

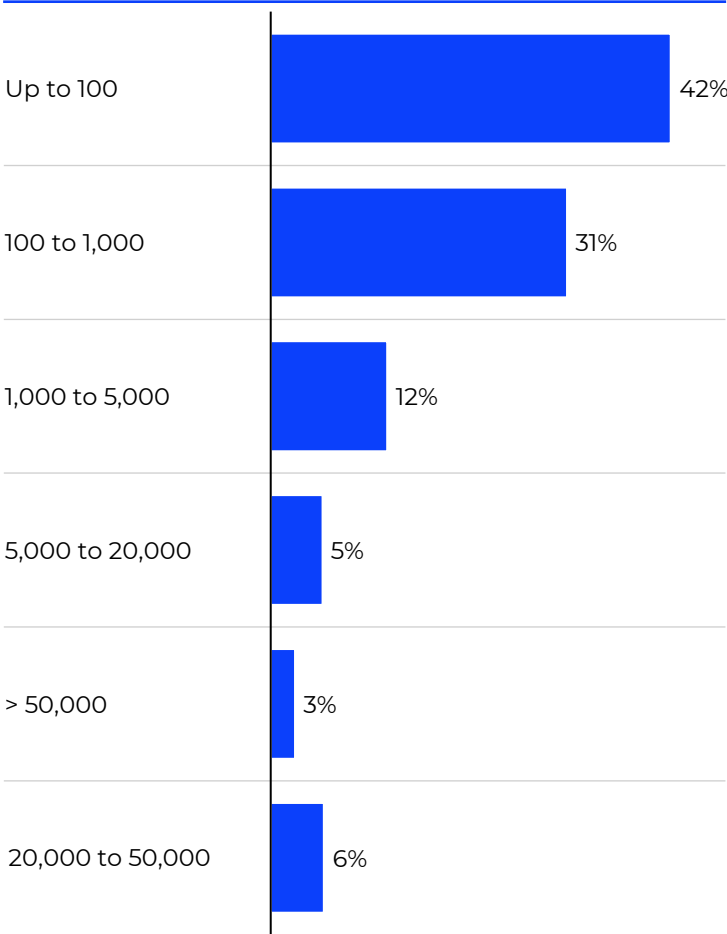
Impact of technology trends on the labor market

Key messages

- 1** Artificial intelligence and robotization will reshape the labor market more than other technologies
- 2** Companies with more than 1,000 employees are 1.5 times more active in adopting technology trends than smaller companies
- 3** In general, respondents are more likely to expect technology to create or retain jobs while improving productivity, but business process automation and robotization are expected to cause job losses
- 4** A third of respondents believe that technology trends will lead to layoffs among low- and mid-skilled employees and productivity gains among high-skilled employees

The survey polled 700 respondents from companies across a range of sectors and sizes

Headcount of respondents' companies¹,
% of respondents



Respondents from a variety of sectors took part in the survey

- Information Technologies, System Integration, Internet
- Construction, Real Estate, Operations, Engineering
- Public Organizations
- Medicine, Pharmaceuticals, Pharmacies
- Educational Institutions
- Retail
- Finance
- Grocery
- Transportation, Logistics, Warehousing, Foreign Economic Activity
- Hotels, Restaurants, Catering
- Industrial Equipment, Machinery, Machine Tools and Components
- Media, Marketing, Advertising, BTL, PR, Design, Program Production
- Business Services
- Consumer Services
- Art, Culture
- Automotive Business
- Consumer Goods (non-food)
- Housing & Utilities
- Energy
- Oil & Gas
- Metals, Metalworking
- Telecommunications, Communications
- Other sectors

The survey covered **job seekers** who have an **account on hh.ru**

Employers represent almost all sectors of the Russian economy

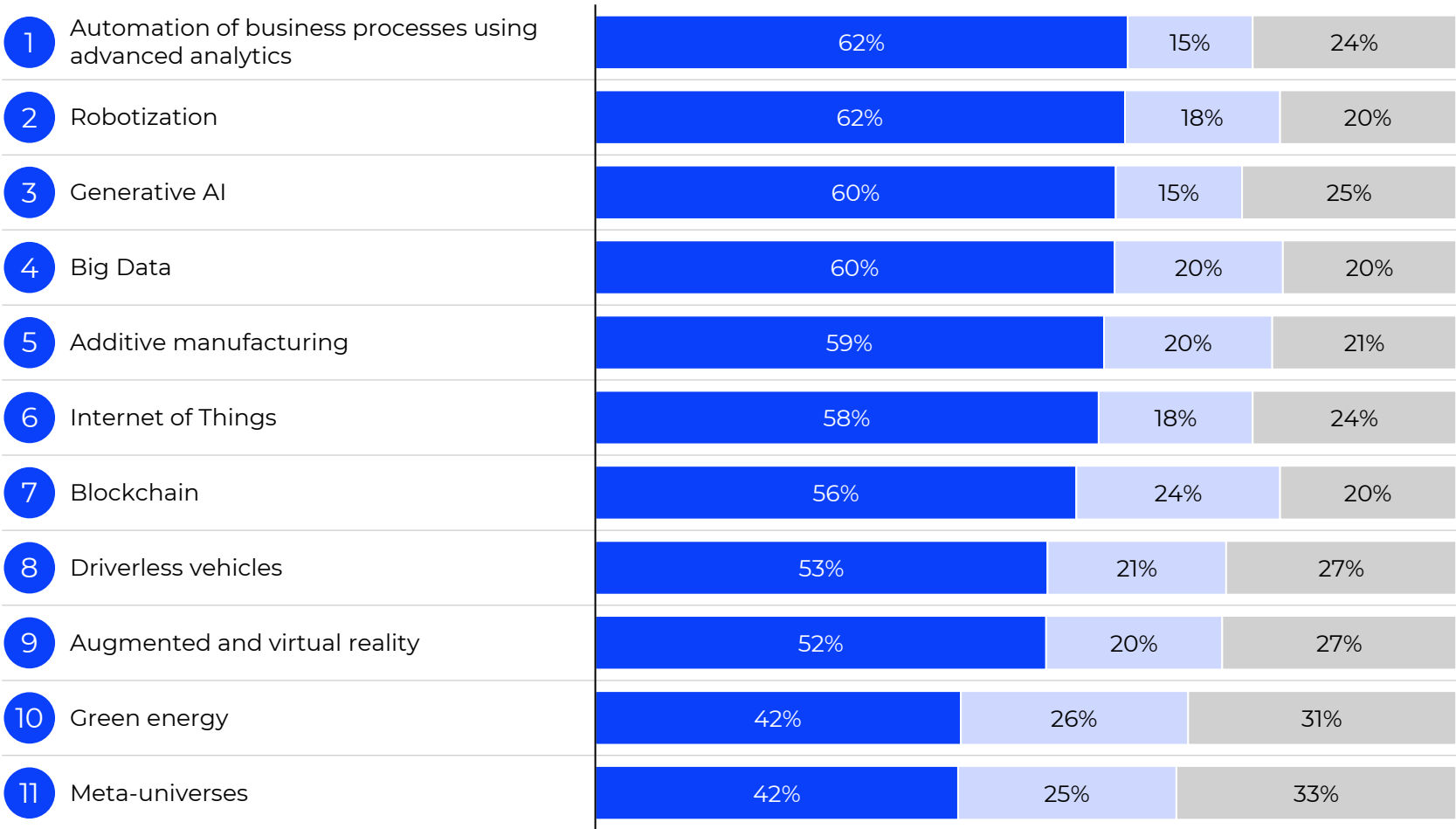
1. Companies that employed or are employing the interviewed job seekers



Three of the five technologies with the greatest impact on the labor market are related to advanced analytics

■ Will have an impact ■ Not sure / not familiar with the technology ■ No impact

Assessing the impact of technology trends until 2030¹, % of respondents



Less than half of respondents believe in the impact of **green energy** and **meta-universes** on the labor market

1. Eleven key trends affecting the labor market selected based on global labor market reports by McKinsey, BCG, Bain
 Question: "How do you assess the impact of technology trends into 2030?"
 The survey was conducted by Yakov & Partners in collaboration with hh.ru



IT professionals are the least likely to believe in the impact of blockchain technology on the labor market

Comparing the assessment of technology trends' impact by employees from different sectors, deviation from the mean, % of respondents

	IT	Construction and manufacturing sectors ¹	Service sector ²
1 Automation of business processes using advanced analytics	+8%	-5%	+5%
2 Robotization	--	-2%	-2%
3 Generative AI	+9%	↓ -10%	↑ +10%
4 Big Data	+1%	-4%	+3%
5 Additive manufacturing	--	-2%	+2%
6 Internet of Things	↑ +12%	-3%	+3%
7 Blockchain	↓ -7%	-2%	+2%
8 Driverless vehicles	+4%	-3%	--
9 Augmented and virtual reality	+2%	-4%	--
10 Green energy	-8%	-1%	+1%
11 Meta-universes	-9%	-1%	-2%

1. Calculations include automotive business, metals, heavy engineering, etc.

2. Calculations include hotels, restaurants, catering, business services, consumer services, etc.

Question: "How do you assess the impact of technology trends into 2030?"

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Employees of IT companies are more likely to believe in the impact of the Internet of Things on the labor market (second place vs. sixth place for all other respondents)

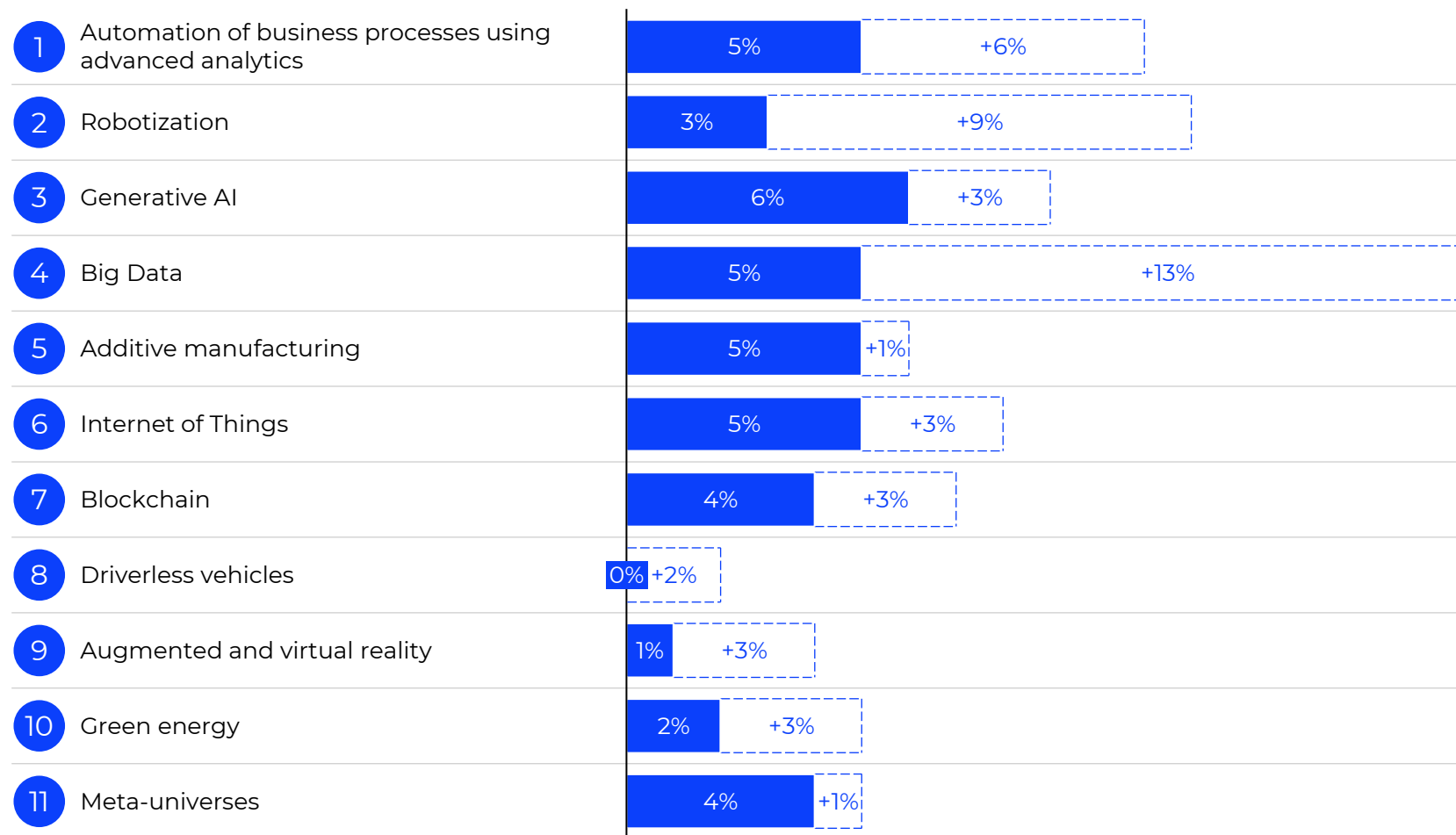
Service sector employees are the most likely to believe in the impact of **generative artificial intelligence** (first place vs. third place for all other respondents)

Construction industry employees are generally less likely to believe in the impact of technology trends (47% vs. 55% average for other groups)

Employees at large companies are 1.5 times more likely to mention the use of new technologies

■ Employees of companies with a workforce of >100 employees □ Employees of companies with a workforce of >1,000 employees

Assessing the use of technology trends in the respondents' companies, % of respondents



Both small and large businesses are using or exploring the use of the same technologies

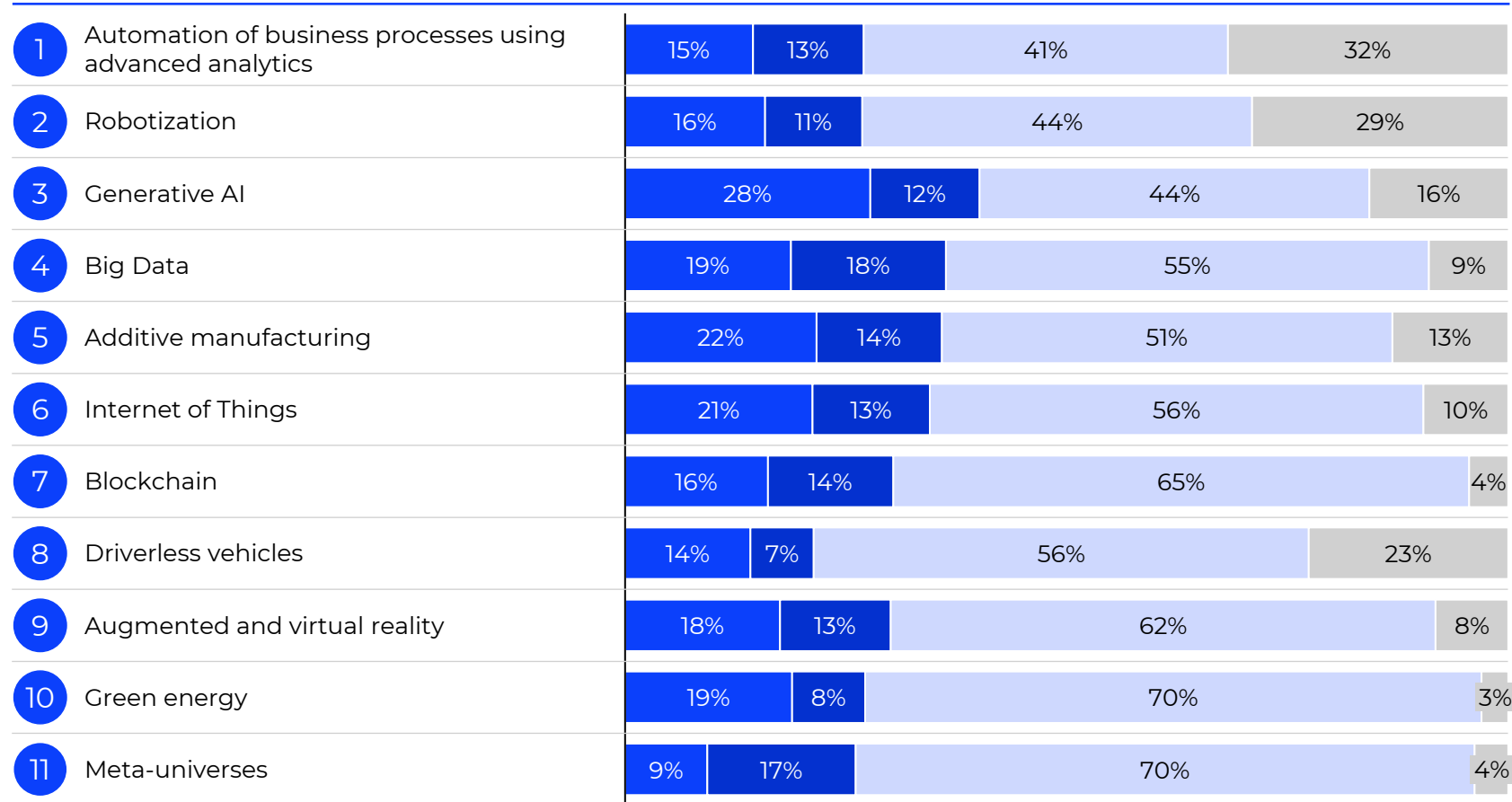
Big business is more actively using and adopting technology trends, especially **big data, robotization, and business process automation**

Current levels of technology adoption are similar across companies in all sectors, but construction and manufacturing companies are more likely to use robotization

Overall, respondents expect technology to have a positive impact on the labor market

■ Will create new jobs, occupations or entire functions
 ■ Will boost labor productivity while retaining jobs
 ■ Difficult to answer / did not answer the question
 ■ Will lead to layoffs

Assessing the impact of technology trends into 2030, % of respondents



Respondents are more likely to expect that technology will create or retain jobs while improving productivity than that it will cause job losses

Job losses are expected due to business process automation, robotization (by about a third of respondents) and the use of driverless vehicles

Employees in IT and Services are the most likely to believe that new jobs and productivity will be impacted by:

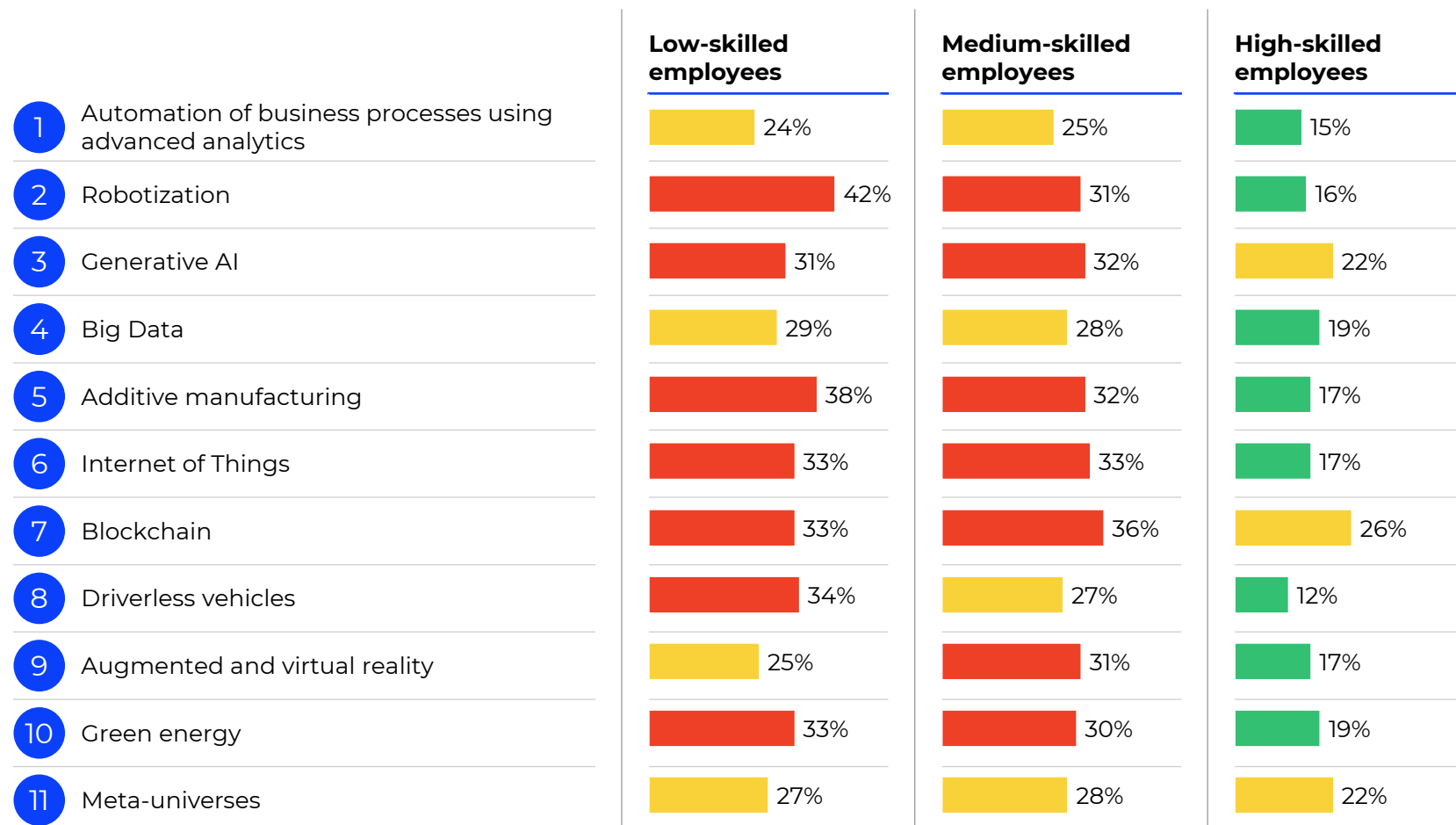
- Generative AI (+10%)
- Internet of Things (+5%)
- Big Data (+5%)

Manufacturing sector employees rank additive manufacturing as the top job creator (21%); generative AI comes in second (20%)

Low- and mid-skilled employees are more at risk of job loss due to advances in technology

■ >30%
 ■ 20-30%
 ■ <20%

Percentage of respondents who mentioned the risk of job loss for this group, %



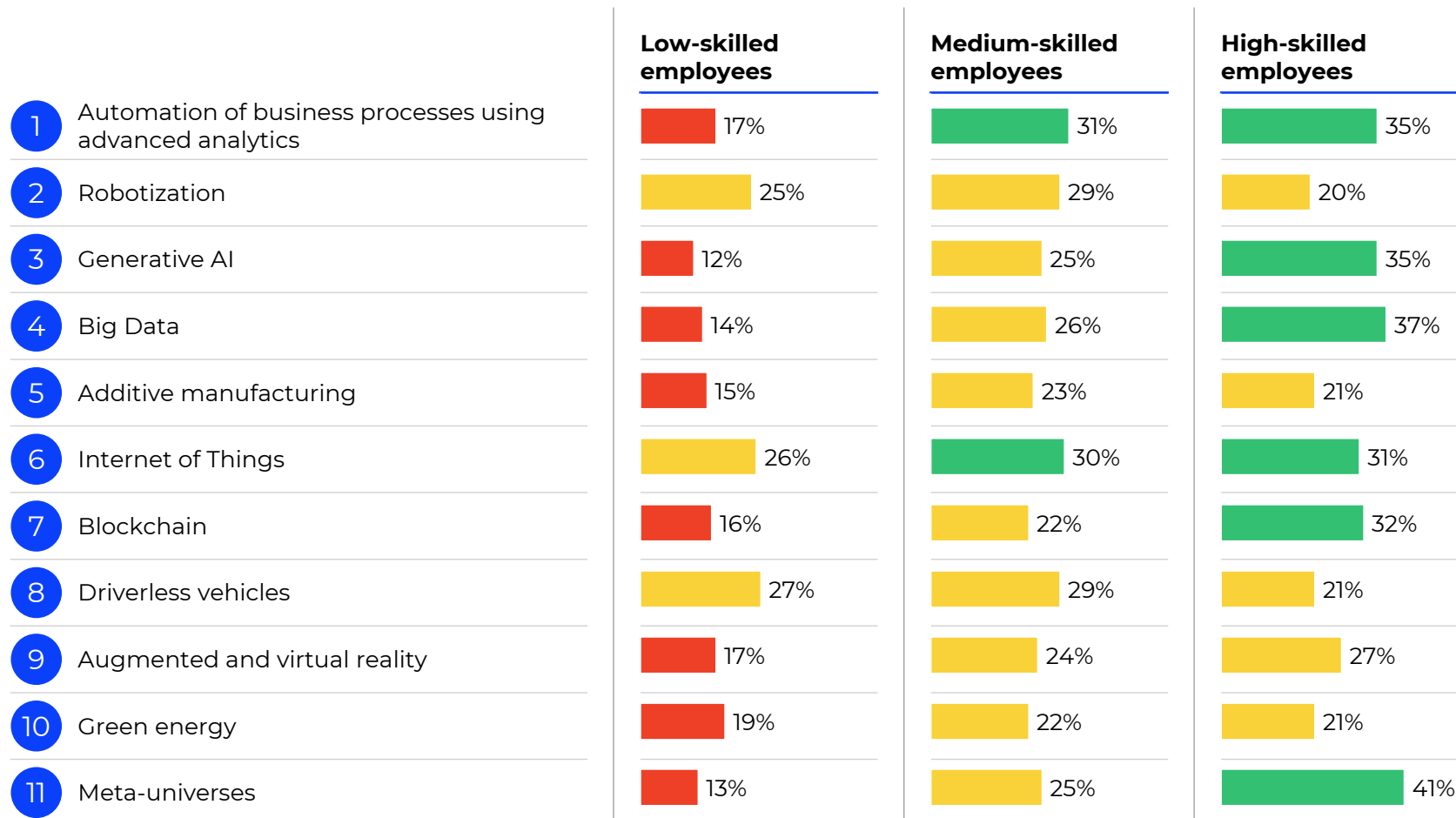
Less than a quarter of respondents believe that any of the trends will lead to job losses for high-skilled employees

However, according to respondents, low-skilled employees are most at risk of job loss due to advances in technology

High-skilled employees will see productivity gains by 2030, not job losses

■ >30%
 ■ 20-30%
 ■ <20%

Percentage of respondents who believe the trend will drive productivity growth, %



A third of respondents believe that technology advances will boost productivity of high-skilled employees

Less than a quarter of respondents believe that low-skilled employees will also be affected by productivity growth

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