

IPO Intellectual Property Call for Views

Introduction

1. This paper responds to the call for views from the Intellectual Property Office (the Consultation), as one of the initiatives contributing to the Industrial Strategy Green Paper published by the Department for Business, Energy, and Industrial Strategy in January 2017. Extensive reference is also made to the 2013 "Banking on IP Report" (the Report) published by the IPO.
2. This paper makes two submissions based on analytic and business activity reporting tools recently developed by Work Process Systems Ltd (background information provided in cover email). These submissions fall within the two overarching principles identified in that Report.

- a. First, we have developed and tested across different sectors in Ireland, a new range of reporting tools giving staff, management and investors the operational evidence at the work process level to improve the efficiency, and as a result the long-term value, of their enterprises. These tools are uniquely focused on the services sectors of the economy. They also have the capacity to help investors, managers and lenders, who are the primary focus of the Report, to develop, exploit and increase the value of IP and intangibles. It is common ground that the latter make a crucial contribution to increasing UK productivity, the primary objective of the Green Paper.

We would therefore like to explore with the IPO, how far these reporting tools can contribute to the development of the "resource toolkit", which the Report states should be established, with the IPO acting in a sponsorship role, to help "SMEs, lenders and investors to make more effective use of the value IP and intangibles represent within businesses". Based on the extensive career experience in international project, equipment and asset-backed insurance funding of one of the executive Directors of Work Process Systems Ltd, we are confident that a range of debt providers and insurers will be interested to explore this opportunity to apply the same resource toolkit to extend and support intangible funding. The case is made in more detail below, where we explore the relevance of work process reporting to each of the ten concluding recommendations from the Report.

- b. The section of the paper headed "Developing the IP Registration System" addresses the second principle to **build on existing initiatives**. Here we submit suggestions for a concrete methodology, which can use IT technology developed by Work Process Systems Ltd, for the IPO to increase substantially the value to the economy of the current IP registration system. If organised along the lines recommended here, it could strengthen the infrastructure supporting financial market IP funding, without requiring government to provide supporting guarantees, as for example is being offered in Singapore.

The Current Focus

3. There are a variety of different IP and intangible asset classification systems and taxonomies in use by different professions and applied for different business, statistical and regulatory purposes.
4. The categories of intangible assets with the most widely recognised legal protection and perceived tradability include IP such as patents, trade marks registered designs and creative copyright portfolios. The IPO is the responsible authority for maintaining this register for the UK.
5. The macro economists Corrado, Hulten and Sichel (CHS) have developed a taxonomy, which has wide following in that profession.
6. A range of techniques for identifying and valuing intangible assets are recognised for a range of arm's length commercial purposes. The definitions and criteria for recognition vary according to context. One definition of intangibles is given in the RICS Red Book: "A non-monetary asset that manifests itself by its economic properties. It does not have a physical substance but grants rights and economic benefits to its owners". This handbook approach is referred to by a variety of professions including bankers.

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7. While applying a similar definition, International Accounting Standard 38 applies very detailed and rigorous criteria for recognising the categories and circumstances for recording expenditure, before it can appear as an asset on the financial balance sheet. Particular attention is paid to any expenditure claimed to represent the internal generation of the asset, where the expected or actual future benefit is a marginal cash flow increase from sales or licence fees or savings, contributing to what is defined as Entity-specific Value.
8. The formal balance sheet recognition of an intangible asset has considerable impact on the perceived value of an enterprise to investors and to potential funders. The latter, of course, as is extensively analysed in the Report, face considerable additional challenges in achieving an enforceable security interest at an acceptable valuation.
9. The focus from bankers on how the security interest in an intangible asset is realisable in the event of borrower failure, and the risk constraints under current valuation conventions applicable for the lenders, have led to a huge gap in the funding requirements of an economy, for which growth is now largely driven by the commercial exploitation of intangibles.
10. It is noticeable, and for the whole economy regrettable, that lending is easier for innovative intangible assets working in the manufacturing sector, where the intangible asset tends to be “technological” and more easily associated with physical assets, than can be the case in the services sectors, which represents around 80% of the UK economy.

Some Value Recognition Gaps

11. There are numerous studies looking at the growing role of intangible assets from a world-wide perspective. For example, the IP investment bank Ocean Tomo estimated that in 2015 the attributable value allocation to the S&P 500 market value could be split 16% to tangible assets and 84% to intangibles. This was virtually the mirror image of their 1975 estimate which was 83% tangible and only 17% intangible.
12. There is another study from the IP valuation consultancy Brand Finance covering 58,000 quoted companies over 160 countries estimating that of a total enterprise value of \$89tn, \$41.9tn represented undisclosed i.e. unexplained value.
13. It is also the case from local studies that for the UK economy, with its recent flat lining of productivity growth and possible decline of productivity in the services sector, there is a need for improved business efficiency management techniques in non-tangible operations. The Bank of England Chief Economist has noted poor management as a possible cause.

New Areas of Focus

14. The Green Paper identifies ten Pillars for Government policy to work on for growing productivity. We address two of the ten here: Investing in Innovation, and Supporting Start up and Growth.
15. This paper, however, goes beyond the aspects addressed by the Consultation and the Green Paper.
16. We have identified a gap in the reliability of the work, i.e. operational, efficiency reporting and valuation tools currently available to investors and managers in services, a distinct from manufacturing, enterprises. The gap reflects the lack of a hitherto generally accepted framework for identifying empirically, and monitoring, either the business configuration or the performance of services sector management and output delivery at the work process level.
17. We have some examples to show that across a range of services organisations, whether growth SMEs or the public sector, this inhibits productivity growth at the enterprise level. Examples of significant areas of management weakness, where this gap typically manifests itself, include lack of systematic operational accountability and of auditable performance management.
18. The methods and techniques by which Work Process Systems Ltd addresses and fills this gap can be demonstrated elsewhere. Their potential contribution to the issues dealt with in the Report

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are summarised and commented on below. We submit that this could represent a useful broadening of the techniques currently available for “SMEs, lenders and investors to make more effective use of the value IP and intangibles represent within businesses”.

19. The core contribution from the methods and techniques for monitoring operational control at the work activity level, offered by Work Process Systems Ltd, is to provide an evidential link, shareable between staff, management, investors and lenders showing the performance of all key business model components at the work process level and their strategic contribution.
20. Senior managers, investors and lenders have from this a more factual and auditable base than is possible without this level of operational reporting, upon which to make strategic assessments. It supplements traditional financial and management accounting in ways, which can be shown to be essential for long term value growth.

Relevance to the Report's Ten Recommendations

21. Identify IP and intangibles during the financing process:

We endorse the recommendation, while noting that the place for the staff and management of each enterprise to start, is to have a systematic and fully functioning reporting system in place to manage their IP and intangibles at the work process level, as an integral part of their management reporting, and independently of any fund raising.

22. Take into account the value in IP:

We endorse the view that care must be taken to assess the real value of IP and intangibles. In tradeable examples this will be by reference to any potential external market; and in cases where the IP is designed to generate internal value only, it will be by reference to entity-specific cash flow differentials. Only with a systematic and fully functioning reporting system in place at the work process level to manage their IP and intangibles can the differential cash flow generation be properly identified, managed and safeguarded, and the appropriate legal package be prepared, to satisfy funders considering lending against this cash flow. This also provides a necessary set of management practices to satisfy intangible asset recognition criteria of IAS 38.

23. Reduce risks through cost effective due diligence:

Work Process Systems Ltd specialises in licensing competence maturity monitoring systems for optimising the due diligence process for corporate investors, and we endorse the recommendation that this approach can also be usefully adopted by and for lenders.

24. Include cost effective legal security templates in the resource toolkit:

We endorse this recommendation and submit that the granularity of data, which performance reporting at the work process level provides, can assist the tightness of the security cover drafting in any legal template.

25. Improve the infrastructure of IP markets:

We endorse this recommendation and submit that the granularity of data, which performance reporting at the work process level provides, can support deal making in, and the execution and pricing efficiency of, an IP market.

26. Improve on-going IP management:

We endorse this recommendation, which reflects the principal case made in this paper.

27. Increase the availability of insurance cover to mitigate IP funding risks:

We endorse this recommendation and, while not yet a product which Work Process Ltd has developed, it is within our capability and experience from an insured asset-backed financing background to modify current financial market products for this purpose.

28. Develop techniques to stimulate private investment and securitisation:

As stated above, only with a systematic and fully functioning reporting system in place at the work process level to manage their IP and intangibles can the differential cash flow generation of any one IP be properly safeguarded, and the appropriate legal package be prepared to satisfy funders lending against this cash flow. Again, we can contribute to any such initiative.

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29. Promote joined up thinking:

We would submit in this context that we are already working in parallel initiatives at the academic level to demonstrate how a systematic and fully functioning reporting system at the work process level can make a useful contribution to improving both productivity and innovation techniques for enterprises.

Developing the IP Registration System

30. The section above headed "Current Focus" notes the current variety of classification schemes applied by different professions for different analytical, business (including lending) and statutory statistical purposes. We submit that progress can be made to co-ordinate and cross reference these different taxonomies. We also note that some organisations are advocating a further breakdown of the classification sets in ways, it is claimed, which could increase the accuracy of implementing and reporting them, as well as bringing about improved productivity and societal responsibility across the economy.
31. It is not our role or expertise to advocate the benefits of any one taxonomic system over another. We do, however, have a useful and easily used IT application KnowledgeGrid©, which the IPO may wish to assess for the purpose of making the current Registration regime more comprehensive, more supportive of IP management at the enterprise level, more relevant to expanding the IP funding market and sourcing more comprehensive statistical data from the work process level within enterprises for national policy making.
32. This is too comprehensive a potential programme for it to be appropriate in this paper to offer more than to summarise a few headlines setting out what we suggest IPO may like to consider, both in principle and in terms of cost effective deliverability:
- The IPO could oversee and update a new classification system, starting with that of CHS, and, if decided in consultation with other authorities, to extend this to include subdivisions advocated by others, such as Re:Cap. WPS would be pleased to demonstrate how KnowledgeGrid© could be used to make the classification fully open and shareable. This would help firms classify their IP prior to applying it to operations.
 - As part of this classification IPO could also provide details on the different types of registrable IP within the CHS (or extended) taxonomies, such as patents, copyrights etc. IPO is the proper repository for this, as they also provide operational services for each IPO class.
 - When firms implement the management of their IP classifications they will wish i.a.:
 - To add the cost of developing and maintaining the IP. IPO could work with IASB to review how these maintenance costs can be aligned with IAS 38. This would be equally helpful for supporting economic growth, in those cases where firms wish to capitalise intangibles, but only for an internal management accounting balance sheet. This could be the case, if management considers, for example, that although the IP they are developing in-house has promise for future value generation, it does not, or not yet, meet the demanding requirements of IAS 38.
 - To monitor and maintain assessments of the developing sources of evidence needed to support different types of valuation, These will be applicable, depending on the category of IP and the commercial purpose for obtaining a valuation; for example, bookkeeping, or meeting due diligence enquiries from investors or lenders. Examples of valuation methods will include: market value, discounted marginal cash flow present value and customer valuation for these assets. WPS have developed a proprietary process which enables customer value to be assessed.
 - For those firms who do a formal customer or other value assessment, IPO could be the custodian for the records and evidence used to arrive at the valuation. This could constitute an essential independent record forming part of the security package for offers of funding or insured value guarantees from the insurance market. If deemed in the national interest, it

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could on occasions support a government backed guarantee scheme, following an audit of the assessment.

- e. Firms need to assign appropriately weighted allocations of intangible assets to operational work processes, in order to deliver improved labour productivity and multi factor productivity. This has been very well documented by Brynjolffson, Garicano and others.
- f. In order to assess the impact, which these intangible investment allocations have on outputs and performance, firms need to provide productivity and multifactor productivity measurement at the work process level. In conversation with one of us, Jonathan Haskell, the UK economist who has provided the most detailed analysis of the impact of intangibles on the UK economy, stated that "the firm is a black box", as far as macro economics is concerned. It is important for all levels of productive activity in the economy for more light to be cast on how resources, both tangible and intangible, are allocated to the productive process at the firm level.
- g. Preliminary discussion with ONS suggests that they would be interested in working with us specifically on our Resource Allocation and Management (RAM) reporting software, which provides reporting at work process level and opens up the possibility of aggregating labour productivity and multi factor productivity from work process level to firm level. We would like to explore with IPO how this can be applied in parallel to intangible reporting.

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