

The RAE and Research Excellence



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What constitutes Research Excellence?



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Aim of Research Assessment in UK

- Assess quality: retrospective
- Accountability
- Inform and underpin selective funding according to relative excellence
- Drive improvement
- Secure additional funding

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Impact of Research Assessment in UK

- Selective funding
- Boost to quality
 - Improved ratings
 - Improved performance of UK research base
- Extra funding attracted from Treasury

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Research excellence



How?

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Research excellence?

- What characterises **excellent 4*** research?
 - foundational?
 - visionary?
 - agenda setting?
- with solutions that satisfy
 - elegance
 - clarity
 - precision

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Types of Research

- **Formal** research - studies a formal system:
builds theories, models, proofs...
- **Analytic research** - observes the world:
builds knowledge, explanations, understanding ...
- **Constructive research** - creates artefacts:
builds prototypes, proofs of concept, designs, ...

Carlo Ghezzi

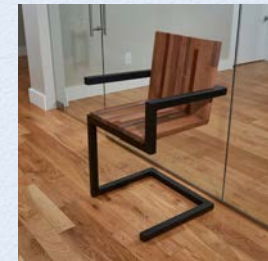


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elegance and simplicity

- select the appropriate level of **abstraction**
- **clarity** of the proposed approach/solution
- **elegance** of the proposed approach/solution
- **taste** ...

$$E, S_i \models R$$



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clarity

*Do not confuse
complexity for profundity
nor
obscurity for originality!*

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taste

*Though many of Apple's best ideas are attributable to Jobs, his real contribution to the computer industry came from his impeccable **taste**.*



Steve Jobs
the Lost Interview

There was no greater character failure in his eyes than a poor sense of aesthetics.

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Research excellence?

- What characterises **poor** research?
 - incremental?
 - obvious?
 - banal?
- with solutions that are
 - complex?
 - obscure?
 - vague?

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the "sleep" paper

What is the impact of sleep deprivation on the performance of software developers?

Research excellence?

- **Originality** - banal?
- **Significance** - "so what"?
- **Rigour** - fairly systematic?



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Research excellence?

Some suggestions

- **Long-term** vision rather than short term
- Choose a challenging **foundational** topic
- set out an **agenda** of research projects that together might accomplish the vision
- related non-critical subprojects for PhDs?
- industrial relevance?

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Industrial Research

- research or consultancy?
- **short-term?** does it raise deeper foundational and significant issues?
- **Impact?** can the issues generalise to widen the reach?
- Will it lead to long-term **collaboration**?

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teams and collaboration

“Great inventions are never, and great discoveries are seldom, the work of any one mind.”



Robert H. Thurston: A History of the Growth of the Steam Engine (1883).

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research training and mentoring

- practice peer review
- exemplars
- practice presentation skills
- analytical skills and criticism
- responsibility
- conflict of interests
- accepted behaviour and ethics ...



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research ethics

- professional standards
- codes of conduct
- research integrity and accountability
- conflict of interests



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Back to the RAE ... Assessment?



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Hong Kong RAE 2026 roadmap

**Jan – Apr
2025**

Recruitment of
PMs (Phase 2);
Workshop on
Impact and
Environment
Submissions

**15 Dec
2025**

Universities to
make
submissions;
Recruitment of
PMs (Phase 3)

**Mar – Jul
2026**

RAE panel
assessment

[https://www.ugc.edu.hk/doc/eng/ugc/rae/2026/
framework.pdf](https://www.ugc.edu.hk/doc/eng/ugc/rae/2026/framework.pdf)

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HK RAE 2026 - General Panel Guidelines

It will produce **quality profiles** of individual units of
assessment (UoAs) based on submissions made by universities.
assessment and respective weightings are –

- (a) research outputs – 65%;
- (b) impact – 20%; and
- (c) environment – 15%.

*“RAE 2026 will take place in a world where generative artificial intelligence
(GenAI) is rapidly advancing.panels would expect to be informed of the use
of GenAI in submissions”*

[https://www.ugc.edu.hk/doc/eng/ugc/rae/2026/
gpg_oct24.pdf](https://www.ugc.edu.hk/doc/eng/ugc/rae/2026/gpg_oct24.pdf)

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1. Research Outputs 2026

- **Publications:** 4* 3* 2* 1* U
 - **Originality** - novel or incremental?
 - **Significance** - relevant or "so what"?
 - **Rigour** - systematic or unjustified?
- **Does each publication satisfy all these indicators?**

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2. Research Impact 2026

- **Impact Case Studies:** 4* 3* 2* 1* U
 - **Reach** - broad or narrow?
 - **Significance** - impactful or impactless?
- **Does each case study satisfy both these indicators?**

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Impact Case Study Template 2026

1. Summary of the impact
2. Underpinning research
3. Period when the underpinning research was undertaken
4. References to the research
5. Details of the impact
6. Sources to corroborate the impact

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3. Research Environment 2026

- **Vitality** - the extent to which a unit supports a thriving and inclusive research culture for all staff and research students
- **Sustainability** - the extent to which the research environment ensures the **future** health, diversity, wellbeing and wider contribution of the unit and the discipline
- including its contribution to the vitality and sustainability of the wider discipline or research base.

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3. Environment Template 2026

1. Context and structure
2. Research and impact strategy
3. Research integrity and research ethics
4. People
5. Income (e.g. grants received), infrastructure and facilities
6. Collaborations
7. Esteem
8. Contribution to the discipline or research base

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Environment Assessment 2026

The **CS/IT Panel** will grade each environment submission with weighting attached to individual aspects as follows –

2. research and impact strategy – 15%
3. research integrity and research ethics – 5%
4. people – 15%
5. income (e.g. grants received), infrastructure, facilities – 25%
6. collaboration – 20%
7. esteem – 10%
8. contribution to the discipline or research base – 10%

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HK RAE 2026 - General Panel Guidelines

Overall quality profiles of units assessment (UoAs) are formed by combining the quality sub-profiles of each category using the weights: (a) research outputs – 65%; (b) impact – 20%; and (c) environment – 15%

Overall Quality Profile					
Quality level	4*	3*	2*	1*	u/c
% of research	23	44	23	7	3

https://www.ugc.edu.hk/doc/eng/ugc/rae/2026/gpg_oct24.pdf

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Thank you!

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