

Industry

NAVIGATOR

SUSTAINABLE DEVELOPMENT
STRATEGIES FOR T&D

CONFERENCE 2025

WORKFORCE CHALLENGES IN TRANSFORMER AND SWITCHGEAR INDUSTRY

RESEARCH

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10 April 2025

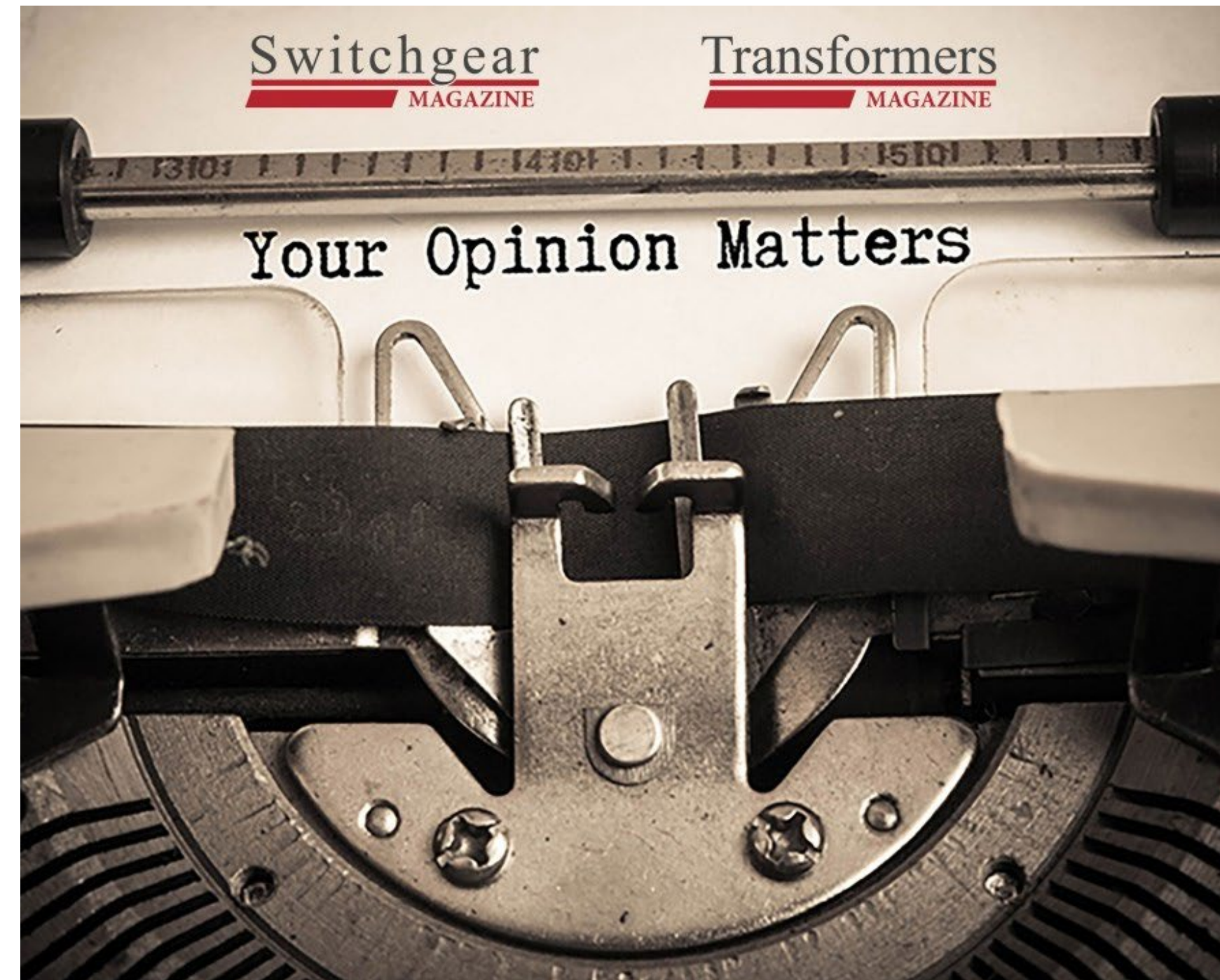
Transformers
MAGAZINE

Switchgear
MAGAZINE

INTRODUCTION

Motivated by insights from the **TCC 2024 report**, Transformers Magazine and Switchgear Magazine have seized the opportunity to conduct a comprehensive research study, in collaboration with organizational development experts, to gather valuable insights into the current trends, challenges, and future directions shaping our industry.

By initiating a conversation on strategic approaches, our study aims to explore potential solutions and spark ideas to help the industry overcome these pressing challenges, while encouraging the exchange of experiences, best practices, and insights among industry stakeholders.



CURRENT INDUSTRY LANDSCAPE

AGING WORKFORCE

The loss of expertise poses a significant challenge for knowledge transfer and future operations.

- 65% of the workforce is over 45 years
- 30% eligible for retirement within 5 years.

INDUSTRY ATTRACTIVENESS

Competition from the tech sector for skilled engineers is increasing.

- 35% higher turnover rate vs. 5 years ago
- 68% of companies struggling with recruitment
- market growing twice as fast as the workforce.

SKILLS GAP

Industrial sector struggles to keep up with evolving technologies, leading to a skills gap.

Training programs are lagging behind technology.

Digital transformation requires new competencies.

WORKFORCE CHALLENGES

METHODOLOGY

OBJECTIVE

The aim of this research was to explore current trends, challenges, and future directions in the transformer industry through:

- identifying the existing skills gaps
- assessing job satisfaction levels, and
- understanding the key challenges faced by employees in the sector.

SCOPE

- The research focused on employees across various roles within the transformer and switchgear industry, with data segmented by factors such as experience, age, and job function.
- Several hundreds of industry professionals worldwide were included in the survey to gather a comprehensive understanding of the sector's key issues.
- The survey was conducted between November 2024 and January 2025.

ANALYSIS

- The survey included both quantitative and qualitative questions to provide a comprehensive analysis of the industry.
- The quantitative data collected were analyzed using statistical methods to identify trends, challenges, and skills gaps.
- Secondary data, including industry reports and publications, have also been reviewed to provide context.

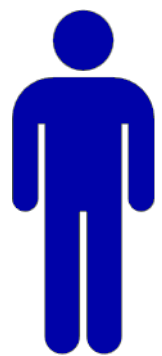
DEMOGRAPHIC OVERVIEW

PARTICIPANTS



704

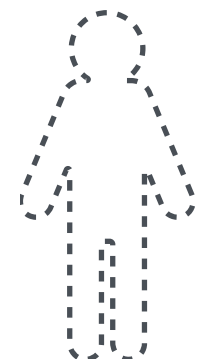
GENDER



90,1%



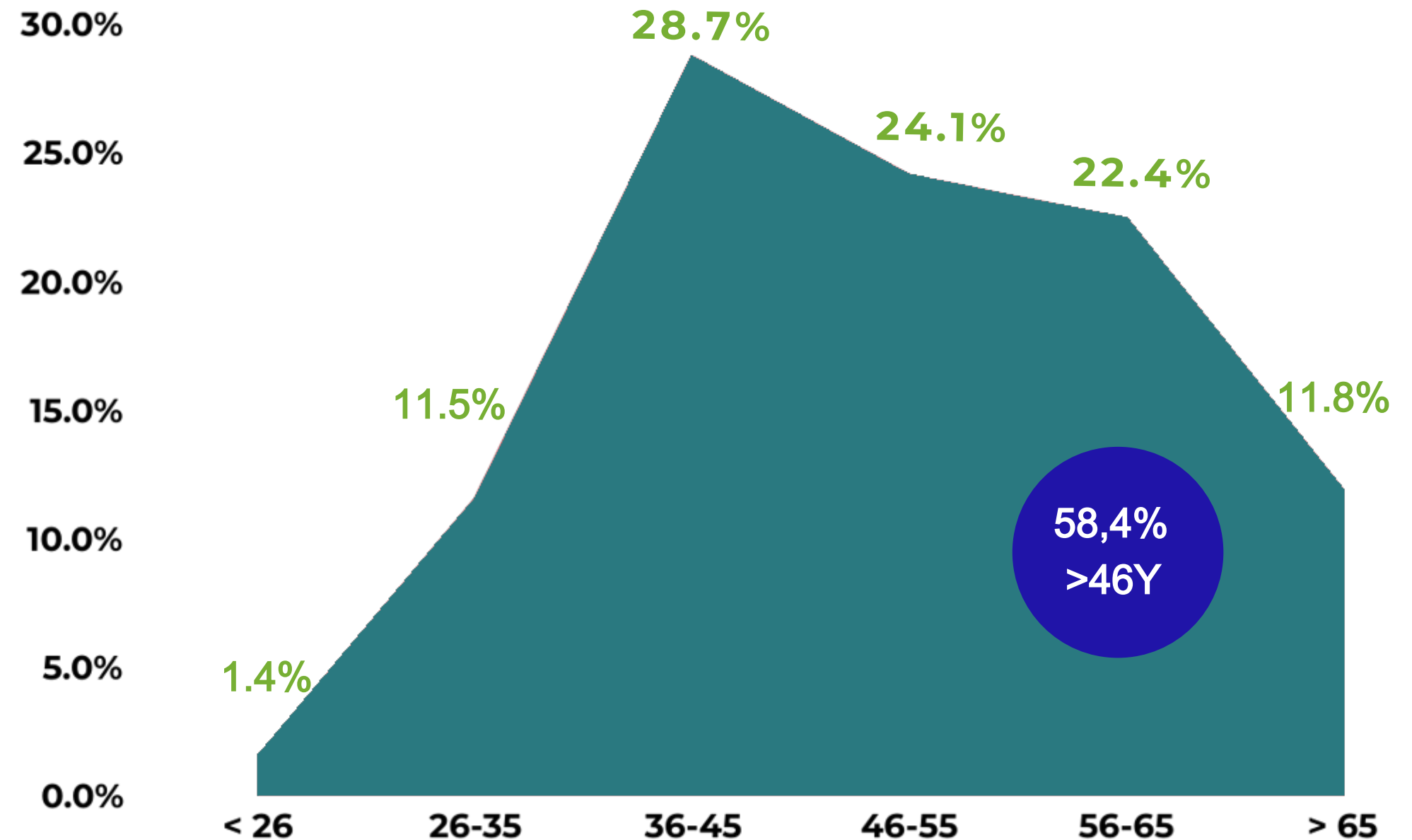
9,5%



0,4%

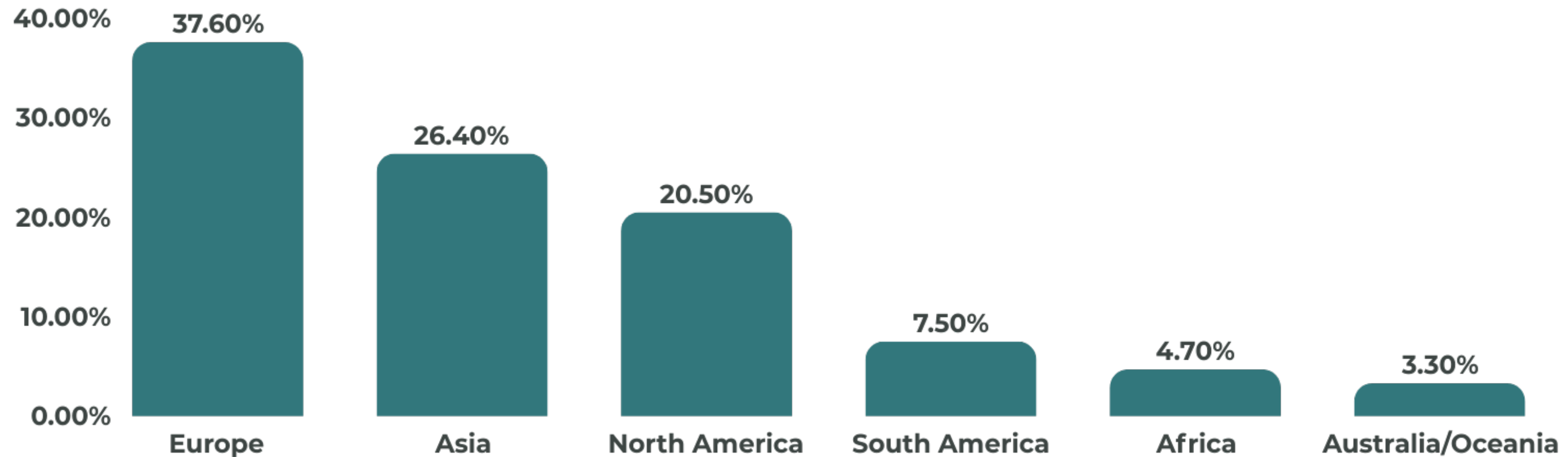
BABY BOOMERS (55+): 42% OF WORKFORCE
 GEN X (40-54): 35% OF WORKFORCE
 MILLENNIALS (25-39): 20% OF WORKFORCE
 GEN Z (<25): 3% OF WORKFORCE

SOURCE: INDUSTRY EMPLOYMENT DEMOGRAPHICS 2023



DEMOGRAPHIC OVERVIEW

CONTINENTS



TOP 15 COUNTRIES (NUMBER OF PARTICIPANTS)

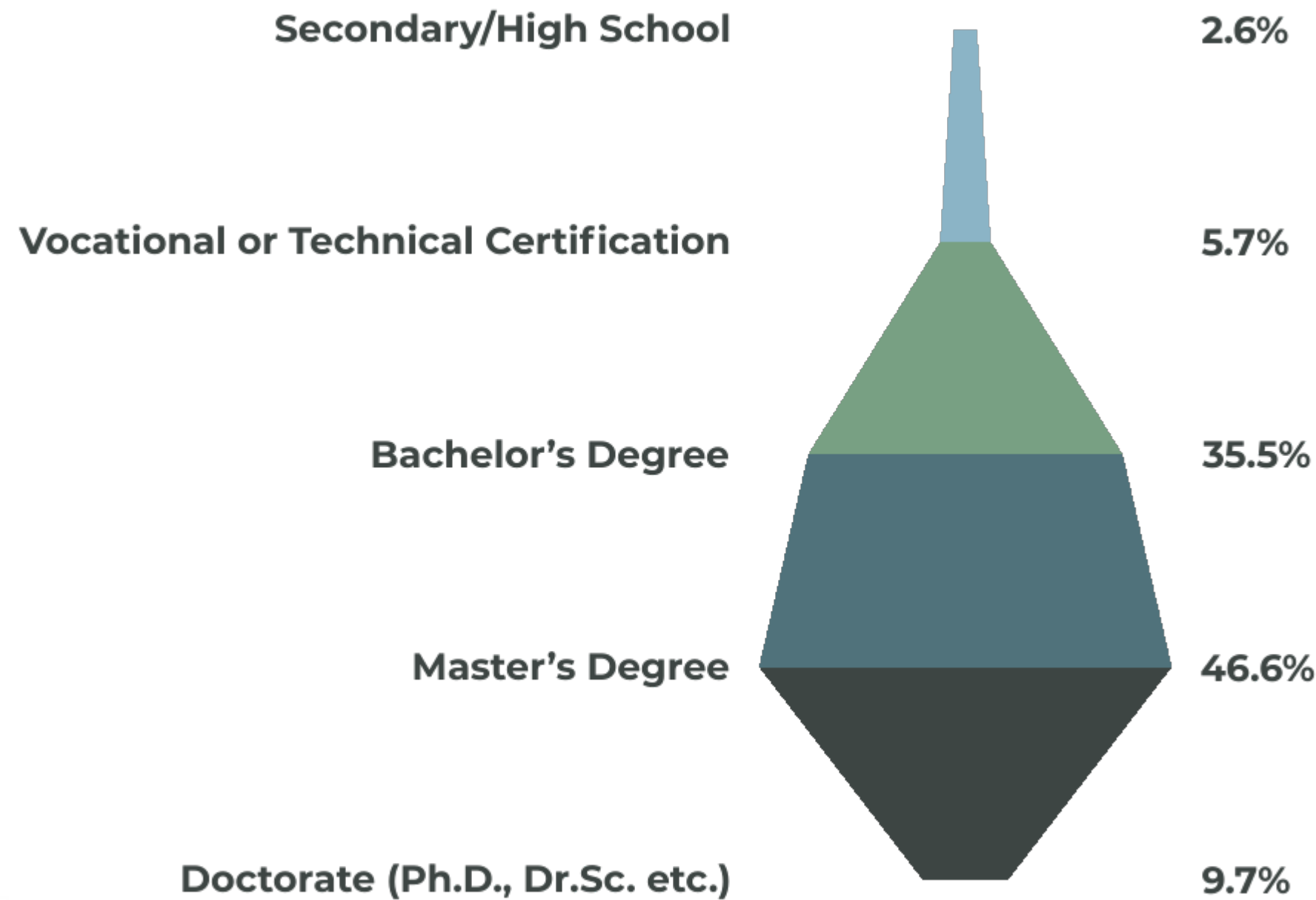
UNITED STATES	Italy	Mexico	Switzerland	Colombia
India	Canada	Australia	United Kingdom	Netherlands
Germany	Croatia	Spain	Turkey	Sweden

85

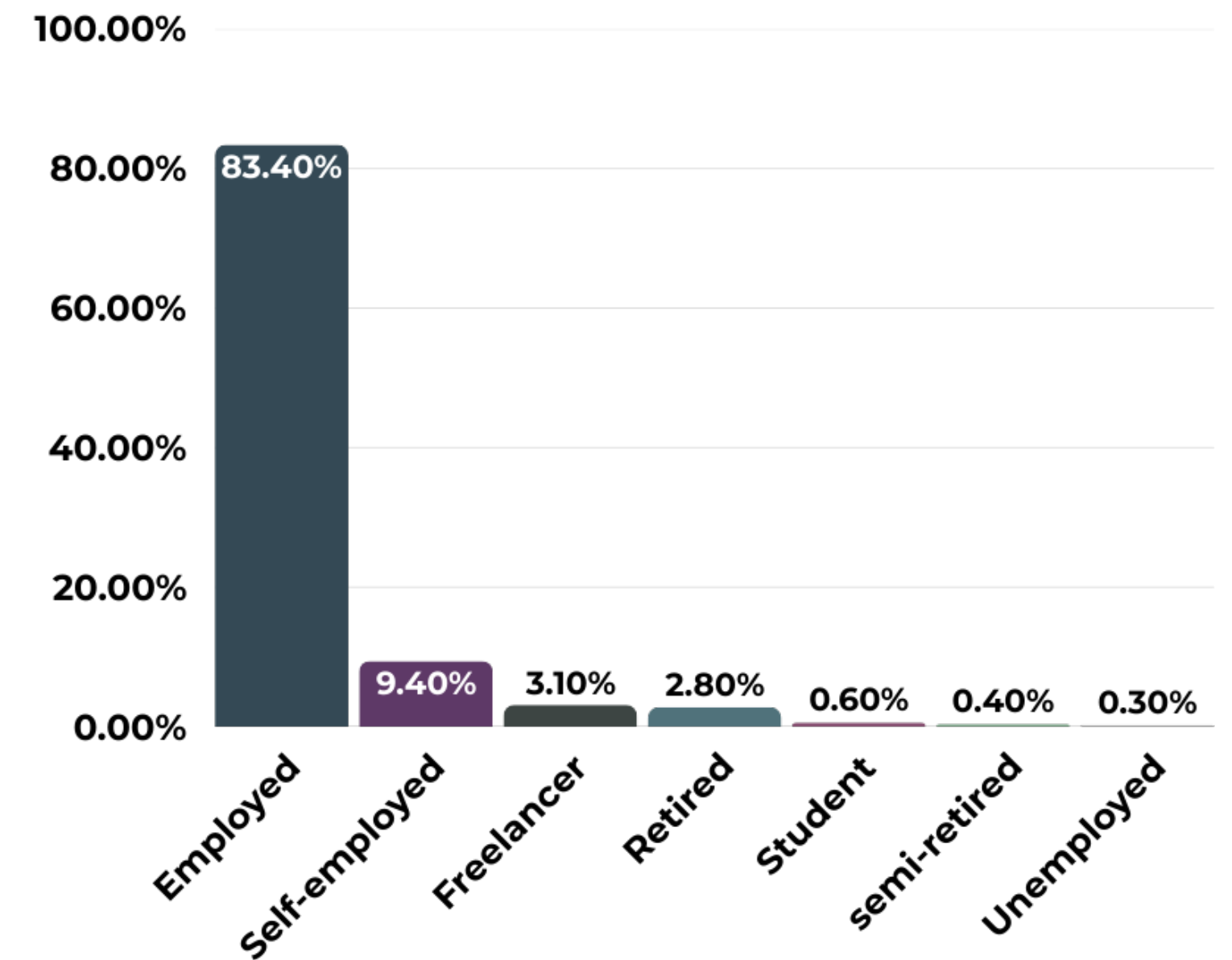


PROFESSIONAL BACKGROUND

HIGHEST LEVEL OF EDUCATION

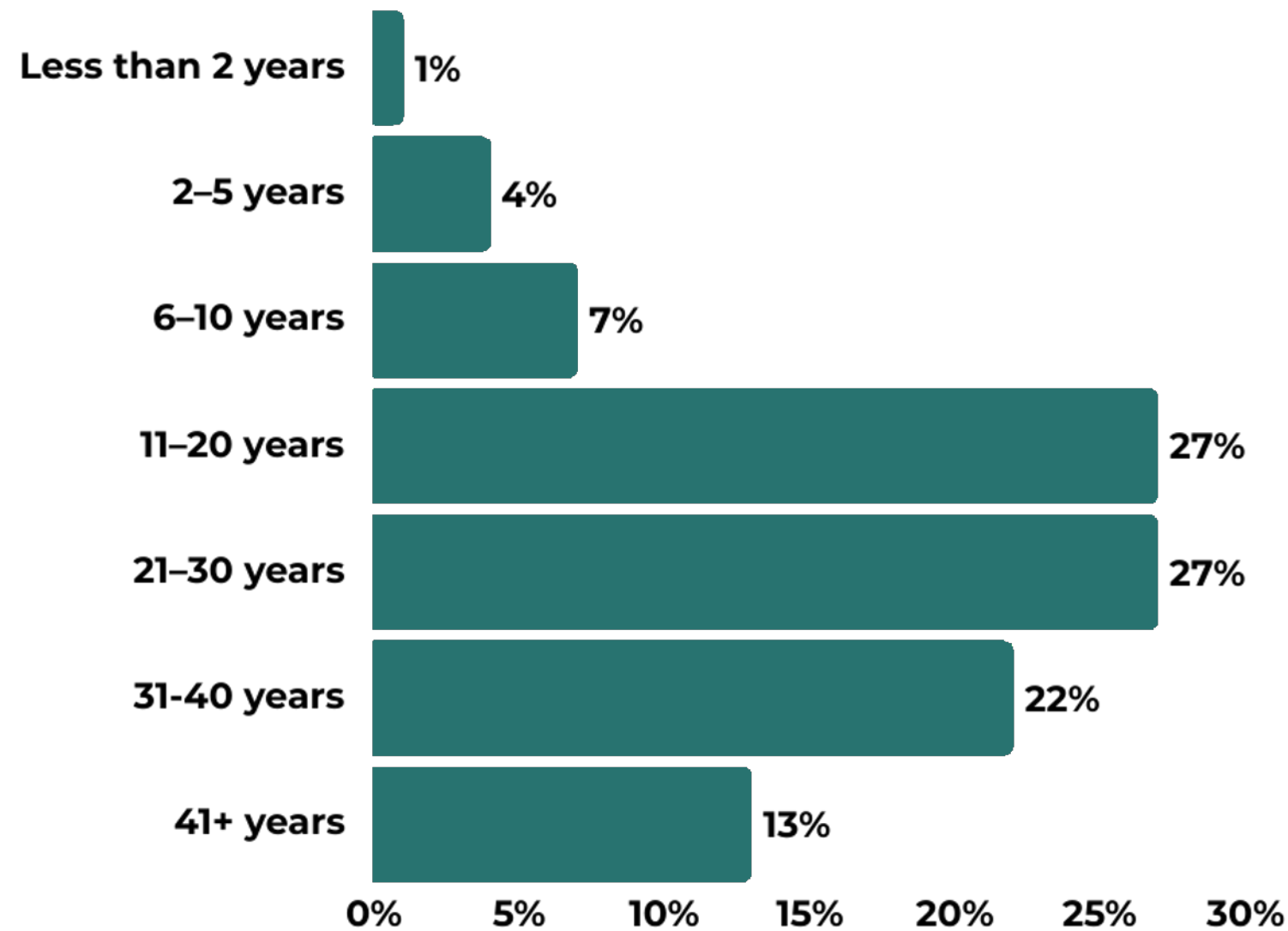


EMPLOYMENT STATUS



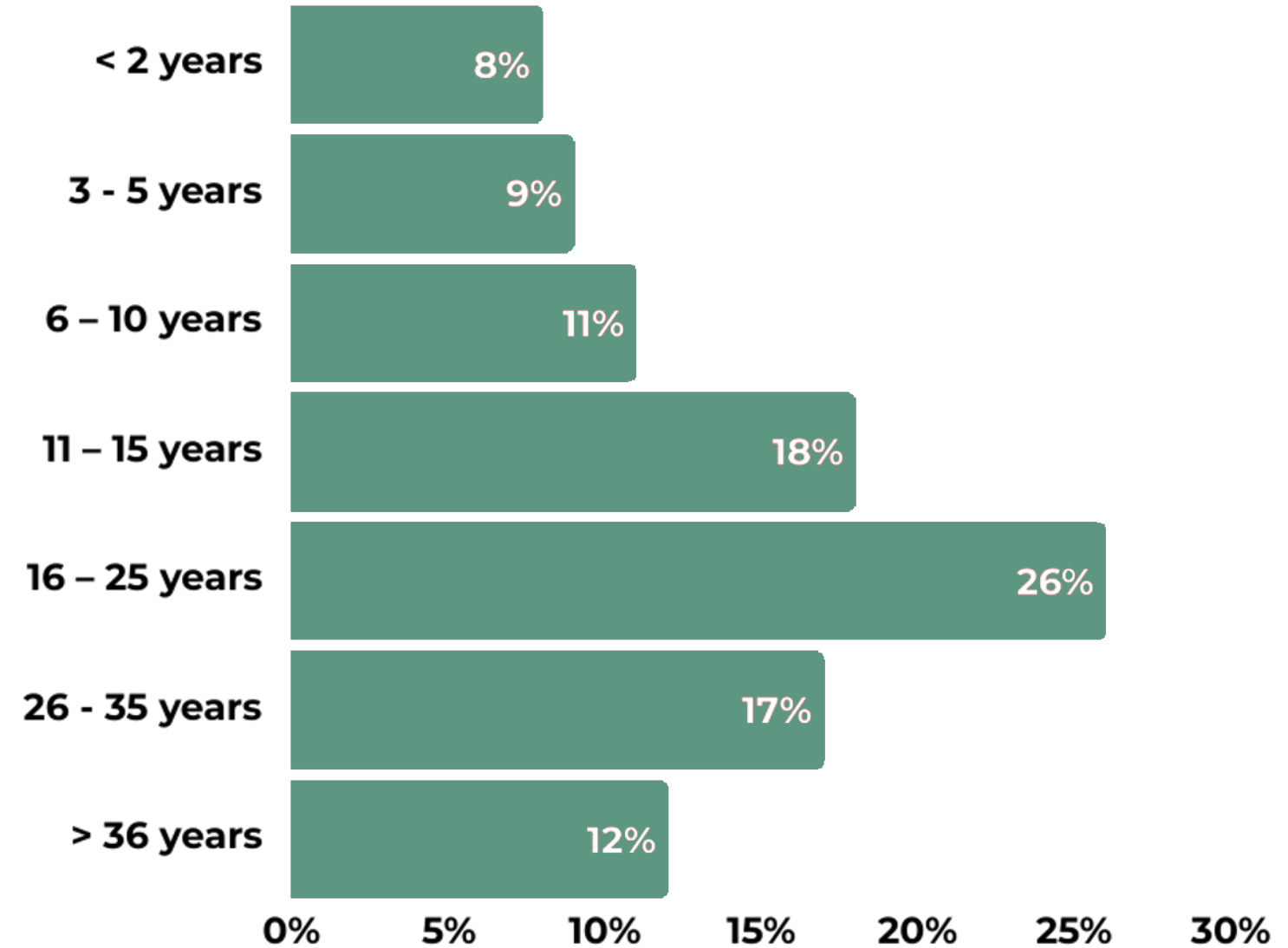
PROFESSIONAL BACKGROUND

TOTAL EXPERIENCE



Nearly 90% > 10 years

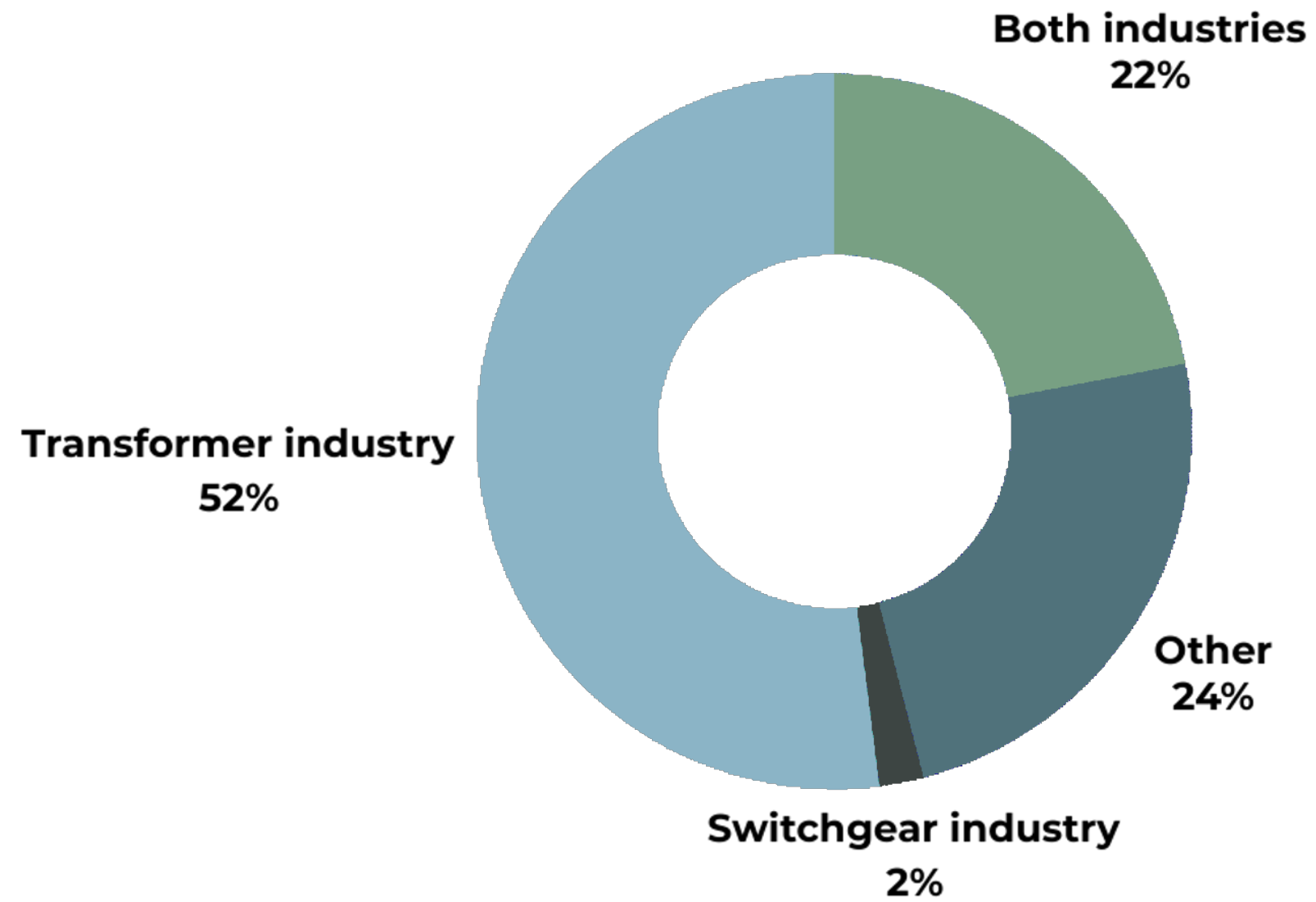
YEARS IN THE INDUSTRY



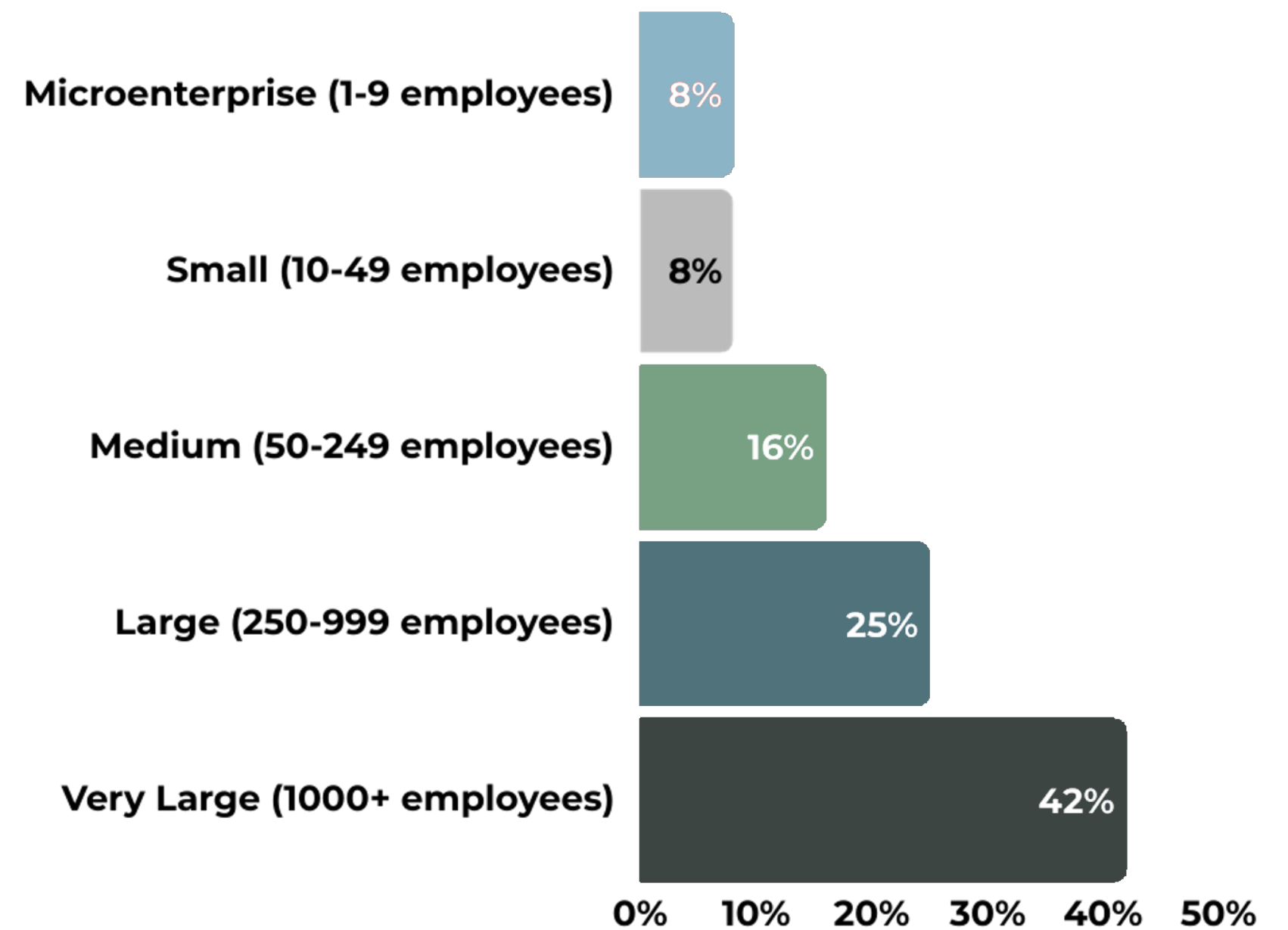
Nearly 3/4 > 10 years

ORGANIZATIONAL DETAILS

INDUSTRY

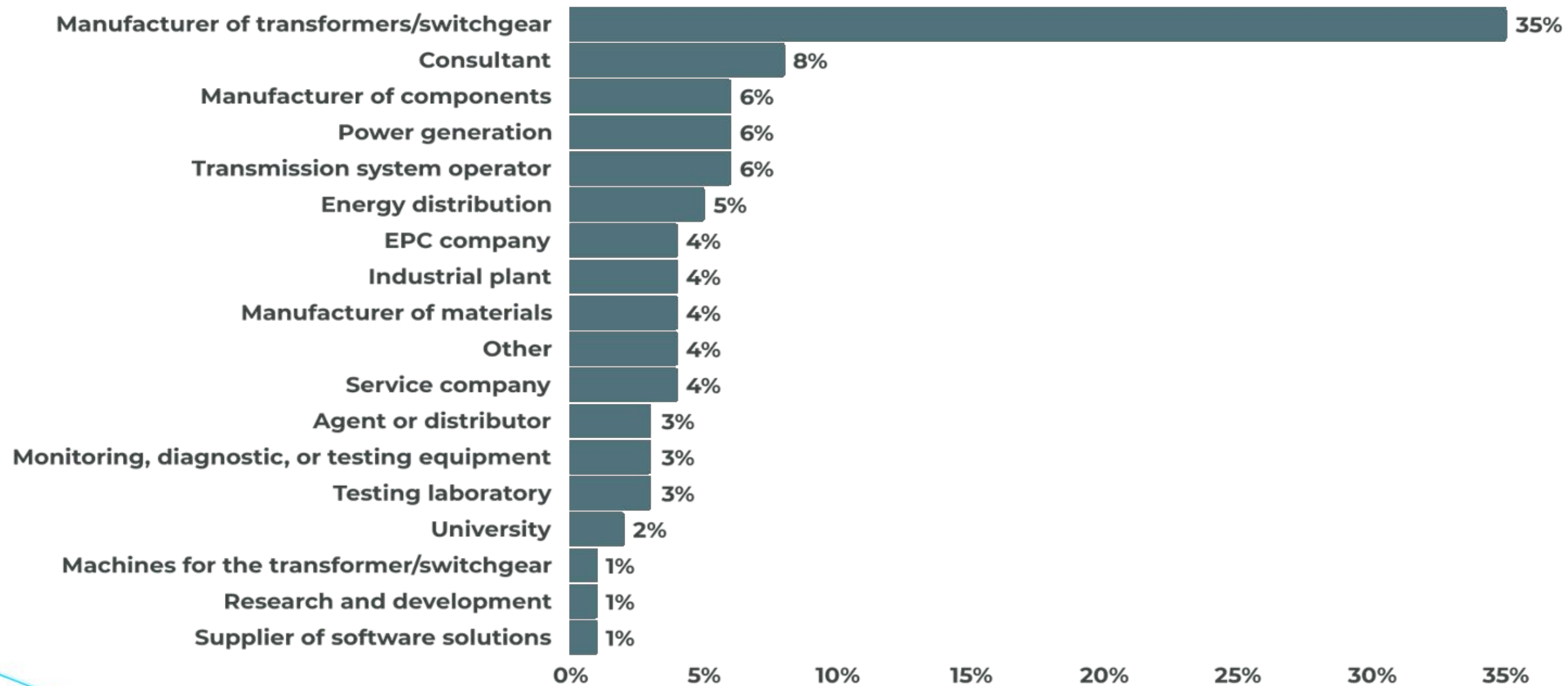


COMPANY SIZE

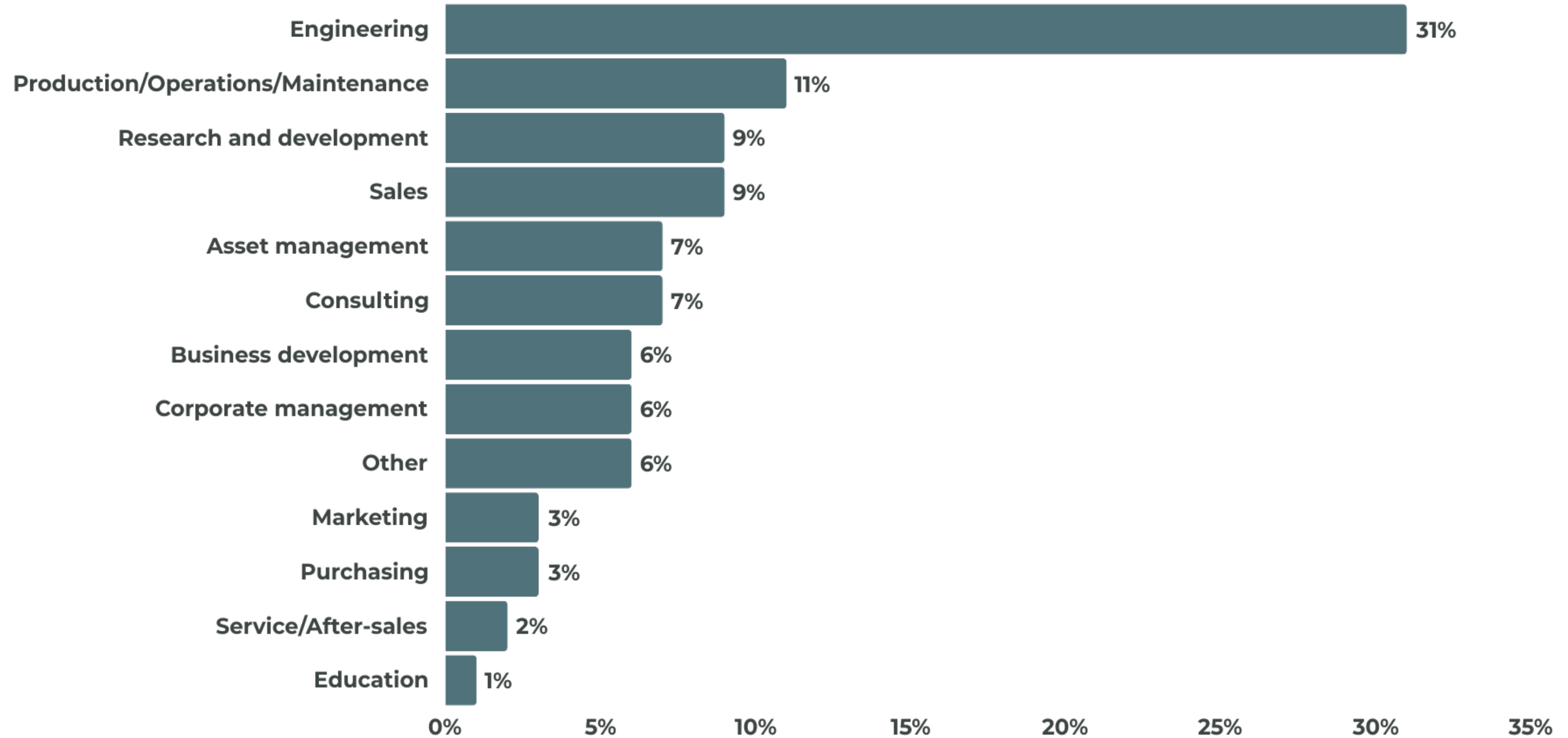


COMPANY TYPE

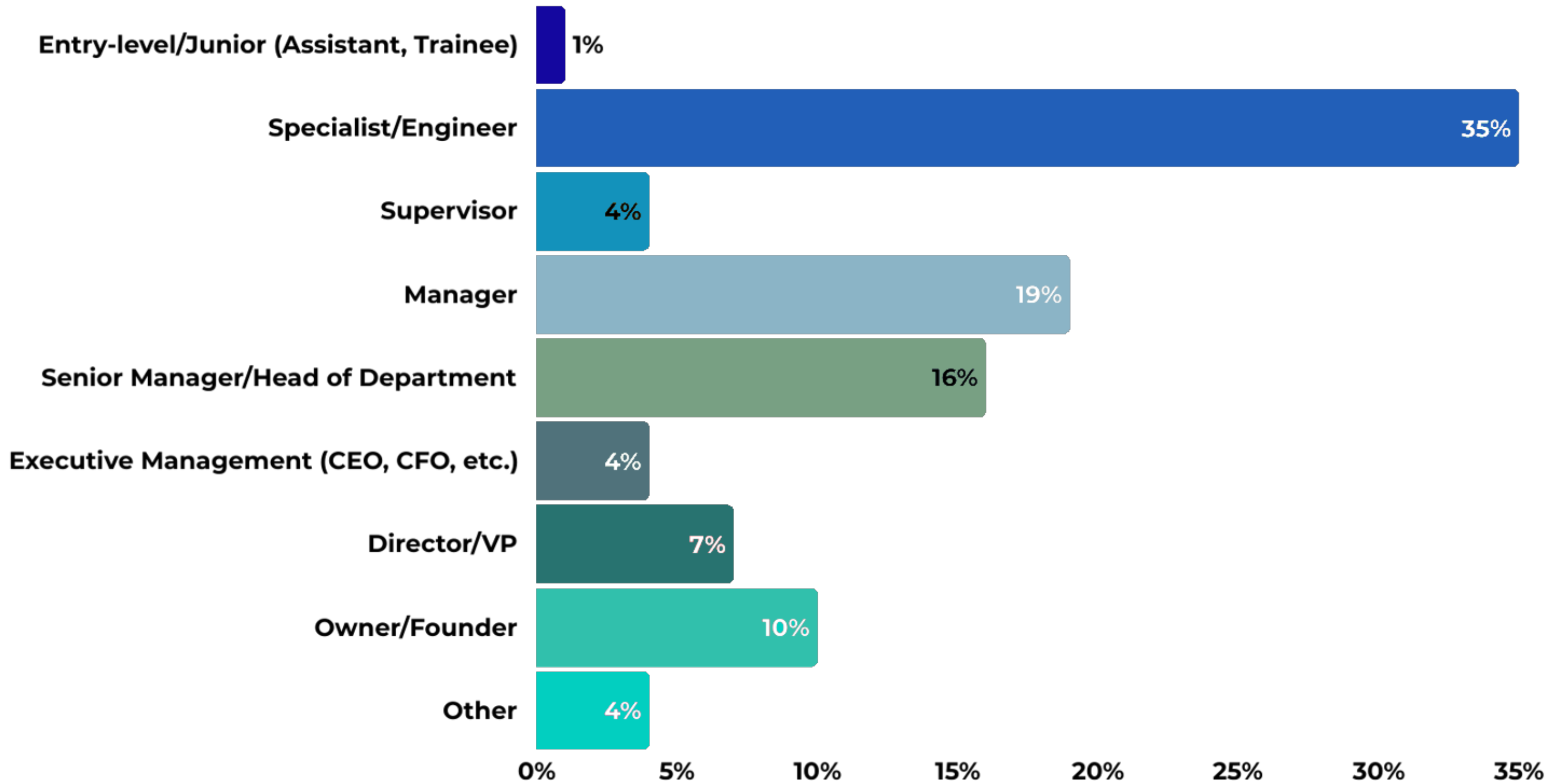
*BASED ON THE PRODUCTS/SERVICES FOR THE TRANSFORMER/SWITCHGEAR INDUSTRY



DEPARTMENT



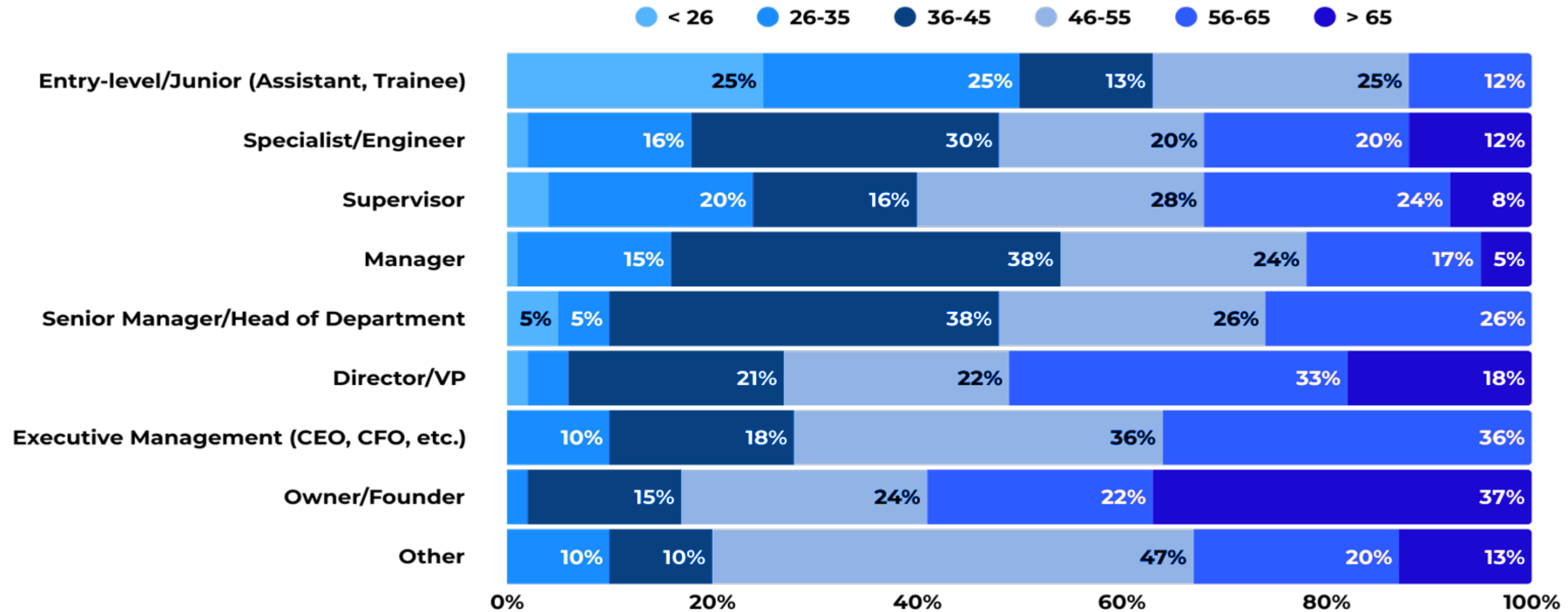
POSITION



AGE AND JOB LEVEL DISTRIBUTION

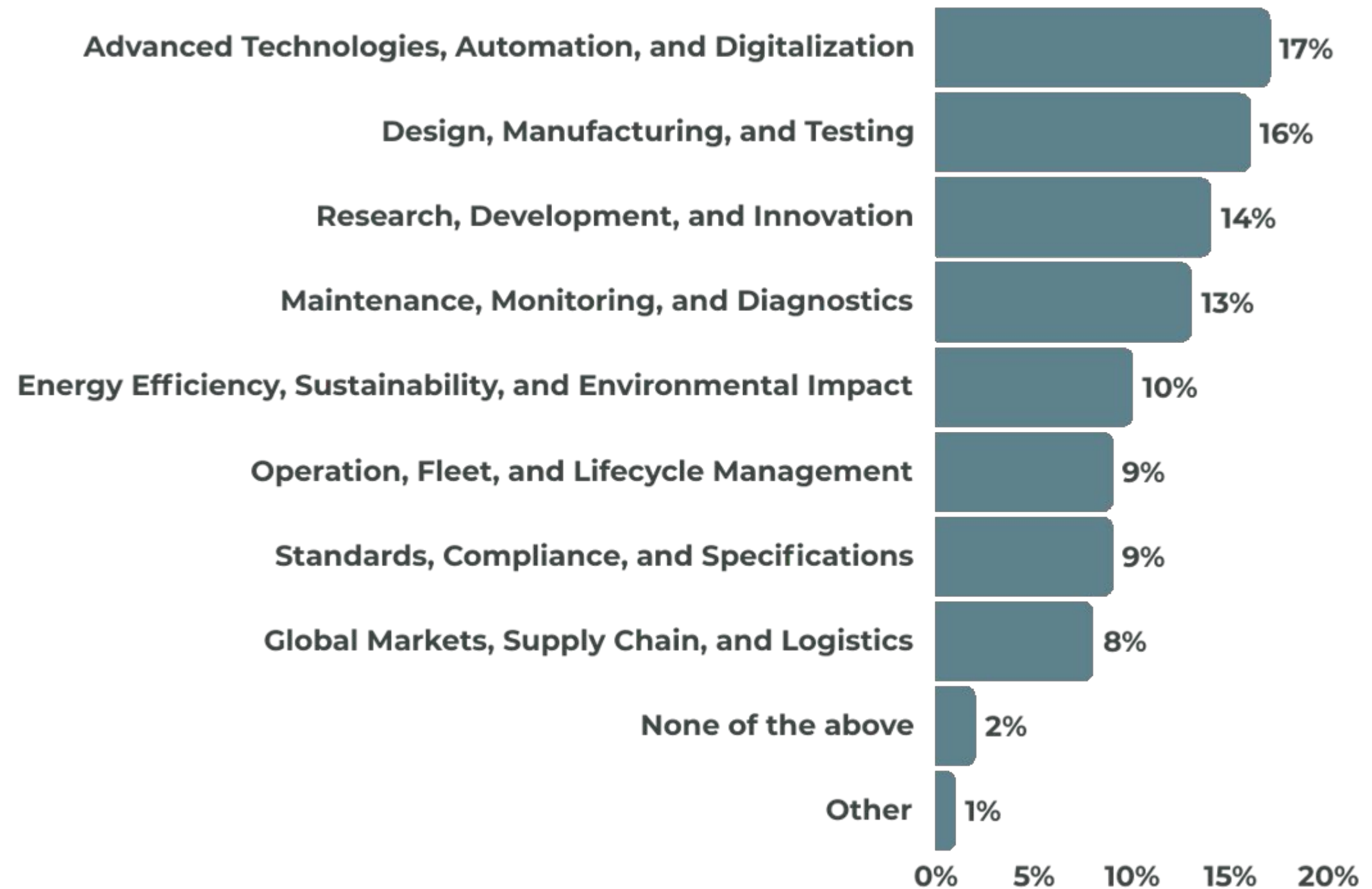
56%

RESPONDENTS
HAVE
SUBORDINATES



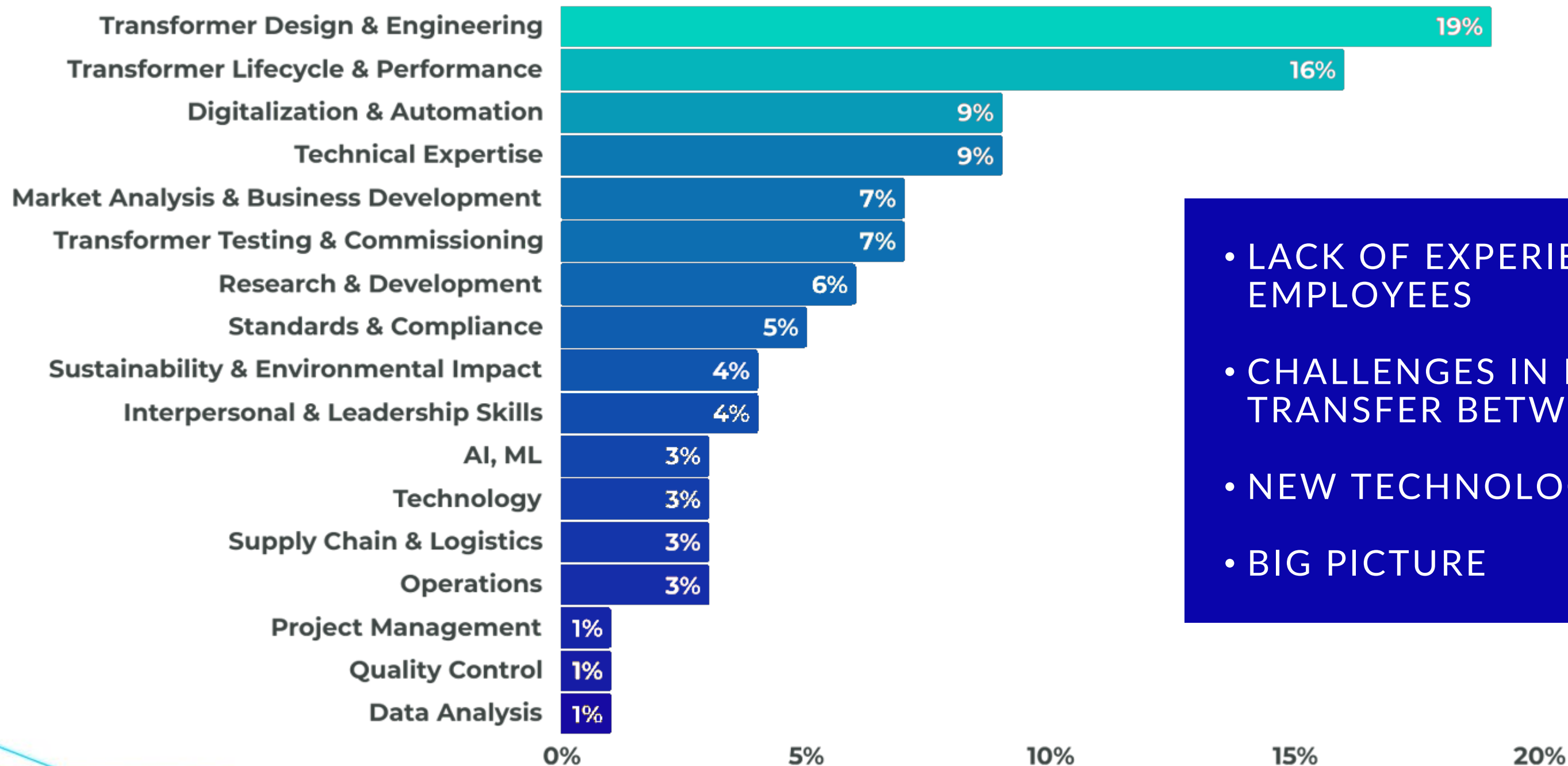
ORGANIZATIONAL KNOWLEDGE GAPS

In which areas of organization do you feel there is a lack of knowledge?



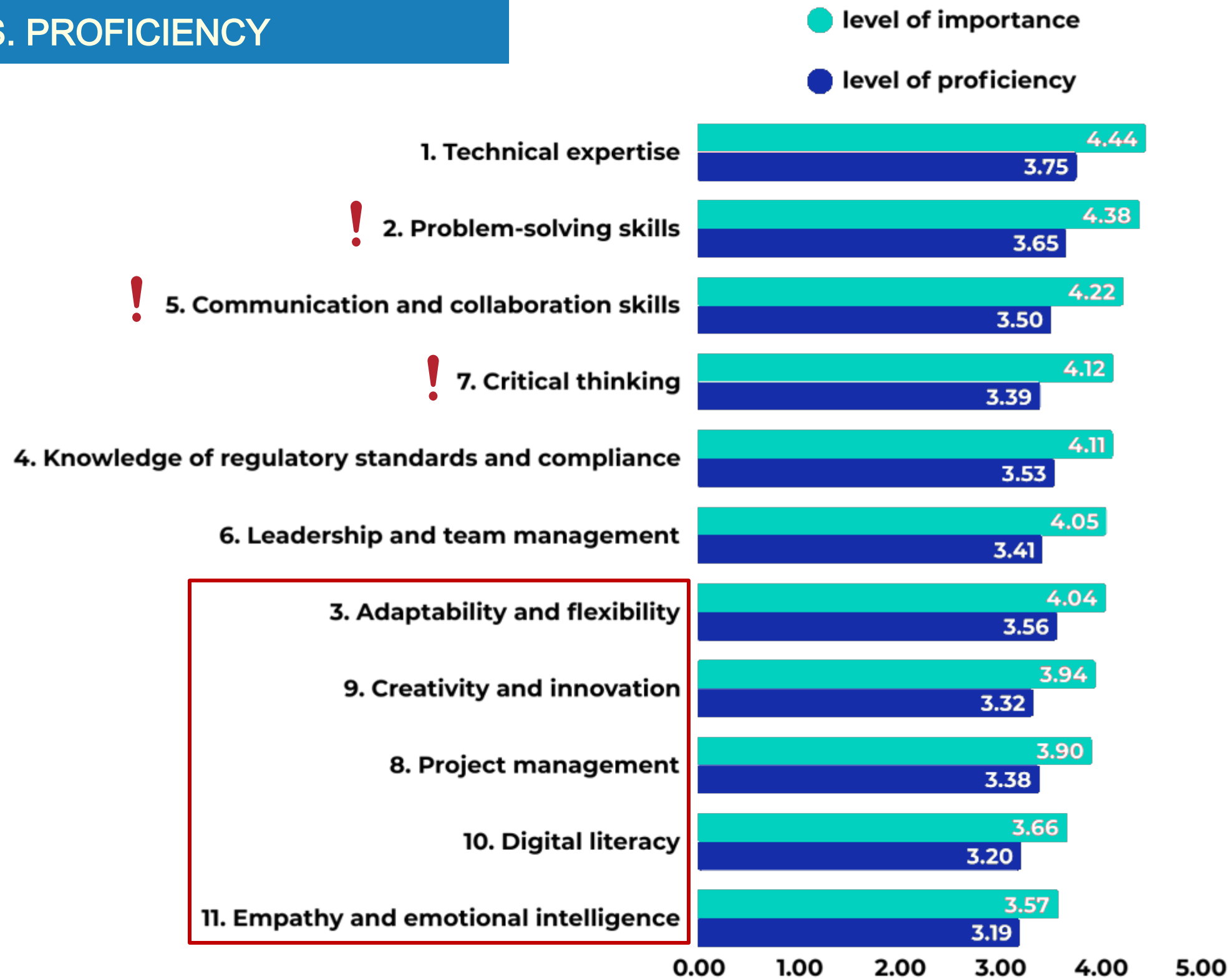
PERSONAL KNOWLEDGE GAPS

In which specific areas do you feel you need additional knowledge or training to perform your role more effectively?



- LACK OF EXPERIENCED, SKILLED EMPLOYEES
- CHALLENGES IN KNOWLEDGE TRANSFER BETWEEN GENERATIONS
- NEW TECHNOLOGIES
- BIG PICTURE

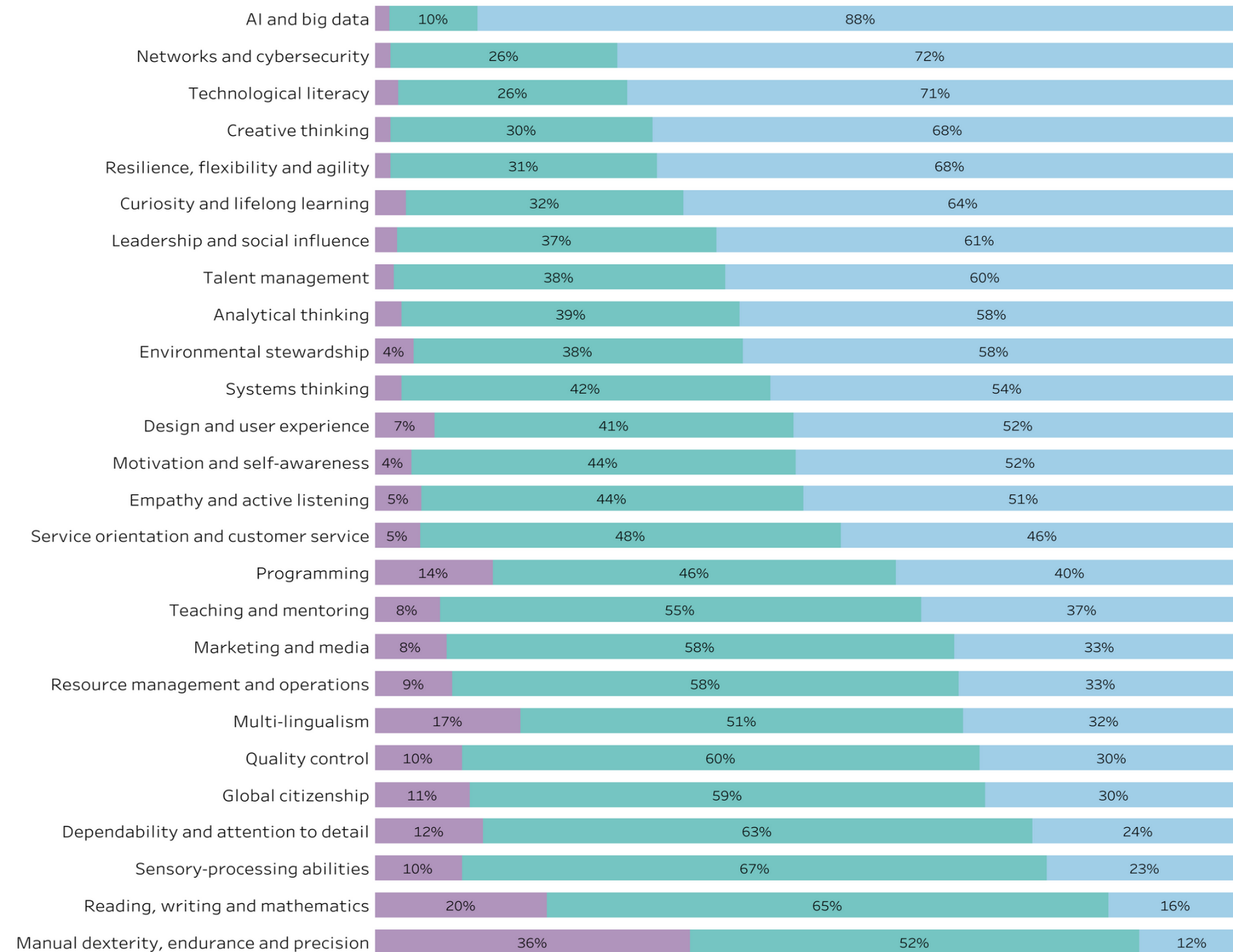
COMPETENCIES IN OUR INDUSTRY IMPORTANCE VS. PROFICIENCY



CORE COMPETENCIES 2025

All Respondents

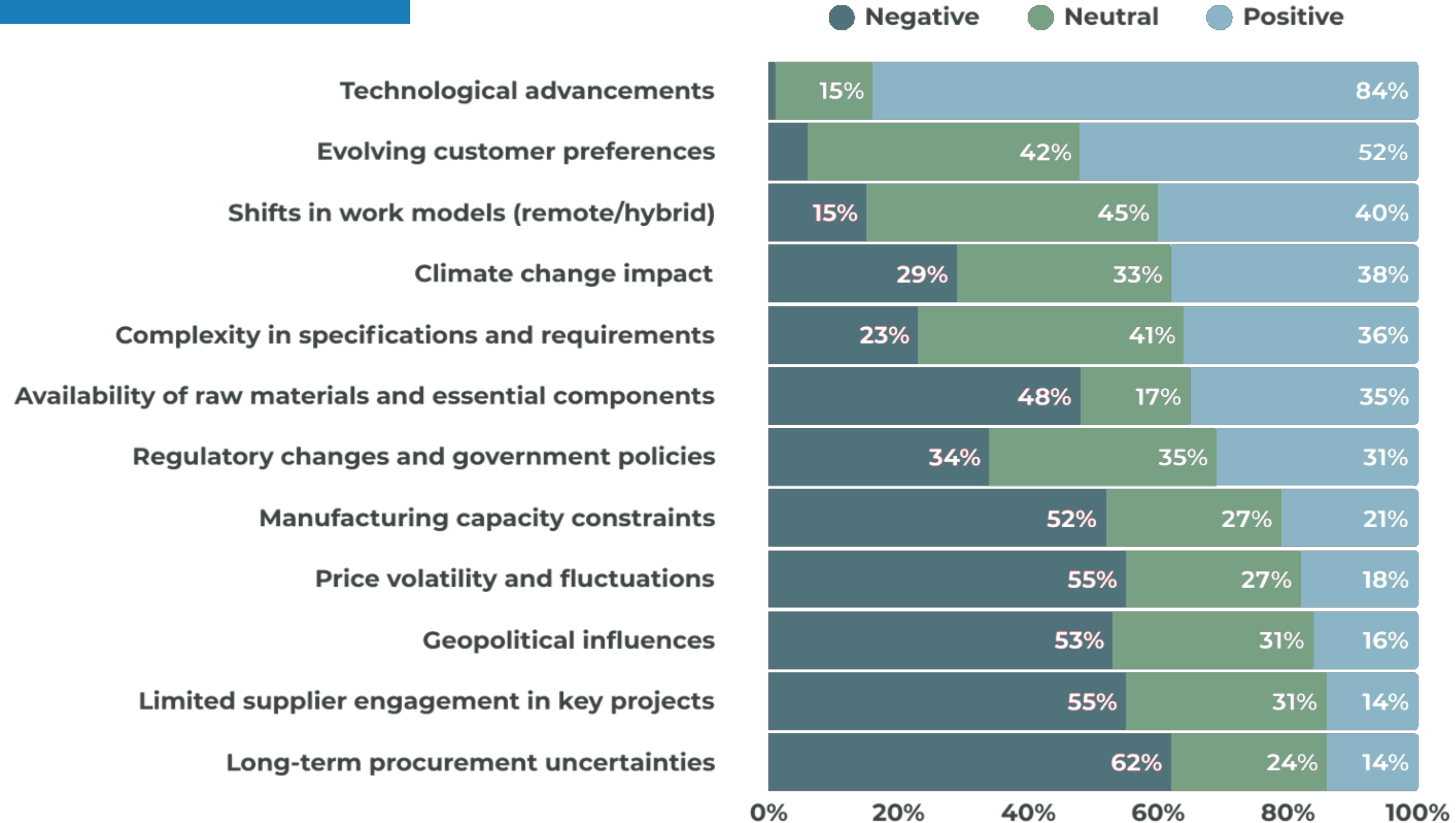
Share of employers that consider skills to be increasing, decreasing, or remaining stable in importance. Skills are ranked based on net increase, which is the difference between the share of organizations that consider a skill category to be increasing in use and those that consider it to be decreasing in use.



The most important competencies expected to be in demand in 2025 include:

- Technological Proficiency
- Emotional Intelligence
- Adaptability and Resilience
- Strategic Thinking
- Communication Skills
- Creativity and Innovation
- Continuous Learning
- Problem-Solving Skills
- Leadership Skills
- Digital Literacy

FUTURE IMPACT PREDICTIONS



FUTURE STATEMENTS RATING

- 4.26** Attracting and retaining talent will become an increasing challenge for our company.
- 4.21** Adapting to new technologies will be key to my future professional development.
- 3.96** Digital skills will become increasingly important for success in my job.
- 3.95** Automation and digitization will positively impact our productivity in the next five years.
- 3.95** Balancing between workload and flexibility will become crucial for our company.
- 3.92** I expect a greater focus on sustainable practices and green technologies in the industry.
- 3.91** Developing flexible work policies is key to attracting and retaining talent.
- 3.89** Key challenge is recognizing and developing future leaders within the company.
- 3.58** Hybrid work will be a long-term option in our industry.
- 3.56** The skills needed to perform my job will significantly change in the next 5 years.

FUTURE STATEMENTS

91%

Adapting to new technologies will be key to their future professional development.

91%

Digital skills will become increasingly important for success in their jobs

86%

Attracting and retaining talent will become a big challenge for their company.

81%

Hybrid work will be a long-term option in our industry.

69%

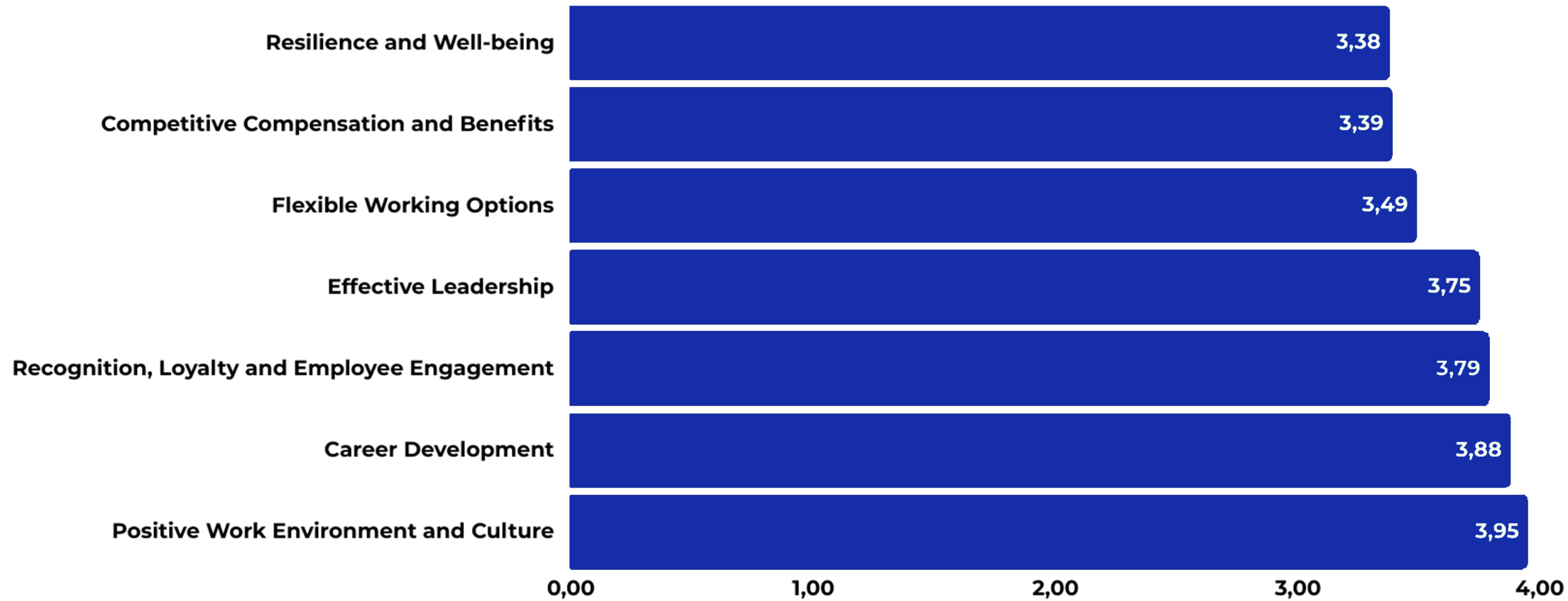
Developing flexible work policies is key to attracting and retaining talent.

16%

are not sure about the impact automation and digitization will have on productivity in the next five years.



JOB SATISFACTION



EMPLOYEE
SATISFACTION



3,63

TOP RATED STATEMENTS

- 4.13 I feel comfortable sharing my ideas within the team.
- 4.09 I am able to understand how my words or actions affect the feelings and behavior of my team members.
- 4.09 Work tasks are aligned with my skills and interests.
- 4.05 I know what is expected of me.
- 3.98 I feel a sence of belonging at work.

MY COMPANY - EMPLOYEES ATTITUDES

65%

Productivity and efficiency are tracked at both individual and organizational level.

84%

People of all cultures and backgrounds are respected and valued in their companies.

74%

The company supports innovation and courage in implementing new ideas.

78%

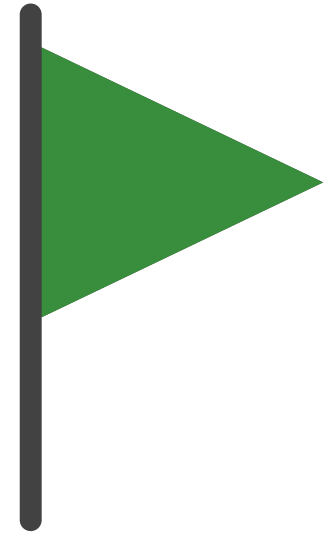
The company values respect and mutual consideration among employees.

70%

The organization invests in employee education and development to maintain competitiveness.

75%

The work environment is supportive and pleasant.



MY COMPANY - EMPLOYEES ATTITUDES

39%

The organization does not provide sufficient opportunities for continuous learning and upskilling.

30%

I do not feel prepared for the future.

47%

The company does not reward employees based on their actual results and performance.

41%

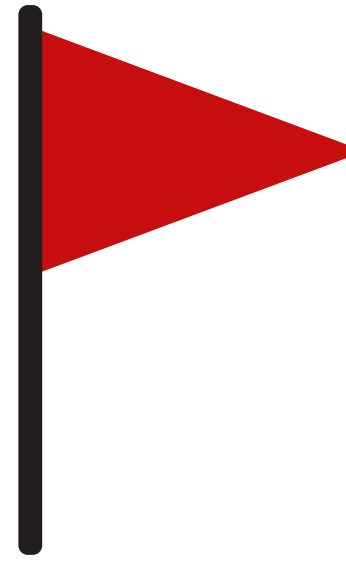
My manager does not provide regular feedback.

44%

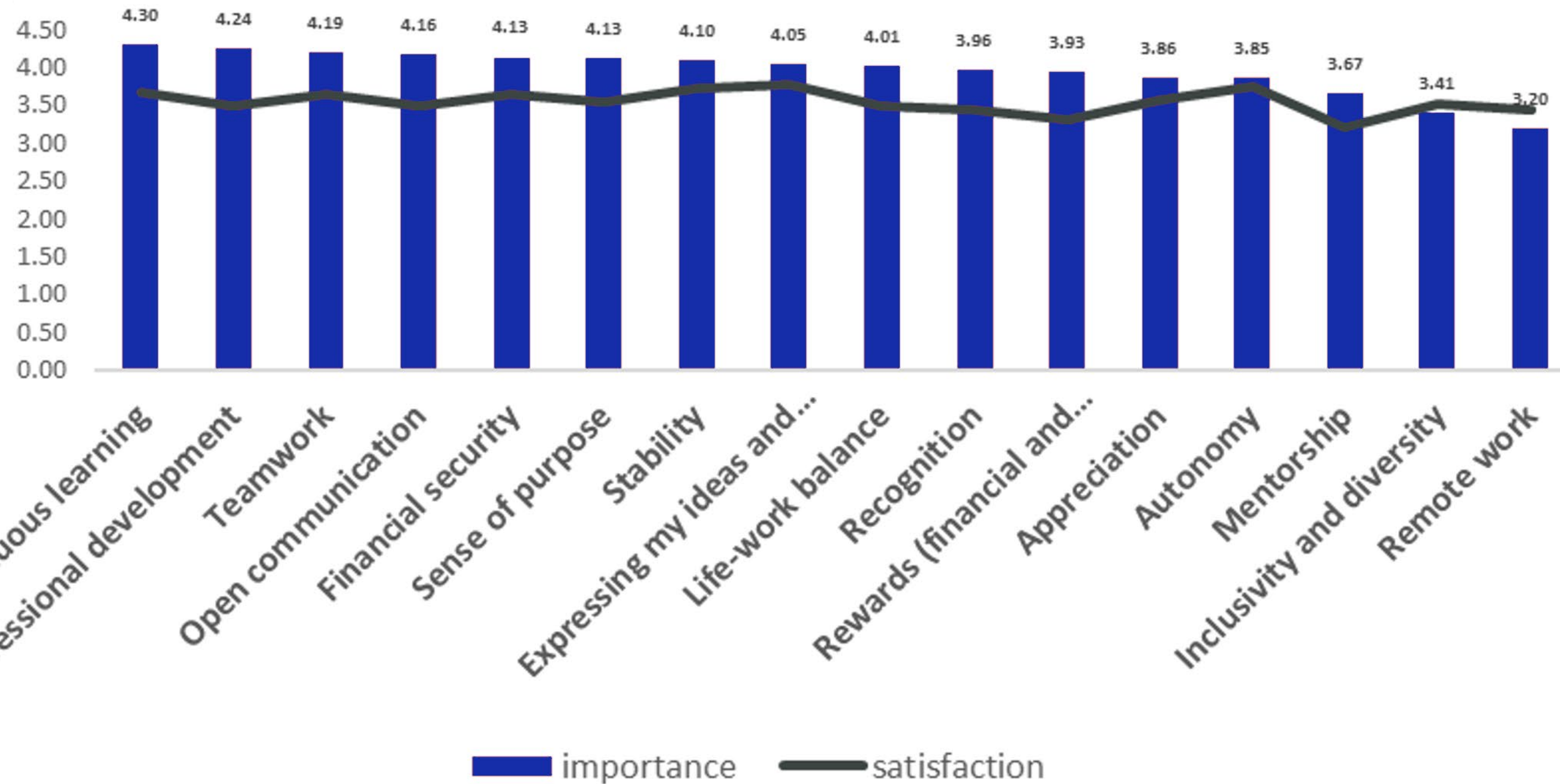
Sometimes I think about looking for a job at another company.

60%

Sometimes I am concerned about the future of my job.



IMPORTANCE VS. SATISFACTION PERSONAL LEVEL

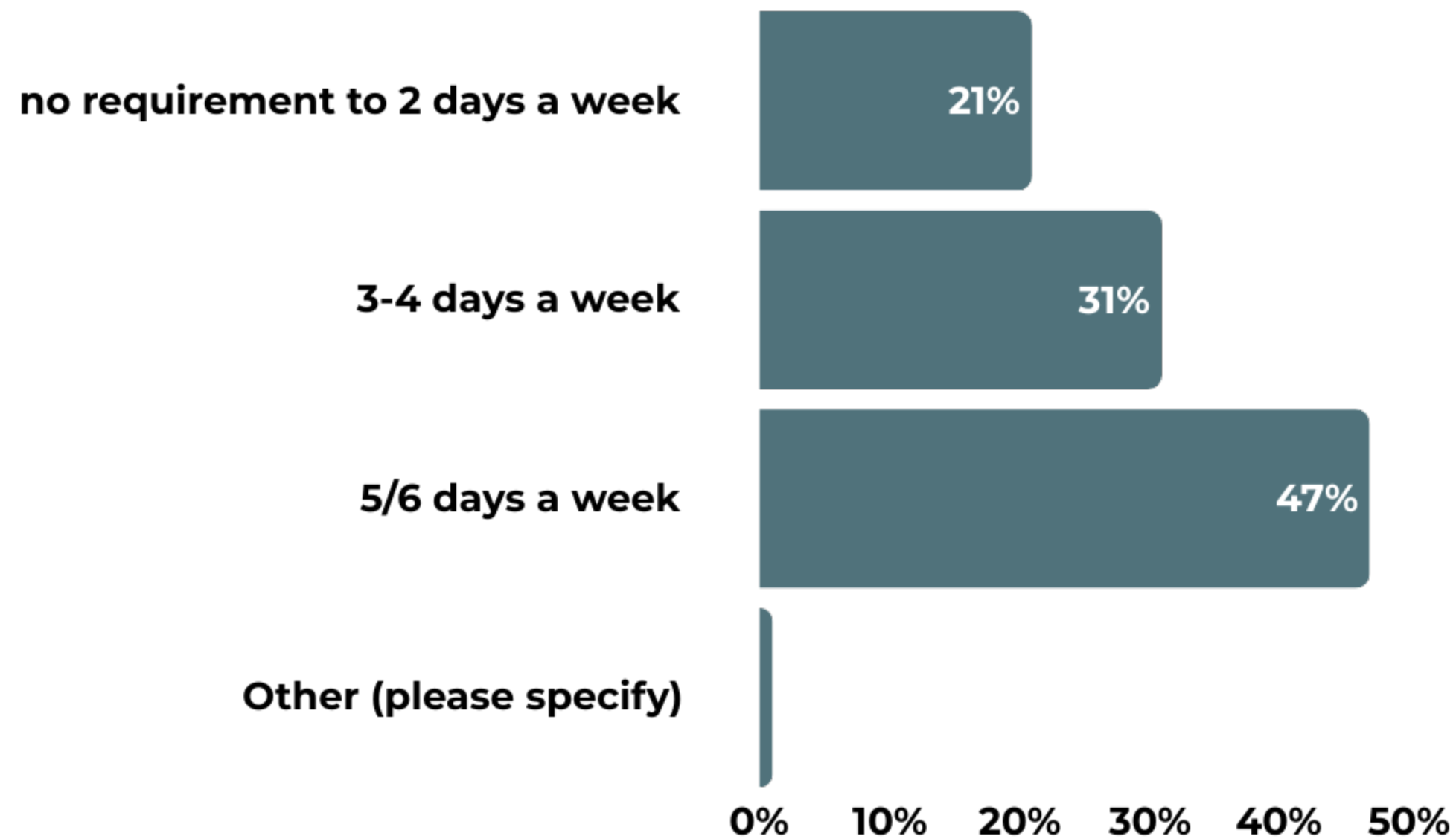


- 0.75 Professional development
- 0.67 Open communication
- 0.63 Rewards
- 0.63 Continuous learning
- 0.58 Sense of purpose
- 0.55 Teamwork
- 0.53 Recognition
- 0.52 Life-work balance
- 0.48 Financial security
- 0.47 Mentorship
- 0.39 Stability
- 0.3 Appreciation
- 0.29 Expressing my ideas and views
- 0.11 Autonomy
- 0.11 Inclusivity and diversity
- 0.23 Remote work



FLEXIBLE WORKING MODELS

REQUIRED OFFICE DAYS PER WEEK



55%

“HYBRID WORK (A COMBINATION OF REMOTE AND OFFICE WORK) IS MY PREFERRED WAY OF WORKING”

REMOTE AND HYBRID WORK
FROM A MANAGER'S PERSPECTIVE

60%

managers agree that goal setting and tracking employee progress are effectively managed in a hybrid model

18%

managers think that working in a hybrid model decreases their employees' engagement

91%

managers agree that there is a high level of trust between them and their team members

67%

managers agree that setting priorities is clearer when everyone is in one place (in the office)

89%

managers state that they provide regular and constructive feedback to their team members

54%

managers think that their employees desire more flexibility in choosing between remote and office work

63%

managers agree that remote work has a positive impact on their employees' work-life balance

50%

managers agree that remote work has not reduced the overall efficiency of their team



WHAT WOULD I LIKE TO CHANGE IN MY CURRENT WORK ENVIRONMENT TO FEEL MORE SATISFIED?

- Adopt a **human-centric company culture** that values employee **appreciation** and **engagement**.
- **Appreciation** and **recognition** for work, contributions, and experience.
- **Bonuses** and **rewards** based on performance, new products, and increased productivity.
- **Career planning** – it simply does not exist.
- Change management to **support adaptability**.
- **Clearer organizational structure** with **well-defined roles** and responsibilities.
- **Collaboration with stakeholders** for better teamwork and problem-solving.
- **Communication improvement** between employees and management.
- Continuous **training programs** for technical and professional growth.
- **Cross-training** across departments to prevent workflow disruptions due to limited staff knowledge.
- **Delegation of authority** from top management to empower employees.
- **Diversity and inclusion** – being **female** makes career progression harder.
- Easier **access** to top-level management.
- Encouraging **innovation** and adopting **new technologies**.
- Enhancing **mentorship and leadership** development.
- Enhancing employee **competence** and **skill development**.
- **Fewer unnecessary meetings** – only when truly needed.
- **Flexible work policies** – hybrid work, remote options, and flexible hours.
- Greater **decision-making involvement** at all levels.



WHAT WOULD I LIKE TO CHANGE IN MY CURRENT WORK ENVIRONMENT TO FEEL MORE SATISFIED?

- Higher **salaries** and better **financial rewards**.
 - Hybrid and remote work with respect for **off-hours**.
 - Improved **job stability** and **financial security**.
 - Improved problem-solving protocols focused on **solutions, not blame**.
 - **Less bureaucracy** and unnecessary internal reporting.
 - Less micromanagement and **more autonomy**.
 - More **engaging roles** and responsibilities.
 - More frequent **recognition** rewards for **success**.
 - More hands-on **training** in new technologies.
 - More opportunities for **growth, development, and innovation**.
 - **More responsibility** with proper rewards.
 - **Organizational agility** for adapting to change.
- **Professionalism** in middle management.
 - Recognition and fair **promotion** opportunities.
 - Reduction in **bureaucratic** processes.
 - Respect for knowledge and experience – **no political influence** in decision-making.
 - Sense of **purpose** in the organization.
 - **Standardized procedures** for efficiency and compliance.
 - Stronger **feedback** loops between employees and employers.
 - Support for **teamwork** and better collaboration.
 - Technical leadership development **programs**.
 - **Upskilling** and **reskilling** opportunities to align with changing industry demands.
 - Work environment improvement – **access** to proper tools and support.



MOST DESIRED CHANGES IN CURRENT WORK ENVIRONMENT

RECOGNITION AND
FEEDBACK

CAREER
DEVELOPMENT AND
GROWTH

EFFECTIVE
LEADERSHIP

COMPENSATION AND
REWARDS

HEALTHY COMPANY
CULTURE

TECHNOLOGY AND
INNOVATION

WORK -LIFE
BALANCE

PROCESS
IMPROVEMENT AND
EFFICIENCY

TEAM
MANAGEMENT

OPEN
COMMUNICATION

STRATEGIC AND
ORGANIZATIONAL
PLANNING

RESILIENCE AND
WELL -BEING

WHAT STRATEGIES DO YOU FIND MOST EFFECTIVE FOR ATTRACTING AND RETAINING TALENTED EMPLOYEES IN OUR INDUSTRY?

- Sense of **purpose** in work
- Feeling **valued** and **recognized** for contributions
- **Work-life balance** and **flexible** scheduling
- **Job security** and stability
- Encouraging **teamwork** and **collaboration**
- Providing **autonomy and trust** in employees
- Fair and transparent **performance evaluations**
- **Respectful** and **supportive** leadership
- Opportunities for personal and professional **growth**
- **Timely appreciation** of employee achievements
- Competitive **salaries** that match or exceed industry standards
- Performance-based **bonuses** and **incentives**
- **Annual raises** based on merit and market conditions
- Comprehensive **healthcare** and **wellness benefits**
- **Retirement plans** with employer contributions
- **Paid parental leave** and family-friendly policies
- **Financial rewards** for exceptional work and innovation
- Transparent and fair **promotion** processes
- **Salary adjustments** to reflect inflation and cost of living
- Offering **financial planning assistance** for employees
- Continuous learning opportunities through **training programs**
- Clear **career advancement** pathways
- Skill development **workshops** and technical training
- **Support for certifications** and further education
- **Sponsoring** employees for industry conferences and events
- Internal **mentorship and coaching** programs
- **Access** to cutting-edge technology and resources
- Encouraging participation in **R&D projects**
- Supporting employees in **pursuing leadership roles**
- Offering **dual education systems** for students and young professionals



WHAT STRATEGIES DO YOU FIND MOST EFFECTIVE FOR ATTRACTING AND RETAINING TALENTED EMPLOYEES IN OUR INDUSTRY?

- Creating an **inclusive and diverse workplace**
- Encouraging a **horizontal management** structure
- **Open and honest** communication with employees
- A culture of continuous **feedback** and **improvement**
- Encouraging **creativity** and **innovation**
- Ensuring **psychological safety** in the workplace
- Providing a **physically comfortable** and **well-equipped** work environment
- Supporting a **hybrid or remote** work model
- Engaging employees in **company decision-making**
- Organizing **social and team-building** activities
- Strengthening employer **branding and visibility**
- **Competitive** compensation packages for new hires
- **Clear** and **attractive** job descriptions
- **Hiring** based on merit and potential for growth
- **Active recruitment** in universities and technical schools
- Developing **internship** and **apprenticeship** programs
- Offering relocation support for **top talent**
- Involving **experts** in the hiring and interview process
- **Word-of-mouth** referrals and networking
- Highlighting **company success stories** to attract candidates
- Encouraging a **sense of ownership** in company projects
- **Aligning** individual goals with company objectives
- Recognizing and celebrating **employee milestones**
- Creating **friendly** competition and challenges
- Offering **meaningful** and **impactful** work
- Encouraging leadership **at all levels**
- Supporting employees in setting and achieving **personal goals**
- Providing **regular and structured** performance reviews
- Making employees feel like **part of a larger mission**
- **On-the-job training** for real-world experience



WHAT STRATEGIES DO YOU FIND MOST EFFECTIVE FOR ATTRACTING AND RETAINING TALENTED EMPLOYEES IN OUR INDUSTRY?

- Upskilling employees through **targeted learning plans**
- **Cross-training** employees for multiple roles
- Investing in **leadership development programs**
- Encouraging **peer-to-peer** knowledge sharing
- Funding advanced technical training **overseas**
- Supporting employees in **publishing** research papers
- Creating a **learning culture** within the company
- Hosting **industry experts** for training sessions
- Providing structured onboarding programs for **new hires**
- Creating a **supportive** and **motivating** work environment
- Offering **career mobility** within the company
- Supporting employees in long-term **career planning**
- Competitive total compensation **beyond** salary
- Providing **meaningful work** that aligns with **employee values**
- Conducting **stay interviews** to understand **employee needs**
- Ensuring **managers are trained** to support their teams **effectively**
- Building a culture of **trust** and **transparency**
- Creating a **seamless work experience** with minimal bureaucracy
- Showcasing the company's **impact on society**
- Being **recognized as a leader** in the industry
- Investing in **innovation** and **sustainability**
- **Keeping up** with technological advancements
- Engaging with communities and corporate social **responsibility programs**
- **Expanding partnerships** with academic institutions
- Creating thought leadership opportunities for employees
- Strengthening the company's role in **shaping industry trends**
- Encouraging employees to participate in **industry organizations**
- Showcasing the company's **long-term vision and stability**



ATTRACTING AND RETAINING TALENT

MOST COMMONLY MENTIONED STRATEGIES

ATTRACTING TALENT
THROUGH
INTERNSHIPS AND
EDUCATION
PARTNERSHIPS

RECOGNITION AND
APPRECIATION

SATISFACTION
AND ENGAGEMENT

COMPETITIVE
COMPENSATION AND
BENEFIT

EFFECTIVE AND
SUPPORTIVE
LEADERSHIP

POSITIVE WORK
ENVIRONMENT AND
CULTURE

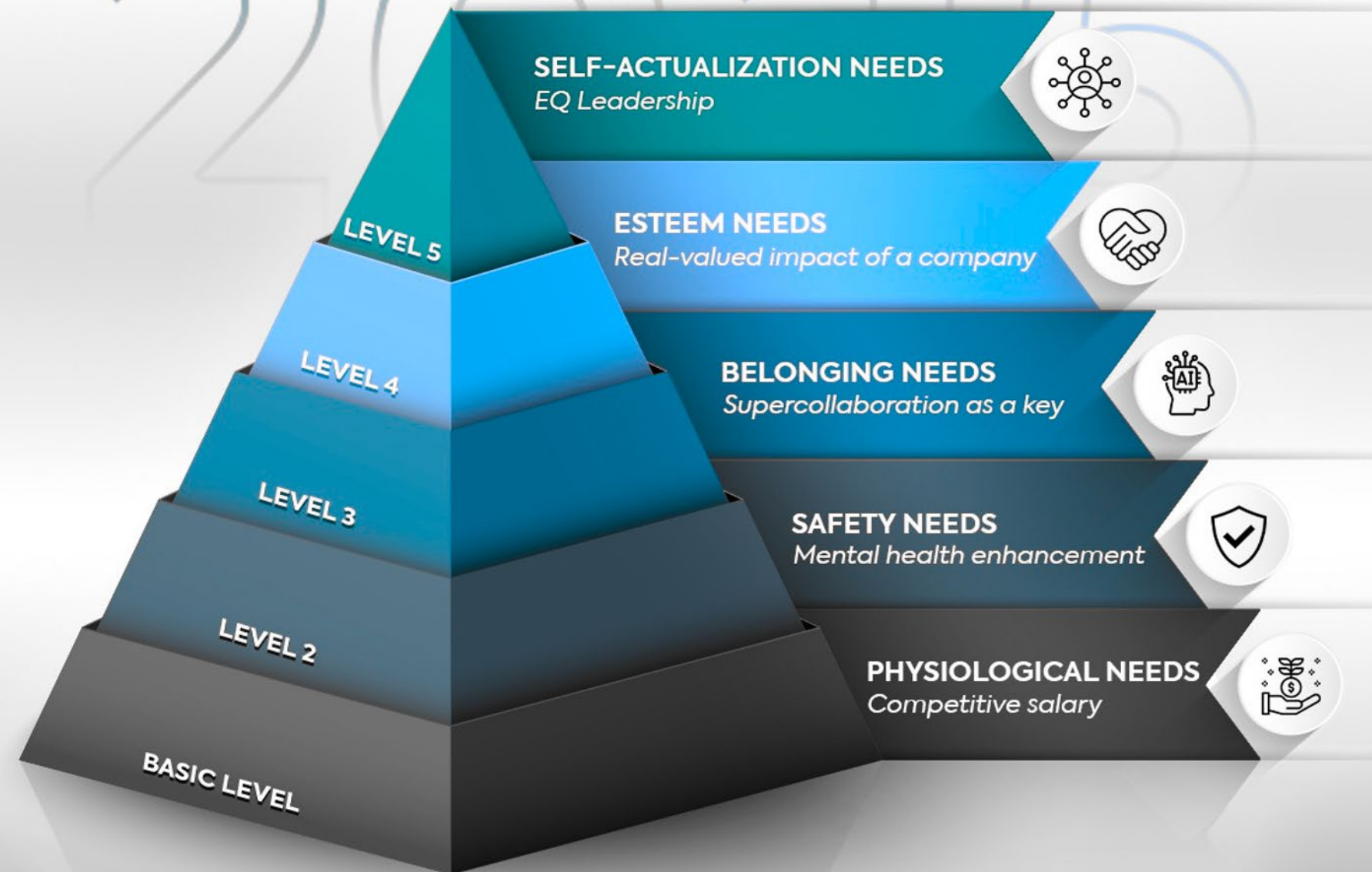
CAREER
DEVELOPMENT
AND GROWTH

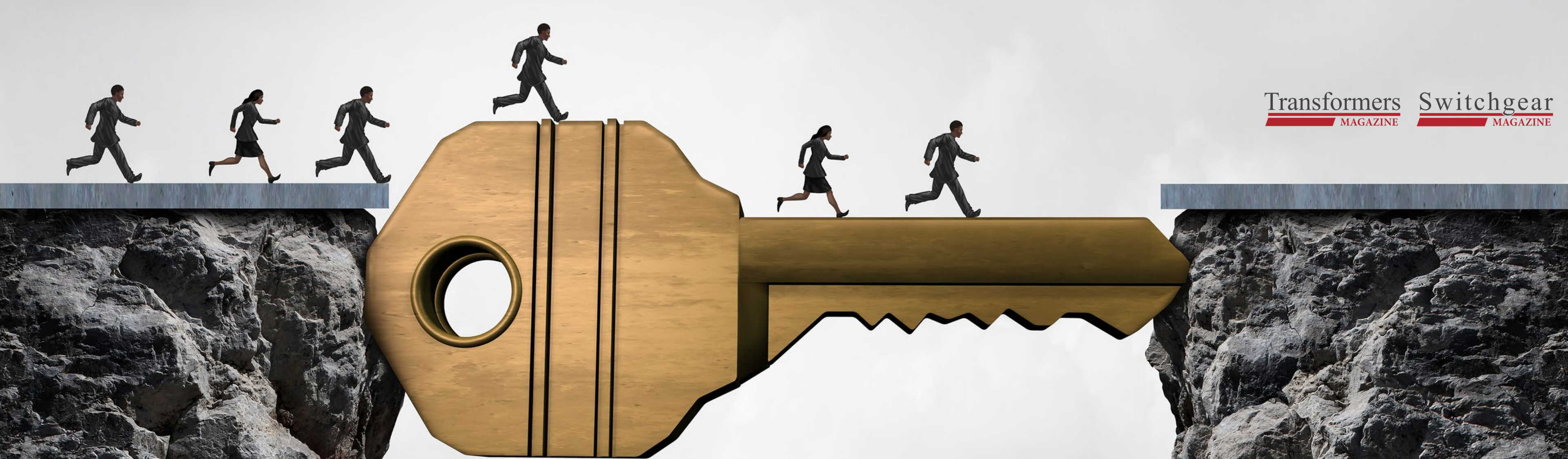
WORK -LIFE BALANCE
AND FLEXIBLE
WORKING OPTIONS



THE MASLOW'S HIERARCHY

of EMPLOYEES' NEEDS IN





THANK YOU