The first five-year phase of the engineering diversity programme concluded at the end of March 2016, and funding for another four years has been secured from the Department for Business, Innovation and Skills (BIS). The Academy is delighted to be in a position to continue to galvanise the profession to make progress on diversity and inclusion (D&I). This update gives the opportunity to re-launch the programme under the revised title Diversity and Inclusion Programme (D&IP) and share our vision, mission and strategic aims for the next four years.

“I am really pleased with the work to date. We have learnt a lot during the first phase about the nature of the diversity and inclusion challenge and approaches that work. We are on a journey in an industry that is changing and so we need to evolve as we enter the next phase. Our focus going forward is to be more explicitly centred on what we can do well to galvanise the profession and increase inclusion. We will build on our successful activities and find ways to collaborate with others to become a more effective force in delivering the diversity and inclusion we aspire to across all fields of engineering.”

Dervilla Mitchell CBE FREng, Incoming Chair of Academy Diversity Committee

Continued over…
The D&IP strategy for the next phase is ambitious, challenging and exciting. It provides a framework for the Academy to lead collaboration across the profession and make more progress on diversity - with explicit focus on increasing inclusiveness.

**Vision**

An inclusive engineering profession that inspires, attracts and retains people from diverse backgrounds and reflects UK society.

**Mission**

To lead the engineering profession to challenge the status quo, stimulate cultural change and improve diversity and inclusion.

**Strategic aims**

1. Identify, develop and deliver visible interventions that increase diversity and inclusion, challenge the status quo and lead to sustained change.
2. Lead by galvanising the profession and demonstrating exemplary diversity and inclusion practice.
3. Sustain and extend current relationships, partnerships and networks to maximise effectiveness of the programme.
4. Implement a plan that encourages communication and consultation on approach, progress, achievements, and business benefits.
5. Develop and cascade programme success, measures and benchmarks against which to track progress. These strategic aims will drive visible strands of work to generate and stimulate good practice across the profession. Some elements continue from the first phase of the programme whilst others are still in development, or to be confirmed.

**On-going from the first phase of the programme**

*Higher Education Employer Diversity Pilot Project* – consists of two work streams: the Engineering Engagement Programme (EEP) which engages diverse engineering undergraduates and recent graduates with engineering employers, and a work stream focused on in-company activity. It will continue for the next two years concluding with an evaluation report in March 2018. See p3 below for more, including highlights from the first year.

*Diversity and Inclusion Leadership Group (D&ILG) benchmarking survey* – the D&I benchmarking survey carried out with members towards the end of 2014 resulting in a survey report will be repeated in 2017 for comparison to assess progress.

*Professional Engineering Institution progress framework* – following on from the Concordat meeting which took place towards the end of the last phase of the programme, the D&IP is working with the Science Council to establish a framework for planning and measuring progress across professional bodies - see p6 below for more information.

*Sharing good practice* – through benchmarking and other activities, the D&IP will continue to seek out and share examples of good practice. In addition, at any time, companies can use this link to submit case studies for inclusion in the [Increasing Diversity and Inclusion in Engineering Toolkit case study pages](http://www.raeng.org.uk/policy/diversity-in-engineering/diversity-and-inclusion-toolkit).

Internal Academy diversity and inclusion – the Academy will continue to look internally and integrate D&I consideration into its activities, governance and reporting – see p8 below for more information.

*Developing programme success measures* – in line with programme strategic aim five, D&I success measures will be developed and shared to aid consistent D&I data gathering, analysis and reporting.

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*Continued over...*
New strands of work

Inclusive cultures project – this is a precursor to developing more inclusive cultures across engineering. It falls under the remit of two initiatives the Academy is leading on – the D&IP and the Engineering Talent Project (ETP). Developing more inclusive cultures across engineering is an explicit focus of the next phase of the D&IP, whilst improving culture and practice is a key strand of the ETP. The overall ambition is to engage 10 engineering companies (large and small) in contributing quantitative and qualitative data to assess the extent to which their cultures are inclusive – with a focus on gender, ethnicity and age. Building on reports generated at individual company level and aggregated across the profession, the primary objective is to develop effective inclusiveness measures.

Working with SMEs – The D&IP is keen to engage more with SMEs. According to Engineering UK 2016², 89.6% of engineering enterprises have fewer than 10 employees, with 42% of engineers working in just 0.4% of engineering enterprises (those employing 250+ people). This illustrates why the D&I programme needs to ensure its outputs are relevant to SMEs as well as to large organisations. The D&IP recognises that SMEs face different D&I challenges which can only be addressed with their involvement.

Inclusive recruitment – in delivering the HE diversity pilot project described above, the Programme is keen to ensure that recruitment practices reflect good practice and are as inclusive as possible. To this end, work on inclusive recruitment is proposed to identify and share good practice.

Promoting and supporting disabled people – the first phase of the programme has included minimal focus on this diversity strand, although the Academy is a partner in the STEMM DAC – see p7 below. Support of disabled people is important for some of our stakeholders and we propose to reflect that in our forward programme.

Other themes – if you have any suggestions for strands of work for programme consideration, or would like to comment on any aspect of D&IP plans, please email diversityteam@raeng.org.uk.

For more information on the first phase of the Programme, see our Diversity Programme Report 2011-2016 http://www.raeng.org.uk/diversityreport2016.

Project findings and recommendations:

Since the last update, three projects have submitted reports. Background, findings and recommendations from these reports are summarised below.

One emergent finding and recommendation that binds all project reviews below is the lack of diversity monitoring, and the need for this to be in place by all. With this in place, more comprehensive evaluation of the effectiveness and impact of D&I work can take place.

HE employer diversity pilot project

Background

The pilot project was initiated in autumn 2014 (launched in July 2015) in support of addressing the engineering skills gap by encouraging more students from diverse backgrounds to transition from higher education.
into engineering employment. It is delivered via two work streams; one consists of an Engineering Engagement Programme (EEP) to bring female, BME and socioeconomically disadvantaged (SED)/post-1992 graduates and recent graduates to the attention of a steering group of 13 engineering employers; and a second work stream which involves companies preparing internally to engage students from diverse backgrounds in their recruit processes.

**Findings**

*Students engaged* – the following evidence was gathered through monitoring student participation and feedback.

*Company feedback* – it is too early to assess whether the project is having a significant impact on improving diversity in engineering. However, employers reported that the project:

- Has potential to positively impact on diversity in engineering and to attract more diverse candidates.
- Is helping to challenge practices and perceptions within their companies, as well as prompting sharing of ideas and collaboration.

**Recommendations**

- Extend the pilot for a longer period, continue tailoring to company skills needs and include monitoring and tracking of students up to six months after graduation to assess the extent of transition into engineering employment.
- Consider bringing inclusive recruitment review under the Diversity and Inclusion Leadership Group (D&ILG) – see above.
- Companies to review procedures for collection and analysis of diversity data at all stages of the recruitment process to facilitate gauging the success of the EEP.

<table>
<thead>
<tr>
<th>865 students attracted</th>
<th>157 students selected across four engagement events</th>
</tr>
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<tbody>
<tr>
<td><strong>66%</strong> applied for opportunities at steering group companies</td>
<td><strong>31% women</strong></td>
</tr>
<tr>
<td><strong>31% women</strong></td>
<td><strong>72% post-1992/SED</strong></td>
</tr>
<tr>
<td><strong>96% BME</strong></td>
<td><strong>69.8%</strong></td>
</tr>
<tr>
<td><strong>69.8%</strong></td>
<td><strong>engineering first choice destination</strong></td>
</tr>
<tr>
<td><strong>75%</strong></td>
<td><strong>increased understanding of engineering career paths</strong></td>
</tr>
<tr>
<td><strong>80%</strong></td>
<td><strong>increased understanding of opportunities across steering group companies</strong></td>
</tr>
<tr>
<td><strong>62.3%</strong></td>
<td><strong>increased understanding of engineering recruitment process</strong></td>
</tr>
<tr>
<td><strong>46%</strong></td>
<td><strong>increased understanding of recruitment time lines</strong></td>
</tr>
</tbody>
</table>

**Technician Apprenticeship Consortium (TAC) - Accessing untapped talent**

**Background**

A project previously funded by the D&IP identified a lack of widely available careers advice and encouragement for the apprentice route into engineering. The TAC and Women in Science and Engineering (WISE) were subsequently funded by the D&IP to raise female and ethnic minority peoples’ awareness and engagement with apprenticeships. The project targeted regions with fewer apprenticeship applicants and high levels of ethnic minority representation and social disadvantage. Using these

3 Apprenticeship recruitment – accessing untapped talent http://www.raeng.org.uk/publications/other/tac-apprentice-recruitment

*Continued over...*
WES RETURN Project

Background
The project, funded by the D&IP and coordinated by the Women’s Engineering Society (WES), explored ways in which professional engineering institutions (PEIs) could support members on career or maternity breaks. The project was delivered in three phases which included benchmarking; identification of best practice and potential support mechanisms; and running pilot schemes with seven PEIs.

Findings
- There is very little monitoring, tracking or support of members on breaks and PEIs have little capacity to do this on their membership databases.
- Reduced fees are offered but this varies from one PEI to the next.

However some do not know about or pass on reduction from Engineering Council for reduced registration fees.
- Few institutions have services/products in place for members on breaks.
- Some PEIs contacted lapsed members at a later date, but most do not.
- All PEIs involved in the project indicated willingness to look at increasing support given to members on breaks, if practical and affordable.

Potential ways to support members on breaks included membership tracking; baseline data; equality statistics; website support; career progression whilst on career break; financial incentives; staying connected; training and mentoring; fostering community links; back to work support; attraction of new members; equality action plans;
- Longer lead in time to allow time for developing the knowledge and establishing the local factors that can inhibit or encourage the growth of a hub.
- Tracking individuals over time is required in order to measure any positive change and uptake in STEM apprenticeships as a career choice for the target groups involved. All those involved need to consider how best to achieve this.

To find out about the above projects, contact diversityteam@raeng.org.uk
Diversity and Inclusion Leadership Group (D&ILG) update

Previously known as the DLG, the D&ILG is a made up of engineering employers and engineering-led organisations with the aim of increasing D&I across engineering employment. Due to its growing size, the Academy is reshaping the group in order to achieve best efficiency and engagement.

At the most recent meeting held on 2 March, a new structure was proposed by the diversity team based on recommendations from the evaluation that EY conducted in 2015. This is now being refined based on feedback from the meeting. The next D&ILG meeting will be held on 22 June at the Academy. If you would like to be involved please email diversityteam@raeng.org.uk

Diversity and Inclusion Leadership Group progress framework

Both the Academy and Science Council have established statements of commitment to diversity and inclusion; the Diversity Concordat and Declaration on Diversity, whereby the relevant bodies under their respective umbrellas commit to specific, high level, actions.

The Science Council has 40 member organisations and the Academy works closely with all 35 professional engineering institutions (PEIs) - 11 of which are also members of the Science Council. It therefore makes sense for the Academy and Science Council to collaborate in developing a framework for planning and measuring progress against equality, diversity and inclusion. To this end, a working group has been established with the Nuclear Institute (NI), BCS - The Chartered Institute for IT, the Institute of Physics and Engineering in Medicine (IPEM), the Institute of Physics (IOP) the Institution of Mechanical Engineers (IMechE), the Institution of Civil Engineers (ICE), and the Chartered Institution of Highways and Transportation (CIHT). It aims to develop a transparent progress measuring framework all can use to plan and monitor their progress on D&I.

A draft framework will be piloted in the summer for roll-out in the autumn of 2016.
International Women’s Day (IWD)

International Women’s Day is celebrated annually across the world on 8 March. This year, the Academy used the opportunity to celebrate women engineers in the Fellowship.

To mark the day, a page with profiles of 43 women Fellows was launched on the Academy website. The profiles got over 2,500 views on the day and the Academy’s tweets were seen over 65,000 times in total. Commenting on the profiles, Academy President Professor Dame Ann Dowling said: “International Women’s Day is a great opportunity to celebrate the achievements of our women Fellows, while at the same time demonstrating over and over again that engineering offers rewarding careers. Their stories illustrate the creativity, variety and breadth within engineering. We hope that this will inspire and encourage more people to choose engineering careers.”

To view the profiles, visit www.raeng.org.uk/IWD2016.

STEMM DAC Conference 2016

On 17 March STEMM DAC held a conference at the Royal Society to share and develop best practice in supporting the transitions of disabled people across STEMM education and employment.

The conference brought together employers, education support workers, service providers, and others involved in the transition of disabled people within education, and between education and the world of work or apprenticeship.

Speakers for the day included Philip Connolly from Disability Rights UK, Rachel Bashabe from Babcock International Group, Loraine Martins MBE FRSA from Network Rail, Margaret Meehan from Swansea University, Dr Duncan Shewsbury from the University of Worcester, and Alison Stokes from Plymouth University.

The conference programme included breakout groups that explored issues regarding recruitment, induction, outreach and technical skills development for people with disabilities. The day concluded with a lively networking session that gave delegates an opportunity to make contacts to further develop their work in this area. STEMM DAC will be using feedback and suggestions raised at the conference to better understand the role it can play in completing work currently underway.

The Royal Academy of Engineering is one of the STEMM DAC founding members. For more information visit http://www.stemdisability.org.uk.
Tackling homophobia in engineering

Earlier in the year, Conservative MP Alec Shelbrooke published his report *Engineering Action: Tackling Homophobia in Engineering*. The report, jointly authored with Dr Mark McBride-Wright, chair and co-founder of industry network group InterEngineering, highlights that further action is required to tackle homophobia across the engineering profession.

Report findings show that over half of LGBT people employed in engineering are choosing to remain in the closet through fear of homophobia and concerns about the impact of coming out on their professional careers.

On 29 February, an event was held at the House of Commons to mark the launch of the report. On the day, the discussion considered the problem of homophobic and transphobic discrimination in the sector and ways in which engineering institutions could eradicate it.

This is part of the Academy’s ongoing work to collaborate with InterEngineering and Stonewall to help attract, support and retain LGBT engineers in the workplace.

(From left to right): Philip Greenish CBE, CEO of the Royal Academy of Engineering, Dr Mark McBride-Wright from InterEngineering, Debra Wilfong from BP, Alec Shelbrooke MP and Ruth Hunt, CEO of Stonewall UK

4 http://www.interengineeringlgbt.com/tackling-homophobia-in-engineering/

Internal Academy diversity and inclusion news

Diversity training has now been completed for all Academy staff, Trustees and the secretariat for all committees. This is supplemented by unconscious bias e-learning available to all staff and Fellows. Findings from the training will be used to inform and shape an Academy-wide action plan to integrate diversity and inclusion in activity across the organisation.

Diversity events calendar and notable dates

June 2016

7 June 2016 (invitation only)

**HE employer diversity pilot project**

Meeting of engineering companies collaborating to attract undergraduates from diverse backgrounds into engineering employment. The project is being delivered in collaboration with SEO London. If you are an employer and would like to get involved, email diversityteam@raeng.org.uk.

Continued over...
Diversity and Inclusion Programme Newsletter – June 2016

Diversity events calendar and notable dates continued

23 June 2016
National Women in Engineering Day (NWED)
The third annual NWED provides the perfect opportunity to promote gender equality in engineering and to celebrate the great achievements of women engineers. To get involved in NWED 2016 visit www.nwed.org.uk.

29 June 2016 (invitation only)
Engineering the Future (ETF)
Meeting of the professional engineering institution chief executives. This forum now has strategic oversight of the Engineering Diversity Concordat.

30 June 2016 (invitation only)
STEMM Disability Advisory Committee (DAC) meeting
Meetings are held quarterly and independently chaired by Martin Hollins, with input and advice sought from additional STEMM and disability professionals. If you would like to get involved, email diversity@royalsociety.org.

September 2016
14 September 2016 (provisional) (invitation only)
Diversity and Inclusion Leadership Group (D&ILG) meeting
Meeting of engineering employers and employer-led organisations collaborating to increase diversity and inclusion across employment. Participation is by invitation only but if you would like to get involved, email diversityteam@raeng.org.uk.

October 2016
Black History Month
Since 1987 Black History Month has been celebrated every October in the United Kingdom. The event is formally recognised by the government and highlights the contributions Africa and African people make to the economic, social and political landscape of London and the wider UK.
For more information visit http://www.blackhistorymonth.org.uk for more information about how you can get involved.

November 2016
10 November 2016
WISE day-time Conference and Awards
The WISE Awards is an annual event, and a special opportunity to recognise inspiring organisations and individuals actively addressing the core concerns of WISE: promoting science, technology, engineering, and mathematics to girls and women.
The daytime conference includes presentations, panel discussions and workshops, and is the perfect event to compliment the WISE Awards ceremony held the same evening. More information can be found at www.wisecampaign.org.uk/wise-awards.