

UNIVERSITY GRANTS COMMITTEE

Consultation with Institutions - Proposed Framework for the Coming Research Assessment Exercise in 2014

PURPOSE

This document invites the UGC-funded institutions to comment on the proposed framework for the coming Research Assessment Exercise (RAE), which will be conducted in 2014. In essence, the objective of the RAE is to provide an updated assessment of institutional research activity and capability to differentiate between outstanding research and the merely good, so that first class research is properly funded. Institutions are requested to provide written comments on the UGC's proposals on or before 15 November 2011.

BACKGROUND

2. In May 2011, institutions were advised that:
 - (a) the UGC acknowledged that there was a need to address research outputs in a well-defined and rigorous way;
 - (b) the UGC had concluded that there was a need to conduct a further RAE to inform the distribution of that part of the Research element which was not awarded in accordance with the institutions' success in RGC Earmarked Research Grants. This would not be in lieu of a more competitive allocation of the research portion of the Block Grant through the indirect/on-costs element, which should proceed side by side. There would be a significant amount of funding in the Research element of the Block Grant for many years to come. It would not be appropriate to use the 2006 RAE data for an overly long period, as the data has become rapidly outdated;
 - (c) an important task for the UGC was to decide on the framework for the new RAE. This essential work must happen before the detailed operations of a new RAE can be worked out. The new RAE must assess the quality of research being undertaken in each area within each UGC-funded institution. International standards of research excellence would be applied, with international experts

advising the UGC on the assessment of research. The UGC would insist on differentiation. The research strengths and weaknesses in any institution would be transparently and robustly assessed. This would then allow research funding to be allocated to institutions on a basis that reflected such strengths/weaknesses;

- (d) a sharpened measurement of both research inputs and outputs would form the basis of the distribution of the Research element of the Block Grant; and
- (e) the UGC preferred to conduct the coming RAE in 2014 instead of 2013 in view of the just launched “3+3+4”, and the extremely tight time-frame that an RAE in 2013 would entail – but wished to have institutions’ views on the merits of the two dates.

3. At the meeting between the Chairman, UGC and the Heads of Institutions on 31 May 2011, institutions agreed with the need to conduct a further RAE on the broad lines set out by the UGC and indicated that they agreed with UGC’s view that the coming RAE should be conducted in 2014. The UGC agreed to advise institutions of the framework of the coming RAE well in advance, and to provide for institutions’ reference the parameters of the UK 2008 RAE.

PRINCIPLES

4. The guiding principles, as (re)endorsed by the UGC at its recent September meeting, and previously conveyed to institutions, are as follows:

- (a) measurement should be sharpened, especially at the top end;
- (b) inputs as well as outputs should be included in assessment;
- (c) the relative strengths and weaknesses in institutions should be measured; and
- (d) international experts should be engaged and international standards be used for assessment.

5. At its September meeting, the UGC endorsed the following additional principles:

- (e) the practices of RAE 2006 should be used, but only as a starting point. Changes are proposed as necessitated by principles (a) to (d) above, in light of comments from institutions since February 2008, 2006 RAE Panels and the UGC consultant engaged in 2009, as well as the practices in the UK and Australia, and the need for improvement, e.g. to minimize the scope for gaming;
- (f) while research output should not be the sole parameter, it should remain the main parameter; and
- (g) the UGC had to retain the flexibility to determine the formula for funding until after the RAE 2014 results were known. RAE 2014 would reflect how the cost centres of institutions differed from one another in respect of research strength, but funding allocation would be a separate exercise. It was intended that there would be significant differentiation in funding as a consequence of the RAE.

METHODOLOGY TO DRAW UP A DRAFT FRAMEWORK

6. In accordance with principle (e) above, the UGC has drawn upon the following in compiling the draft framework for the coming RAE:

- (a) views expressed by Heads of Institutions since February 2008, when the Chairman of the UGC first wrote to them to seek their views on the future of RAE;
- (b) suggestions and views expressed by the 13 RAE Panels after the 2006 RAE conducted by the UGC;
- (c) the practices in the UK and Australia on research assessment;
- (d) views expressed by the consultant engaged by the UGC in 2009 to formulate recommendations on research assessment; and
- (e) the practices adopted in the 2006 RAE conducted by the UGC.

7. Views at (a), (b) and (d) above are summarized in **Annex A**. The practices in the UK are relevant as Hong Kong's RAE is modelled on UK. Australia has adopted a model (in the form of Excellent Research for Australia 2010), which is close to the UK model. A table comparing Hong Kong's practices with the UK and Australia is at **Annex B**.

PROPOSED FRAMEWORK FOR 2014 RAE

8. A table setting out the proposed framework for the 2014 RAE (as compared with the 2006 RAE) is at **Annex C**. The reasoning behind the proposed framework is set out in paragraphs 9 to 39 below.

(A) Primary purpose

9. Slight amendments have been proposed to reflect UGC's intention to measure inputs in addition to outputs; to sharpen measurement to drive excellence; and to reflect that the RAE will primarily inform the distribution of part of the research portion (not the Professional Activity element nor the part of the research portion to be competitively allocated in association with RGC indirect/on-costs).

(B) No. of institutions covered

10. The number of institutions will remain at eight to cover only UGC-funded institutions.

(C) No. of cost centres covered

11. It is estimated that the number of cost centres will be more or less the same as that in RAE 2006.

(D) Staff eligible to make submission

12. In order to ensure that assessment will focus on long term staff, and to minimize game-playing, the UGC considers it appropriate to modify the 2006 RAE criteria, so that:

- (a) the minimum continuous period of paid appointment be extended from 24 months to 36 months (the relevant staff have to be in post for at least 12 months before the census date, as per 2006 RAE practice); and
- (b) only full-time staff are eligible to submit outputs. This was also the requirement for UK RAE 2008. Further, only full-time staff at grades A to I are eligible to submit research proposals to the RGC, and the rationale of only assessing staff from grades A to I in RAE 2006 was to tie in with their eligibility to apply for RGC grants.

13. Regarding the census date, this will be announced in advance, in line with the principles of openness and transparency.

(E) No. of staff submitting outputs for assessment

14. For the 2006 RAE, each eligible staff member was expected (although it was in fact not mandatory) to submit outputs for assessment because both the research index and funding allocation took into account the number of eligible staff of a cost centre at the census date. By contrast, the UK does not require all eligible staff to submit outputs and it is for each institution to decide which staff to submit. The UGC considers it appropriate that flexibility be given to the institutions to decide which staff to submit, and the UGC to decide in due course how the information on the total number of eligible staff will be publicized, and whether this will impact funding (see also paragraphs 38 to 39 below).

(F) No. of assessment Panels

15. The UGC proposes that the number of Panels to be around 13. On whether there should be a greater number of Panels, the relevant considerations are set out below:

- (a) some argue that there is a case to increase the number of Panels in order to sharpen measurement. However, the crucial factor for a sharpened measurement is the existence of relevant expertise in the relevant fields in the Panel (hence appointment of Panel members should take into account the fields of research work to be assessed) and whether any gaps in expertise within the Panel can be compensated by external reviewers in (I) below. It is an accepted fact that experts perform much less well as soon as they are outside their particular areas of specialization. It therefore appears that a sharpened measurement does not necessarily require a greater number of Panels. Rather, appointment of Panel members with appropriate expertise; formation of sub-panels and sub-groups where appropriate; and engaging external reviewers may be the solutions;
- (b) in the UK, the direction is to reduce the number of sub-panels from 67 (in 2008) to 36 (in 2014). This has the advantage of facilitating assessment of cross-disciplinary research and in reducing the need for referrals amongst sub-panels. Taking reference from UK REF 2014, assessment of interdisciplinary research can also be facilitated by appointment within the relevant Panels of interdisciplinary

experts, and allowing cross-referral of individual outputs to other Panels for advice; and

- (c) statistics indicate that only three panels may need to assess faculty members above 150% of the average number: Health Sciences; Business Studies and Economics; and Humanities. As the cost centres under each of these three Panels are closely related, it appears appropriate to retain these panels instead of splitting them up. It is however necessary to ensure that the number of Panel members for these panels are commensurate with their workload.

(G) No. of Panel members

16. The UGC considers it appropriate to have a majority of overseas members in all Panels, with an appropriate increase of Panel members to deal with the volume of submissions in a cost-effective manner.

(H) Categorization of research quality (of researchers or research outputs)

17. The UGC considers that measurement should be sharpened, especially the top end. For the 2006 RAE, each researcher was (essentially) assessed as whether he/she had passed the threshold standard, using the best four out of six submitted output items. There had been criticisms from the 2006 RAE Panels that not all submitted outputs were reflected in assessment (in fact, a researcher could be regarded to have met the threshold purely on the basis of a single output rated as A+). In order to sharpen measurement, the UGC proposes to follow broadly the practice of UK 2008 RAE, such that each submitted output will be categorized to inform the overall score of the cost centre. The UK 2008 RAE used the following categories:

- (a) world leading;
- (b) internationally excellent;
- (c) internationally recognized;
- (d) nationally recognized (proposed to be modified into “nationally / regionally / locally recognised”).

Outputs that do not fall within the above categories will be deemed unclassified.

(I) External reviews by non-Panel members and

(J) Assessment method

18. In UK RAE 2008, the scores were not attached to individuals. Outputs instead of individual researchers were rated. In Hong Kong, we also professed that the RAE should measure the performance of cost centres, not individual academics.

19. A common criticism of RAE 2006 was that the methodology was based on achieving a threshold. The assessment and funding system did not help identify the truly world-leading/internationally excellent research. It is therefore appropriate to sharpen the measurement and adopt a revised scale.

20. During the 2006 RAE, Panel members might seek informal advice from other academics. While this flexibility should remain for 2014 RAE, it is proposed that given the need to sharpen measurement of research quality, external reviews by non-Panel members be introduced to assist in differentiating research outputs among “world-leading”, “internationally excellent” and “internationally recognized”, where the Panels themselves do not possess expertise in the relevant academic fields. That is, external reviews will only be sought if the Panel is of the view that the output has a reasonable prospect of being rated above internationally recognised and the Panel collectively does not have expertise to make a decision.

21. One issue that needs to be considered is the use of metrics. Whilst the general view (in UK and Australia) is that peer review by subject-based panels should remain the main assessment method, metrics may be used to inform the peer review process. It is proposed that each output submitted for assessment be accompanied by a brief description (up to half A4 page) on why the output is significant (e.g. quoting citations and impact factors of journal where the article is published in a science or social science journal.)

(K) No. of outputs submitted

22. It is considered necessary to reduce the number of outputs for each academic from six to four to allow more in-depth scrutiny as required by a sharpened measurement. Further, both the UK RAEs (2008 and 2001) and the UK Research Excellence Framework (REF) allow four outputs for each academic. Four outputs are considered sufficient to enable panels to form a robust assessment.

(L) *Period of assessment*

23. We have considered whether different periods of assessment should be provided for different subjects to take account of the differences in lead time for providing research outputs. The UK RAE 2001 allowed a longer lead time for arts and humanities subjects (7 years as against 5 years), while UK RAE 2008 set a uniform period of 7 years and UK REF set a uniform period of 6 years for assessing outputs (and five years for assessing research income and doctoral degrees awarded). Having regard to the latest practices in the UK, it is proposed that the assessment period be set at six years (for four outputs) for all disciplines.

(M) *Definition of research and four categories of scholarship*

24. The 2006 RAE adopted Carnegie Foundation's four categories of scholarship to give a broad definition to research. It is proposed that this be retained, to safeguard against any bias against applied research or interdisciplinary research.

(N) *Submission format*

25. The UGC considers that instead of asking institutions to provide printed version of its outputs¹, each institution will be asked to provide full versions of outputs in an electronic repository to be established by the institution for electronic access by Panel members and external reviewers. Institutions have already been asked to nominate representatives to work with the UGC Secretariat to start the necessary preparatory work.

(O) *Dimension of assessment and*

(P) *Grading scale on a cost centre basis*

26. The UGC agreed at the May 2011 meeting that the coming RAE should assess both outputs and inputs. It is therefore necessary to widen the dimension of assessment. It is proposed that assessment of items other than outputs be conducted on a cost-centre basis. Inputs in the form of peer-reviewed external project grants can be taken into account, together with esteem factors such as awards and editorship in prestigious publications. It is also proposed that research strategy on a cost centre basis be included.

¹ In 2006 RAE, for each output, it was necessary to provide one copy of the full set of output item plus five copies of extract information. For example, for a journal paper, the first page, the conclusion page and abstract pages; for a book, a short description of the book, the title page and the table of contents.

27. In UK RAE 2008, the following were assessed:

- (a) research students: number of postgraduate research students and degrees awarded.
- (b) research studentships: number of postgraduate research studentship and the source of funding for them;
- (c) external research income: amount and sources of external funding; and
- (d) textual description: including indicators of esteem and research strategy and future research plans.

28. Following UK RAE 2008 and UK REF 2014, it is proposed that the number and magnitude of peer-reviewed external project grants (either actual income or grants awarded over a three year period) be listed. The proposed arrangement will guard against possible bias against HSS because humanities will compare with humanities in other institutions; and social sciences with social sciences in other institutions. On whether Research Postgraduates (RPgs) (e.g. the number of RPgs graduated) should be assessed, the UGC notes that in other jurisdictions, RPgs are usually assessed. However, in the case of Hong Kong, some institutions have expressed reservation on assessing RPgs in RAE, because up to now RPg allocation has been mainly based on a quota system and it would be unfair to assess an institution's performance in research based on the number of RPgs graduated (as the institution has little control on this). Further, the outcome of RPg programme of each institution has been assessed in the context of the Academic Development Proposal exercise to inform the distribution of a total of 600 RPg places eventually (375 places for the 2012-15 triennium). In that exercise, the following parameters were included: completion times, completion rates, research outputs from RPg students, and first destinations of RPg graduates. It is therefore proposed that RPgs be excluded from assessment in the 2014 RAE. When at least 50% of RPg places are subject to competitive allocation amongst institutions in 2016/17 and thereafter, there may be a stronger case to include RPgs as one of the parameters to be assessed.

29. Following the UK practice, it is considered appropriate for output to inform the distribution of over half of the funding, whilst other factors will inform the distribution of less than half of the funding.

30. On peer-reviewed research grants obtained, it is proposed that they are categorized into:

- (a) UGC/RGC;
- (b) other government funding (e.g. from Innovation and Technology Fund);
- (c) Hong Kong based non-government funding; and
- (d) overseas funding.

31. In Excellence Research for Australia 2010, the assessment period for research income and esteem measures was three years (whereas that for research outputs was six years). It is therefore proposed that the period for assessing cost centres covers also a three-year period.

32. It is proposed that each cost centre be graded on a five point scale, as follows:

<u>Grade</u>	<u>Description</u>
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- | | |
|---|----------------|
| 5 | : Exceptional |
| 4 | : Excellent |
| 3 | : Very Good |
| 2 | : Good |
| 1 | : Unclassified |

33. For reference, in 2006 RAE, each cost centre was required to provide a factual description of its research activities (the descriptive summary would not be assessed, but would provide a context for the Panel's deliberation).

(Q) Role of overseas Panel members

34. The RAE is essentially a peer review process. It is therefore important to engage overseas experts in the assessment exercise to enhance its credibility and to reduce conflict of interest.

35. The UGC considers that overseas members should form the majority of Panel members, and the Convenor of each Panel should be an overseas expert. Further, the ground rules should be set by overseas members,

who will assess research performance of cost centres and make final judgement in doubtful costs in assessing the quality of outputs.

36. On the other hand, input from local academics is required as they are more familiar with the local situation, and can provide valuable input in assessing outputs subject to the rule on conflict of interest (not allowed to assess outputs from the same institution, nor outputs from another institution where a cost centre is found in two institutions only). Also, it may not be easy to recruit all Panel members from overseas.

37. In 2006 RAE, for the Convenor and the Deputy Convenor of a Panel, one was from overseas and one was local. Institutions are invited to comment whether a local Deputy Convenor should be appointed for each Panel, or both the Convenor and Deputy Convenor should be from overseas.

TRANSLATING RAE RESULTS INTO FUNDING DECISION

(Item R in Annex C)

38. Section H (paragraph 17) above proposes (roughly) using the UK 2008 RAE classifications of:

- (a) world leading;
- (b) internationally excellent;
- (c) internationally recognized; and
- (d) nationally / regionally / locally recognized.

There will also be outputs falling into the category of “unclassified”. These categorizations will be used by the UGC to inform funding. The UGC will retain the flexibility to decide on the funding weighting attached to each category – and to each discipline – until after the RAE 2014 results are known.

39. The UK funding bodies did not pre-announce exactly how they would use the RAE 2008 results to inform funding. In fact all [four] used somewhat different formulae in the end. Institutions are invited to note the weighting given by the Higher Education Funding Council for England (HEFCE) as an illustration only. The UGC commits to making public our own funding weightings after the funding results have been accepted by the Government.

HEFCE funding weightings for 2010/11

- (a) world leading (carrying a weighting of 9);
- (b) internationally excellent (carrying a weighting of 3); and
- (c) internationally recognized (carrying a weighting of 1).

Deadlines to Provide Comments

40. Institutions are requested to provide written comments on or before 15 November 2011.

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UGC Secretariat
21 September 2011

Views Expressed by Various Parties on the Research Assessment Exercise

(A) Views expressed by Heads of Institutions since February 2008 on the Proposed Framework of the Coming RAE

Diverse views have been expressed by institutions on a number of occasions. Major points relevant to the framework of RAE are summarized below:

- (a) RAE should remain a peer review process by disciplinary panels. The coming RAE should be conducted by improving the arrangements in the 2006 RAE incrementally;
- (b) RAEs be conducted once every six years;
- (c) RAE must differentiate better at the top end, to differentiate the “excellent” from the “good”, using international standards, and the scale should be revised to better differentiate. The 2006 RAE only measured “threshold”, not “excellence”;
- (d) an institution mentioned that having more Panels would be desirable, but another considered that the size of panels should be sufficiently large and representative;
- (e) on the use of metrics, one institution accepted the use of citations and publication data to inform discipline based, peer review assessments, but wide consultation would be needed before implementation. Others objected on the grounds that metrics would not be suitable for humanities and social sciences (HSS), or was too mechanical;
- (f) an institution proposed that the number of output items be reduced over a period of 3 years;
- (g) the Carnegie definition of scholarship should be retained;
- (h) the scope of assessment should be broadened beyond outputs of research to include esteem measures such as editorship of leading academic journals. Research postgraduates (RPgs) should not be used as an indicator because the allocation of RPg places was unfair;
- (i) one institution commented that the uniqueness of HSS disciplines needed to be taken into account;
- (j) a few institutions preferred to have more overseas Panel members to make objective judgements, to avoid conflicts of interest and to ensure comparability with exercises conducted elsewhere. Of the remaining

institutions, one preferred Panels solely comprising overseas members while another suggested over half of the Panel members should come from overseas; and

- (k) the exercise should be as simple as possible.

(B) Views expressed by 2006 RAE Panels

2. The comments of 2006 RAE Panels on the framework of RAE are summarized below:

- (a) the methodology has to be changed to differentiate at the top end, and to identify strengths and weaknesses in the field;
- (b) proposed to take into account information on research funding; graduate students; esteem indicators such as awards and invitations to give plenary lectures; research strategy; and site visits;
- (c) each academic to attach to his/her return a 50 word précis of why he/she felt a particular publication was significant;
- (d) online submission of outputs to replace hard copies to reduce the amount of paper used and to enhance efficiency;
- (e) different conversion tables adopted by different Panels might create unfairness;
- (f) more Panel members to be recruited to form sub-groups within the Panel; and
- (g) limiting the number of submissions to four items.

(c) Views expressed by the UGC Consultant

3. The views of the UGC's consultant on research assessment are summarized as follows:

- (a) in general a single indicator of quality (i.e. output) is unlikely to capture "research quality" in a nuanced way across a diverse range of disciplines. Multiple indicators provide a more balanced approach; RAE Panels should have a wider range of information such as research grant income. Key metrics such as project grants are products of some form of expert judgement;

- (b) the freedom for Panels to decide their own approaches to aggregating scores for submitted publications (i.e. the conversion tables) makes it very difficult to compare performance between disciplines;
- (c) each RAE Panel as a small group will not have detailed expertise across many of the sub-areas within their disciplines;
- (d) research occurs in a global and not national or regional context. So it is vital to carry out assessment of excellence against international benchmarks; and
- (e) proposed a rating scale of 5: world leading, internationally excellent, internationally recognised, nationally excellent, and the rest.

**Comparison between the UK Research Excellence Framework (REF) 2014,
UK RAE 2008, HK RAE 2006 and Excellent Research for Australia (ERA) 2010**

Item	Feature	UK REF 2014	UK RAE 2008	HK RAE 2006	ERA 2010 Australia
(A)	Primary Purpose	To inform the selective allocation of research funding to higher education institutions (HEIs), provide benchmarking information and establish reputation yardsticks, and provide accountability for public investment in research and demonstrate its benefits.	To produce quality profiles for each submission of research activity made by institution for allocating annual research funding by the four UK higher education funding bodies.	To measure the output and quality of research of the UGC-funded institutions by cost centre as one of the key factors for allocating the research portion of the institutional recurrent grant in a publicly accountable way.	<ol style="list-style-type: none"> 1. Establish an evaluation framework that gives government, industry, business and the wider community assurance of the excellence of research conducted in Australia's higher education institutions; 2. Provide a national stocktake of discipline-level areas of research strength and areas where there is opportunity for development in Australia's higher education institutions; 3. Identify excellence across the full spectrum of research performance; 4. Identify emerging research areas and opportunities for further development.

Item	Feature	UK REF 2014	UK RAE 2008	HK RAE 2006	ERA 2010 Australia
					<p>5. Allow for comparisons of Australia's research nationally and internationally for all discipline areas.</p> <p>6. The Government will determine how the allocation of other Research Block Grants may be linked to ERA results in consultation with the higher education sector.</p>
(B)	No. of institutions covered	Around 130	159	8	41
(C)	No. of Unit of Assessment / Cost Centre covered	36	67	61 (only 53 received submissions)	157 four-digit Fields of Research (FoR) under 22 two-digit FoR (broad-disciplines)
(D)	No. of Staff submitted output for assessment	Not yet available	About 52 400	3 570	39 668 full-time equivalent accounting for 55 842 individuals
(E)	Percentage of Eligible Staff submitted output for assessment	Not available	Not available	97.81%	100% (no choice to opt out)

Item	Feature	UK REF 2014	UK RAE 2008	HK RAE 2006	ERA 2010 Australia
(F)	No. of Assessment Panels	4 Main Panels and 36 Sub-Panels	15 Main Panels and 67 Sub-Panels	13 Panels (some with sub-panels)	8 Research Evaluation Committees
(G)	No. of Panel Reviewers	Around 766	Around 1 100	208	149 (approximately another 700 expert reviewers)
(H)	Definition of Rating	<ul style="list-style-type: none"> • four-star (exceptional) • three-star (excellent) • two-star (very good) • one-star (good) • unclassified. 	4* world leading 3* internationally excellent 2* recognized internationally 1* recognized nationally	1 (i.e. threshold standard) = “Quality of output equates to a level of excellence appropriate to the discipline in Hong Kong, and showing evidence of international excellence.”	5: Well above world standard 4: above world standard 3: at world standard 2: below world standard 1: well below world standard n/a: Not assessed due to low volume
(I)	Spread of Excellence	Assessment focuses on three elements, namely (i) outputs, (ii) impact and (iii) environment Each of these three elements will be rated on a five-point scale. Weightings are accorded to these three elements to arrive at the overall excellence. Weightings are initially set as follows: Outputs: 65% ; Impact: 20% Environment: 15%	4* = 17% 3* = 37% 2* = 33% 1* = 11% Unclassified = 2%	Percentage of Researchers attaining 1 = 60.11%	Evaluations were informed by four broad categories of indicators: 1. <u>Indicators of research quality</u> : Research quality is considered on the basis of ranked outlets, citation analysis, ERA peer review, and peer-reviewed Australian and international research income.

Item	Feature	UK REF 2014	UK RAE 2008	HK RAE 2006	ERA 2010 Australia
					<p>2. <u>Indicators of research volume and activity:</u> Research volume and activity is considered on the basis of total research outputs, research income and other research items within the context of the profile of eligible researchers.</p> <p>3. <u>Indicators of research application:</u> Research application is considered on the basis of research commercialisation income and other applied measures.</p> <p>4. <u>Indicators of recognition:</u> Research recognition is considered on the basis of a range of esteem measures.</p>
(J)	Assessment Method	<u>Assessment of output quality</u> HEIs will be invited to select staff whose outputs are to be assessed. Research-active staff employed by the submitting institution and other research-active staff with a clear, defined	This is an expert review exercise. Sub-panel members judged the quality profile of each submission to reach each of five quality levels from 4* to Unclassified. Each submission will be assessed against absolute	The panels considered, first of all, a binary cut, i.e. whether the output of each individual concerned did or did not meet the threshold standard as defined.	Stage 1 – ERA Reviewers evaluate assigned material and record preliminary evaluations in System to Evaluate the Excellence of Research to give a primary rating. Peer Reviewers are not involved in the evaluation

Item	Feature	UK REF 2014	UK RAE 2008	HK RAE 2006	ERA 2010 Australia
		<p>relationship with the submitted unit will be eligible for selection by institutions. Institutions may submit a maximum of four outputs per member of staff for assessment.</p> <p><u>Assessment of impact</u> The impact element will include all kinds of social, economic and cultural benefits and impacts beyond academia, arising from excellent research. Submitted impacts may be at any stage of development or maturity, so long as some change or benefit beyond academia has taken place during the assessment period. Submissions will be assessed in respect of impacts that have taken place during the assessment period, and not future or potential impacts. Submissions will include a total of one case study, plus one further case study per up to 10 full-time equivalent staff returned to the REF. Submissions will therefore</p>	<p>standards and will not be ranked against other submissions. Some panel criteria statements include a descriptive account of the quality level definitions. These descriptive accounts should be read alongside, but do not replace, the standard definitions.</p> <p>In reaching a view on quality profiles, sub-panels will take account of all components of a submission: research output, research environment and esteem indicators. The components of research students (both numbers and completions) and studentships, research income may fall within research environment or esteem indicator as the main panel may decide. Each sub-panel will recommend provisional quality profiles for debate and endorsement by its main panel.</p> <p>Assessment criteria and working methods of each</p>	<p>In some cases it might prove difficult to adopt a binary cut, in which case it would be up to individual panels to consider whether a fractional score (i.e. lower than 1) should be assigned. In assigning fractional scores, RAE panels were expected to give simple grading. The panels were instructed not to adopt a mechanical approach during the assessment.</p> <p>Output items were judged on their own merits and were not judged simply on their category or venues of publication.</p>	<p>process after the completion of Stage 1.</p> <p>Stage 2A – Expert Reviewers are given access to the preliminary evaluation outcomes from other ERA Reviewers and complete preliminary evaluation on the broad discipline, namely two-digit Units of Evaluation (UoEs).</p> <p>Stage 2B – Research Evaluation Committee (REC) Members will be given access to the preliminary evaluation outcomes from other REC Members and Peer Reviewers to assist them in confirming or revising their preliminary scores. Members will also be able to review indicator and supporting information profiles at the two-digit level for UoE to which they have been assigned.</p>

Item	Feature	UK REF 2014	UK RAE 2008	HK RAE 2006	ERA 2010 Australia
		<p>include a minimum of two case studies.</p> <p><u>Assessment of research environment</u> The quality and vitality of the research environment will be included as a significant factor in the assessment, broadly as proposed.</p> <p><u>Overall excellence profile</u> Each element of the assessment (outputs, impact and environment) will result in a 'sub-profile', to be combined into an 'overall excellence profile' awarded to each submission, based on the weightings of each element. The 'overall excellence profile' will be the primary assessment outcome from the exercise, and will also publish the sub-profiles. While the assessment outcomes will be produced in the same way for funding purposes.</p>	<p>main panel and each sub-panel differ in varying degrees across the different Units of Assessment. However, in general, sub-panels grouped under the same main panel have developed criteria that reflect broadly similar approaches to research. Aspects of significant variation are described in the relevant main panel criteria statement.</p>		<p>Stage 3 – Committee Meeting. Expert Reviewers will access preliminary evaluations for all UoEs and will record the final evaluation outcomes</p> <p>Stage 4 – Cross Cluster meeting of REC Chairs. At this cross-cluster review meeting, the Chairs will have access to evaluation outcomes subject to conflict of interest.</p>

Proposed Framework for 2014 RAE

Item	Feature	2006 RAE	Proposal for 2014 RAE
(A)	Primary Purpose	To measure the output and quality of research of the UGC-funded institutions by cost centre as one of the key factors for allocating the research portion of the institutional recurrent grant in a publicly accountable way.	To measure the quality of research of UGC-funded institutions on a sharpened basis by cost centre to drive excellence, using both outputs and inputs, as one of the key factors for allocating the research portion of the institutional recurrent grant in a publicly accountable way. Results will be communicated on a cost centre basis without disclosing the identity of individual academic staff.
(B)	No. of institutions covered	8	8
(C)	No. of cost centres covered	53 out of 61 made submissions	Estimated to be around 55
(D)	Staff eligible to make submission	<p>Faculty staff at grades A to I holding a paid appointment for a continuous period of 24 months or more, covering the census date, provided that the beginning of the employment start date was no later than 1 year before the census date.</p> <p>Census date withheld to minimise gaming by institutions.</p>	<p>Same as 2006, except that only full time staff are included, and the requirement for 24 months of continuous appointment be extended to 36 months. Staff have to be in post for at least 12 months before the census date, as per 2006 RAE practice.</p> <p>Census date to be announced in advance.</p>
(E)	No. of staff submitting outputs for assessment (percentage of eligible staff)	3,570 (97.8%)	Institutions are free to choose which staff to submit outputs. This means that the results of the 2014 RAE cannot be compared with previous RAEs.
(F)	No. of assessment panels	13 Panels	Around 13 Panels

Item	Feature	2006 RAE	Proposal for 2014 RAE
(G)	No. of Panel members	208 (65 (32%) being overseas members)	A majority of overseas members with an appropriate increase of Panel members to deal with the volume of submissions in a cost-effective manner.
(H)	Categorization of research quality (of researchers or research outputs)	Basically, each researcher was assessed on the basis of the four best research outputs (out of six outputs). 1 (i.e. threshold standard) = "Quality of output equates to a level of excellence appropriate to the discipline in Hong Kong, and showing evidence of international excellence." Fractional scores allowed, generally at 0.75, 0.5 and 0.25.	<p>Propose to take reference from the practice of UK 2008 RAE to rate individual outputs instead of researchers, and to sharpen measurement by categorizing research outputs as follows:</p> <ul style="list-style-type: none"> (a) world leading in terms of originality, significance and rigour; (b) internationally excellent; (c) internationally recognized; and (d) nationally / regionally / locally recognized. <p>Outputs that do not fall within the above categories will be deemed unclassified.</p>
(I)	External reviews by non-Panel members	N/A	Introduce this so that if the Panel does not have expertise to differentiate between internationally recognized; internationally excellent; and world leading, they may seek expert advice from external reviewers.
(J)	Assessment method	<p>(a) The Panels considered, first of all, a binary cut, i.e. whether the output of each individual concerned did or did not meet the threshold standard as defined.</p> <p>(b) In some cases it might prove difficult to adopt a binary cut, in which case it</p>	(c) in 2006 RAE is to remain unchanged. For (a) and (b), (H) and (I) above are relevant. The Panel is expected to be fully competent to classify outputs into internationally recognized and below (seeking informal advice from other experts as necessary, similar to RAE 2006). On outputs which may be classified into "world leading" or "internationally

Item	Feature	2006 RAE	Proposal for 2014 RAE
		<p>would be up to individual Panels to consider whether a fractional score (i.e. lower than 1) should be assigned. In assigning fractional scores, RAE Panels were expected to give simple grading.</p> <p>(c) The Panels were instructed not to adopt a mechanical approach during the assessment. Output items were judged on their own merits and were not judged simply on their category or venues of publication.</p>	<p>excellent”, the Panel may so classify if it has the requisite expertise in the relevant academic field. Otherwise, expert advice from external reviewers may be sought pursuant to (I) above.</p>
(K)	No. of outputs submitted	6 per each eligible researcher	4 per each eligible researcher (taking reference from the UK)
(L)	Period of assessment	4 years but items outside the assessment period is allowed (1 “out” (produced in gap years 1.1.1999 to 31.12.2001) and 1 “exceptional” (prior to 1.1.2002)).	It is proposed that the assessment period be set at 6 years.
(M)	Definition of research and four categories of scholarship	<p>The scope of research was broad, and covered four types of scholarship according to Carnegie Foundation:</p> <p>(a) scholarship of discovery;</p> <p>(b) scholarship of integration;</p> <p>(c) scholarship of application; and</p> <p>(d) scholarship of teaching.</p>	It is proposed that the scope remains unchanged to address possible allegations of bias against applied research or interdisciplinary research.
(N)	Submission format	Hard copy	Electronic format: full version of outputs to be placed in an electronic repository of each institution (following Excellent Research for Australia).

Item	Feature	2006 RAE	Proposal for 2014 RAE
(O)	Dimension of assessment	Only outputs assessed	<p>Propose that the dimension be widened:</p> <p>(a) distribution of over half of funding is based on the quality of outputs (established practice as modified by (H) above); and</p> <p>(b) less than half of funding correlates with other assessments on a cost-centre basis, e.g.</p> <p>(i) the number and magnitude of peer-reviewed external project grants received in a three year period;</p> <p>(ii) “esteem” factors (e.g. awards and editorship in prestigious academic publications during the three year period); and</p> <p>(iii) research strategy of the cost centre.</p>
(P)	Grading scale on a cost centre basis	N/A	<p>In respect of (O)(b) above, each cost centre of an institution will be graded on a five point scale, which will inform funding distribution. This will measure one cost centre in an institution as compared with other cost centres in the same Panel.</p> <p><u>Grade</u> <u>Description</u></p> <p>5 : Exceptional</p> <p>4 : Excellent</p> <p>3 : Very Good</p> <p>2 : Good</p> <p>1 : Unclassified</p>

Item	Feature	2006 RAE	Proposal for 2014 RAE
(Q)	Role of overseas Panel members	Mainly to ensure credibility of assessment and to help benchmark Hong Kong's research standard against international norm	<p>Enhance their significance by making them a majority (see (G) above), and ensuring that they play a dominant role both in setting the ground rules; in assessing research performance of cost centres ((O)(b) refers); and in making final judgement in doubtful cases in assessing the quality of outputs ((O)(a) refers). However, local academics' inputs are also required as it is expected that greater input in assessing the research outputs (e.g. articles and books) are necessary by reading the full text to sharpen measurement.</p> <p>Institutions are invited to comment whether the Deputy Convenor of an RAE Panel should be a local academic, or both the Convenor and Deputy Convenor are from overseas.</p>
(R)	Translating RAE results into funding decision	Mainly following the scales decided before the RAE (e.g. 1, and fractional scores of 0.75, 0.5 and 0.25)	The UGC to decide on the detailed funding weighting after RAE 2014. The formula used will be made public after the funding results have been accepted by the Government.