and investors to the UK's research and innovation offering

7. Support subject-specific professional development for science teachers.

1. Create a 'digital shop window' for UK R&D investment that guides domestic and international researchers, innovators and investors to the UK's research and innovation offering.

The Science Minister recently acknowledged the need for transparency in research funding to ensure that R&D investment drives prosperity across all UK regions. Transparency in research funding could also help to leverage private investment into the UK.

The government should create a 'digital shop window' for R&D investment that clearly sets out available funding streams and grants, their purpose and source budgets. In 3(e)-11 (.3 (l6)]Ti (a)3 (w..1 (t)1d0o (e)5.9 (in the UK was by foreign-owned busine QR tomakes in the next generation of researchers and entrepreneurs, to fund cutting-edge infrastructure and early-stage, risky or disruptive research. Between 2010 and 2017, QR funding has seen a real terms decline of 13%. In order to appreciably reverse this decline, QR funding needs to increase by at least 13%.

3. Ensure that the Shared Prosperity Fund (UKSPF) supports th

7. Support subject-specific professional development for science teachers.

Every child should have an unbroken chain of experts teaching them the throughout their school education. Current teacher shortages in some subjects, including chemistry, make it unlikely that this aim will be met through increased recruitment alone, so supporting the existing teaching workforce is key. There is a widespread practice of science teachers being deployed outside their specialist science discipline. Furthermore, regional inequalities exist in the system: schools in the most deprived areas are less likely to have science teachers with a qualification relevant to the main science discipline they teach.

Initial Teacher Training (ITT) is just the start of a teacher's journey to become an expert practitioner, and teachers across the UK must be supported to develop and expand their knowledge throughout their careers. This should include:

a) Investing in a coherent programme of subject-specific training and development for all teachers, throughout their careers. It should meet the needs of a broad range of teachers, including those teaching beyond their original area of disciplinary expertise.

b) Developing and implementing a system for quality-assuring teachers' CPD and pre-service Subject Knowledge Enhancement courses. Teachers and school leaders need an efficient way of assessing which pre-ITT and in-service CPD options will be most likely to improve student outcomes.

c) Developing a system to collect and record information about teachers' subject-specific expertise. The tracking of teachers' subject expertise by government, (including that which is gained through in-service CPD) would allow for the planning and coordination of teacher development and recruitment initiatives at a national and local level. We advocate the formation of a digital "badging" system as a standard way for teachers' disciplinary expertise to be recognised and recorded.

Contact

We would be happy to discuss any of these issues raised in more detail; please contact Phoebe Rountree at rountreep@rsc.org

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