2014

Guidelines for Good Evaluation Practice with the ACUMEN Portfolio

The ACUMEN Portfolio:

• is a tool for evaluators to request and for individual academics to use in situations in which their academic work or career is being evaluated.

• includes not only publication information but also other tasks, such as teaching and contributions to society.

• acknowledges new online ways of collaboration, researching, teaching and contributing to society, from Twitter to Academia.edu.

ACUMEN
academic careers understood through measurement and norms

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Executive summary

This document gives guidelines for using the ACUMEN Portfolio to evaluate academic researchers. The ACUMEN Portfolio is a way for Portfolio owners to highlight their achievements and to present themselves in the most positive way. It supplements the traditional CV because it highlights key achievements rather than giving an exhaustive list. It contains a systematic set of types of information related to three aspects of an academic's career:

- *Expertise* – methods, areas of theory, etc.
- *Outputs* – publications, patents, etc.
- *Impacts* – citations, honours, etc.

The ACUMEN Portfolio also contains a *narrative* that the academic can use to explain their academic value, backed by evidence from the rest of the portfolio, when possible. This guidelines document is primarily for use by evaluators that are intending to use the ACUMEN Portfolio to aid in decision-making, such as for funding, promotion or appointments. Nevertheless, it can also be used by individual academics seeking to create a Portfolio for self-evaluation purposes or to supplement their CV, to understand the portfolio concept or to ensure that their portfolio is as effective as possible. Three things distinguish an ACUMEN Portfolio from a traditional CV:

- An explicit focus on demonstrating specific types of achievements and skills rather than listing all achievements and activities. This makes it easier for evaluators to compare people based upon their Portfolios and to identify specific kinds of skills or expertise needed.
- An incorporation of an age factor to allow for a fairer comparison of academics at different stages of their career and to compensate for gender and disability inequalities that may otherwise be hidden.
- The inclusion of an evidence-based narrative that allows the researcher to tell their own story in their own way, but tying it to evidence.

This document describes how an evaluator can use an ACUMEN Portfolio for an evaluation. In particular it gives guidelines for selecting the types of indicators to include in a portfolio, and for how to assess candidates fairly on the basis of their ACUMEN Portfolios. The guidelines include information about the choices of data sources in some cases and about alternative metrics available in others. In addition, this document gives information about the limitations of all the sources of information used and advice to ensure fairness for factors such as age and gender. In addition, this document contains a range of examples of specific scenarios in which ACUMEN Portfolios can be used and guideline for their use in these contexts. These common cases are designed to serve as a starting point.

Terminology

Academic age: Number of years as an academic, correcting for other factors (see calculation below).

ACUMEN Portfolio: Any collection of the expertise, output and impact indicators listed within this document, in addition to the narrative.

Complete ACUMEN Portfolio: All the expertise, output and impact indicators listed within this document, in addition to the narrative.

Indicator: A number, list or sentence describing an area of expertise, output or impact.

How to use the ACUMEN Portfolio: An overview

Four steps are needed in order to conduct an evaluation using an ACUMEN Portfolio, as described below:

Step 1: Read this document to get an overview of the issues involved in the selection of indicators for a portfolio and evaluating portfolios based upon the indicators and narrative. This will give both a theoretical background to the concepts used in the ACUMEN Portfolio and ideas about what types of portfolio can be created. In addition, it will give examples of scenarios in which ACUMEN Portfolios can be used.

Step 2: Choose the indicators for the portfolio on the basis of the objective of the evaluation and the research area of the evaluation. This document contains information to help you to select the indicators that will be most useful for the objective of the assessment. Once the indicators have been selected, create a portfolio template document by copying the ACUMEN Portfolio template at the end of this document into a new blank document and deleting the rows containing indicators that are not needed.

Step 3: Distribute the template to the applicants to complete, together with the application deadline. This can replace or supplement a request for a CV or completed application form, depending on the nature of the evaluation. Organisations requesting ACUMEN Portfolios should use these to replace existing forms, if any, or should reduce the questions in existing forms to avoid asking for the same information twice.

Step 4: Re-read the relevant parts of this document again and evaluate the completed ACUMEN Portfolios on the basis of preliminary judgements based upon the indicators and final judgements based on the narratives. It is particularly important to check the limitations of the indicators used in order to fairly evaluate the portfolios. At this stage, gender, age and other factors can be taken into account by considering the academic age of the applicants alongside their portfolios.

Academic indicators: A theoretical background

The indicators in the ACUMEN portfolio include a combination of quantitative (e.g., based upon citation counts) and qualitative (e.g., list of awards, list of invited keynote talks). Each ACUMEN Portfolio indicator is designed to give evidence of a desirable academic attribute and a portfolio of indicators is designed to give a rounded impression of the contributions of an individual academic. Nevertheless, each individual indicator, and particularly the quantitative ones, has limitations and is only able to partially reflect that which it is designed to cover. This is most apparent when there is a range of similar indicators and, for practical reasons, only one has been selected. For instance, citation counts could be calculated with or without self-citations and across different databases. The most important consequence is that all of the indicators should be used to inform rather than replace human judgement. For example, if candidate A has higher or better values on all indicators than candidate B then whilst candidate A is probably better, the narrative should still be read and judgement should still be used to decide whether this is definitely the case. For example, the narrative might state that the academic has capabilities that are not well covered by the indicators in

the portfolio because they are unusual but that are nevertheless valuable. In cases where the indicators do not show the portfolio owner in a good light, then they have the responsibility to explain or justify this in their narrative.

Recommendation: Use the indicators in the ACUMEN Portfolio to guide initial judgements but be prepared to override these judgements on the basis of explanations in the narrative component.

Sources of data and their limitations

There are a few specific sources of information about academics publications that will be extensively used in the Portfolio and these are discussed below. Academics do not only produce publications but often also teach, prepare educational material, appear in the media, give advice to companies, apply for funding and take part in peer-review activities. Although these activities are important, they are typically not recorded systematically anywhere and so the academics should be relied upon to provide such information from their own knowledge for their Portfolio.

Bibliometric sources

A common way in which academics are evaluated is by the number of times their work has been cited, or through metrics based upon these citations. The number of citations to a publication is reported in various different citation indexes and digital libraries and the number of citations found to a document will vary between the different indexes because the number depends on the exact coverage in each case. In general, the citation indexes or digital libraries with the most documents will tend to report the largest citation counts. As a result of the differences, it is important to standardise on one source, if possible, so that comparisons between people on the basis of citation counts will not be biased by the data source. The four main current sources are the Thomson Reuters Web of Knowledge, Elsevier's Scopus, Google Scholar and Google Books, the first two of which require a subscription to access. Subscription-based databases should not be used for portfolios unless it is known that everyone who will be required to complete the portfolio will have access to them.

- *Web of Knowledge/Web of Science*: This is the oldest and probably the most respected traditional citation index for academic publications. It covers the core journals in science, social science and the humanities, as well as some conference proceedings and books. Journals are chosen, at least in part, for the degree that they are cited so this index should contain a substantial proportion of the most highly cited academic journals. Its key disadvantages are that it has a bias towards English language publications, which will be particularly a problem in non-English nations, and that its restriction to high impact journals will be a problem for some areas of social sciences and humanities research that are more fragmented than science (see Moed, 2005, p. 119). There are different versions of the Web of Knowledge and so care should be taken to ensure that users access the same version (e.g., with or without the optional Proceedings Citation Index and the Book Citation Index components – this is particularly critical for fields in which books or proceedings are important; also coverage should go far back enough to include all relevant citations). Another limitation is that although the Web of Knowledge may include the Thomson-Reuters Book Citation Index, which would be important for impact evaluation in the social sciences and humanities, its coverage of books is probably limited to about 12,000, which is far from comprehensive.

- *Scopus:* This is Elsevier's traditional citation index for academic publications. Its coverage includes about 20,000 journals and about 5.5 million conference papers from conference proceedings in science, social science and the humanities, but, in 2013, very few books [http://www.elsevier.com/__data/assets/pdf_file/0006/155427/Scopus-Content.pdf, August 2013] and its systematic coverage started in 1995 so it may not be appropriate for senior positions. It has similar limitations to the Web of Knowledge and probably similarly comprehensive coverage of the highest impact publications and probably an additional bias towards Elsevier's publications.

- *Google Scholar:* This is Google's search engine for academic documents. Although it is not primarily a citation index, it reports the number of citations found for each document and so it can be used for citation data (Harzing, & van der Wal, 2008). It has extensive coverage of academic documents found on the web as well as coverage of the journals of some academic publishers. It seems to have much more substantial coverage of academic documents than the above two citation indexes, and may well have less international biases and may reflect the earlier citation impact of in press publications (e.g., self-archived preprints) - it takes some time for publications to be published and then indexed by WoS and Scopus to obtain citations. An important limitation is that it has no quality control procedure and so it is potentially possible to manipulate the citation counts for documents by putting fake documents online for Google to find. If Google Scholar figures are critical to a decision then it is worth checking for the validity of the results by browsing the documents citing any highly cited documents in a scholar's list (e.g., Bar-Ilan, 2010; Jacsó, 2006, 2008).

- *Google Books:* This is a database of books from Google that can be used to identify citations from books to academic publications, although this is not its main purpose. It seems to give better coverage of books than any other source and so would be useful when book citations are important (e.g., arts and humanities and some social sciences) (Kousha & Thelwall, 2009, in press-a).

Recommendation: Require the bibliometric data in all ACUMEN Portfolios to come from Google Scholar because it has the most comprehensive coverage and is free unless you are sure that all applicants have access to either Scopus (and the position is not a senior one) or WoS (and the applicants can select the same databases in WoS, and with data going far enough back) – the latter two are preferred, when possible, because of their better quality control.

Web sources

Traditionally scholars have used formal scholarly communication (e.g., scientific journals articles, conferences articles, books, etc.) to publish research, where a scholar's impact has been measured by counting the number of citations to their publications from other scientific works, for which reference-based databases have been used, especially the Web of Science (WoS) and Scopus (these databases are explained above). Nowadays, scholars also use informal scholarly communication to collect and publicise their research through the web, so that their publications can appear in different web channels such as personal websites, research group websites, institutional repositories, web reference-based databases, e-print archives, research blogs or social sites. Researchers can also interact and give feedback to each other's publications on the web, for example by adding tags and commenting (Neylon & Wu, 2009).

Although conventional methods for research evaluation have limitations, such as they are slow (it takes quite time for a publication to obtain citations), it does not make a difference whether the citation is for supporting or not a work (MacRoberts & MacRoberts, 1984; Neylon & Wu, 2009) or some influential articles are not cited (MacRoberts & MacRoberts, 2010), they are considered the best approach for research assessment in formal scholar communication because the quality control processes used. However, these metrics do not seem appropriate to assess research impact in the web environment, so new data sources (Zhao, 2005) should be taken into account, in addition to traditional sources, and new metrics should be developed, investigated and validated to assess the scholars' impact in this web ecosystem.

In addition to Google Scholar and Google Books, Web data can be gathered from (a) the general web or (b) specific social web sites, such as Mendeley and Twitter. These can potentially give evidence of impact outside of scholarly publishing, such as impact in education or on the general public. These types of impact can be particularly important in the social sciences, arts and humanities, where there is often more emphasis on education, applications and public engagement. For example, a search in Google or Bing for Web pages mentioning an academic article might find evidence of its use in syllabuses, giving evidence of impact in education. Similarly, a search for the article in Twitter (but see below) or Mendeley could give evidence of public interest or a wider educational uptake, respectively. Most web-based sources have major limitations because they are easy or quite easy to manipulate to inflate values. For example, a scholar could get all of their students to bookmark the scholar's articles in Mendeley, download them in Academia.edu or to tweet them. Web-based indicators therefore have much less validity than citation indicators and should be treated cautiously as sources of evidence. In practice, this means that if some web-based indicators are critical for a decision (e.g., if one candidate scores particularly highly on web-based indicators but is otherwise similar to another candidate) then the web-based metrics suggested in this document should be checked at source for signs of manipulation. Despite this limitation, some web-based indicators are useful and unique because they can give some evidence of impact outside of the academic research environment or conventional citation analysis and can give early indications of the likely future impact of publications.

Recommendation: Require the use of scholarly social web data in the social sciences, arts and humanities and make it optional in science (for those who wish to demonstrate impact outside of science). If the applicants are junior researchers then social web data is recommended even for the sciences because their publications may not have had enough time to attract citations and social web mentions would be a useful substitute.

Gender and age considerations

It is unfair to directly compare ACUMEN Portfolios irrespective of age and gender because the results can be misleading. For example, clearly an experienced academic will have had longer to publish and accrue citations and this should be taken into account when comparing with a junior academic. Similarly, an academic that has taken some years off in order to raise children, who has a major disability, who has worked part-time, or who has taken a substantial period of time off to fight illness or for gender reassignment surgery (and associated life transitions) should not be disadvantaged for this. It is particularly important to mitigate against the effects of childcare responsibilities because this will cause inadvertent gender biases in the results.

The central device used to compensate for the age, gender and the considerations above is the academic age calculation. This measures the age of an academic in terms of the amount of time they have spent in academia, subtracting time to make allowances for special circumstances.

Academic Age *= Number of full-time working years since PhD defence or start of first academic post (whichever is first) – Number of children raised – special allowances*

This calculation considers the PhD defence date as being the start of an academic career. This date was chosen in preference to using the start of a PhD as the start date for an academic career because typical PhD durations vary by country, in some countries the official PhD start date is not clear due to the need to pass through transitional stages in order to be formally enrolled for a PhD, and some people may have forgotten their start date. In some cases, researchers may not have a PhD or may have gained a PhD substantially after the start of their academic career. For people who do not have a PhD or who started an academic job before defending their PhD, the job start date is used instead. Academic jobs include all lecturing, researching and teaching positions in academic institutions. Academic jobs therefore includes assistant/associate/full professorships, lecturers, reader and similar, researcher and research-related posts in academic organisations and teaching positions in academic institutions. Special cases will need to be described next to the age calculation. As a (mainly) gender correction factor, one year is subtracted for each child born after the PhD defence for which the academic is the single main responsible person. This allowance can be shared between carers (e.g., 0.5 years each), if agreed. Additional special allowances can be subtracted for disability, illness-related time off work, or other unusual cases, but these must be explicitly justified if claimed by the portfolio owner. The minimum permitted Academic Age is 1.

Recommendation: Everyone completing the ACUMEN Portfolio should be required to calculate their Academic Age, as defined above, and this should be taken into account when comparing portfolios.

How to use the ACUMEN Portfolio: Detailed advice

This section gives detailed advice to help evaluators to decide which components of the Portfolio to request from applicants and how to evaluate them. An evaluator here means anyone that requests that others complete an ACUMEN Portfolio for a specific task, such as a job, grant or promotion application. This section also gives advice for academics that are creating a Portfolio for themselves either without any specific guidelines on contents from evaluators, as a supplement to their CV or as part of a self-evaluation exercise. Here are some examples of potential uses of the ACUMEN Portfolio.

- Academic job applications: Candidates are requested to complete a partial or full Portfolio to help choose the best candidate.
- Promotions: Candidates are requested to complete a partial or full Portfolio to help decide whether their achievements match the higher post.
- Funding applications: Applicants are requested to complete a partial or full Portfolio to help decide whether their achievements are appropriate for the proposed task. This should replace relevant parts of any existing grant funding application forms rather than asking for the same information twice.

- Self-evaluations: Academics complete a full Portfolio to help evaluate their own strengths and weaknesses.
- Self-monitoring or self-promotion: Academics complete and maintain a full Portfolio to keep track of their key achievements either for self-monitoring or, if made public, to publicise their achievements.

In summary, to create an ACUMEN portfolio:

- Copy the complete sample at the end of this document into a new word processor document.
- After reading the guidelines below, delete the sections of the portfolio in your new document that are not needed.
- If necessary, translate any or all of the descriptions and advice in the Portfolio into another language.
- Circulate your new document containing the edited portfolio to the people who will need to complete it.

Evaluators: Strategy for selecting indicators for a specific task

As an evaluator the main two tasks are to select the contents of an ACUMEN Portfolio to request from applicants and to evaluate these contents. This subsection deals with the first task.

The ACUMEN Portfolio lists a large number of different types of information for an applicant to complete but it is time-consuming to create and not all of the factors will be relevant to each evaluation and so the evaluator needs to decide which ones to request. The main principles that should guide the selection of the components to request are:

- The needs of the evaluation: Which types of expertise, output and impact information will help the evaluation?
- The time taken to complete the Portfolio: How much time is it reasonable to ask applicants to spend on their Portfolio and, therefore, how many indicators should be requested?
- The capabilities of the evaluators: For each indicator requested, will the evaluators be able to understand it enough to use it to inform their decisions?

In other words, evaluators should request elements that will genuinely help them to make a decision and should avoid overloading applicants by requesting information that is unlikely to be useful.

Recommendation: Ask only for the most important indicators to avoid overloading applicants.

The exact combination of components to be requested depends mainly upon the subject area and nature of the evaluation. In terms of subject area, since different fields have different practices, some of the information will not be relevant. For example, monographs are often essential in the humanities but might be irrelevant in the sciences, and conference papers are essential in some areas, such as computing, but not highly regarded in most other areas. Thus, evaluations for science areas may not ask for the indicators for conference papers and monographs whereas humanities evaluations may ask for books but not conference papers and computer science evaluations may ask for conference papers but not books. Thus, evaluators need to use their own subject expertise to decide what is important for their discipline. This decision can be difficult because it involves a trade-

off between asking for more indicators to give applicants the flexibility to demonstrate their achievements in different ways and not making the application process too onerous so that it puts off candidates. If evaluators do not ask for specific areas that applicants consider to be relevant then the applicants can mention them in their narrative or in the other information parts at the end of each section of the portfolio.

Recommendation: Choose components of the Portfolio that are important for your subject area.

The type of information requested also depends on the nature of the evaluation in terms of the seniority of the likely applicants. For example, candidates for a full professor post can be expected to have delivered lots of conference papers so it may not be worth asking for this information. Similarly, it may not be worth asking how many tweets a professor applicant has made since this is a relatively minor factor that is unlikely to affect the outcome of an evaluation. In contrast, for a first postdoctoral position, it may be worth asking for this information because the candidates may have demonstrated their skills in these ways but not yet so much in other ways.

Recommendation: Choose components of the Portfolio that are relevant to the seniority of the applicants.

Finally, the type of information requested depends on the job or purpose of the evaluation. For example, if the job requires good online communication skills then it would be useful to ask for all the indicators about online communication achievements. In contrast, if the successful candidate will be expected to work on a specific task within a team and will not need to communicate outside the team then there is little point in asking for communication skills information.

Recommendation: Choose components of the Portfolio that are relevant to the application purpose.

Here are some examples of common types of evaluation and some specific additional advice for them.

Full professorship applications
The full ACUMEN Portfolio can be used as part of an application for a full professorship, whether it is a competitive application process or as part of an internal promotion application for them. Nevertheless, items that are mostly relevant to early career researchers could be removed, such as software expertise, and the web indicators could be made optional. Although completing a full Portfolio will take a long time, this is justified by the importance of the decision making process. It is important that professorship applications should not be compared between fields on the basis of ACUMEN Portfolios, however.

Junior postdoctoral researcher applications
A reduced ACUMEN Portfolio can be requested for all candidates for a junior postdoctoral position. In this case it does not make sense to require candidates to complete a full Portfolio because it may take too much time in the context of applying to multiple job opportunities, and because much of the information may be irrelevant for junior researchers or for people within their field. The applications committee should therefore edit the portfolio template below to delete factors that are considered unlikely to be relevant, such as those not relevant to the field (e.g., book citations for the sciences) or for junior careers (e.g., awards). The applicants should then be sent the cut-down

Portfolio to complete. The cut-down version should always include the narrative and the academic age calculation.

Evaluators: Strategy for evaluating portfolios

An evaluation needs to be fair to the candidates and be open to different ways in which they can show their strengths. It is important to recognise at the start that all of the indicators gathered in the Portfolio are approximate and none directly measure the skills and achievements of the applicant. Moreover, some indicators are less reliable than others, so the reliability of each indicator should be taken into account when evaluating it. This especially applies to the web-based indicators, most of which have a low level of reliability. The narrative is most important, however, as this is the part in which the applicants explain what they have achieved. The narrative should be carefully checked against the indicators, however, in order to avoid accepting claims that are not supported by evidence. The guiding principle is:

Recommendation: Take into account the importance of each indicator for the evaluation purpose and the reliability of the indicator and then make an evaluation of the candidate based upon the narrative, as supported by the indicators.

The relevant parts of the theoretical background section of this document should be read before the evaluation to help to identify what each indicator measures and how reliable it is.

Academics: Strategy for completing a Portfolio

Academics are expected to complete the Portfolio template document sent to them by evaluators primarily by selecting relevant information from their CV and copying it to their ACUMEN Portfolio. In places, they will also have to look up or calculate new information that is unlikely to be on their CV, such as bibliometric or web indicators. They will also have to compose a narrative to start the Portfolio. This may be an extended version of an existing application covering letter or may be completely new.

Academics: Strategy for completing a Portfolio if no evaluators give guidelines

ACUMEN Portfolios can be set up by individual academics and used as an extended CV rather than for a specific task. In such cases, maintaining an ACUMEN Portfolio will be a trade-off between the value of the portfolio and the time taken to create it. The recommended strategy is to start with the narrative and then to add the core extra indicators as well as any other indicators that will be useful to support the narrative. It is probably not worth spending the time to collect indicators that do not support the narrative in any way.

Self-evaluation and monitoring

The ACUMEN Portfolio can be used as part of an academic's career self-evaluation, for example as part of a 5-yearly progress review, or could be used for on-going performance self-monitoring. In this context, the academic could use the entire portfolio or could self-select parts that they believe are relevant. The exercise of completing the portfolio should help to reveal to them the areas that they are strong and weak in, especially if the portfolio can be informally compared to portfolios from other academics within the same field and at the same career stage. The advantage of using the ACUMEN Portfolio is that the systematic gathering of evidence of skills, outputs and impact should

help the academic to understand their progress so far as a researcher, especially if it can point to types of achievement that they were not fully aware of before.

Ethical and privacy issues

ACUMEN portfolios remain the property of the person that created them, unless they explicitly transfer ownership to somebody else. The privacy of the person described in a Portfolio should be treated with the same privacy considerations as a CV. In particular portfolios should not be publicly distributed except as compatible with their intended use, as transmitted to the person described in the Portfolio. For example, it would be reasonable to transmit a Portfolio to members of a job interview panel but it would be a breach of privacy to post it online.

The ACUMEN Portfolio: Detailed information about the indicators

Bibliometrics

As bibliometric techniques have become more available and easier to apply at the micro-level they have become increasingly used as both self-evaluation and third party evaluations. This increased use presents challenges for the correct application of bibliometric indicators on a small amount of data, the correct interpretation of these statistics and, if any, the conclusions that can be drawn.

The simplest bibliometric indicators are for the number of publications produced of each type (e.g., articles, books, conference papers). Although simple, these should not be compared between fields because there are different publishing speed norms in different areas of scholarship. Of course, older academics are likely to have produced more publications of all types than younger academics and so academic age should also be taken into consideration when comparing academics. For example, dividing the number of publications by the number of years as an active researcher seems to be a reasonable way to normalize publication counts.

Another problem for simple counts of publications is that many are now co-authored and it is not simple to work out the contribution of each author. It does not seem fair to give full credit to an author for articles that they were helped to produce. For example, if there are n authors for a paper then it would seem fairer to attribute 1/n of a paper to each of them. This is probably not practical, however, since it would require complex fractional counts for each paper. In most fields, the first author is the main contributor so it would be a reasonable approximation to count only the first authored articles. Alternatively, another reasonable approximation is to report the average number of co-authors for publications as well as the total number of publications so that this average can be taken into account when assessing the total publication output.

The most important bibliometric indicators are based upon the number of citations to articles. In general there is a positive association between the number of citations a publication receives and its impact on science. Nevertheless, there are many factors that affect this association and so the number of citations to an article is not a reliable indicator of its value. In brief, here are some limitations of using citations as an indicator of the value of an individual academic article:

- Citations take time to accumulate so it is not fair to compare citations to articles published at different points in time, especially if they were published in different years and at least one was published in the last few years. One way around this is to count the number of

citations per year for a paper, but this is still not completely fair as an article is unlikely to attract citations in its first year and is likely that there will be decline in the number of new citations received after 5-6 years.

- Citation norms differ between fields so it is not fair to compare citations to articles in different fields. Also, within fields there can be high citation subfields.
- Review articles tend to be more highly cited than standard articles. Some types of articles (e.g., methodological) tend to be more cited than others.
- Articles can be cited for negative reasons.
- Articles can make important contributions to science without getting highly cited, for example by showing that a previous article or theory was wrong.
- Articles can make important contributions outside of science in ways that are not acknowledged by citations, such as by helping an innovation that is commercially useful or by engaging the interest of the public.

As a result of the above factors, citation counts should not be taken as measures of the impact of articles but only as indicators (i.e., approximations or pointers) (Moed, 2005; Moed, Glänzel, & Schmoch, 2005). In other words, high citation counts suggest but do not prove that an article has had an impact in science. Conversely, low citation counts suggest but do not prove that an article has had little impact in science.

Major sources for obtaining citation data:

- Web of Science (WoS) citations to publications. As described in the sources of data section above, WoS has systematic and extensive coverage of citations from articles in the top journals of science and most social sciences, and, to some extent also the remaining social sciences and the humanities. It has international and language biases and different institutions may subscribe to additional parts of it, such as the sections for books or proceedings.
- Scopus citations to publications. As described in the sources of data section above, Scopus has less international and language biases and greater coverage than WoS but only after 1995 and not for books.
- *Google Scholar* (GS) citations. As described in the sources of data section above, Google Scholar has wider coverage of citation data than traditional bibliometric databases (e.g., WoS and Scopus), especially in the social sciences and arts and humanities and some studies have found strong correlations between GS and WoS citations across fields, so that the use of GS can give wider picture of the scholarly impact of individual researchers (Bar-Ilan, 2008; Harzing & van der Wal, 2008; Kousha & Thelwall, 2007; Meho & Yang, 2007). In fact, in some fields (e.g., computer science and informatics) Google Scholar citations are already used to support peer review process in some countries (Panel criteria and working methods, 2012). However, this tool lacks a quality control mechanism, has some false matches and can be artificially manipulated (Jacso, 2006), so it is best used to complement traditional databases (Bakkalbasi et al., 2006). Often for evaluation purposes, however, not all candidates will have access to WoS or Scopus and so the use of Google Scholar is a practical necessity. Both manual and automatic counting are possible: the first one with online searches and the second one with Publish and Perish http://www.harzing.com/pop.htm. This source is useful to assess research impact.

- *Google Books (GB).* As described in the sources of data section above, GB the largest database of digitised books and GB citations are a useful indicator in book-oriented disciplines (social sciences and arts and humanities) for impact assessment and to support peer review for research evaluation (Kousha & Thelwall, 2009; Kousha et al., 2011). However, it has an unknown coverage, huge false matches with manual online searches and some unwanted results when extraction citations automatically. Manual counting is possible with online searches followed by removing false citation matches. In response, an automatic method was developed and tested using Google Books API in *Webometric Analyst* (http://lexiurl.wlv.ac.uk/, see also Thelwall, 2013), free software to automatically capture citations and remove false matches inside digitised books to get sufficient systematic results for research assessment (Kousha & Thelwall, in press-a).

A useful indicator for individual researchers that is derived from citation is the h-index, which is defined to be the largest number h such that h of the researcher's publications has received at least h citations (Hirsch, 2005; Bornmann & Daniel, 2007). This single indicator combines citations and publications in order to give an overall estimate of the citation impact of an individual. Values are influenced by citation norms in the field of the researcher and their academic age, however, as well as by all of the problems of citation discussed above.

Recommendation: Scholars should report citations to their key publications, but these citation counts should not be compared across fields and should take into account the age of the publication.

Recommendation: Scholars should report their h-index value as a key indicator, but h-indexes should not be compared across fields. h-indexes should be considered alongside academic age to take into account that older academics should tend to have higher h-indexes.

Recommendation: Users should estimate their percentage contribution to multi-authored papers (or the percentage of their papers that they are the first author for) and use these proportions to modify the bibliometric and webometric indicators.

Table 1 summarises key information about a range of bibliometric indicators for individual research assessment. This table can be used by evaluators to help select indicators for the ACUMEN Portfolio. It can also be used by evaluators to help assess the importance of indicators when evaluating portfolios.

Table 1. Bibliometric indicators for individual research assessment.

Broad type of indicator	Specific type of indicator	Type of impact	Source	Type of evidence	Manual counting possible?	Automatic counting possible	Advantages	Limitations
Bibliometric indicator	Citations to individual publications	Research impact	Academic databases	Citations from scholarly publications.	Yes	No	Well-used type of indicator, relatively free from peer-review biases.	Citations are not always positive; articles can have impact without citations. Must be normalized for field if compared across fields. Not proven useful in the arts and humanities.
				Specific sources:				
		Research impact	Web of Science (WoS)	Total citations to the author's articles from papers indexed in WoS. *****	Yes	No	WoS includes most of the important journals in science and social science.	National and linguistic biases in WoS; low coverage of books.
		Research impact	Scopus	Total citations to the author's articles from papers indexed in Scopus. *****	Yes	No	Scopus includes most of the important journals in science and social science and has greater international coverage than WoS.	Probably some national and linguistic biases in Scopus; very low coverage of books.
		Research impact	Google Scholar (GS)	Total citations from online published papers, preprints, postprints of articles, technical reports, dissertations, conference papers. ***** .	Yes with online searches.	Yes, with *Publish or Perish.*	- Greater coverage of citation data than traditional bibliometric databases. - Strong correlations between GS citations and WoS citations. - Wider picture of the scholarly impact of individual researchers and in some fields (computer science and informatics)	- Lacks a quality control mechanism. - Has some false matches. - Can be artificially manipulated (Bakkalbasi et al., 2006; Jacso, 2006; Panel criteria and working methods, 2012).

						- Already used in some countries (Bar-Ilan, 2008; Harzing & van der Wal, 2008; Kousha & Thelwall, 2007; Meho & Yang, 2007).	
	Research impact	Google Books (GB)	Citations from online books sources (monographs, edited books, book chapters). *****	Yes	Yes See Kousha & Thelwall, in press -a	- The largest database of digitalized books. - Strong correlations between GB citations and WoS citations. - GB citations are useful indicators in book-oriented disciplines (Kousha & Thelwall, 2009; Kousha et al., 2011).	- Unknown coverage. - Mostly false matches with manual searches. - Some unwanted results when extracting citations automatically.
Citations to academic overall	Research impact	Google Scholar, WoS or Scopus	h-index: the largest number h such that at least h publications all have at least h citations. ****	Yes	Yes	Single number reflects overall impact, not affected by individual anomalous highly cited articles.	All above general citation limitations. Also, academics with unusual citation patterns may not have their impact fairly reflected in their h-index.

***** **High quality source; **** Medium-high quality source**

Webometrics: Social and institutional web presence

This section describes a set of web-based indicators for individual research assessment. Indicators are divided into two groups: webometrics and altmetrics. Webometric indicators measure different types of impact through the whole web (web citations or web mentions) (Kousha & Thelwall, in press-c). Altmetric indicators measure more specific impacts derived from individual social websites by using information such as the number of readers for a publication, tags, bookmarks, comments, tweets or blogging provided by users to assess the impact of authors or publications (Bar-Ilan et al., 2012; Priem et al., 2010; Wouters & Costas, 2012). For each indicator, we describe the type of impact that it assesses, the source/s that can be used for data collection, the type of evidence found, and its advantages and limitations (see Table 2).

Webometric indicators

Most webometric indicators use web citations, web links or title mentions by considering that whether a publication is linked, mentioned or cited online, using this information as evidence that the publication has had some type of impact (Kousha & Thelwall, 2006).

Web citations

Web impact for individual articles was first assessed by conducting a conventional citation analyses on the web. These web citations to scholarly publications correlate with traditional citations (Vaughan & Shaw, 2005) and "are sufficiently numerous to be useful for the impact assessment of research" (Kousha et al., 2010), although the reasons for web citations are different from the reasons for traditional citations (Kousha & Thelwall, in press-c).

Web citations can be identified using commercial search engines (e.g., Google, Bing) and they have been used, for instance, to analyze the impact of articles in teaching assessing citations from online syllabuses (Kousha & Thelwall, 2008) or to assess citations to scholarly journals from online PowerPoint presentations (Thelwall & Kousha, 2008). Some specific sources can be used to collect web citations:

- Google or Bing. General search engines can be used for extracting citations from online scholarly sources such as presentations or academic course syllabuses.
    - Citations from online presentations (PowerPoint files) probably reflect research impact but may also reflect educational impact to some extent. Files formatted as a presentation (e.g., ppt and pptx) can be found by advanced searches in Google or Bing (searching for the article title in quotes, followed by the keyword **filetype:ppt**), or by searching in the internal search engines of sites like SlideShare, a website for sharing presentations, or other similar websites. (Automatic counting is currently possible with Bing API search using Webometric Analyst for people that are completing many Portfolios simultaneously.) Scientific presentations may be found in this way even if they are not published in conference proceedings. They may include educational presentations, which can be valuable for tracking the popularisation of research outside the formal publications (Thelwall & Kousha, 2008). The main drawback with counting presentations in a specific format (e.g., pdf) is that many scholarly presentations are also available in generic formats, such as PDF or HTML, and it may not be practical to

> identify presentations in such formats because it would involve manual checking to separate academic presentations from other publications.

- ▪ Citations from online syllabuses indicate the impact of scholarly publications in teaching. Manual counting is possible by searching for article tiles in quotes, together with the phrase **"reading list"** or the keyword **syllabus** (automatic counting is possible with Bing API search using Webometric Analyst, but manual checking is also needed). This is especially useful in fields where teaching is an important academic activity and impact or value of publications with educational utility, such as text books, could not be assessed by the conventional bibliometric methods (Kousha & Thelwall, 2008). However, most academic course syllabuses are not online and so this method will identify only a tiny proportion of the syllabuses produced by the world's universities.

Web links and web mentions (URL citations/title mentions)

Several years ago, counts of hyperlinks to online articles were used as indicators of their online impact, but these are currently impossible to identify with commercial search engines. As an alternative to hyperlinks, web mentions (title mentions and URL citations) have been proposed in the belief they can reflect some type of influence (Kousha & Thelwall, in press-c; Thelwall et al., 2012). A title mention is the inclusion of a title (for example, the title of a publication) in a webpage, with or without a hyperlink, while a URL citation is a mention "of a specific URL in the text of a web page, whether hyperlinked or not" (Kousha & Thelwall, in press-c).

Web mentions can be counted manually using searches in commercial search engines. The main advantage of URL citations is that URLs are unique (Kousha & Thelwall, in press-c), although "including URLs in the visible text of webpages seems to be unnatural, and it is not clear that they are a reasonable source of online impact evidence, except perhaps in special cases like articles" (Thelwall & Sud, 2011, p. 1489). It is also possible to count citations to identifiers like DOI (Digital Object Identifier, an identification system used for academic articles that gives each article a unique ID) and ORCID (a digital identifier system for researchers that give each author a unique ID to help distinguish between different authors with the same name and between different variants of the same name for a single author), which can be expressed as full URLs, or which can be separately searched for.

Mentions of researchers can also be searched for using search engine queries names (if highly distinctive) or unique identifiers (like ORCID) but there is no evidence that such results would give useful indicators.

Altmetric indicators

Altmetric indicators use information from individual social websites, such as the number of readers and downloads for a publication, tags, bookmarks, comments, tweets or blogging to assess the impact of authors or publications (Bar-Ilan et al., 2012; Haustein et al., in press; Priem et al., 2010; Wouters & Costas, 2012).

Usage data (views, downloads and readers)

Usage data is normally available for articles long before they receive their first citation (Bollen et al., 2009). Usage information indicates how often research is downloaded or viewed online and can predict later citations in the sense that more downloaded articles tend to become more cited (Brody et al., 2006; Bollen & Van De Sompel, 2008). However, usage data do not measure the same as

citations, and not all downloaded articles are read (Neylon & Wu 2009). Sources of usage information can be divided into two groups:

- Views and downloads from digital libraries, journals, online databases, and institutional websites. These sources offer high quality information and may show how often online research is read, but data owners do not usually share this information for free (Haustein & Siebenlist, 2011) and so it is normally impractical to use it for research assessment.

- Views and downloads in scholarly social websites, such as Academia.edu, ResearchGate.net, Mendeley and other social reference sharing sites.
    - Academia.edu provides information about document views and profile views and document views could be used as an indicator for the impact of documents.
    - ResearchGate.net provides information about publication views and full-text downloads, as well as some other activity and impact-related information.
    - The social reference sharing website Mendeley provides information about readers of publications added to users' libraries in the tool. Individual users or groups on Mendeley maintain their references (sometimes called bookmarks) in their personal or group accounts. These bookmarks are aggregated by Mendeley, and are displayed as reader counts for the publications in the Mendeley website. Thus, the reader count is the number of users of Mendeley who saved the specific reference to their libraries (users can be either individuals or groups). These users utilize Mendeley as a reference manager and the aggregated information provides an altmetric indicator. Other social reference sharing sites, such as CiteULike or Zotero may be relevant in particular subject areas, but not all (e.g., Zotero) allow useful statistics to be extracted.

Article usage statistics are usually freely available in social websites like Mendeley and can typically be found by searching the site in question for relevant articles and then identifying statistics about the article from its page within the site. A wide variety of sources can also be checked simultaneously with ImpactStory.org and with altmetric.com's bookmarklet http://www.altmetric.com/bookmarklet.php. (Large-scale automatic checks are also possible using Webometric Analyst http://lexiurl.wlv.ac.uk/, and perhaps other crawlers, but these are likely to take too long unless one person is compiling the statistics for a large number of ACUMEN Profiles and can automate the analyses with these tools.)

A drawback of usage indicators derived from social websites is that many scholars do not use them, many scholars using these tools do not register all of their publications in them, and many of them do not provide the full-text of the publications for others to access. Moreover, not all downloaded articles are read (Neylon & Wu, 2009), although the main limitation for using these tools in research assessment that the data is not quality controlled and hence can be manipulated fairly easily. Mendeley seems the most promising tool. Several studies have found significant correlations between the user counts in Mendeley and CiteULike and citation counts in WoS, Scopus and Google Scholar (e.g., Bar-Ilan, 2012; Bar-Ilan et al., 2012; Li et al., 2012; Mohammadi & Thelwall, in press; Zahedi et al., 2013).

Blog citations

Research blogs have become a popular way for disseminating and discussing scholarly information. Researchblogging.org is an aggregator of science blog posts where bloggers to refer to peer-reviewed research in an academic citation format. "Bloggers discussing peer-reviewed research can register with the aggregator, and when they mark relevant posts in their blog, these posts appear on the aggregator's site, allowing one-stop access to research reviews to interested readers" (Shema et al., 2012, p. 2).

Blog citations can show early evidence of the scientific impact of a publication (i.e., blogged articles are likely to be subsequently more cited) and possibly also its wider impact (Shema et al., in press), although it may be exaggerated for articles with peripherally attractive features, such as funny titles. Citations from blogs can either be identified by searching for the title of the article in quotes and in conjunction with the keyword blog, or by using an altmetric service, such as ImpactStory.org or altmetric.com to count blog mentions.

Web recommendations

Some websites allow users to rate or recommend published academic research. A particular source for this is F1000, a post-publication peer review service that recommends important publications within biological and medical sciences (Waltman & Costas, 2013). There are three positive recommendations levels by expert reviewers: 1= good, 2 = very good and 3 = exceptional. It is possible to count recommendations and their levels manually, but it is necessary to pay for information access. An automatic counting is not possible.

Post-publication peer review indicators are useful to assess the hidden impact of biomedical research based on the wider peer-review process, and studies (Li & Thelwall, 2012; Waltman & Costas, 2013) have shown positive but weak correlations between F1000 recommendations and citations; however, it only reflects the value of important articles based on positive recommendations and it is restricted to biomedical research. One big advantage of F1000 is that it can identify articles that are important to practitioners even though they are not highly cited (Mohammadi & Thelwall, 2013).

Tweet citations

Citations from Twitter and other microblogging sites can be used as indicators for online interest in publications. Some studies have shown tweet counts to be early predictors of subsequent citation impact (Eysenbach, 2011; Thelwall et al., 2013). Manual counting of tweet citations is possible, for example with search.twitter.com, but it is limited to last seven days, so it is not practical if it is not made in a continuous process. Thus, for comprehensive data a service like ImpactStory.org or altmetric.com can be used. Other limitations are that tweets might be manipulated and affected by spam and that some tweet counts may be high for articles with peripherally attractive features, such as funny titles.

Posts in social network sites

Posts from Facebook or other network sites that cite or link to an article can also be used for indicators of online interest. Although less research has been carried out on them, it seems reasonable to expect Facebook status updates to have similar advantages and limitations as tweets (Thelwall et al., 2013).

Video comments and views

Online videos are increasingly important tools for scholarly communication. Views of, and comments on, online videos such as course lectures can be used as indicators of interest in the videos. Views counts displayed underneath videos in YouTube and TedTalks and similar sites are possible indicators of interest (Kousha et al., 2012; Sugimoto & Thelwall, 2013) but these are weak indicators of value because a video can easily attract a lot of worthless attention for being funny, whereas another video might only have a few viewers but convey important information to them.

Conclusions

Different web-based methods can be added to ACUMEN Portfolios to complement traditional metrics. It seems that webometric indicators reflect some types of research and teaching impact not measured by traditional metrics. Altmetric indicators seem to be more oriented to social impact and interest. Although web-based indicators are often not very reliable, they are nevertheless useful to complement conventional bibliometric measures by giving evidence of types of impact that are not well reflected by bibliometric indicators.

Table 2. Web impact indicators for individual research assessment.

Broad type of indicator	Specific type of indicator	Type of impact	Source	Type of evidence	Manual counting possible?	Automatic counting possible	Advantages	Limitations
Webometric indicator	Web citations	Research and teaching impact	Commercial search engines	Citations from online scholarly publications.	Yes	Yes	Correlated with traditional citations (Kousha & Thelwall, 2006, in press-c).	Non-standard reasons for citation creation (Kousha & Thelwall, in press-c).
		Specific sources:						
		Research impact	Google or Bing	Citations from online presentations ****	Yes	Yes	- Can be covered both scientific and educational presentations. (see also Thelwall & Kousha, 2008)	Many scholarly presentations are not online and some are online in general formats that can't be specifically searched for.
		Teaching impact	Google or Bing	Citations from online syllabuses ****	Yes	Yes	- It assesses the educational utility of publications, which is not assessed by traditional methods (Kousha & Thelwall, 2008).	- Most of academic course syllabuses are not free online. - Some false matches that need manual checking. - Results will exclude non-English syllabuses that do not use terms like "reading list"
	URL citations/ title mentions	General impact	The web	Inclusion of a specific article or home page URL/title in the text of a web page. **	No	Yes	URLs are unique (Kousha & Thelwall, in press-c).	Cannot crawl hyperlinked citations embedded in images or titles of online documents (Kousha & Thelwall, in press-c). Matches could be from irrelevant or automatically generated documents (e.g., publisher catalogs)

Altmetric indicator	Usage data (views, downloads, readers)	Usage impact	Academic web sources	Number of downloads or views from different academic web sources. ****	Depending on the source.	Depending on the source.	- Faster indicators than citation analyses (Bollen et al., 2009). - May show how often online research is read. - Early usage statistics can be predictors of later citations (Bollen & Van De Sompel, 2008; Brody et al., 2006). - High quality information, if available.	- Data owners do not usually share usage data (Haustein & Siebenlist, 2011). - Usage data does not measure the same as citations (this can be an advantage since usage may reflect a different type of impact). - Not all downloaded articles are read (Neylon & Wu, 2009). - Downloads and views can be inflated.
			Specific sources					
		Usage impact Social impact	Digital libraries, journals, online databases, institutional sites	Number of downloads or views from digital libraries, online databases, journals, institutional sites. ****	Yes, but usually paying for it.	Yes, with permission from data owner.	- High quality information.	- May have to pay for access or data may not be available.
			Web-based scholarly tools	Academia.edu: document views and profile views. *** ResearchGate: Publications views and full-text downloads. *** Note: LinkedIn is not recommended as it has no relevant statistics.	Yes	Yes	- Free access to data (in ResearchGate it is necessary to be registered) - Measure the use of author's publications.	- Many scholars do not use these tools. - Many scholars using these tools do not register their publications, and many of them do not provide the full-text. - Not all downloaded articles are read. - Data can be easily manipulated.
				Mendeley: Readers of publications added to users' libraries in the tool.	Yes	Yes	- Significant correlations between the user counts in Mendeley and CiteULike	- Only a small percentage of article readers register with Mendeley.

			Other web-based social reference sharing sites (e.g. CiteUlike). ***			and citation counts in WoS and Google Scholar (Li et al., 2012).	Unknown bias in terms of types of users. Not known why users bookmark publications in reference managers.
			SlideShare (or other presentation-sharing sites): Number of views. ***	Yes	Yes	Probably evidence of impact on education and perhaps also the public.	Unknown indicator. Useful only if provides evidence of wide use.
Blog citations	Research impact Social impact	Scientific blogs	Number of scientific blog posts citing a publication. ***	Yes	No	Early evidence of the scientific impact on the public and possibly also its wider impact (Shema et al., 2012). Early blog citations can predict future formal citations.	May be exaggerated for articles with peripherally attractive features, such as funny titles.
Web recommendations	Research and applied impact	Faculty of 1000	Recommend important publications. *****	Yes	No	- Useful to assess the hidden impact of biomedical research based on wider peer-review process. - Correlation (but weak) between F1000 recommendations and citations (Waltman & Costas, 2013).	- Each article can be assigned to more than one subject area. - Only reflects the value of important articles based on positive recommendations. - Restricted to biomedical sciences.
Tweet citations	Social impact	Twitter and other microblogging sites	Citations or links to articles from Twitter. **	Yes	Yes	- Tweet counts seem to be early predictors of subsequent citation impact (Eysenbach, 2011). - May also indicate wider public interest in some work.	- Limited to last 7 days. - For comprehensive data, either, need to continually monitor Twitter or pay to access tweets older than 7 days. - Tweets might be manipulated and affected

							by spam. - May be exaggerated for articles with peripherally attractive features, such as funny titles.
	Posts in social network sites	Social impact	Facebook and other social network sites	Facebook wall posts linking to articles. **	No	Yes	Probably the same as for Twitter.	Probably the same as for Twitter.
	Video comments and views	Social impact	YouTube TedTalks	Views and comments from online videos such as course lectures. ***	Yes	Yes, for YouTube	- It is a non-traditional method of dissemination that might otherwise be ignored. -Lectures, lab experiments, and other visual outputs or artistic outputs might be valuable for impact assessment (Kousha et al., 2012; Sugimoto & Thelwall, 2013).	- Few scholars put effort into video creation so this is not useful to compare researchers. - Statistics can be manipulated.

***** High quality source; **** Medium-high quality source; *** Medium quality source – fairly easy to manipulate; ** low quality source – fairly easy to manipulate and lots of irrelevant content;

Researchers may also be evaluated on whether they attempt to disseminate their research on the web, irrespective of the success of such attempts. Table 3 lists some types of web presence that may be evaluated.

Table 3. Web research dissemination and publicity indicators for individual research assessment.

Source	Type of evidence of attempts at research dissemination (not impact)	Advantages	Limitations
Traditional web presence	Simple possession of a web CV including a list of publications, even without links to full-text copies of them.	Possession of a basic web presence is important for researchers but not all have one (Mas-Bleda et al., 2014).	Some web presences may be automatically generated by institutions with no effort by the researcher.
Social web presence	Simple ownership of an academic web presence in one or more social network sites.	Possession of a social web presence can be an advantage for researchers but not all have one (Mas-Bleda et al., 2014).	Some disciplines may not use the social web at all or only some parts of it.
Academic CVs, publication lists or homepages	Link to open access (OA) papers, academic discussions, or other scholarly contents such as blog posts or videos helping to disseminate research.	Simple and shows attempt at dissemination of research results by academics and departments. See also Kousha & Thelwall, in press-b)	Does not measure the success of the dissemination attempt
Google citation profile	Possession of a profile in Google Scholar	Simple and shows attempt at dissemination of research results by academics.	Does not measure the success of the dissemination attempt.

Introduction to the use scenarios

The next four sections describe fictional contexts in which an ACUMEN Portfolio might be used and gives an example of a completed portfolio for each case. The ACUMEN Portfolio template is at the very end of this document and the ACUMEN Portfolios for the use cases are completed versions of it.

Two of the use cases are based upon the fictional junior researcher Dr. Peter Kaufmann and two are based upon the fictional Prof Alice Ravenscroft. The two different ACUMEN Portfolios for each one give an idea about how ACUMEN Portfolios may be customised for particular tasks and how evaluators might decide to request a cut-down Portfolio rather than a complete portfolio in some cases.

Use Scenario 1A: Peter applies for an associate professor position

Introduction and explanation of context

Peter Kaufmann applies for a tenure-track associate professor position in Germany at the Max Planck Institute for the History of Science

Since his PhD in 2003, Peter has moved from one temporary position to another, meanwhile working on his habilitation and aiming for a permanent/professor position. (In Germany permanent positions in universities are rare unless one becomes professor.) A colleague tipped him about a position opening up at the Institute for the History of Science. He sees an opportunity to find permanent employment. Since phenomenology deals with the understanding and experience of phenomena, it is not far from the study of science. In addition, his PhD thesis research had a strong historical component, so Peter decides to apply. Moreover, he noticed that the institute shows an increasing interest in the use of digital tools, which fits his interests and expertise.

The position Peter is applying for is an associate professorship in Philosophy at the Institute for the History of Science. The successful candidate must have the following credentials:

- A commitment to public presentation and dissemination of the history of science-related topics
- An interest in interdisciplinary, collaborative research using new technologies to communicate knowledge
- Expertise in the history of science preferred.
- Present evidence of experience in program management
- Is required to have a Ph.D.
- Habilitation (or almost finished) is required
- Have an established research agenda and a clear potential for external funding

- Potential for scholarship to complement and expand existing expertise in the department.
- He/she must demonstrate experience working in and fostering a diverse faculty, staff, and student environment, or show a commitment to do so as a faculty member at the Institute for the History of Science

Specific ACUMEN portfolio guidelines

The evaluation committee decided to request a full ACUMEN Portfolio from all candidates. The rationale for this decision was that the history of science researchers can contribute in a wide variety of ways to the discipline and they felt that any restrictions might disadvantage candidates with one specific type of expertise. The institute is particularly keen to engage young researchers that can engage effectively with the social web and so they decided to keep all the web indicators, even though they may be time consuming to complete. The committee sent the following guidelines to all candidates.

Note for applicants: The evaluation committee is aware that the indicators in the influence sub-portfolio have a low level of reliability in the field of Philosophy. This is due to a low citation culture, low coverage in citation databases and preference to publish in books in national languages. However, this sub-portfolio must be included as the position demands skills in presentation and dissemination of knowledge using new technologies. Please contextualize the indicators in the influence portfolio that document your communication activities in the narrative. Likewise, please pay special attention to the expertise sub-portfolio, sections communication, organizational and technological expertise.

Peter Kaufmann's ACUMEN portfolio for an associate professorship

Name: Dr. Peter Kaufmann   **Email address: p.k@madeupperson.de**   **Date of portfolio: 17 Jan 2014**

Part 1: Narrative and academic age calculation

Part 1a: Narrative

Phenomenology has been my primary interest ever since I moved into the field of philosophy. Recently I noticed that many of my projects and interests within phenomenology and philosophy deal with the historical development of these fields and I became interested in developing this into a research agenda. It started with my first project on Early Modern Philosophy of Emotions. Next, my PhD research focused on early modern phenomenology, and later I did a project on the comparison of Medieval and Modern Theology. About four years ago, I noticed an almost paradigmatic change in phenomenology

related to the end of modernity and the new world of the network society, World Wide Web and mobile computing. I developed this idea into a project proposal ("Phenomenology and post-modern society") for which I successfully acquired funding at the German Research Council. The project is the corner stone for my forthcoming habilitation.

Not all of my work concerns the history of phenomenology or any other science. I have moved from project to project, in part following job opportunities and thus adapting to other researchers' agendas. This experience trained me in the flexibility to address a wide range of topics and adapt easily to new work-environments. In the course of time, I also successfully develop project applications in collaboration with my supervisors. Thus, I was more and more able to follow my own research interests, as mentioned above, with the "Phenomenology and post-modern society" project as most recent pinnacle.

The use of internet and social media has drawn my interest since the late 1990s when I started my career. I've been a web-designer, web-master and forum moderator for a number of projects and organizations, and I maintain a weblog on phenomenology, addressing both societal issues and philosophical topics. I hope to continue and further develop such activities and investigate how they can be applied in historical research. For example, in the "Phenomenology and post-modern society" project I not only use such technologies to manage and communicate with my research team, but also to process data and present the project to other actors.

Part 1b: Academic age calculation	Information
Start date of PhD: _1__ /_Jan___/__2000___ Date of PhD defence: __1_ /__Jan__/__2003___ Number of children raised after PhD defence: 2 Special allowances (describe below): 0 **Academic Age** = 11 − 2 x 0.5 − 0 = 10 years (min. 1 year)	The academic age calculation helps the evaluator to mentally adjust their expectations based upon someone's academic age. The minimum permitted Academic Age is 1 in all cases, even for those without a PhD. Some researchers do not have a PhD or start researching before obtaining a PhD so the start date is the date of the first academic job, if earlier than the PhD defence and for researchers without a PhD. Academic jobs include assistant/associate/full professorships, lecturers, reader and similar, researcher and research-related posts in academic organisations and teaching positions in academic institutions. If you have a special case, such as a graduate research job with an embedded PhD, please explain it in this box. Part-time work means being employed on a fractional post in academia and either working

Number of full-time years worked (count % of full time for part-time years) since PhD defence or 1st acad. job – Number of children raised – special allowances Justification for special allowances (if any): NB. You **can** include in your Portfolio things that you did before your PhD defence.	outside academia in parallel or not having another job. Working as a project administrator, web designer, teacher or any other semi-academic task as part of a full-time academic contract counts as *full-time* academic working, for example. Part-time work should not be claimed for periods in which the child-raising allowance below is counted. *Number of children raised*: Count each child for which you were the single main responsible person during the year from their birth, and who were born after your PhD defence. This allowance can be shared between carers (e.g., 0.5 years per child), if agreed by both. *Special allowances*: Additional special allowances can be subtracted for disability, illness-related time off work (> 6 months), carer responsibilities, non-academic jobs (e.g., military service) or other unusual cases. These must be explicitly justified by the portfolio owner. Claims are at the discretion of the portfolio owner and should be within the spirit of supporting equal opportunities. See related UK discussions: http://www.ecu.ac.uk/documents/ref-materials. No allowances are made for teaching or for management at the department level or below.

Part 2: Expertise sub-portfolio

Expertise	Sub-factor	Claim and evidence [delete the help text in most cases and replace it with your text]
Scientific/ scholarly expertise	Theoretical	I have specialised in phenomenology and applied that in many of my projects. See in particular my PhD thesis (Kaufman, P. (2005) A history of early modern phenomenology. PhD thesis, Department of Philosophy, Goethe University Frankfurt am Main), and the papers (Kaufman, P. (2008) 'Phänomenologie in der rationalen Entscheidungsfindung'. In *Polylog - Zeitschrift für Kulturphilosphie*; Kaufman, P. (2008) "Phenomenology of decision making". In Görter, A. (ed.) *Introduction to phenomenology*. Springer, pp. 142-160.) based on the projects in 2007 (at the Centre for Language and Logic) and my latest project on Phenomenology and post-modern society (Kaufman, P. (2012) A second-order understanding of phenomenology. In *Proceedings of the 51st Society for Phenomenology and Existential Philosophy (SPEP) Conference*; Kaufman, P. (2013) Camus' phenomenology in postmodernist thinking. In Rover,

		E. & Wakeham, P. (Eds.) 'New philosophy'. Macmillan.).
	Subject	I have a thorough knowledge of phenomenology, which I have acquired while doing my PhD and which I applied and further developed in at all the projects I did afterwards.
	Methodological	Because my research is mostly theoretical, methodological expertise is not present except for methods of historical/archival research related to empirical expertise.
	Empirical	Although most of my research is theoretical, some projects involved empirical research, in history, language studies and sociology. I visited the Descartes archive for archival study (Kaufman, P. (2012) 'Descartes and the phenomenological tradition' In Adams, C. & Kaufman, P. (2012) *Decartes: eine Studie der ausgewählten Werke*. Hannover: Mainer Verlag) Secondly, I participated in a project at the 'Center for Language and Logic' which made me familiar with intricacies of big collections of language data and their analysis, and thirdly, I joined the project 'Social Philosophy and Environmental Policy', which created a lot of discussion data through the on-line forum (Kaufman, P. (2007) 'Environmental issues in every-day practice as discussed in on-line fora'. In Conference proceedings of the 7th International conference on social philosophy)
	Originality / independence	The experience with many different projects made me an interdisciplinary scholar. My discovery of the recent paradigm change in phenomenology shows independence and originality. The € 500.000 grant that I received, including the review reports testify to this.
Knowledge transfer	Reviewing	(a) conference paper reviews: 5 (b) journal articles reviewed (c) 9th International conference on social philosophy; 51st Society for Phenomonenology and Existential Philosophy (SPEP) Conference
	Entrepreneurship	List entrepreneurship activities undertaken, such as launch or participation in spin-offs, and joint projects

		with industry, NGOs or government (list top 3).
Educational expertise	Courses taught or developed	(a) Approximate number of hours spent lecturing to a class (not including preparation or 1-1 supervision) 30. (b) Two introductory courses in phenomenology and one course on the topic of free will. All three courses consisted of a series of lectures and were examined through essay exams. • Lectures on Phenomenology at the Department of Philosophy, Goethe University Frankfurt am Main, 2001 • Lectures on Free will, at the Department of Philosophy, Goethe University Frankfurt am Main, 2003 • Introduction to Phenomenology, at the Department of Philosophy, Goethe University Frankfurt am Main, 2009
	Other educational expertise	Think about what the expertise is and support your claim with references to, for example, summer schools, field trips, internship supervisions.
Technological expertise	Methods	Write a few sentences briefly summarising your **technological methods** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it.
	Tools + lab equipment	Write a few sentences briefly summarising your **tools + lab equipment** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it.
	Software	Basic software: MS Office, OpenOffice, e-mail, web browsers, etc. (learning by using in all my projects) Web-design software: Adobe Go-Live (project 'Social Philosophy and Environmental Policy', 2005-2006), NetObjects Fusion (self-taught) Forum and blog software: UBB threads (project 'Social Philosophy and Environmental Policy', 2005-2006), WordPress (my blog at phenomenology.wordpress.com)

		Text and language analysis: Systematic Analysis of Language Transcripts (SALT), ProSuite
	Data management or data curation	Write a few sentences briefly summarising your **data management or data curation** expertise. Include evidence to support your claim, such as citing a paper, project, or a contract in which you used it.
Communication expertise	Languages	German (native tongue) English (proficient)
	Presentations	Keynote/invited talks at institutions other than your own or at conferences (list top 3):
	Writing	Awards for papers (list top 3):
	Public engagement	Examples of video or audio media interviews (list top 3):
Organisational expertise	Management	Description of management roles undertaken (list top 3): This includes planning, organizing, staffing, or leading a group of people.
	Advising	Visits to other institutions (universities or other) and the type of advice given (list top 3):
	Project leadership	Project on Phenomenology and post-modern society (2011 - present), 3 team-members and 6 additional collaborators from the department
	Collaboration	Project 'Social Philosophy and Environmental Policy' (2005 - 2006). 4 people team, local Project on Medieval and Modern Theology (2007 - 2010), 10 people national team Project on Phenomenology and post-modern society (2011 - present), 3 people, local team

	Administration and committee work	Administrative roles undertaken, including committee membership, chair or secretary roles, organising workshops or conferences, organising online discussions (list top 3):
Other		Other types of relevant expertise not covered above (list top 3, explaining each one):

Part 3: Output sub-portfolio

Output	Sub-factor	Claim and evidence
Scholarly outputs	Books	Number of scholarly books or theses published (exclude self-published): 3 List of books published (list top 3): - Adams, C. & Kaufman, P. (eds.)(2012) *Ausgewähtle Vorträge in postmoderne Phenomenology*. Press of the Goethe University Frankfurt am Main - Kaufman, P. (ed.)(2009) *Neue Themen in Deutsche Philosophy*. Marburg: Deutsche Gesellschaft für Philosophie - Bernhard, K. & Kaufman, P. (eds) *The end of phenomenology?* München: Diederichs Verlag.
	Book chapters	Number of book chapters published: 1 List of book chapters published (list top 3): - Kaufman, P. (2007) Phenomenology revisited. p 86 - 110
	Reviews	Number of book reviews published: 7
	Editorials	Number of editorials published: 0
	Journal articles	Number of refereed journal articles or fully refereed complete conference papers published: 22 List of refereed journal articles or fully refereed full conference papers published (list top 3): - Kaufman (2008) Transitions in European phenomenology. In *Science Studies*, vol 12. pp 342 - 378. - Kaufman, P. (1994) Critical phenomenology in historical perspective. In *Journal of the British Society for Phenomenology*, vol 25, pp 256-270 - Kaufman, P. (2010) More than Adequate. In *Deutsche Zeitschrift für Philosophie*. Vol 60, p. 233-267

	Conference papers	Number of conference abstracts, panel discussions or posters published: 5 Ignore unpublished conference papers.
Communication to the general public	Press stories	Number of magazine or newspaper articles published (written by you, not about you): 3 List of magazine or newspaper articles published (by you, not about you) (list top 3) : - Kaufman, P. (2003) 'Philosophie Studieren in Deutschland' (Studying philosophy in Germany). *Die Zeit* 14-8-2003 - Kaufman, P. (2002) 'Betrachtungen nach der Einführung des Euro' (Reflections after the introduction of the Euro.) *Der Spiegel*. vol 52, issue 34 (on-line) - Kaufman, P. (1997) Was die Wende hat zur Philosophie in Deutschland. (What the merger of East and West Germany meant for philosophy) In *Focus*, Vol 64, issue 20, pp 23-25.
	Encyclopedia articles	Number of encyclopedia articles published (excludes Wikipedia and similar): 0 List of encyclopedia articles published (list top 3) Can give examples of contributions made to Wikipedia as part of these:
	Popular books / articles	Number of popular books or articles published: _____ List of popular books or articles published (list top 3).
	Other	Radio broadcast: Kaufman, P. (2007) Eine Diskussion zwischen einem Philosophen und Politiker (A discussion between myself and a politician) - Radio broadcast Kaufman, P. (2010) Sacrifice in daily affairs. Blog post in *philosophical_daily.wordpress.com* Kaufman, P. (2012) What good will it do? Blogs for philosophy - in German. *www.changing_world*.org Kaufman, P. (2011) A networked world - in German. Article in *www.changing_world.org* Kaufman, P. (2009) Phenomenology's turn - in German. Article in *www.changing_world.org* Kaufman, P. (2008) What we see when we act - in German. Article in *www.changing_world.org* Kaufman, P. (2007) A run for natural resources - in German. Article in *www.changing_world.org*
Teaching	Books	Number of textbooks published (exclude self-published): _____ List of textbooks published (list top 3):

	Online courses	List of online courses created (includes MOOCs), including creation date, type of materials generated and number of students per year (list top 3):
	Students completed	Undergraduate students supervised as main supervisor that have now graduated: _____ students
		Master's students supervised as main supervisor that have now graduated: _____ students
		PhD students supervised as main supervisor that now have their doctorate: _____ students
Web and social media academic communication	Online presence	Blog: phenomenology.wordpress.com (2 posts per month) Twitter: @phenomenology_every_day (countless) List your online presence: accounts in social media used for academic purposes, academic network accounts, digital repository accounts, websites that you created or use to create output. If it applies, mention per site how active you are in posts per year or month (e.g., twitter, blogs, ResearchGate, SlideShare) (list top 3)
	Online contributions	Give examples of other online contributions to scholarly discussions that you made here. Do not repeat information given above (list top 3):
Datasets, software, tools, instruments	Datasets	Number of datasets published: _____ Brief description of datasets published (list top 3):
	Software, tools, instruments	Number of software, tools and instruments developed: _____ Brief description of software, tools and instruments developed (list top 3):
Registered intellectual or industrial rights	Patents	Number of patents, standards, guidelines published: _____ Brief description of patents, standards, guidelines published (list top 3):
	Discoveries	Number of registered discoveries, such as animal species, celestial bodies, DNA sequences, algorithms: _____ Brief description of registered discoveries (list top 3):

| Funding & Grants | Funding | Number of projects funded: 6
Total grant funding received (do not count funding allocated to other universities, and if there were multiple applicants in your own university, divide the funding by the number of applicants): 821.000
Brief description of funded projects (list top 3):
- German Research Foundation grant (€ 500.000) for a four year post-doctoral position. The project is about Phenomenology in the post-modern society. It finances my current position plus (in part) two research assistants
- One Volkswagen Foundation grant (€ 250.000) for a three-year project leading to my PhD. This was a grant based on an idea flowing from my MA research. |
| Other | | Other types of relevant output not covered above (list top 3, explaining each one): |

Part 4: Influence sub-portfolio

Influence	Sub-factor	Claim and evidence [delete the help text and replace it with your text]
Influence on science	Total and average citations	Total citations received to all publications, as listed in Google Scholar: 10 and average number of citations per paper: 10/36 Total citations received to all publications, as listed in Web of Science or Scopus: 1 citation in WoS (for 7 publications) and average number of citations per paper: 1/7
	Article citations	Total citations to one of your top 3 articles, as listed in Google Scholar: 1, and as listed in Scopus or Web of Science:1 (WoS) (no access to Scopus). Article title: Transitions in European phenomenology. Publication year: 2008 Authors (in order): Kaufman, P.

	h-index	h-index, as listed in Google Scholar: 2 h-index, as listed in Web of Science or Scopus: 1
	Book citations	Total citations to one of your top 3 books, as listed in Google Books: _____ Book name: _____ Publication year: _____ Authors (in order): _____ Total citations to another of your top 3 books, as listed in Google Books: _____ Book name: _____ Publication year: _____ Authors (in order): _____ Total citations to another of your top 3 books, as listed in Google Books: _____ Book name: _____ Publication year: _____ Authors (in order): _____ [To find Google Books citations to a book, search Google Books for the book title and manually scan the results for genuine citations to the work.]
	Age-corrected h-index	m-quotient for Google Scholar: 2/10 m-quotient for Web of Science or Scopus: 1/10
	Multi-authorship compensation	To compensate for multi-authorship, either report (a) or (b) below, which the evaluator will take into account when assessing your citations. a) Average number of authors on publications used in the above calculations (including yourself): 8/6 b) Proportion of publications used in the above calculations for which you were the first author: 4/6
	Scholarly prizes	Scholarly prizes and awards received (local, national and international) (list top 3):
	Editing and reviewing	Your main reviewer, editor or editorial board member tasks (list top 3):

		Editorial board of Zeitschrift für philosophische Literatur, an open-access journal for book reviews
	Committees	Your main conference/program committee memberships (list top 3):
	Online discussions - social web followers	Number of followers, if substantial, in your web presences (e.g., Academia, Blogs, Twitter) (list top 3): Social website name Academia.edu Number of followers: 240 Social website name phenomenology.wordpress.com Number of followers: 40 Social website name Twitter: @phenomenology_every_day Number of followers: 400 Also, report up to 3 interesting web mentions of you or your work that are not already elsewhere in the portfolio:
	Downloads	Article name _____ Number of downloads: N/A Article name _____ Number of downloads: N/A Article name _____ Number of downloads: N/A (top 3 only) Over 3500 views in academia.edu [Downloads can sometimes be found in publisher websites; Put N/A if not available for your top articles; Can also report downloads for electronic reports or other resources instead.]
	Mendeley readers	Article name _____ Number of Mendeley readers: ___ To count Mendeley readers, go to Mendeley.com and search for each publication, recording how many readers it has (list top 3):
	Invited talks	Number of invited keynote talks at conferences outside your country: 0

		Number of invited keynote talks at conferences inside your country: 0 Number of invited talks at universities outside your country: 7 Number of invited talks at other universities inside your country: 12 List of invited talks of all kinds [include name and venue] (list top 3): - A paradigmatic turn in phenomenology. University of Amsterdam, 23 August 2012 - Origins of phenomenology in 18th century philosophy. University of California, Berkeley. 7 September 2008 - The use of social media in philosophy education and research. Practice and potential. German Ministry of Education. 15 April 2001
Influence on society	General public	Number of magazine or newspaper articles published (written about your research, not by you): _____ Examples of magazine or newspaper articles published (about your research, not by you) (list top 3): Examples of web pages published (about your research, not by you) (list top 3, including title and who wrote them):
	Tweets or blog posts about publications.	Article name _____ Number of Tweets of it: ____ (one article only) Tweets can only be monitored in real time but can report them if they are reported in the publisher website or by the Altmetric Bookmarklet, available free at: http://www.altmetric.com/bookmarklet.php. Article name _____ Number of Blog posts about: ____ (one article only)
	Advice	Number of times asked for specialist evidence outside academic, economic and educational contexts, including membership of non-academic, non-educational committees: _____ Examples of giving specialist evidence outside academic, economic and educational contests, including committee memberships (list top 3):
	Professional practice	Examples of professional practice using your subject expertise (e.g., working as a lawyer, nurse) (list top 3):

	Laws, regulations, guidelines	Laws, regulations, guidelines and so forth that have been initiated, developed or amended, at least partly based on your research. Briefly explain how and refer to projects, papers and other evidence of this influence (list top 3):
Influence on economy	Income	Total 3rd stream income (money generated for commercial activities): _____
	Consultancies	Number of consultancy or advisory positions for companies: _____
	Citations from patents	Number of citations to your work from patents: _____ Names of patents citing your work (list top 3):
	Citations *to* patents	Number of citations to your patents (if any) from scholarly documents: _____
	Spin-offs	Number of spin off companies created: ___
Influence on teaching	Awards	Teaching awards, including both within and outside the host institution (list top 3):
	Online views	Number of views of your top 3 SlideShare or YouTube presentations, if substantial. Presentation URL: _____ views: _____
	Syllabus mentions:	Number of online syllabuses or course notes pages listing the academic's works (list top 3). Publication: _____ Syllabuses mentioning: _____

	Textbook sales	Total sales of your textbooks: _____ copies. [Can also report Amazon sales ranks in comparison to similar books instead, if sales figures unavailable (list top 3).]
	Invited lectures	Number of invited lectures to undergraduates at other universities: _____
	Dataset or software downloads	Number of downloads of datasets or applications created by the portfolio owner (list top 3). Name of software/dataset: _____ Number of downloads _____
Other		Other types of relevant influence not covered above (list top 3, explaining each one):

Use Scenario 1B: Peter applies for a three year project

Introduction and explanation of context

Peter applies for a three year project at the German Research Council. Peter's current project will run to an end mid-2015. Although his professor formally applied, Peter had written most of the proposal. So, while applying for available positions, he also applies for projects. Among these is a project grant at the German Council of Science and Humanities. The Council has a program called 'Humanities Centres for Advanced Studies' which aims to finance proposals that "tie into existing interests and strengths at the site, while remaining capable of providing a framework for the association or integration of different individual research concepts"[1]. Peter used his notion of a new paradigm in phenomenology (see Use Scenario 1A) to develop a proposal together with his current project team and a few other members of his group. A new paradigm opens up an entire new space for research, so numerous new projects and concepts can be developed from ideas circulating in the group.

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[1] http://www.dfg.de/en/research_funding/programmes/coordinated_programmes/humanities_centres/index.html

Specific ACUMEN portfolio guidelines

The proposal passed the reviews but the funding program lacks the budget to fund all the successful proposals. It is now up to the program committee to make a selection. For this situation, the committee asked all remaining principal investigators (i.e. main applicants) to prepare their portfolio.

Since the specific target of the funding program 'Humanities Centres for Advanced Studies' is indeed aiming at high-quality curiosity-driven research. This means that portfolio-elements regarding teaching and societal relevance and -influence should not be presented.

Since the program addresses all humanities, Peter's portfolio will be compared to others from different disciplines. Since the proposal passed the review, he knows that the committee will be assessing him as a prospective project leader, and he realizes he has not that much so show for compared to more senior applicants.

Peter Kaufmann's ACUMEN portfolio for a three year project

Name: Dr. Peter Kaufmann   **Email address: p.k@madeupperson.de**   **Date of portfolio: 17 Jan 2014**

Part 1: Narrative and academic age calculation

Part 1a: Narrative

Any Humanities Centre for Advanced Studies requires a form of leadership that on the one hand is loose enough to allow the flourishing of different concepts and projects, and on the other hand guiding enough to ensure coherency and to deliver.

My experience with projects and project leadership allows me to provide exactly that balance. In the course of my career, I have seen many different research projects within phenomenology and the wider discipline of philosophy and beyond (See the sub-factor 'Empirical expertise'). This provided me with an open attitude towards different ways of thinking, reading, philosophical analysis and argumentation. Admittedly, my experience with project management and leadership is not particularly big, compared to what one may see in fields as engineering and perhaps also other fields in the humanities. German philosophy in my view has traditionally not been a discipline of team work. Rather, single professors would individually address topics all by themselves and perhaps have a few assistants to deal with isolated sub-topics, again on individual basis. As it happens, my relatively young

career coincides with a small-but-visible trend-change in the modus-operandi in philosophy. Not only are some projects set up on cooperative basis, but philosophy has made an 'empirical turn' (orienting it more to the real world and its problems) and explores new ways of working with internet-based tools and the Web 2.0.

A good example of this is my current project, titled 'Phenomenology and post-modern society' in which I coordinate a dedicated research team consisting of a couple of assistants (one post-doc and one PhD student) and a handful of direct colleagues participate on voluntary basis. Besides addressing new topics for philosophical and phenomenological investigation, I closely watch progress. Although individual team members have freedom to pursue their own agenda, I instil a work-attitude that involves deadlines for papers and project deliverables. Within two years, the project proved remarkably effective when compared to others in the department and the faculty. The project's mid-term review was conducted half a year ago and has the highest score possible: excellent.

Part 1b: Academic age calculation	Information
Start date of PhD: _1__ /_Jan___/__2000___ *Date of PhD defence: __1_ /__Jan__/__2003___* *Number of children raised after PhD defence: 2* *Special allowances (describe below): 0* ***Academic Age*** *= 11 − 2 x 0.5 − 0 = 10 years (min. 1 year)* *Number of full-time years worked (count % of full time for part-time years) since PhD defence or 1st acad. job – Number of children raised – special allowances* Justification for special allowances (if any):	The academic age calculation helps the evaluator to mentally adjust their expectations based upon someone's academic age. The minimum permitted Academic Age is 1 in all cases, even for those without a PhD. Some researchers do not have a PhD or start researching before obtaining a PhD so the start date is the date of the first academic job, if earlier than the PhD defence and for researchers without a PhD. Academic jobs include assistant/associate/full professorships, lecturers, reader and similar, researcher and research-related posts in academic organisations and teaching positions in academic institutions. If you have a special case, such as a graduate research job with an embedded PhD, please explain it in this box. Part-time work means being employed on a fractional post in academia and either working outside academia in parallel or not having another job. Working as a project administrator, web designer, teacher or any other semi-academic task as part of a full-time academic contract counts as *full-time* academic working, for example. Part-time work should not be claimed for periods in which the child-raising allowance below is counted. *Number of children raised*: Count each child for which you were the single main responsible

NB. You **can** include in your Portfolio things that you did before your PhD defence.	person during the year from their birth, and who were born after your PhD defence. This allowance can be shared between carers (e.g., 0.5 years per child), if agreed by both. *Special allowances*: Additional special allowances can be subtracted for disability, illness-related time off work (> 6 months), carer responsibilities, non-academic jobs (e.g., military service) or other unusual cases. These must be explicitly justified by the portfolio owner. Claims are at the discretion of the portfolio owner and should be within the spirit of supporting equal opportunities. See related UK discussions: http://www.ecu.ac.uk/documents/ref-materials. No allowances are made for teaching or for management at the department level or below.

Part 2: Expertise sub-portfolio

Expertise	Sub-factor	Claim and evidence [delete the help text in most cases and replace it with your text]
Scientific/ scholarly expertise	Theoretical	Philosophy is a mostly theoretical field. I have specialised in phenomenology and applied that in many of my projects. See in particular my PhD thesis (Kaufman, P. (2005) A history of early modern phenomenology. PhD thesis, Department of Philosophy, Goethe University Frankfurt am Main), and the papers (Kaufman, P. (2008) 'Phänomenologie in der rationalen Entscheidungsfindung'. In *Polylog - Zeitschrift für Kulturphilosphie*; Kaufman, P. (2008) "Phenomenology of decision making". In Görter, A. (ed.) *Introduction to phenomenology*. Springer, pp. 142-160.) based on the projects in 2007 (at the Centre for Language and Logic) and my latest project on Phenomenology and post-modern society (Kaufman, P. (2012) A second-order understanding of phenomenology. In *Proceedings of the 51st Society for Phenomenology and Existential Philosophy (SPEP) Conference*; Kaufman, P. (2013) Camus' phenomenology in postmodernist thinking. In Rover, E. & Wakeham, P. (Eds.) 'New philosophy'. Macmillan.).
	Subject	I have a thorough knowledge of phenomenology, which I have acquired while doing my PhD and which I applied and further developed in at all the projects I did afterwards.

	Methodological	Because my research is mostly theoretical, methodological expertise is not present except for methods of historical/archival research related to empirical expertise.
	Empirical	Although most of my research is theoretical, some projects involved empirical research, in part historical research. Notably, I visited the Descartes archive for archival study (Kaufman, P. (2012) 'Descartes and the phenomenological tradition' In Adams, C. & Kaufman, P. (2012) *Decartes: eine Studie der ausgewählten Werke*. Hannover: Mainer Verlag) Secondly, the project 'Social Philosophy and Environmental Policy' created a lot of discussion data through the on-line forum (Kaufman, P. (2007) 'Environmental issues in every-day practice as discussed in on-line fora'. In Conference proceedings of the 7th International conference on social philosophy)
	Originality / independence	Being dependent in part on available posts and projects, required me to learn to apply phenomenology to many different fields. My discovery of the recent paradigm change in phenomenology shows independence and originality. The € 500.000 grant that I received, including the review reports testify to this.
Knowledge transfer	Reviewing	(d) conference paper reviews: 5 (e) journal articles reviewed (f) 9th International conference on social philosophy; 51st Society for Phenomonenology and Existential Philosophy (SPEP) Conference
	Entrepreneurship	List entrepreneurship activities undertaken, such as launch or participation in spin-offs, and joint projects with industry, NGOs or government (list top 3).
Technological expertise	Methods	Write a few sentences briefly summarising your **technological methods** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it.
	Tools + lab	Write a few sentences briefly summarising your **tools + lab equipment** expertise. Include evidence to

	equipment	support your claim, such as citing a paper, project or a contract in which you used it.
	Software	Basic software: MS Office, OpenOffice, e-mail, web browsers, etc. (learning by using in all my projects) Web-design software: Adobe Go-Live (project 'Social Philosophy and Environmental Policy', 2005-2006), NetObjects Fusion (self-taught) Forum and blog software: UBB threads (project 'Social Philosophy and Environmental Policy', 2005-2006), WordPress (my blog at phenomenology.wordpress.com) Text and language analysis: Systematic Analysis of Language Transcripts (SALT), ProSuite
	Data management or data curation	I was the forum moderator of the project 'Social Philosophy and Environmental Policy' (2005 - 2006). As moderator I was also responsible for the curation of the forum discussions.
Communication expertise	Languages	German (native tongue) English (proficient)
	Presentations	Keynote/invited talks at institutions other than your own or at conferences (list top 3):
	Writing	Awards for papers (list top 3):
Organisational expertise	Management	Description of management roles undertaken (list top 3): This includes planning, organizing, staffing, or leading a group of people.
	Advising	Visits to other institutions (universities or other) and the type of advice given (list top 3):

	Project leadership	Project on Phenomenology and post-modern society (2011 - present), 3 people, local team
	Collaboration	Project 'Social Philosophy and Environmental Policy' (2005 - 2006). 4 people team, local
		Project on Medieval and Modern Theology (2007 - 2010), 10 people national team
		Project on Phenomenology and post-modern society (2011 - present), 3 people, local team
	Administration and committee work	Administrative roles undertaken, including committee membership, chair or secretary roles, organising workshops or conferences, organising online discussions (list top 3):
Other		Other types of relevant expertise not covered above (list top 3, explaining each one):

Part 3: Output sub-portfolio

Output	Sub-factor	Claim and evidence
Scholarly outputs	Books	Number of scholarly books or theses published (exclude self-published): 3 List of books published (list top 3): - Adams, C. & Kaufman, P. (eds.)(2012) *Ausgewähtle Vorträge in postmoderne Phenomenology*. Press of the Goethe University Frankfurt am Main - Kaufman, P. (ed.)(2009) *Neue Themen in Deutsche Philosophy*. Marburg: Deutsche Gesellschaft für Philosophie - Bernhard, K. & Kaufman, P. (eds) *The end of phenomenology?* München: Diederichs Verlag.
	Book chapters	Number of book chapters published: 1 List of book chapters published (list top 3): - Kaufman, P. (2007) Phenomenology revisted. p 86 - 110
	Reviews	Number of book reviews published: 7

	Editorials	Number of editorials published: 0
	Journal articles	Number of refereed journal articles or fully refereed complete conference papers published: 22 List of refereed journal articles or fully refereed full conference papers published (list top 3): - Kaufman (2008) Transitions in European phenomenology. In *Science Studies*, vol 12. pp 342 - 378. - Kaufman, P. (1994) Critical phenomenology in historical perspective. In *Journal of the British Society for Phenomenology*, vol 25, pp 256-270 - Kaufman, P. (2010) More than Adequate. In *Deutsche Zeitschrift für Philosophie*. Vol 60, p. 233-267
	Conference papers	Number of conference abstracts, panel discussions or posters published: 5 Ignore unpublished conference papers.
Web and social media academic communication	Online presence	Blog: phenomenology.wordpress.com (2 posts per month) Twitter: @phenomenology_every_day (countless) List your online presence: accounts in social media used for academic purposes, academic network accounts, digital repository accounts, websites that you created or use to create output. If it applies, mention per site how active you are in posts per year or month (e.g., twitter, blogs, ResearchGate, SlideShare) (list top 3)
	Online contributions	Give examples of other online contributions to scholarly discussions that you made here. Do not repeat information given above (list top 3):
Datasets, software, tools, instruments	Datasets	Number of datasets published: _____ Brief description of datasets published (list top 3):
	Software, tools, instruments	Number of software, tools and instruments developed: _____ Brief description of software, tools and instruments developed (list top 3):
Registered intellectual or industrial rights	Discoveries	Number of registered discoveries, such as animal species, celestial bodies, DNA sequences, algorithms: _____ Brief description of registered discoveries (list top 3):
Funding & Grants	Funding	Number of projects funded: 6

		Total grant funding received (do not count funding allocated to other universities, and if there were multiple applicants in your own university, divide the funding by the number of applicants): 821.000 Brief description of funded projects (list top 3): - German Research Foundation grant (€ 500.000) for a four year post-doctoral position. The project is about Phenomenology in the post-modern society. It finances my current position plus (in part) two research assistants - One Volkswagen Foundation grant (€ 250.000) for a three-year project leading to my PhD. This was a grant based on an idea flowing from my MA research.
Other		Other types of relevant output not covered above (list top 3, explaining each one):

Part 4: Influence sub-portfolio

Influence	Sub-factor	Claim and evidence [delete the help text and replace it with your text]
Influence on science	Total and average citations	Total citations received to all publications, as listed in Google Scholar: 10 and average number of citations per paper: 10/36 Total citations received to all publications, as listed in Web of Science or Scopus: 1 citation in WoS (for 7 publications) and average number of citations per paper: 1/7
	Article citations	Total citations to one of your top 3 articles, as listed in Google Scholar: 1, and as listed in Scopus or Web of Science:1 (WoS) (no access to Scopus). Article title: Transitions in European phenomenology. Publication year: 2008 Authors (in order): Kaufman, P.
	h-index	h-index, as listed in Google Scholar: 2

		h-index, as listed in Web of Science or Scopus: 1
	Book citations	
	Age-corrected h-index	m-quotient for Google Scholar: 2/10 m-quotient for Web of Science or Scopus: 1/10
	Multi-authorship compensation	To compensate for multi-authorship, either report (a) or (b) below, which the evaluator will take into account when assessing your citations. a) Average number of authors on publications used in the above calculations (including yourself): 8/6 b) Proportion of publications used in the above calculations for which you were the first author: 4/6
	Scholarly prizes	Scholarly prizes and awards received (local, national and international) (list top 3):
	Editing and reviewing	Your main reviewer, editor or editorial board member tasks (list top 3): Editorial board of Zeitschrift für philosophische Literatur, an open-access journal for book reviews
	Committees	Your main conference/program committee memberships (list top 3):
	Online discussions - social web followers	Number of followers, if substantial, in your web presences (e.g., Academia, Blogs, Twitter) (list top 3): Social website name Academia.edu Number of followers: 240 Social website name phenomenology.wordpress.com Number of followers: 40 Social website name Twitter: @phenomenology_every_day Number of followers: 400

		Also, report up to 3 interesting web mentions of you or your work that are not already elsewhere in the portfolio:
	Downloads	Article name _____ Number of downloads: N/A Article name _____ Number of downloads: N/A Article name _____ Number of downloads: N/A (top 3 only) Over 3500 views in academia.edu [Downloads can sometimes be found in publisher websites; Put N/A if not available for your top articles; Can also report downloads for electronic reports or other resources instead.]
	Mendeley readers	Article name _____ Number of Mendeley readers: ___ To count Mendeley readers, go to Mendeley.com and search for each publication, recording how many readers it has (list top 3):
	Invited talks	Number of invited keynote talks at conferences outside your country: 0 Number of invited keynote talks at conferences inside your country: 0 Number of invited talks at universities outside your country: 7 Number of invited talks at other universities inside your country: 12 List of invited talks of all kinds [include name and venue] (list top 3): - A paradigmatic turn in phenomenology. University of Amsterdam, 23 August 2012 - Origins of phenomenology in 18th century philosophy. University of California, Berkeley. 7 September 2008 - The use of social media in philosophy education and research. Practice and potential. German Ministry of Education. 15 April 2001

	Laws, regulations, guidelines	Laws, regulations, guidelines and so forth that have been initiated, developed or amended, at least partly based on your research. Briefly explain how and refer to projects, papers and other evidence of this influence (list top 3):
Other		Other types of relevant influence not covered above (list top 3, explaining each one):

Use Scenario 2A: Alice applies for a professorship

Introduction and explanation of context

Alice Ravenscroft applies for a professor position in her home country, the UK

After 10 years as lecturer, Alice's career seemed to have speeded up. Within three years, she moved from lecturer to senior lecturer when she became Head of Department and then on to reader. Five years have passed since then and Alice feels it is time to acquire a professor position. The University of Edinburgh, where she currently works, is a well-respected and highly ranked university, so it is a good place to have a position, but Alice would not mind to move to Cambridge or Oxford.

The professorship Alice is applying for is in Environmental Science, specialty (fictional) "suburban environment protection". The credentials the evaluators are looking for in the successful candidate are the following:
Active scholarly agenda
- Strong research profile, established national and international reputation in research
- Strong university service
- Demonstrated excellence in teaching
- Academic and professional leadership, innovative and enthusiastic

Specific ACUMEN portfolio guidelines
To present a comprehensive profile of Alice's activities the full ACUMEN Portfolio will be used as part of an application for a full professorship. Although completing a full Portfolio will take a long time, this is justified by the importance of the decision making process.

Alice Ravenscroft's ACUMEN portfolio for a professorship

Name: Prof. Alice Ravenscroft   **Email address: a.r@madeup.ed.ac.uk**   **Date of portfolio: 17 Jan 2014**

Part 1: Narrative and academic age calculation

Part 1a: Narrative maximum: 500 words). APPLICATION FOR FULL PROFESSOR

In the sections below, I provide standard evidence to show that I have built up a successful, growing, self-funding research groups from and extended and developed my interest and expertise in waste management for many years through learning, teaching, applying my knowledge in out-reach projects and writing. I have written over 70 refereed publications, given 61 invited talks, successfully supervised 5 PhD students in the last 4 years, personally brought in over £1,700,000 of public and private funds, I have brought together collaborators from industry, research, manufacturing, engineering, NGOs, voluntary groups, SMEs, schools, community groups and local, national, regional and European governments to work on tens of projects.

The inter-disciplinary and multi-disciplinary work I carry out is primarily waste management and the effects waste has on the environment and people within that environment. It involves a simultaneous, multi-pronged approach of related issues covering environmental, financial and social domains. Requiring communication, networking and diplomatic skills. It is critically important to keep an overview across different disciplines, which is why in my profile you will notice I choose to publish in conference papers and project reports rather than traditional scientific journals. This is why the bibliometric indicators used in the Influence Sub-portfolio do not truly represent the impact of my work, which is clearly represented in the standard of water purity and waste management in local communities involved in my projects. I started my career as a civil servant which has given me invaluable knowledge in the red-tape and administration connected to any research proposal. This experience helps me successfully plan projects and achieve my goals within the allotted timeframes.

Education is the key to maintain a healthy environment, which is why I committed to writing the Children's book How Composting works for the popular How Stuff works Series. Likewise I am involved in educational outreach programs in India and Brazil. This is very stimulating because I see in the young the opportunities for significant and scientific development and knowledge transfer.

The possibilities of using waste for energy - other than as a by-product of incineration – are still emerging. As European Directives put increasing pressure on large corporations to take responsibility for their waste, material recovery became increasingly important. I successfully led and consult on research projects looking at aspects of all of these issues. Two such work programmes included development

of national guidelines for pumping and filtering systems. What is especially interesting for me are these two guidelines are developed for India and the UK, and comparing the addition of social factors in these two very different societies are a fascinating area of study. They directly affect the possibilities of environmental protection. This is where I see my future research focus. It is no longer sufficient to calculate and model the optimised flow of waste into resources via appropriate technology centres, The public play key roles at every point, from setting out recyclates to planning approval. Whatever the technology involving waste, the public need to be involved fully for success.

Part 1b: Academic age calculation	Information
Start date of PhD: 01 /09/1986 *Date of PhD defence: 15 /12/1990* *Number of children raised after PhD defence: ___0___* *Special allowances (describe below): none* **Academic Age** *= Number of full-time years worked (count % of full time for part-time years) since PhD defence – Number of children raised – special allowances = _____23_____ years (min. 1 year)* Justification for special allowances (if any): NB. You **can** include in your Portfolio things that you did before your PhD defence.	The academic age calculation helps the evaluator to mentally adjust their expectations based upon someone's academic age. The minimum permitted Academic Age is 1 in all cases, even for those without a PhD. Some researchers do not have a PhD or start researching before obtaining a PhD so the start date is the date of the first academic job, if earlier than the PhD defence and for researchers without a PhD. Academic jobs include assistant/associate/full professorships, lecturers, reader and similar, researcher and research-related posts in academic organisations and teaching positions in academic institutions. If you have a special case, such as a graduate research job with an embedded PhD, please explain it in this box. Part-time work means being employed on a fractional post in academia and either working outside academia in parallel or not having another job. Working as a project administrator, web designer, teacher or any other semi-academic task as part of a full-time academic contract counts as *full-time* academic working, for example. Part-time work should not be claimed for periods in which the child-raising allowance below is counted. *Number of children raised*: Count each child for which you were the single main responsible person during the year from their birth, and who were born after your PhD defence. This allowance can be shared between carers (e.g., 0.5 years per child), if agreed by both. *Special allowances*: Additional special allowances can be subtracted for disability, illness-related time off work (> 6 months), carer responsibilities, non-academic jobs (e.g., military service) or other unusual cases. These must be explicitly justified by the portfolio owner.

	Claims are at the discretion of the portfolio owner and should be within the spirit of supporting equal opportunities. See related UK discussions: http://www.ecu.ac.uk/documents/ref-materials. No allowances are made for teaching or for management at the department level or below.

Part 2: Expertise sub-portfolio

Expertise	Sub-factor	Claim and evidence [delete the help text in most cases and replace it with your text]
Scientific/ scholarly expertise	Theoretical	My field does not have specific theoretical paradigms or major theories, other than the standard scientific paradigm for the experimental method. Please see the subject expertise section for additional information."
	Subject	I have a expert knowledge in environmental protection but it is through Knowledge Transfer that I believe I have made the most significant contributions at a high level and it is this continuous dialogue with the academic community, industry, local authorities and communities that I continue to learn more about the challenges the environment is facing. Knowledge transfer has enabled me to contribute the application of knowledge to dozens of stakeholders at county, regional, national and international level. This has not been through narrowly focused studies on specific characteristics of isolated aspects of academic interest, but multi-disciplinary, applied, solution-driven pieces of work with external partners, and whose lessons learned are extracted and disseminated for others to learn from in such fields as Agriculture & Sustainable development, Waste Management, Household Waste, Recycling & Composting, Public Health Policy, Public Administration and Education. *Ravenscroft, A., Author, B., Author, C., Author D.* (2013): An inspection system to monitor the status of flood erosion in Cornwall and its effect on different sectors – Agriculture, industrial, urban waste and waste water sector. In: CONFERENCE 2013 –Conference title, 14th-International Conference, Section S21 – Integrated and social factors; S21.03; Universidade Estadual de Maringá, 06.-07.2013, Paraná, Brazil

	Methodological	I have taken part in and lead many national and European projects. My project for DEFRA on future solutions to suburban environmental protection spawned several others, spanning many scientific disciplines. For example, it was crucial to determine the relative proportions of different waste materials present in a potential local water supply after the nationwide floods of 2001 in the UK. The academic literature lead one to believe that the numerous waste materials where not harmful if the water was boiled. When our trials of these contaminants showed them to be harmful, I lead the group in devising its own system of identification of the individual contaminant using a combination of several techniques from physical and chemical sciences. The extended piece of work detailing the findings has already been made use of in the related UK local authorities, as the key stakeholders were collaborators in this work. This work lead to projects that show a variety of large, systematic studies which have been used to advise national (and European) policy, as well as small, focused projects designed to assist particular international clients with specific research expertise and solutions. *Ravenscroft, A., Author, B., Author, C.* (2010): The transformation of contaminated water to drinking water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05-00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf
	Originality / independence	Although I had initially focused on technology and knowledge transfer to businesses and authorities in developing countries, I found that more social issues in sustainable resource management required support and development. From 2004 I fully embraced this work, and have expanded to the specific requirements of suburban environmental protection in these countries and have also started voluntary teaching groups that teach children in the local schools how to continue the development of their local environmental protection. *Ravenscroft, A* (2005) What the local community can teach us about waste management: A Case study in Bangalore.
Knowledge transfer	Reviewing	Provide the total number of (a) conference papers and (b) journal articles you have reviewed Conference papers: 54

		Journal Articles: 103 and (c) give examples of journals or conferences for which you reviewed (list top 3). International Journal of Water Pollution Wiley ISSN 1234-XXXX What a waste! XV Conference on wastes management and disease control, Madrid 2007, September 4-5. Proceedings available at: http://www.WAW.org/proc_123.pdf Bioresources Review Springer ISSN 1234-XXXX
	Entrepreneurship	List entrepreneurship activities undertaken, such as launch or participation in spin-offs, and joint projects with industry, NGOs or government (list top 3). I have launched my own consulting agency, giving free aid to third world countries and national charities: ENVIRO.eu http://ENVIROresources.eu/own-site ENVIRO is a consultancy & networking agency which I founded after 20 years experiences with bioresources ranging from conventional to unconventional materials role in protecting the environment, waste management & pollution and sustainable energy resources. 2013-present **Waste in Action: Spanish-English training of waste officers in Brazilian slum quarters** 2009-11, c£65,000 European Union: TRASH programme. Expertise used for capacity building and education. The project is continuing and we are currently lobbying for amendments to the refuse collection laws in the slum quarters of Brazil
Educational expertise	Courses taught or developed	(a) Approximate number of hours spent lecturing to a class (not including preparation or 1-1 supervision) On average out of my 45 hour work week, the past year I have lectured 1½ hours per week and held 1 4hour lab session. (b) Description of the types of courses prepared and taught *excluding* online courses and MOOCs (these

		are listed as outputs). This might be a list of courses prepared or an overall description of the topics and levels of the courses. List only those that are most important to you, (list top 3). 1998-2000 E-learning seminars: to teach waste management and systems, and develop online learning tools. Liverpool John Moores University 2005 Combined energy and product development: material flow and reusable products. In collaboration with Edinburgh Business and Innovation Center. An inter-university course for master students from the University of Edinburgh and the Business & Innovation Centre. 2011 Sustainable Energy from Waste Products. Guest lecturer, 6 month position, University of Bruxelles, Belgium
	Other educational expertise	Think about what the expertise is and support your claim with references to, for example, summer schools, field trips, and internship supervisions. I achieved my teaching licence for the area of waste management in 2008. This involved night school in teacher training for a period of 6 months, documented teaching experience, peer feed-back, and participation in workshops as well as a practical and written exam
Technological expertise	Methods	Write a few sentences briefly summarising your **technological methods** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it. I am a strong practitioner in developing what the research community has discovered to produce affordable and practical solutions to environmental problems, For example I developed my system of identification of the individual contaminant in flood water by using a combination of several techniques from physical and chemical sciences. The extended piece of work detailing the findings has already been made use of in the related UK local authorities, as the key stakeholders were collaborators in this work. This work lead to projects that show a variety of large, systematic studies which have been used to advise national (and European) policy, as well as small, focused projects designed to assist particular international clients with specific research expertise and solutions Ravenscroft, A., Author, B., Author, C. (2010): The transformation of contaminated water to drinking

		water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05- 00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf
	Tools + lab equipment	Write a few sentences briefly summarising your **tools + lab equipment** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it. • Calibrate microscopes and test instruments. • Collect samples of gases, soils, water, industrial wastewater, and asbestos products to conduct tests on pollutant levels and identify sources of pollution. • Develop and implement programs for monitoring environmental pollution and radiation. • Develop testing procedures or direct the activities of workers in laboratory. • Discuss test results and analyses with customers. • Examine and analyze material for presence and concentration of contaminants such as asbestos, using microscopes. • Maintain data and other files, such as hazardous waste data, chemical usage data, and diagrams showing equipment locations. • Prepare samples or photomicrographs for testing and analysis. • Record test data and prepare reports, summaries, and charts that interpret test results. • Set up equipment or stations to monitor and collect pollutants from sites Ravenscroft, A., Author, B., Author, C. (2010): The transformation of contaminated water to drinking water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05- 00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf *Ravenscroft, A., Author, B., Author, C., Author D.* (2013): An inspection system to monitor the status of flood erosion in Cornwall and its effect on different sectors – Agriculture, industrial, urban waste and waste water sector. In: CONFERENCE 2013 –Conference title, 14th- International Conference, Section S21 – Integrated and social factors; S21.03; Universidade Estadual de Maringá, 06.-07.2013, Paraná, Brazil

| | Software | Write a few sentences briefly summarising your **software use** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it.

FEMWATER – expert user in numerical codes for delineating wellhead protection areas in agricultural regions.

Geo-EAS – expert user in geostatistical environmental assessment

MULTIMED – expert user in multimedia exposure assessment model for evaluating the land disposal of wastes

THERdbASE – proficient user in **T**otal **H**uman **E**xposure **R**isk **d**ata**b**ase and **A**dvanced **S**imulation **E**nvironment, is an integrated database and analytical/modeling software system for use in exposure assessment calculations and studies

Please refer to the following studies:

Ravenscroft, A (2008) Hazardous microbial populations found in filtering of polluted water to drinking water. *Wastes Management.* 5(8) 143:145

Ravenscroft, A & White, C (2010) A estimation of the risk of infection from exposure to solid human wastes after flooding *International Journal of Risk Management* 9(63) 3456:3460 |
| | Data management or data curation | Write a few sentences briefly summarising your **data management or data curation** expertise. Include evidence to support your claim, such as citing a paper, project, or a contract in which you used it.

I work with several national environmental and public health groups to investigate the effects of environmental dictators on wildlife and humans. As a result I have access to sensitive personal and industrial data, which falls under the Data Protection Act. Access to data was approved by the relevant ethical committees. The data is stored in closed systems such as ChemEX.

Wildgaard K, Thomas B, Bageneaux F, Filmous I, Ravenscroft, A et al (2004) *Infections after Flooding. Report to the The Thai Ministry of the Environment.* In association with Médecins Sans |

		Frontières Where possible I believe data sharing improves sciences and quickens the rate of development, so when possible I share my data in DataStar and SAED. Ravenscroft, A., Author, B., Author, C. (2010): The transformation of contaminated water to drinking water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05- 00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf
Communication expertise	Languages	English (mother tongue). Spanish, fluent. Hindi, currently learning, level 2. German & French, I can read both languages
	Presentations	Keynote/invited talks at institutions other than your own or at conferences (list top 3): 2013 *Invited speaker*: The future of waste management. 14th- International Conference, Section S21 – Integrated and social factors; S21.03; Universidade Estadual de Maringá, 06.-07.2013, Paraná, Brazil 2010 "The importance of local involvement and support in wastes management" University of Bangalore 2007 *keynote speaker* What a waste! XV Conference on wastes management and disease control, Madrid 2007, September 4-5. Proceedings available at: http://www.WAW.org/proc_123.pdf
	Writing	Awards for papers (list top 3): European Sustainable Energy Innovation Award for following paper and project: *Ravenscroft, A., Author, B., Author, C.* (2010): The transformation of contaminated water to drinking water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05-00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf

	Public engagement (media interview and other)	Examples of video or audio media interviews (list top 3): Podcast from Radio Cornwall about the effects of the recent flooding on the environment and local waste control & containment. http://www.bbc.co.uk/podcasts/series/bbcic
Organisational expertise	Management	Description of management roles undertaken (list top 3):This includes planning, organizing, staffing, or leading a group of people. 2011 Consultant to the Office of Building & management, Science & Practice, where my priorities were to plan projects and seek funding; Organize events (conferences, workshops, visits), identify and organize teaching teams, personal and financial management of these teams. 2008 – present. Reader and HoD at School of Civil & Environmental Engineering of the University of Edinburgh. Duties include teaching, supervision and examination of students; Administrative work including performance management and appraisal; pursue research; academic planning, finance (financial procedures approved by the UCL), procurement of staff, dissemination of information, meetings (chairing, organizing, participating), quality management and enhancement, research governance (main components include accordance to ethics frameworks, code of conducts, declaration of interest policy) business continuity and the safety and environmental sustainability of the department (implementation of health & safety policies). 2005-2008 Department leader at the School of Civil & Environmental Engineering of the University of Edinburgh. My responsibilities included acquisition, project coordination, HR and financial management; planning teaching, organising teaching teams, and evaluation of teaching at the end of term.
	Advising	Visits to other institutions (universities or other) and the type of advice given (list top 3): 2010 Bangalore University: advice on irrigation and water purification 2011 & 2013 Universidade Estadual de Maringá, Paraná, Brazil: advice on future wastes management and involvement of the local community 1998-2007 During my time as the senior engineer on 11 national projects, through this network I have consulted with numerous local government offices, schools and institutions, such as:

		The Edinburgh City Council, dept. for Environmental health. Advice: commercial waste, pollution and recycling. Please contact Mrs H Roberts at the City Chambers for a reference: Roberts@edingburg.gov.uk
	Project leadership	Projects and teams led (list top 3). Include the size of the team, and whether this is an international collaboration: Project leader: **Waste in Action: Spanish-English training of waste officers in Brazilian slum quarters** 2009-11, European Union Collaboration Project: TRASH programme. Expertise used for capacity building and education. I lead a team of 20 partners, who are divided into 4 groups. The four groups are teaching, recruitment, liaison and environmental solutions. The partners are a mix of nationalities and specialities – social workers, teachers, scientists and administrative staff. 2006-2009 Project leader of the Construction Committee, international project between University of Edinburgh and university of Bangalore. The project designed and implemented a water filtration system for a valley community affected by the combination of industrial waste dumping and flooding of their local river, which doubled as their water supply. The group was made up a staff of 5 researchers and technicians and summer employment of a group of 15 students who did everything from digging irrigation ditches to assembling the filtering equipment. 1998-2007 project leader on 5 national projects, varying in size from 3 to 28 people. The projects were of local or national interest, helping communities find practical solutions to the challenges they face such as the largest project I lead "Contaminated Land Project" which aims to investigate the contaminates and investigate the costs of cleaning up the contaminated land to make it fertile agricultural property.
	Collaboration	Projects and teams involved in but not led (list top 3). Include the size of the team, whether this is an international collaboration, and the portfolio owner's position in the team: 1998-2007 team member on 6 national projects, size of team 3-17 people, such as Bradford Councils Waste Management project www.bradford.gov.uk/Environment/WasteNOT/ 2005 Short term project, run by UNEP IETC International Environmental Technology Centre where I was part of a 7 person international team looking at water quality in some of the world's most populated cities

		(Beijing, Matale, Novo Hambrugo, Bahir Dar) 2010-present Flood defence (DEFRA-Department for Environment, Food and Rural Affairs).. National project, 13 local authorities are involved in the project. My role is to assess innovative projects that will better protect homes, business and the environment from the risk of flooding
	Administration and committee work	Administrative roles undertaken, including committee membership, chair or secretary roles, organising workshops or conferences, organising online discussions (list top 3): Apart from my academic administrative work (please refer to my comments in the Organisational Expertise_Management part of this portfolio) I have organized the following conferences and have administrative roles in the following committees. *Organiser*: ZeroWaste-the future of wastes management. XVII Conference on wastes management and disease control, Edinburgh 2009, September 7-10. Proceedings available at: http://www.WAW.org/proc_123.pdf *Committee member with administrative duties*: SKRALD-summer school august 5-10 (2013) http://www.SKRALD.eu/cms/2/18863 *Organiser and teacher:* 2011 Workshop in The Transformation of Waste to Energy. International PhD Summer school for the Dept. of Civil & Environmental Engineering of the University of Edinburgh.

Part 3: Output sub-portfolio

Output	Sub-factor	Claim and evidence
Scholarly outputs	Books	Number of scholarly books or theses published (exclude self-published): ___6_ List of books published (list top 3): These are what I consider to be my most important books, which are not necessarily the most cited, see sub-portfolio. I have used information from the library catalogue WorldCat

		New Technologies in water purification: Wiley *1 edition published in 1999 in English and held by 10 libraries worldwide* Http://www.worldcat.org/xyz/1234 Flood water purification: treatment and application as drinking water : Springer (Book) *2 editions published in 2005 in English and held by 9 libraries worldwide* Http://www.worldcat.org/xyz/1234 Status and prospects of organic waste transformation into energy. Cambridge *1 edition published in 2010 in English and held by 8 libraries worldwide*
	Book chapters	Number of book chapters published: ___8_ List of book chapters published (list top 3): Recycling by composting. In Taylor & French (2009) "The Art of Composting". Wiley. ISBN:1234-1234 Reducing water pollution. In Monty Don, Sanchez CR & Ravenscroft, A (2010) Environmental Science and Pollution" Springer. ISBN 1234-1234 Waste management in Bangalore under special consideration of flooding. In R Bassi & Kadakia S (2003) Proposals for emergency waste management and disaster response. Cambridge University Press India
	Journal articles	Number of refereed journal articles or fully refereed complete conference papers published: _47___ List of refereed journal articles or fully refereed full conference papers published (list top 3) Ravenscroft A, Bassi R & Kadakia S (2010) Inventory of organic and non-organic waste in Bangalore. Proceedings of the *XVI conference of Environmental Protection. Madrid September 6-8, 2010.* Ravenscroft A (2013) Comportamiento de plásticos biodegradables en plantas de compostaje. *Brazilian Journal of Waste* Management 4(7) 1234:1238 Francis, B. George C & Ravenscroft A (2011) Environmental Risks and Hazards of Solid Wastes Management. *Journal of Air and Waste Management.* 6 (3) 234:240
	Conference	*Number of conference abstracts, panel discussions or posters published: _4___*

	papers	*Ignore unpublished conference papers.*
		Water Pollution Reduction in Real Time. Panel Discussion at the COST Action Symposium, Glasgow 2010
		"The importance of data specificity in climate accounting of waste management systems" (as poster and extended abstract) Air Pollution and Waste Management Conference (APWM) Madrid 2011.
		'How methodological issues affect the energy indicator results for different electricity generation technologies from composting' (A poster and working paper). XVII ENVIRO EXPO 2013, RIO July 2-6.
Communication to the general public	Press stories	Number of magazine or newspaper articles published (written by you, not about you): _2___ List of magazine or newspaper articles published (by you, not about you) (list top 3) : Water pollution for Dummies. The Guardian, 2012, section 2, p1. http/www.guardian.co.uk/titel/link The future of waste management, Independent Weekend Magazine, 2013, Science & Technology, p.3. http/wwwindependent.co.uk/title/link
	Popular books / articles	Number of popular books or articles published: __1 book__ List of popular books or articles published (list top 3). HowStuffWorks "How *Composting* Works": Penguin Books *2 edition published in 2007 in English and held by 30 libraries worldwide* Http://www.worldcat.org/xyz/1234
Teaching	Books	Number of textbooks published (exclude self-published): _4 teaching manuals___ List of textbooks published (list top 3): Thomsen, J.; Costas, R.; Grayson, L.; Ravenscroft, A. (2006): Waste Management. In: TRASH - Teaching and training modules in the waste management sector, Modul 1, Organic and non-organic waste management in India, Edinburgh, Scotland, S. 186-220 (with DVD) White, C.; Ravenscroft, A.; Grayson, L.; Costas, R.; Thomsen, J. (2006): Waste generation and composition: Air and Water pollution In: TRASH - Teaching and training modules in the waste management sector, Modul

		1, Organic and non-organic waste management in India, Edinburgh, Scotland, S. 186-220 (with DVD). 17-3 White, C.; Ravenscroft, A, M.; Grayson, L.; (2006): Planning a water-filtering facility- A software for teaching and training. In: Management of putrescible organic matter in waste disposal, University of Bangalore, IWWG (Hrsg.); Self-published, Bangalore University, Karnataka
	Online courses	List of online courses created (includes MOOCs), including creation date, type of materials generated and number of students per year (list top 3): SKRALD-summer school august 5-10 (2013) http://www.SKRALD.eu/cms/2/18863 Students 25 (full class) Workbook, online project group, reports, DVDs and class blog. The summer school out-reach programme was a great experience. Not only was I able to teach my most favourite subject on using waste products in energy production to very interested and dedicated students, I also learnt a lot from the discussions with the students as they came from all four corners of the globe. I was especially impressed with the online learning software and virtual classrooms used during the summer school which made online workshops interactive and communication with the students easy.
	Students completed	Undergraduate students supervised as main supervisor that have now graduated: ___25_ students Master's students supervised as main supervisor that have now graduated: __15__ students PhD students supervised as main supervisor that now have their doctorate: __5__ students most recent: • Floods, insects and Insectivorous Bat population in Cornwall: Seeking a Balance (PhD) (Principal Supervisor) • Migratory shorebirds and water pollution after oil spills (PhD) (Principal Supervisor) • An assessment of water and waste management after natural disasters. Case study Thailand (PhD)

		(Principal Supervisor) See more at: http://edinborough.ac.uk/research_supervision/framework/browse.php?srperid=4360
Web and social media academic communication	Online presence	List your online presence: accounts in social media used for academic purposes, academic network accounts, digital repository accounts, websites that you created or use to create output. If it applies, mention per site how active you are in posts per year or month (e.g., twitter, blogs, ResearchGate, SlideShare) (list top 3) Research Gate www.researchgate.net/profile/Alice_Ravenscroft/ ENVIRO.eu http://ENVIROresources.eu/own-site. ENVIRO is a consultancy & networking agency which I founded after 20 years experiences with bioresources ranging from conventional to unconventional materials role in protecting the environment, waste management & pollution and sustainable energy resources.
Datasets, software, tools, instruments	Software, tools, instruments	Number of software, tools and instruments developed: _1___ Brief description of software, tools and instruments developed (list top 3): White, C. Ravenscroft, A, Grayson, L.; (2006): Planning a water-filtering facility- A software for teaching and training. In: Management of putrescible organic matter in waste disposal, University of Bangalore, IWWG (Hrsg.); Self-published, Bangalore University, Karnataka
Funding & Grants	Funding	Number of projects funded: _15___ Total grant funding received (do not count funding allocated to other universities, and if there were multiple applicants in your own university, divide the funding by the number of applicants): __N/A__ (EU project grants (pre-2007: water conservation); 11 grants totalling £385,175 pre –2007) Waste Management Tax Funds; 2 grants totalling £824,358 1994-1998 Industry/LA funded research; 1 grant totalling £102,238 2009-2011 Industry/LA/DEFRA funded research:1 grants totalling £450,997 2011-2013 TOTAL £ 1,762,768 1994-2011

		European Union Regional Centre of Expertise in Education for Waste Management (EU EEWM) Development of a EU EEWM led by University of Edinburgh for the EU Approval is achieved: funding is now being sought Description: Various Expertise in University to coordinate and capacity build across South East of England after flood damage and participate in a world-wide network **Sustainable Waste Management Strategy Development** Working with the School of Education at the University of Edinburgh and the University of Bangalore, to develop a strategy for local councils Council 2010-11, c£38,000 Funders: Department of Trade & Industry **Waste in Action: Spanish-English training of waste officers in Brazilian slum quarters** 2009-11, c£65,000 European Union: TRASH programme. Expertise used for capacity building and education.
Other	EU reports, Yellow papers and annual reports	Other types of relevant output not covered above (list top 3, explaining each one): Each national and European project has resulted in handbooks, reports and yellow papers. Annual report from EDU 2013-2014 http://edu.group-bioresources/Ravenscroft-pdf Follow-up report of EU project Waste in Action. A visit to Brazil one year later Annual report from EDU 2011-2012 http://edu.group-waterresources/Ravenscroft-pdf Final report of the first SKRALD summer school 2011. Lessons learnt. Yellow paper. Position paper to the EU project "Civilizations Biorefinary". Presented at EurActiv.be.
Other	Teaching	Development of Elearning tools 1998-2001 In collaboration with the Institute for educational resources and distance learning, United Kingdom

Part 4: Influence sub-portfolio

Influence	Sub-factor	Claim and evidence [delete the help text and replace it with your text]

Influence on science	Total and average citations	Total citations received to all publications, as listed in Google Scholar: 218_____ and average number of citations per paper: _4,84___ *Note: Google Scholar is only partially representative, covering 43/71 of my publications* Total citations received to all publications, as listed in Web of Science or Scopus: _____ and average number of citations per paper:____ *Only 6 of my articles are found in WOS as I mostly publish in proceedings and books that are not indexed in this database*
	Article citations	Total citations to one of your top 3 articles, as listed in Google Scholar: 60, and as listed in Scopus or Web of Science:36 . Article title: *Investigation and optimization of waste management processes—test systems and practical examples.* Publication year: 2003. Authors (in order): A Ravenscroft, L Grayson, White, C Total citations to another of your top 3 articles, as listed in Google Scholar: _21, and as listed in Scopus or Web of Science: 2. Article title: *Contaminant populations during water filtering process of organic fraction of municipal solid waste. Publication* year: 2008 . Authors (in order): L Grayson, Tholl F, Ravenscroft A Total citations to another of your top 3 articles, as listed in Google Scholar: 15, and as listed in Scopus or Web of Science:7. Article title: The usefulness of biodegradable plastics in composting facilities. Publication year: 2005. Authors (in order): A Ravenscroft, White C, R Stiles
	h-index	h-index, as listed in Google Scholar: 8 h-index, as listed in Web of Science or Scopus: 2 *(coverage in Web of Science is so poor this number is meaningless)* [The h-index is the largest number *h* such that at least *h* articles have received at least h citations.]

	Book citations	Total citations to one of your top 3 books, as listed in Google Books: 3 Book name: Flood water purification: treatment and application as drinking water _ Publication year: 2005 Authors (in order): Ravenscroft, A Total citations to another of your top 3 books, as listed in Google Books: 4 Book name: Status and prospects of organic waste transformation into energy. Cambridge Publication year: 2010 Authors (in order): A Ravenscroft, White C, Bassi R & Kadakia S
	Age-corrected h-index	m-quotient for Google Scholar: __8/23=0.34_ [h-index divided by academic age.] m-quotient for Web of Science or Scopus: N/A
	Multi-authorship compensation	To compensate for multi-authorship, either report (a) or (b) below, which the evaluator will take into account when assessing your citations. a) Average number of authors on publications used in the above calculations (including yourself): in Google Scholar 3.36; based on my full list of publications 3.32 b) Proportion of publications used in the above calculations for which you were the first author: in Google scholar 24; based on my full publication list 36
	Scholarly prizes	Scholarly prizes and awards received (local, national and international) (list top 3): I have been recognized often for excellence in teaching and for the innovative use of technology in education (SKRALD summer school). I received the 2011 The Times Outstanding Environmental Science Teacher Award from the English Society for Environmental Science and Technology. I received the AUT Memorial Award for Teaching Excellence, Edinburgh University in 2005

	Editing and reviewing	Your main reviewer, editor or editorial board member tasks (list top 3): 2010-present TRASH-proceedings Chair of Editorial Committee 2007-present reviewer International Journal of Recycling & Waste Management 2009-present Editorial Council member, The Official Journal of the International Federation of Waste Management
	Committees	Your main conference/program committee memberships (list top 3): 2007 - present : Excellence initiative Translational and Chemical Biology of the University of Edinburgh 2009 - present : Daily Board of an EU COST Action Biochar Research Network 2011 - 2012 : Advisory Council of 'Edinburgh - environment first'
	Online discussions - social web followers	Number of followers, if substantial, in your web presences (e.g., Academia, Blogs, Twitter) (list top 3): Social website name _____Research Gate_____ Number of followers: _8__ *My Research Gate score is 9.32, which is interpreted as higher than 37.5% of other Research Gate members* Also, report up to 3 interesting web mentions of you or your work that are not already elsewhere in the portfolio: BBC News Cornwall (2013) http://www.bbc.co.uk/news/england/cornwall/Ravenscroft Expert opinion of the effects of the recent floods
	Downloads	From Research Gate: Article name *Investigation and optimization of waste management processes—test systems and practical examples* Number of downloads: 6 (45 views)

		Article name *"The importance of data specificity in climate accounting of waste management systems"* Number of downloads: 4 (39 views) Article name The usefulness of biodegradable plastics in composting facilities Number of downloads: 2 (19 views) [Downloads can sometimes be found in publisher websites; Put N/A if not available for your top articles; Can also report downloads for electronic reports or other resources instead.]
	Mendeley readers	Article name *Investigation and optimization of waste management processes—test systems and practical examples* Number of Mendeley readers: 23 Article name *The importance of data specifity in climate accounting of waste management systems* Number of Mendeley readers: 19 Article name *Contaminant populations during water filtering process of organic fraction of municipal solid waste "* Number of Mendeley readers: 8 To count Mendeley readers, go to Mendeley.com and search for each publication, recording how many readers it has (list top 3):
	Invited talks	Number of invited keynote talks at conferences outside your country: ___8_ Number of invited keynote talks at conferences inside your country: __10__ Number of invited talks at universities outside your country: __16__ Number of invited talks at other universities inside your country: _27___ List of invited talks of all kinds [include name and venue] (list top 3): Generation of a culture of waste management, 2006, Bangalore University, Karnataka Hazardous waste management after national disasters, 2011, Fukushima Daiichi How Composting Works, 2007-2008, lecture & workshop series of English secondary schools

Influence on society	General public	Number of magazine or newspaper articles published (written about your research, not by you): __2__ Examples of magazine or newspaper articles published (about your research, not by you) (list top 3): http://www.eveningpost.co.uk/The future of Waste Management: Zero waste cities University Post: Retrospective profile of my work and the advances of waste management over the last 20 years (2003) http://EUP.ac.uk/Ravenscroft-pdf Examples of web pages published (about your research, not by you) (list top 3, including title and who wrote them): University profile page, updated regularly by department for communication: http://EUP_staff_profiles/Ravenscroft
	Advice	Number of times asked for specialist evidence outside academic, economic and educational contexts, including membership of non-academic, non-educational committees: ____ Examples of giving specialist evidence outside academic, economic and educational contests, including committee memberships (list top 3) 2011-2012 Consultant, Office of Building & Management, Science & Practice. EU application advisor 2010-present Consultant, EU Water conservation and Bioresources Department. Advisor on combined energy, waste, sewage, agriculture and material flow. 2012-present Personal & financial consultant: Research and Innovation Group, Edinburgh University. Acquisition of funding, project management, personal and group financial management.
	Professional practice	Examples of professional practice using your subject expertise (e.g., working as a lawyer, nurse) (list top 3): 2012 Wastes and waste disposal project leader, fundraiser and liaison officer between local government offices Paraná, Brazil

		2009 Project Co-ordinator EU DAFRA: European sustainable energy alliance (Bruxelles) 2005 Onsite drainage coordinator and project manager, Bangalore, India
	Laws, regulations, guidelines	Laws, regulations, guidelines and so forth that have been initiated, developed or amended, at least partly based on your research. Briefly explain how and refer to projects, papers and other evidence of this influence (list top 3): (In progress) Together with my partners in Brazil we are currently amending the law on waste disposal and waste use as sustainable energy in Brazil
Influence on teaching	Awards	Teaching awards, including both within and outside the host institution (list top 3): I have been recognized often for excellence in teaching and for the innovative use of technology in education (SKRALD summer school). I received the 2011 The Times Outstanding Environmental Science Teacher Award from the English Society for Environmental Science and Technology. I received the AUT Memorial Award for Teaching Excellence, Edinburgh University in 2005
	Textbook sales	Total sales of your textbooks: 7,800 copies.
	Invited lectures	Number of invited lectures to undergraduates at other universities: 33
	Dataset or software downloads	Number of downloads of datasets or applications created by the portfolio owner (list top 3). White, C.; Ravenscroft, A, M.; Grayson, L.; (2006): Planning a water-filtering facility- A software for teaching and training. In: Management of putrescible organic matter in waste disposal, University of Bangalore,

		IWWG (Hrsg.); Self-published, Bangalore University, Karnataka
		Not publically available for downloading. Copyright Ministry of Education, Department of Higher Education India

Use Scenario: 2B Alice applies for a Horizon2020 grant

Introduction and explanation of context

Scenario: Alice Ravenscroft applies for a Horizon2020 program grant

Because Alice is HoD of her department, she has little time for research and the constant worry of acquiring project money to sustain her department. She worked on EU-funded projects in the 1990s and was co-applicant a couple of times during the last decade. Recently, an idea for a new research project came up during a seminar and Alice decided to develop it into a grant application for Horizon 2020. Her research visits, membership of a two networks in waste and board-membership of a COST action put her in an excellent position to mobilize and head a consortium.

Project description (fictional)
High-throughput filtering(HTF) is a technique for filtering soil on contaminated land, not only to clean it up but to inject enrichment into the soil and to make it fertile agricultural property.

As automated soil composition analysis for contaminated soil has improved, the technology to inject enriching microbial populations has simplified and improved, and such filtering systems have emerged as one of the most powerful and informative ways to analyze screening samples. However, the detection of many contaminants biological pathways can be better studied over a whole season including a crop harvest on the treated land—particularly diseases that can be transmitted through the crop that involve mutated organ systems as well as hazardous man-made waste products.

Soil samples can be prepared and imaged by high-throughput microscopy, but existing analysis methods are too complicated for the farmer to test himself on a regular basis to check the stability of his treated soil. In this project, a simple image-analysis algorithm, built into a hand held device that is capable of scoring the presence of contaminants. The algorithms will be tested and refined in three high-throughput screens, which will uncover chemical and organic contaminants and rate the purity of the soil. After the harvest, the same algorithm will be used to test the chemical and organic contaminants present in

the resulting crop, and finally 6 months later on the soil that has now rested and been has been turned and furrowed in preparation for the ploughing and planting the next crop.

The algorithms proposed are sensitive detection to a very low level of contamination, high level detection of the found toxins, and an overall indicator of the purity and richness of the soil. They are in short a versatile, open-source toolbox enabling the discovery of organic pathways, chemical levels, and soil purity in high-throughput screens that can send reports to other devices and enable dialogue between farmer and authority board.

A further challenge is that farmers in the testing areas have little or no literacy. This study deals with soils in an extensive part of the farmland surrounding Ostrava (Czech Republic) needed to be decontaminated from abundant tar (wash oil). The source of contamination was the Karolína Coking Plant (operating between 1842 and 1985), which was situated in the center of the Ostrava City, the largest industrial center of the Czech Republic and former Czechoslovakia. The handheld device will assist these farmers decode the results of the samples and keep in contact with local authorities monitoring the land they are harvesting.

 This work is a close collaboration with experts Beth Cramer from the School of Civil & Environmental Engineering of the University of Edinburgh, and Ty Phillips from The Royal School of Library and Information Science, Denmark, expert in model-based-segmentation and statistical image analysis and with Milka Banják, developer of open-source image analysis software, with specialty in communication through semiotics and iconography, at the VŠB-Technical University of Ostrava.

Specific ACUMEN portfolio guideline (fictional)

The actual project application is filled out in Horizon 2020 Application forms and summary statements. In these online forms Alice describes and justifies the project's environmental & health relevance, the goal of the research, the facilities and resources, the imaging platform at VŠB-Technical University of Ostrava, a short introduction to the members of the project and their role/skills, early stage investigator support (training, mentoring, facilities and administration support, resources at the affiliated institutions, equipment that needs to be purchased, server, storage and other computational hardware – including production and research application, and most importantly the budget for her project.

For this call, the EU requests that applicants also submit an ACUMEN Portfolio, but without the educational components. The ACUMEN portfolio is used as "documentation and biographical sketch" to supplement the Horizon 2020 Research & Related Senior/Key person Profile forms. Each senior person must fill attach their portfolio. Note that only the parts of the sub-portfolios relevant for a project application, as stipulated in the Horizon 2020 application and summary statement, should be filled out. Hence the sections: educational expertise, communication to the general public, online courses, students completed, and the majority of the education-related components have been removed.

Alice Ravenscroft's ACUMEN portfolio for a Horizon2020 grant

Part 1: Narrative and academic age calculation

Part 1a: Narrative (max. 500 words)

The goal of this research is to develop a simple image-analysis algorithm, built into a hand held device that is capable of scoring the presence of contaminants. My research is focused on the accuracy of the level of detection and purity of the soil. The questions have ranged from how to identify various types of organic and man-made toxins, the reliability of the readings and the lifespan of organic hazards. My strongest expertise lies in contaminant detection and, the duration of toxins in crop cycles. I have also knowledge of traditional agricultural life in small, traditional communities as exemplified in my continuing work in Bangalore. The soil composition and toxin detection scales I have developed have served as the foundation for the algorithms in the Open Source software used on the hand-held devices and testing has proved them robust application. At the School of Civil & Environmental Engineering my research is very application oriented, given me a broad experience in collaboration with local environmental authorities both national and internationally as well as given me a broad experience in microbial populations and analysis.

As project leader for the UN financed Construction Committee, international project between University of Edinburgh and university of Bangalore. I successfully managed the design and implementation of a water filtration system for a valley community affected by the combination of industrial waste dumping and flooding of their local river, which doubled as their water supply. The group was made up a staff of 5 researchers and technicians and summer employment of a group of 15 students who did everything from digging irrigation ditches to assembling the filtering equipment. This project produced a number of peer-reviewed collaborated publications. This highly interdisciplinary project taught me the importance of communication between collaborators from different fields of expertise, which will be of importance for the proposed project. My experience from supervising volunteer students from local Indian schools during the project has also helped me develop skills for project planning, execution and dissemination.

My most recent work with Ty Phillips from The Royal School of Library and Information Science has given me insight about many aspects information architecture and design of usable systems, and the expertise available through his collaboration provides a strong support for the proposed project.

Initial work on the reliability of the filtering and detection algorithms in collaboration with my partners Beth Cramer and junior research assistant Jeremy Borgers has already led to a peer-reviewed paper describing our methods and readings at 4 three-month intervals (Ravenscroft et al, 2013 "Methods, algorithms and readings: preliminary results of soil testing after end-user filtering" Environmental Science Reports 5 (8) 1123:124). A well-established collaboration with my fellow board members Milka Banják & Tomaš Loucha from the COST action ES1437 "Microbial populations present after wastewater filtering & treatment" led to this H2020 project proposal which builds on our discussion of my work in Bangalore, especially the publication "Inventory of organic and non-organic waste in Bangalore". Proceedings of the XVI conference of Environmental Protection. Madrid

September 6-8, 2010.

To conclude, my strong field and laboratory experience in combination with experience from collaborative inter-disciplinary projects and well-established contacts provides the foundation for successful project leadership.

Part 1b: Academic age calculation	Information
Start date of PhD: 01 /09/1986 *PhD defence: 15 /12/1990* *Number of children raised after PhD defence: 0* *Special allowances (describe below): 0* **Academic Age** *= Number of full-time years worked (count % of full time for part-time years) since PhD defence – Number of children raised – special allowances = _____23_____ years* Justification for special allowances (if any):	The academic age calculation helps the evaluator to mentally adjust their expectations based upon someone's academic age. The minimum permitted Academic Age is 1 in all cases, even for those without a PhD. Some researchers do not have a PhD or start researching before obtaining a PhD so the start date is the date of the first academic job, if earlier than the PhD defence and for researchers without a PhD. Academic jobs include assistant/associate/full professorships, lecturers, reader and similar, researcher and research-related posts in academic organisations and teaching positions in academic institutions. If you have a special case, such as a graduate research job with an embedded PhD, please explain it in this box. Part-time work means being employed on a fractional post in academia and either working outside academia in parallel or not having another job. Working as a project administrator, web designer, teacher or any other semi-academic task as part of a full-time academic contract counts as *full-time* academic working, for example. Part-time work should not be claimed for periods in which the child-raising allowance below is counted. *Number of children raised*: Count each child for which you were the single main responsible person during the year from their birth, and who were born after your PhD defence. This allowance can be shared between carers (e.g., 0.5 years per child), if agreed by both. *Special allowances*: Additional special allowances can be subtracted for disability, illness-related time off work (> 6 months), carer responsibilities, non-academic jobs (e.g., military service) or other unusual cases. These must be explicitly justified by the portfolio owner. Claims are at the discretion of the portfolio owner and should be within the spirit of supporting equal opportunities. See related UK discussions:

		http://www.ecu.ac.uk/documents/ref-materials. No allowances are made for teaching or for management at the department level or below.

Part 2: Expertise sub-portfolio

Expertise	Sub-factor	Claim and evidence [delete the help text in most cases and replace it with your text]
Scientific/ scholarly expertise	Theoretical	My field does not have specific theoretical paradigms or major theories, other than the standard scientific paradigm for the experimental method. Please see the subject expertise section for additional information."
	Subject	I have expert knowledge in environmental protection but it is through Knowledge Transfer that I believe I have made the most significant contributions at a high level and it is this continuous dialogue with the academic community, industry, local authorities and communities that I continue to learn more about the challenges the environment is facing. Knowledge transfer has enabled me to contribute the application of knowledge to dozens of stakeholders at county, regional, national and international level. This has not been through narrowly focused studies on specific characteristics of isolated aspects of academic interest, but multi-disciplinary, applied, solution-driven pieces of work with external partners, and whose lessons learned are extracted and disseminated for others to learn from in such fields as Agriculture & Sustainable development, Waste Management, Household Waste, Recycling & Composting, Public Health Policy, Public Administration and Education. The publications that best shows how my subject knowledge is applied in practical solutions: *Ravenscroft, A., White, C., Cramer, B.* (2013): An inspection system to monitor the status of flood erosion in Cornwall and its effect on different sectors – Agriculture, industrial, urban waste and waste water sector. In: CONFERENCE 2013 –Conference title, 14th- International Conference, Section S21 – Integrated and social factors; S21.03; Universidade Estadual de Maringá, 06.-07.2013, Paraná, Brazil

		Ravenscroft, A., R Bassi & Kadakia S. (2010): The transformation of contaminated water to drinking water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05-00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf
	Methodological	I have taken part in and lead many national and European projects. In my COST action, ES1437, it was crucial to determine the relative proportions of different waste materials present in a potential local water supply after the nationwide floods of 2005 & 2006 in the Czech Republic. The results and recommendations were used in Rules of Procedure on agricultural aspects, regional development aspects and environmental aspects. The collaboration and network developed during this project has spawned several others, spanning many scientific disciplines. For example, in the. The DEFRA project (2010) on future solutions to suburban environmental protection. The academic literature lead one to believe that the numerous waste materials in flood water where not harmful if the water was boiled. When our trials of these contaminants showed them to be harmful, I lead the group in devising its own system of identification of the individual contaminant using a combination of several techniques from physical and chemical sciences. The extended piece of work detailing the findings has already been made use of in the related UK local authorities, as the key stakeholders were collaborators in this work. This work lead to projects that show a variety of large, systematic studies which have been used to advise national (and European) policy, as well as small, focused projects designed to assist particular international clients with specific research expertise and solutions. Ravenscroft, A. Davidson, P & Walliams D (2011) *Breaking Banks: The financial and environmental cost of flood defence* Pollution Solutions 5(3): 61-65. Report of COST Action "Microbial populations present after wastewater filtering & treatment" in the Journal of International Environmental Communication Association (IECA) no 54/ 2012; http://theieca.org/

	Originality / independence	Although I had initially focused on technology and knowledge transfer to businesses and authorities in developing countries, I found that more social issues in sustainable resource management required support and development. From 2004 I fully embraced this work, and have expanded to the specific requirements of suburban environmental protection in these countries and have also started voluntary teaching groups that teach children in the local schools how to continue the development of their local environmental protection. Publication: *Ravenscroft, A* (2005) What the local community can teach us about waste management: A Case study in Bangalore. EU Project Report: Waste in Action: Spanish-English training of waste officers in Brazilian slum quarters Directorate-General for the Environment Final *Report of the waste in action group (TRASH) held in Vienna from 2 to 6 April 2011.* "Inventory of organic and non-organic waste in Bangalore". Proceedings of the XVI conference of Environmental Protection. Madrid September 6-8, 2010. *This paper presents for the first time to the Bangalorian community an index of harmful and beneficial microbial populations in the local water supplies and recommendations for home testing and purification.*
Knowledge transfer	Entrepreneurship	List entrepreneurship activities undertaken, such as launch or participation in spin-offs, and joint projects with industry, NGOs or government (list top 3). *The activities presented here are relevant for the application and not necessarily the most recent.* I have launched my own consulting agency, giving free aid to third world countries and national charities: ENVIRO.eu http://ENVIROresources.eu/own-site ENVIRO is a consultancy & networking agency which I founded after 20 years experiences with bioresources ranging from conventional to unconventional materials role in protecting the environment, waste management & pollution and sustainable energy resources. **2009-11 Waste in Action: Spanish-English training of waste officers in Brazilian slum quarters**

		2009-11, European Union: TRASH programme. Expertise used for capacity building and education. The project is continuing and we are currently lobbying for amendments to the refuse collection laws in the slum quarters of Brazil
Technological expertise	Methods	Write a few sentences briefly summarising your **technological methods** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it. I am a strong practitioner in developing what the research community has discovered to produce affordable and practical solutions to environmental problems, For example I developed my system of identification of the individual contaminant in flood water by using a combination of several techniques from physical and chemical sciences. The extended piece of work detailing the findings has already been made use of in the related UK local authorities, as the key stakeholders were collaborators in this work. This work lead to projects that show a variety of large, systematic studies which have been used to advise national (and European) policy, as well as small, focused projects designed to assist particular international clients with specific research expertise and solutions Ravenscroft, A., Author, B., Author, C. (2010): The transformation of contaminated water to drinking water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05- 00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf
	Tools + lab equipment	Write a few sentences briefly summarising your **tools + lab equipment** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it. • Calibrate microscopes and test instruments. • Collect samples of gases, soils, water, industrial wastewater, and asbestos products to conduct tests on pollutant levels and identify sources of pollution. • Develop and implement programs for monitoring environmental pollution and radiation. • Develop testing procedures or direct the activities of workers in laboratory. • Discuss test results and analyses with customers. • Examine and analyze material for presence and concentration of contaminants such as

		asbestos, using microscopes. • Maintain data and other files, such as hazardous waste data, chemical usage data, and diagrams showing equipment locations. • Prepare samples or photomicrographs for testing and analysis. • Record test data and prepare reports, summaries, and charts that interpret test results. • Set up equipment or stations to monitor and collect pollutants from sites Ravenscroft, A., Author, B., Author, C. (2010): The transformation of contaminated water to drinking water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05- 00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf *Ravenscroft, A., Cramer, B.,* Phillips, T *(2009)* An inspection system to monitor the status of soil purity in Jutland: Validation of simple nomograms to calculate sample size in diagnostic studies, Part 1. Journal of Environmental science, computer science and engineering & technology (JECET) 45(4) 234-240
	Software	Write a few sentences briefly summarising your **software use** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it. FEMWATER – expert user in numerical codes for delineating wellhead protection areas in agricultural regions. Geo-EAS – expert user in geostatistical environmental assessment MULTIMED – expert user in multimedia exposure assessment model for evaluating the land disposal of wastes THERdbASE – proficient user in **T**otal **H**uman **E**xposure **R**isk **d**ata**b**ase and **A**dvanced **S**imulation **E**nvironment, is an integrated database and analytical/modeling software system for use in exposure assessment calculations and studies

		Please refer to the following studies: Ravenscroft, A (2008) Hazardous microbial populations found in filtering of polluted water to drinking water. *Wastes Management.* 5(8) 143:145 Ravenscroft, A & White, C (2010) A estimation of the risk of infection from exposure to solid human wastes after flooding *International Journal of Risk Management* 9(63) 3456:3460
	Data management or data curation	Write a few sentences briefly summarising your **data management or data curation** expertise. Include evidence to support your claim, such as citing a paper, project, or a contract in which you used it. I work with several national environmental and public health groups to investigate the effects of environmental dictators on wildlife and humans. As a result I have access to sensitive personal and industrial data, which falls under the Data Protection Act. Access to data was approved by the relevant ethical committees. The data is stored in closed systems such as ChemEX. Wildgaard K, Thomas B, Bageneaux F, Filmous I, Ravenscroft, A et al (2004) *Infections after Flooding. Report to the The Thai Ministry of the Environment.* In association with Médecins Sans Frontières Where possible I believe data sharing improves sciences and quickens the rate of development, so when possible I share my data in DataStar and SAED. Ravenscroft, A., Author, B., Author, C. (2010): The transformation of contaminated water to drinking water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05- 00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf
Communication expertise	Languages	English (mother tongue) Spanish, fluent Hindi, currently learning, level 2

		German & French, I can read both languages
	Presentations	Keynote/invited talks at institutions other than your own or at conferences **(most relevant to this proposal)**: 2012 *Invited speaker*: Reusing potentially contaminated landscapes. 14th- International Conference, Section S24 – Soil enrichment and management; S24.03; University of Pardubice, 06.-08.2012, Pardubice, Czech Republic 2011 *Keynote speaker* Arsenic everywhere! A review of the progress in soil contamination detection 1869-the present day. 24th Annual International Conference on Contaminated Soils, Sediments and Water 2010 *Invited speaker* "The importance of local involvement and support in wastes management" University of Bangalore 2007 *keynote speaker* What a waste! XV Conference on wastes management and disease control, Madrid 2007, September 4-5. Proceedings available at: http://www.WAW.org/proc_123.pdf
	Writing	Awards for papers (list top 3): European Sustainable Energy Innovation Award for following paper and project: *Ravenscroft, A., Author, B., Author, C.* (2010): The transformation of contaminated water to drinking water: Guidelines to building a combined pumping and filtering system in Karnataka. Report for the Indian Institute of Science (IISc), Bangalore. (OIG publication No. OAY-05-05-00230). Available online at: http://www.oig.hhs.gov/oay/reports/oay-05-05-00230.pdf
	Public engagement (media interview and other)	Examples of video or audio media interviews (list top 3): Podcast from Radio Cornwall about the effects of the recent flooding on the environment and local waste control & containment. http://www.bbc.co.uk/podcasts/series/bbcic

| Organisational expertise | Management | Description of management roles undertaken (list top 3): This includes planning, organizing, staffing, or leading a group of people.

2011 Consultant to the Office of Building & management, Science & Practice, where my priorities were to plan projects and seek funding; Organize events (conferences, workshops, visits), identify and organize teaching teams, personal and financial management of these teams.

2008 – present. Reader and HoD at School of Civil & Environmental Engineering of the University of Edinburgh. Duties include teaching, supervision and examination of students; Administrative work including performance management and appraisal; pursue research; academic planning, finance (financial procedures approved by the UCL), procurement of staff, dissemination of information, meetings (chairing, organizing, participating), quality management and enhancement, research governance (main components include accordance to ethics frameworks, code of conducts, declaration of interest policy) business continuity and the safety and environmental sustainability of the department (implementation of health & safety policies).

2005-2008 Department leader at the School of Civil & Environmental Engineering of the University of Edinburgh. My responsibilities included acquisition, project coordination, HR and financial management; planning teaching, organising teaching teams, and evaluation of teaching at the end of term. |
| | Advising | Visits to other institutions (universities or other) and the type of advice given (list top 3):

2010 Bangalore University: advice on irrigation and water purification

2011 & 2013 Universidade Estadual de Maringá, Paraná, Brazil: advice on future wastes management and involvement of the local community

1998-2007 During my time as the senior engineer on 11 national projects, through this network I have consulted with numerous local government offices, schools and institutions, such as:
The Edinburgh City Council, dept. for Environmental health. Advice: commercial waste, pollution and recycling. Please contact Mrs H Roberts at the City Chambers for a reference: Roberts@edingburg.gov.uk |

| | Project leadership | Projects and teams led (list top 3). Include the size of the team, and whether this is an international collaboration:

Project leader: **Waste in Action: Spanish-English training of waste officers in Brazilian slum quarters** 2009-11, (plus voluntary project follow-up leader to present day) European Union Collaboration Project: TRASH programme. Expertise used for capacity building and education. I lead a team of 20 partners, who are divided into 4 groups. The four groups are teaching, recruitment, liaison and environmental solutions. The partners are a mix of nationalities and specialities – social workers, teachers, scientists and administrative staff.

2006-2009 Project leader of the Construction Committee, international project between University of Edinburgh and university of Bangalore. The project designed and implemented a water filtration system for a valley community affected by the combination of industrial waste dumping and flooding of their local river, which doubled as their water supply. The group was made up a staff of 5 researchers and technicians and summer employment of a group of 15 students who did everything from digging irrigation ditches to assembling the filtering equipment.

1998-2007 project leader on 5 national projects, varying in size from 3 to 28 people. The projects were of local or national interest, helping communities find practical solutions to the challenges they face such as the largest project I lead "Contaminated Land Project" which aims to investigate the contaminates and investigate the costs of cleaning up the contaminated land to make it fertile agricultural property. |
| | Collaboration | Projects and teams involved in but not led (list top 3). Include the size of the team, whether this is an international collaboration, and the portfolio owner's position in the team:

1998-2007 team member on 6 national projects, size of team 3-17 people, such as Bradford Councils Waste Management project www.bradford.gov.uk/Environment/WasteNOT/

2005 Short term project, run by UNEP IETC International Environmental Technology Centre where I was part of a 7 person international team looking at water quality in some of the world's most populated cities (Beijing, Matale, Novo Hambrugo, Bahir Dar)

2010-present Flood defence (DEFRA-Department for Environment, Food and Rural Affairs).. National project, 13 local authorities are involved in the project. My role is to assess innovative projects that will |

		better protect homes, business and the environment from the risk of flooding
	Administration and committee work	Administrative roles undertaken, including committee membership, chair or secretary roles, organising workshops or conferences, organising online discussions (list top 3):
		Apart from my academic administrative work (please refer to my comments in the Organisational Expertise_Management part of this portfolio) I have organized the following conferences and have administrative roles in the following committees.
		Organiser: ZeroWaste-the future of wastes management. XVII Conference on wastes management and disease control, Edinburgh 2009, September 7-10. Proceedings available at: http://www.WAW.org/proc_123.pdf
		Committee member with administrative duties: SKRALD-summer school august 5-10 (2013) http://www.SKRALD.eu/cms/2/18863
		Organiser and teacher: 2011 Workshop in The Transformation of Waste to Energy. International PhD Summer school for the Dept. of Civil & Environmental Engineering of the University of Edinburgh.

Part 3: Output sub-portfolio

Output	Sub-factor	Claim and evidence
Scholarly outputs	Books	Number of scholarly books or theses published (exclude self-published): ___6_ List of books published (list top 3): *These are what I consider to be my most relevant books to this application, which are not necessarily the most cited, see sub-portfolio. I have used information from the library catalogue WorldCat* Investigation, Remediation and Protection of Agricultural Land: Springer (Book) *2 editions published in 2009 in English and held by 9 libraries worldwide. The*

		Http://www.worldcat.org/xyz/1234 New Technologies in soil filtering and enrichment: (forthcoming) *Expected release May 2014.* Flood water purification: treatment and application as drinking water : Springer (Book) *2 editions published in 2005 in English and held by 9 libraries worldwide* http://www.worldcat.org/xyz/1234
	Book chapters	Number of book chapters published: ___8_ List of book chapters published (*most relevant for this application*): Managing Contaminated Sites. In Hicks & Morrison (2010) "The Handbook of Ecological Risk Assessment". Wiley. ISBN:1234-1234 Reducing soil pollution and improving biodiversity. In Monty D & Sanchez CR (2007) Environmental Science and Pollution" Springer. ISBN 1234-1234
	Journal articles	Number of refereed journal articles or fully refereed complete conference papers published: _47___ List of refereed journal articles or fully refereed full conference papers published *(3 most relevant for this publication)* Francis, B. George C & Ravenscroft A (2011) Environmental Risks and Hazards of Solid Wastes Management. *Journal of Air and Waste Management.* 6 (3) 234:240 Ravenscroft A, Bassi R & Kadakia S (2010) Inventory of organic and non-organic waste in Bangalore. Proceedings of the *XVI conference of Environmental Protection. Madrid September 6-8, 2010.* Milka Banják, Loucha T, Ravenscroft, A (2009) Land resource potential and constraints at regional and country levels: Case study of agricultural land in the Czech Republic *Journal of Environmental Management* 65 (4) 678:701

	Conference papers	*Number of conference abstracts, panel discussions or posters published: _4___* *Ignore unpublished conference papers.* *Water Pollution Reduction in Real Time. Panel Discussion at the COST Action Symposium, Glasgow 2010* *"The importance of data specificity in climate accounting of waste management systems" (as poster and extended abstract) Air Pollution and Waste Management Conference (APWM) Madrid 2011.* *'How methodological issues affect the energy indicator results for different electricity generation technologies from composting' (A poster and working paper). XVII ENVIRO EXPO 2013, RIO July 2-6.* Xenobiotic detection tools in soil remediation. 4th Joint Nordic *Meeting* on *Remediation* of *Contaminated* Sites 2009, Oslo, Norway October 14-17.
Communication to the general public	Press stories	Number of magazine or newspaper articles published (written by you, not about you): _2___ List of magazine or newspaper articles published (by you, not about you) (list top 3) : Water pollution for Dummies. The Guardian, 2012, section 2, p1. http/www.guardian.co.uk/titel/link The future of waste management, Independent Weekend Magazine, 2013, Science & Technology, p.3. http/wwwindependent.co.uk/title/link
Teaching	Books	Number of textbooks published (exclude self-published): _4 teaching manuals. 1 relevant for the application___ White, C.; Ravenscroft, A, M.; Grayson, L & Costas, R.; (2007) Data sets, indicators and methods to assess land degradation in remote farming communities (+CD-ROM) (EN/ES). Edinburgh University Press
Web and social media academic communication	Online presence	List your online presence: accounts in social media used for academic purposes, academic network accounts, digital repository accounts, websites that you created or use to create output. If it applies, mention per site how active you are in posts per year or month (e.g., twitter, blogs, ResearchGate, SlideShare) (list top 3) ENVIRO.eu http://ENVIROresources.eu/own-site ENVIRO is a consultancy & networking agency which I

		founded after 20 years experiences with bioresources ranging from conventional to uncongenial materials role in protecting the environment, waste management & pollution and sustainable energy resources.
Funding & Grants	Funding	Number of projects funded: _15___ Total grant funding received (do not count funding allocated to other universities, and if there were multiple applicants in your own university, divide the funding by the number of applicants): __N/A__ (EU project grants (pre-2007: water conservation); 11 grants totalling £385,175 pre –2007) Waste Management Tax Funds; 2 grants totalling £824,358 1994-1998 Industry/LA funded research; 1 grant totalling £102,238 2009-2011 Industry/LA/DEFRA funded research:1 grants totalling £450,997 2011-2013 TOTAL £ 1,762,768 1994-2011 COST action ES1437 **"Microbial populations present after wastewater filtering & treatment"** Description: Determine the relative proportions of different waste materials present in a potential local water supply after the nationwide floods of 2005 & 2006 in the Czech Republic. Recommendations were used in Rules of Procedure on agricultural aspects, regional development aspects and environmental aspects. 2007-2009. Funders: COST ESSEM **European Union Regional Centre of Expertise in Education for Waste Management (EU EEWM)** Development of a EU EEWM led by University of Edinburgh for the EU Approval is achieved: funding is now being sought Description: Various Expertise in University to coordinate and capacity build across South East of England after flood damage and participate in a world-wide network **Sustainable Waste Management Strategy Development** Working with the School of Education at the University of Edinburgh and the University of Bangalore, to develop a strategy for local councils Council 2010-11, c£38,000 Funders: Department of Trade & Industry **Waste in Action: Spanish-English training of waste officers in Brazilian slum quarters** 2009-11, c£65,000 European Union: TRASH programme. Expertise used for capacity building and education.
Other	EU reports, Yellow papers	Other types of relevant output not covered above (list top 3, explaining each one):

	and annual reports	Each national and European project has resulted in handbooks, reports and yellow papers. Annual report from EDU 2013-2014 http://edu.group-bioresources/Ravenscroft-pdf Follow-up report of EU project Waste in Action. A visit to Brazil one year later Annual report from EDU 2011-2012 http://edu.group-waterresources/Ravenscroft-pdf Yellow paper. Position paper to the EU project "Civilizations Biorefinary". Presented at EurActiv.be.

Part 4: Influence sub-portfolio

Influence	Sub-factor	Claim and evidence [delete the help text and replace it with your text]

Influence on science	Total and average citations	Total citations received to all publications, as listed in Google Scholar: 218_____
		
		    and average number of citations per paper: _4.84___
		
		Note: Google Scholar is only partially representative, covering 43/71 of my publications
		
		Total citations received to all publications, as listed in Web of Science or Scopus: _____
		
		    and average number of citations per paper:____
		
		Only 6 of my articles are found in WOS as I mostly publish in proceedings and books that are not indexed in this database

	Article citations	Total citations to one of your top 3 articles, as listed in Google Scholar: 60, and as listed in Scopus or Web of Science:36 . Article title: *Investigation and optimization of waste management processes—test systems and practical examples.* Publication year: 2003. Authors (in order): A Ravenscroft, L Grayson, White, C Total citations to another of your top 3 articles, as listed in Google Scholar: _21, and as listed in Scopus or Web of Science: 2. Article title: *Contaminant populations during water filtering process of organic fraction*

		of municipal solid waste. Publication year: 2008 . Authors (in order): L Grayson, Tholl F, Ravenscroft A Total citations to another of your top 3 articles, as listed in Google Scholar: 15, and as listed in Scopus or Web of Science:7. Article title: The usefulness of biodegradable plastics in composting facilities. Publication year: 2005. Authors (in order): A Ravenscroft, White C, R Stiles
	h-index	h-index, as listed in Google Scholar: 8 h-index, as listed in Web of Science or Scopus: 2 *(coverage in Web of Science is so poor this number is meaningless)* [The h-index is the largest number *h* such that at least *h* articles have received at least h citations.]
	Book citations	Total citations to one of your top 3 books, as listed in Google Books: 3 Book name: Flood water purification: treatment and application as drinking water _ Publication year: 2005 Authors (in order): Ravenscroft, A Total citations to another of your top 3 books, as listed in Google Books: 4 Book name: Status and prospects of organic waste transformation into energy. Cambridge Publication year: 2010 Authors (in order): A Ravenscroft, White C, Bassi R & Kadakia S
	Age-corrected h-index	m-quotient for Google Scholar: __8/23=0.34_ m-quotient for Web of Science or Scopus: N/A [For this portfolio, the m-quotient is the h-index divided by academic age.]
	Multi-authorship	To compensate for multi-authorship, either report (a) or (b) below, which the evaluator will take into

	compensation	account when assessing your citations. a) Average number of authors on publications used in the above calculations (including yourself): in Google Scholar 3.36; based on my full list of publications 3.32 b) Proportion of publications used in the above calculations for which you were the first author: in Google scholar 24; based on my full publication list 36
	Scholarly prizes	Scholarly prizes and awards received (local, national and international) (list top 3): I have been recognized often for excellence in teaching and for the innovative use of technology in education (SKRALD summer school). I received the 2011 The Times Outstanding Environmental Science Teacher Award from the English Society for Environmental Science and Technology. I received the AUT Memorial Award for Teaching Excellence, Edingburgh University in 2005
	Downloads	From Research Gate: Article name *Investigation and optimization of waste management processes—test systems and practical examples* Number of downloads: 6 (45 views) Article name *"The importance of data specificity in climate accounting of waste management systems"* Number of downloads: 4 (39 views) Article name The usefulness of biodegradable plastics in composting facilities Number of downloads: 2 (19 views) [Downloads can sometimes be found in publisher websites; Put N/A if not available for your top articles; Can also report downloads for electronic reports or other resources instead.]

	Mendeley readers	Article name *Investigation and optimization of waste management processes—test systems and practical examples* Number of Mendeley readers: 23
		Article name *The importance of data specifity in climate accounting of waste management systems* Number of Mendeley readers: 19
		Article name *Contaminant populations during water filtering process of organic fraction of municipal solid waste* ” Number of Mendeley readers: 8
		To count Mendeley readers, go to Mendeley.com and search for each publication, recording how many readers it has (list top 3):
	Advice	Number of times asked for specialist evidence outside academic, economic and educational contexts, including membership of non-academic, non-educational committees: _____ Examples of giving specialist evidence outside academic, economic and educational contests, including committee memberships (list top 3)
		2011-2012 Consultant, Office of Building & Management, Science & Practice. EU application advisor
		2010-present Consultant, EU Water conservation and Bioresources Department. Advisor on combined energy, waste, sewage, agriculture and material flow.
		2012-present Personal & financial consultant: Research and Innovation Group, Edinburgh University. Acquisition of funding, project management, personal and group financial management.
	Professional practice	Examples of professional practice using your subject expertise (e.g., working as a lawyer, nurse) (list top 3):
		2012 Wastes and waste disposal project leader, fundraiser and liaison officer between local government offices Paraná, Brazil
		2009 Project Co-ordinator EU DAFRA: European sustainable energy alliance (Bruxelles)
		2005 Onsite drainage coordinator and project manager, Bangalore, India

	Laws, regulations, guidelines	Laws, regulations, guidelines and so forth that have been initiated, developed or amended, at least partly based on your research. Briefly explain how and refer to projects, papers and other evidence of this influence (list top 3):
		(In progress) Together with my partners in Brazil we are currently amending the law on waste disposal and waste use as sustainable energy in Brazil
	Dataset or software downloads	Number of downloads of datasets or applications created by the portfolio owner (list top 3).
		White, C.; Ravenscroft, A, M.; Grayson, L.; (2006): Planning a water-filtering facility- A software for teaching and training. In: Management of putrescible organic matter in waste disposal, University of Bangalore, IWWG (Hrsg.); Self-published, Bangalore University, Karnataka *Not publically available for downloading. Copyright Ministry of Education, Department of Higher Education India*

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Appendix: The ACUMEN Portfolio

In preparation to filling out the portfolio have a full publication list and CV beside you, find out how many of your publications are included in Google Scholar, Web of Science and/or Scopus. Note how they are cited. Note your h index, the average number of authors per paper and the amount of publications on which you are the first author.

If parts of the portfolio are not relevant to you, please grey them out rather than leaving them blank or deleting them.

Name: _____   **Email address:** _____   **Date of portfolio:** __/__/____

Part 1: Narrative and academic age calculation

Part 1a: Narrative
Delete the help text in this box and replace it with your narrative. The narrative gives your personal interpretation of your value as a researcher, as supported by the evidence in your portfolio as far as possible. For example, if you think that your main contribution is in publishing articles then state this. In contrast, if you think that your main impact has been on theoretical discussions in blogs, or on education, or the media then state this instead. Write it with the situation in which you want to use the portfolio in mind, such as a job application or a grant application (maximum: 500 words).

Part 1b: Academic age calculation	**Information [delete this and/or replace with extra academic age explanations]**
Start date of PhD: ___ /____/_____ *Date of PhD defence or 1st acad. job (earliest of the two):* ___ /____/_____ *Number of children raised after PhD defence or 1st*	The academic age calculation helps the evaluator to mentally adjust their expectations based upon someone's academic age. The minimum permitted Academic Age is 1 in all cases, even for those without a PhD. Some researchers do not have a PhD or start researching before obtaining a PhD so the start date is the date of the first academic job, if earlier than the PhD defence and for researchers without a PhD. Academic jobs include assistant/associate/full professorships, lecturers, reader and similar, researcher and research-related posts in

| *acad. job: _____*

Special allowances (describe below): _____

Academic Age = *Number of full-time years worked (count % of full time for part-time years) since PhD defence or 1st acad. job – Number of children raised – special allowances = _____ years (min. 1 year)*

Justification for special allowances (if any):

NB. You **can** include in your Portfolio things that you did before your PhD defence or first academic job. | academic organisations and teaching positions in academic institutions. If you have a special case, such as a graduate research job with an embedded PhD, please explain it in this box.

Part-time work means being employed on a fractional post in academia and either working outside academia in parallel or not having another job. Working as a project administrator, web designer, teacher or any other semi-academic task as part of a full-time academic contract counts as *full-time* academic working, for example. Part-time work should not be claimed for periods in which the child-raising allowance below is counted.

Number of children raised: Count each child for which you were the single main responsible person during the year from their birth, and who were born after your PhD defence. This allowance can be shared between carers (e.g., 0.5 years per child), if agreed by both.

Special allowances: Additional special allowances can be subtracted for disability, illness-related time off work (> 6 months), carer responsibilities, non-academic jobs (e.g., military service) or other unusual cases. These must be explicitly justified by the portfolio owner. Claims are at the discretion of the portfolio owner and should be within the spirit of supporting equal opportunities. See related UK discussions: http://www.ecu.ac.uk/documents/ref-materials. No allowances are made for teaching or for management at the department level or below. |

Part 2: Expertise sub-portfolio

Expertise	Sub-factor	Claim and evidence [delete the help text in most cases and replace it with your text]
Scientific/ scholarly expertise	Theoretical	Write a few sentences briefly summarising your **theoretical** expertise. Include evidence to support your claim, such as citing a relevant paper in which you used it. This could include the main theoretical frameworks that you follow or the paradigms that you work in. This may not be applicable to you, particularly if you work in an empirical field. If so, please write: "Not applicable to my research area."

	Subject	Write a few sentences briefly summarising your **subject** expertise. Include evidence to support your claim, such as citing a relevant paper of yours. This would normally be the main subject areas or specialist fields that you have researched in or have detailed knowledge of.
	Methodological	Write a few sentences briefly summarising your **methodological** expertise. Include evidence to support your claim, such as citing a paper in which you used it. This refers to the primary methods that you have used in your research.
	Originality / independence	Write a few sentences briefly summarising your **originality/independence** expertise. Include evidence to support your claim, such as citing a paper in which you demonstrated it. In other words, explain how you have demonstrated originality in your research.
Knowledge transfer	Reviewing	Provide the total number of (a) conference papers and (b) journal articles you have reviewed and (c) give examples of journals or conferences for which you reviewed (list top 3).
	Entrepreneurship	List entrepreneurship activities undertaken, such as launch or participation in spin-offs, and joint projects with industry, NGOs or government (list top 3).
Educational expertise	Courses taught or developed	(a) Approximate number of hours spent lecturing to a class (not including preparation or 1-1 supervision) _____. (b) Description of the types of courses prepared and taught *excluding* online courses and MOOCs (these are listed as outputs). This might be a list of courses prepared or an overall description of the topics and levels of the courses. List only those that are most important to you, (list top 3).
	Other educational expertise	Think about what the expertise is and support your claim with references to, for example, summer schools, field trips, internship supervisions.
Technological expertise	Methods	Write a few sentences briefly summarising your **technological methods** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it.

	Tools + lab equipment	Write a few sentences briefly summarising your **tools + lab equipment** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it.
	Software	Write a few sentences briefly summarising your **software use** expertise. Include evidence to support your claim, such as citing a paper, project or a contract in which you used it.
	Data management or data curation	Write a few sentences briefly summarising your **data management or data curation** expertise. Include evidence to support your claim, such as citing a paper, project, or a contract in which you used it.
Communication expertise	Languages	List plus level of any formal qualifications gained, otherwise self-assessment.
	Presentations	Keynote/invited talks at institutions other than your own or at conferences (list top 3):
	Writing	Awards for papers (list top 3):
	Public engagement (media interview and other)	Examples of video or audio media interviews (list top 3):
Organisational expertise	Management	Description of management roles undertaken (list top 3): This includes planning, organizing, staffing, or leading a group of people.
	Advising	Visits to other institutions (universities or other) and the type of advice given (list top 3):
	Project leadership	Projects and teams led (list top 3). Include the size of the team, and whether this is an international

		collaboration:
	Collaboration	Projects and teams involved in but not led (list top 3). Include the size of the team, whether this is an international collaboration, and the portfolio owner's position in the team:
	Administration and committee work	Administrative roles undertaken, including committee membership, chair or secretary roles, organising workshops or conferences, organising online discussions (list top 3):
Other		Other types of relevant expertise not covered above (list top 3, explaining each one):

Part 3: Output sub-portfolio

Output	Sub-factor	Claim and evidence
Scholarly outputs	Books	Number of scholarly books or theses published (exclude self-published): _____ List of books published (list top 3):
	Book chapters	Number of book chapters published: _____ List of book chapters published (list top 3):
	Reviews	Number of book reviews published: _____
	Editorials	Number of editorials published: _____
	Journal articles	Number of refereed journal articles or fully refereed complete conference papers published: _____ List of refereed journal articles or fully refereed full conference papers published (list top 3)
	Conference papers	Number of conference abstracts, panel discussions or posters published: _____ Ignore unpublished conference papers.

Communication to the general public	Press stories	Number of magazine or newspaper articles published (written by you, not about you): ____ List of magazine or newspaper articles published (by you, not about you) (list top 3) :
	Encyclopedia articles	Number of encyclopedia articles published (excludes Wikipedia and similar): ____ List of encyclopedia articles published (list top 3) Can give examples of contributions made to Wikipedia as part of these:
	Popular books / articles	Number of popular books or articles published: ____ List of popular books or articles published (list top 3).
Teaching	Books	Number of textbooks published (exclude self-published): ____ List of textbooks published (list top 3):
	Online courses	List of online courses created (includes MOOCs), including creation date, type of materials generated and number of students per year (list top 3):
	Students completed	Undergraduate students supervised as main supervisor that have now graduated: ____ students Master's students supervised as main supervisor that have now graduated: ____ students PhD students supervised as main supervisor that now have their doctorate: ____ students
Web and social media academic communication	Online presence	List your online presence: accounts in social media used for academic purposes, academic network accounts, digital repository accounts, websites that you created or use to create output. If it applies, mention per site how active you are in posts per year or month (e.g., twitter, blogs, ResearchGate, SlideShare) (list top 3)
	Online contributions	Give examples of other online contributions to scholarly discussions that you made here. Do not repeat information given above (list top 3):
Datasets, software, tools,	Datasets	Number of datasets published: ____ Brief description of datasets published (list top 3):

instruments		
	Software, tools, instruments	Number of software, tools and instruments developed: _____ Brief description of software, tools and instruments developed (list top 3):
Registered intellectual or industrial rights	Patents	Number of patents, standards, guidelines published: _____ Brief description of patents, standards, guidelines published (list top 3):
	Discoveries	Number of registered discoveries, such as animal species, celestial bodies, DNA sequences, algorithms: _____ Brief description of registered discoveries (list top 3):
Funding & Grants	Funding	Number of projects funded: _____ Total grant funding received (do not count funding allocated to other universities, and if there were multiple applicants in your own university, divide the funding by the number of applicants): _____ Brief description of funded projects (list top 3):
Other		Other types of relevant output not covered above (list top 3, explaining each one):

Part 4: Influence sub-portfolio

Influence	Sub-factor	Claim and evidence [delete the help text and replace it with your text]
Influence on science	Total and average citations	Total citations received to all publications, as listed in Google Scholar: _____ and average number of citations per paper (count the total number of journal articles, fully refereed conference presentations and books in the denominator): _____ Total citations received to all publications, as listed in Web of Science or Scopus: _____ and average number of citations per paper (count the total number of journal articles, fully refereed

		conference presentations and books in the denominator):____
	Article citations	Total citations to one of your top 3 articles, as listed in Google Scholar: _____, and as listed in Scopus or Web of Science: _____. Article title: _____ Publication year: _____ Authors (in order): _____ Total citations to another of your top 3 articles, as listed in Google Scholar: _____, and as listed in Scopus or Web of Science: _____. Article title: _____ Publication year: _____ Authors (in order): _____ Total citations to another of your top 3 articles, as listed in Google Scholar: _____, and as listed in Scopus or Web of Science: _____. Article title: _____ Publication year: _____ Authors (in order): _____
	h-index	h-index, as listed in Google Scholar: _____ h-index, as listed in Web of Science or Scopus: _____ [The h-index is the largest number h such that at least h articles have received at least h citations.]
	Book citations	Total citations to one of your top 3 books, as listed in Google Books: _____ Book name: _____ Publication year: _____ Authors (in order): _____ Total citations to another of your top 3 books, as listed in Google Books: _____ Book name: _____ Publication year: _____ Authors (in order): _____ Total citations to another of your top 3 books, as listed in Google Books: _____ Book name: _____ Publication year: _____ Authors (in order): _____ [To find Google Books citations to a book, search Google Books for the book title and manually scan the results for genuine citations to the work.]

	Age-corrected h-index	m-quotient for Google Scholar: ___ m-quotient for Web of Science or Scopus: ___ [For this portfolio, the m-quotient is the h-index divided by academic age.]

	Multi-authorship compensation	To compensate for multi-authorship, either report (a) or (b) below, which the evaluator will take into account when assessing your citations.
		
		   a) Average number of authors on your publications listed in Google Scholar (including yourself):___
		   b) Proportion of publications listed in Google Scholar for which you were the first author: ____
		
		If monographs, Web of Science publications or Scopus publications are more important to you than Google Scholar publications, you can report for these instead, but please state it clearly.

	Scholarly prizes	Scholarly prizes and awards received (local, national and international) (list top 3):
	Editing and reviewing	Your main reviewer, editor or editorial board member tasks (list top 3):
	Committees	Your main conference/program committee memberships (list top 3):
	Online discussions - social web followers	Number of followers, if substantial, in your web presences (e.g., Academia, Blogs, Twitter) (list top 3): Social website name _____ Number of followers: ___ Social website name _____ Number of followers: ___ Social website name _____ Number of followers: ___ Also, report up to 3 interesting web mentions of you or your work that are not already elsewhere in the

		portfolio:
	Downloads	Article name _____ Number of downloads: ___ Article name _____ Number of downloads: ___ Article name _____ Number of downloads: ___ (top 3 downloaded only) [Downloads can sometimes be found in publisher websites; Put N/A if not available for your articles; Can also report downloads for electronic reports or other resources instead.]
	Mendeley readers	Article name _____ Number of Mendeley readers: ___ Article name _____ Number of Mendeley readers: ___ Article name _____ Number of Mendeley readers: ___ To count Mendeley readers, go to Mendeley.com and search for each publication, recording how many readers it has or see the Scopus record for the article (list top 3):
	Invited talks	Number of invited keynote talks at conferences outside your country: ____ Number of invited keynote talks at conferences inside your country: ____ Number of invited talks at universities outside your country: ____ Number of invited talks at other universities inside your country: ____ List of invited talks of all kinds [include name and venue] (list top 3):
Influence on society	General public	Number of magazine or newspaper articles published (written about your research, not by you): ____ Examples of magazine or newspaper articles published (about your research, not by you) (list top 3): Examples of web pages published (about your research, not by you) (list top 3, including title and who wrote them):

	Tweets or blog posts about publications.	Article name _____ Number of Tweets of it: ___ (one article only) Tweets can only be monitored in real time but can report them if they are reported in the publisher website, or see the Scopus record for the article or try the Altmetric Bookmarklet, available free at: http://www.altmetric.com/bookmarklet.php. Article name _____ Number of Blog posts about: ___ (one article only) [Blog posts can be identified via Google by searching for the publication name in Google Blog Search (the main Google, but select Blogs from the More link). There may be many false matches, so the results need to be checked and filtered. Or see the Scopus record for the article.]
	Advice	Number of times asked for specialist evidence outside academic, economic and educational contexts, including membership of non-academic, non-educational committees: ____ Examples of giving specialist evidence outside academic, economic and educational contests, including committee memberships (list top 3):
	Professional practice	Examples of professional practice using your subject expertise (e.g., working as a lawyer, nurse) (list top 3):
	Laws, regulations, guidelines	Laws, regulations, guidelines and so forth that have been initiated, developed or amended, at least partly based on your research. Briefly explain how and refer to projects, papers and other evidence of this influence (list top 3):
Influence on economy	Income	Total 3rd stream income (money generated for commercial activities): _____
	Consultancies	Number of consultancy or advisory positions for companies: _____
	Citations from	Number of citations to your work from patents: _____

	patents	Names of patents citing your work (list top 3): [Citations from patents, if any, may be listed in the Google Scholar citations to a paper.]
	Citations *to* patents	Number of citations to your patents (if any) from scholarly documents: _____ [Citations to your patents, if any, can be found by searching Google Scholar for the patent.]
	Spin-offs	Number of spin off companies created: ___
Influence on teaching	Awards	Teaching awards, including both within and outside the host institution (list top 3):
	Online views	Number of views of your top 3 SlideShare or YouTube presentations, if substantial. Presentation URL: _____ views: ____ Presentation URL: _____ views: ____ Presentation URL: _____ views: ____ [Could also report any similar view counts for other sites, such as Vimeo, or online learning environments.]
	Syllabus mentions:	Number of online syllabuses or course notes pages listing the academic's works (list top 3). Publication: _____ Syllabuses mentioning: ____ Publication: _____ Syllabuses mentioning: ____ Publication: _____ Syllabuses mentioning: ____ [Note: Syllabuses can be identified via Google by searching for:

		`syllabus "[publication name]"` *or* `"reading list" "[publication name]"` where [publication name] is a key publication. Can also try different language versions of "reading list". This is very time consuming to check so please only include it if educational uptake is important for your work.]
	Textbook sales	Total sales of your textbooks: _____ copies. [Can also report Amazon sales ranks in comparison to similar books instead, if sales figures unavailable (list top 3). To do this, search for your book by title or ISBN in Amazon.com and find "Amazon Best Sellers Rank" in the Product Details section and report this number.]
	Invited lectures	Number of invited lectures to undergraduates at other universities: _____
	Dataset or software downloads	Number of downloads of datasets or applications created by the portfolio owner (list top 3). Name of software/dataset: _____ Number of downloads _____ Name of software/dataset: _____ Number of downloads _____ Name of software/dataset: _____ Number of downloads _____ [can also report citations to the software or datasets from Google Scholar, if any]
Other		Other types of relevant influence not covered above (list top 3, explaining each one):