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- We are the largest public funder of R&I in the UK
- We bring together nine councils covering all sectors and disciplines
- We are a public body and accountable to government
- We are part of a system, working with academia, business, public sector, third sector, and international partners

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For more info visit UKRI.org

What is high quality research and why do people do it?

High quality research:

1. Rigorous
2. Accurate
3. Original
4. Honest
5. Transparent

Scientists motivated by:

1. Improving their knowledge
2. Making discoveries for the benefit of society
3. Satisfying their curiosity

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Characteristics identified as supporting high quality research

Collaboration	Openness
Multidisciplinarity	Creativity

Psychological safety

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Psychological safety

An environment in which people feel safe to

- Voice ideas and disagree constructively with others
- Seek and provide honest feedback
- Collaborate
- Take risks and experiment
- Admit errors
- Ask for help

Psychological safety is undermined when people feel threatened

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The Research System

- We are in an era of perceived hyper-competition
- The rules for winning are perceived to be disproportionately focused on a small number of measures that can incentivise poor research practice
- All the stakeholders view the rules for winning as out of their control

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Many people feel threatened

Culture clash

Would like to be:

1. Creative
2. Rigorous
3. Open
4. Collaborative
5. Interdisciplinary
6. Making discoveries for the benefit of society
7. Improving knowledge

We are judged by:

1. When did you last publish in *Nature*?
2. What is your ‘h’ index?
3. How much grant money do you have?
4. Did you beat the competition?
5. How much is your spin out company worth?

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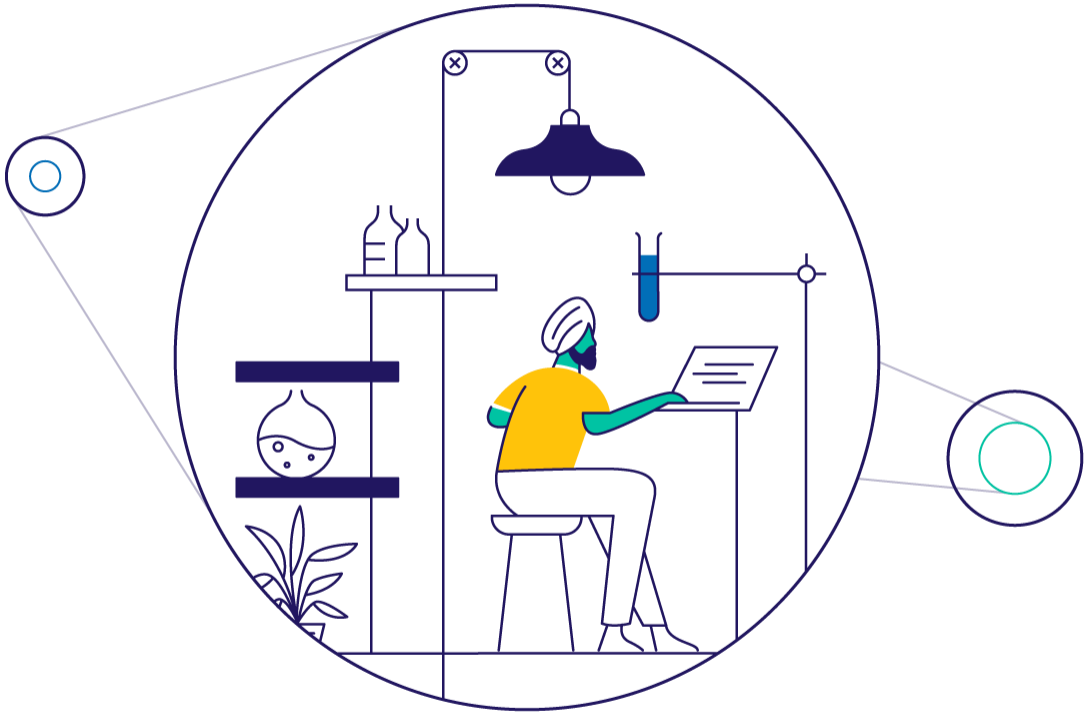

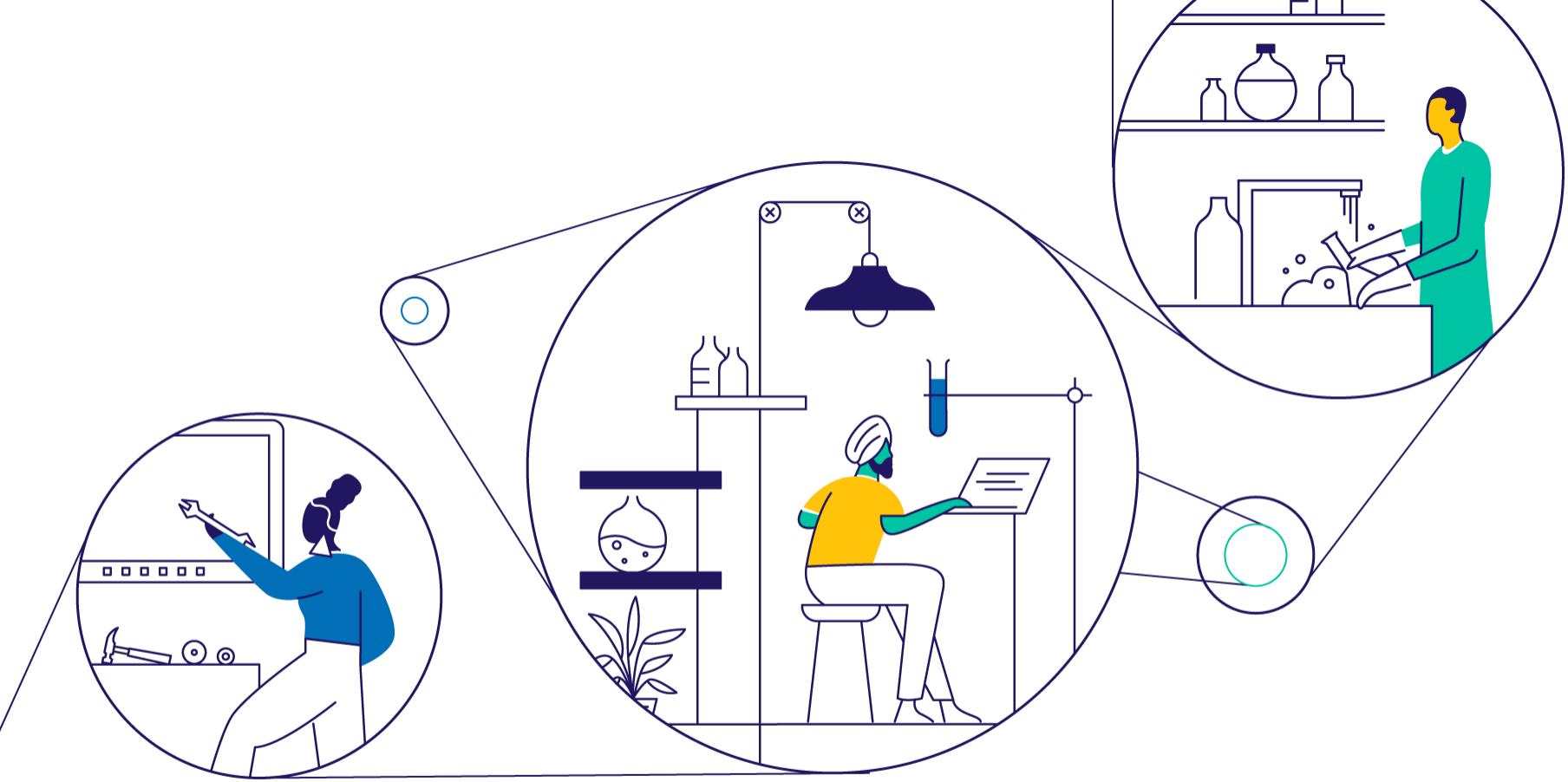

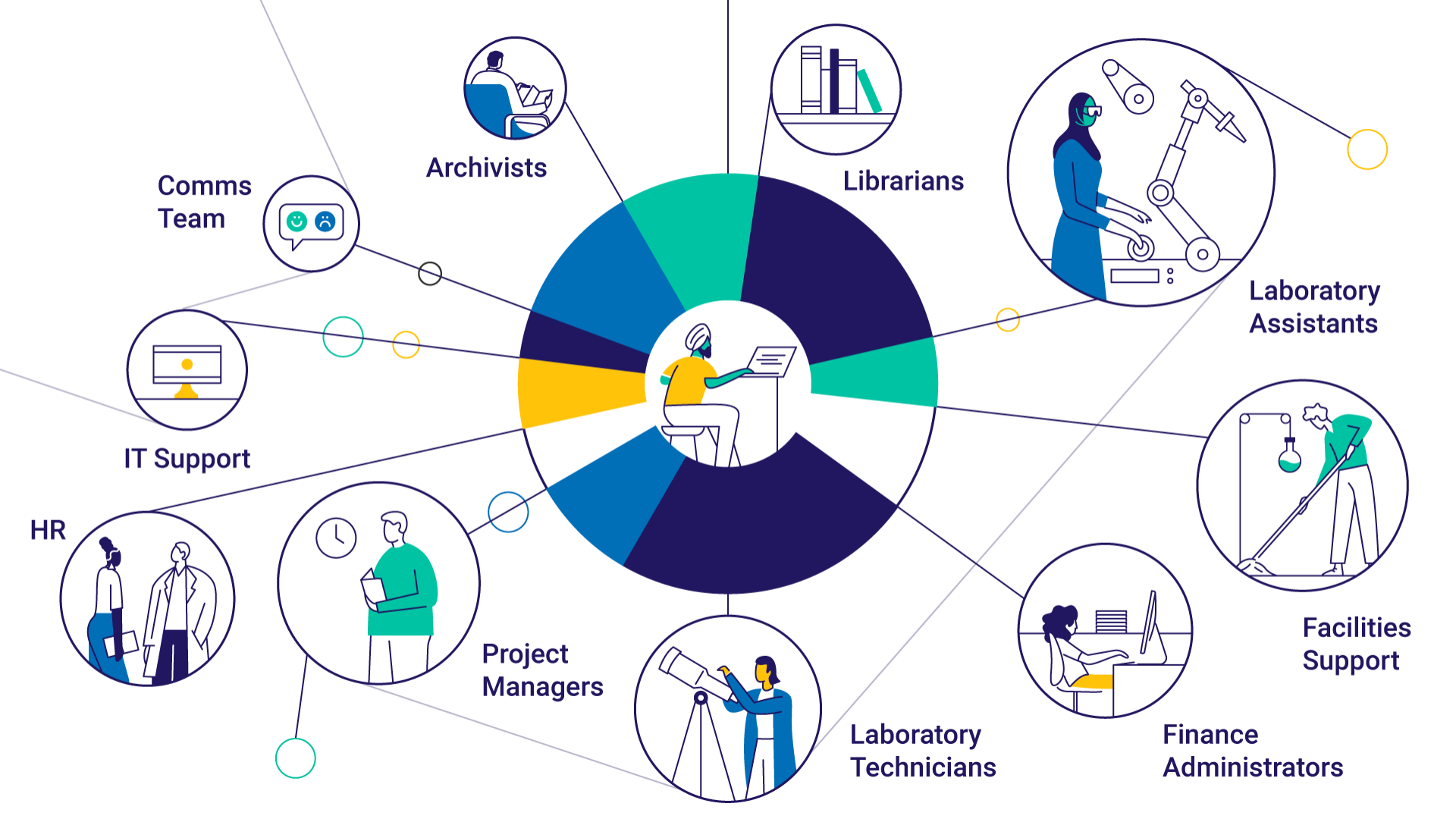
Archivists
Librarians
Comms Team
Laboratory Assistants
IT Support
HR
Project Managers
Facilities Support
Laboratory Technicians
Finance Administrators

Interconnected problems

- The way money and credit is allocated reinforces the lone genius model for research
- Proxy measures for quality become accepted measures
- Too few measures crush diversity and compromise quality
- Adding additional (proxy) measures into this environment adds pressure on lone geniuses
- No one has any time for anything other than delivering proxy measures
- All of this undermines psychological safety further compromising quality

Almost regardless of why or what, the criteria we use are mapped down onto individual researchers and their individual contributions

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Almost regardless of why or what, the solutions for which we reach focus on individual researchers and their individual contributions

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The blame game

- Equality diversity and inclusion
- Bullying and harassment
- Research integrity
- More pressure on individuals
- More threat
- Less psychological safety

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Reasserting what we value

- Assessment criteria define the things we value in the research system
- The criteria must therefore support all the things we would like the system to deliver
- The system needs to deliver these things collectively
- All criteria are important, but not all criteria apply to all research or all researchers
- We need to support diversity with collaboration
- This simultaneously supports creativity, productivity and psychological safety

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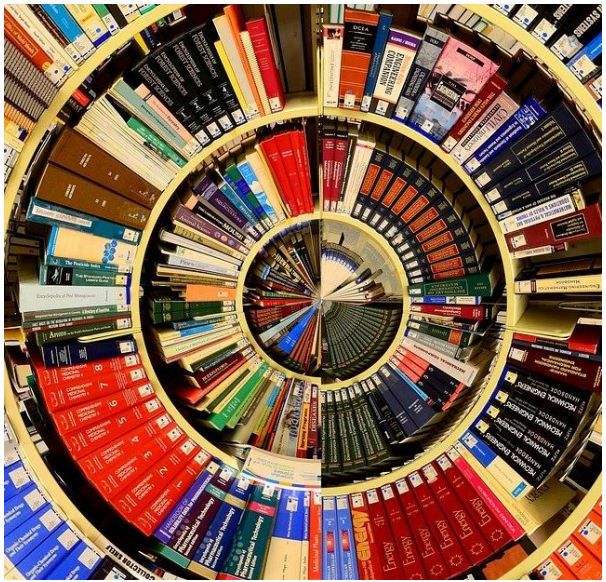
Different projects

We need to value the different types of research project

- Basic vs. applied research
- Generating data sets and technologies vs. using them to test hypotheses
- Establishing the reproducibility and generality of existing results vs. generating completely new ones



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Different people

Supporting researchers with very different backgrounds

- Straightforward research career vs. unusual route into research
- Straightforward academic path vs. more complex path with e.g. periods in industry
- Focus on single topic and approach vs. move between disciplines and topics
- Career breaks vs. no career breaks

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Different outputs

Different types of research output need to be valued

- Publications
- Datasets
- Patents
- Software
- Tools and resources

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Different contributions

We need to support and incentivise multiple different wider contributions to the system

- Teaching
- Training and mentoring the next generation of researchers
- Services to the system: refereeing, committees, conferences
- Policy or public engagement

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An example: The Résumé for Researchers

Developed by the Royal Society as part of their research culture project

Narrative CV providing the opportunity to present contributions in 4 areas using diverse evidence types:

- Contributions to Knowledge
- Supporting people
- Contributions to the research community
- Engagement with wider stakeholders

This allows people with different backgrounds, contributing in different ways to be compared

https://royalsociety.org

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Moving beyond the individual

- Equality diversity and inclusion
- Bullying and harassment
- Research integrity
- Support and training for individuals is important, as is robust institutional governance
- A culture of diversity with collaboration is more powerful and more empowering than competition against narrow criteria
- Valuing diverse contributions promotes psychological safety

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Psychological safety

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Thank you

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