ERA Conference Skills breakout session.

The consensus of the skills breakout session was that there is a chronic shortage of skilled researchers, engineers, and experts in the energy sector which without intervention will only increase as we drive forward with the transition to a net zero society by 2050. It was highlighted that these skills were not just in engineering but also in digital skills, policy making, business and management, and systems engineering. The group came up with three areas to prioritise to help mitigate the skills shortage, namely, outreach and diversity, learning from failure, facilitating transfer of skills between sectors and disciplines including re-skilling adult learners.

# Outreach and diversity.

To create and sustain a talent pipeline to secure the UK’s position as a leader in energy research and innovation a widening of this pipeline is required. It was viewed that diversifying the type of people who look for a career in the energy sector is essential to create the critical mass required. It was viewed that often outreach programmes happen too late in peoples career journey. By age 10 many people are already contemplating their careers. Today’s ten-year-old will graduate university in 2040, a time when it will be crucial to have an energy workforce that possess the skills to reach net zero by 2050. It was recommended that ERA could help highlight net zero associated careers to year 6 students to encourage people from disadvantaged backgrounds and those who would not traditionally consider a profession in the energy or net zero sectors to think about this as a possible career choice.

# Learning from failure.

This section of the discussion had two main themes. Firstly, much work is undertaken by academia and industry on projects that fail but the knowledge gained is not shared, thus people are destined to recreate others mistake ultimately slowing the pace of energy research. Potential solutions included a journal or blog of great ideas that didn’t work, or a conference on a similar theme. Secondly it was viewed that doctoral researchers would benefit from develop a “fail fast, fail often” culture where they could actively learn from mistakes in a safe environment and develop skills that could help them in their future careers.

# Transfer of skills.

A large section of our discussion was based on how different sectors and disciplines can benefit from cross pollination of skills including technical skills. An example was given where one of the company’s best welders was originally trained as a silversmith, the skills they learnt in their previous career helped them develop new techniques when faced with novel welding challenges. During this discussion the fact that the East Midlands is projected to have one of the largest shares of regional job losses because of the transition to a net zero society in so-called 'sunset jobs' was discussed. It was thought that there are many adult learners who would benefit from being re-trained or upskilled in an area where they could utilise their skills to help drive forward the transition to a net zero society whilst aiding in the cross pollination and transfer of skills between sectors.