Technology	Seniority level	Type of contract	Average received salary*
.NET	Junior	B2B	7,511 zł
		CoE	7,882 zł
	Mid	B2B	16,537 zł
		CoE	14,247 zł
	Senior	B2B	25,963 zł
		CoE	23,520 zł
	Expert	B2B	29,852 zł
		CoE	27,396 zł

*B2B: net on the invoice, excluding VAT
CoE: gross

Get to know the best ways to hire .NET Developers

Check our guide from 09.2022

2.2.3. Division into technologies: Ruby

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

Technology and the average offered and received salary

Source: Own elaboration based on data from itradar.io for 2022

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Technology	Seniority level	Average offered salary
Ruby	Junior	6,300 zł - 10,100 zł
	Mid	13,200 zł - 20,800 zł
	Senior	19,500 zł - 29,500 zł
	Expert	20,900 zł - 30,400 zł

Technology	Seniority level	Type of contract	Average received salary*
Ruby	Junior	B2B	8,323 zł
		CoE	7,050 zł
	Mid	B2B	18,308 zł
		CoE	17,120 zł
	Senior	B2B	27,100 zł
		CoE	24,345 zł
	Expert	B2B	31,148 zł
		CoE	27,203 zł

*B2B: net on the invoice, excluding VAT

CoE: gross

NEXT TECHNOLOGY
PROFESSIONALS

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

2.2.3. Division into technologies: C++

Technology and the average offered and received salary

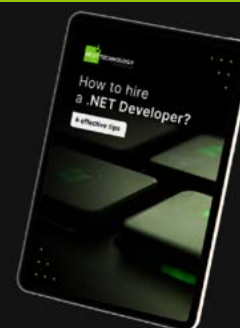Source: Own elaboration based on data from itradar.io for 2022

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Technology	Seniority level	Average offered salary
	Junior	5,800 zł - 8,700 zł
	Mid	13,200 zł - 20,400 zł
	Senior	18,400 zł - 28,300 zł
	Expert	21,400 zł - 31,800 zł

Technology	Seniority level	Type of contract	Average received salary*
	Junior	B2B	7,110 zł
		CoE	6,507 zł
	Mid	B2B	16,205 zł
		CoE	15,101 zł
	Senior	B2B	19,906 zł
		CoE	17,803 zł
	Expert	B2B	26,382 zł
		CoE	22,520 zł

*B2B: net on the invoice, excluding VAT

CoE: gross

NEXT **TECHNOLOGY**
PROFESSIONALS

2.2.3. **Division into technologies: PHP**

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

Technology and the average offered and received salary

Source: Own elaboration based on data from itradar.io for 2022

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Technology	Seniority level	Average offered salary
PHP	Junior	5,400 zł - 8,700 zł
	Mid	10,300 zł - 16,300 zł
	Senior	16,100 zł - 23,200 zł
	Expert	17,000 zł - 24,700 zł

Technology	Seniority level	Type of contract	Average received salary*
PHP	Junior	B2B	7,821 zł
		CoE	6,583 zł
	Mid	B2B	16,704 zł
		CoE	15,989 zł
	Senior	B2B	21,417 zł
		CoE	18,197 zł
	Expert	B2B	26,873 zł
		CoE	21,384 zł

*B2B: net on the invoice, excluding VAT

CoE: gross

NEXT TECHNOLOGY
PROFESSIONALS

2.2.3. Division into technologies: **Python**

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

Technology and the average offered and received salary

Source: Own elaboration based on data from itradar.io for 2022

Technology	Seniority level	Average offered salary
Python	Junior	7,100 zł - 11,100 zł
	Mid	12,500 zł - 19,400 zł
	Senior	19,200 zł - 28,100 zł
	Expert	20,900 zł - 31,100 zł

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Technology	Seniority level	Type of contract	Average received salary*
Python	Junior	B2B	8,465 zł
		CoE	7,281 zł
	Mid	B2B	17,593 zł
		CoE	17,614 zł
	Senior	B2B	27,341 zł
		CoE	24,334 zł
	Expert	B2B	31,843 zł
		CoE	26,458 zł

*B2B: net on the invoice, excluding VAT

CoE: gross

NEXT TECHNOLOGY
PROFESSIONALS

2.2.3. Division into technologies: **JavaScript**

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

Technology and the average offered and received salary

Source: Own elaboration based on data from itradar.io for 2022

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Technology	Seniority level	Salary ranges (min - max)*
JS JavaScript	Junior	5,800 zł - 9,400 zł
	Mid	11,900 zł - 18,400 zł
	Senior	17,600 zł - 25,700 zł
	Expert	22,700 zł - 31,500 zł

Technology	Seniority level	Type of contract	Average received salary*
JS JavaScript	Junior	B2B	8,712 zł
		CoE	7,062 zł
	Mid	B2B	16,586 zł
		CoE	15,558 zł
	Senior	B2B	30,187 zł
		CoE	25,662 zł
	Expert	B2B	35,145 zł
		CoE	26,813 zł

*B2B: net on the invoice, excluding VAT
CoE: gross

Expert's comment

"JavaScript is one of the most important programming languages in the world. It exists on the market for over 30 years and still leads the way in website building processes. Its universality makes the demand for JavaScript specialists growing and for the second year in a row, employers report the largest talent deficit in this area. Also, JavaScript is quite a friendly language to learn. All these circumstances affect the fact that the number of people interested in starting the profession as a front-end developer does not decrease, and the popularity of our JavaScript Developer bootcamps is not declining."

Marcin Tchórzewski
Founder and CEO at Coders Lab – the first IT school in Poland

Coders Lab
SZKOŁA IT

NEXT TECHNOLOGY PROFESSIONALS

2.2.3. Division into technologies: **Node.js**

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

Technology and the average offered and received salary

Source: Own elaboration based on data from itradar.io for 2022

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Technology	Seniority level	Average offered salary
Node.js	Junior	6,200 zł - 10,100 zł
	Mid	12,700 zł - 19,700 zł
	Senior	19,200 zł - 28,900 zł
	Expert	23,000 zł - 31,500 zł

Technology	Seniority level	Type of contract	Average received salary*
Node.js	Junior	B2B	8,211 zł
		CoE	7,903 zł
	Mid	B2B	17,552 zł
		CoE	16,309 zł
	Senior	B2B	31,080 zł
		CoE	26,421 zł
	Expert	B2B	35,198 zł
		CoE	28,130 zł

*B2B: net on the invoice, excluding VAT

CoE: gross

2.3.1. Satisfaction with the salary received

Almost 60% of the respondents indicated that they are satisfied or very satisfied with their current salary.

Satisfaction with the salary received

Source: Own elaboration based on data from an online survey conducted between September and November 2022
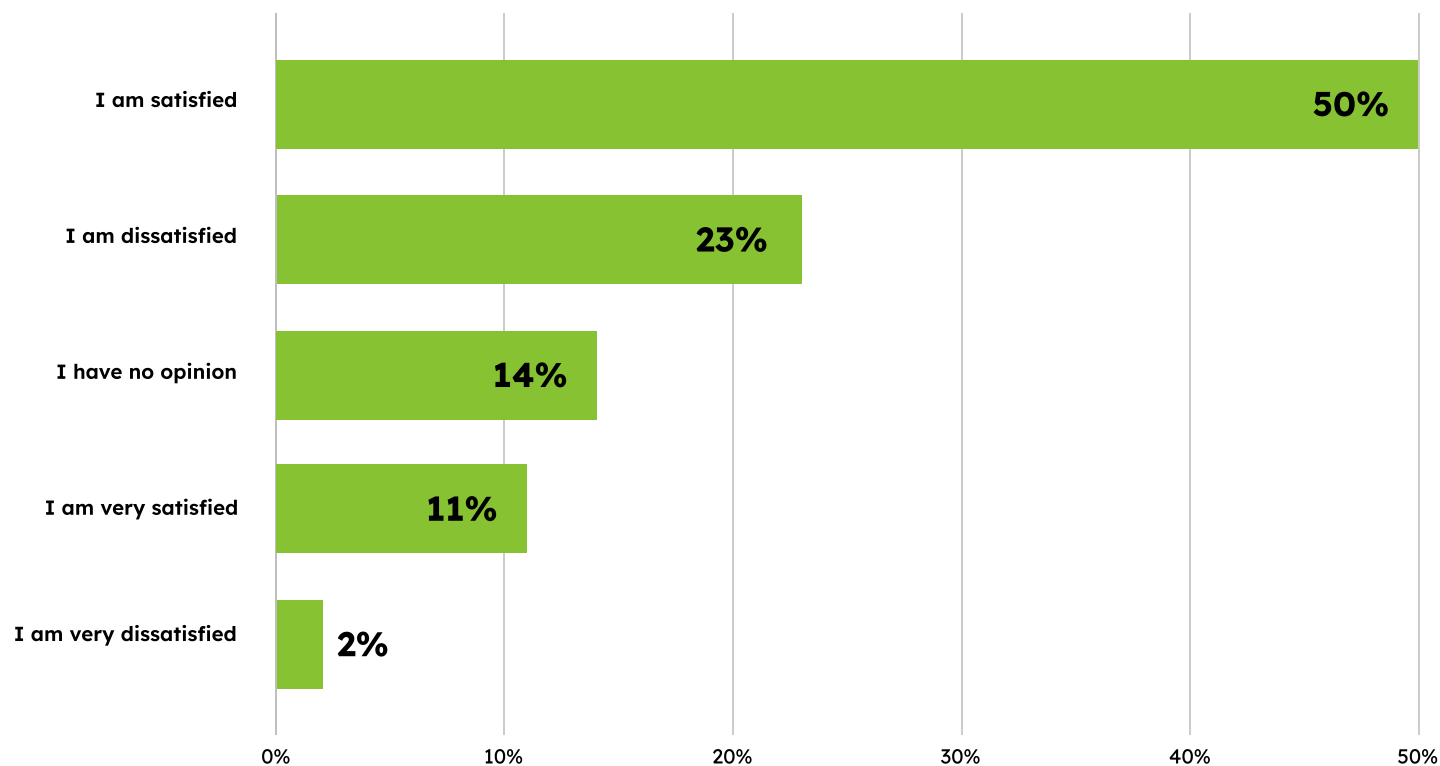
2.3.1. Satisfaction with the salary received

The higher the seniority level, the greater the enthusiasm about the salary received. Every second Junior is satisfied with their salary. However, Experts are the most satisfied, among whom 70% chose a positive answer.

Satisfaction with the salary received and seniority level

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Junior

51%

I am satisfied
and very satisfied

0%   100%

Mid

60%

I am satisfied
and very satisfied

0%   100%

Senior

65%

I am satisfied
and very satisfied

0%   100%

Expert

70%

I am satisfied
and very satisfied

0%   100%

Comparison with 2021

The biggest difference can be seen in the Experts' answers - over the course of the year, their satisfaction decreased by 9 pp.

NEXT TECHNOLOGY
PROFESSIONALS

2.3.2. Currency of salary

Companies competing for talent have recently started to offer salaries in currencies other than PLN. 92% of respondents still receive salaries in PLN, but for only 34% of them it is the preferred currency. Polish specialists favorably perceive salaries in USD (32%) and EUR (31%).

Present currency of the salary received

Source: Own elaboration based on data from an online survey conducted between September and November 2022

- 3%
- 4%
- 1%
- 92%

PLN
EUR
USD
Other
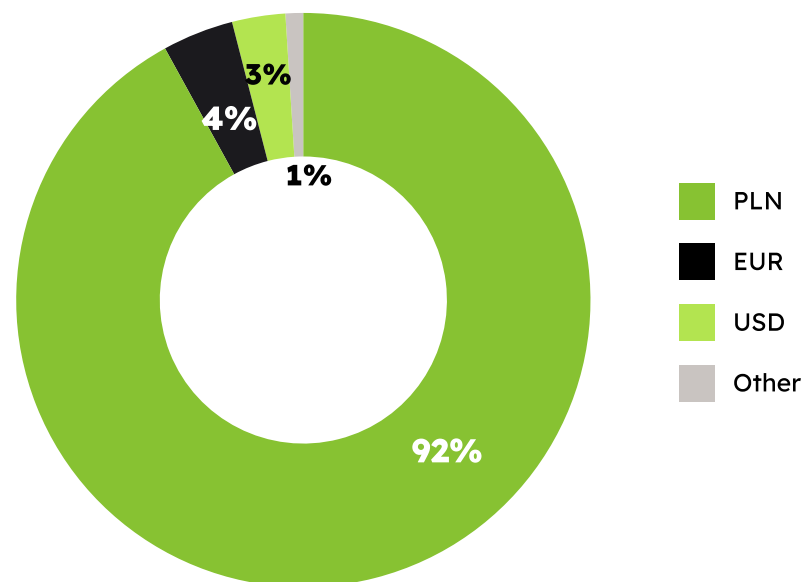
Preferred currency of the salary received

Source: Own elaboration based on data from an online survey conducted between September and November 2022

- 2%
- 1%
- 31%
- 34%
- 32%

PLN
USD
EUR
GBP
Other
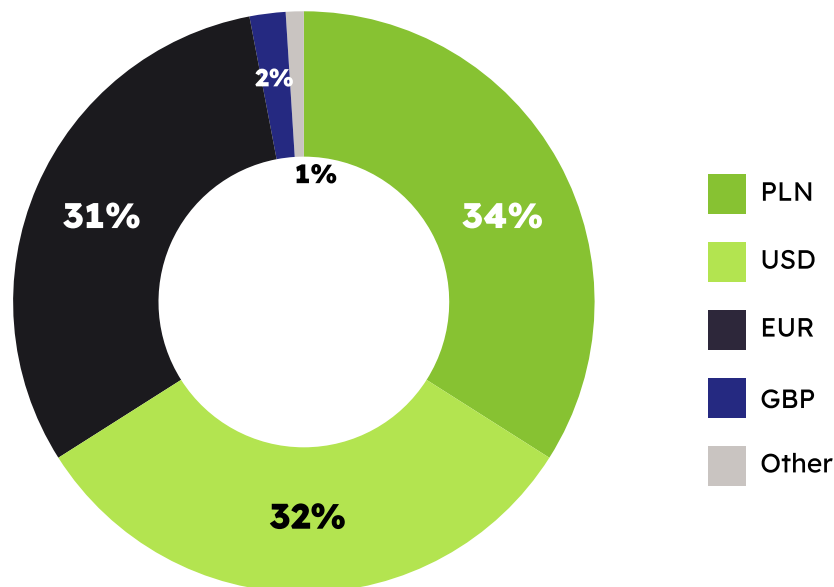
NEXT TECHNOLOGY
PROFESSIONALS

2.3.2. Currency of salary

Expert's comment

"In the second quarter of 2022, I had the opportunity to conduct the recruitment process for a foreign product company with an established position on the Western European market, which offered a contract in a foreign currency (euro) and 100% possibility of remote work.

The job advertisement was very popular among candidates - we received 55 applications! As a Headhunter, I didn't even have to start direct search activities!

To the question: "What interested you the most in the offer that made you decide to apply?", 90% of candidates indicated receiving salary in euros and the mode of work.

Interestingly, the additional argumentation did not indicate financial motivation, but the need for a greater sense of security and freedom to change the location of residence - „In the moment of danger, I pack my family, laptop and we can continue to function peacefully in another corner of Europe or the world."

Polish companies can also pay salaries in a foreign currency. It remains a matter of mutual agreement and adding appropriate provisions to the employment contract."

Paulina Gawlicka

Since 2012, she has been active in the IT industry. Currently, she is developing a consulting company, in which she helps Polish and foreign organizations, in building and developing IT teams and shaping HR departments. Mentor and Certified Mind Sonar consultant. In 2021 was awarded in the Strong Women in IT 2021 Global Edition report. Initiator of the RNFL GROUP community.
Co-author and producer of the podcast SUM IT UP! More information at www.paulinagawlicka.com

2.3.3. The expected value of the raise when changing jobs

Despite overall satisfaction with their salaries, 69% of specialists are open to changing jobs soon, and almost half of them are ready to do it if they receive an interesting offer. It is worth mentioning that "inadequate salary" was the most frequently indicated reason for the most recent job change (20%).

Willingness to change jobs

Source: Own elaboration based on data from an online survey conducted between September and November 2022

	45%	31%	14%	10%
	I can change my job if I get an interesting offer	I definitely don't want to change my job in the next 12 months	I plan to change my job in the next 12 months	I want to change my job now
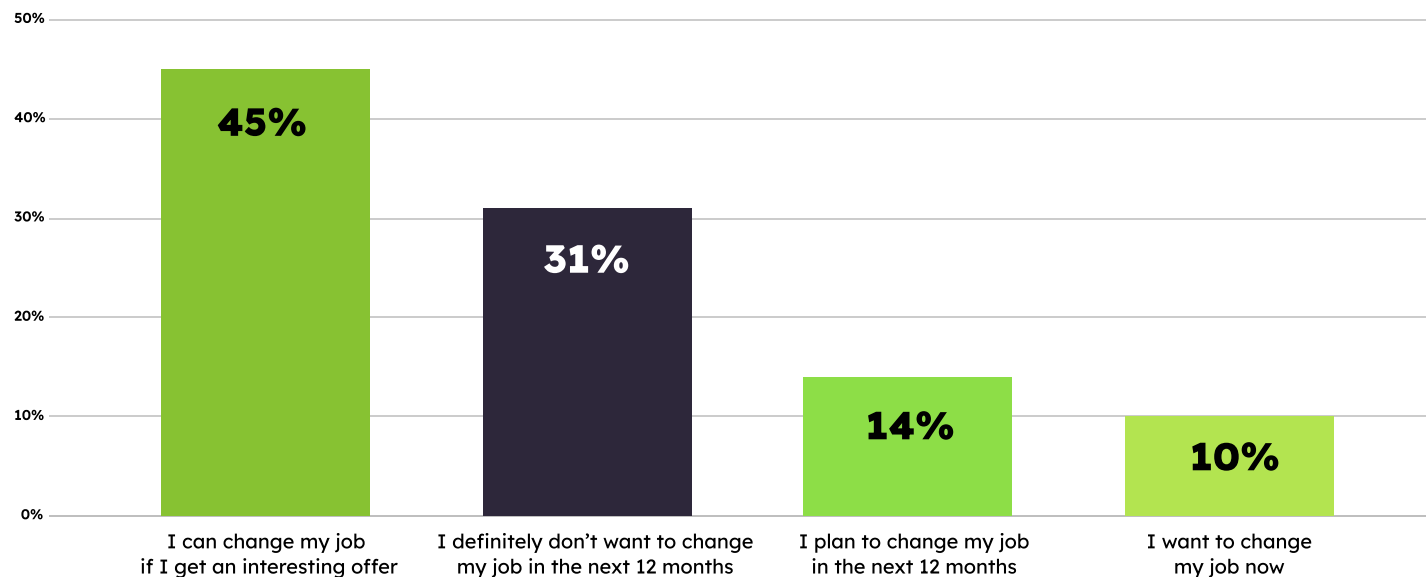
2.3.3. The expected value of the raise when changing jobs

IT specialists employed on B2B and CoE expect a salary increase of **25%** on average when changing jobs. Mids, who cooperate on the basis of B2B, have the highest expectations (30%) regarding the increase in the current salary.

Expected value of the raise for a job change

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Seniority level	Type of contract	Average salary*	Expected salary after the job change*	% of the expected salary increase when changing job
Trainee	B2B	ND	ND	ND
Trainee	CoE	ND	ND	ND
Junior	B2B	9,483 zł	11,759 zł	24%
Junior	CoE	8,806 zł	11,007 zł	25%
Mid	B2B	17,091 zł	22,219 zł	30%
Mid	CoE	16,342 zł	19,937 zł	22%
Senior	B2B	27,768 zł	35,543 zł	28%
Senior	CoE	25,293 zł	31,110 zł	23%
Expert	B2B	34,849 zł	44,258 zł	27%
Expert	CoE	29,879 zł	37,050 zł	24%

*B2B: net on the invoice, excluding VAT
 CoE: gross
 ND no data

2.3.3. **The expected value of the raise when changing jobs**

Expert's comment

"In 2022, over 10% more people expected a higher salary than in 2021.
First of all, this is due to the difficult economic situation in the country and geo-political unrest in Europe. The cost of living is rising and every now and then we encounter difficulties in accessing goods that until now were available at a lower cost. In sum:

MIDs on B2B are the group that expects the greatest increase in their salaries (note: in 2021 it is 23%, in 2022 it is as much as 30%). Taking into account the phenomenon of galloping inflation, this is also influenced by legal changes regarding entrepreneurs and changes in the tax system introduced in Poland in 2022.
In addition to the higher cost of living, these specialists additionally encounter a "drastic" increase in the cost of running their own business (being so far on the so-called "small ZUS" at a certain stage of running a business, they have to incur almost 3-4 times higher costs of running a business - this happens when you become a specialist at the MID level, with over 3 years of professional experience).

SENIORs on B2B are the second "dominant in the study" group of respondents expecting a significant increase in the salary rate. According to the NEXT report, in 2021 these people expected increases of 17%, while in 2022 - a year of galloping inflation in Poland - the level of expectations regarding the increase in the salary rate soared to as much as 28%. Here, inflation, higher costs of living, changes in the tax system, but also performing more tasks and work than in previous years are responsible for such a state of affairs (remember about the reduction of IT jobs in the 1st and 2nd wave of Covid in 2020 and 2021, and thus engaging more experienced specialists for tasks for which 2 or 3 people were responsible so far). It should be clearly noted that these specialists often earn 50-70% more than e.g. MIDs, we are talking about high salaries here - statistically, the percentage of salary increase does not mean that they will receive raises at a similar amount as the previously discussed group of MID specialists."

Kamil Ficek
Senior IT Recruitment Consultant, Next Technology Professionals

2.3.4. Pay raises and bonuses

Every second IT employee got a pay raise in 2022. Mostly it was in the form of a discretionary bonus (51%), the value of which does not result from the achievement of specific goals, or a fixed bonus (43%), the value of which results directly from the achievement of specific goals. 6% of respondents indicated that they could count on a „different" type of bonus.

Percentage of respondents who got a pay raise in 2022

Source: Own elaboration based on data from an online survey conducted between September and November 2022

	Senior (4 - 10 years of experience)	Mid (2 - 4 years of experience)	Expert (over 10 years of experience)	Junior (up to 2 years of experience)
	54%	51%	51%	41%
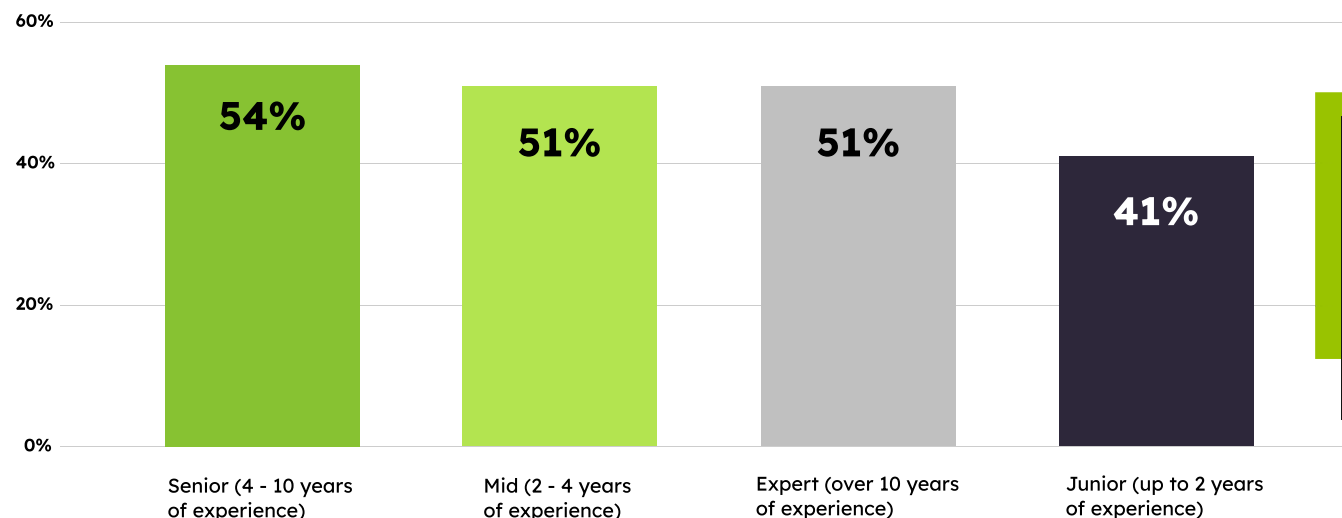
Comparison with 2021

In 2022, **6% more** IT specialists received a pay raise.

2.3.4. **Pay raises and bonuses**

Expert's comment
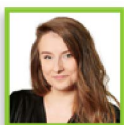
"Salaries in the IT industry are changing very dynamically. We see this primarily during daily communication with candidates, both during screening and making an offer. Rising inflation also contributes to increasing demands. Employers are trying to meet these expectations because, as our data showed, in 2022 every second employee received a raise. However, it is also worth remembering that IT specialists expect a salary increase when changing jobs by an **average of 25%**. For this reason, preparing a counteroffer and retaining an employee in the current company can be a big challenge."

Milena Miesiak
Team Leader / Senior IT Recruitment Business Consultant, Next Technology Professionals

NEXT TECHNOLOGY
PROFESSIONALS

2.3.4. Pay raises and bonuses

Frequency of receiving bonuses

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Category	Value
Never	48%
Once a year	33%
Once per quarter	13%
Once a month	3%
After the end of the project	3%
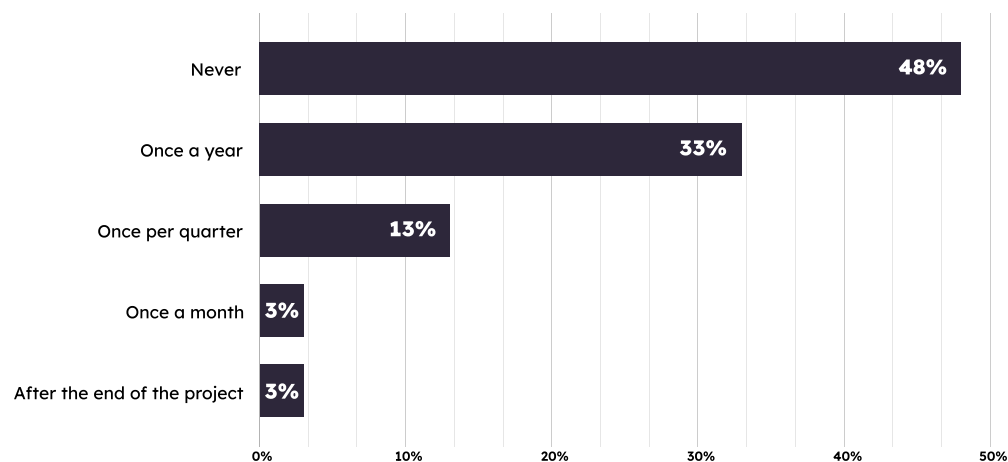
Types of bonuses received

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Type	Value
Discretionary	51%
Established	43%
Other	6%

NEXT TECHNOLOGY
PROFESSIONALS
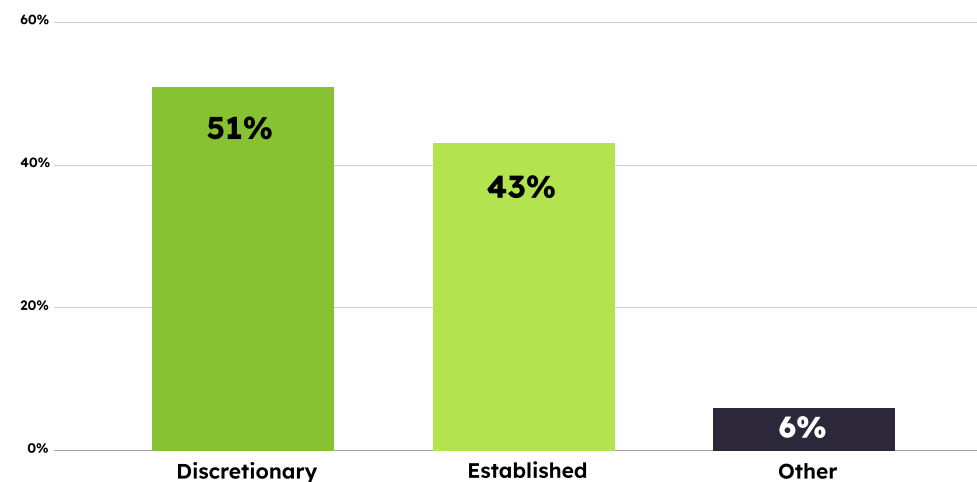
2.3.4. Pay raises and bonuses

Value of the expected bonus on the scale of annual salary based on experience level

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Experience level	Value
Expert (over 10 years of experience)	23%
Mid (2 - 4 years of experience)	21%
Senior (4 - 10 years of experience)	17%
Junior (up to 2 years of experience)	16%
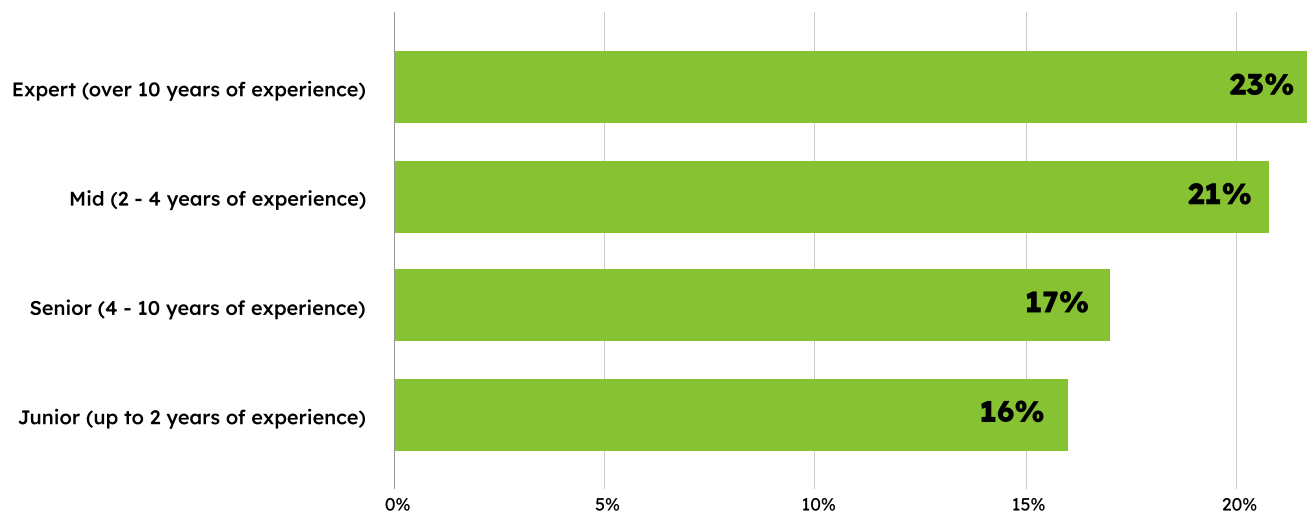
Interesting fact

According to the respondents, the annual bonus should amount to an average of 19% of the annual salary.

NEXT TECHNOLOGY
PROFESSIONALS

3. **The most sought-after specialists**

In 2022, the most sought-after specialists were Quality Assurance (QA) Engineer, Frontend Developer, DevOps Engineer, Fullstack Developer, Mobile Developer, Data Scientist and Backend Developer.

Share of offers by role/area

Source: Own elaboration based on data from itradar.io for 2022
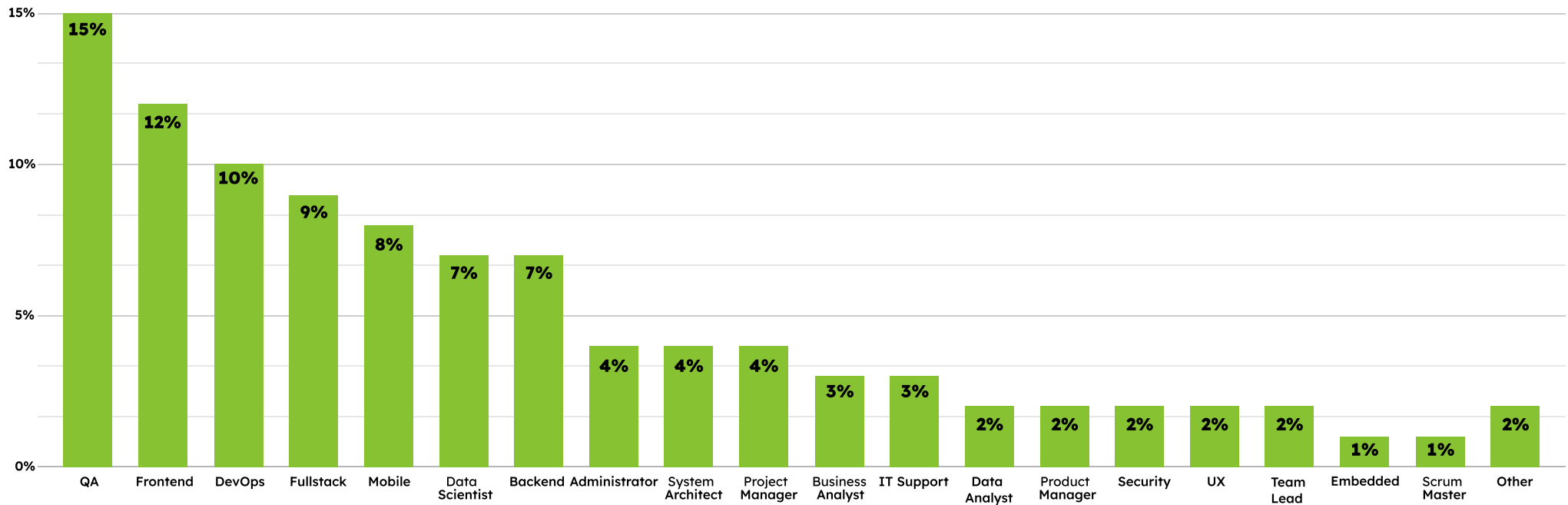
Role/area	Share
QA	15%
Frontend	12%
DevOps	10%
Fullstack	9%
Mobile	8%
Data Scientist	7%
Backend	7%
Administrator	4%
System Architect	4%
Project Manager	4%
Business Analyst	3%
IT Support	3%
Data Analyst	2%
Product Manager	2%
Security	2%
UX	2%
Team Lead	2%
Embedded	1%
Scrum Master	1%
Other	2%

3. The most sought-after specialists

Share of offers based on seniority level

Source: Own elaboration based on data from itradar.io for 2022

Role / area	Seniority level	Share of offers
Quality Assurance (QA) Engineer	Junior	12%
	Mid	51%
	Senior	35%
	Expert	2%
Frontend Developer	Junior	8%
	Mid	49%
	Senior	42%
	Expert	1%
DevOps Engineer	Junior	7%
	Mid	44%
	Senior	45%
	Expert	4%
Fullstack Developer	Junior	6%
	Mid	46%
	Senior	46%
	Expert	2%

3. The most sought-after specialists

Share of offers based on seniority level

Source: Own elaboration based on data from itradar.io for 2022

Role / area	Seniority level	Share of offers
Mobile Developer	Junior	6%
	Mid	45%
	Senior	46%
	Expert	3%
Data Scientist	Junior	6%
	Mid	40%
	Senior	49%
	Expert	5%
Backend Developer	Junior	6%
	Mid	44%
	Senior	47%
	Expert	3%

🔍 **Comparison with 2021**

The largest increase in the number of offers (by 7 pp) was noticeable in the role of Senior Data Scientist.

3.1. **Quality Assurance (QA) Engineer**

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

In 2022, 15% of job offers were addressed to people in the role of Quality Assurance (QA) Engineer.

Seniority level and the offered salary
Source: Own elaboration based on data from itradar.io for 2022

Role / area	Seniority level	Salary ranges (min - max)*
Quality Assurance (QA)	Junior	5,929 zł - 9,416 zł
	Mid	11,481 zł - 18,574 zł
	Senior	17,050 zł - 24,375 zł
	Expert	16,176 zł - 25,238 zł

*For the purposes of aggregation, we do not divide the salaries from offers according to the type of contract and we present the arithmetic mean of the extreme values of the ranges (the lowest and the highest).

Seniority level and the received salary
Source: Own elaboration based on data from an online survey conducted between September and November 2022

Role / area	Seniority level	Type of contract	Average received salary*
Quality Assurance (QA)	Junior	B2B	9,253 zł
		CoE	6,812 zł
	Mid	B2B	16,117 zł
		CoE	13,540 zł
	Senior	B2B	22,115 zł
		CoE	18,508 zł
	Expert	B2B	25,933 zł
		CoE	22,120 zł

*B2B: net on the invoice, excluding VAT
CoE: gross

Expert's comment

"Polish universities constantly educate mainly programmers, as a result, the demand of employers for engineers specializing in testing and quality assurance continues. Too few testers available on the market still give beginners a chance to retrain and enter the industry, but the bar has definitely been raised. Even juniors are now expected to have project experience, familiarity with popular tools, and basic test automation skills. At higher levels of experience, versatility and independence are rewarded - candidates, apart from performing technical tasks, should also understand why they perform them and suggest improvements."

Dariusz Drezno
co-creator and trainer, 4_testers

4_testers

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3.1. Quality Assurance (QA) Engineer

The most commonly required skills include knowledge of Selenium, Java and Python.

Top 10 skills appearing in job offers (QA Engineer)

Source: Own elaboration based on data from itradar.io for 2022

Selenium	Python	Postman	C#	Docker
Java		JavaScript		Cypress
		Linux		.NET
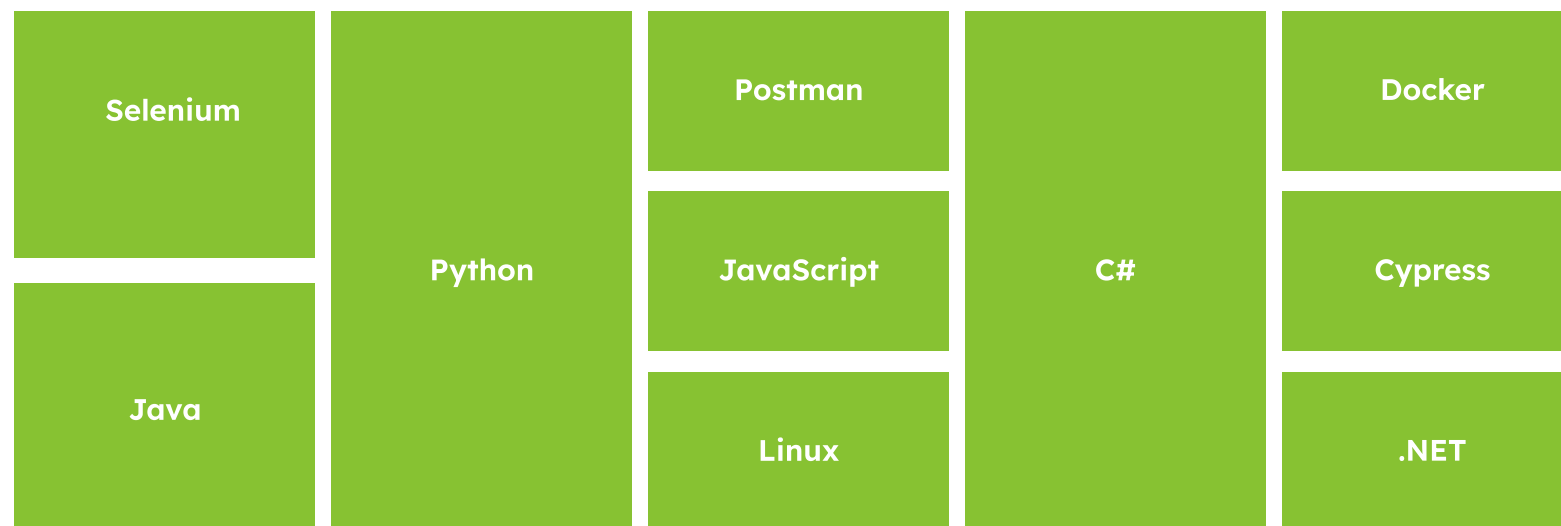
Expert's comment

"Software testing is one of the most popular areas of the IT industry. It makes the change of career path and entry into the industry in a relatively quick way. It is based, among others, on the fact that the profession of a tester does not require programming skills, despite being closely related to the work of programmers. It happens that our students are still in the process of acquiring knowledge and participating in workshops organized during the course, when they find their first job as a Tester."

Marcin Tchórzewski
Founder and CEO at Coders Lab – the first IT school in Poland

Coders Lab
SZKOŁA IT

3.2. Frontend Developer

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

In 2022, 12% of job offers were addressed to people in the role of Frontend Developer.

Seniority level and the offered salary

Source: Own elaboration based on data from itradar.io for 2022

Role / area	Seniority level	Salary ranges (min - max)*
Frontend Developer	Junior	6,997 zł - 10,763 zł
	Mid	12,813 zł - 19,564 zł
	Senior	20,735 zł - 28,847 zł
	Expert	19,211 zł - 29,901 zł

*For the purposes of aggregation, we do not divide the salaries from offers according to the type of contract and we present the arithmetic mean of the extreme values of the ranges (the lowest and the highest).

Seniority level and the received salary

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Role / area	Seniority level	Type of contract	Average received salary*
Frontend Developer	Junior	B2B	9,180 zł
		CoE	7,358 zł
	Mid	B2B	17,106 zł
		CoE	16,042 zł
	Senior	B2B	29,050 zł
		Coe	24,892 zł
	Expert	B2B	36,053 zł
		CoE	26,889 zł

*B2B: net on the invoice, excluding VAT
CoE: gross

Expert's comment

"It's hard to find another such dynamically developing technology in the IT industry as Frontend. When it seemed that React and SPA (Single Page App) applications would stabilize this branch of software development for the next few years, SSR (Server Side App) applications, driven by the so-called metaframeworks (e.g. Next.js) began to return to grace very dynamically. When we add to this new, increasingly popular rendering patterns such as SSG, ISR, Islands or the fresh „Streaming SSR", I will not be surprised if in the next few years we redefine the position of a frontend developer and divide it into further narrow specializations, as this happened some time ago with the generally understood position of a "Web developer"."

Kamil Józwik
Principal Frontend Developer. Creator of the Rekrutend course

3.2. **Frontend Developer**

The offers addressed to Frontend Developers most often include the following technologies: HTML, CSS, JavaScript, TypeScript, React.js and Angular.

Top 10 skills appearing in job offers (Frontend Developer)

Source: Own elaboration based on data from itradar.io for 2022
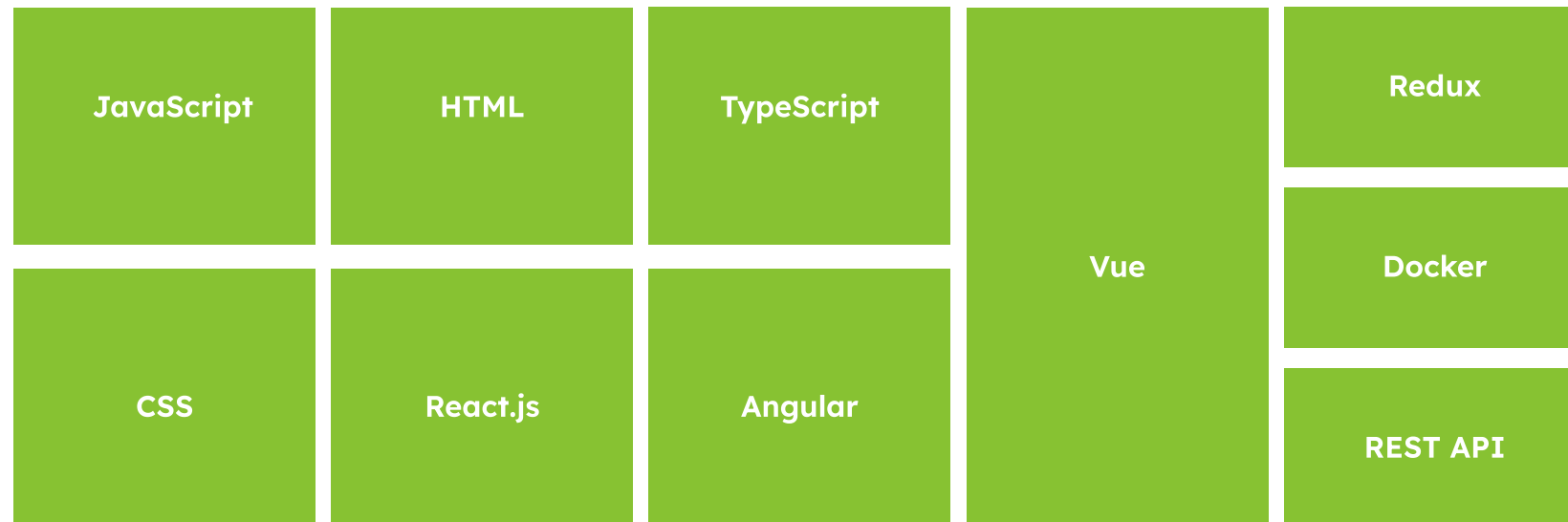
JavaScript	HTML	TypeScript	Vue	Redux
CSS	React.js	Angular		Docker
				REST API

NEXT TECHNOLOGY
PROFESSIONALS

3.3. DevOps Engineer

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

In 2022, 10% of job offers were addressed to people in the role of DevOps Engineer.

Seniority level and the offered salary

Source: Own elaboration based on data from itradar.io for 2022

Role / area	Seniority level	Salary ranges (min - max)*
DevOps Engineer	Junior	9,776 zł - 14,129 zł
	Mid	17,538 zł - 25,146 zł
	Senior	22,857 zł - 31,728 zł
	Expert	23,754 zł - 33,488 zł

*For the purposes of aggregation, we do not divide the salaries from offers according to the type of contract and we present the arithmetic mean of the extreme values of the ranges (the lowest and the highest).

Seniority level and the received salary

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Role / area	Seniority level	Type of contract	Average received salary*
DevOps Engineer	Junior	B2B	13,617 zł
		CoE	10,504 zł
	Mid	B2B	19,813 zł
		CoE	17,889 zł
	Senior	B2B	35,612 zł
		CoE	26,070 zł
	Expert	B2B	38,035 zł
		CoE	29,389 zł

*B2B: net on the invoice, excluding VAT
CoE: gross

3.3. DevOps Engineer

The top 3 skills that appeared most often in DevOps Engineer job offers were: Linux, Docker and Kubernetes. Next came Python and cloud solutions such as AWS or MS Azure.

Top 10 skills appearing in job offers (DevOps Engineer)

Source: Own elaboration based on data from itradar.io for 2022
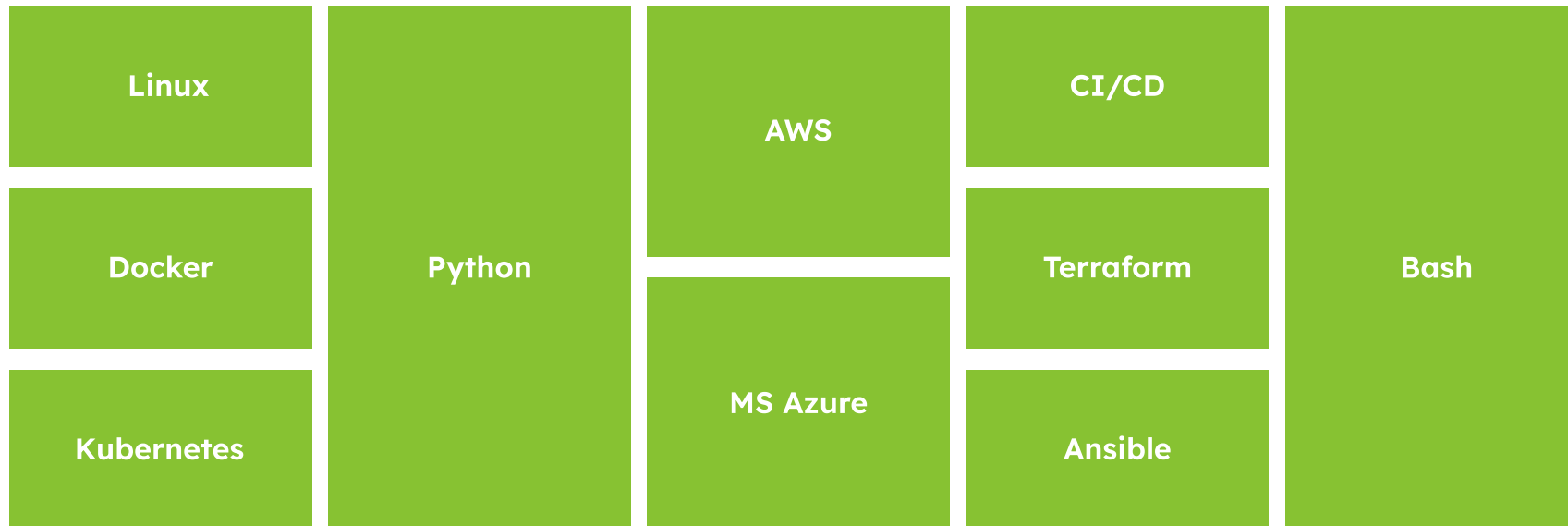
Linux		AWS	CI/CD	Bash
Docker	Python		Terraform	
Kubernetes		MS Azure	Ansible	

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25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

3.4. Fullstack Developer

In 2022, 9% of job offers were addressed to people in the role of Fullstack Developer.

Seniority level and the offered salary

Source: Own elaboration based on data from itradar.io for 2022

Role / area	Seniority level	Salary ranges (min-max)*
Fullstack Developer	Junior	7,536 zł - 11,441 zł
	Mid	16,390 zł - 24,809 zł
	Senior	22,163 zł - 32,601 zł
	Expert	23,269 zł - 31,142 zł

*For the purposes of aggregation, we do not divide the salaries from offers according to the type of contract and we present the arithmetic mean of the extreme values of the ranges (the lowest and the highest).

Seniority level and the received salary

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Role / area	Seniority level	Type of contract	Average received salary*
Fullstack Developer	Junior	B2B	10,128 zł
		CoE	8,890 zł
	Mid	B2B	21,346 zł
		CoE	18,107 zł
	Senior	B2B	29,738 zł
		CoE	25,491 zł
	Expert	B2B	34,144 zł
		CoE	28,375 zł

*B2B: net on the invoice, excluding VAT
CoE: gross

3.4. Fullstack Developer

According to the collected data, one of the most sought-after specialists in the IT world are Fullstack Developers. Based on the analyzed offers, we indicate the 10 skills that appeared in them most often.

Top 10 skills appearing in job offers (Fullstack Developer)
Source: Own elaboration based on data from itradar.io for 2022
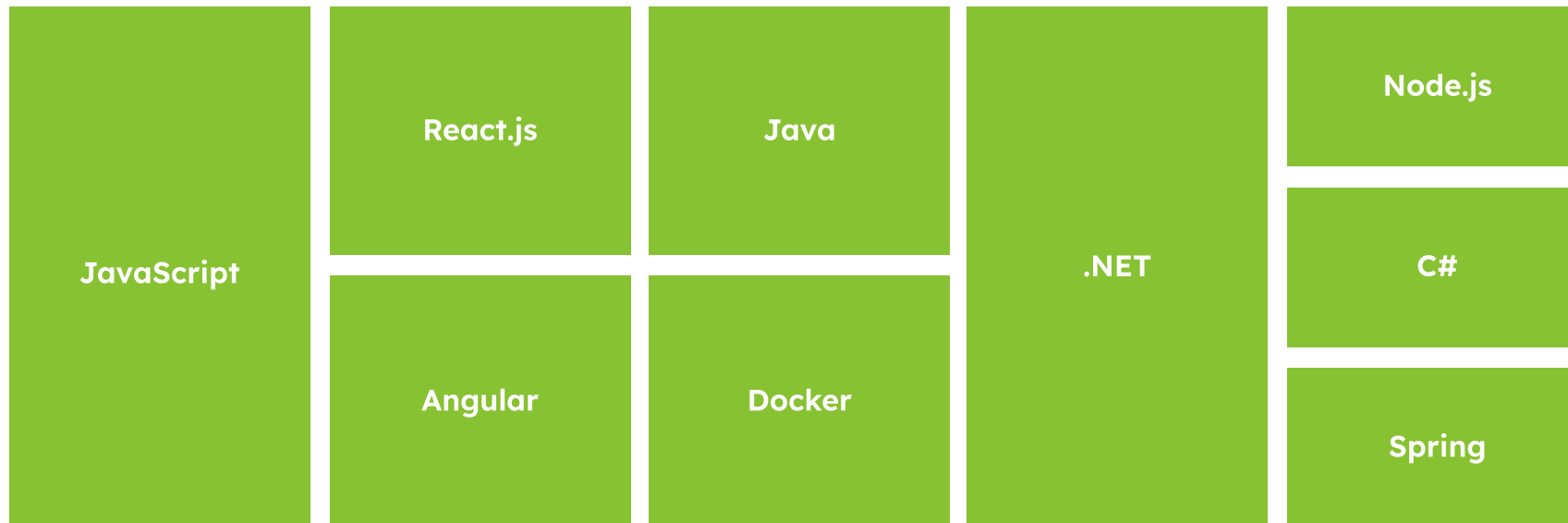
JavaScript	React.js	Java	.NET	Node.js
	Angular	Docker		C#
				Spring

NEXT TECHNOLOGY
PROFESSIONALS

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

3.5. Mobile Developer

In 2022, 8% of job offers were adressed to people in the role of Mobile Developer.

Seniority level and the offered salary

Source: Own elaboration based on data from itradar.io for 2022

Role / area	Seniority level	Salary ranges (min - max)*
Mobile Developer	Junior	6,887 zł - 10,815 zł
	Mid	15,746 zł - 23,584 zł
	Senior	17,547 zł - 30,415 zł
	Expert	21,078 zł - 31,739 zł

*For the purposes of aggregation, we do not divide the salaries from offers according to the type of contract and we present the arithmetic mean of the extreme values of the ranges (the lowest and the highest).

Seniority level and the received salary

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Role / area	Seniority level	Type of contract	Average received salary*
Mobile Developer	Junior	B2B	9,321 zł
		CoE	8,832 zł
	Mid	B2B	18,289 zł
		CoE	15,432 zł
	Senior	B2B	28,356 zł
		CoE	23,831 zł
	Expert	B2B	32,178 zł
		CoE	25,993 zł

*B2B: net on the invoice, excluding VAT
CoE: gross

3.5. **Mobile Developer**

Based on the data collected from the job offers, a person working as a Mobile Developer should be familiar with Java, Kotlin and Swift.

Top 10 skills appearing in job offers (Mobile Developer)

Source: Own elaboration based on data from itradar.io for 2022

Swift	Java	React Native	TypeScript
		JavaScript	
		Objective-C	
Kotlin		CI/CD	Flutter
		React.js	

NEXT TECHNOLOGY
PROFESSIONALS

3.6. Data Scientist

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

In 2022, 7% of job offers were addressed to people in the role of Data Scientist.

Seniority level and the offered salary

Source: Own elaboration based on data from itradar.io for 2022

Role / area	Seniority level	Salary ranges (min - max)*
Data Scientist	Junior	8,227 zł - 12,203 zł
	Mid	14,766 zł - 23,024 zł
	Senior	22,720 zł - 32,179 zł
	Expert	22,136 zł - 30,618 zł

*For the purposes of aggregation, we do not divide the salaries from offers according to the type of contract and we present the arithmetic mean of the extreme values of the ranges (the lowest and the highest).

Seniority level and the received salary

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Role / area	Seniority level	Type of contract	Average received salary*
Data Scientist	Junior	B2B	10,124 zł
		CoE	9,848 zł
	Mid	B2B	18,407 zł
		CoE	14,623 zł
	Senior	B2B	28,718 zł
		CoE	23,354 zł
	Expert	B2B	34,649 zł
		CoE	28,902 zł

*B2B: net on the invoice, excluding VAT
CoE: gross

Expert's comment

"The Data Science market has calmed down a bit, as more and more companies understand what it is and how to use it. For people who are looking for their first job, there are not many offers related to research on advanced models (e.g. neural networks). Much more often the job advertisements concern the production use of Machine Learning, where skills related to software engineering, databases or the cloud are more important. In small and medium-sized companies, a Data Scientist will be both a Data Engineer and MLOps, and often also a Business Analyst. Therefore, employers are looking for candidates with the so-called T-shaped skillset. Having extensive knowledge in many areas of IT and Analytics and specialization in one or two areas."

Mateusz Dorobek
Data Scientist

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NEXT **TECHNOLOGY**
PROFESSIONALS

3.6. **Data Scientist**

Specialists in this field must have skills and competencies in many areas. According to information collected from job offers, Data Scientists are required to know Big Data, Machine Learning (ML) and Python.

Top 10 skills appearing in job offers (Data Scientist)
Source: Own elaboration based on data from itradar.io for 2022

Big Data	Apache Spark	AWS	GCP
Machine Learning			Apache Hadoop
Python	MS Azure	Java	Scala
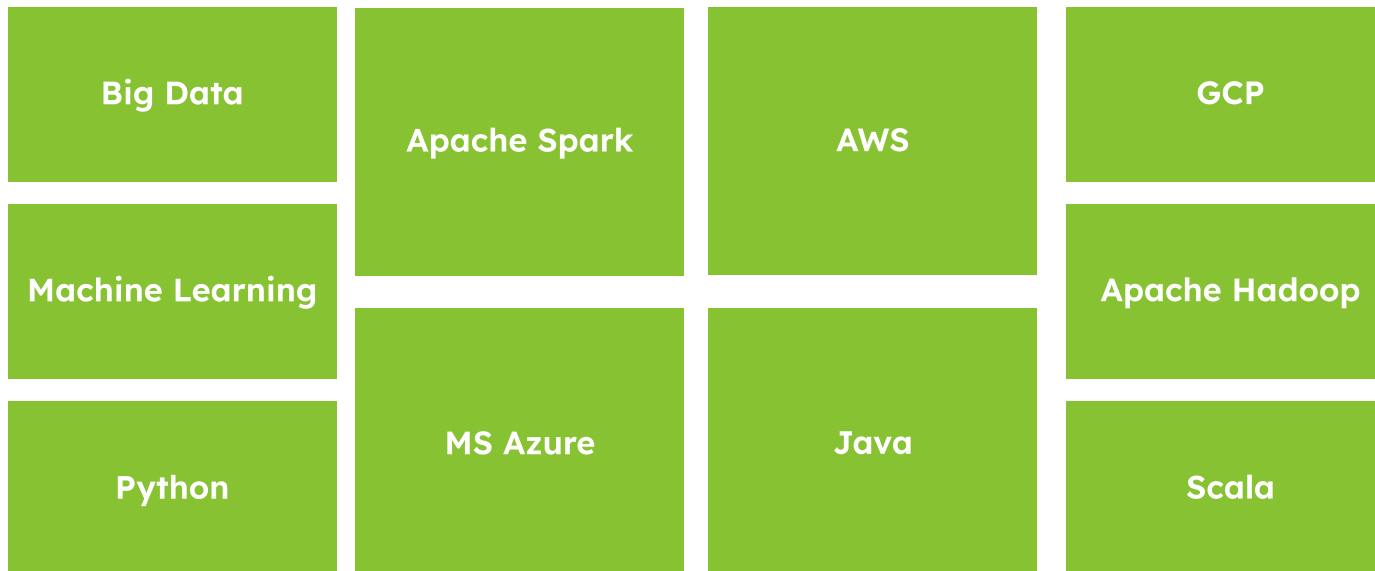
Expert's comment

"There are more and more tools for automating Machine Learning and related processes on the market. Knowing all of them is not possible, but experience, even with a few, will certainly allow you to manage ML processes more efficiently, without creating a new circle.

Data Science is inherently related to domain knowledge. When looking for a job, it is important to remember that there are areas where advanced analytics have been used for a long time, but there are also areas where its use is only gaining importance. This can be a lever for a faster start, but when starting a career in DS, it is worth looking for companies with a developed team/product. This is where you will develop your skills the most, because getting your first job is just the beginning."

Mateusz Dorobek
Data Scientist

NEXT TECHNOLOGY PROFESSIONALS

3.7. **Backend Developer**

25% – on average, this is the amount of salary increase that IT specialists expect when changing jobs.

In 2022, 7% of job offers were addressed to people in the role of Backend Developer.

Seniority level and the offered salary

Source: Own elaboration based on data from itradar.io for 2022

Role / area	Seniority level	Salary ranges (min - max)*
Backend Developer	Junior	8,764 zł - 13,319 zł
	Mid	17,053 zł - 24,267 zł
	Senior	20,332 zł - 30,523 zł
	Expert	22,371 zł - 33,324 zł

*For the purposes of aggregation, we do not divide the salaries from offers according to the type of contract and we present the arithmetic mean of the extreme values of the ranges (the lowest and the highest).

Seniority level and the received salary

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Role / area	Seniority level	Type of contract	Average received salary*
Backend Developer	Junior	B2B	9,115 zł
		CoE	8,140 zł
	Mid	B2B	20,412 zł
		CoE	17,292 zł
	Senior	B2B	27,531 zł
		CoE	24,391 zł
	Expert	B2B	32,613 zł
		CoE	26,930 zł

*B2B: net on the invoice, excluding VAT
CoE: gross

NEXT TECHNOLOGY
PROFESSIONALS

3.7. Backend Developer

Java, Python and PHP - these are the 3 skills that most often appeared in job offers for the position of Backend Developer.

Top 10 skills appearing in job offers (Backend Developer)

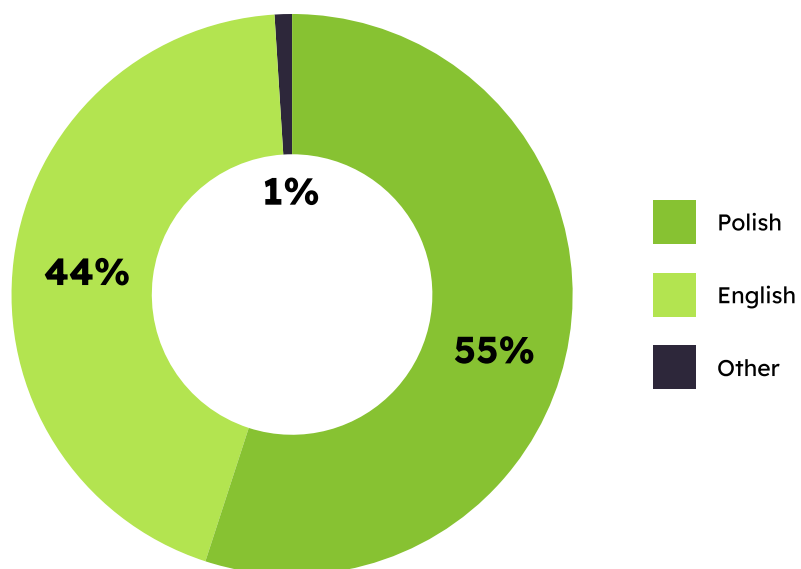Source: Own elaboration based on data from itradar.io for 2022

Python	**Django**	**PHP**	**Laravel**
	Flask		**Symfony**
Java	**Spring**	**.NET**	**Node.js**
	Hibernate	**C#**	

NEXT**TECHNOLOGY**
PROFESSIONALS

4. Knowledge of foreign languages

In the Polish IT industry, communication between employees is not always in Polish. 44% of respondents indicated that they speak mainly English at work. The declared level of English proficiency is also at a high level - 72% of respondents claim that they speak English at the B2/C1 level.
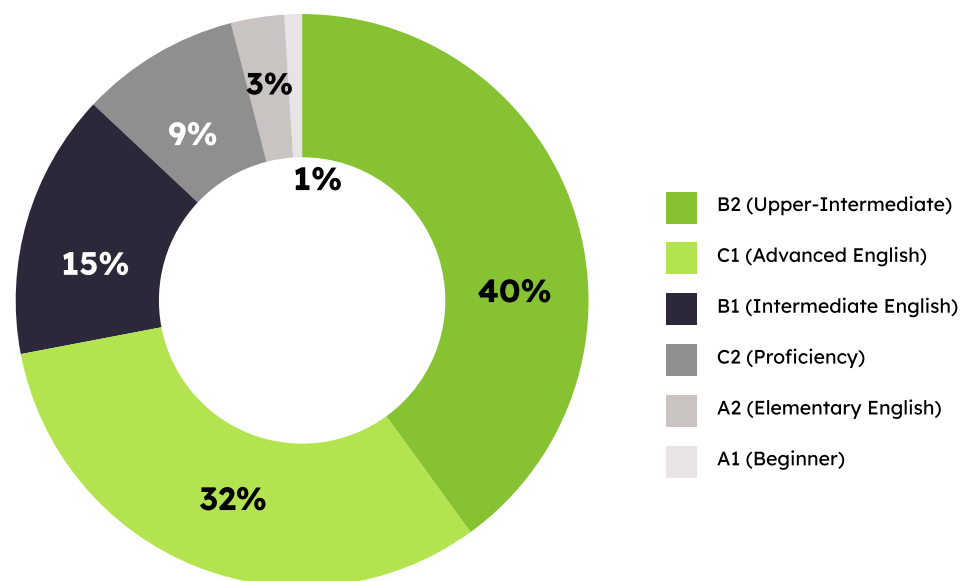
The main language of communication at work declared by the respondents

Source: Own elaboration based on data from an online survey conducted between September and November 2022

1%

44%

55%

- Polish
- English
- Other

English proficiency level of the respondents

Source: Own elaboration based on data from an online survey conducted between September and November 2022

3%

9%

15%

1%

40%

32%

- B2 (Upper-Intermediate)
- C1 (Advanced English)
- B1 (Intermediate English)
- C2 (Proficiency)
- A2 (Elementary English)
- A1 (Beginner)

NEXT TECHNOLOGY
PROFESSIONALS

5.1. Length of a recruitment process

We checked how long the recruitment process takes from receiving the CV by the employer to signing the contract. The respondents of our survey most often chose the option „up to 2 weeks".

Time spent on participation in the recruitment process

Source: Own elaboration based on data from an online survey conducted between September and November 2022
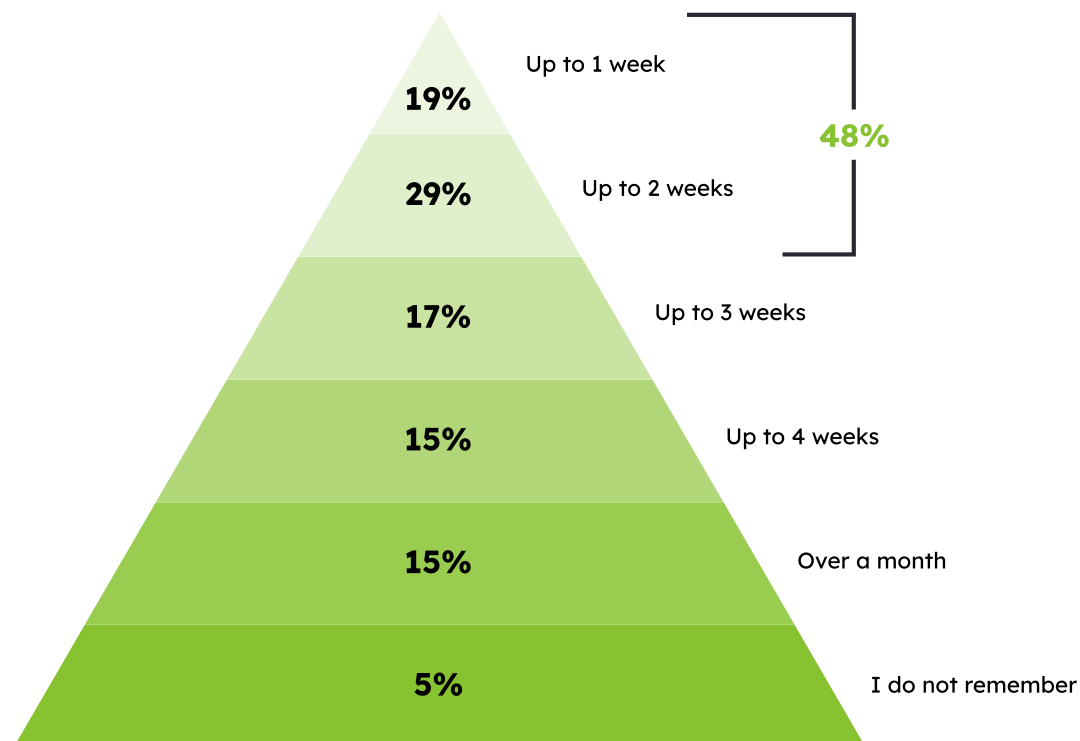
Comparison with 2021

In 2022, by 5 pp more recruitment processes, in which the respondents took part, lasted less than a month.

19%	Up to 1 week
	48%
29%	Up to 2 weeks
17%	Up to 3 weeks
15%	Up to 4 weeks
15%	Over a month
5%	I do not remember

NEXT TECHNOLOGY
PROFESSIONALS

5.1. Length of a recruitment process

Expert's comment

"Two years of the pandemic have proven that something that recently only the chosen ones could afford, has now become the norm. Remote work is a benefit for almost 3/4 of the respondents. And this should start at the recruitment stage.

According to the data, recruitment should have a maximum of 2 stages, the decision should take up to 2 weeks and, above all, be technical. It's the bare minimum. But in order to stand out, you have to improve it. It is best to involve the team in the recruitment process to which the new person is to be assigned. The process can then be shortened to one stage, and a technical interview can be conducted at the same time. By the way, you can also check if there is "flow" with a new person and give the team a sense of agency. Win-win :-)"

Bartosz Janowski
Head of Agile Centre, mBank

NEXT TECHNOLOGY
PROFESSIONALS

5.1.1. Number of recruitment stages

We know from our own experience, as well as from the collected data, that the recruitment process consisting of many stages is a frequent reason for candidates to resign from pursuing it further. In our survey, we asked specialists: "How many stages (not including sending and verification of a CV and / or contact from a recruitment agency) do you think an optimal recruitment process should consist of?". 63% of them indicated that recruitment should consist of a maximum of 2 stages. This answer largely coincides with reality - the majority of IT professionals (51%) joined the current company after going through 2 stages.

Preferred number of stages in the recruitment process

Source: Own elaboration based on data from an online survey conducted between September and November 2022

1 stage	2 stages	3 stages	More than 3 stages
23%	63%	13%	1%
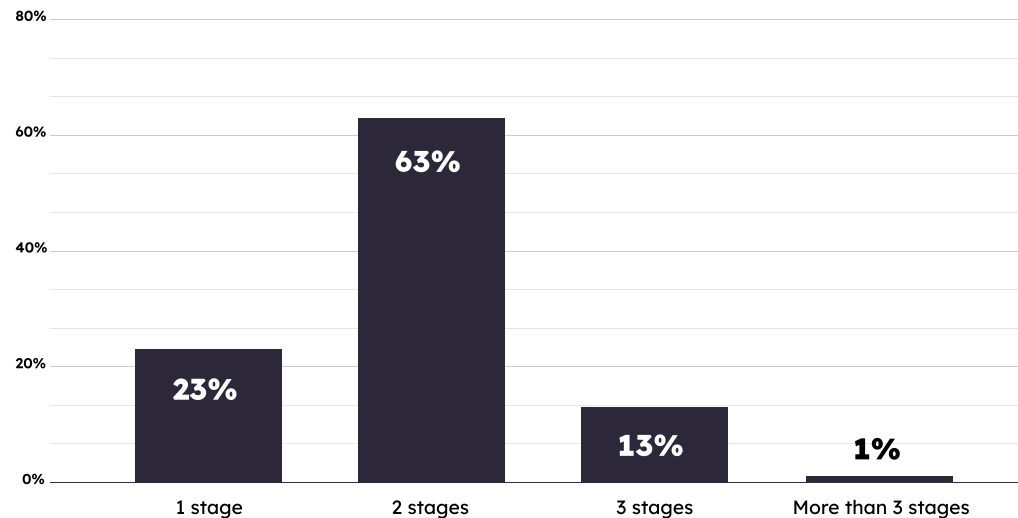
Actual number of stages in the recruitment process

Source: Own elaboration based on data from an online survey conducted between September and November 2022

1 stage	2 stages	3 stages	More than 3 stages
22%	51%	23%	4%
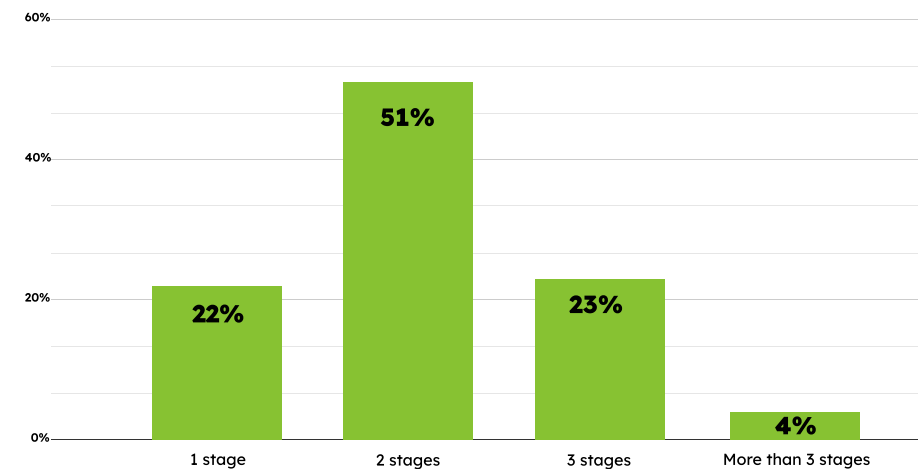
💡 **Interesting fact**

IT professionals would like to participate in 3-stage or longer recruitment processes less often.

5.1.1. Number of recruitment stages

Expert's comment

"IT specialists declare that they prefer short recruitment processes. However, it is worth considering what is behind this declaration. We can imagine that since candidates take part in many recruitment processes at the same time, each additional stage extends the process from their perspective not by one meeting, but by several, and sometimes even a dozen or so meetings. In my interpretation, the declaration from the survey indicates, above all, the desire to limit the time spent on participation in recruitment processes in general, which is not surprising, because it is an unpaid activity, and often also very stressful. Employers should, of course, focus on the needs of candidates: if we want them to spend more time participating in the process, it should be ensured that the candidate can benefit from it, e.g. in the form of detailed feedback after each stage."
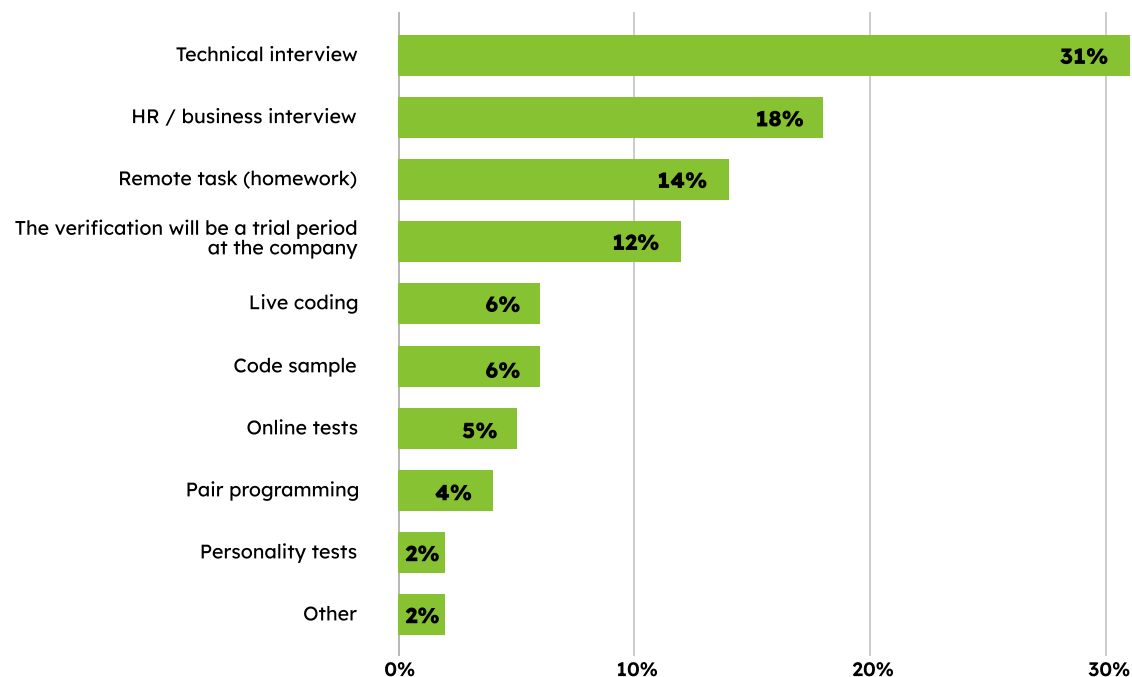
Kasia Tang
Co-founder Super Source Me

5.2. Verification of competencies

Every third respondent indicated that the most preferred form of competence verification is a technical interview. However, IT specialists also do not mind having tasks done at home or HR/business interviews to test their skills. However, they are definitely not fans of personality tests, which ranked last.

The preferred method of verifying competencies

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Method	Percentage
Technical interview	31%
HR / business interview	18%
Remote task (homework)	14%
The verification will be a trial period at the company	12%
Live coding	6%
Code sample	6%
Online tests	5%
Pair programming	4%
Personality tests	2%
Other	2%

To sum up, the most desirable course of the recruitment process consists of 3 key elements:

1. The recruitment process has a maximum of **2 stages.**
2. Competencies are verified during a **technical interview.**
3. The contract is signed a maximum of **2 weeks** from the moment the employer receives the candidate's CV.

🔍 **Comparison with 2021**

Remote task (homework) changed its position on the podium and **dropped from 2nd to 3rd place.**

5.2. Verification of competencies

Expert's comment

"In my experience, candidates are very reluctant to recruitment processes that involve a time-consuming task. Why so? It's all about the time we all have so little of. It all usually ends with the candidate having to sacrifice his weekend off, and he usually does it unfavorably. For example, I had the opportunity to lead a process where a candidate had to spend about 15 hours on a recruitment task. The statistics were not impressive, because of the 20 recommended candidates (yes, during the interview they showed interest in completing the task), only 2 of them actually completed it. Perhaps when planning the recruitment process, it is worth considering other forms of verification of technical skills, e.g. an in-depth technical interview."
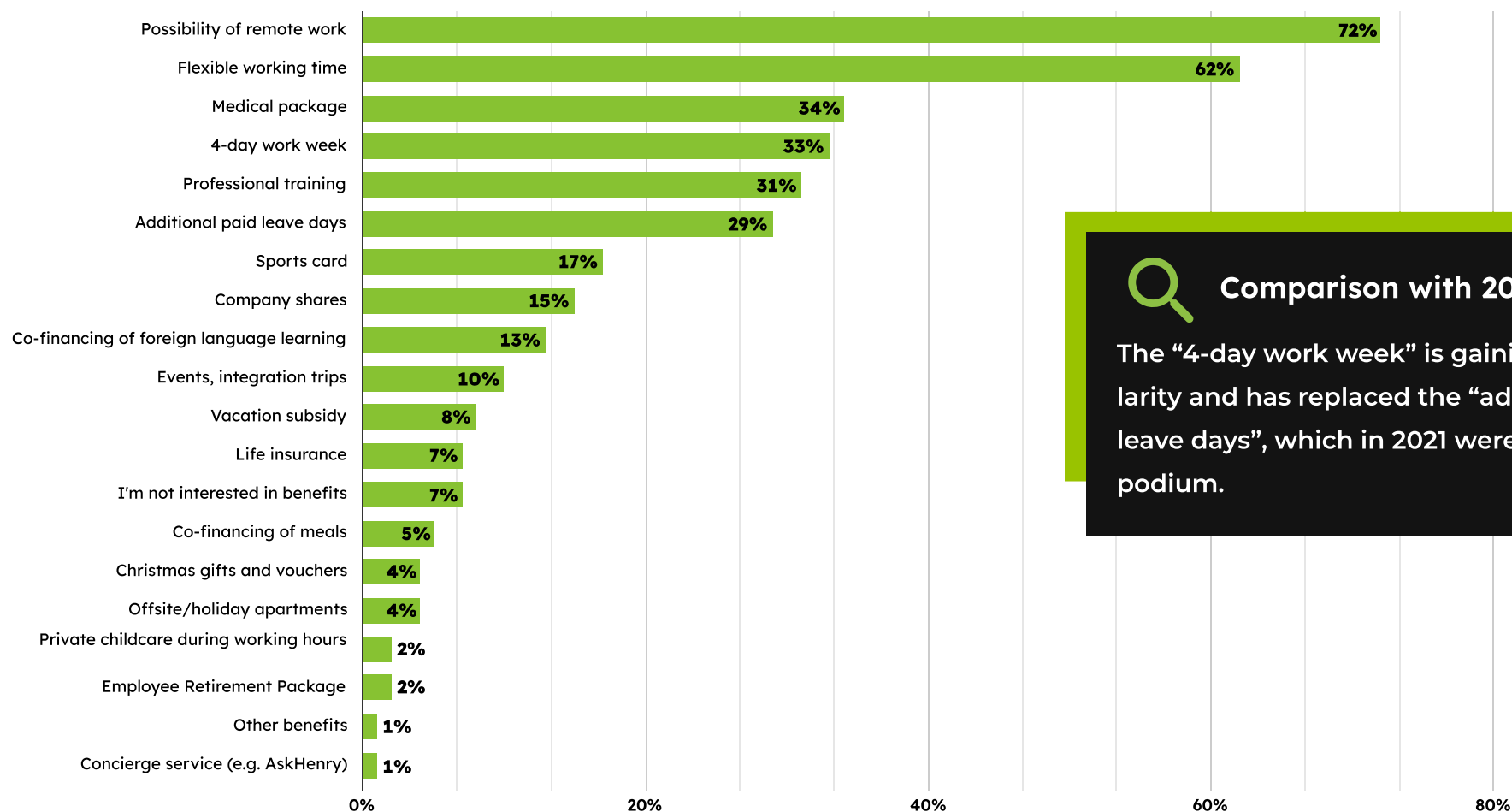
Marta Dyga
Team Leader / Senior IT Recruiter, Next Technology Professionals

6. Employee benefits

"Possibility of remote work", "flexible working time" and **"medical package"** - these three non-wage benefits were the most frequently chosen among the surveyed group. IT specialists appreciate the possibility of remote work even more than last year - this benefit was selected by 9 pp more.

Preferred employee benefits

Source: Own elaboration based on data from an online survey conducted between September and November 2022

Benefit	Percentage
Possibility of remote work	72%
Flexible working time	62%
Medical package	34%
4-day work week	33%
Professional training	31%
Additional paid leave days	29%
Sports card	17%
Company shares	15%
Co-financing of foreign language learning	13%
Events, integration trips	10%
Vacation subsidy	8%
Life insurance	7%
I'm not interested in benefits	7%
Co-financing of meals	5%
Christmas gifts and vouchers	4%
Offsite/holiday apartments	4%
Private childcare during working hours	2%
Employee Retirement Package	2%
Other benefits	1%
Concierge service (e.g. AskHenry)	1%

Comparison with 2021

The "4-day work week" is gaining in popularity and has replaced the "additional paid leave days", which in 2021 were just off the podium.

78

6. Employee benefits

Expert's comment

"Remote work is slowly ceasing to be a trend or benefit, and is becoming one of the characteristics of the IT industry. Programming will almost always be a creative activity, and the peace of home makes it much easier to stay focused, and if you need a break and collect your thoughts, nothing will work better than a few minutes spent in your favorite armchair.

A computer and a stable Internet connection are all a programmer needs to work, so the need to appear in the office becomes completely unnecessary. Remote work in a sense also removes the boundaries of cities, countries and continents. On a daily basis, I work with a team whose members are located in various places around the world. Thanks to the possibility of remote work, also not so long ago I changed the view from behind the window from the congested streets of Warsaw's Targówek district to the proudly towering trees of the nearby forest. And I will definitely not want to exchange this for sports cards or additional vacation days."

Kamil Józwik
Principal Frontend Developer. Creator of the Rekrutend course

Expert's comment

"When the slogan "benefits" comes up, the first thing that most people think of is private medical care, a gym membership or fruit Tuesdays. When you look at the results of the report, it is clear that some candidates actually appreciate these types of benefits. Despite the fact that they are a kind of "must have" that an organization must offer in order not to stand out from the competition, they are also a response to specific needs. However, if we look closely at the results, we will quickly notice that what people value the most is time and freedom.

Remote work and flexible working time are what for many people today is the foundation of their professional world, so without offering this, it will be increasingly difficult to fight for talents on the labor market. It may seem trivial, because in this case we are talking about the obvious, but there are companies that are still allergic to remote work, offering it out of necessity under market pressure. Sometimes the issue of flexible working time also turns out to be problematic, as there are companies where this flexibility consists primarily in the fact that the employee can start work, for example, between 7 am and 9 am, but people do not expect such flexibility.

What companies can definitely distinguish in the eyes of employees today is also a 4-day working week and additional vacation days. It is therefore worth considering now how, as an organization, we can provide more employees with more time and the ability to manage it better. There are already companies that are testing a 4-day working week, as well as those that introduce not only more holidays, but also unlimited ones. Perhaps such solutions will not always work perfectly (especially in companies from industries other than IT), but it is worth taking a look at them and analyzing what we can do in our company to offer employees exactly what they expect, i.e. time."

Łukasz Kołodziejczyk
Creator of the HRlityczny website and the"Przegląd HR" newsletter

Partners of the report

"Prepare for the IT recruitment process in 2023 – IT job market in Poland"

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