



Automotive Innovation Slovakia Survey

Survey of research,
development and innovation
in the Slovak automotive industry
2016

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kpmg.sk



**Automotive Industry Association
of the SR / Survey partner**

EN



Speech

Juraj Sinay,

President of the Automotive Industry Association
of the Slovak Republic (AIA SR)



One of the factors in the sustainability and competitiveness of the automotive industry is the ability of companies, mainly suppliers, to meet the requirements of end producers in such a way as to enable the end product, i.e. vehicle, to be a high-quality product and therefore in demand on world markets.

The ever-changing conditions related to the dynamic development of digitization in all areas of the automotive industry require intensive activities when applying the results of research and development into an actual company environment. One of the efficient areas is the application of research outputs to the final product as well as production technologies. In Slovakia, applied (industrial) research in the automotive industry focuses mainly on the supply chain companies.

The Automotive Industry Association of the Slovak Republic (AIA SR), as one of the most important employer associations in Slovakia, is aware of the importance of applied research and development. We perceive it as a strategic area for the development of the Slovak economy. One of the main areas includes supporting an environment for applied

research and development of the innovative capacity of companies. In real life, the execution of such activities is provided via a professional workgroup which includes representatives of the Association members, mainly companies utilizing applied research in their development activities.

In relation to the prioritization and support of research and development in AIA SR member companies, our activities will be focused in such a way as to provide the relevant documents for the leaders of our country proving that applied research and innovations are a driving force of economic development of the Slovak Republic and should be included in their decision-making.

We believe that this survey, in which we figure as partners, will become an important source of information and knowledge for steering activities of the Association towards support of research, development and innovations, mainly in the supply chain. The opinions obtained are very valuable for us and I am sure our members will appreciate them when considering the impact of trends in established companies of the automotive industry in Slovakia.

Vladimír Švač,
Head of Innovation Advisory Services,
KPMG in Slovakia



KPMG in Slovakia, in cooperation with the AIA SR, have prepared the second version of a unique survey regarding the direction of research, development and innovation in the automotive industry in Slovakia. Automotive industry suppliers as well as companies from other industrial sectors are increasingly becoming interested not only in the aforesaid, but also in how to bring and successfully implement unconventional ideas. The survey has made findings that will help better identify the needs of industrial companies, and therefore help in searching for innovative solutions for specific situations.

The results show that suppliers have to constantly search for talented engineers and the intensity of that need is growing year by year. It is a challenge for companies to strike closer cooperation with universities to get sufficient numbers of graduates at the level of quality required. According to our findings, within the next 12 months it will be necessary to find more than 260 new employees devoted to R&D and innovation in companies.

As also confirmed by this survey, it is mainly up to CEOs and executives of companies to initiate and provide further management of innovation initiatives in companies. Further important findings include the fact that having their own R&D/technology centre in Slovakia is one of the most important factors of development of innovations. The survey showed that 15 companies in Slovakia already run such centres and a further 10 companies are planning to establish such centres within 3 years. This also proved to be the biggest motivation factor for innovations.

Having space for the generation and further exploration of innovative ideas, production

of prototypes, experiments, discussions and sharing of knowledge is becoming one of the key elements for the development of companies. That is increasingly becoming a characteristic element of companies subject to advanced development and management. Based upon our own experience we can say that the establishment of innovative or creation-friendly premises is a phenomenon that will definitely find its place in industrial companies in Slovakia. The only question is how fast and flexibly well-established companies will react in this important area.

Apart from the positive factors influencing the development of innovations in companies, there are barriers, too. The survey confirmed the assumptions and knowledge we gained by organizing a series of unique KPMG innovation workshops and seminars. The greatest barrier for innovations of Slovak suppliers is lack of time for innovations. One of the solutions is to set aside specific systematic time for this.

The results of the survey also showed that within their modern cooperation with start-ups, suppliers for the automotive industry are increasingly interested in industry 4.0; digital factory; robotics and automation and development of software apps for industry.

KPMG in Slovakia is constantly looking for innovative ways of becoming a more useful and valuable partner for its current as well as future clients. Initiatives such as innovation workshops and seminars, consulting services for start-ups, the iKid project or even this survey are part of building an exceptional approach and improving the quality of services. At the same time, they can serve as inspiration, not only for current clients.

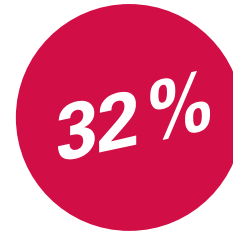
Main findings



new R&D staff are set to be hired by supplier companies in Slovakia in the next 12 months



R&D staff are currently employed in R&D centres by suppliers for car plants



of respondents said that they considered having their "own R&D/Technology Centre" as a very important factor for innovation development



of respondents said that the greatest obstacle to innovation is lack of time



of respondents are planning to devote specific time for innovation



of supplier companies in Slovakia are planning to invest a certain percentage of their turnover in R&D in the next 2 years

48%

of respondents stated that the most important motivation factor is premises for innovations (R&D/technology centre or creative premises)

64%

of respondents said that the most important areas for cooperation with startups are: robotics and automation, industry 4.0, and the digital factory



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About the survey

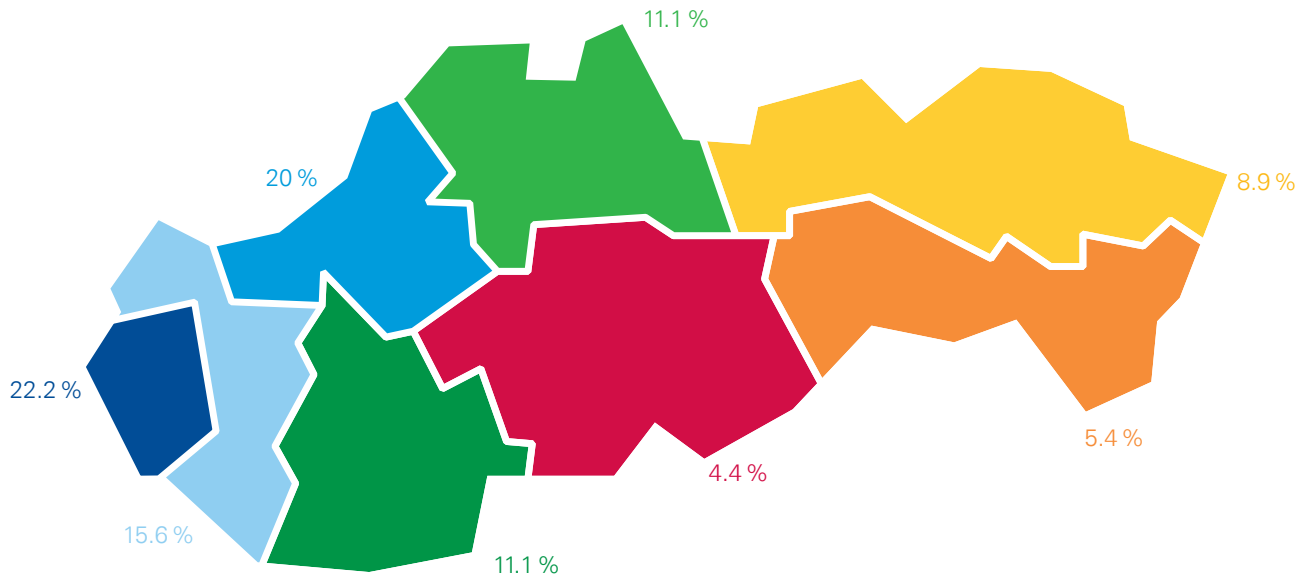
Objectives and methodology of the survey

The Automotive Innovation Slovakia Survey is the 2nd edition of a survey regarding research, development and innovations in the automotive industry in Slovakia. It was executed by KPMG in Slovakia in cooperation with the Automotive Industry Association of the Slovak Republic. The survey takes place once every two years; the results of the inaugural survey

were published at the end of 2014. The objective of the survey was to get a compact, comprehensive view from representatives of automotive industry companies regarding research, development and innovation. The survey took place in August and September of 2016 with 53 representatives of relevant companies in Slovakia.

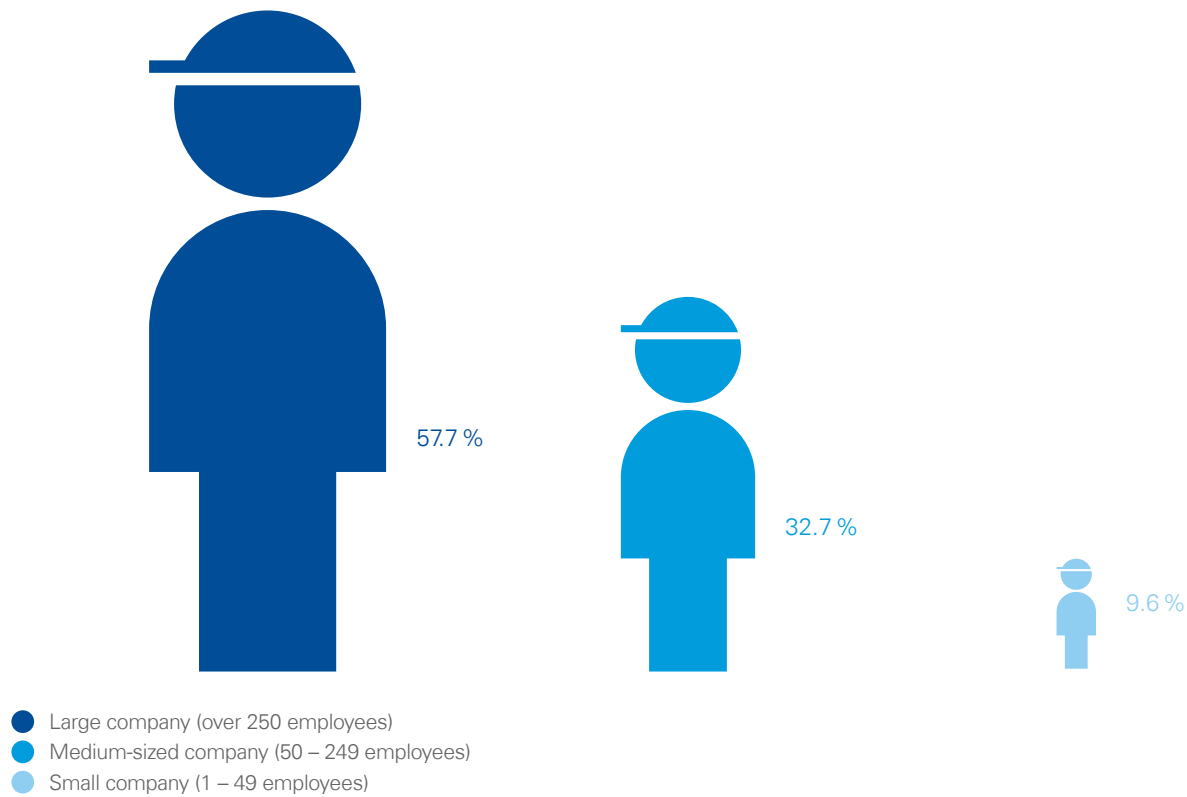
Demographics

Respondents by regions



Structure of respondents of the survey

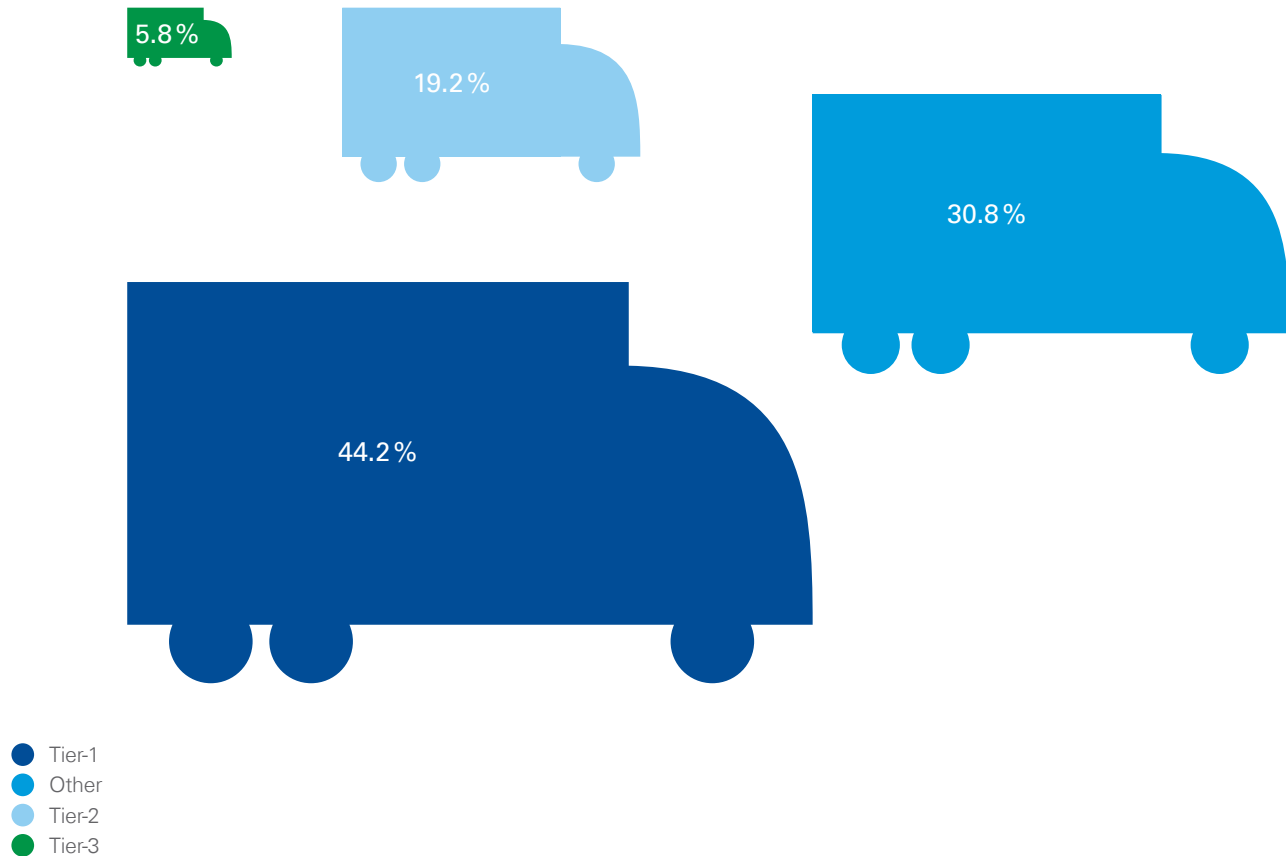
What is the number of employees in your company?



Classify your company according to the type of supplier.

The survey included representatives of all three main supplier groups (Tier-1, Tier-2, Tier-3). The highest portion of representatives was from Tier-1 suppliers – 44 %.

Almost 31 % of respondents did not categorize themselves into any of the main supplier groups, but used their own classification.







"Interest in automotive R&D in Slovakia is constantly growing. Companies are focusing more and more on creation of their own managerial models of innovation guidance."

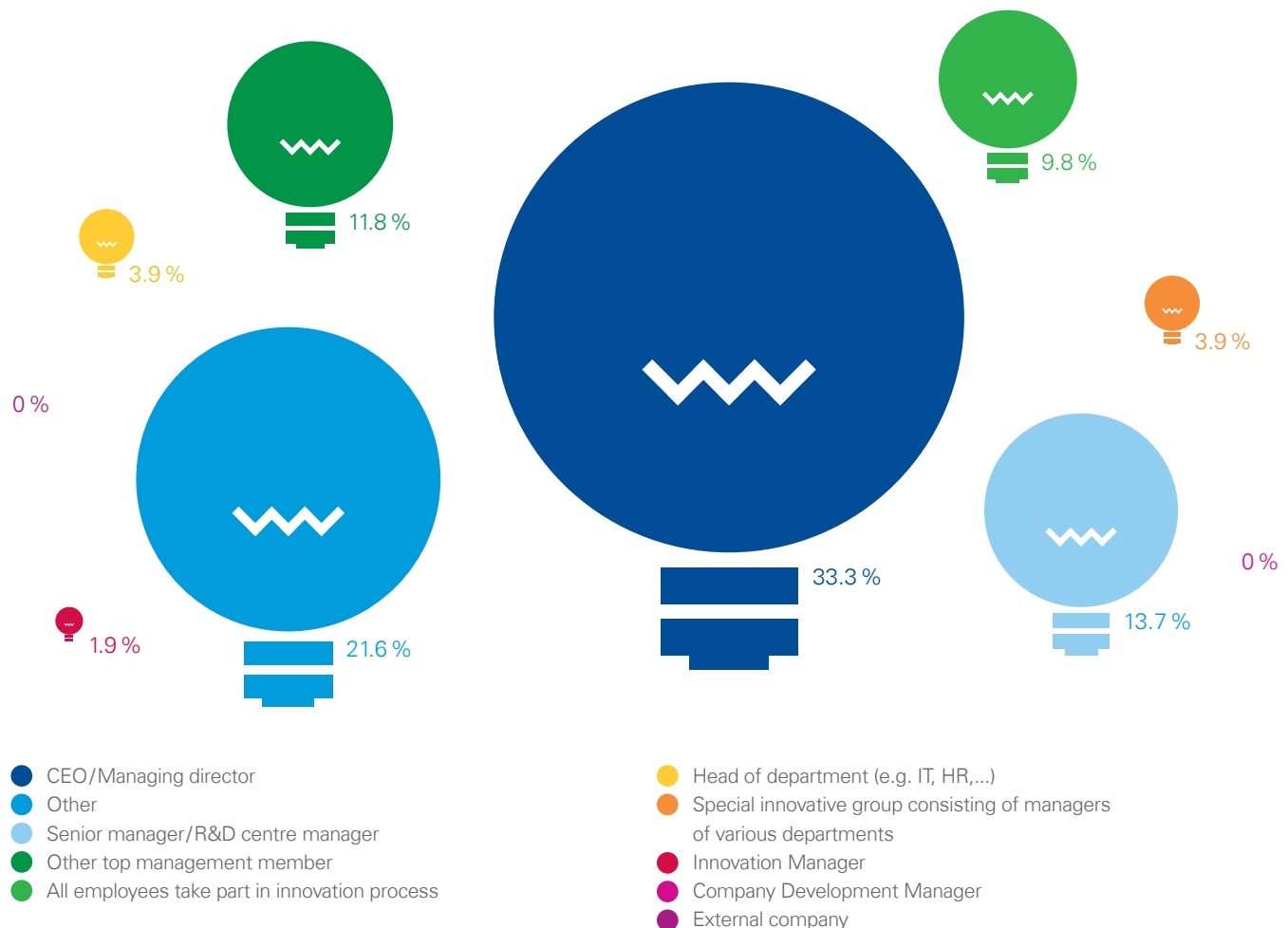
Vladimír Švač

Factors of corporate innovation development

In your company, who is the main person responsible for research, development and innovations?

At the start of initiatives regarding improvement of research, development and innovations, it is necessary to determine a person "in charge". The reaction of respondents to this question was the same as two years ago, the majority of them (33 %) stated that the CEO/general director is the main person responsible

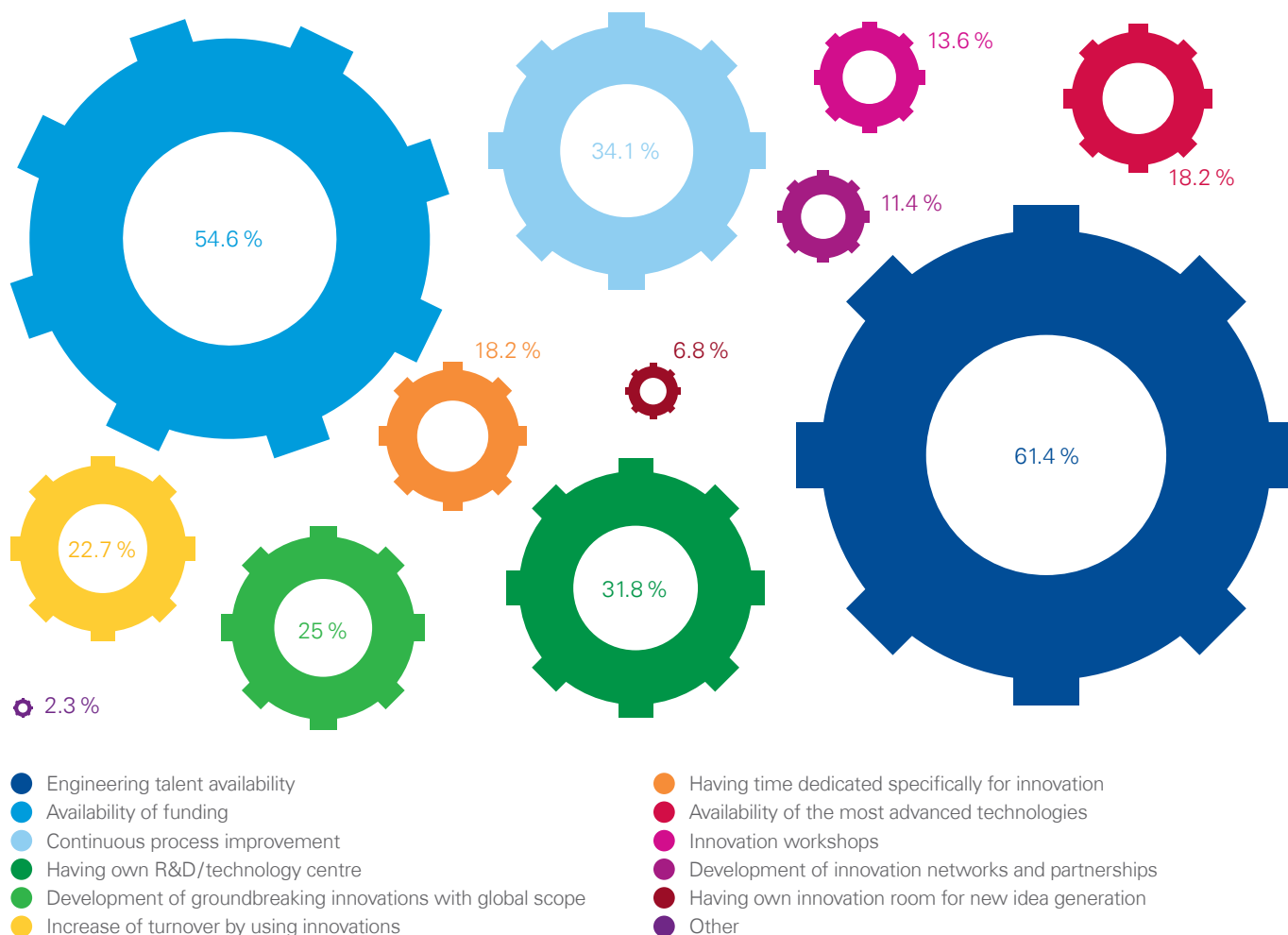
in their company. Apart from the most senior manager, in 22 % of companies there is "another entity" responsible for such activity, with a parent company being the most often stated. Third place is taken by a senior manager or research and development or technology centre manager, stated by 14 % of respondents.



Which factors are the most important for development of innovations in your company? (top 3 factors)

Several factors combine together to facilitate the development of innovations in a company. For the respondents of our survey, access to engineering talents (61%), availability of financing (55%) and the ability to continuously apply small improvements

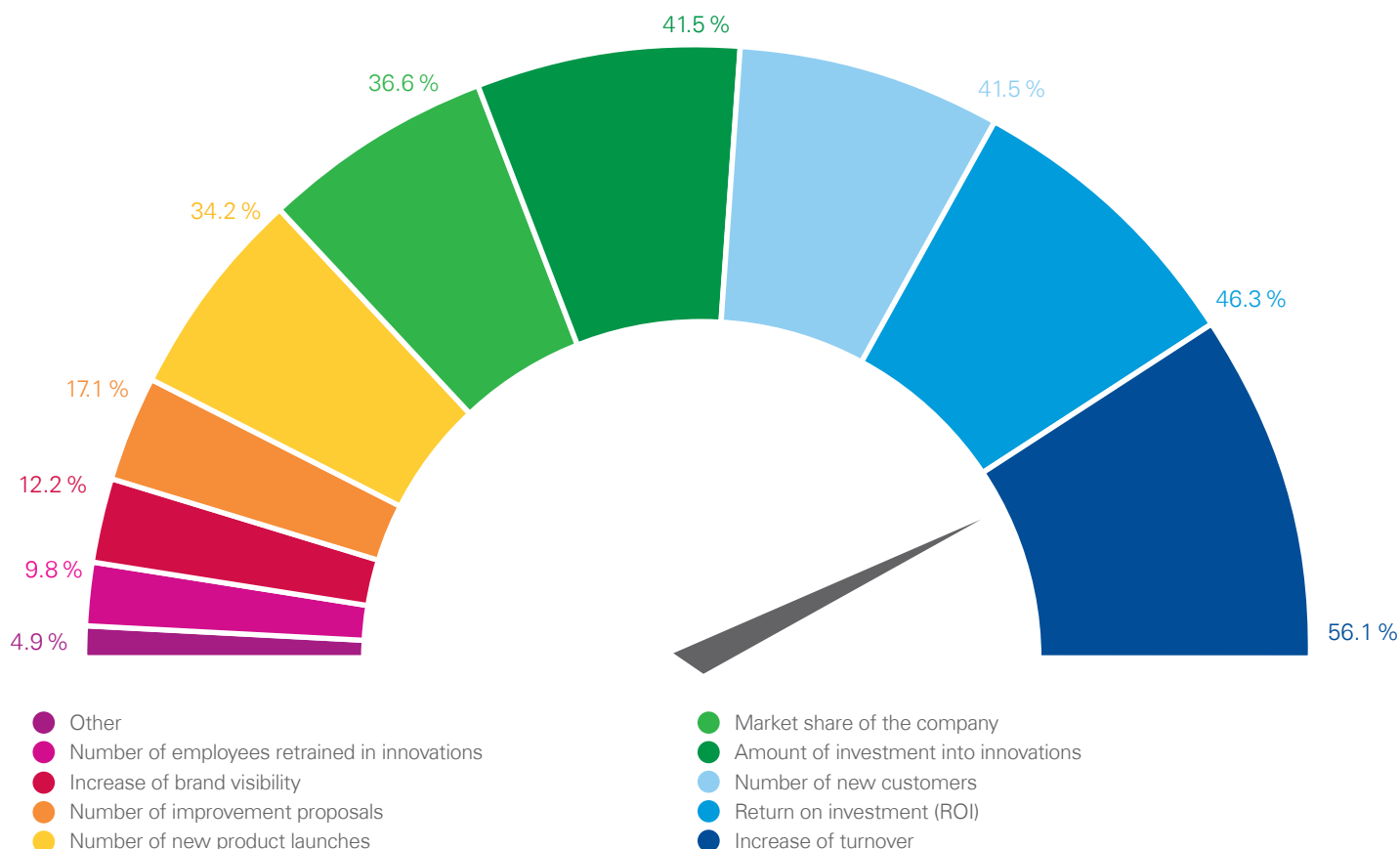
in the company (34%) are the most important factors. Almost a third of respondents (32%) stated that having their own R&D/technology centre enabling generation of innovations and execution of experiments is one of the main factors.



What are the main innovation indicators in your company used for measuring innovation value? (top 3 indicators)

If we want to innovate we must know what value the ideas generated could bring us. However, how these ideas perform in a real market environment' is even more important. According to the participants

of the Automotive Innovation Slovakia Survey, the most important indicators for measurement of innovation value include revenue growth (56 %), return on investment (46 %) and a number of new customers (41 %).

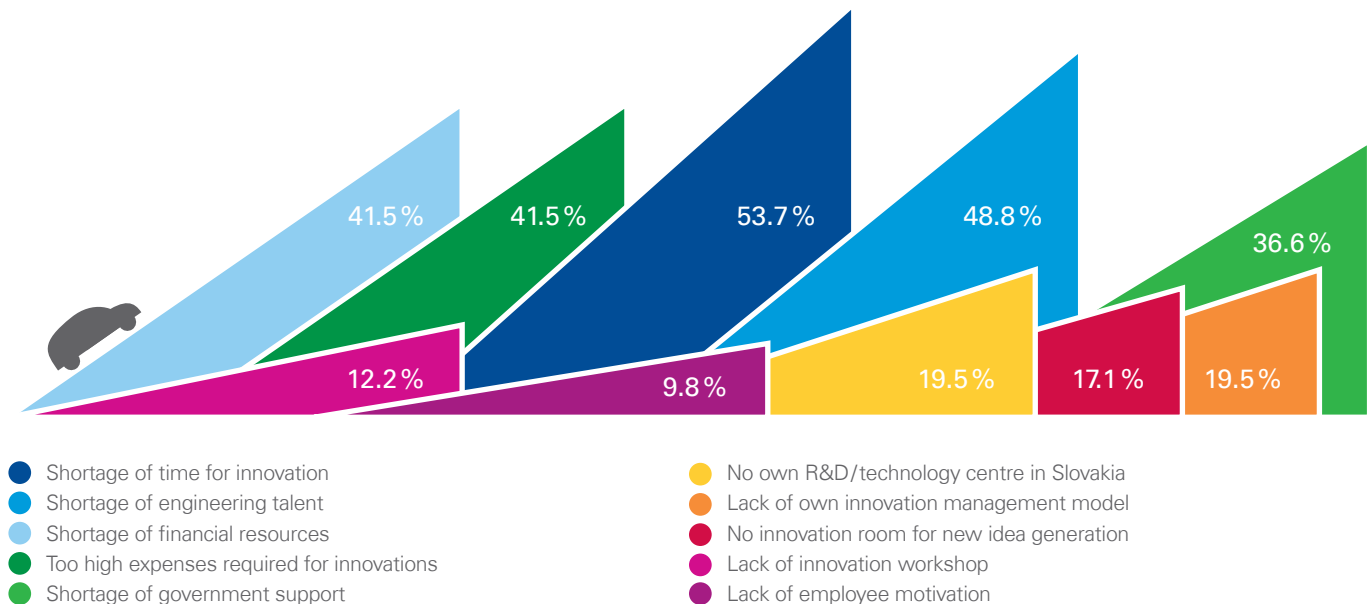


Barriers to innovation efforts and motivation factors

What are the barriers to innovation in your company? (top 3 barriers)

Apart from positive reactions to innovation initiatives in companies, we also came across barriers to innovation. It is necessary to identify such barriers right from the outset and eliminate them in order to be able to avoid them to the maximum possible extent or even completely. According to our respondents, the greatest

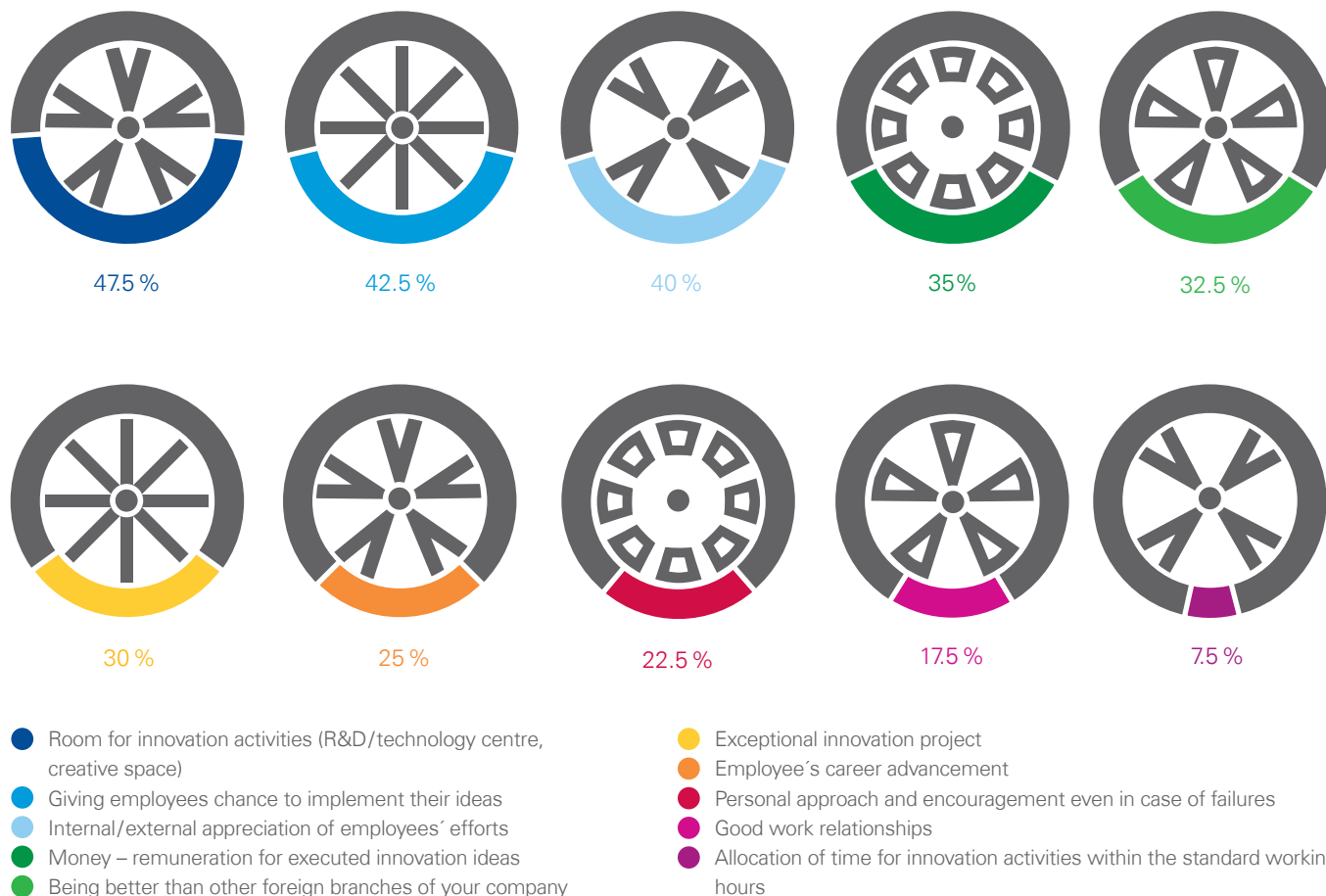
innovation barriers include lack of time for innovations (54%), lack of engineering talents (49%) and lack of financing together with high expenses for innovations (41%). However, even such barriers may be overcome by the use of new innovative management approaches and access to resources.



What are the main motivation factors for innovations in your company? (top 3 factors)

If companies want to innovate efficiently, motivation is very important. According to respondents of our survey, the most important motivation factor is premises for innovations (R&D/technology centre or creative premises), stated by almost half (48 %) of the respondents. To provide a comparison, in the last edition of the survey, this factor was in 7th

place. The second most important factor is allowing employees to fulfil themselves when it comes to ideas or creativity (43 %) The third most important factor is internal or external acknowledgment of employees' work, i.e. in simple terms, thanking the employees for their efforts (40 %).

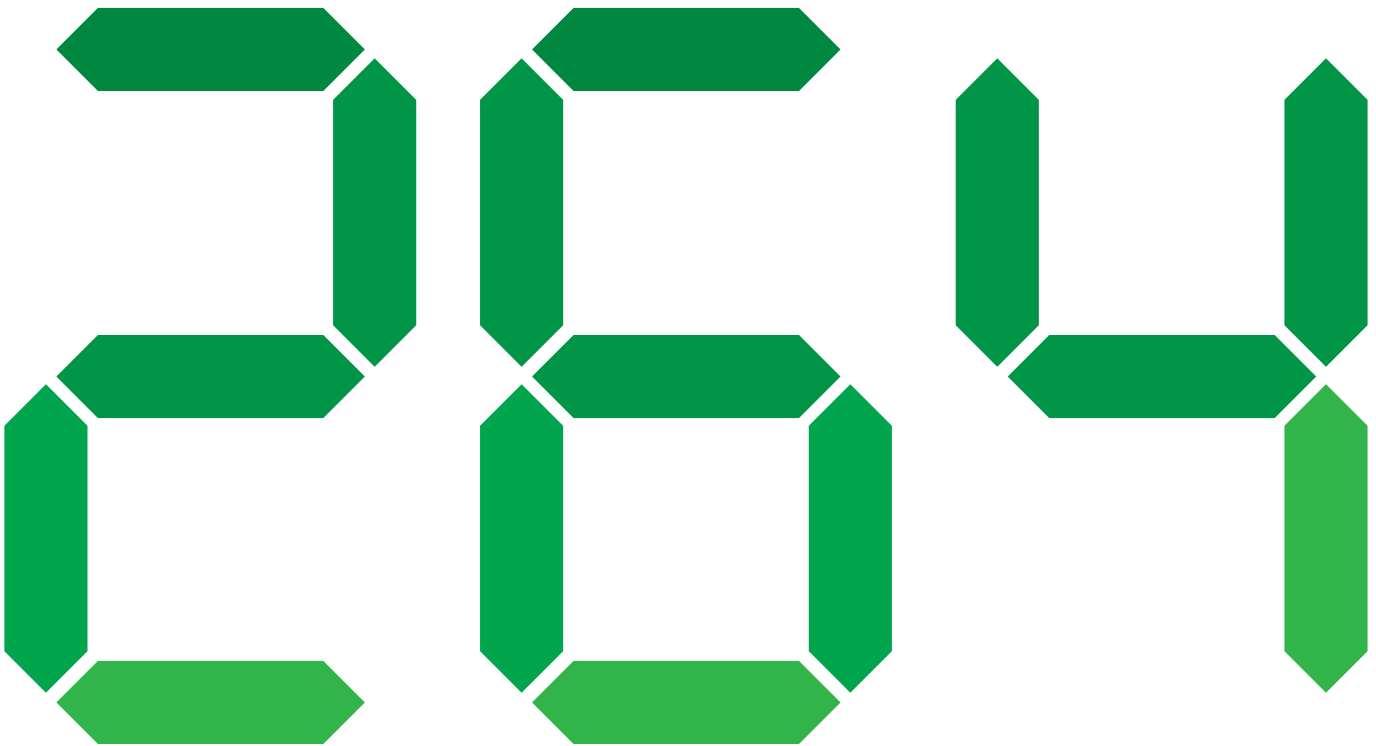


Plans for the coming years

How many people are you planning to employ in the following 12 months for research, development and innovations in your company?

The key condition for innovation is a sufficient number of skilled people. Creating teams with the right combination of creativity and innovative thinking has the greatest impact on the fast and flexible development

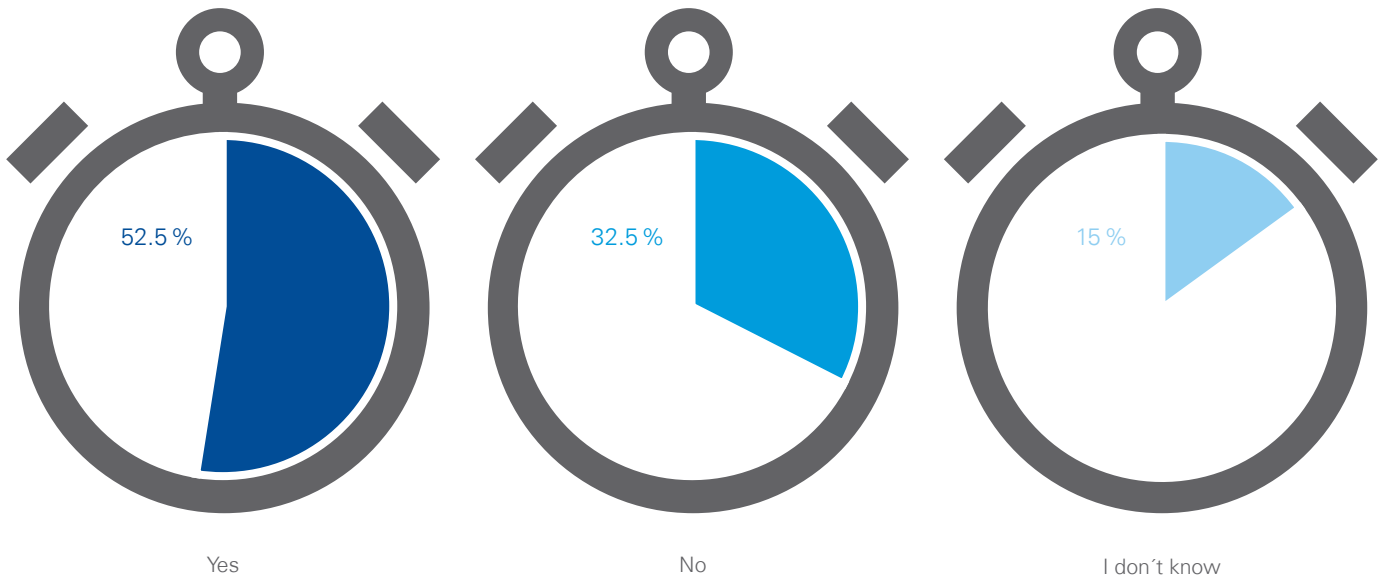
of a company. In the next 12 months, the respondents to our survey are planning to employ a total of 264 new employees for R&D and innovation.



Over the next 12 months, is your company planning to devote specific time for innovations? (e.g. 2 hours per month, etc.)

Lack of time is the greatest barrier to innovation in companies. One of the solutions is to devote specific time for innovations. 52.5 % of the companies

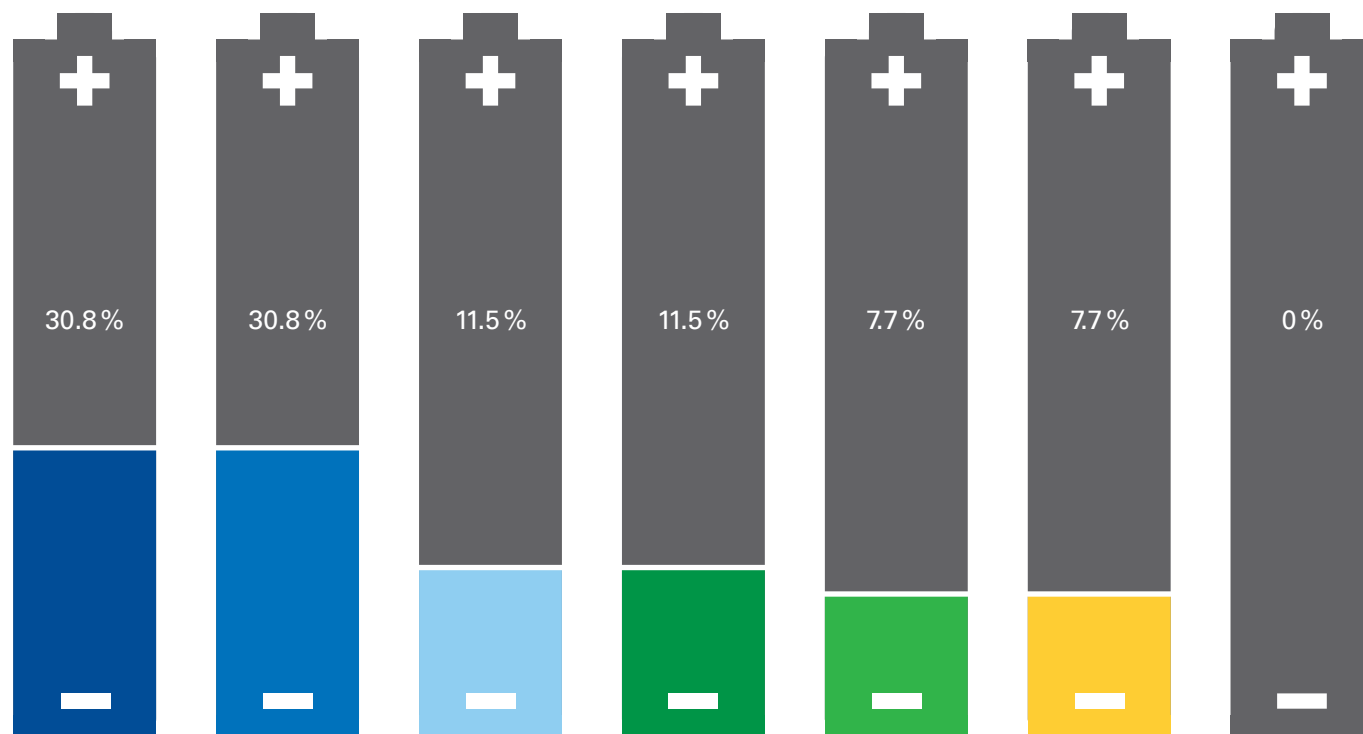
answering this question are planning to devote such time for innovation in the next 12 months.



What amount of financing is your company planning to invest into R&D and innovations in Slovakia in the next 2 years? (percentage of turnover)

Almost a third (31 %) of companies are planning to invest 2 – 3 % of their turnover in R&D and innovations. Almost 12 % of companies are planning to invest 4 – 5 % of their turnover and almost 8 % of companies are ready to invest

more than 10 % of their turnover in R&D and innovations. In total, as many as 70 % of companies are planning to invest a certain amount of turnover in R&D and innovations within the next two years.



● I don't know
 ● 2 – 3 %
 ● 4 – 5 %
 ● 6 – 10 %

● More than 10 %
 ● 0 – 1 %
 ● No plan for investment

Capacities for R&D

Do you have your own R&D / technology centre in Slovakia?

Having dedicated premises for innovations or even an R&D/technology centre is a great privilege as well as challenge. In the current survey, 15 companies confirmed having their own technology centre in Slovakia. Those

15 centres provide work for 1,470 employees in the area of R&D and innovations. Another 10 companies confirmed plans to establish their own R&D/technology centre in Slovakia within the next 3 years.

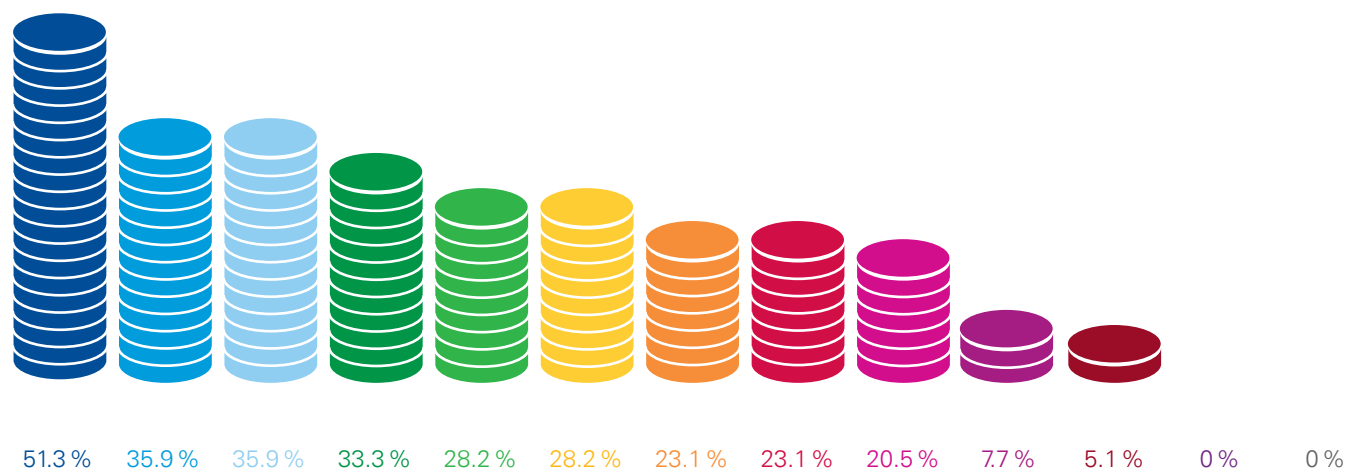


- Yes
- No, and we have no intention to establish any R&D/technology centre
- No, but we are planning to establish an R&D/technology centre within the next 3 years

What could persuade your parent company or management of your company (for Slovak companies) invest in R&D and innovations? (top 3 criteria)

Investment in innovation means investment in a company's future. However, investment plans require precise analysis and assessment of various attributes. According to our respondents, the most important criteria in favour of such investment include: availability of highly

qualified workforce (51 %), guarantee of continuity of a project and support by the government (36 %) and an extraordinary, visionary project in the area of R&D and innovation (33 %).

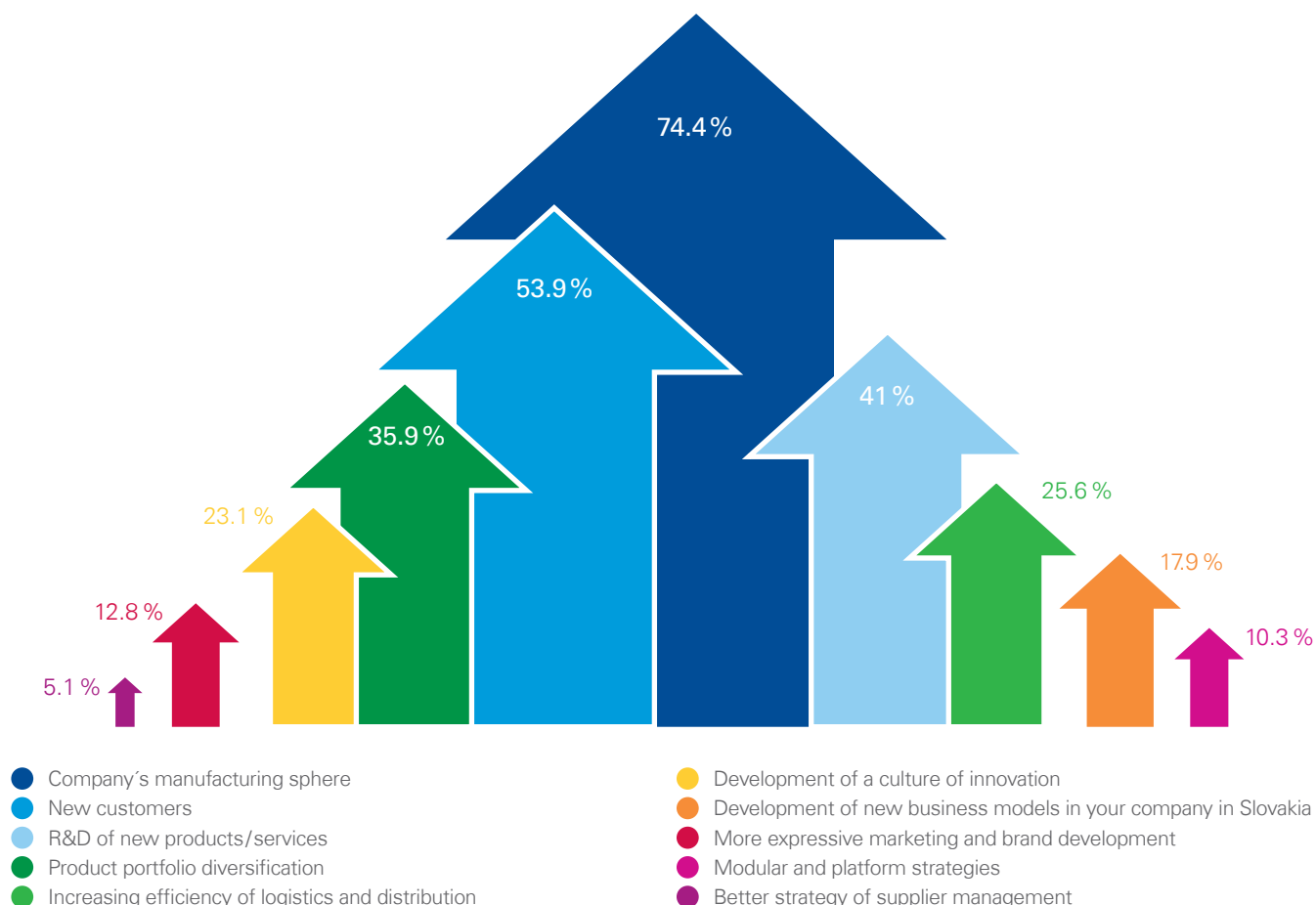


- Availability of highly qualified workforce
- Government support
- Guarantee of long-term project and use of investment
- Extraordinary visionary project
- Change in the market
- Good references of well-established company to the parent company
- Passion of our company's management for R&D
- Expenses of competition for R&D in Slovakia
- Formation of partnerships with universities
- Presence of other foreign R&D/technology centres in Slovakia
- Other
- Not relevant, we are a Slovak company
- Assistance of external company for persuading the parent company to invest in R&D

Which of the following elements will provide a significant contribution to the overall profit growth of your company in Slovakia within the next 12 months? (top 3 elements)

As many as 74 % of respondents stated that production is the most important element for profit growth. New customers (54 %) took second place and R&D of new products/services (41 %) was in third place. Such elements were also considered by the respondents as the most important in the first edition of the survey, two years ago. The aforesaid elements basically

reflect the current structure of the automotive industry in Slovakia. There are a number of production or assembly plants respectively, which must continuously search for new customers on worldwide markets. The positive fact is that research and development of new products/services reflects the essential need to innovate even in case of production facilities.

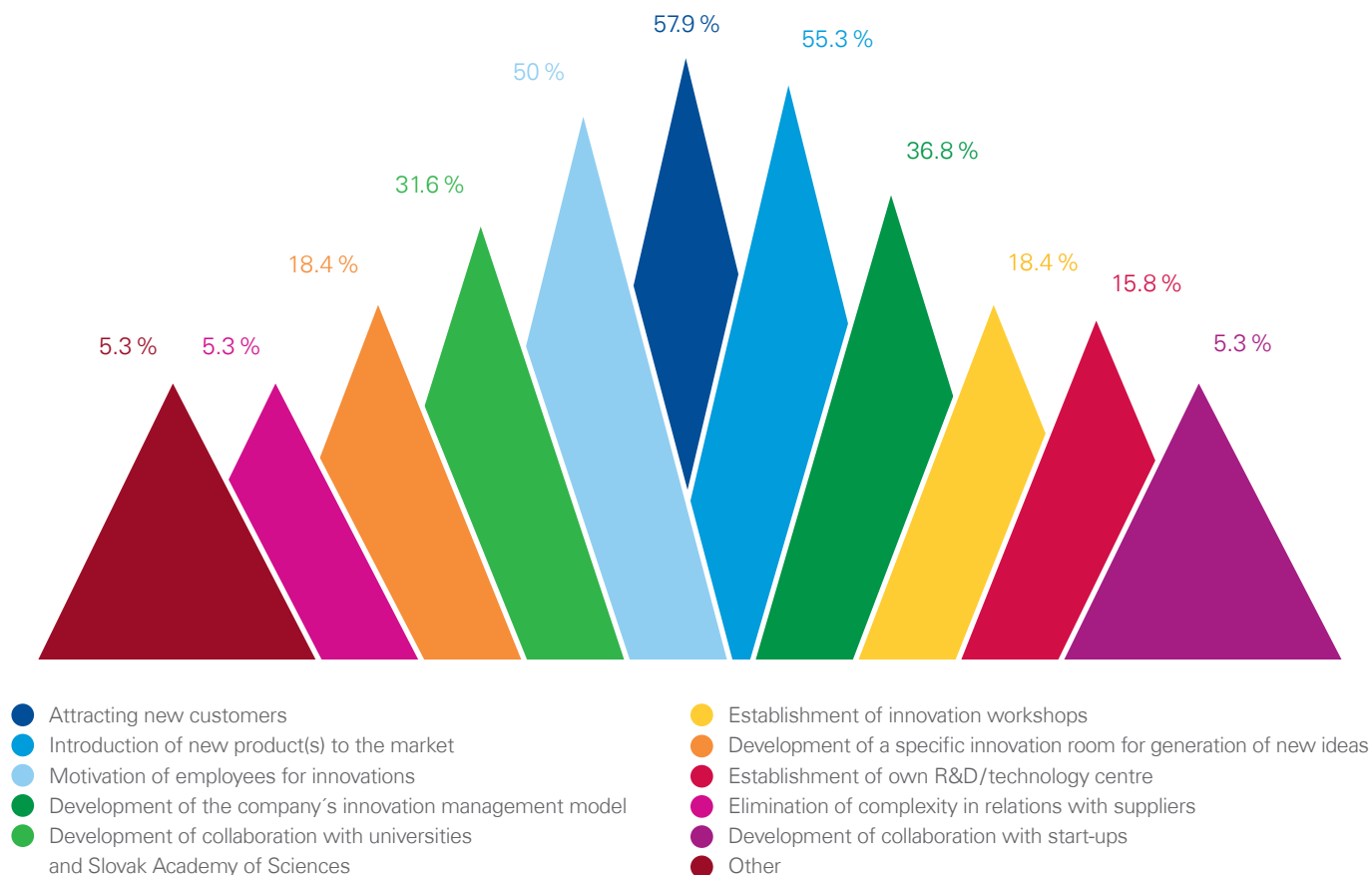


Cooperation and the future

What are the top 3 innovation challenges for your company in Slovakia for the next 12 months?

Gaining new customers is a difficult task and the greatest challenge as well for our respondents for the next 12 months. As many as 58 % of participants specified that they would need to generate new business to gain new customers. The top 3 challenges also include

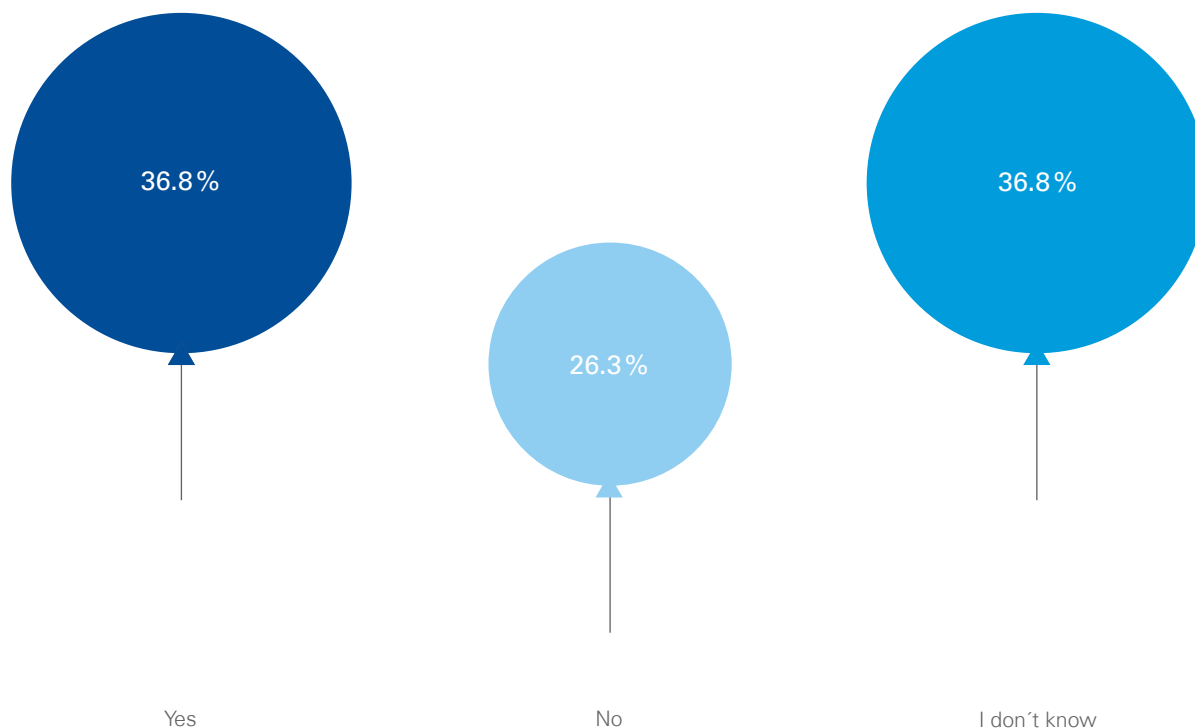
launch of a new product/service (55 %) and motivation of employees for innovations (50 %). At the forefront, there is a strong need to create their own model for management of innovations in the company, stated by 37 % of respondents.



Is your company interested in cooperation with Slovak start-ups?

The trend of establishing new technological companies is still very much ongoing. However, there is still one question to be answered – how to interconnect newly-established technological companies with industrial companies in Slovakia. Such interconnection could provide an opportunity to establish new forms of business as well as for development of new products

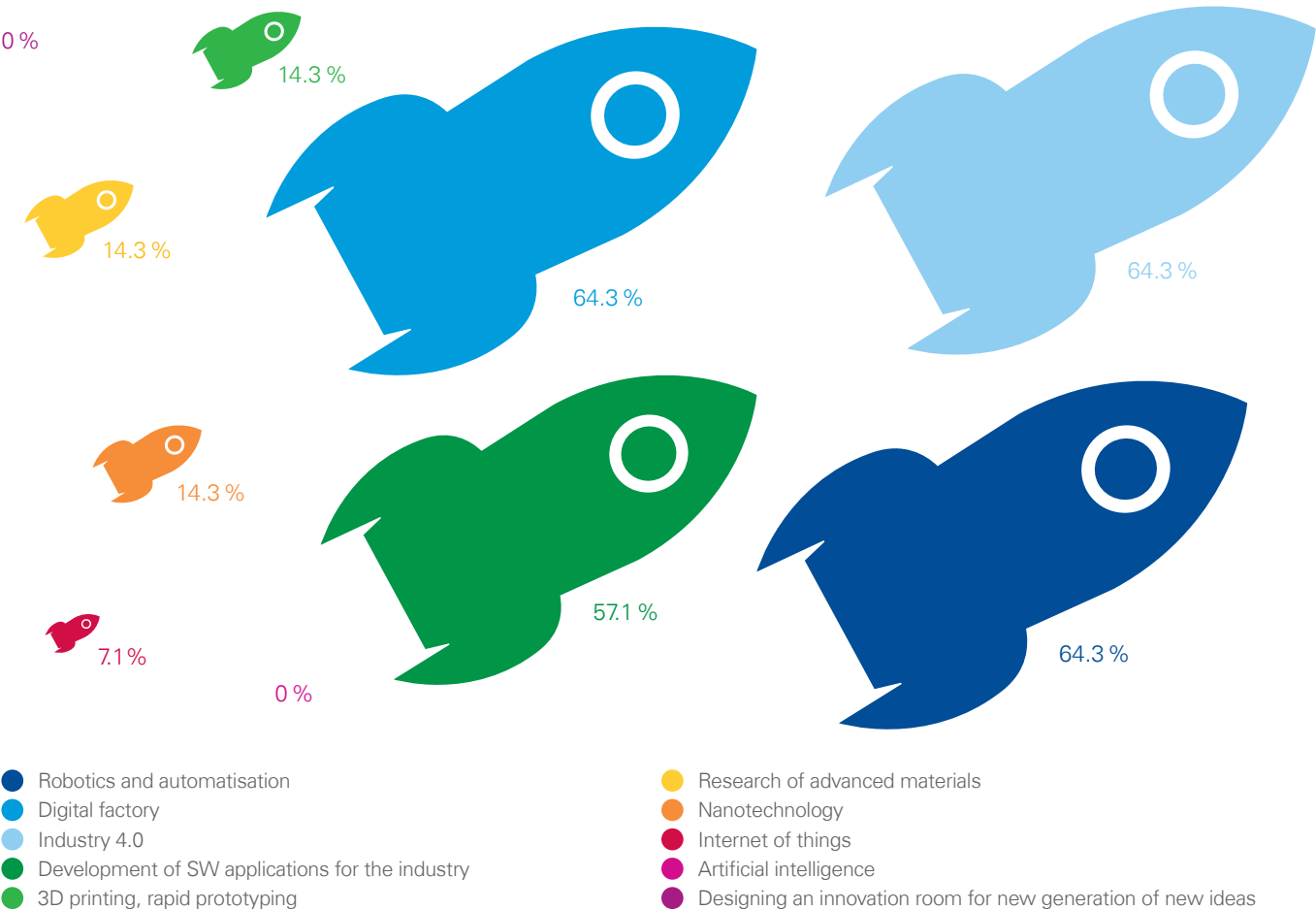
and services. Out of our respondents, 14 companies specified that they would be interested in cooperation with Slovak technological start-ups. A further 14 companies could not provide their opinion. This could serve as an opportunity for seeking common areas with established industrial companies.



In what areas would you be interested in cooperation with start-ups? (top 3 areas)

Our respondents' responses showed that the representatives of established companies consider the following areas as the most important for cooperation

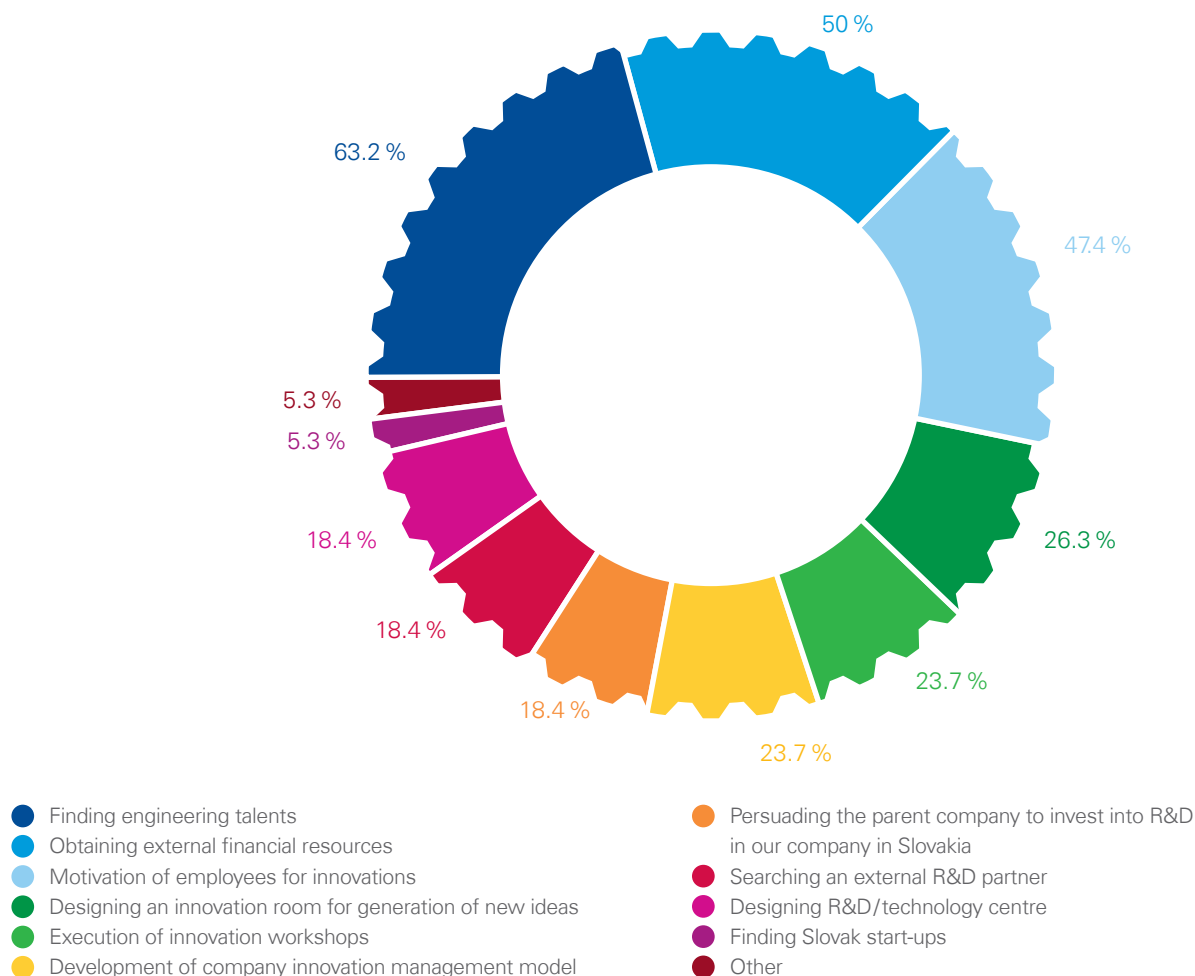
with start-ups: robotics and automation (64 %), industry 4.0 (64 %), digital factory (64 %) and development of software applications for industry (57 %).



If you were interested in the development of innovations in your company, what kind of assistance would you need the most? (top 3 areas)

As mentioned earlier, engineering talents is one of the most important areas for development of innovations. Without high-quality, creative and innovation-focused employees, it is very hard to innovate. Therefore, almost 2/3 (63%) of our respondents need assistance in this area. Another area

where half of our respondents are seeking assistance in gaining external financing for innovations. The third area is motivation of employees to innovate and come up with and implement unique and non-standard ideas. This factor was highlighted by 47 % of our respondents.





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Automotive Innovation Slovakia Survey 2016

is the only survey of its kind in Slovakia

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