

## Review of the research, development and innovation organisational landscape: Royal Society of Chemistry input

The Royal Society of Chemistry welcomes the independent review of the research, development and innovation organisational landscape and is grateful for the opportunity to provide input. Ensuring that there is a joined up and strategic approach to RDI infrastructure and capability across the UK will be

## About the Royal Society of Chemistry

With about 50,000 members in 120 countries and a knowledge business that spans the globe, the Royal chemical scientists, supporting and representing our members and bringing together chemical scientists from all over the world. Our members include those working in large multinational companies and small to medium enterprises, researchers and students in universities, teachers and regulators.

## Relevant material

Below we have brought together material and excerpts that we believe would be useful tm2 (I)5 (d)-8.000026 (e)-8.00

revolutionised by frontier techniques like computational modelling, data analytics, AI, robotics/automation and advanced measurement and sensing.

These frontier techniques do not replace human scientists or wet labs, however they:

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- Accelerate research, development and innovation.
- Enable scientists to tackle bigger, higher level, multito c1 (I)-6.-5 (.) 40 595.32 841.92 reW\*nBT/TT0 9.96 Tf384

- Lilly Life Science Studio Automated Laboratory<sup>7</sup>: Based in San Diego (US), the Lilly Life Science Studio Automated Laboratory is an example of a physically and virtually connected ecosystem designed to accelerate the drug discovery process through automation.
- DARPA Accelerated Molecular Discovery (AMD) programme<sup>8</sup>: The AMD programme is developing comprehensive computational and experimental methods to design, discover, validate and optimise new molecules, iteratively and actively learning to more efficiently and effectively discover molecules that enhance performance in applications relevant to national security.

The UK can continue to be a frontrunner in chemistry, advanced materials and life sciences if we build on our strengths to invest and connect strategically. The UK has a strong base of academic excellence and investments to build from, as well as many expert large companies and SMEs which will be key players in building this national and globally connected ecosystem.

- Data bringing together and sharing data from different sources to enable better, faster, bigger science
- Modelling, simulations, AI crucial in everything from medicines to batteries

## iv. Financial health and capability of UK university chemistry departments

In September 2021, the RSC surveyed UK-based members of Heads of Chemistry UK (HCUK), a group comprising the heads of university chemistry departments in UK and Ireland<sup>9</sup>. The survey sought to identify potential risks in the chemical sciences university research system by exploring indicators of financial health and