

# Inclusive digital careers for diverse engineers



## CHALLENGE

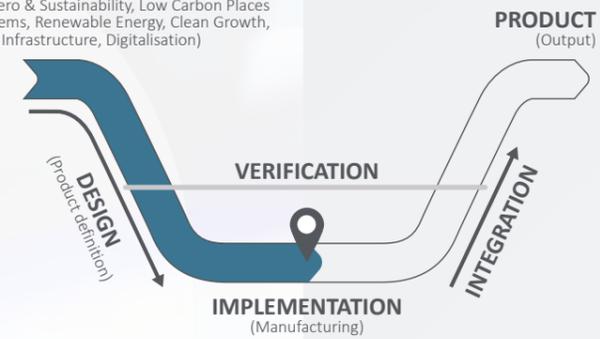
The West of England is a hub for innovative Science, Technology, Engineering and Mathematics (STEM) industries, but as with the rest of the UK, there is a huge skills and employment gap for future engineers.

Women make up just 12% of Engineers, and 26% of the UK Science, Technology, Engineering and Mathematics (STEM) workforce, despite making up 51% of our population. Similarly, people from Black, Asian and Minority Ethnic backgrounds make up 7% of engineers, despite being 13% of the UK population. People from low socio economic backgrounds or those with specific learning difficulties also find it harder to access engineering education. Many people will have no knowledge of adults who work or have worked in STEM careers, which gives them very little science capital.

Both recruitment and retention are important – more people need to connect with STEM professions

as socially conscious, creative, and collaborative disciplines, and more employees need to be supported to make a difference in the workplace. That's why DETI is investing in future skills for digital engineering and technology for sustainability in the West of England region. It will initiate a comprehensive skills and workforce development programme to ensure the current and future workforce is digital-ready, inspiring future generations. The Skills work from DETI aims to connect and bring together organisations in this sector to amplify our work across the lifespan. DETI Skills aims to break stereotypes and challenge perceptions about STEM careers for the future.

**SOCIETAL DRIVERS**  
(Net Zero & Sustainability, Low Carbon Places & Systems, Renewable Energy, Clean Growth, Green Infrastructure, Digitalisation)



## RESULTS AND THE DIGITAL OPPORTUNITY

DETI brings together three strands of work and programmes on inclusive skills:

**Inspire** - Inspiring and engaging future generations in digital engineering and sustainability, through coordinating and connecting the STEM ecosystem, support packages for schools, and better messaging/language around engineering careers.

**Transform** - Transforming the education and skills landscape through, for example, new digital engineering courses and work experience to inspire future apprentices.

**Innovate** - Innovation in workforce development through a Diversity Demonstrator Programme to role model amazing talent across the West of England, leadership in inclusive workplace development through listening to minority groups, and CPD/short courses to address the Skills Gap and Build Back Better.



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DETI Skills has developed the Diversity Demonstrator network – a database of STEM Ambassadors who are diverse engineering role models in the West of England. To accompany this, a digital BoxEd called Engineering Curiosity, which role models diverse engineers from across the region has been created, consisting of a Top Trumps card set and curriculum packs. Launched at the ‘Big Beam in’ event, in conjunction with STEM Ambassadors and publicised through the Curiosity Connections network, it amplifies inspirational primary STEM education throughout the region, reaching over 3,400 children across 54 schools.

Continuing the focus on diversity and inclusivity, the Innovate programme is delivering a series of Listening Workshops to hear from diverse engineers about building inclusive workplace cultures. This will culminate in two CPD Workshops, and continue into an Executive Masters in Digital Engineering.

Partners

