

C-DICE Roadmap for Higher-Level Skills Readiness for the Net Zero Transition

Progress toward net zero by 2050 will require a highly skilled workforce. C-DICE identifies the current challenges for developing a highly skilled, postdoctoral-level workforce to meet the needs of industry, and ranks them in order of priority. This roadmap sets out a five-year plan and breaks down the actions for each challenge.

The Challenges

- 1.0.** Papers and policies relating to net zero skills do not cover all of the skills value chain, up to and beyond doctoral level.
- 2.0.** Precarious nature of grant funded research careers contributes to the loss of high-level talent and skills, and the lack of joined-up thinking.
- 3.0.** Industry professionals lack communication and sharing best practice between industry, academia and others in relation to skills needs.
- 4.0.** Lack of clarity on what an excellent people, culture and environment looks like, and how to achieve and monitor progress towards this.
- 5.0.** PhD qualification does not fully equip researchers with “business” skills for successful careers in industry, limiting intersectoral mobility.
- 6.0.** Grant criteria and awards do not mandate professional development for the postdoctoral researchers they support, making this a lesser priority.
- 7.0.** Industry professionals lack awareness of the skills and competencies of postdoctoral researchers.
- 8.0.** The excellence frameworks such as KEF/TEF/REF drive university strategies but can create barriers to research culture change.
- 9.0.** Lack of funding addressing Technology Readiness Levels 3-6, limits highly-skilled researchers with the capability to drive innovation and scale-up.
- 10.0.** “Publish or perish” culture in academia shifts focus from the benefits of broader postdoctoral contributions and their development.
- 11.0.** Current process for selecting Centres of Doctoral Training (CDT) for training does not account for high-level skills gaps in industry.
- 12.0.** Red tape creates barriers to mobility/cross collaboration between academic and industrial sectors.

The Actions

