The state of D&I in engineering survey 2018

improving skills, innovation and creativity

Interim findings

Executive summary

Introduction

- This is the first dedicated study of diversity and inclusion (D&I) across engineering in the UK [1]. The findings documented in this report are based on responses from 300 engineering employers – of which 279 were selected at random and 21 were already working closely with the Royal Academy of Engineering (the Academy) through its D&I Leadership Group (DILG) of engineering employers and employer-led organisations.

- The survey was designed to provide a snapshot of D&I thinking/activity across UK engineering. The data was collected via a dedicated CATI (computer-assisted telephone interviewing) survey in July 2018.

- Engineering organisations included in the randomised sample are those categorised as such using Standard Industry Classification (SIC) codes. Reponses from organisations are further broken down by sectors including construction, production, IT, mining/utilities and other engineering.

- The survey builds upon two previous studies commissioned by the Academy[2] and forms part of the Academy's wider programme on D&I.

- All survey findings in the report have been weighted to represent the distribution of engineering businesses in the UK, which consists primarily (98%) of smaller companies.

- For this survey, 'diversity' was defined as the consideration of "similarities and differences in terms of age, ethnicity, disability, gender and religion; and less visible differences such as sexual orientation, disability [also], religion, educational background, personality type, nationality etc.".

- The term 'inclusion' was used to describe "the extent to which individuals feel valued for who they are (for example, personal and professional background, experience and skills) and the extent to which individuals feel they belong/'fit' in the engineering profession and in their organisation".

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[1] Broadly as defined by the EngineeringUK report *The State of Engineering 2018* - further details available on request.

[2] Previous reports in this series were (1) *Diversity and Inclusion in Engineering Survey Report 2015* including trends, similarities and differences with the highways and transportation sector, and (2) *Creating cultures where all engineers thrive A unique study of inclusion across UK engineering*.

SURVEY RESULTS:

1. Making a case for D&I

Small employers still need convincing of the benefits of D&I, larger employers less so.

- On balance[3], only around half of employers with less than 50 staff (48%) saw increasing D&I as important/very important to their business compared with 85% of larger employers. Similarly, less than one quarter (23%) thought that increasing D&I could benefit the business compared with more than three quarters (76%) of larger employers.

- Less than one in 20 (7%) smaller employers have a company-specific business case for D&I compared to 16% of larger employers.

- One in five employers (23%) thought it likely that increasing D&I could benefit their business. The proportion increases to almost half (47%) of mid-sized companies (50-99 employees) and over three quarters (76%) of larger businesses.

- The potential benefits of increased D&I are most likely thought to arise in relation to: (1) increased innovation and creativity; (2) improved brand image or company reputation; (3) better reflection of community demographics; (4) increased productivity; and (5) increased collaboration.

A significant proportion of engineering employers do not see a link between increasing D&I and combatting skills shortages/gaps.

- On balance, many engineering employers thought it unlikely that increasing D&I in their business would reduce or eliminate skills shortages/gaps. Although among employers that had implemented D&I actions, almost one in five (17%) stated that this as a benefit.

2. Planning and resourcing

In general, engineering businesses are much more likely to have generic policies addressing D&I than specific strategies or action plans.

- Just over one in ten UK engineering businesses (11%) had a written company policy addressing D&I, rising to more than half (55%) of those with 50 to 99 employees and two-thirds (66%) of larger organisations.

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[3] The balance figure is the difference between the proportion of employers viewing the issues as important/very important less those viewing it as unimportant/very important

- Overall, 1% of organisations have a dedicated strategy/action plan or budget. Around one in five larger engineering business were found to have one (21% – 50 to 99 employees) (19% – 100+ employees)

- The implementation of D&I strategy/action plans appears to be viewed as a shared responsibility. Almost three quarters (72%) of employers with a plan stated that implementation was the responsibility of all employees.

- 50% of engineering employers with a D&I plan stated that it set out specific actions addressing: ethnicity, disability, gender, sexual orientation, social mobility and/or religion/belief. The proportion stating that their plan set out age-specific actions was notably lower at just 42%.

- Just under four in ten employers with D&I plans (37%) stated that there were success measures associated with the plan. Virtually all (96%) stated that they monitored progress towards the plan – normally on an annual or more frequent basis.

- 1% of engineering employers stated that they had a budget for delivering D&I activities, rising to 19% of larger engineering organisations.

Engineering employers often have identifiable employees/functions responsible for D&I, although the existence of 'Champions' is rare.

- Just over one in five engineering businesses (21%) and six in ten (60%) of larger engineering employers have either: an identifiable person, team, function, committee or 'champion' responsible for D&I.

- Champions appear relatively rare; they are apparent among 4% of employers overall and 23% of larger employers. Where present, they are often very senior individuals, and in more than one-third of employers with champions, 36% were found to be board members, chief executives or other executive business leads.

There are low levels of monitoring and measuring of performance on D&I.

- Just over one in three engineering employers (35%) stated that D&I was in the performance objective of all, as opposed to select groups, of employees. Although the proportion of larger employers stating this to be the case was higher (44%), the difference was less pronounced than in other areas covered by the survey.

- Less than one in 20 employers (4%) have a set of metrics/measures in place for monitoring D&I, rising to a quarter of mid-sized

employers (25%) and almost four in ten (38%) larger engineering employers.

- The diversity characteristics most commonly measured by engineering businesses overall to assess progress on D&I are: disability, gender, ethnicity, and social mobility.

- Business areas monitored for diversity varied substantially. The most commonly cited were: take up of flexible working (25% of businesses), grievances and disciplinary action (also 25%), and absence levels (22%).

- Among larger employers, the metrics most often monitored to assess progress on D&I were recruitment outcomes (62%), turnover/retention (53%) and pay/pay gaps (48%).

- One in five engineering employers (19%) stated that they report progress on D&I internally while around one in 20 (6%) report progress externally.

D&I training is relatively uncommon, although where it does take place it tends to be mandatory.

- The incidence of employers providing D&I, conscious/unconscious bias and bullying/harassment training all increase with company size. This was most notable for bullying and harassment training with 9% of smaller employers (49 employees or less) providing bullying/harassment training compared with 62% of larger employers.

3. Actions to increase D&I

Employers are actively promoting engineering as a careers option.

- Just under half of engineering employers (46%) reported encouraging young people to consider careers in engineering. Almost nine in ten employers (88%) were found to be doing so.

- More than one-third (34%) reported identifying and profiling diverse role models internally or externally.

Engineering employers are seeking to expand their recruitment horizons.

- One-third (33%) state that they are seeking to broaden the pool from which they recruit, with large employers very active in this area (81%).

'Fairness' in employment is not always addressed

- Around half of engineering employers ensure that the promotion process is fair and transparent (47%), that work is fairly allocated (53%) and/or that performance is fairly assessed (57%).

Aside from training, the variety of development options varies with the size of the organisation

- 18% of employers offer development options including coaching, mentoring and development programmes. 10% have sponsorship programmes

4. Fostering an inclusive culture

Employers are taking action to develop more inclusive cultures within their organisation.

- 59% of employers are taking action to address the culture within their organisation to make it more inclusive.

- More than half of employers who responded to the survey stated that their management 'set clear standards for their teams on creating an inclusive environment', and/or would tackle bias including bullying and harassment when brought to their attention (53% and 57% respectively). For large employers, this rises to 77% and 99%.

- Four out of five engineers (82%) agreed with the 2017 survey 'Creating cultures where all engineers thrive'[4] question: 'I'm confident my manager will tackle bias including bullying and harassment when it's brought to their attention'. This compares well with above findings from employer responses in this survey.

- Another finding from the 2017 survey was that 'inclusion benefits the performance of individual engineers with 80% reporting increased motivation, 68% increased performance and 52% increased commitment to their organisation'.

- Internal networks/resource groups focused on D&I are uncommon. 18% of larger businesses stated that they had established this type of group.

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[4] www.raeng.org.uk/inclusivecultures

5. D&I across the business

Engineering employers do not only consider D&I in the context of their human resource.

- Half of engineering businesses (50%) stated that they also considered D&I in the context of marketing, customer experience, community relationships, supply chains and/or product, service design/development – with one quarter (24%) considering it in relation to all areas. For larger employers, comparable figures of 69% and 54% respectively were recorded.

- IT businesses were more likely than others to consider D&I in the context of these other business areas.

6. Benefits of D&I

Increasing D&I is seen to benefit the business

- Four in ten engineering employers (38%) thought that their D&I activities had had a small/significant positive effect on their business, rising to almost three quarters of larger employers (73%).

- The most commonly reported benefits for engineering employers were: (1) improving company image or reputation; (2) improving compliance with legislation; and (3) increasing collaboration.

7. Challenges to increasing D&I

Half of engineering employers stated that there were challenges to the company making progress on D&I.

- The key challenges highlighted were:
  - lack of diverse applicants with the skills needed (48%)
  - lack of understanding about how to increase D&I (39%)
  - physical environment (36%)
  - lack of leadership (36%).

Large organisations also cite 'an inclusion privilege' as being an issue (64%).

- The 2017 research identified an inclusion privilege: engineers who were considered to have it were defined as "those who already feel included are least likely to take action".

8. Priorities for the future

- The most common reported priority for D&I activity over the next 12 to 24 months was simply to increase its levels within the business (42% of those responding).

- Larger companies were most likely to target a rise in general levels of D&I in their organisation (31%) after which the next most commonly anticipated issues related to: finding employees (21%); workforce development (20%); recruitment (17%); awareness/communications (17%); and, more generally, a continuation with the current approach (15%).

9. DILG companies working closely with the Academy

Twenty-one employers that are part of the Academy's DILG took part in the survey. These organisations responded more positively to survey questions in comparison to the randomly selected employers – although not across all areas.

This is particularly seen in the following:

- 100% of DILG employers see D&I important compared with 49% overall.

- 100% of DILG employers have a written policy on D&I compared with 11% overall.

- 70% of DILG employers have a written strategy or action plan addressing D&I compared with 1% overall.

10. The role of the Academy going forward

The Academy can help by working with employers as an informer and facilitator of change.

- When asked what D&I support the Academy should provide, respondents identified three key areas:

1. As a champion for engineering – promoting engineering/careers, particularly within schools/colleges to increase the flow of talent into the sector.

2. As an informer – providing information about D&I practice and progress within the industry by way of guides/case studies/role models, benchmarking, events, industry statistics and general awareness raising.

3. As a hands-on facilitator/enabler – providing support to smaller organisations in the form of financial help, dedicated support networks and/or training in the field of D&I.

- Larger employers see the Academy's role as being an informer (58%) or champion (30%) with only 3% seeing the role as a facilitator or enabler.
- However, smaller and mid-sized employers look to the Academy for a more 'hands-on' role, citing the following examples:
  - Supporter of associated interventions.
  - Financial support to tackle D&I.
  - Provision of training.
  - Establishing support networks.
  - Assisting in the recruitment process.

Key messages

1. Differences in perceptions, actions and experiences of engineering employers of different sizes in relation to D&I.
2. Smaller organisations typically face challenges that limit their capacity to promote D&I as a route to improving skills, innovation and creativity.
3. Most engineering employers thought it unlikely that increasing D&I in their business would reduce or eliminate skills shortages/gaps.
4. Engineering employers are unlikely to have a dedicated strategy, action plans, budget or monitoring systems in place for D&I.
5. Engineering employers do look at D&I in a broad context, for example not just from an employee perspective but also in relation to product or service design, marketing, supply chain, customer experience and/or community relations

Appendix – Breakdown of employers participating in the survey

Number of employers	Randomised samples		DILG sample	
1 to 9	45	16%	-	-
10 to 49	68	24%	1	5%
50 to 99	74	27%	4	19%
100+	92	33%	16	76%
Total	2791	100%	21	100%

Engineering Sector	Randomised samples		DILG sample	
Mining/utilities	46	16%	3	14%
Production	74	27%	1	5%
Construction	72	26%	8	38%
IT	53	19%	6	29%
Other engineering	34	12%	3	14%
Total	279	100%	21	100%

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We have three strategic priorities: make the UK the leading nation for engineering innovation and
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