

Randstad Employer Brand Research report 2017

global employee
insights into the
perception of the
Engineering sector


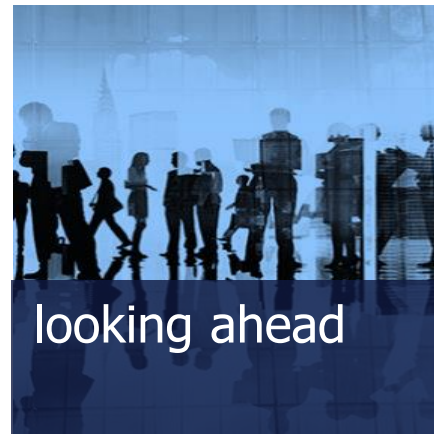
Employer Brand
Research 2017
powered by  randstad



table of contents



introduction



what is the Randstad Employer Brand Research?

The most representative, and inclusive, employer brand research in the world, capturing the opinion of the general public between 18 and 65

Founded in 2000 as the Randstad Award, moving forward in 2017 as Randstad Employer Brand Research, optimizing 17 years of successful employer branding insights

Independently conducted research, giving a truly impartial view of the employee market and a reflection of employer attractiveness for each of the 26 participating countries' largest employers

Valuable insights to help companies shape their employer brand

Information on automation, retraining and sector switching included

26 countries surveyed covering 75% of the global economy



Australia Argentina Belgium Brazil Canada China France Germany Hong Kong
Hungary Italy India Japan Luxembourg Malaysia New Zealand Netherlands
Poland Portugal Russia Singapore Spain Sweden Switzerland UK USA

Worldwide:
Over 160,000 respondents
5,495 companies surveyed

Sample aged 18 to 65,
representative on gender
with an overrepresentation
on age group 25 – 44

Sample comprised of
students, employed and
unemployed workforce

Online interviews conducted
in November and December
2016

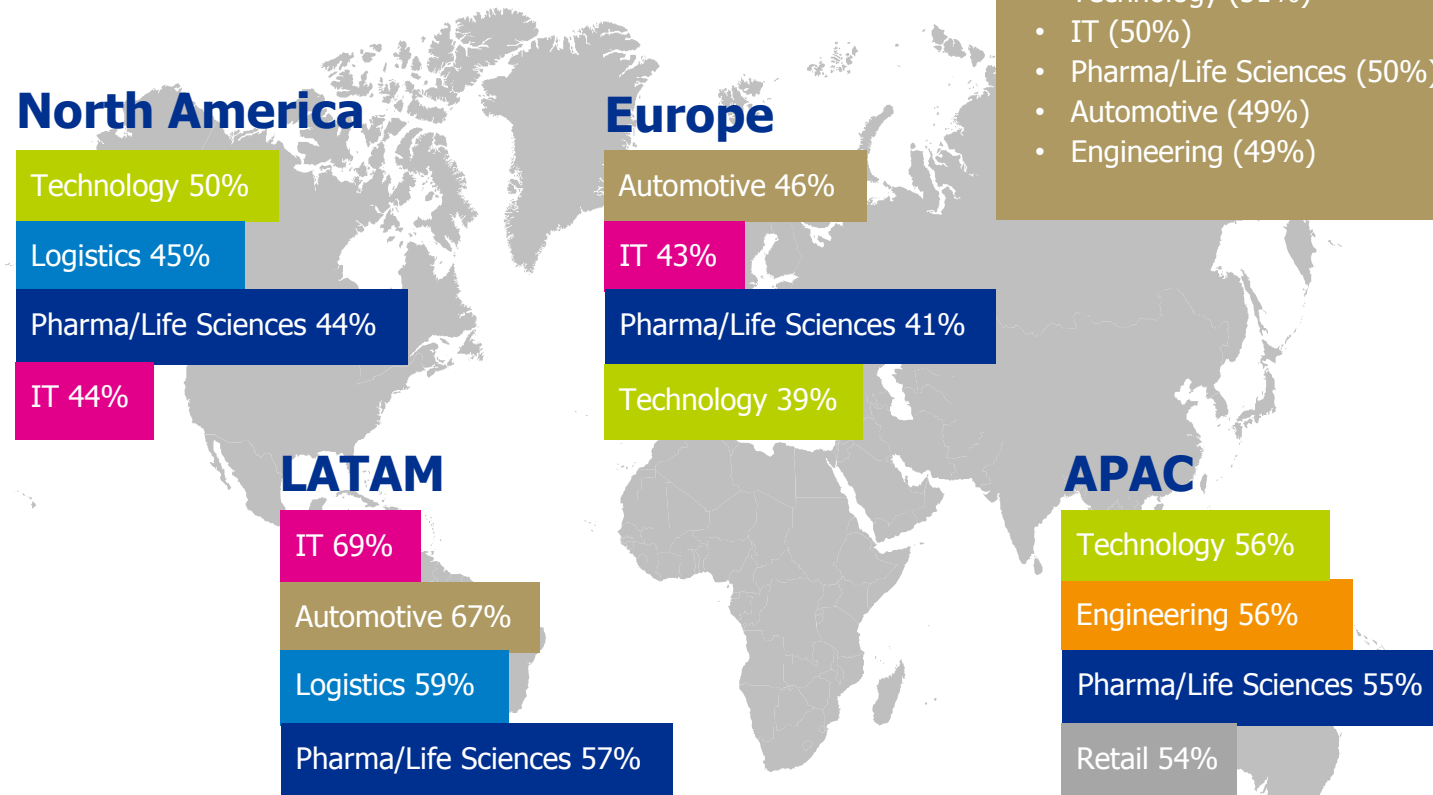
Length of interview:
16 minutes

global insights

How does the Engineering sector compare to others in terms of attractiveness? Where does it need to improve perception to increase its appeal? Plus a spotlight on some regional differences around specific attributions.

while the Engineering sector factors in the top five sectors globally, it only ranks in top four in APAC

most attractive sector to work in by region



5 most attractive sectors globally:

- Technology (51%)
- IT (50%)
- Pharma/Life Sciences (50%)
- Automotive (49%)
- Engineering (49%)

Technology has overtaken IT as the number one most attractive sector this year, although the difference between the two sectors is minimal. The difference between the top 5 sectors is minor with number five (Engineering) being found attractive by 49% and number one (Technology) being found attractive by 51%. The differences between the five sectors is not significant.

Overall the Engineering sector ranks as the 5th most attractive sector to work in globally. This represents a huge potential pool of talent to draw on.

Viewed regionally, however, other sectors like Automotive and Technology vie for top spot. The Engineering sector performs most strongly in APAC where it is ranked 2nd. In other regions Engineering is ranked significantly lower. It scores around 10% lower in each region than the top ranked sector.

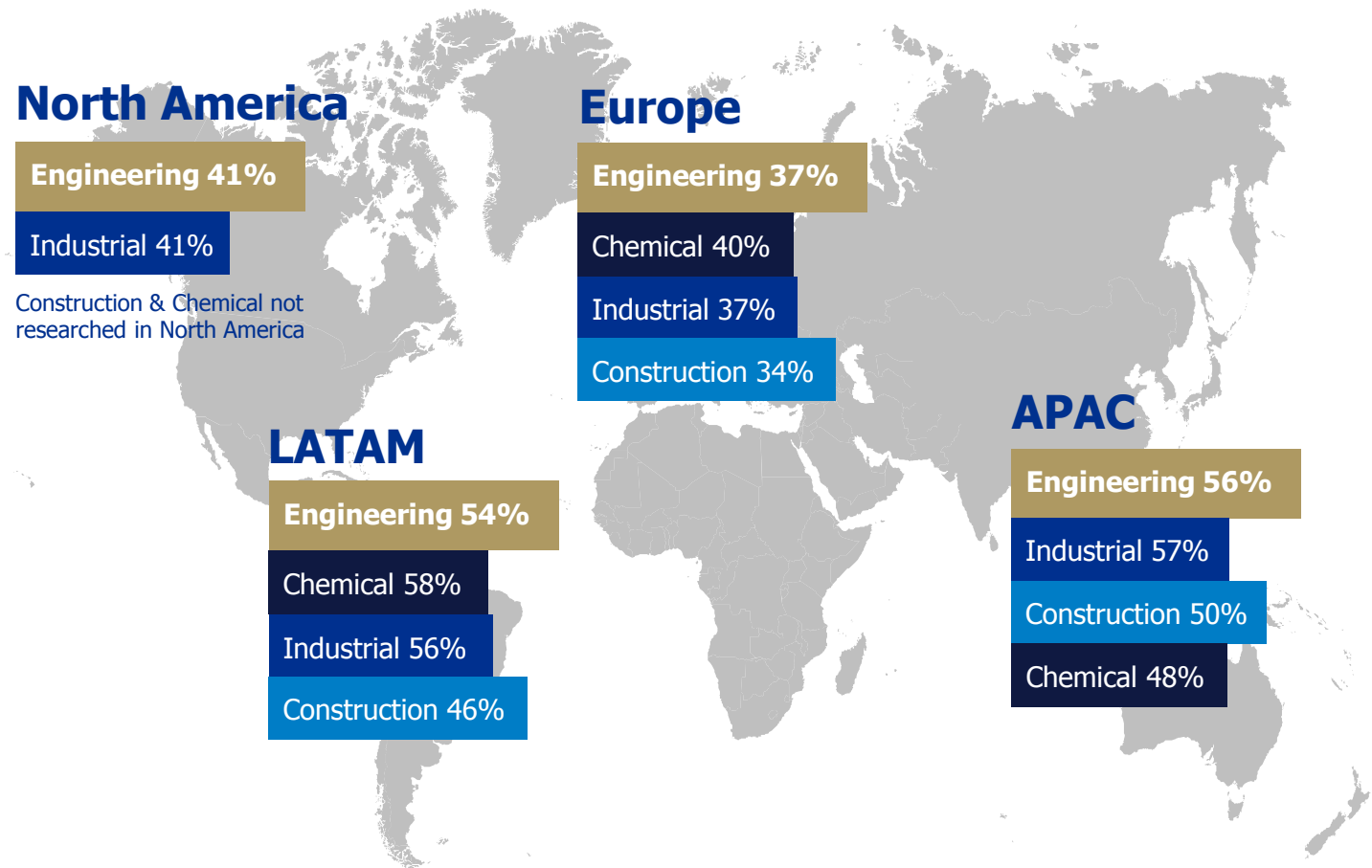
Given the growing demand for skilled engineers there is no room for complacency if a company wants to continue to compete for the best talent, particularly against Automotive, Technology and IT.

The popular sectors in 2017 are equal to those in previous years apart from Technology, which has risen in attractiveness, and Logistics now coming up the ranks in North America and LATAM.

*Starting this year sector classifications are based on the International Standard Industrial Classification (ISIC) whereas in previous years another classification was used. As a result, analysis of sector trends over time should be interpreted with care. The Engineering sector is a combination of the Chemical, Industrial and Construction sectors.

Industrial sector is overall the most attractive within Engineering sector

within engineering sector: most attractive sector to work in by region



Sector attractiveness within Engineering sector

1. Industrial sector (49%)
2. Construction sector (46%)
3. Chemical sector (45%)

The Engineering sector consists of the Industrial, Construction and Chemical sector. Of these three sectors, the Industrial sector scores highest in attractiveness, followed by the Construction and Chemical sectors.

The Chemical sector scores better than the other two sub-sectors in Europe and LATAM, while in APAC the Industrial and Construction sectors score higher on attractiveness than the Chemical sector.

The Engineering sector is found more attractive in APAC and LATAM than in North America and Europe.

The Engineering sector is found most attractive in India and China (60% or higher score on attractiveness) and least attractive in Belgium, Netherlands, Sweden, Japan and New Zealand (all under 30% score on attractiveness).

most attractive employer attributes are not the same as the perceptions of the largest Engineering sector companies

most important attributes in future employer for Engineering employees (% agree)

1. **Attractive salary and benefits (58%)**
2. **Long-term job security (46%)**
1. **Good work-life balance (46%)**
2. Career progression opportunities (42%)
3. Financially healthy (39%)
4. Pleasant work atmosphere (37%)
5. Strong management / leadership (28%)
6. Good training (28%)
7. Flexible working arrangements (25%)
8. Work is stimulating and challenging (24%)

core values attributed to largest Engineering companies (% agree)

1. Financially healthy (61%)
2. Uses latest technologies available (57%)
3. Good reputation (57%)
4. **Long-term job security (53%)**
5. Career progression opportunities (51%)
6. Work is stimulating and challenging (50%)
7. Pleasant work atmosphere (47%)
8. **Good work-life balance (44%)**
9. Cares for the environment / gives back to society (43%)
10. Will face challenges in the next decade (22%)

- The most attractive employer attributes for engineers – attractive salary, job security – are predictable, if not always easy for companies to deliver.
- When data on core values of large companies is compared to attractive attributes in a new employer, this highlights some areas for improvement. A good work-life balance and a pleasant work atmosphere will be key to attracting the best and most engaged Engineering employees:
- Compared to last year's Engineering sector report we see that work-life balance has maintained its place at 3rd while a pleasant work atmosphere has fallen in importance from 5th in 2016 to 6th in 2017.
- Good work-life balance is considered vital to almost half of engineers and so should not be overlooked by Engineering companies particularly as only 44% of total respondents feel that the top Engineering companies demonstrate a good work-life balance.
- In line with last year's report, long-term job security remains the 2nd most important attribute of an employer, highlighting the reassurance and stability that many employees seek:
- As economies continue to be impacted by events like Brexit and new trade agreements, it will be helpful if companies can assuage fears and dampen the feelings of risk that potential new employees might feel.
- Engineering sector companies should also capitalise on their perceived financial health as this is key for 39% of engineers. The financial health of one's employer has a direct impact on their ability to provide their employees with attractive salary and benefits as well as long-term job security – the top two most important attributes for engineers.
- On the other hand, respondents feel that Engineering companies use the latest technologies available but this isn't one of the top priorities for Engineering employees with only 16% prioritizing this. Engineering sector companies will need to maintain their technology advantage so as not to fall behind competitors but should look to highlight other priorities for their employees.

Base: REBR study 2017, All employees who work in Engineering

career progression opportunities more important to Engineering employees than the general population

most important attributes in future employer for Engineering employees (% agree)

1. Attractive salary and benefits (58%)
2. Long-term job security (46%)
1. Good work-life balance (46%)
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4. Pleasant work atmosphere (37%)
5. Strong management / leadership (28%)
6. Good training (28%)
7. Flexible working arrangements (25%)
8. Work is stimulating and challenging (24%)

important attributes in future employer for all respondents (% agree)

1. Attractive salary and benefits (58%)
2. Long-term job security (46%)
3. Good work-life balance (45%)
4. Pleasant work atmosphere (43%)
5. Career progression opportunities (35%)
6. Financially healthy (33%)
7. Flexible working arrangements (31%)
8. Good training (28%)
9. Conveniently located (27%)
10. Strong management / leadership (26%)

- While the values sought by Engineering and non Engineering employees are similar, how they rank them differs:
- Engineering employees rate career progression opportunities and the financial health of the company as more important than the general population. This was also the case in previous years. In fact compared to 2016 the top 5 most important attributes have not changed for engineers.
- Good work-life balance is important across the board: 46% of engineers believe this is one of the most important attributes of a future employer, 45% of the total population agree. In 2016 this was also ranked #3 for Engineering employees.
- Among the general population a pleasant work atmosphere ranks as more important:
 - 74% of recent graduates would choose to work at an organisation with an engaging positive social atmosphere even it meant accepting a lower salary.¹
 - This is a trend we also saw last year with almost 50% of global respondents prioritising this versus only around 40% of Engineering workers.
- As a pleasant work atmosphere is not a top three priority for engineers, this attribute may not historically have been a focus for Engineering firms. Building a reputation in this area could potentially attract a new cohort of engineers which could increase diversity and give the company a competitive advantage.

Base: REBR study 2017, all aged 18-65/All employees who work in Engineering

Engineering workers prioritise financial stability while international opportunities and entrepreneurial working styles are considered least important

most important attributes in potential employer for Engineering employees (% agree)

1. Attractive salary and benefits (58%)
2. Long-term job security (46%)
3. Good work-life balance (46%)
4. Career progression opportunities (42%)
5. Financially healthy (39%)
6. Pleasant work atmosphere (37%)
7. Strong management / leadership (28%)
8. Good training (28%)
9. Flexible working arrangements (25%)
10. Work is stimulating and challenging (24%)

least important attributes in potential employer for Engineering employees (% agree)

1. International career opportunities (54%)
2. Entrepreneurial way of working (46%)
3. Conveniently located (39%)
4. Uses latest technologies available (39%)
5. Promotes diversity and inclusion in the workplace (36%)
6. Cares for the environment / gives back to society (31%)
7. Flexible working arrangements (30%)
8. Good reputation (30%)
9. Work is stimulating and challenging (27%)
10. Offers quality products / services I value (20%)

- For the second year in a row in the REBR research, Engineering employees ranked salary and benefits, job security and a good work-life balance in the top three attributes of a potential employer. Good work-life balance and long-term job security are found equally important (and rank #2) in 2017. A change from 2016 where good work-life balance was selected by fewer people.
- This year we also asked respondents what were the least important attributes in a future employer. Those which would involve taking risks featured among the most unattractive:
 - Interestingly, the least attractive attribute - international career opportunities – is one often presented as an advantage by large employers in particular. Over half of engineers found this to be unimportant. This is probably because international opportunities involve financial costs and moving one's family - something not everyone is willing to undertake.
 - Many Engineering jobs require significant amounts of travel (for example to work on-site in remote areas or on oil rigs) so potentially some engineers don't value this type of opportunity as it would require them to be separated from their families.
 - As with international career opportunities, entrepreneurial ways of working could be viewed as risky or challenging – particularly in the current environment where long-term job security is much sought after.

Base: REBR study 2017, All employees who work in Engineering

engineers are much more interested in working for a large company than the total population

all respondents

- Just 26% of all respondents surveyed would want to work for a large corporation.
- Large companies are more appealing among younger people: 27% of 18-24 year olds would like to work for a large company versus only 20% of 45-65 year olds.
- There are strong differences regionally. Young people in LATAM and APAC are the most interested in working for a larger company with 38% of 18-24 year olds agreeing versus only 20% of young millennials who wish to work for a large company in North America.

Engineering professionals

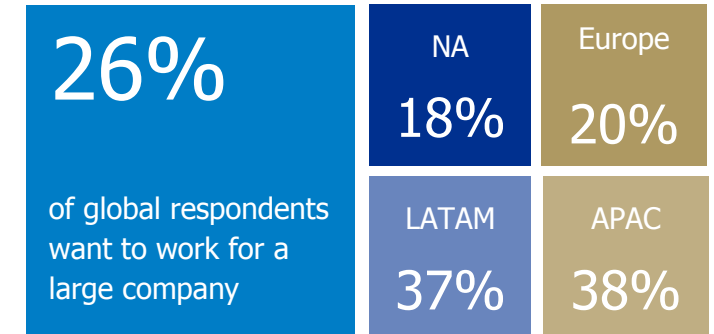
- Within the Engineering sector significantly more respondents are keen to work for a large company, with 43% agreeing, rising to 50% in APAC:
 - This could be down to resources available to employees. Those who work for big companies would be likely to have more access to projects with bigger budgets.
- Interestingly among Engineering workers, working in a large company is more appealing to younger engineers (47% of 18-24 year olds) vs older engineers (36% of 45-65 year olds).

All the big companies are saying 'We are going to have a shortage and need more and new skills.' They simply are not doing enough in attracting, hiring and retaining workers, both younger and older engineers. If they continue to ignore the problem, they are at real risk of falling behind to innovate.'

Jacco Klerk, vice president Global Client Solutions, Randstad⁵⁵

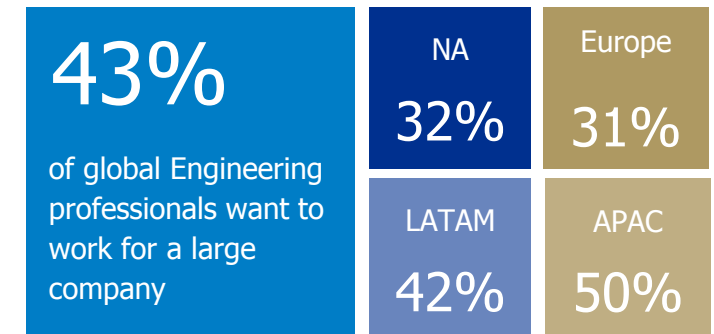
all

want to work for a large company



Engineering professionals

want to work for a large company



Base: REBR study 2017, all employees who work in Engineering

what do workers want?

Focused on career progression, gender and sector switching – areas where the Engineering sector has some perception issues or are a direct threat to their attractiveness as employer.

salary and benefits are key for Engineering employees across all age groups globally

- Across all age groups, an attractive salary and benefits tops the ranking of desired employer attributes among Engineering employees. This has proved to be consistent and also ranked #1 in 2016. Financial concerns grow stronger with age, perhaps reflecting the level of financial commitment and responsibility felt by this cohort and the desire to upgrade rather than downgrade their lifestyle.
- Career progression opportunities are more important to the 18-24 year olds than the 25-44 and 45-65 age groups. This age group is at the start of their career and is highly motivated to learn and progress quickly.
 - This is particularly true of 18-24 year olds with the highest levels of education. Over 50% of them rank career progression in their top five priorities. This group has spent longer studying than their peers which suggests more ambition and a desire to succeed in their field.
- Career progression is less important for 25-44 and 45-65 year olds. As people get older, priorities may shift and change. For 25-44 year olds, family and other aspects of home life might take over as number one priority, which is why good work-life balance and long-term job security become more important. Some 45-65 year olds might have already reached the peak in their career and therefore focus on new challenges outside work such as family and outside interests.
 - For example, only 16% of 45-65 year old New Zealanders prioritise career progression versus 48% which value work-life balance and long-term job security.
- Young millennial engineers are the only age group to rank pleasant work atmosphere as very important. Among this group, work can also be a source of social life and friendships which is based on the fact that they are likely to have just finished education. They place emphasis on company culture and seek out positive environments in which they can collaborate and progress as well as make friends.
 - Within this group the cohort with the lowest level of education ranked pleasant work atmosphere as the top priority with salary and benefits ranked #2.
- Long-term job security is particularly important for 45-65 year olds. They might be aware that changing jobs or finding new jobs becomes harder as one ages, and focus strongly on approaching retirement financially stable. For many, working as long as possible might be important. This is why financial health ranks #5 for the 25-44 year olds and ranks #4 for the 45-65 year olds.
 - 55% of those with the highest levels of education within the oldest age group value long-term job security – more than an other age group or education level group. These engineers are likely to be in leadership roles within their companies and therefore want assurance that they will be able to maintain their current standing if they change employers.

top priorities ranked by age group for Engineering employees

global age 18-24

1. Attractive salary and benefits (57%)
2. Career progression opportunities (45%)
3. Good work-life balance (43%)
4. Pleasant work atmosphere (40%)
5. Long-term job security (39%)

global age 25-44

1. Attractive salary and benefits (57%)
2. Good work-life balance (45%)
3. Long-term job security (45%)
4. Career progression opportunities (43%)
5. Financially healthy (38%)

global age 45-65

1. Attractive salary and benefits (61%)
2. Long-term job security (53%)
3. Good work-life balance (50%)
4. Financially healthy (47%)
5. Career progression opportunities (39%)

global all

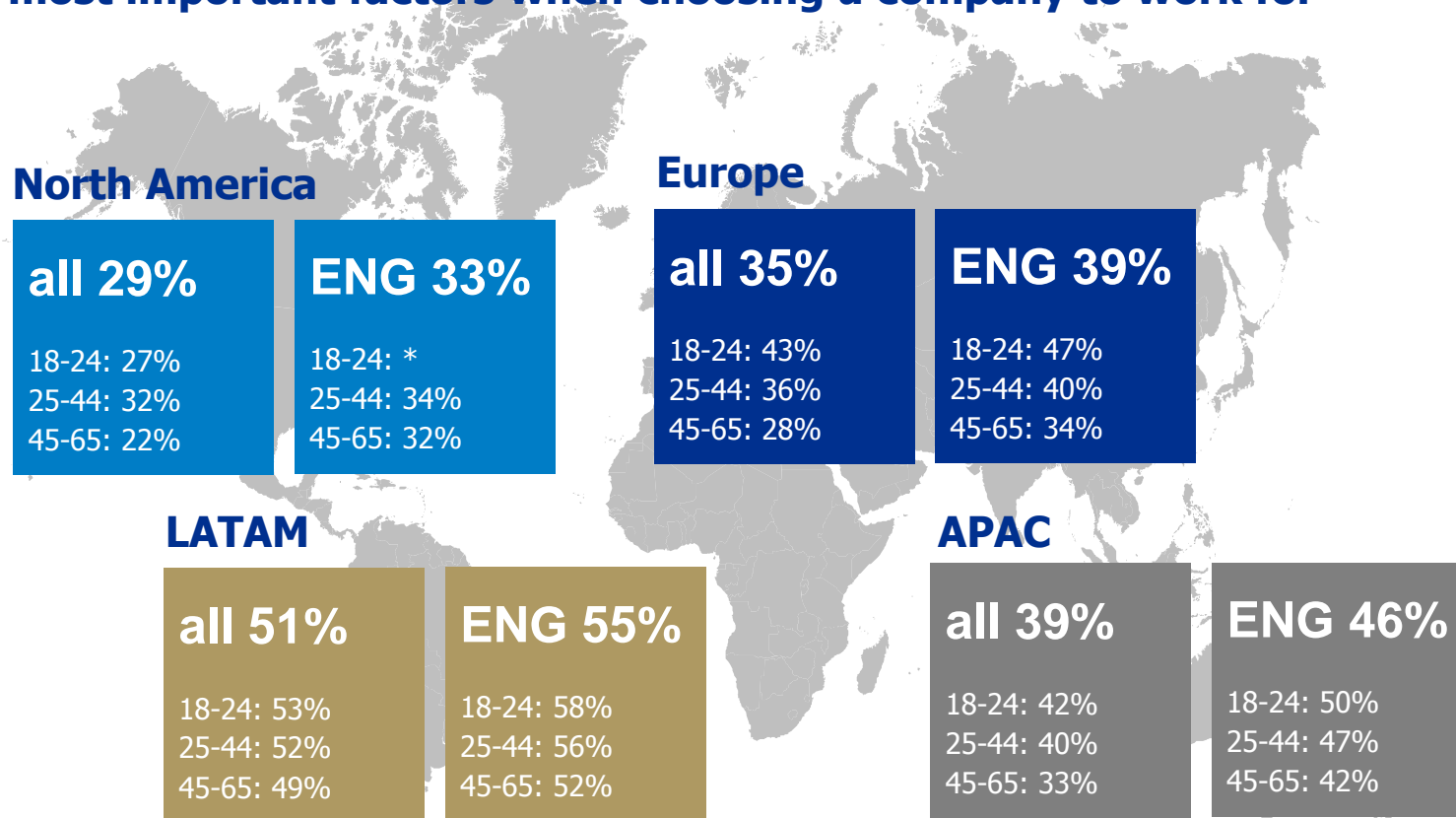
1. Attractive salary and benefits (58%)
2. Long-term job security (46%)
3. Good work-life balance (46%)
4. Career progression opportunities (42%)
5. Financially healthy (39%)

Base: REBR study 2017, All employees who work in Engineering

See bibliography for footnote sources

while top factors are uniform, career progression appears more important in some regions

percentage of total population vs. Engineering employees by region who rank 'offers career progression opportunities' in their top five most important factors when choosing a company to work for



Base: REBR study, All employees who work in Engineering
 *Base size too low to report

Top factors such as salary, security and good work-life balance dominate and are fairly uniform across the globe.

Salary and benefits is the most important attribute across all regions and all ages, however, in LATAM, career progression is equally important to salary and benefits (both 55%). In APAC, career progression is also becoming more important with 46% (vs. 56% for salary and benefits), especially amongst millennials.

Career progression has maintained its position (ranked 4th globally) for Engineering employees compared to 2016.

More Engineering professionals are driven by career progression than the general population. This is especially true for those in the 18-24 age group.

Regionally the desire for career progression varies significantly - much lower in North America and much higher in LATAM.

Within LATAM, 56% of Brazilian engineers find career progression important while 53% of Argentinian engineers agree. This is in comparison to only 33% of American engineers and only 22% of Japanese engineers. In Germany only 29% of engineers focus on career progression, compared to French engineers at 51% and Portuguese engineers at 48%.

Desire to have a job which progresses one's career is strongest among 18-24 year olds in LATAM.

attracting male and female talent in Engineering - 1

- **Globally, male and female engineers share the same five priorities, proving that gender does not determine what employees want from a potential employer despite some regional differences.**
- **It is important to recognise that women are no less ambitious as men:**
 - 34% of women aspire to leadership positions within their companies vs. 35% of men.²
 - 75% of female engineers in North America believe an attractive salary and benefits is critical for a future employer – more than their male colleagues anywhere else in the world.
 - Career progression ranks higher for women in both Europe and APAC.
- **However, the proportion of women in Engineering varies widely by market:**
 - In the UK 15.8% of Engineering and Technology undergraduates in the UK are female, compared to India where over 30% of Engineering students are women.³ However, in Iran 70% of Science and Engineering students are women.⁴
- **Retention levels amongst women are low:**
 - The Society of Women engineers in the US reported in 2014 that 20% of Engineering school graduates are women, yet women make up only 11% of practising engineers. One in four female engineers leave the field after age 30, compared to only one in 10 male engineers and 40% of American women with Engineering degrees quit the profession or never enter the field at all.⁵
 - Women value a pleasant work atmosphere more than men (except in APAC) and so retention rates could be improved if the work environment was better quality.
- **Career progression is key for women in Europe, LATAM and APAC while women in North America strive to find a job where the work is stimulating and challenging.**

attracting male and female talent in Engineering - 2

top priorities for Engineering men & women by region

North America

women

- Attractive salary and benefits
- Good work-life balance
- Pleasant work atmosphere
- Stimulating and challenging work
- Good training

men

- Attractive salary and benefits
- Long-term job security
- Good work-life balance
- Career progression opportunities
- Financially healthy

Europe

women

- Attractive salary and benefits
- Pleasant work atmosphere
- Good work-life balance
- Long-term job security
- Career progression opportunities

men

- Attractive salary and benefits
- Long-term job security
- Pleasant work atmosphere
- Good work-life balance
- Financially healthy

global

women

- Attractive salary and benefits
- Good work-life balance
- Career progression opportunities
- Long-term job security
- Financially healthy

men

- Attractive salary and benefits
- Long-term job security
- Good work-life balance
- Career progression opportunities
- Financially healthy

LATAM

women

- Attractive salary and benefits
- Career progression opportunities
- Pleasant work atmosphere
- Long-term job security
- Good work-life balance

men

- Career progression opportunities
- Attractive salary and benefits
- Pleasant work atmosphere
- Long-term job security
- Flexible working arrangements

APAC

women

- Attractive salary and benefits
- Career progression opportunities
- Long-term job security
- Good work-life balance
- Financially healthy

men

- Attractive salary and benefits
- Good work-life balance
- Long-term job security
- Career progression opportunities
- Financially healthy

Base: REBR study 2017, All employees who work in Engineering

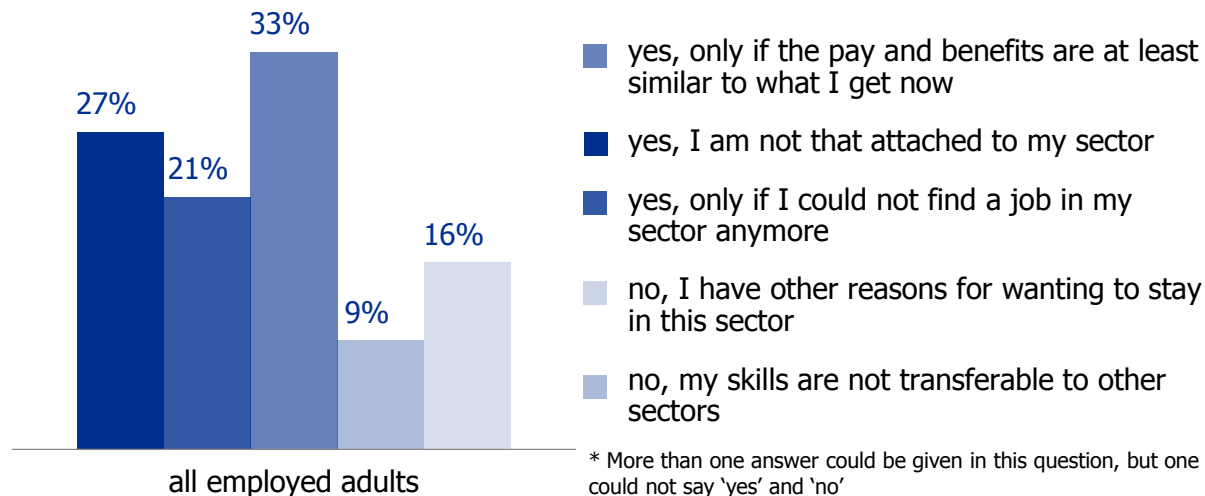
people do not expect to work in the same sector for life – switching is firmly on the agenda

- 55% of US employees and 76% of US millennials expect to change careers, not just jobs at some point in their life.⁶
- Still in the US, while 51% of all workers are happy with their jobs, they are still open to new employment offers.⁷
- While only 7% of global Millennials are looking to change jobs soon, 38% believe they will leave their employer within the next two years.⁸
- 72% of all employees surveyed are willing to switch sector for one reason or another. As an example, 27% of all employees say they would do so because they aren't attached to their sector.
- Employees in Spain, Italy, India, Singapore, Hong Kong and Russia are more willing to switch sector (all between 81% and 83%), while employees in Belgium, France, Netherlands, Japan and Argentina are less willing to switch sector (all between 74% and 67%). Although there are some country differences, there are no differences between the four regions.

willingness to switch sectors



would you consider changing the sector you are working in?*

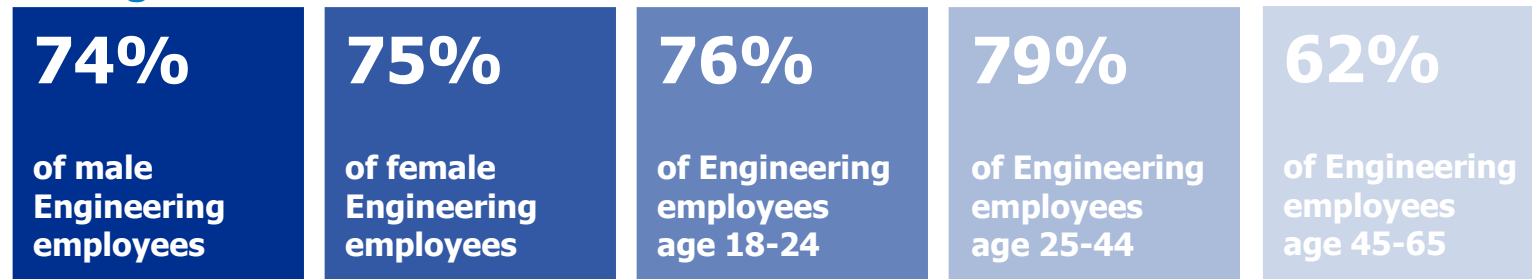


Base: REBR study 2017, all employees who work in Engineering

willingness to switch sectors is a very real risk - Engineering could lose skilled staff just when it needs to attract more people

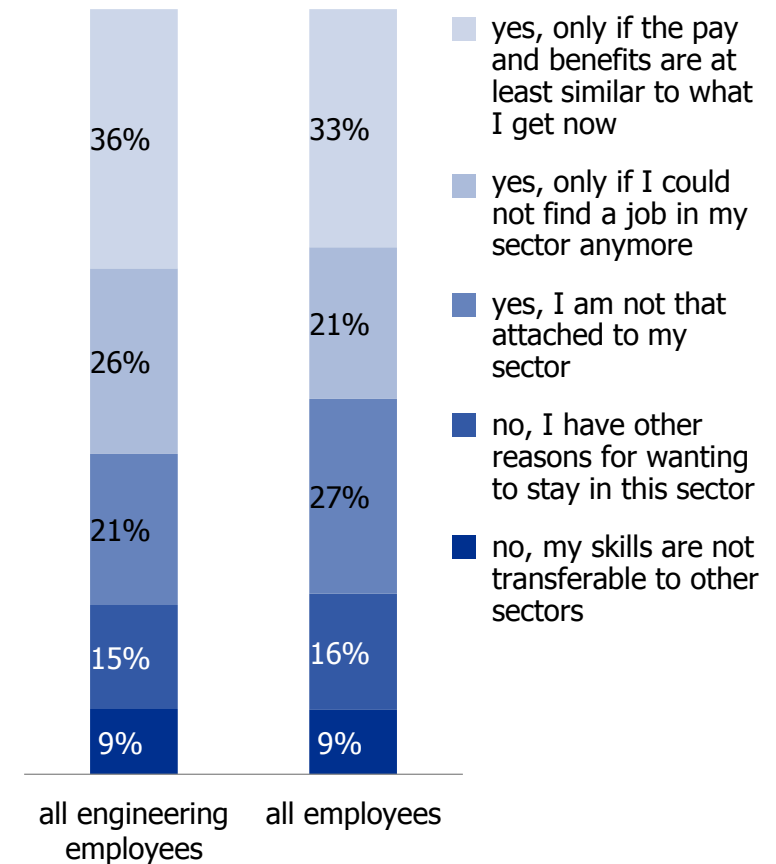
- **There is an acknowledged lack of people with Engineering skills today:**
 - According to the 2016 Engineering UK Report, Engineering companies will need 182,000 people with Engineering skills every year to 2022⁹
 - To accomplish this, double the number of graduates and apprentices need to enter the Engineering industry.⁹
 - In a study conducted by the European Federation of Engineering Consultancy Associations, Engineering companies in 12 out of 19 European countries surveyed agree that the lack of qualified staff is one of the most important challenges faced by the Engineering sector.¹⁰
 - According to the Federation of German engineers, in 2016 employers in Germany wanted to hire around 85,200 engineers but engineers available were only 73,500 and the gap between supply and demand of engineers in the country will triple over the next decade.^{10a}
 - According to a statement from United Rocket and Space Corporation, Russia's space industry will need to recruit over 100,000 engineers by 2025 in order to revive the sector.^{10b}
- **At the same time there is a growing need for them:**
 - Registered Engineering enterprises in the UK grew by 7% to 650,000 in 2015.¹¹
 - 64% of UK Engineering employers consider the shortage of engineers a threat to their business.³
 - When it comes to developing countries, a lack of people with the right Engineering skills has led to vital water and sanitation projects being delayed by months and even years.¹³
- **Against this background, 74% of Engineering employees are willing to switch sector for a variety of reasons:**
 - While almost two-thirds of engineers in the UK work for Engineering and technology companies,⁹ other sectors may be upping their game to attract Engineering candidates:
 - 78% of British engineers surveyed in the REBR research would be willing to switch sector for one reason or another with 25% saying they are not that attached to their sector.
 - This presents a significant challenge in terms of retention and recruitment for engineers.

willingness to switch sectors



Base: REBR study, All employees who work in Engineering

would you consider changing the sector you are working in?*



* More than one answer could be given in this question, but one could not say 'yes' and 'no'

how attractive is your sector?

How attractive is the Engineering sector compared to other sectors, how are some of the most iconic Engineering companies competing for talent, and how are global trends forcing companies to look at other ways of mitigating these shortages?



Engineering is only ranked 5th globally in terms of attractiveness and so faces stiff competition from the IT, Technology and Automotive sectors

- While the Engineering sector is ranked 5th globally the majority of regions rank it lower**:
- Respondents in North America view the sector the least positively ranking it at 7th overall.
- LATAM and Europe are slightly more positive about Engineering companies and rank the sector 6th.
- In Europe the Engineering sector is more popular in Spain (47% attractiveness) and Italy (46%) than in Germany (34%), UK (34%), France (31%) and the Netherlands (29%).
- In APAC the Engineering sector is viewed very positively and comes in at 2nd with 56% of APAC respondents being willing to work for an Engineering company.
 - Within India, 63% of respondents would be willing to work at an Engineering sector company. With 6,214 Engineering and technology institutions present in the country,¹⁴ sector companies should look to tap into this pool of talent.
 - 62% of Chinese respondents would like to work for one of the largest Engineering companies in their country.
- Compared to 2016 the three subsectors within the Engineering sector (industrial, construction and chemical) are now all ranking 1 or 2 positions higher in the top 10.

sector appeal	1st	2nd	3rd	4th
global	Technology	IT	Pharma/Life Sciences	Automotive
Europe	Automotive	IT	Pharma/Life Sciences	Technology
North America	Technology	Logistics	Pharma/Life Sciences	IT
LATAM	IT	Automotive	Logistics	Pharma/Life Sciences
APAC	Technology	Engineering	Pharma/Life Sciences	Retail

* Starting this year sector classifications are based on the International Standard Industrial Classification (ISIC) whereas in previous years another classification was used. As a result, analysis of sector trends over time should be interpreted with care. The Engineering sector is a combination of the Chemical, Industrial and Construction Sectors.

** Due in part to global weighting used Engineering sector was ranked 5th globally, 2nd in APAC, 7th in North America, and 6th in LATAM and Europe.

different regions favour different sectors but key attributes are similar to those that define the top Engineering sector companies globally

- Several key attributes are present across the top sectors in each region with financial health and use of the latest technology topping the ranks:
 - While being financially healthy is an obvious goal for all companies, those in the Engineering sector are also expected to use the latest technologies available. Employees who use the latest technologies in their home life will expect their place of business to do the same.
- Engineer sector companies can play to their advantage over other sectors as they have a reputation for long-term job security – the number 2 desirable factor in a new employer for engineers according to our research.
- Top sector companies are also deemed to have a very good reputation – something which people find important in deciding whether an employer is desirable or not:
 - Building a positive reputation can take time but the benefits are well worth it as 18% of engineers feel that this is a 'must have' in a future employer.

* Starting this year sector classifications are based on the International Standard Industrial Classification (ISIC) whereas in previous years another classification was used. As a result, analysis of sector trends over time should be interpreted with care. The Engineering sector is a combination of the Chemical, Industrial and Construction sectors.

core values attributed to top sector companies by region

Engineering sector global

- Financially healthy
- Uses latest technologies available
- Good reputation
- Long-term job security
- Career progression opportunities

Technology sector in North America

- Uses latest technology available
- Financially healthy
- Good reputation
- Stimulating and challenging work
- Career progression opportunities

Automotive sector in Europe

- Uses latest technology available
- Financially healthy
- Good reputation
- Long-term job security
- Career progression opportunities

IT sector in LATAM

- Uses latest technology available
- Financially healthy
- Good reputation
- Career progression opportunities
- Stimulating and challenging work

Technology sector in APAC

- Uses latest technology available
- Financially healthy
- Good reputation
- Stimulating and challenging work
- Career progression opportunities

big players in the Engineering sector are increasing their efforts to make themselves more attractive to potential employees

willingness to work for each company

- Larger players in the Engineering sector are looking well beyond basic benefits to differentiate and appeal which is perhaps a leading reason behind engineers' desire to work for big companies over smaller start-ups.
- Working environment, health and wellness, parenthood and extra training are all in consideration.
- Competitors should look to these for the 'gold standard' and aim to go beyond to attract and retain the best talent.

61%



- Named one of LinkedIn's Top Attractors globally in 2016 and one of Times Top 50 Employers for Women in 2016¹⁵
- Global minimum standard of 16 weeks paid maternity leave¹⁶
- Global social networks such as Young Shell Network, Shell Africa Network, Shell Disability Network¹⁷
- In the UK as well as some other countries employees can participate in the Sharesave program allowing employees to save and invest in Royal Dutch Shell.¹⁷

58%

SIEMENS

- Globally, Siemens invests about €500 million in the training and education of employees¹⁸
- 'Champions' employee recognition programme across 6 different countries allows employees the opportunity to show appreciation of their colleagues¹⁹
- Named one of the best places to work in the UK in 2016²⁰
- Siemens in the UK offers employees the ability to pick their own benefits packages including dental cover, travel insurance and car breakdown cover²¹
- Recognised as one of Canada's Top 100 Employers (2017)²²
- Siemens Canada gives employees tuition subsidies for courses and in some cases special financial bonuses for course completion²²

65%



- The Tata Steel Management Trainee Programme offers exciting career options to young engineers in Europe²³
- Tata Steel in India supports the idea of 'On the Job Learning' and has an established programs promoting it like 'Knowledge Manthan', 'E-Learning portals', 'Window on the World' and various short term self-initiated projects²⁴
- Focused on the overall development of employees, in India Tata encourages people to join their sports and adventure programmes, available club facilities, and benefit from other welfare schemes²⁴
- The INSPIRE Summer Internship Programme at their headquarters in India comprises a 6-8 week "live" project with a monthly stipend, accommodation and transport²⁵

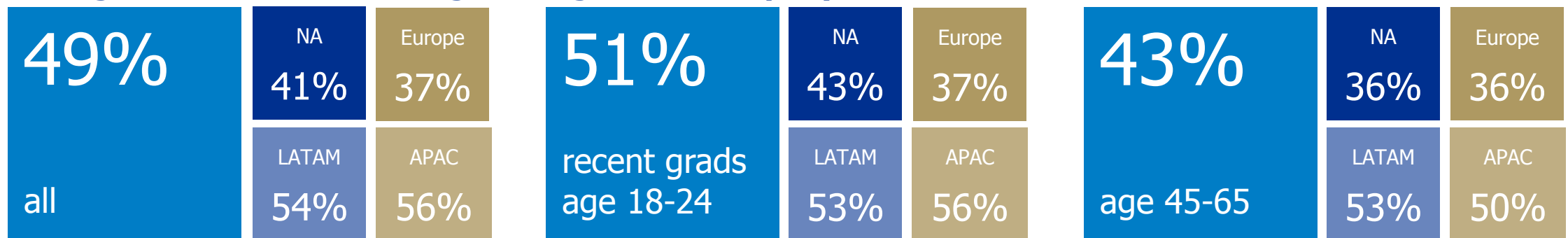
there is a large potential pool of talent willing to work in the Engineering sector

- The population of engineers is aging and there is an acknowledged shortage of young engineers:
 - 18% of Chinese employers find it difficult to recruit junior to mid management engineers and 16% find it difficult to recruit senior management in Engineering.²⁶
 - In Europe, around 7 million STEM related jobs are forecasted to need replacement by 2025 and two-thirds of these are to replace retiring workers.²⁷
 - Education of new engineers needs to be a top priority across all countries for governments as well as for the top countries. Graduate programs and on the job training could help alleviate the skills shortage.
- However, according to the Randstad Employer Brand Research almost half of all adults are willing to work for an Engineering sector company, a large potential pool of talent.
- In the UK, the proportion of 11-16 year olds who would consider a career in Engineering rose from 40% in 2012 to 51% in 2016 – this good work in promoting the sector in schools needs to continue¹¹ Employers in all countries should explore how to get kids interested in the field, perhaps by sponsoring school competitions or hosting open days where students can visit the office to learn more.
- The low numbers of women studying Engineering also present an opportunity and role models like Juliette McCoy at Ford and Ginger Kerrick at NASA are key.

'Women are somewhat uncertain or a bit trepidatious about moving into a field where there aren't role models – and where, there is a history at least, of stereotypes and gender bias...So, I think A: it's increasing awareness and B: making sure that people and women feel comfortable through role models and early exposure.'

Susan Chodakewitz,
former president of Tetra Tech AMT²⁸

willingness to work for an Engineering sector company



Base: REBR study 2017, all aged 18-65 vs. recent grads 18-24 vs. all aged 45-65

looking ahead

A summary of key areas that should be considered by the Engineering sector to improve their employer brand attractiveness.

retraining and redeployment could solve the Engineering skills shortage and help address the automation challenge

- **With the skills shortage in the Engineering sector readily apparent, companies within the sector need to strive to plug the gaps in innovative ways.**
- **67% of engineers would be willing to retrain if their jobs were threatened due to automation (vs. only 58% of total employees):**
 - Internal retraining and redeployment could help alleviate the skills shortage.
- **Engineers in the regions feel similarly positive when it comes to retraining, though numbers are much higher in LATAM and APAC:**
 - 75% in LATAM and 74% in APAC are willing to retrain while 58% in North America and 56% in Europe feel the same.
 - 78% of Chinese engineers are willing to retrain vs. only 37% of Dutch engineers.
- **And it isn't just automation which is affecting Engineering jobs:**
 - According to the Intergovernmental Panel on Climate Change, the energy sector, a key employer of engineers, must become carbon neutral by 2070 otherwise a temperature rise of more than two degrees Celsius will occur. Energy sector companies will therefore be looking to diversify their sources of energy extraction but they will need to retrain their employees, specifically their engineers, to handle these new sources like solar, wind and other renewable energy sources.²⁹
 - The UK's Nuclear Decommissioning Authority is taking their employee retraining one step further and in anticipation of the decommissioning of nuclear power plants offered workers courses on renewable energy to prepare them for new jobs.³⁰
 - Universities in the US are also beginning to train students for jobs in the energy efficiency sector with programs that target not only college-age students but also offer continuing education for those already working as engineers in the energy sector.³¹
 - The construction industry, a key employer of engineers, generated between 25% and 40% of the world's carbon emissions so reducing these will be a significant challenge particularly in developing nations like China and India.³²

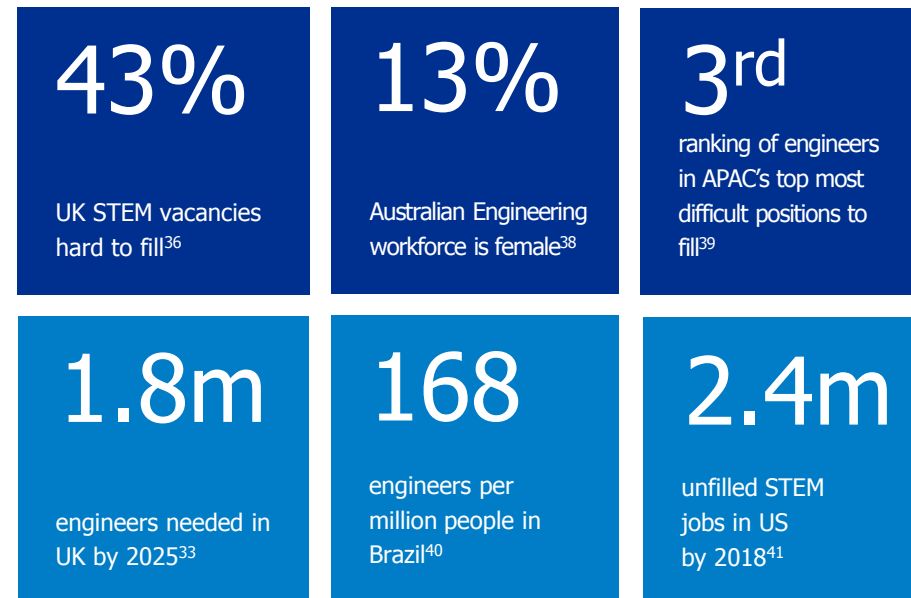
Base: REBR study 2017, all aged 18-65/All employees who work in Engineering

a changing and challenging landscape

- Economic volatility and unemployment remain a fear for many:
 - 39% of millennials in emerging markets and 31% in mature markets are personally concerned about both issues.⁸
 - Millennials are now looking for stability: the proportion intending to leave their jobs within two years dropped from 44% in 2016 to 38% in 2017.⁸
 - According to the UK Institute of Engineering and Technology, Brexit could send Britain's Engineering industry into a crisis due to a diminished talent pool.³³
- There is a growing need for engineers across many industries:
 - The number of Belgian Engineering jobs showed a 76% growth in Q1 2017 compared to the same period in 2016.³⁴
 - However the shortage of STEM (Science, Technology, Engineering and Math) professionals looks set to continue in the near future.
 - In the US, 82% of employers who hire engineers struggle to fill open positions.³⁵

'With millions of jobs at risk and a worldwide employment crisis looming, it is only logical that we should turn to education as a way to understand and prepare for the robotic workforce of tomorrow. In an increasingly unstable employment market, developed nations desperately need more Science, Technology, Engineering and Math – commonly abbreviated as STEM – graduates to remain competitive.' Dan Shewan, The Guardian³⁶

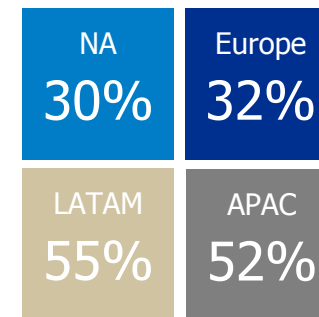
ongoing Engineering skills shortage



engineers are more excited about the potential of automation to make their jobs better than employees in other sectors

- **Automation is forecasted to affect many jobs in the near future, but it is seen largely as a positive by employees across all sectors:**
 - 40% of all employed adults think automation will make their job better: just 13% worry that it will take their job away while 39% think it will have no effect.
- **Of those who work in an Engineering capacity, 52% think automation will make their jobs better, while 34% think it will have no effect:**
 - Europe (42%) and North America (38%) are less optimistic but in LATAM almost two thirds of all engineers believe it will make their jobs better.
 - 68% of Brazilian engineers believe automation will make their jobs better.
 - 63% of engineers in China and 56% of engineers in Malaysia think that automation will make their jobs better.
- **Automation of work processes within the Engineering sector is already prevalent:**
 - Automation of certain work processes appeals to businesses within the Engineering sector as it allows greater flexibility in production. Automation and robots can replace repetitive and/or dangerous tasks (e.g. checking oil pipelines in remote areas or factory work) which will free up engineers to refine their designs to create better output.⁴²
 - The processes which are already being automated (like complex calculations and tedious administrative tasks) are helping to improve workers lives. However, much of what engineers do today cannot yet be completely automated therefore, at this point in time, employees are only seeing the benefits and so view any future automation in a positive light.

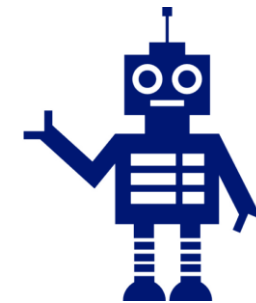
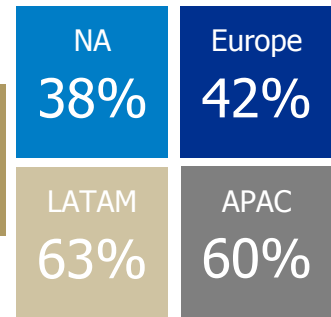
general automation will make my job better



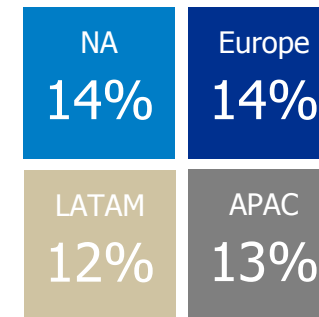
global
40%

all Eng
52%

Engineering automation will make my job better



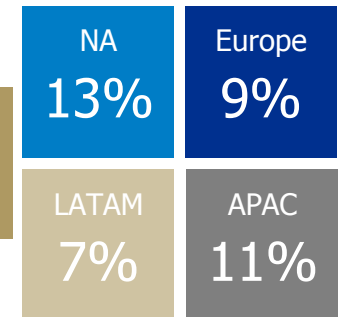
automation will take my job away



global
13%

all Eng
11%

automation will take my job away

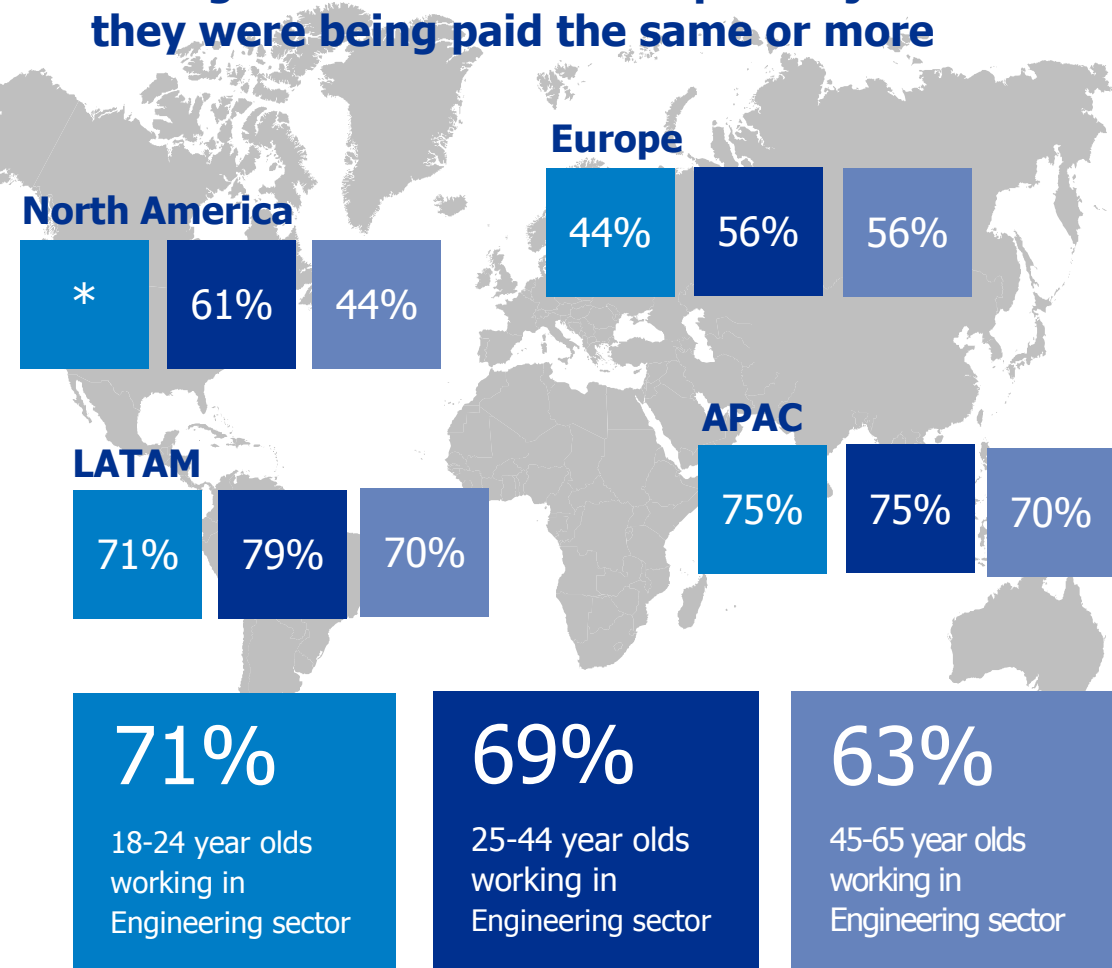


Base: REBR study, All employees who work in Engineering

how workforce demographics influence future talent policy

- **As automation and digitisation increasingly change the skills required in the field of Engineering, companies will have to think differently about their talent policy. They will need to look at a wider pool of people as well as continue to train and retrain engineers already in the field.**
- **Regionally APAC and LATAM Engineering employees are most willing to retrain if their jobs were automated:**
 - Within APAC, 78% of Chinese, 74% of Malaysian and 70% of Singaporean engineers would be willing to retrain.
 - Within LATAM, 77% of Brazilian engineers and 71% of Argentinian engineers would be willing to retrain.
- **Engineers must focus on constant learning as their skills are becoming quickly outdated:**
 - Rapidly increasing scientific and technological changes are affecting the Engineering sector to a large degree.
 - According to the US-based National Academies of Sciences, Engineering and Medicine, the half-life of an engineer's vocation-specific knowledge is steadily decreasing. Their report, *The Engineer of 2020*, says that engineers must continue with education and learning throughout their work lifetime.⁴³
- **While a majority of engineers are willing to retrain, age does play a part:**
 - It should be noted that willingness to retrain among those working in Engineering decreases somewhat with age from 71% among 18-24 year olds down to 63% among 45-65 year olds.

willingness to retrain to keep their job if they were being paid the same or more



Base: REBR study, All employees who work in Engineering

*Base size too low to report

looking ahead – what the Engineering sector needs to focus on for the future

- **The Engineering sector is at risk of losing employees due to the attractiveness of other sectors such as IT, Technology, Automotive and Pharma/Life Sciences:**
 - Clear progression opportunities will be key in attracting new talent as well as retaining employees. This is especially true for younger millennials who are just beginning their careers.
 - For older cohorts long-term job security is a top priority which companies within the Engineering sector will need to tap into. Continuous investment by companies in training and retraining across all age groups could help employees to feel more secure in their jobs as they become more specialised.
- **While the top factors are similar between male and female engineers there are key differences:**
 - Career progression is particularly important to women which businesses can evidence by highlighting strong female engineers as role models.
 - Retention levels for women within the Engineering sector are quite low. Companies should look to address this issue and tap into what women in particular require from an employer such as a pleasant work atmosphere and a good work-life balance.
 - 75% of female engineer respondents in North America believe an attractive salary and benefits is critical for a future employer – a higher proportion than any other male or female cohort globally.
- **Automation within the Engineering sector is viewed positively by the majority of engineers:**
 - The majority of engineers believe that automation will have a positive effect on their jobs. Robots and machines which could take on repetitive, time-consuming or dangerous tasks could help engineers to upgrade their jobs rather than take them away.
 - Retraining post-automation is also viewed positively with the majority of engineers across all age groups being willing to retrain if their job was made obsolete due to technology.
 - Skills which engineers learned through traditional education will become obsolete within a few years as the sector changes rapidly.
- **Smaller companies and start-ups are least attractive to Engineering employees and therefore will need to work harder to attract the best talent:**
 - Perks like flexible work arrangements or healthcare benefits are among options which could help to draw in new recruits.
 - An employer which supports a good work-life balance is a top priority for engineers in 2017 as it was in 2016. Smaller companies should look to highlight this in their recruitment of engineers as it could differentiate them from the larger employers.

employer branding

The value and importance placed on employer branding in terms of reputation and therefore attractiveness continues to grow in an increasingly competitive global talent marketplace.



why employer branding matters

Companies with positive brands get twice as many applications as companies with negative brands, and they spend less money on employees⁴⁴



50% of candidates say they wouldn't work for a company with a bad reputation - even with a pay increase⁴⁴



80% of talent leaders agree that a strong employer brand has a significant impact on their ability to hire great talent.⁴³ And because people work for cultures not companies, their perception of you as an employer is of paramount importance. Both recruiters and candidates cite company culture as one of the most important determinants in employer choice. And your culture is transparent: candidates actively research the culture of companies to understand if they'll fit. If candidates see positive employee and candidate experiences on review sites, they feel more confident submitting their resume and making a career move.

96%

Agree that alignment of personal values with a company's culture is a key factor in their satisfaction working there⁴⁶

Companies with bad reputations pay 10% more per hire⁴⁷



62% of candidates research companies on social media before applying⁴⁸



88%

Millennials and minorities agree that being part of the right company culture really matters to them⁴⁴

87%

Joined a company specifically because of cultural fit⁴⁶

80%

Have left a company specifically because of its culture⁴⁶

the commercial value of a strong employer brand is increasingly recognised

- **There is growing concern among CEOs about finding and keeping the best talent to achieve their growth ambitions:**
 - 38% of global employers reported talent shortages in 2015, the highest percentage since 2007.⁴⁹
 - 73% of CEOs reported being concerned about the availability of key skills.⁵⁰
- **Companies that have strong employer brands enjoy significant cost savings with lower cost per hire and employee turnover rates:**
 - Cost per hire is over two times lower for companies with strong employer brands.⁵¹
 - Companies with stronger employer brands have 28% lower turnover rates than companies with weaker employer brands.⁵¹
 - 59% are investing more in their employer brand compared to last year.⁵²

'The future of work will bring radical change for talent, companies and society, a change where the digitalization is disrupting many traditional approaches from education to employment.'

Jacques van den Broek, CEO Randstad

80%

Over 80% of leaders acknowledge that employer branding has a significant impact on their ability to hire talent.⁵³

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