

DETAILED REPLY TO THE FRC PAPER, dated February 2019

Business Reporting of Intangibles: Realistic proposals

A Discussion Paper prepared by staff of the UK Financial Reporting Council

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Reply from Christopher de Nahlik,
chris.denahlik@btinternet.com

Comments are aligned, as requested, with specific paragraphs in the Paper, probably best read in conjunction with the Paper.

O. Invitation to Comment

Background

1. This reply focuses exclusively on the Research and Development area of intangibles. The challenge being addressed is that standards are significantly different between US and IASB, not to mention in other different countries.

Objective

2. 'Realistic' – the spectrum of all intangibles and what constitutes individuals' views of 'realistic' proposals in relation to them is subjective; it may call for compilation of a list, with all views ranked by average perceptions of 'realistic'.

3. 'Questions' set may be restrictive and so unduly controlling the freedom of thought, with the accompanying possibility that truly innovative proposals for improvements may be limited.

4. Paragraph specific comments will be attempted but may also be limiting – as in 3.

5. This response has been prepared by a private investor and user of annual reports, with their narratives and financial statements. A part-time academic, primarily interested in the broad spectrum of technology sector industries (engineering, pharmaceutical, ICT, etc), with a focus on value and its measurement/assessment in innovation; this in the context of the creation and capture of value through the separate consideration of research and development for the production of economic benefits; and, importantly, a perception for an investor (versus a speculator) of the managed efficiency and effectiveness of the whole innovation process in the interests of long-term company viability

Request for Comments

S1. Introduction

6. Intangibles from innovation, specifically Development, are generally not reflected in the financial statements because standards/regulations/guidance are either not enforced and/or not sufficiently clear & concise; consequently they are open to managerial judgement in manipulation/abuse/ etc with potential for obfuscation – intentional or otherwise – potentially with earnings 'management' often for the short-term benefit of those with internal management power rather than the majority of stakeholders – internal and/or external.

Q1. Yes. To benefit the multidisciplinary preparers of annual reports for the benefit of users (especially long-term investors), advisors, auditors, etc, so that the reports present a more realistic appreciation of companies' real monetary value at all levels and across all functions (see 'value' above).

S2. Which intangibles should be reported as assets?

7. IFRS Conceptual Framework, Project Summary, March 2018 (IFRS CF PS) – does not contain 'requirements' but 'guidance', and includes definition of assets, now with 'potential' rather than 'expected' economic benefits.

Development costs/value of a potential product should be reported as an 'asset', but the definition of development needs to be reviewed and rewritten, so to narrow the 'gap' between the definition of

Research – creation of new knowledge, etc, eg as HMRC - and Development. Actual expenditure could then be a matter of record in the books contributing to the financial statements. This has been achieved to some extent in the latest IASB CF PS where assets have the '*potential* to produce economic benefits' (perhaps one might infer something like $\sim 0.5 > (P) > 0$) in place of economic benefits are '*expected* to flow' (perhaps one might infer something like $(P) > \sim 0.5$); however, expensing or capitalising it is still a matter of subjective management judgement, so the result is still a relatively useless number – consequently the latest position is still open to manipulation, and thus favoured by some companies. The point of change in recording of expenditure - from expensed Research to capitalised Development - can be managed in being brought forward by companies wishing to show more profit or delayed in pursuit of greater certainty of a beneficial asset.

8. (i) a. This would be an ideal situation, but not always easily possible – certainly in genuinely innovative high-value manufactured products with long periods of costly (research and then) development it may not be possible to accurately estimate the future development costs for several years ahead, though one must attempt do so in the interests of good management and budgetary control – as an example, ask any well-known manufacture of advanced pharmaceutical remedies or large aircraft gas-turbines! However it is possible, and should be the case, to record actual development costs for each period as they occur for capitalisation, maybe not exceeding the initial estimates. This may in future benefit from the IFRS CF BS revised definition of an asset, where the asset has the *potential* to produce economic benefit rather than the *expectation* which may be inferred to indicate reduced probability – also see 2.8, below.

b. *Specifying* the economic benefits for capitalisation, in the interests of Return on Investment (RoI) targets, would be useful to management, for instance at the 'gates' in 'stage-gate' innovation process management. In lengthy development however, sometimes there are unanticipated iterations/feedback loops which put up the costs beyond budgeted plans/expectation and may give rise to lower/higher than initially estimated (not specified) potential benefits/returns. In such cases considering amortisation or impairment policy/methods may be premature.

(ii) If one had insistence for all this information before any decision, no progress would be made in medium- to high-tech innovation; the various unknowns – not only 'known unknowns', but also 'unknown unknowns' and 'unknowable unknowns' would be too alarming.

Fair value estimation of 'potential', never mind measurement of 'expected', may well be uncertain - which is why it is safer, when possible, to stick with actual costs incurred - as facts – for the assets capitalised in a period. This would reduce the scope for manipulation, obfuscation, creative accounting, etc.

Q2. Not always, see above

Q3. Yes, mostly, if value; No if cost.

Q4. Yes.

S3. *Disclosure of expenditure on intangibles*

9. (i) There is a case to improve clarity and usefulness: Innovation expenditure that is beyond the stage of Research on an idea (to generate new knowledge, etc) and beginning to focus on Development of an identifiable new product with *potential* (as opposed to *expected* as in the past) to produce economic benefits could usefully be recorded/disclosed separately instead of being expensed – which is the 'easy low-risk option'.

(ii) Recorded cumulatively this might avoid the 'loss' of development's record of true cost. This would be useful for the assessment of innovation efficiency in progressing from idea research to product development, as well as reducing the possibility of potential 'embarrassment' of having to impair the capitalised development expenditure later in the programme if the project is abandoned/shelved in a later period.

Q 5. Yes.

S4. Narrative reporting

10. (i) Agreed. In the case of technology companies, this should include research as probably one of the most relevant to the business model in terms of long-term viability.

(ii) Estimates of the potential costs and value of development and the resulting products' value would be interesting and useful to investors.

(iii) As these would be most useful in assessing a company's long-term future and trends, financial performance reporting should be for several periods. However, in some cases, this may also be useful to competitors, with metrics in the narrative, and/or quantitative analysis in the Notes to the accounts. Therefore care has to be taken with both these metrics and with the required/expected/hoped-for level of granularity in treatment of project-specific material/information (eg, value estimates, multiperiod trends, targets). Even for patented/registered material there is the risk of theft/copying/trolling, particularly from smaller entities that cannot afford to defend their IP against less scrupulous companies/regimes. Whilst this additional material could be useful, it will not make for shorter reports!

(iv) Influencing factors – the causes, as well as the outcomes – the effects, might be considered as company confidential. If some intangibles' expenditure, otherwise and previously unrecognised (and so expensed) because of being *potential* rather than *probable* sources of future income, are to be retrospectively recognised/disclosed, as in S3 above, then it is essential that a clear explanation is given in the narrative.

(v) Standardised industry/sector definitions and metrics could be helpful with care.

Q6. Yes, but with limited aspirations/expectations – see above.

S5. Implementation

11. Detailed comments, and Q7, see 5.1-4, below.

Further questions

Q8. General business macro-environment information, eg using STEEPLES.

Q9. Mainly the separation of Development from Research for separate consideration, with the accompanying need for their tighter definition and closing the 'gap' between them.

1. Introduction

Objectives

1.1 The cost approach to estimating the contribution made to company assets by (Research and) Development is useful in some situations, such as long development cycles lasting several periods – where one then records expenditure – both facts, and potential value estimation. Inadequate reporting of development which should have been capitalised has indeed affected investment – both internally within companies and externally by investors who get an inadequate perception of assets to support long-term viability. So re-evaluation and reform of the standards is overdue.

1.2 Generally, in much writing, literature, guidance, etc, in accounting and other areas, such as technology, there is careless use of the words research, development, ideation, R&D, innovation, etc, leading to a lack of clarity and consequent misunderstanding; this is particularly in referring to content of US based standards, literature, etc, with their differing use of terms and very different accounting standards in the treatment of research and development – collectively as 'R&D'. So great care is needed and such terms should be clarified at the beginning of writing/speech in these areas. The concepts in innovation of 'researching an idea' and 'developing a product' may be helpful.

Why not make a better attempt to provide a better explanation in the narrative, and closer approximation in the statements to a value of the company, by stating what is/is not included and why?

Past transactions from previous and current periods relating to the cost development should be included as part of the reported intangible assets.

1.3. Because individuals' perceptions differ (- what might appear radical to some people may be considered reasonable as an idea by others, but needing adaptation/remodelling to be useful and acceptable and not too difficult) – avoid too much 'control and management' at an early stage; it can stifle development of useful innovation. There is a need to accept for consideration, and to include exploration of, a spectrum of changes from near future short-term evolution to longer term radical revolution – and then to decide the boundary of what is more practicable for the near future.

In technology companies' innovation processes, there lacks clarity around the differentiation, identification and definitions of expensed Research as separate from capitalised Development, and around a defined point of transition from the former to the latter. With effort this could be made clearer, so as to narrow/eliminate the 'gap' in expenditure allocation between the two; this may not need radical change so much as evolution to reduce/remove the scope for managerial judgement in preparing the financial statements.

1.4 Intangibles might benefit by also explicitly including designs and manufacturing processes; in much of the current work in this field there seems to be an absence of comment related to medium- to high-technology, science, etc, based companies and manufacturing industry in general.

Perhaps legally owned patents, registered designs, copyright, etc, should be considered for inclusion as assets at the cost of their Development to registration, after realisation that the outcome of the preceding (expensed) Research into new knowledge is considered to be worth pursuing towards a source of economic income. This might be more difficult to deal with for 'defensive' patents and those assets 'secured' by means other than legal, such as 'speed to market' and/or maintenance of company 'trade secrets', because smaller companies (and some larger ones) avoid the costs and procedural delays of assets registration and their legal defence against larger companies and 'trolling'.

1.5 IFRS CF PS. Radical change should not be dismissed at this early stage – both generally and in relation to 'assets' specifically (see 1.3, above).

1.6 Narrative reporting, especially in support of the financial statements, using Alternative Performance Measures (APMs) where useful, will be a valuable contribution if well integrated; this might be better executed now that the FRC/ARGA will have influence over both.

1.7 The term 'Intangibles' rather than 'intangible assets', has potential to usefully add to the scope of this work. Having taken the step to once more approach the 'intangibles' and 'assets' boxes, let us not shy away from the examining the nature of their content – cat or chameleon!

Scope of project

1.8 – 1.11. Agreed.

Structure of this paper

1.12 – Agreed

2. Which intangibles should be reported as assets?

Definition of an asset

2.2 – 2.4 [Note. 'Control' is power to *influence* or *restrict* the course of events; 'Right' is *moral* or *legal* claim or entitlement, result of effort. Keep in mind that the *Conceptual Framework* is 'concepts' and 'guidance', it is not a standard, but is for developing standards.]

Internally generated assets, controlled by the entity through registration include patents, designs, copyright, etc, (either of the asset or as a 'defence'). Control can also be achieved through speed to market, unique manufacturing capability (from sustainable competitive advantage), etc, as a result of past events and the associated expenditure.

At least any registered IP, ie, patent, design, process, etc, is an identifiable bounded resource (supposedly) legally controlled (but may not be defensible by its owner due to lack of funds in a small company) and separable, so has potential economic benefit – therefore it should be required to be classed and capitalised as an asset, capitalised at cost as a minimum – especially in long duration development processes.

2.5 The value of a skilled workforce and its training as an 'asset' would be included, to some extent, by the values attributed to the (research and) development via its costs; they are a significant element of the innovation expenditure, as apart from the costs of the tangible assets involved in the form of plant and equipment.

Recognition

2.6 However, before the development phase takes place, but following the research phase (at which point uncertainty is not so great) continuation is to development of an identifiable product, the representation of which is related to designs, drawings, models, etc. At this point progress to development should have been justified by some estimates of future value (eg Return on Investment (RoI), Net Present Value (NPV), etc), in which case this value could be used as capitalised asset value until actual expenditure is recorded for the period during development (where, hopefully, $R > I$, $NPV > 0$, etc), after which point adjustments can perhaps be made to the assets' values – probably during the review of project, iteration, cancellation, etc, as might be expected at 'gates' of a stage-gate innovation process. So, possible measurement bases might initially be potential value, then moving to include cost as further information is available to reduce uncertainty.

Cost.

More work needs to be done during this 'intangibles' investigation better to understand the nature of sectors and companies (typically technology focussed and manufacturing) that generate internally their own long-term value through their self-generated intangible assets from their own distinct and separate expenditures on research and development. In many areas there is ample scope for obfuscation and/or management judgement.

2.7 In technology industries/sectors it is useful to differentiate between financial accounting (for costs) and management accounting (for value of economic benefits), as well as distinguishing between expensed research and capitalised development, and to separate them during research, analysis, drawing conclusions and considering recommendations.

So, hopefully, in a major company (eg, FTSE 350), the financial accounting will separately record the expenditures, be they on research or development (or manufacturing), and direct or indirect. So, the costs of research and of development will be known and controlled against budgets.

2.8 In companies where innovation is managed systematically on a project basis (eg stage-gate process, or similar) it should also be as reasonable to assume that intangible assets (recognised as separate potential products) in internal development (resulting from internal research), on considerations of management accounting (eg, RoI, NPV), will also provide economic benefit greater than cost when initially evaluated as a viable project after completing research of the idea/concept (costs of which will have been noted for future reference and expensed) – hence those development expenditures will also be capitalised. However, indeed, some other more nebulous intangibles may be less easy to separate.

2.9, 2.10 As for serendipitous inventions/ideas, the research for new knowledge/idea may have had little or no identifiable research costs. However, deciding to move on from the idea to a product

with, and development of, useful applications, will probably have separate and identifiable expenditure to be capitalised; the anticipated total development costs to complete the project should have been estimated and budgeted for, as well as the potential economic benefits, before taking the matter into development in order to justify the decision – eg RoI, NPV, etc.

2.11 – 2.13 Inevitably some projects in development – with hard to quantify data for analysis - may be determined, at some stage, to not be as viable in economic benefit as initially estimated (for reasons such as those exemplified in 2.12) – these may be looped back for re-evaluation, further investigation for variations, recorded and parked for potential revival as markets develop, or abandoned, impaired and expensed as sunk costs. Innovative technological enterprises are well aware of the Risk/Return relationship as part of making progress in their field – the skill is in the associated decision making – often best involving wider expertise from marketing, technology, production and not solely relying on an accounting decision, thus integrating many other company departments.

There is a tendency to rely on (academic) research from the USA, only some of which can be relied upon as independent of their accounting standards which are different in the areas of accounting for research and development – in that there is no real recognised difference between the two, the areas being conflated as ‘R&D’ and entirely expensed.

2.14 For the above reasons, it is evident that the reporting of intangible assets at cost, estimated and/or actual, **will** often provide relevant information if properly managed in appropriate circumstances and industry sectors, and to appropriate assets. Care should be taken to keep research and development expenditures – budgeted and actual – separate.

(i) & (ii) Yes.

Cost and/or value of internally developed products can and should be recorded and can be assessed, thus providing relevant information (see 1.14, above). This Paper is supposed to be a consultation; it should be approached with an open mind willing to consider all proposed options, with how/where to make possible changes; making recommendations for ‘no change’, “because it’s too difficult or expensive” - as has been the case with earlier work by some standards setters - should be avoided. Why is universal comparability considered important, when industry/sector comparability could be sufficient? Nor is this the place for giving tactical ‘advice’ on how to ‘deal with’ private individuals’ research; nor for stating ‘the only means’ of doing anything – certainly not for saying without justification that ‘all research expenditure is capitalised without limit’; they are quite clearly not the ‘only’ means, and indeed ‘neither solution seems appropriate’. It may be interesting to note that HMRC has an understanding and definition of Research, as related new knowledge, (for allowances and grants, etc) which could be worth investigating as a point of departure for starting the separating and differentiating of research from development, and so closing the ‘gap’ of uncertainty. Whilst comments in this response apply only to internally generated intangible assets in the form of (research and) development, it is appreciated that general comparability with many other acquired intangibles may be difficult, or indeed may be impossible.

Fair Value

2.15 There is no point in emphasising the *active* market – there may well be an active market for existing (products’ or variants) intangible assets, such as a design for a new car (as Tesla found with deposits paid for its second model). For true innovations, ‘generic substitutes’ or ‘disruptive innovations’, which are probably unique, there may well be no existing *active* market, but a (*potential v expected* – IFRS CF PS) latent market which can and should none-the-less be estimated to justify expenditure in progressing to development.

2.16. Considerations in 2.15 and 2.7-2.14 should not preclude using cost or perceived future income value, as used in a RoI or NPV calculation to justify an investment in developing an innovation.

2.17 - 2.19 A latent/potential market can and probably does exist for a patented product, registered design, etc – otherwise it would not be committed to development, never mind production. Examples from some of the cited literature may be of dubious relevance to many tech/pharma/etc products.

2.20 See 2.7 – 2.14, above. Why not use actual past experience of expenditure in development, as well as advanced estimates of future costs? For an innovative product there may have been no service capacity to replace, in which case there will be nothing to ‘reflect’. If it is not possible to ‘estimate in advance’ the cost of developing an intangible, after doing adequate research and a preliminary market investigation, it may be a risk to embark on the development – but reward can be proportional to risk.

2.21 The income approach may be perceived as difficult, but (especially in many technology companies) it may not be impossible for some intangible (see 2.22, below), particularly development in those technology companies with a more direct relationship with better acquainted customers and/or a familiar market. In most cases income should be able to be adequately estimated by larger entities (FTSE 350) using (potential) market/customer information examined initially in early stage of screening the original concept/idea (scientific or market); then justify further expenditure on completion of positive research indications of technological as well as market potential in transferring from research to development, this then being sufficient to satisfy the IFRS CF PS revised guidance of the asset having *potential* to produce economic benefit (at normally reliably estimated, monitored and controlled budgeted expenditure for NPV calculation). This relates to company management of innovation through financial and management accounting integrated with research and development with which to measure created and captured (intangible) value.

Much of the literature cited is from a different standard’s environment and was written before this Paper’s ‘invitation’ to reconsider, refresh and rewrite the rules to be more useful to the user. Much of it will need to be reviewed and questioned after the findings of this Paper are published, especially in the technological B2B context to which research and development producing much of the intangible’ value apply. Therefore, decisions should be multidisciplinary to achieve balance, involving both technologists, scientists, etc, as well as accountants.

Scalability. It would be more useful to use the context of Business to Business (B2B) as well as Business to Consumer (B2C), then move to technology environments, where it may be difficult but it is not impossible to estimate the changing *potential* market and its value; this could be achieved after working on research costs expensed, then moved into project/product specific development costs to be capitalised, so justifying continuation of the project NPV. If then, over time, with regular required revaluations, the potential NPV changes, it could be raised if it exceeds original estimation or impaired (to expenses) if it drops.

Network effects. If the adoption rate is higher than the potential anticipated, see scalability, above.

Synergies. If use of the patent (or other IP) increases the sustainable competitive advantage of an existing product, and hence value to both the producer and customer, through offering the customer improved differentiating benefits of the enhanced product, then the value of the intangible increases and could be capitalised as a result of the required regular reviews. If the patent, etc, can be sold, it must have a potential market and associated value.

2.22 Indeed, it is appreciated in the revised IFRS CF PS, Ch 4, that there may be measurement uncertainty, which is assumedly *why expectation* has been changed in favour of *potential*.

2.23 Hence NPV to calculate fair value, includes uncertainty, risk, etc, in the discounting factor of the DCF.

2.24 Indeed the separation of some intangible assets from goodwill is questionable if they are both of the more nebulous variety, such as customer lists, goodwill, etc; however, the more clear, definite and real intangibles of products in development with potential market value, which are

separable and have calculable fair value should be considered separately – otherwise they should not have progressed from the expensed research stage, through the control/decision gate, into the capitalised development stages.

Conclusions

2.25 & 26 The change of wording in the definition of an asset from *expected* to potential in the IFRS CF PS permits more intangibles to be recognised on grounds of more lenient probability considerations, particularly in moving from research to development. It may be worth considering the definition of ‘research’ as new knowledge (along the lines of HMRC for allowances, grants, etc); thence classifying everything which follows such research in the innovation process as development, having identified a viable product (positive NPV) with justifiable continuing expenditure to bring it to market. Recognition of more nebulous intangibles warrants consideration of their individual merits.

2.27 & 28 How relevant to IFRS is the Brookings Institution report to the subject of capitalisation versus expensing of ‘R&D’? This Institution is based in Washington, DC, USA, where research is conflated with development – in accordance with US standards, into ‘R&D’ - which implies that it is ‘all or nothing’, whereas a lot of the discussion in the FRC and under IFRS is about the separation of research from development and their individual consideration and treatment. Indeed, ‘What investors want, and need is information about the values of internally developed intangibles that drive the value creation process in firms’; this is clearly a challenge if research is conflated with development into ‘R&D’ as in US standards. – Most of this argument is therefore probably irrelevant in the IFRS context.

2.29 Indeed, it is not a matter of ‘increasing the *extent* to which intangibles are recognised as assets’, it is more the depth and detail (*granularity*) within that assessment and recognition of individual separate classes of intangibles with the relatively nebulousness of their nature – ‘most promising’ and ‘better’ are subjective and thus dependent on the individual’s perceptions in influencing any such discussions. Promising would be

- reviewing the existing standards’ detailed requirements in the light of changes in the revised Conceptual Framework – such as the changed consideration of ‘economic benefits *expected* to flow’ in favour of ‘*potential* to produce economic benefits’ – which can be inferred as a more ‘lenient’ lower probability.
- consideration of how financial statements might provide ‘better’ information depends on the users’ perceived needs and wants, along with what they are accustomed to in contrast to what might be possible. –This in the area of what to some users may be ‘unknown unknowns’. In the area of innovation, keeping separate internal records of research as distinct from development expenditure, as well as estimation of potential value of economic benefits, would be a significant contribution to usability, supported by clearer and less ambiguity with more pressure to ‘comply’ – rather than ‘explain’. If research and development expenditures have always treated together because their differentiation and separation has always been so unclear/woolly/careless/manipulated and generally unreliable, then possibly obfuscated for earnings ‘management’ hoping for whatever ‘better’ may be could be considered by many users as forlorn, and hence not worth discussing or requesting. This is an opportunity for improvement beyond the expected.
- qualitative reporting with more informative explanations of intangibles, particularly research and development, integrating the narrative section with the financial statements and notes to them, would be welcome – this being more assured with narrative becoming included in the FRC/ARGA’s remit.

3 Disclosure of expenditure on intangibles

Comments specific to Research and Development for companies in technology focussed sectors:

3.1 & 2 Included for consideration here might also be the separation of R and D which should eventually be structured in such a way that reporting their expenditures in separate periods as expensed or capitalised could reduce 'earnings management' where possible, particularly if structured to be 'tax neutral' which may need consultation and co-operation with HMRC, and probably the Chancellor of the Exchequer, along with changes to the tax treatment and allowances, grants, etc, for Research.

3.3 – 3.5 The 'aggregate amount of research and development expenditure recognised as an expense' suggests that aggregation here is an accepted and unavoidable practice (as required under US standards) and may be becoming acceptable under UK standards; however, under IFRS the standard's guidance requires that development is separate and should be capitalised. Specific clearer requirements should be developed (and enforced) for separate disclosures of expenditures on research and development individually – the challenges here being the 'future orientated intangibles' of long-term viability, and narrowing the current 'gap' between what is defined as research (eg by HMRC) and what is currently defined as development (eg by IAS 38) – the 'gap' giving scope for earnings (and associated tax) management for short-term advantage; the change in IFRS definition of an asset from benefit *expected* to flow in favour of *potential* to produce benefit may be helpful. Of more help would be defining the point in innovation processes for ceasing research's expensing and commencing development's capitalisation; in some industries the point is considered to be when product is released to the market, which is long after actual development has commenced. In Aerospace this tends to be achievement of Certificate of Airworthiness and in Pharmaceuticals at passing of clinical trials. In both these cases a significant amount of actual development beyond research and new knowledge, patents, etc, has taken place, and before release to the market; but because of the (industry) defining transition point this expenditure (and time) is classed as research and so expensed, this leads to under-valuation of the companies' Intangible Assets and consequently the users' perception of long-term viability and the entities' susceptibility to speculative acquisition attempts. See, also 4.6-4.8, below.

3.6 – 3.8 Clear separation of reported research from development expenditures, with more robust definitions to reduce the 'gap' (see 3.3-3.5, above), could help clarify to a greater extent the financial performance of the innovation process in the form of efficiency; initially in the amount of research expenditure required to achieve development's definition, and subsequent expenditure on its development; then its trends from period to period could be helpful to the user as well as management.

3.9 (c) & (d) These could be challenging, not least for industries with long research and/or development periods (~10 years or more) before producing economic benefit. So accounting periods should be separated – at least over a number of years, depending on the innovation cycle's duration. **If** it is considered necessary to decide whether to expense or capitalise all research and development together, expensing will lose all records along with the possibility of useful analysis, alternatively capitalisation would maintain the records for users' information; subsequently, research costs can be classified and recorded so that those that transpire to be useless can be noted and impaired to expenses (where they would have gone anyway), costs of research that proves to be of value leading to products and their development can be noted separately before expensing; thence expenditures on successful development will be where they belong for amortisation or impairment on revaluation.

A challenge exists in that moving from research to development phase is not necessarily a single point in time so much as a point between the various simultaneous stages in the overall innovation process, in an attempt to achieve 'speed to market' for instance.

Also, there may be some research and/or development needed after launch, thus complicating the expense/capitalisation decision. For example, Certificate of Airworthiness or acceptance of clinical trials, if followed by initial under-performance of the product in use, requires further expenditure to recover the required/designed performance. - Is this research for new knowledge or development of the product? However, potential challenges such as these should not be seen as excuses to avoid identification of research as being separate from development.

4 Narrative reporting.

4.1-4.4 The drivers of financial performance, defined and clarified in narrative reporting, often in connection with the business model, is extremely useful, especially for the non-accountant user/investor, when clear and integrated with the financial statements and explanatory Alternative Performance Measures (APMs), etc.

4.5 Amongst the most value adding intangibles are research and developments individually, and collectively as innovation. This is especially the case for drivers of financial performance in the business model of various technology sectors, each of which may indeed have different characteristics, as do companies within segments of sectors - as so rightly highlighted in the last sentence of this subsection of the Paper - and even further in niches for companies that do development but little or no research, making clear distinction between research and development even more important; therefore, comparability can be a challenge, but clear explanation should enable clarification.

4.6 – 4.8 Research and development intangibles, which are the main creators/generators and preservers of value, should be discussed in the narrative for all technology companies, to explain the reasons for their selection, or maybe more significantly their non-selection, and the precise criteria for their separate consideration, analysis, expenditure classification and inclusion in the financial statements. For instance, as also noted in 3.3 – 3.5, above, passing clinical trials for pharmaceuticals and granting of certificate of airworthiness in aviation are used as the defining moment of change in allocation from research to development; however, in both these cases this may be inappropriate because significant actual development has taken place after the original research achieving new knowledge/patents. The expenditure on this post ‘new knowledge’ research work is expensed in the annual report, thus concealing the efficiency of the innovation process in moving from research to development and its effectiveness in moving on to generating economic benefit in the form of sales. Without greater clarity of standards and adequate narrative in this area, obfuscation of efficiency and effectiveness is too easy and investors will have to continue accepting conflated ‘R&D’ expenditure and its unreliable and inconsistent treatment.

Metrics

4.9 Metrics, or APMs, in the narrative part of the report can be helpful in support of, but not instead of, clearly explained and linked data in the financial statement; now that the FRC/ARGA are going to have responsibility for both, this necessary integration will be resolved.

4.10 The value of clearly defined research and development intangibles’ expenditure will be very useful – even if challenging to management in some cases when first introduced; both, but particularly development can be quantified (see above in ‘cost’ and ‘value’ sections) and have a direct impact on reported financial performance; without at least research and/or development most technology companies would have no existence. Most ‘obstacles’, being perceived rather than real, are better considered as ‘challenges’.

4.11 Yes. The proportion of sales from new products could be a very useful measure of overall innovation (research and/or development) effectiveness, bearing in mind there may be a significant time lag between research and development before sales.

Also, the total 'employment' cost of different groups of value creating/generating and capturing/preserving employees within a company could be useful.

4.12 This is fundamental to most of this Paper for many intangibles, but particularly for research and development; actual costs must be known to management as well as value of expected economic returns into the future periods, eg NPV along with management's explanation for the user (see 4.15, below), of different projects in, or scheduled for, development in a well-run large company (FTSE350). They should be in the financial statements or notes thereto, but being in the narrative as APMs would be better than nowhere.

4.13 In the case exemplified with patents – the actual number of patents is fairly useless, it is their nature and latent value that matters as potential sources of economic benefit. Care is needed here about confidential matters such as markets, technology and the like, and patents may only be taken out as a 'defensive wall' around something of real value to be pursued, in which case are unlikely to create any returns.

4.14 Correct.

4.15 See 4.12, above.

4.16 Agree.

4.17 No comment.

4.18 – 4.20 Disaggregation of 'R&D' into research and development is vital and discussed full above. And see 4.5, above, for separation of parts of sectors, etc, for achieving meaningful comparisons and contrasts.

5. Implementation

5.1 Yes, opportunities are there to achieve positive useful changes in corporate, and particularly financial, reporting. This will need strong leadership in multidisciplinary cooperation, coordination and consideration by the Creators and Preservers of Value, which is in turn measured by the Preparers for use by the Investors, all as required by the Accounting Standard setters.

5.2 Indeed, review of current practices by Preparers, led by senior management, is important to achieve basic buy-in of any future changes by the company. It is also necessary for the metrics to be agreed within the individual company; a list of suggested metrics may be helpful for guidance and hopefully achieving some commonality of metrics. Agreement where possible with similar companies would be useful for the sake of easier comparisons – the question being how 'similar'. For the company information to be both valid and reliable, close cooperation between departments/functions will be necessary within companies. So, those actually preparing and presenting the information, probably senior accounting staff, information on such metrics as expenditure on research and development by those actually creating and preserving the value, need to work together in preparation of the raw data/information, and in close co-operation with those capturing the value through sales income, so involving senior technical and marketing staff as well. Achieving this may be challenging, calling for senior management buy-in and leadership.

5.3 Influential investors at all levels and across industries could indeed play a major beneficial part here.

5.4 Strong leadership and guidance on development and adoption of revised accounting standards on a 'comply or explain' basis may be appropriate if carefully introduced and explained through 'multifaceted' consultation and dialogue.