18 July 2022

Mr Didrik Thrane-Nielsen

Europen Financial Reporting Advisory Group

35 Square de Meeus

1000 Brussels

Belgium

Dear Mr Thrane-Nielsen,

RE: Submission in response to the EFRAG's Discussion Paper on "Better Information on Intangibles: Which Is the Best Way to Go?"

Stefano Zambon (University of Ferrara – Chair – EAA member), Jan Marton (Gothenburg University – Vice Chair – EAA member), Christina Dargenidou (University of Exeter – EAA member), Janice Denoncourt (Nottingham Trent University – EAA member), Clemence Garcia (Gakushuin University - EAA member), Ricardo Luiz Menezes da Silva (University of São Paulo – EAA member), and Alberto Quagli (University of Genoa – EAA member) [hereinafter "the authors"] on behalf of the Financial Reporting Standards Committee (FRSC) of the European Accounting Association (EAA) would like to thank EFRAG for the opportunity to comment on the Discussion Paper "Better Information on Intangibles: Which Is the Best Way to Go?".

The purpose of the EAA FRSC and the EAA members is to bring contributions of academic research to the standard-setting process related to Financial Reporting. In this comment letter, the authors aim to provide research-based input to the debate on Intangibles and the challenges and issues brought forward in EFRAG's Discussion Paper on "Better Information on Intangibles: Which Is the Best Way to Go?" The authors do so by on the one hand discussing academic research results informative to the nine questions and by on the other hand providing academic reflections on those nine questions based on the academic literature. The comment letter follows the order of the nine questions raised in EFRAG's Discussion Paper "Better Information on Intangibles: Which Is the Best Way to Go?".

With this letter the authors, on behalf of the EAA's FRSC, provide points of attention to consider in this project related to intangibles and inform EFRAG and the project team working on this project on additional references to relevant research, which the project team of EFRAG could consider when delving deeper in the responses to the nine questions embedded in the Discussion Paper "Better Information on Intangibles: Which Is the Best Way to Go?".

On the following pages, the authors discuss the nine questions raised in the Discussion Paper "Better Information on Intangibles: Which Is the Best Way to Go?". They would be pleased to answer any question you may have.

Yours sincerely,

Prof. Stefano Zambon
on behalf of the EAA Working Group

Stefano Zambon (University of Ferrara – Chair – EAA member), Jan Marton (Gothenburg University – Vice Chair – EAA member), Christina Dargenidou (University of Exeter – EAA member), Janice Denoncourt (Nottingham Trent University – EAA member), Clemence Garcia (Gakushuin University, EAA member), Ricardo Luiz Menezes da Silva (University of São Paulo – EAA member), and Alberto Quagli (University of Genoa – EAA member) on behalf of the EAA's Financial Reporting Standards Committee (FRCS)

EAA Financial Reporting Standards Committee (FRSC)

EAA Working Group on Intangibles[1]

Response to the EFRAG Discussion Paper on "Better Information on Intangibles: Which Is the Best Way to Go?"

Table of Contents

[1] The members of the EAA Working Group on Intangibles and authors of this response are: Christina Dargenidou (University of Exeter), Janice Denoncourt (Nottingham Trent University), Clemence Garcia (Gakushuin University), Jan Marton (Gothenburg University) (Vice-Chair), Ricardo Luiz Menezes da Silva (University of São Paulo), Alberto Quagli (University of Genoa), and Stefano Zambon (University of Ferrara) (Chair).

- **Introduction and background context**

The economic relevance of intangibles is nowadays universally accepted. However, corporate assets such as intangibles – including monopoly intellectual property right (s) (patents, trademarks and copyright among others) – have been largely invisible, not only in the traditional financial accounts but also in corporate law theory and the legal reporting framework, although this is beginning to change.

Intangibles represent the foundation of businesses and economic systems, as recognised already in 1904 by Prof. Thorstein Veblen (University of Chicago), when he stated: "The substantial foundation of the industrial corporation is its immaterial assets" and "All capital … is subjected to an interminable process of valuation and revaluation …on the basis of its presumptive earning-capacity, whereby it all assumes more or less of a character of intangibility". Therefore, intangibles have been a feature of businesses for quite some time. What has changed is the relative weight that intangibles have taken on in the last twenty-five years or so in the economic life of companies, public sector organisations, territories, countries and regions.

However, it is also true that intangibles are elusive and multi-faceted, as well as unstable, uncertain and riskyin many respects, which make them difficult to document, represent and measure. Consequently, despite the economic relevance of intangible assets being unanimously accepted, the delicate and complex issue of the accounting for, the valuation of, and the disclosure on intangibles remains contested. As stated by Defliese (1971, p. 66) "the fact is that we were – and are – dealing with complex issues, that resist simple solutions".

It is a common understanding that intangibles are fundamental resources for explaining companies' value creation and that they are critical to foster entities' resilience and growth over the medium to long term. Indeed, for many companies, most of their value is today amenable to intangibles having a pervasive role in the businesses (UKIPO Report 2016).

Since 2018 onwards, the above-mentioned issues have begun to re-attract the attention of various international accounting and reporting institutions and bodies. ACCA, ICAS, EFRAG, EFFAS, FRC, EFAA, WBCSD, WICI and the French ANC have started differentiated projects on better accounting and reporting of intangibles.

For example, in August 2019, ICAS issued a publication titled "Intangibles", which combined a positioning paper and a call for research aimed at stimulating the submission of proposals directed to unveil and explore how organisations do and could report information on those resources. Grounded largely on literature findings, the ICAS position paper maintains that, despite the existence of a large amount of research on intangibles, these resources are still 'problematic' from a reporting standpoint. Indeed, although a quite large amount of accounting and reporting literature deals with intangibles, many different aspects still call for further analysis and deeper understanding.

Also the IASB and the FASB are exploring issues linked to accounting for intangibles. In particular, the IASB is currently addressing the topic of disclosure on intangibles within its ongoing Management Commentary project, which is now at the Exposure Draft phase. In April 2022, the IASB voted formally to include "Intangible Items" as an active project on its agenda from 2024 on.

The present attention to intangibles comes at a turning point of the institutional attention on the reporting of these resources. In the stakeholder survey launched in February 2020 by the European Commission on the revision of the EU Directive no. 95/2014 on non-financial information, over 60% of the responding users (investors/financial analysts) asked for more information on intangibles.

Possibly as a consequence of that, in the proposed text of the "Corporate Sustainability Reporting

Directive" (CSRD), published on 21 April 2021 and aimed at repealing Directive no. 95/2014, the European Commission introduces a provision requiring companies to report on intangibles that are currently outside the scope of financial statements and reports, explaining this with the necessity for a better understanding of the value creation process. In particular, point (28) of the Preamble of the proposed new Directive states:

> *It is widely recognised that information on intangible assets and other intangible factors, including internally-generated intangibles, is underreported, impeding the proper assessment of an undertaking's development, performance and position and monitoring of investments. To enable investors to better understand the increasing gap between the accounting book value of many undertakings and their market valuation, which is observed in many sectors of the economy, adequate reporting on intangibles should be required. It is therefore necessary to require undertakings to disclose informationon intangibles other than intangible assets recognised in the balance sheet, including intellectual capital, human capital, including skills development, and social and relationship capital, including reputation capital. Information on intangibles should also include information related to research and development.*

Moreover, at the proposed art. 1, section 2, of CSRD, intangibles are defined as "non-physical resources that contribute to the undertaking's value creation", whilst at art. 19a the proposed text prescribes that "Undertakings shall also disclose information on intangibles, including information on intellectual, human, and social and relationship capital."

On the background of this rapidly evolving picture, EFRAG inaugurated in 2018 its "Better Information on Intangibles" project which has driven to commissioning an ad hoc academic literature review on the subject area (Zambon et al., 2020) and setting up an "Advisory Panel on Intangibles" (API). Again, at EFRAG the Project Task Force on "Non-Financial Risks and Opportunities and the linkage to Business Model", which has finished its work in 2021, has adopted the approach that intangibles should be reported together with sustainability.

Lastly, at the end of August 2021, EFRAG has issued a Discussion Paper on "Better information on intangibles – Which is the best way to go?", where it is recognised an asymmetric treatment of intangibles in IAS 38 and it is suggested a package of possible solutions to deal with these resources, acknowledging that intangibles are a large family that internally has different features, and that, hence, it should not be considered as "one size fits all". As a potential approach, EFRAG's DP considers three possible approaches consisting of modifications in the recognition and measurement requirements of IAS 38, new disclosures on the entity's specific intangibles, and an identification and disclosure of its future oriented expenses (EFRAG, 2021).

The remainder of this document will proceed to respond to each of the 9 questions posed by the above mentioned EFRAG's Discussion Paper.

- **Question 1 – Issues with the current information**

Intangibles have been defined in general terms as 'non-physical resources which either alone or in conjunction with other tangible or intangible resources can generate a positive or negative effect on the value of an organisation in the short, medium and long term' (WICI, 2016).

Notwithstanding their universally recognised importance in company management and value creation, information on intangibles is one of the most problematic areas in today's corporate reporting, since intangibles largely do not appear on financial statements or in the related disclosures[2]. Indeed, it is well known that there is little visibility on these resources, especially if intangibles are internally generated and developed and not externally acquired.

Even though new reporting tools have recently been implemented by companies – such as sustainability and integrated reports – that could bring about the production of more information on intangibles outside financial statements, these resources seem to remain still unaccounted and under-reported. In short, information on intangibles inside and outside financial statements remains scant.

In particular, there is undoubtedly a lack of quantitative and qualitative public information about the growing magnitude of corporate Intellectual Property (IP) assets that makes it difficult to assess quantitative as well as strategic value and company directors' stewardship of those assets (Denoncourt 2016, 2018). The quality and substance of corporate reporting of intangibles is simply not good enough to meet users' needs in the modern knowledge and digital economy. Further, as pointed out by Mary Shapiro, former US SEC Chair, accountability is impossible without transparency.

According to a large and consistent body of the accounting literature (e.g., Lev, 2001; Zambon et al., 2020), IAS 38 on 'Intangible Assets' is frequently pointed out as one reason for this reporting gap owing to its restrictive approach (see paras. 63 and 64, IAS 38) reinforcing the lack of consistency between internally generated and acquired intangible assets. Indeed, this IASB standard requires all internally generated intangibles not to be recognised on the face of the balance sheet, with the only exception – when certain conditions are met – of development costs. Only externally acquired intangibles can be initially measured at cost, which corresponds to purchase price in case of a specific acquisition or to fair value if an intangible is acquired in a business combination (IFRS 3). All the investments in internally developed intangibles are to be expensed immediately, this creating an imbalance between assets (underestimated) and expenses (overestimated), which in turn depresses that year-end's profit and the company accounting capital structure compared to the situation of their capitalisation. This problematic state is particularly significant for research- and knowledge-based SMEs (cf. European Commission, RICARDIS Report, 2006).

To be true, even the former Chairman of IASB, Hans Hoogervorst, defined IAS 38 in 2012 as "rudimentary" ("The imprecise world of accounting", keynote speech at IAAER Conference, Amsterdam, 20 June 2012, p. 2).

[2] This is often related to the following elements that will be better addressed and analysed in the subsequent sections:
- The vast majority of internally generated intangibles do not appear as such on the face of the statement of financial position;
- Expenditures linked to specific intangibles do not appear in a clear and distinct way on the statement of financial performance; and
- Related disclosures are scant, if not absent, and in any case largely insufficient.

1.1 Intangibles and the balance sheet

Internally generated intangible assets are, unlike tangible and financial assets, rarely recognized on the balance sheet. Instead, costs to develop intangible assets are normally expensed when incurred. As correctly pointed out in the EFRAG Discussion Paper (DP), this could create several problems – which we share – with the usefulness of financial statements:

- In firms with high intangible asset intensity, essential drivers of value are not reflected in financial statements. [paragraph 2.5.a]. This is especially the case with firms in early growth stages that can appear financially weak, when instead they are actually investing in substantial future growth opportunities.
- Performance measures such as return on equity (earnings on equity) are distorted. As the denominator (equity) is understated, firms with high intangible asset intensity appear more profitable than they are, especially in comparison with firms with tangible or financial assets. [paragraph 2.5.b.I]
- Earnings are distorted when costs are expensed immediately instead of matched with the firm's consumption of the intangible asset. [Paragraph 2.5.b.II] In growth periods, with increasing investments, this results in understated earnings, while earnings are overstated in periods of decline. In periods with stable investments, earnings provide a good reflection of economic performance. [paragraph 2.2]
- There is not only reduced comparability between intangible asset intensive firms versus firm with a prevalence of tangible and financial assets, but also between firms with acquired intangible assets that essentially follow an external growth pattern versus those with internally developed assets which largely follow an organic growth pattern. [paragraph 2.5.c]

The financial reporting deficiency in the specific area of IP has also been stressed by the *Banking on IP?* (2013)[3] report commissioned by the UK Intellectual Property Office, as well as the EC's *Final Report from the Expert Group on IP Valuation* (2014)[4]. These publications indicate that both the UK and the EU seek to achieve a better understanding of interplay between IP rights and how their value as financial assets is communicated.

Academic research has shown the statistically robust persistence of a large gap between the market value of companies compared to their book/net assets value values, as well as the associated declining explanatory capacity of accounting numbers vis-à-vis company market values (Lev and Gu, 2016), even though there have also been some dissenting voices (e.g., Barth et al., 2022). Both phenomena have been linked also to the presence of unrecognised/unaccounted intangibles in companies' accounts (Lev and Gu, 2016).

According to Prencipe (2022) and Zambon et al. (2022), one specific issue relating to the academic inquiry in this field is the substantial lack of large volume of company data on unaccounted intangibles – apart from IPO or M&A situations –, which makes it challenging to adopt the standard mainstream statistical-based research methods. This situation calls on researchers for embracing other more qualitative-oriented methodologies to conduct investigations in this area. Accordingly, researchers tend to follow different types of approaches, such as interviews, surveys, case studies to probe into the preferences of users and preparers regarding the reporting of intangibles.

[3] Brassell, M. and King, K., *Banking on IP? The role of Intellectual Property and Intangible Assets in Facilitating Business Finance. Final Report* (6 November 2013). Independent report commissioned by the UK Intellectual Property Office.

[4] European Commission, DG Research, *Final Report from the Expert Group on Intellectual Property Valuation*, March 2014.

1.2 The perception of an accounting for intangibles problem

Not unsurprisingly, investors and others are mooting that certain types of intangibles in the traditional financial accounts deserve more cost recognition. They argue this is desirable to reduce the expanding level of information asymmetry. Currently less than 10% of R&D costs are capitalized (Mazzi et al., 2019). However, as noted above, a key barrier to increased recognition is that the development costs of innovations may be capitalised only when they meet the six conditions set out in IAS 38 Intangibles.

According to a recent survey-based research report (Zambon et al., 2022), the preparers (61%) and especially the users (92.9%) participating in that international survey, believe that there is useful information on intangibles missing from today's financial reporting (IAS 38).

1.3 Potential for legal challenges to the IAS 38

From a legal viewpoint, company law goes a long way in prescribing the form and content of the accounting statements that companies must publish. For example, UK financial statements are required to comply with ss 393-397 and 495 of Companies Act 2006 (CA 2006). Section 393(1) provides:

> *The Directors of a company must not approve accounts for the purposes of this Chapter unless they are satisfied that they give a true and fair view of the assets, liabilities, financial position and profit or loss;*

The practical effect of s393 CA 2006 in the UK is that company directors have a duty to ensure that the financial statements (Denoncourt, 2018, pp. 119-120) are free from material misstatements and faithfully represent the financial performance of the company.

The ability to depart from accounting standards (whether domestic or international) is only available in cases where the result would be so misleading as to conflict with the objective of the relevant financial statements. To date this has been a rare occurrence. However, with reference to some intangibles-intensive companies, at what point will lack of recognition on the balance sheet result in a disclosure deemed to be misleading?

The same question applies to specific information on intangibles. For example, Denoncourt's case study revealed that in its audited Annual Report 2012, GlaxosmithKlein (GSK) states:

Non-current Assets	**Notes**	**2012£m**	**2011£m**
OTHER INTANGIBLES	19	10,161	7,802

Between 2011-2012 the GSK 'Other Intangibles Assets' figure increased by 27% which is significant - yet there is no meaningful commentary in Note 19 to explain why this is so (Denouncourt, 2018, pp. 183-205). In the analysis, had GSK reported a 27% decrease in 'other intangibles' this would likely amount to a material disclosure to ensure transparency of corporate narrative information, especially if there was a downward trend in GSK's 'other intangible' asset values in subsequent financial statements. This example regarding an intangibles-related information asymmetry is not only an accounting problem, but increasingly it is a corporate governance problem as well. There is no suggestion of misstatement, rather accountability for an arguably material loss and intangibles stewardship issue.

In this respect, Denoncourt (2018, pp. 120-131) explores also the possibility of activist stakeholders making a valid case of misleading intangibles disclosures, due to the strict application to IAS 38. There is a risk that a maintain of a conservative approach to recognition of intangibles assets on the balance sheet could result in misleading quantitative disclosures in substance if not in form (assuming compliance with IAS 38).

Moreover, from a corporate governance and legal standpoint, with a lack of transparency and qualitative disclosure of intangibles, it is difficult to assess in the medium- and long-term corporate oversight and stewardship of intangibles as well as the related financial materiality (Denoncourt, 2016, 2018).

A potential law reform solution would be to amend s.386 CA 2006 and the EU accounting Directive 2013/34/EU to include an equivalent legal requirement for companies to keep records of company intangibles. In this respect, it is important to recall the proposed text of the new Corporate Sustainability Reporting Directive (CSRD) that goes explicitly in the direction of imposing mandatory disclosures on intangibles not appearing on the face of balance sheet[5]. This recent EU development will clearly push further the need for better information on intangibles and for a more evolved accounting and disclosure standard.

[5] In Article 19 of the Accounting Directive no. 34/2013 referring to the Management Report, the following subparagraph is inserted: *"20c. Large undertakings … and small and medium-sized undertakings … shall report information on the key intangible resources on which the business model of the undertaking fundamentally depends, and explain this dependency and how they are a source of value creation for the undertaking.*"

- ## Question 2 – Which way to go?

We tend to agree with Lev (2019) that accounting has essentially failed to cope with the surge of corporate intangible investments resulting to reported earnings largely irrelevant to investors due to the indiscriminate expensing of practically all internally-generated intangible investments in the income statement.

On the other hand, Penman and Zhang (2020, 2021) demonstrate that the very same conservative treatment of investments in intangibles (e.g., R&D) is relevant for assessing risk. They posit that accounting conservatism recognizes the risk, deferring revenue and earnings recognition until the uncertainty has been resolved and expensing the investment to win those earnings when it is particularly risky.

Therefore, on the one hand, we acknowledge that financial reporting has to catch up with the increasing importance of intangible investments, yet at the same time, this needs to be in a manner that does not "throw the baby out with the bathwater" to use an idiom, i.e., by preserving the useful properties of accounting conservatism.

Accordingly, we believe that – as proposed by the EFRAG DP – working first on a better set of disclosures on intangibles could be a good way forward because it may have a positive impact the quality of the assessment of company-related risks and cash flows.

It is certainly true that, how affirmed by Mazzi et al. report (2019) for ACCA and Deloitte, relaxing the IAS 38 criteria could make financial information more relevant and easier for auditors to assure capitalised amounts. However, to change accounting recognition and measurement criteria is certainly more delicate because it impinges on foundational conceptual issues, and it may entail a complicated rediscussion of fair value. Therefore, we think that an intervention in terms of recognition and measurement is probably a longer-term perspective project for the numerous and challenging implications it may have.

Let us also note that the juxtaposition between disclosure and measurement is to some extent artificial and not well grounded because disclosure often implies a measurement exercise to produce the information required to be disclosed.

In essence, as better explained below, maintaining the conservatism property in recognition and measurement while providing increased salience on the items of income statement supported by expanded disclosure on future oriented expenses is an approach which appears to be costly but at the same time it is more easily viable in the short term and likely to materially benefit users of financial statements.

• Question 3 – Recognition

• *3.1 Characteristics of intangible assets*

There are different types of intangible assets with varying characteristics. Here, we keep the discussion quite general, emphasizing distinctions between intangible assets and other types of assets. There are several characteristics that create uncertainty in the recognition of intangible assets.

- Intangible assets can be copied and are scalable, i.e., the same asset can be simultaneously used by several users. This has the following consequences:
  - In the early stages of development, it can be difficult to protect the asset, giving firms disincentives to provide information about it (Stulz, 2020). [EFRAG, par. 2.1.b]
  - If successful, potential payoffs are large [EFRAG, par. 2.1.d]
- Intangible assets often have no salvage value, meaning that unsuccessful development of such assets has no value. [EFRAG, par. 2.1.a]
- The unit of account is unclear. Recognition of development costs in IAS 38 is based on separable projects, but it is increasingly difficult to classify costs into projects. [EFRAG, par. 2.11] A related characteristic is that intangible assets often only have value when used in conjunction with other assets. [EFRAG, par.2.1.c]

Regarding the first point, intellectual property rights is a way to protect intangible assets from being copied. However, it only works if the minimum legal criteria under the relevant legislation for that form of property is met, and the level of protection varies by jurisdiction.

These characteristics lead to high uncertainty in the relation between costs for internally developed intangible assets and subsequent economic benefits from using the assets. Research clearly indicates that high uncertainty lowers the relevance of financial statements.

Most of the discussion in this section focuses on financial statement structures. In section 3.2 we begin, however, with noting the financial market changes that has relevance for interpreting the results of research.

3.2 Contemporaneous financial market changes

As aforementioned, there is a stream of literature that links non-recognition of intangible assets to a decline in the relevance of earnings for stock market valuation. For example, Srivastava (2014) shows a negative correlation between intangible asset intensity and relevance of earnings from 1970 to 2010. However, this result seems rather to be driven by changes in the structure of listed firms. Financial deregulation and technological development have changed the relative costs and benefits of public versus private equity capital (Kahle & Stulz, 2017). Consequently, the average quality of listed firms has declined over time, and this, not higher intangible asset intensity, explains the decline in relevance of earnings (Starica & Kang, 2021).

In addition, financing through private equity has increased at the expense of financing through public stock markets. An important reason is the scalability issue characteristic noted above. Haskel and Westlake (2017) opine that given that certain intangibles can be scaled up, the largest and most profitable firms in industries overtake less effectual competition in the marketplace. Therefore, before reaching a competitive size (in the start-up phase) firms tend to avoid public finance to not make their scalable and potentially copied ideas known.

- ***3.3 The role of prudence (conservatism) and uncertainty around intangible investments' outcomes (EFRAG: Expensing internally generated intangibles)***

Immediate expensing of internally generated intangible assets represents prudence (conservatism) in financial reporting.[6] In the literature, there is a debate about the effects of conservatism, especially for investments in intangible assets. While both pros and cons of conservatism are presented, we support continued conservative treatment of these investments, i.e., expensing internally generated intangibles. The reason is the substantial uncertainty surrounding intangible investments' outcomes (EFRAG, par. 3.68: Advantages). The uncertainty affects both the contracting and the valuation role of financial statements.

General benefits of conservatism

LaFond and Watts (2008) argue that conservatism reduces the manager's incentives and ability to manipulate accounting numbers and so reduces information asymmetry and the deadweight losses that information asymmetry generates.

Further research (Ahmed et al., 2002; Zhang, 2008) has identified benefits of (unconditional) conservatism with respect to the contracts between management and debtholders. In the case of R&D, a conservative treatment is desirable considering the significant risk in R&D investments' outcomes, whereby debtholders bear the full extent of downside risk without profiting from any upside potential (Ciftci and Darrough, 2016). Holders of equity securities, on the other hand, may still benefit from the upside potential of the R&D.

Shi (2003) demonstrates that R&D investments are significantly positively associated with bond default risk and bond risk. In turn, this leads him to conclude that bondholders view R&D investments as less asset-like in nature and see them more as a useful measure of risk. Furthermore, Kreß et al. (2019) show that the capitalization of development costs can become a signaling device to communicate the future success of R&D projects. They note though, that the signaling ability stems from the high reporting costs and the audit effort involved in recording capitalized development costs, with this result to hold only to firms who don't abuse the R&D capitalization for earnings management purposes. The Kreß et al. (2019) findings do not necessarily indicate that R&D capitalization, or the more general case of intangibles capitalization, will contribute useful information to debtholders. It rather implies that bondholders, being subject to downside risk, could benefit from a wider mandatory and audited disclosure of information with respect to the risks inherent in intangible investments' outcomes.

In addition, Watts (2003) clearly defends the benefits of conservatism for the contracts between management and shareholders. Specifically, Watts (2003) argues that the verification requirement imposed by accounting conservatism constrains the bias that a manager could have introduced in reported earnings and net assets, leading not only to large payments under earnings-based compensation plans but also negative net present value investments by the firm. This argument is pertinent for the treatment of intangibles since management has typically better information on the effects of new product development or other intangible investments than shareholders. The delay in the recognition of earnings imposed by conservatism appears to safeguard against this agency issue. To strengthen the conceptual argument, Watts (2003) provides a theoretic link between the advantage of conservatism and the idea of static options, such as a liquidation option (cf. Hayn, 1995, Lawrence et al., 2018). The liquidation

[6] The literature defines two types of conservatism: unconditional and conditional. Unconditional conservatism entails a low value of assets or a high value of liabilities. Conditional conservatism entails early recognition of losses and late recognition of gains. Immediate expensing of investments in intangible assets is unconditional conservatism.

option predicts that investors will choose to liquidate a firm when the liquidation value of assets exceeds the discounted value of future cash flows from the firm.

Hence, it is not surprising that Gopalan et al. (2014) find that in firms with greater R&D intensity and higher market to book ratios (rough proxy of unconditional conservatism), compensation contracts exhibit longer pay duration, preventing "short-termism" that results in self-interested and often myopic managerial behavior.

Watts (2003) focuses on conservatism in relation to uncertainty in estimates. Research shows that increased uncertainty in reporting decreases the usefulness of financial statements for contracting. In Europe, for example, the use of accounting-based debt covenants decreased with IFRS introduction (Ball et al., 2015), as did the use of accounting in executive compensation contracts (Banghøy et al., 2022; DeFond et al., 2020). Both Ball et al. (2015) and DeFond et al. (2020) link the decrease in contracting usefulness to financial statement items with high uncertainty in IFRS.

Disadvantages of conservatism for intangible assets

There is also literature that points to disadvantages with conservatism, and the role of the conservative treatment of intangibles in valuation has been heavily criticized. For instance, unconditional conservatism has been considered a "distortion" to be corrected (Rajan et al., 2007; McNichols et al., 2014). Lev (2019), supported by evidence such as Dichev and Tang (2008), Donelson, Jennings and McInnis (2011) and Srivastava (2014) argue that the implications of conservatism with regards to the timing mismatch of expenses and revenues resulting from the proliferation of intangible-based business models, seriously compromise the usefulness of earnings. This is also a point that EFRAG includes in the disadvantages of expensing intangible investments (EFRAG, par. 3.68: Disadvantages "Distorted IFRS performance measures" "…the return on assets, the management is creating, cannot be calculated.").

In addition to the body of literature that encourages Lev's arguments, it is supported by early experimental work: Luft and Shields (2001) find that expensing as opposed to capitalizing intangibles-related outlays hinders users' ability to learn the relation between outlays and future profits.

Recent research on intangible assets

Emerging research casts doubts on the adverse role of the conservative treatment of intangibles for valuation. [7] For instance, Barth et al. (2022) studies the valuation process based on a wide set of accounting figures. From this more nuanced perspective, they find that information related to intangible assets, as reported under U.S. GAAP, does not lose its value relevance. Other recent research argues that the conservative treatment of investments with uncertain outcomes is a useful mechanism to convey risk information. Specifically, by expensing investments with risky outcomes, accounting imposes a delay in earnings recognition, until uncertainty has been substantially resolved and revenues can be recognized (Penman and Zhang, 2020). Penman and Zhang (2021) argue that the effect is to yield lower earnings and a lower book rate of return but a higher book return if earnings from risky investment are realized. Against this backdrop, the book rate of return conveys information about risk and its resolution. In addition, the notion of the delay in earnings recognition that is inherent in the conservative

[7] In support of the argument that conservatism finds consistency with the concept of reliability (Barker and McGeaching, 2015), Dargenidou et al. (2021) find that under SSAP 13 in the UK, a more conservative version of IAS 38 promoting the expensing of R&D, capitalization of development costs was more informative than under IAS 38. However, it appears that there is a trade-off with real effects of accounting in this case: Oswald et al. (2021) find that companies that switched from expensing to capitalization over the transition from SSAP 13 to IAS 38, increased their R&D expenditures more than firms that continued to capitalize.

treatment of intangibles acknowledges the time lag between intangible investments and economic benefits (Zambon et al., 2020, and EFRAG, par. 3.75). This can be a source of exposure to systematic risk that is related to the concept of equity duration (Penman and Zhang, 2020; Andronoudis et al., 2019).

Still, we acknowledge the Lev (2019) criticism that the conservative approach of intangible investments leads such investments to be reported among operating expenses and, thus, to reduce the relevance of earnings. His arguments are with merit as they rely on a large body of prior research which illustrates this issue. Still, the issue can be overcome with increased disclosure (see the next section).

Increased disclosure instead of recognition

A common idea in this debate is the acknowledgment that investments in intangibles have been routinely aggregated or co-mingled (Enache and Srivastava, 2017) with operating expenses. This aggregation creates a significant loss of information with respect to investment in intangibles decisions (Lev, 2019). In addition, based on the discussion above, a disaggregation of these future-oriented expenses from other operating expenses to the extent feasible, could provide better information with respect to the risk in future cash flows. EFRAG (par. 3.62) proposes that separate presentation in the statement of financial performance could partly help address the issue by distinguishing recognized expenses that relate to investments in intangibles from other operating expenses (e.g., classifying them as future oriented expenses). In addition, EFRAG (par. 3.62) proposes that expanded disclosures about internally generated items that meet the definition of intangible assets but not the recognition criteria, might provide users with additional information to assist in analyzing similar companies in industries in which intangible items are significant to future prospects. Increasing the detail and prominence of intangible investments in the presentation of the income statement may, to a large extent, address the problem of aggregation of information on intangible investments. Since we have reservations with respect to the recognition of intangible assets, and we recommend a conservative treatment of intangibles, we speculate that increased salience on the income statement could prompt users to take advantage of an expanded disclosure (as suggested by Clor-Proell et al., 2014). An implied assumption is that the increased salience can reduce the cognitive load and effort to understand cost structures that renders earnings less relevant. The assumption is supported by experimental research that suggests that increases in salience alleviates a cognitive load and prompts users to make better use of disclosure (Guo and Zhu, 2016). This is important assuming that the disclosure of information about future-oriented expenses (see the response to Question 6) could be used to come up with estimates of "as recognized" intangible assets. According to experimental research, users' estimates based on disclosure are relevant. For instance, Nelson and Tayler (2007) find that conditional on a user transforming financial statements to treat disclosed information as if it had been recognized, the user may rely on that information to a greater extent than he would have had the information been recognized to begin with.

Increased salience on the income statement is consistent with EFRAG's (par. 3.62) suggestion. Such disclosure should most likely be mandatory (EFRAG, par. 3.65) as a means to alleviate agency frictions (e.g., with bondholders as mentioned above) without sacrificing the benefits of accounting conservatism.

Comparability with acquired intangibles

A second common criticism of the conservative treatment of intangibles is that the expensing of internally generated intangibles is inconsistent with the treatment of acquired (separately or in business combinations) intangibles on the balance sheet (EFRAG, par. 3.68: Disadvantages). This is an important point, particularly with respect to the comparability of peer companies with different innovation strategies (Lev, 2019). We note that this view assumes that the benefits of internally generated intangibles have similar properties to the benefits of acquired intangibles. To the extent that acquired intangibles meet the definition of asset while the same does not hold for internally generated intangibles, the inconsistency between the two categories might be justified. The sparse research on this topic offers rather mixed evidence with respect to the ability of acquired intangible assets to generate future benefits. For example, Su and Wells (2015) find no evidence that amounts recognized as identifiable intangible assets are associated with post-acquisition firm performance. On the other hand, McInnis and Monsen (2021) show that in a similar setting (i.e., business combinations) recognized intangible assets are a reliable predictor of future payoffs, and their predictive usefulness generally dominates that of acquired tangible assets. Further research on this topic could shed more light on the economic differences between internally generated and acquired intangibles.

Concluding discussion on prudence (conservatism)

To conclude, conservatism not only offers a "hard benchmark" (LaFond & Watts, 2008) against which users can make their own assessments based on information disclosed but also an understanding of risk in future outcomes of intangible investments (Penman & Zhang, 2020, 2021). This approach does not come without shortcomings with respect to the relevance of earnings, as Lev (2019) points out. In summary, preserving the conservatism property and providing increased salience on the face of income statement assisted by expanded disclosure on future oriented expenses is an approach which appears to be costly (as opposed to EFRAG, par. 3.68: Advantages "Would reduce costs of preparing financial statements.") but, at the same time, it is likely to benefit users of financial statements.

- ### *3.4 Capital markets and accruals*

Recognition of an intangible asset on the balance sheet is a type of accrual which subsequently must be reversed, usually through amortization. Therefore, the relevance of recognition can be assessed by studying accruals, in particular accruals related to amortization.

There is recent research interest in the usefulness of different types of accruals, including amortization. Lewellen and Resutek (2016) show that non-transactional accruals, which include depreciation and amortization, have low or no predictive value for future earnings and cash flows. This suggests that such accruals are not relevant for investors.

Ball and Nikolaev (2022) compare the usefulness of different earnings numbers in comparison to cash flows, which is an indirect approach to assess the usefulness of accruals. They find that EBITDA (i.e., before depreciation and amortization) has higher predictive value than cash flows, while EBIT does not. Marton and Starica (2021) have similar findings for the expectations formation pertinence of earnings. We note that the overall use of non-GAAP earnings – e.g., EBITDA – is increasing over time (Black et al., 2018).

In summary, recent capital research shows no benefits of recognition of intangible assets for valuation purpose, in particular for the amortization in subsequent periods.

- ### *3.5 Conditional recognition and practical considerations*

An issue pointed out in the DP in relation to recognition of intangible assets is the uncertainty in the relation between initial costs and subsequent economic benefits (EFRAG, 2.1a). A possible solution mentioned in the DP is *conditional* recognition (EFRAG, 3.49-3.59), where costs would be recognized but only appear on the balance sheet after certain conditions are met. We believe there are two problems with this approach.

Conditional recognition is difficult from a preparer perspective as it assumes that projects to be recognized are clearly delimited and can be classified separately from other projects. This issue is related to the unit-of-account discussion noted above. Conditional recognition is potentially useful for the pharmaceutical industry, but is probably more difficult in the IT sector, for example.

Another concern with conditional recognition is the reaction from users. We believe they would have a difficult time understanding the gain that is reported when conditions for recognition are met. At the very least, it would require substantial information about the nature of the gain. However, it would likely still be seen as not relevant for users.

To illustrate this issue, we draw upon a quasi-natural experiment that took place in the UK around the transition from UK GAAP (SSAP 13) allowing the conditional capitalisation of development costs to IFRS (IAS 38) requiring this treatment.

Dargenidou et al. (2021) demonstrate that the higher frequency of capitalization under IFRS was accompanied by, first, an increased association between development costs assets and future earnings volatility and second, the loss of information about future earnings in stock returns. These findings provide initial support to the concept that the suppression of conservatism in the recognition threshold of the R&D asset may not necessarily be beneficial for users of financial statements.

- ***3.6 Disclosures instead of recognition***

We are aware that proposing enhanced disclosure in lieu of recognition does not come without issues. These issues have been examined in recent academic research with respect to the disclosure of operating leases (e.g., Bratten et al., 2013) and fair values (e.g., Müller et al., 2015). Bratten et al. (2013) argue that disclosed items are not processed differently from recognized items when the disclosures are salient, not based on management estimates, and amenable to simple techniques for imputing as-if recognized. However, this study acknowledges that this effect takes place when there are few or no difficulties in identifying and processing the information and the information itself is reliable. Using the setting of the IFRS investment property treatment, Müller et al. (2015) find that disclosed investment property fair values have a lower association with market value of equity relative to recognized fair values. Nevertheless, this shortcoming is mitigated by increased reliability (e.g., use of an external appraiser) or lower information processing costs. Whilst the reliability of the disclosure is still an open question as significant management estimates are required, we speculate that users' information processing costs would be allayed by the introduction of the future-oriented expenditure distinction (see below response to Question 6).

- ***3.7 Response to questions asked in EFRAG's Discussion Paper***

We do not propose in the first instance amendments of IAS 38 to allow expanded recognition in the balance sheet of internally generated intangible assets. Instead, we would propose increased salience of the income statement in terms of separation of current expense and investments in the future, combined with expanded disclosures in the notes.

However, if there is a consensus to proceed on reviewing and relaxing the recognition criteria of IAS 38, one possibility would be to start by reconsidering the six criteria set by IAS 38 (IAS 38.57) for recognizing development costs aiming to simplify these criteria vis-à-vis this type of costs incurred for internal and corporate infrastructural purposes.

- **Question 4 – Possible Measurement Bases**

In the Discussion Paper, EFRAG asks about different measurement bases in relation to recognition of intangible assets on the balance sheet. Since we do not propose amendment of IAS 38 to allow expanded recognition of intangible assets, the issue of measurement in this respect is not relevant.

However, we do propose expanded disclosure, and for quantitative disclosures about intangible assets there could be a measurement issue.

Measurement within IFRS normally entails a choice between historic cost and some measure of current value, e.g., fair value or value-in-use. A motivation for using current value is that the value of assets or liabilities substantially change after initial recognition, and that this change matters to the firm or the financial statement user. As noted in section 3.1 above, intangible assets are potentially subject to substantial fluctuations in value over time. This could be an argument for disclosure of some form of current values, at least for intangible assets where it is possible to produce a faithful representation of such a value. It could, for example, be possible for assets with accepted valuation models, such as some brand names, customer relations and patents.

In addition to a conservative treatment of intangible investments, we also side with the EFRAG's proposal for increased detail and prominence of these investments on the income statement and enhanced disclosure. We note though that even this solution is subject to the difficulty of distinguishing operating expenses that are matched with current revenue generation from future-oriented expenses for preparers. In turn, we speculate that this might give rise to classification issues that may or may not be associated with management's incentives. For example, prior research on classification shifting in the income statement has already shown that managers misclassify the cost of goods sold to beat the benchmark of gross profit margin (Fan and Liu, 2017). Insofar as a restructuring of the income statement to give prominence to intangible investments brings about new types of margins, classification shifting may occur to convey, for example, less risk in future cash flows. Classification shifting concerns may also extend to the quantitative disclosure of future-oriented expenses. Evidence from research on segment note disclosures suggests that managers take advantage of vague cost allocation requirements to shift expenses between core and "other" segments and this is likely to be associated with proprietary motives to conceal core profits (Lail, Thomas and Winterbotham, 2014).

However, an interesting question in relation to particular types of intangibles assets such as registered patents is the improvements in secondary market transaction and price information available in the US in respect of largely US patent transactions. Indeed, the requirement of an "active market" as defined in IAS 38 is problematic in the field of certain intangibles such as IP rights as there is no active regulated market (such as the Deutsche Bourse or London stock exchange for company shares). Such nationally regulated markets do not yet exist. Thus, the traditional accounting position is that a reporting entity will be unable to determine "reliably" (in the sense of objectively as opposed to subjectively) the fair value of a registered patent asset, for example, when comparable market transactions are non-existent, infrequent and when alternative estimates of fair value cannot be calculated.

However, in the last two decades the situation has improved considerably. There are many more options for transactions buying and selling IP rights at arms' length through intermediaries such as elite IP brokers[8], IP auction houses[9], university technology transfer offices and even insolvency practitioner

[8] An example of a longstanding IP brokerage is Tangible IP LLC www.tangibleip.biz although there are many others.

[9] The most famous IP auction house globally is American-based Ocean Tomo Auctions which presented its first live IP auction in 2006 in California. It sells market-ready IP portfolios to a network of buyers in person and

firms.[10] The brokered patent transactions market involving intermediates as opposed to direct sales between buyers and sellers is now being tracked and providing fair value data.

Since 2012 Richardson Olive Insights (ROI) a provider of secondary patent data has prepared reports annually evidencing the evolving patent transactions market. Their *2021 Brokered Patent Market Report* is based on confidential data provided by over 35 very active intermediaries reflecting 760 transaction and over USD$2 billion in sales (Richardson et al., 2021). The *Report* provides a decades' worth of historical data on asking prices by technology and buying trends. In 2021 ROI reports that in the previous year USD$166m in brokered patent transactions took place; there has been 17% growth in brokered packages from law year; and most interestingly, the average asking price per US issues patent was USD $208,000. The constant increase in patents deals is evidence of a maturing market for this type of registered intangible monopoly right. We suggest that registered patents are potentially a good candidate of intangible asset for increased recognition on the balance sheet. Similar secondary patent and IP data providers are needed in Europe and in other regions around the world. Indeed, the increased availability of data from "active markets" could favour the expansion of the inclusion of the measures of certain categories of intangibles on the balance sheet.

Should the more complex perspective of taking the "recognition and measurement road", possibly through the relaxation of the IAS 38 stringent criteria, it is noteworthy that, according to the findings of a recent research work by Zambon et al. (2022), for the 41 preparers involved in the survey the most important intangibles to be financially measured are customer list, intangibles-related risks, human capital and – more surprisingly – corporate reputation, while R&D, Training and Software should be measured at cost and brands at fair value. Inquired on the same subjects, the 42 users that responded to the survey express different preferences. They would like to see brands, IP and know how, intangibles related risks and opportunities, human capital, and R&D to be measured in financial terms. As to measurement approaches, users would rather prefer fair value for IP and brands, and cost training, software, and R&D (Zambon et al., 2022).

online. Since 2006 Ocean Tomo has hosted nine auctions in the United States and Europe with transactions on and off the floor in excess of USD$100 million. See www.oceantomo.com accessed on 7 June 2022.

[10] An example is Metis Partners founded in 2003, see www.metis.com accessed on 7 June 2022. See also Denoncourt (2021).

- ## Question 5 – Information relating to specific intangibles

In the section devoted to Question 2, we argued that expanded quantitative and qualitative disclosure, for the reasons in evidence from the literature since the turn of the century, would be the most effective means of reducing the intangibles information gap and asymmetries.

Indeed, various studies of investors' and analysts' demands for information indicate a substantial difference between the amount of information on intangibles found in companies' annual reports and the type of information demanded by the market (e.g. Eccles et al., 2001, Eccles and Mavrinac, 1995).

In cooperation with the Institute of Chartered Accountants of Scotland (ICAS), Beattie and Pratt (2002) studied the ability of financial reporting to satisfy users' demands. The results illustrated that although non-financial information still has a lower priority than traditional financial information, users consider disclosure regarding risk factors and quality of management to be insufficient.

Theoretically, additional relevant, non-financial information is expected to lower the cost of equity capital (cf. Verrecchia, 1983, 2001) because increased disclosure lowers investors' uncertainty about the future prospects of the company and facilitates a more precise valuation of the company (Botosan, 1997). Related to this argument, the disclosure of information on intellectual capital is expected to reduce information asymmetry and to enhance stock market liquidity and increase demand for companies' securities (e.g., Diamond and Verrecchia, 1991). Both Botosan (1997) and Richardson and Welker (2001) confirm this, concluding that the quantity and quality of financial disclosure is negatively related to cost of equity capital for companies.

Also the large literature on Intellectual Capital (IC) reveals the lack of disclosures on specific intangibles, as long as the IC Statement provides an accepted methodology for enhancing the narrative corporate disclosure on intangibles (Edvinsson and Malone, 1997). In 2002, a Canadian study analysed the content of the annual reports of 10,000 Canadian companies searching for a list of IC related terms and reported that only a very small number of IC disclosures took place (Bontis, 2003).

In this respect, Scandinavia has a long tradition of attempts at constructing IC Statements (Guthrie and Petty, 2000; Rimmel, 2003; Bukh et al., 2005). In the late 1980s, a group of Swedish practitioners, known as the Konrad Group, began to discuss the invisible parts of the company that did not show up on the balance sheet. The Konrad Assets Group divided the intangible parts of a company into three different categories – i.e., individual competences, internal structure and external structure – using a set of 38 key indicators, ranging from financial performance indicators to new human resource measures (Sveiby, 1997). The first corporate IC statement was issued by the Swedish insurance company Skandia in 1995 (referring to 1994 financial year), and it became a prominent example among practitioners and researchers. However, after Skandia integrated their IC information into the traditional annual report, the amount and content relating to IC shrank and blurred (Rimmel, 2003).

5.1. To the extent that information relating to specific intangibles should be provided, do you agree that the information should be limited to the intangibles that are key to an entity's business model? If not, why?

Some considerations on the disclosure of material information regarding specific intangibles that are key to an entity's business model, is provided below to help EFRAG and users assess the contribution of the intangible to the value of the entity.

Should information be provided about specific intangibles?

Yes. There is a consensus that information about intangible assets does not reflect fully their economic importance. Although IAS 38 provides for some disclosure requirements (IAS 38, paras. 118-128), these guidelines do not intend to harmonize the terminology and presentation of intangibles in the notes to the financial statements. Additional information using a common format, like for example the WICI Framework (WICI, 2016) could improve the understandability and comparability of information disclosed.

Currently, disclosure practices regarding intangibles vary greatly among companies, driven by legal materiality concerns (Denoncourt, 2018, pp. 151-154). Despite a noticeable harmonization of practices after IFRS implementation, European companies still reveal national differences in terminology and disclosure practices (Garcia, 2022). These differences are sometimes the result of diverging legal regimes for some intangibles at the national level, and sometimes that of implementation guidelines issued by accounting professional bodies.

Additionally, it is important to remark that large companies that report numerous items tend to develop their own classifications of intangibles, sometimes close to existing non-binding guidelines like the WICI Framework (WICI, 2016). Intangibles-intensive large companies, like pharmaceutical companies, tend to aggregate assets based on their function, like for example "customer-related intangibles", "research intangibles", "product-related intangibles", etc. (Garcia, 2022). Such empirical evidence supports the statement in the EFRAG DP 2.11 "boundaries between different intangibles are not (well) defined and are interpreted differently".

Providing guidelines about the depth, breadth, and scope of disclosure of intangible assets appears necessary to harmonize these practices. From current practices, harmonizing terminology, providing for a format for quantitative disclosure in the notes, and explaining movements of intangibles during the year would possibly improve the understandability and comparability of information.

Furthermore, since the role and magnitude of intangibles differs greatly among companies, disclosure should be commensurate with their weight vis-à-vis the business model (Denoncourt, 2021). For example, a recent survey on the pharmaceutical industries showed that 40% of assets were intangibles for the pharma industry, with larger percentages in larger companies and in Western countries. These percentages, that include only acquired intangibles, can reach more than 80% of assets for some companies (Garcia, 2022).

Non-financial risk information for pharma companies typically covers legal disputes, regulatory changes and market evolution prospects. Relevant measures utilised are diversified. They usually include quantitative assessments of expected losses for dispute, and market share and market growth rates for key products.

Conversely, some large companies do not report intangibles at all because they have never acquired other businesses, or because their business models do not rely on intangibles. Any mandatory disclosure requirements should take into account the importance of information for the issuer. Nevertheless, owing to the new Corporate Sustainability Reporting Directive (CSRD) (see response to Question 2), at least in the EU all large companies will need to disclose intangibles-related information in the Management Report and the Sustainability Report going forward, which implies a level of intangibles disclosures that will be necessary to comply with.

The academic literature confirms that greater amounts of intangibles are usually reported in the years immediately following a business acquisition. In some cases, a single acquisition can double the assets of the acquirer, most of which are intangibles (Garcia, 2022). Additional information about the allocation of the purchase price, both quantitative and narratives, appears necessary to understand the movements of intangibles during the year.

What is the scope of key intangibles?

The idea of focusing on "intangibles that are key to an entity's business model" is interesting for both preparers and users of information. The very EU CSRD now poses a mandatory disclosure of "key intangible resources", which are those "on which the business model of the undertaking fundamentally depend" (art. 19, new subparagraph 20c).

This approach allows some flexibility for the preparers to choose relevant items, and to disclose them along with enough qualitative explanations. For information users, some elements of context are often necessary to understand the importance of these items for the business, especially when the outcome of investments are uncertain. Indeed, selecting the most important information appears consistent with the principles of relevance and materiality in the IASB 2018 Conceptual Framework.

However, in the EFRAG DP, the scope of what is "key to an entity's business model" appears insufficiently defined at that point. A lack of clear definition of the scope could lead to a great diversity of interpretations, that would not help harmonizing current practices. It appears necessary to clarify whether the scope of "intangibles that are key to an entity's business model" should be assessed based on the book value of these items, on their earnings power, or on other expectations regarding their role in future developments.

Assuming that information selection is based on materiality, one possible approach to avoid oversights and omissions by preparers would be to set some quantitative thresholds, as for the segment information standard. An alternative approach would be to rely exclusively on preparers' judgement, as in the EU NFI Reporting Directive (no. 95/2014), even though there might be risks of poor disclosure.

There will be occasions where corporate intangibles that do not have a significant value or cannot be measured reliably, but they may still provide some competitive advantage (e.g., expired patents and many internally generated items). Whether or not such items should be included in the scope of intangibles reporting could be in issue. A century ago, intangibles would sometimes be reported at nominal values on the balance sheet regardless of their current value (Denoncourt, 2018, p. 4). The practice is indeed outdated, but it shows that information about intangibles can still exist regardless of measurement issues.

The need for a more detailed guidance in the literature related to specific types of intangibles

More detailed reporting guidance on specific intangibles has begun to appear. The EC *IP Valuation Report* published in March 2014 takes up the point of corporate narrative reporting more directly in section 4.4 'Possibilities for complementary reporting of IP and IPRs'. It suggests (p. 41) that intangible patent disclosures for example, might include:

> *Examples of useful information on IP/IPRs can be the number of patents, the description and the number of patents actively employed in firm activities, the time to expiration for the major IPRs, the description and number of patent submissions and the associated degree of success and the like. Sometimes non-financial indicators are mixed with financial data to create new insightful information. Examples of such indicators for the IPO/IPRs and research area are sales per patent (or family of patents) or revenue from the products/services introduced from R&D in the last 3-5 years.*

Garcia's research captures and categorises a broad range of intangibles. From a survey of 280 pharmaceutical companies disclosing their accounts in IFRS, information about intangibles in the notes showed contrasting practices (Garcia, 2022).145 different expressions were used to label intangible assets, part of which were redundant. They were aggregated in the survey as follows.

- Goodwill: goodwill acquired from M&As.
- R&D: both internally generated and in process development costs[11]. It also included contractual payments made in the frame of joint R&D agreements with a third party.
- Marketing: all the assets related with customers and distribution, including brands, licenses, customer lists, and exclusive distribution contracts.
- Scientific: patents, medicine technical files, know-how and other intellectual property related with the scientific characteristics of medicine.
- Information System: software, information system infrastructure and assets related with telecommunication.
- Others: this category includes mainly some leasehold rights, concessions, agricultural intangible rights that are not intrinsically related to the pharmaceutical business.

Overall, the length of disclosure has grown accordingly with the increasing weight of intangibles in the pharmaceutical sector. However, a lack of comparability remains in several aspects. On the one hand, most pharmaceutical issuers changed their classifications numerous times during the period. On the other hand, accounting practices for the same year differ greatly depending on the characteristics of issuers. Expectedly, large pharmaceutical companies tend to adopt more innovative disclosure policies, while smaller ones are minimalist. Lastly, some national differences remained despite the harmonization of practices achieved with IFRS adoption (Garcia, 2022).

Factors, such as the success of the company, industry disclosure norms, company size, managerial ownership, company age and technology life cycle, as well as specific intangibles, such as intellectual property assets (registered and unregistered), will impact more and more on the need for material (mandatory as opposed to voluntary) disclosures (Denoncourt, 2018, p. 152).

The Initial Public Offering (IPO) prospectus document used in many countries with stock exchanges may provide further insight into which types of material intangibles information are selected by a company and its advisors to attract investors and financial analysts.

In general terms, from the academic literature it can be drawn that during the IPO phase companies tend to disclose much more information on their intangibles for sustaining their value on the arrival into the financial markets. This evidence is of course important to witness the possibility and capacity of companies to produce information on intangibles when they have an incentive to do so.

Industry differences are used to explain diversity in disclosure in annual reports by Adrem (1999) and Cooke (1989) because there are variations in industry disclosure norms (Sonnier, 2008; Gibbins et al., 1990). Nevertheless, not all studies conclude that industry type makes a difference to corporate disclosure of intangibles. Robb et al. (2001) found only minimal industry effects, which is a result confirmed by Ström (2006) in a sample of Swedish IPO prospectuses. There is rich literature beyond the scope of this report to study regarding the nature and scope of IPO prospectus disclosures that may have import for quantitative and qualitative intangibles disclosures. Note that not every jurisdiction requires an IPO prospectus. See also Denoncourt's triage style model for IP disclosures (Denoncourt, 2018, Chapter 2).

[11] In the Garcia (2022) survey, some issuers distinguished clearly internally generated items from acquired ones, but a broad majority did not. A careful read of the notes concerning M&As revealed the origin of these costs in several cases.

There is research to the effect that company age is seen as a proxy for risk in that in general established companies are perceived to hold less risk for shareholders and investors. The extent and scope of a company's disclosure is expected to be related to how many years it has been in business. For example, Kim and Ritter (1999) provide evidence that non-financial information is of greater importance in the valuation of younger companies because forecast earnings work better for assessing younger companies than historical earnings do (cf. Klein, 1996; Amir and Lev, 1996).

A useful reference for disclosure on specific intangibles could also be the work by the International Standards Organization (ISO) (www.iso.org) which has developed a quality management tool agreed by international experts. The first International Standard for brand evaluation (ISO 20671-1:2021 *Brand evaluation – Principles and Fundamentals*) was introduced in 2019, and it provides a framework and resources for companies to rationalise their brand valuation, enabling more accurate value reporting to internal managers and external investors, thus reducing the risk. The standard specifies the necessary brand inputs, output dimensions and sample indicators for internal and external brand evaluation.

Disclosure of internally generated intangibles

Another issue arising is whether there is merit in enriching financial and NFI narrative disclosure in the notes to the accounts by reporting a figure for internally generated intangibles in the Annual Report. An interesting example appears in the Note 14 on "Intangible Assets" (p. 104) to the accounts in the Canadian Business Development Bank's 2021 Annual Report (https://www.bdc.ca/globalassets/digizuite/33122-bdc-annual-report-2021.pdf).

According to Garcia (2022), internally generated intangibles are difficult to identify in current financial disclosure. For the pharmaceutical industry, development costs acquired from M&As are more frequently recognized on the balance sheet than internally generated ones.

Among the minority of pharma companies that present internal R&D costs as an asset, some companies reported IT related costs (Garcia 2022). This disclosure policy is interesting because the uncertainty regarding product development in the pharmaceutical industry is extremely high; therefore, companies capitalize very little of their R&D expenses. Conversely, IT related development costs contribute to company-wide infrastructures, which do not depend on the success of a product-candidate.

The characteristics and purpose of IT-related development costs is very different from product-related development costs. A first element is that IT intangibles do not necessitate to pass clinical tests neither governmental authorization, unlike drugs. Secondly, they are aimed at internal management purposes or communication with customers for websites. In this regard, they may not need to demonstrate future profitability (criterion d. in the list of IAS 38 below).

Since IT development costs differ greatly in nature and risks from product development projects, it appears natural to disclose them separately for the pharmaceutical industry at least.

As far as current practices are concerned, a first example from Australia is Blackmores, a company that reported the amount of "capitalized website development" in 2010-2017. A similar approach can be found in a British Company, HVIVO, that reported "capitalized software development" in 2016-2017. A third example from Sweden, Moberg Pharma, reported "capitalized expenditure for development work" and "capitalized expenditure for IT system" separately from 2014 onward.

As a further example, below is the summary of information collected from the annual reports of Swedish Orphan Biovitrium, one more pharmaceutical company that has adopted this policy since 2003 to 2017 financial year.

SEK millions SWEDISH ORPHAN BIOVITRUM AB

	Goodwill	Research and development	Trademark and licenses	Product rights	advance payment	Software and other	IT project in progress	Capitalized software expenses	total
2003	0	0	0	0	0	0	0	0.97207	0.97207
2004	0	0	0	0	0	0	0	0.59576	0.59576
2005	0	33.605	4.62539	0	0	0.21945	1.44683	0	39.89667
2006	4.56632	33.605	12.40437	0	0	1.18437	0.29733	0	52.05739
2007	4.32025	32.7217	17.03515	0	0	0.95942	0.09636	0	55.13288
2008	2.78762	18.94629	14.65387	76.00791	0	0.46519	0	0	112.8609
2009	2.78762	32.91156	16.11577	75.03408	0	0.65681	0	0	127.5058
2010	176.1055	32.91266	73.30741	291.189	0	0.71984	0.43791	0	574.6723
2011	176.5838	18.94354	52.46505	287.4531	0	1.13014	0.77627	0	537.3519
2012	176.5838	18.95014	52.98117	280.6291	0	0.84667	1.67937	0	531.6703
2013	181.3138	18.95014	44.0286	263.9706	0	1.20516	0.60478	0	510.0731
2014	170.9574	0	39.17771	244.9785	8.08533	1.34024	2.68455	0	467.2237
2015	170.9574	0	26.17912	423.1531	9.064	3.97969	3.2406	0	636.5739
2016	170.9574	0	24.64704	544.804	0	4.94472	3.30792	0	748.6611
2017	170.9574	0	19.063	508.7706	0	4.60493	5.56193	0	708.9578

The advantages or reporting groups of intangibles

Intangibles are usually interrelated with other items (EFRAG DP, par. 4.44), and disclosure by groups of intangibles could constitute a meaningful alternative to the approach proposed in the DP if deemed to meet the mandated 'true and fair' view standard.

For example, the target users of disclosure may find it difficult to grasp narrative NFI in the form of separate items. This is true for the acquisition cost for items recognized from a merger or acquisition (M&A), for the revenues derived, and also for the risks, which are usually attached to an activity or a subsidiary, rather than the intangible itself.

Apart from any measurement issues, disclosure by groups of items also makes sense because of the synergies between these items. For example, if in the pharma industry a scandal occurs due to side effects of a medicine, this a may impair not only the potential future value of underlying patents, but also the downstream intangibles such as brands, trademarks, customer lists and other distribution-related items. In such a case, presenting intangibles that are interrelated as a group of assets reflects that they jointly contribute to the earnings power of the business, and that they bear the same risks.

Disclosure of groups of intangibles may also be preferred by companies that do not wish to disclose commercially sensitive information.

In practice, a majority of preparers uses classifications by nature or by function when reporting quantitative assessments of their intangibles in the notes. This approach tends to blur the value of specific items, providing less detailed information.

However, we recommend that reporting could be improved by grouping intangibles in a way that is precise enough for reader to understand the function, sub-entity and other specific characteristics of the group.

As an illustrative example of reporting groups of intangibles, Santhera Pharmaceuticals, a Swiss company focusing on the treatment of rare diseases, provides an interesting case of detailed disclosure regarding drug development costs[12]. Most of the value of the company consists of development projects that are particularly risky; several projects failed during the period 2006-2016, this resulting in financial instability.

As shown in the chart below, Santhera Pharmaceuticals has developed three projects successively: SNT-MC17, Catena/Sovrima and Raxone/Catena. Each project consists of developing an acquired patent internally. Here, the disclosure policy allows to identify each project directly in the heading, which is interesting to assess the total investment cost. Besides, grouping intangibles based on synergies rather than nature can help when measuring intangibles that are interrelated.

A second interesting feature of the case is that "SNT-MC17" is a cash-generating unit, not a brand or patent. Doing so, the issuer chooses to disclose an aggregate value for the intangibles related to this activity. This policy is not strictly equivalent to the disclosure of goodwill because there may be some identifiable intangible elements that are included in the cash-generating unit. However, this could be an interesting way to disclose some groups of intangibles among which some strong synergies exist.

SANTHERA PHARMACEUTICALS HOLDING AG

CHF Millions	Raxone (Patent)	SNT-MC17[13]	Catena/ Sovrima	Raxone / Catena	Capitalized development costs SNT-MC17	Capitalized development costs Catena/ Sovrima	Capitalized development costs Raxone/ Catena	Fipamezole (Patent)	IT software/ patents	Total
2006	-	29	-	-	4	-	-	-	0	34
2007	-	30	-	-	4	-	-	-	0	34
2008	-	27	-	-	4	-	-	-	0	31
2009	-	-	28	-	-	4	-	4	0	36
2010	-	-	23	-	-	4	-	4	0	30
2011	-	-	22	-	-	4	-	-	0	26
2012	-	-	-	4	-	-	1	-	0	5
2013	-	-	-	4	-	-	1	-	0	4
2014	-	-	-	4	-	-	1	-	0	4
2015	-	-	-	31	-	-	-	-	0	31
2016	27	-	-	-	-	-	-	-	0	28

[12] Information in this paragraph is derived from the annual reports 2006-2016 of Santhera Pharmaceuticals.
[13] SNT-MC17 is a cash-generating unit, a development project that was the most important activity of the company in 2006.

5.2. Preliminary feedback received from some users of financial reports indicates that an entity's fair value estimate of a specific intangible would generally not be particularly relevant information. Do you agree that disclosing the fair value of an intangible is less helpful for users than disclosure of quantitative and qualitative information that could assist them in forming their own views on the value for an entity of the specific intangible?

Yes. For intangibles assets measured separately from other related items, fair value is difficult to measure and problematic to audit in most cases. The vast majority of intangibles cannot be directly associated with a particular revenue stream or a market value.

However, some exceptions may exist in cases when there is an active market. For example, the situation has clearly improved in the USA in relation to secondary market information regarding US patent transactions brokered by intermediaries (see response to Question 4).

In addition, certain regulated intangible rights such as IPR licenses can be traded on a market which provides a reliable basis for valuation. To some degree, intangibles at the end of the value creation process, like brands, licenses and distribution rights, are more likely to be assessed reliably from the revenues derived and the changes in market conditions.

5.3. Do you agree with the advantages and disadvantages of information relating to specific intangibles as identified in Chapter 4 compared to recognition and measurement (see Chapter 3) and information on future-oriented expenses (see Chapter 5)? If not, which aspects do you disagree with and/or which additional advantages and disadvantages have you identified?

Yes, we agree.

- **Question 6 – Information on Future-Oriented Expenses**

Question 6.1 considers the possible utility of information on expenses recognised in a period, based on the idea that they could be considered related to benefits that will be recorded in future periods, the so called 'future-oriented expenses', hereafter FOEX.

In general, the answer is yes: disclosure about FOEX is potentially useful for the readers of financial statements, but some conditions must be met to achieve actual informational benefits, as documented in the academic literature (Fuglister and Paxton, 1990; Swartz et al. 2006; Hunter et al., 2012; Gruber, 2015; Ciftci and Zhou 2016; Bayer et al., 2017; Chen et al., 2017; Lev, 2019; Zambon et al., 2020).

FOEX should be considered as necessary preliminary steps for the creation of intangible assets. In this sense, FOEX disclosure is the more future-oriented information included in the financial statements, particularly useful for entities which expect positive net cash flows only in the long term. However, this projection in the future pulls many uncertainties on the convertibility of FOEX into cash inflows[14]. On the user side, the ability to understand the contribution of the FOEX to future flows is not widespread yet, depending on the degree of financial and managerial users' literacy, and the deep knowledge of the economic dynamics of the business and the entity's business model. To this aim, an adequate narrative could convey the management view and provide an informed support, thus helping users' understanding, albeit with the consequent risk of moral hazard by managers. In this regard, EFRAG DP, par. 5.42 states that "*information on future-oriented expenses and risk/opportunity factors would require more guidance on how to classify and split different types of recognised expenses in order for the information to be comparable and reduce the possibility of the different categories of expenses to be used opportunistically by management.*"

Thus, the actual utility of FOEX disclosure cannot be taken for granted. In particular, disclosure of FOEX seems more useful for knowledge-intensive companies and technological start-ups, in which the development of internally developed intangible assets is the key for the competition.

FOEX disclosure has strict linkages with the recognition and disclosure of intangible assets, in two senses. We can identify a complementarity effect, because disclosure of FOEX helps to interpret the creation of disclosed intangible assets giving to users an overall vision of the process of conversion expenditures-assets. On the other side, we can also identify a substitution effect, meaning that if the recognition of internally developed intangible assets is not allowed or, anyway, seriously limited by the accounting standards, the FOEX disclosure remains the only information available for users. In this

[14] EFRAG DP, par. 5.44: *Only providing information on (or to help the users assess) future-oriented expenses (that is, 'investments'), does not inform on how well these investments perform. In some cases, it may be possible for users to assess the effectiveness of the costs spent by calculating (to the extent information is available) and comparing, for example, the costs an entity spends on establishing a new customer relationship. However, this may often not be possible. For example, an entity can spend a lot of money on training staff in a new computer system which is then scrapped before it is taken into use. This failed investment will not appear directly from the financial statements (for example, in the form of an impairment loss). Similarly, it can be that an entity is decreasing its marketing costs, but if the money is just spent more wisely, this decrease may not mean that the intangibles related to the customer's perception and knowledge of a product/ entity would decrease. Qualitative information related to future-oriented expenses, for example, explanations of changes compared with last year may help users understand the management's intentions and expectations related to the changes. However, it may not be possible to subsequently check whether the management's expectations were realised. Information on future-oriented expenses may accordingly not be as good as information on specific intangibles for assessing the management's stewardship.*

sense, disclosing FOEX instead of assets is a parsimonious option[15]. As noted in the EFRAG DP, par. 5.41, "*information on future-oriented expenses and risk/opportunity factors does not require specific intangibles to be identified*".

For these reasons, we think that the EFRAG DP Question 6.1.a) "*Should the information mainly complement information on specific intangibles (see Chapter 4) or should requirements on future-oriented expenses be introduced instead of requirements on information on specific intangibles*? could be better reformulated saying "and/or" instead of simply "or", because the complementarity of these two disclosures can occur and result in being more relevant for users (see the example at the end). Nonetheless, the search for saving the costs of measuring intangible assets can point to FOEX disclosure only.

This is an asymmetric relation because without FOEX there is no internal creation of intangibles, but with FOEX this conversion is not automatic, depending on many factors (i.e., execution risk, defensibility from competitors, functionality of the internally developed intangibles to the entity's strategy, and so on). The same definition of FOEX imposes a previous definition of internally developed intangible assets since in the IASB Conceptual Framework the definition of an asset precedes and defines by default expenses such as FOEX, fixing the edge between capitalization and recognition as cost of the period. This issue is debated above in the response to Q.3. This strict link between FOEX and intangible assets also affects the depiction offered in financial reporting, that is FOEX disclosure should be consistent with the disclosure (and measurement) of intangibles assets deriving from these expenditures.

In our view, the most critical points for the usefulness of FOEX disclosure are the following four issues:

a. **A user-relevant classification of FOEX**. The starting point is that no general accepted classification of intangibles and related FOEX exists, thus disclosure could be not comparable among firms and the investors/financial analysts. EFRAG DP, par. 5.41, highlights how "*different terms are used for the same types of intangibles and some intangibles are overlapping (for example, reputation versus brand value), which can make it complex to provide information on specific intangibles*". Thus EFRAG DP, par. 5.42, suggests "*more guidance on how to classify and split different types of recognised expenses".* Currently, we still observe a prevalence of categorization of expenditures in intangibles derived from the Intellectual Capital Reporting, which in the first versions (Mouritsen, 1997) classifies intangibles into technology-innovation based (R&D), customer-based (brands and relationships), organizational-based (HR training, skills, and competencies). However, other and more articulated classifications have been proposed in literature (i.e., Young, 1998). Lev (2001) has proposed the value chain blueprint giving a comprehensive picture of the process of intangibles creation from the phases of discovery and learning to implementation, and commercialization. More recently, Barker et al. (2021) propose headings for FOEX relating to human capital (training), organisational capital (intellectual property, processes, IT), and social capital (customer relationships, external networks, reputation). Quoting Hunter et al. (2012), "*The most relevant system for identifying and classifying expenditure on intangibles is not known; and cannot be known in any scientific sense until*

[15] EFRAG DP, par. 5.48*: Providing information for assessing how performance could be affected by changes in intangibles as that suggested in this chapter could generally be assumed to be less costly than the costs of recognising additional intangibles. It would be less costly than recognition as entities would not have to account for additional intangibles (including performing impairment tests or estimating fair value). It may be less costly than information on specific intangibles, as entities would not have to identify the various intangibles and prepare information for each of those. However, in order to provide information on expenses relating to future performance, the entity may have to register costs and expenses more granularly than currently done. This would increase the costs for preparers.*

EFRAG DP, par. 5.49 *To the extent that information on expenses related to future performance is used to supplement information on specific intangibles, any cost-saving benefits would diminish or disappear completely.*

detailed firm-level data on the expenditure on intangibles become available to enable testing of the links between the different types of expenditure on intangibles and the firms' revenues". The problem of consistent classification among firms increases if we pass from macro-classes to specific sub-groups, which can be quite different from an industry to another. It is also a matter of balancing the use of general accepted classifications favouring comparability and the right degree of flexibility given to entities to represent their FOEX in the most relevant way for the users of their reports. To this regard, we think that the standard setter should give a general classification, inspired by one of the many proposed by literature, with a light guidance for identification and classification of FOEX within. Further mandatory classifications, in sub or sub-subgroups, should be avoided by standard setter, allowing entities to choose their specific sub-groups according to their own business model.

b. **The separability of FOEX**. The question of separability of FOEX deals with two different issues. The first issue is the entities' ability to collect data for the different categories, which involves not only administrative efficiency but also managerial choices. This point could be considered a problem of unit-of-account in the logic of standard-setters. Just to give an example, the engineering staff time spent to listen to the client requests to customize a standard product is a R&D expenditure or a customer relationship one? Both choices can be right, depending on the entity's strategy.
The second question regards the possibility to separate future-oriented from the expenses whose utility does not extend to the future (Barker et al., 2021[16]). The use of discretion in separating future oriented and current expenditures is tackled by Q 6.1.b) (see EFRAG DP, par. 5.13-5.16), regarding the choice of whether the information should mainly reflect the views of the entity's management, trusting its judgement, or help users to perform their own assessments on the recognised expenses that relate to benefits of future periods. We think, as for Q 6.1.a), that these two approaches could not be so alternative. In our view, reflecting the management perspectives to discern FOEX from the current ones is necessary, especially in case of new or very specific business model, for which users have less reference benchmarks. This separation should be accompanied by an adequate management's narrative, giving relevant details on the main projects of internal development to allow the understanding of the reason for including them in FOEX, as suggested by EFRAG DP, par. 5.13[17]. Par. 5.14 of the EFRAG DP provides a clear method for separating FOEX, "*based on what expenses would have been necessary in a no-growth scenario*" and we think it should be proposed as general principle for this separation. If the entities disclose for each category of FOEX not only the future–oriented, according to the management's view, but also the current expenditures, users have the whole picture. Therefore, they can apply their models and judgement to evaluate if they prefer trusting the management considering only FOEX or, alternatively, the total of expenditures, both current and FOEX. In general, granularity of information proposed in par. 5.16 of the EFRAG DP can be provided together with the split between FOEX and current. Disclosing both current and FOEX increases information for users. For further details, we will discuss how granular the information should be in the following point d).

[16] "Expenditures on assets (to generate future earnings) are sometimes made with those for current earnings, particularly with intangible assets. Customer loyalty may be generated by sales discounts, an explicit expenditure that is embedded in revenue. A bonus to employees may be an investment in human capital, an incentive to stay with the firm, as well as wages for current service. Advertising can generate future sales (brand building) but can also be for current sales. In these cases, the asset component is difficult to identify and separate". (Barker et al., 2021)

[17] EFRAG DP, par. 5.13: "*When the management is making the split, it would also be possible to require entities to provide additional information on the recognised expenses considered relating to the future. This could include information about the management's estimates on when material future-oriented expenses are expected to result in benefits (when it would be possible to make a reliable estimate, as it might be difficult for some types of expenses, such as research expenses)*".

c. **The link with results**. The third critical point is the demonstration of the causal relations between the incurrence of expenditures and the entity's results (Wyatt, 2008)[18]. As results of FOEX, disclosure could follow three approaches, which are not necessarily alternative.
   - A first kind of results is the development of internally intangible assets. From a theoretical point of view, FOEX make sense as cash outflows to obtain a stock of intangible resources. In this sense, future-oriented advertising should increase the value of brands, future-oriented training should increase the value of HR competencies. In practice, this approach has some severe limitations. First and obvious, the development of intangible assets recognized in the financial reports depends on the possibility to capitalize them allowed by accounting standards. Secondly, the capacity to use information on the development of internally intangible assets to estimate the future cash-flows of the entity cannot be taken for granted, as evidenced by literature. The users' understanding of the business model and business strategy is a preliminary requisite to increase value relevance of this disclosure[19]. In this sense, a guidance by the management's comments is needed, under adequate cautions to prevent opportunistic behaviour.
   - The second kind of results to relate FOEX are the KPIs (value drivers) derived from performance measurement systems. This link can shed lights on the preliminary drivers for the creation of intangibles. Just to give an example, advertising FOEX should determine as first consequence the increase in the number of customers visiting shops and ecommerce websites, which is a valid proxy of brand celebrity. This approach has the advantage of showing the immediate consequences of FOEX but, on the other side, puts on the desk the question of standard definitions for industry value drivers, still far from being generally accepted (Hunter et al., 2012).
   - The third sort of results relates to financial results, such as revenues and margins. The joint disclosure FOEX - financial results allows users, in a medium term, to progressively identify the causal relations between FOEX and results and operationalize their forecast models[20]. We prefer this third approach, not only because it is free of intangible assets capitalization problems as in a), but also for the direct link with the financial statements and their utility to foresee future cash flows, the main objective of financial statements in the Conceptual Framework.

d. **The content and the format of disclosure**. We agree with the EFRAG DP proposals to link the specified recognised expenses with the line items in which they are included in the statement

[18] "Our evidence and that discussed in this paper from elsewhere suggests many firms do not separate out expenditure on intangibles in a format that would enable the estimation of rates of return from the expenditure. While this seems surprising in the era of sophisticated management information systems, the systems are only as good as the knowledge informing them. Our evidence and that cited from elsewhere in the paper suggests we have a lot to learn about the strategic sub-classes of intangible investment, how these sub-classes of intangible investment fit into the firms' revenue generation processes, and the lines of causation between sub-classes of intangible inputs and outputs. We do not know if sub-classes of intangibles operate independently to generate outcomes, or whether and how the sub-classes interact to generate synergistic outcomes" (Hunter et al., 2012).

[19] EFRAG DP, par. 5.20 *"It will follow below that information on future-oriented expenses may not be as useful as information on specific intangibles to understand the entity's business model and strategy. This is because information on future-oriented expenses does not directly identify the intangibles that are important for an entity. However, information on which areas an entity is using/ spending its resources/costs could provide some information on its business model.*

[20] EFRAG DP, par. 5.27 *"To some extent, however, users might be able to work around that for the prediction of future cash flows if they, based on the information on future-oriented expenses of a year would be able to assess steady-state margins and would then be able to predict how the future would deviate from a steady-state. This prediction could be based on whether future oriented expenses (that is, 'investments') increase or decrease."*

of financial performance (EFRAG DP, par. 5.18), and to push towards granularity of information of FOEX (par. 5.21). In particular, we think that the understanding of relations between FOEX and results, both financial and other, needs disclosing an adequate number of periods (3-5). Disclosing historical series of FOEX and results allows assessing the consistency of management's behaviour, identifying and investigating irregularities in the trends[21]. We think the standard setter should propose a minimum level of disclosure including current and FOEX, and the main financial results to which correlate FOEX. The following table may provide an example.

	2021			2020			2019		
	CURRENT EX	FOEX	TOTAL	CURRENT EX	FOEX	TOTAL	CURRENT EX	FOEX	TOTAL
Intangible expenditures and financial items included									
R&D product/process									
financial items									
……..									
commercial - customer									
financial items									
……..									
human resource									
financial items									
……..									
social/institutional									
financial items									
……..									
REVENUES									
MARGINS									

A management comment should accompany the above data, disclosing the management's choice of separating current and FOEX, the sense of FOEX in the current business model, and the link with results.

Starting from this basic level, entities can decide to disclose more detailed information based on their specificity. In particular, entities with a stronger commitment to dialogue with investors could decide to introduce as further level of analysis the classifications by projects, typical of R&D departments (innovation in product line X, opening commercial activities in country Z, and so on).

In summary, we agree on all the advantages proposed by Question 6.2 of the EFRAG DP, based on the assumption that disclosing FOEX instead of intangible assets simplifies many managerial and administrative efforts and "generally, it could be assumed to be less costly to provide than recognising intangibles or providing information on specific intangibles (see paragraphs 4.56 and 5.48–5.49)".

[21] EFRAG DP, par. 5.46: "*As previously noted, and unlike other proposals32, this chapter does not propose that preparers would be required to register and keep track of the cumulative amount of uncapitalised costs that relate to 'investments'. The input on which this Discussion Paper is built, did not identify, as a user need, information on the cumulative amounts of uncapitalised costs related to future earnings. This also means that users of financial reports will not be able to receive information on when the 'investments' are used and hence determine the 'correct' margins by matching the income of a period with the related expenses. In addition, it means that the calculated returns will not be comparable between entities that have acquired intangibles and entities that have developed intangibles internally (under circumstances where the costs could not be capitalised).*"
EFRAG DP, par. 5.47: "*To the extent that the management provides an assessment of future-oriented expenses, the suggested disclosures on when the recognised expenses are expected to result in benefits could be used to estimate the unrecognised 'investments' and the use of it. However, this would require users to keep records of the 'investments' of previous periods and when the benefits of these were expected to incur. This may be less of an issue as financial information is digitalised. Users would, nevertheless, not receive information in advance if the 'investment' is no longer expected to result in benefits or if the time period for the benefits has changed.*"

Concerning disadvantages, we think overall that many minus points evidenced in the very EFRAG DP[22] could be overcome adopting the approach of a basic mandatory disclosure level and a basic guidance (mainly in separating FOEX form current expenditures), leaving flexibility to entities in choosing more detailed information (more granular, clearer links with business model and results, risk/opportunity factors).

[22] These cited minuses are:
• Users would not receive information on specific key intangibles for the entity's business model.
• The effectiveness of investments in intangibles is not taken into account.
• Difficult to 'match' revenue with future-oriented expenses of a previous period.
• Less useful for assessment of stewardship.
• Not useful for assessing returns of an entity as the value of intangibles would not appear.
• Less granular information on intangibles compared with information relating to specific intangibles and recognition.
• The information could be commercially sensitive.
• Information on future-oriented expenses would not provide information on 'negative intangibles'/'intangible liabilities'. Information on risks and opportunities could, however, capture some of this information.
• Would require guidance on what different types of recognised expenses should include.
• To the extent the entity is splitting recognised expenses related to the current period and to future periods (see paragraph 5.10 above), the information will be quite subjective. If, instead, information is provided to help users perform their own split, the information will be less subjective.
• It would not provide a solution to the issue that intangible assets are accounted for differently if they have been acquired versus if they have been internally generated.
• IFRS performance measures will be distorted as not all intangibles are recognised (see par. 3.3 above of this comment letter).

- **Question 7 – Information on risk/opportunity factors affecting intangibles**

Yes, we agree. Since our answers to Q 5 and 6 above support broader disclosure on intangibles, information on associated risk/opportunity factors are expected to increase accordingly.

However, this could also result in excessive reporting burden on preparers. As stated in EFRAG DP 5.29 "requiring entities to provide long lists of possible factors that could affect its intangibles might not be realistic or cost/benefit effective". Therefore, in the same way as EFRAG's ESRS 2 *"General, strategy, governance and materiality assessment disclosure requirements" (draft)*, disclosure requirements for risk and opportunity factors affecting intangibles should be restricted to material impacts, risks and opportunities.

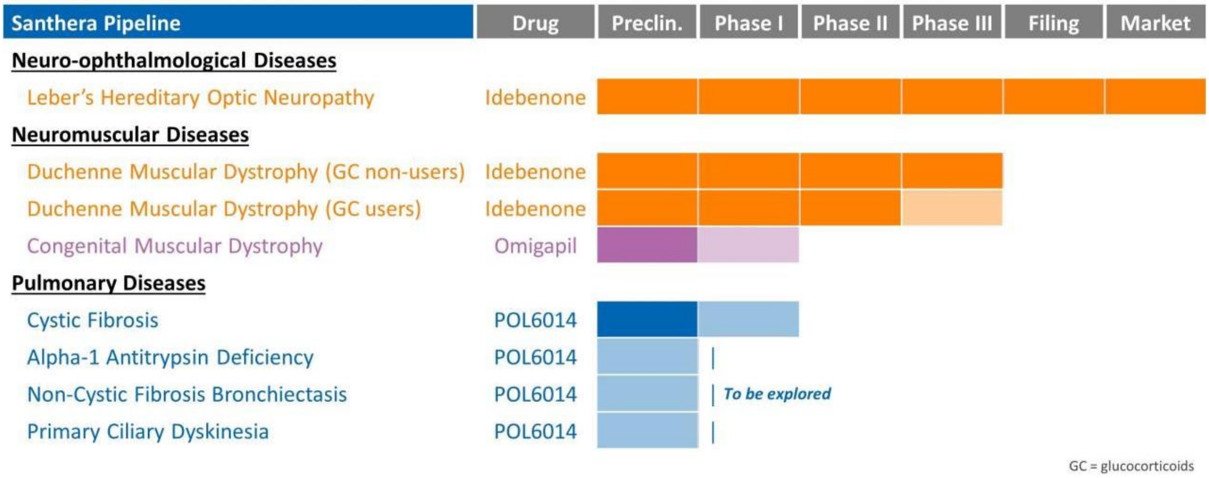
As EFRAG's ESRS 1 "*General Principles*" (draft) distinguishes three levels of disclosure: sector-agnostic, sector-specific and entity-specific, we believe that this approach could be relevant as well for risk/opportunity factors affecting intangibles, which are contingent upon the business model and industry.

Accordingly, to address the problem of identifying risk and opportunity factors on the basis of industry-specific standards could be useful. This would increase the flexibility of (variations in) reporting requirements, while ensuring, to some extent, comparability among competitors. The great diversity of intangibles described in the above response to Q5 is not only a matter of accounting policies, but it is also the consequence of different business models and specializations. Industry-specific standards could provide the opportunity to grasp material impacts, risks and opportunities that are specific to certain business models.

Denoncourt (2018, pp. 42-43) suggests that one example of a potential new sector standard could be provided by the Technology Readiness Level (TRL) system, a tool derived from the public sector which is new to corporate reporting for disclosures to related to technology development through to commercialisation. The TRL systems may offer many benefits for users and promotes a better understanding of innovation and technology development. The TRL system is a well-established method of estimating the maturity of critical technology elements on a scale of one to nine, with nine being the most mature technology.

Another useful reference could be the WICI industry KPIs (www.wici-global.com/kpis) which embrace also sector specific risks and opportunities.

As an illustrative example of sector-specific disclosure of risk and opportunity factors, the pharmaceutical industry which has a very long development cycle for new drugs, with high rate of failure, is a good reference. Indeed, drugs that are still at an early phase of development are much riskier than marketed products, so that disclosing the stage of maturity for drug development provides an indication of risks and opportunities. Below is an example of NFI representing the pipeline of drugs development taken from the annual report of Santhera Pharmaceuticals:



Source: Santhera Pharmaceuticals, Annual Report 2017, p. 8.

The legal validity of core corporate patent-protected assets, the result of R&D expenditure and thus a cost centre for the entity may involve disclosure of NFI. Actual or potential patent litigation (e.g., for infringement of a third party's IP or revocation of the firms' patent among other legal causes of action) will present financial and legal risks (potential loss of freedom to operate) as significant company revenue streams may be endangered when a valuable patent is legally challenged. To support NFI risk disclosure, senior management should determine if sufficient information is available to make a reliable estimate of the financial amount, if any, required to be set aside to deal with the litigation to conclusion (see Denoncourt, 2018, pp. 195-199, for additional patent litigation risk reporting).

Turning to materiality, the above mentioned ESRS 1 (draft) proposes an approach based also on an entity-specific assessment of material impacts, risks and opportunities. From a corporate governance perspective, material NFI can be understood as information that would change the mind of a shareholder or prospective investor. Assessing materiality is an ongoing process, NFI that is immaterial today may become material NFI at another point in time.

As noted by Abad et al. (2020, p. 5) prioritizing entity-specific relevance may reduce the comparability of financial statements. However, entity-specific features of intangibles play an important role in their valuation, as for example in the measurement of recoverable value for impairment tests. It appears legitimate to leave room for entity-specific assessment of material impacts, risks and opportunities regarding intangibles. For example, it often happens that some businesses bear more reputational or technological risks than competitors in the same industry.

The Management Report should be the right location to include a section on the main risks/opportunities concerning intangibles. However, from a corporate governance standpoint, it is not sufficient to argue that the NFI was included in the annual report if it is difficult to find or obscured within other information.

Further, managers should disclose the method of selecting the risks/opportunities they used, and the mitigation actions in progress. For example, have any particular intangibles been identified that should be disclosed separately even though the financial amounts involved may not be large, in other words – because it is material? Would a shareholder or potential investor be able to identify which intangibles the board of directors considers the company's core intangibles? Has there been any material change(s) affecting intangibles since the previous reporting period?

Starting from this basic level, entities can decide to disclose more detailed information based on their specificity. In particular, entities with a stronger commitment to dialogue with investors could decide to introduce as further level of analysis the classifications by projects, typical of R&D departments (innovation in product line X, opening commercial activities in country Z, and so on).

Question 8 – Issues to be considered

With reference to the issues discussed in Chapter 6, we would like to provide the following considerations.

8.1. Do you consider that it would be useful to introduce a common terminology on intangibles?

Yes, even small misalignments around terminology, definitions, and concepts in the versions of the standards and legislations risk undermining their collective impact or creating confusion in preparers and users.

Some already existing glossaries could be useful as possible benchmarks to carry out this terminology standardisation exercise.

For example, it is noteworthy that certain forms of intangibles such as IP assets for example are subject to WTO law via the Trade Related Agreement on Intellectual Property (TRIPS) and are granted by national governments under common terminology.

The WICI Intangibles Reporting Framework (WICI, 2016) provides a glossary which we believe could be a useful reference for building an internationally-shared terminology in this field.

The same applies to the glossary accompanying the second version of the International Integrated Reporting (IR) Framework (2021). One interesting example drawn from this latter document is the definition of "intellectual capital", that in the last twenty years of academic literature is generally defined as the combination of three intertwined set of intangibles: human capital, organisational/structural capital, and relational/customer capital, whilst in the IR Framework by "intellectual capital" is meant only the organisational/structural capital.

On a similar vein, also the standards recently published by the International Standards Organisation (ISO) for trademarks and brands could be another useful starting reference.

A delicate issue is that intangibles do not appear only in financial reporting but also in integrated and sustainability reporting. The construction of a common terminology should therefore regard the wider corporate reporting in order not to nurture misunderstandings between the different set of company information.

8.2. Do you agree that preparers of financial statements should not be required to disclose information on intangibles that would be (very) commercially sensitive?

The question relates to a well-known issue that repeatedly has been put forward by companies over the years to avoid delivering more insightful information about their processes and resources.

The NFRD (Directive no. 95/2014) tried to resolve this issue by identifying a point of equilibrium between the need for transparency and the need of enterprises not to disclose commercially sensitive issues. The legal solutions elaborated have been the "comply or explain" model and the "safe harbour". Both allow a way out to companies. With these formulae an entity should justify why it is not going to deliver an information providing good reasons for exiting this task. Therefore, if an undertaking does not pursue policies covering these matters, it will provide a "clear and reasoned explanation" for not doing so.

Probably, a similar approach can be used to address sensitive information on intangibles. However, it should be also recognised that this should be a well-motivated exception rather than an easy exit.

Historically speaking, it is easy to note that companies have quite often opposed the requests for more information by regulators. It is well known that at the beginning of the 20th century, the US Stock Exchange decided to impose the publication of the amount of sales on American listed companies, and was met with outcries that this could have marked the end of "Corporate America".

Undoubtedly, an important corporate governance issue in this respect is 'accountability' versus the need to keep business critical, commercially sensitive NFI or maintain valuable trade secrets. A balance needs to be struck between the corporate governance goal of accountability and transparency in the public interest and the private interest of firms to ensure their competitive advantages are not diminished by excessive or unnecessary disclosures (see also the case study and discussion of GSK plc's confidential information disclosures on Denoncourt, 2018, pp. 198-199).

The EU Directive 2016/943 dated 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) disclosures against their unlawful loss and disclosure came into force on 5 July 2018. Article 2(1) of this Directive defines 'trade secret' as information that means all of the following requirements:

(a) It is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
(b) It has commercial value because it is secret; and
(c) It has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

The final statement invites a disclosure from trade secrets owners to confirm they have taken reasonable steps and have suitable management oversight, measures and staff training systems in place to avoid unauthorised disclosure of material NFI. However, when a company becomes aware of potential for loss resulting from disclosure of a trade secret, the first question is whether there are adequate substantive legal protection and court enforcement procedures in the relevant jurisdiction (see Cook et al., *Trade Secret Protection A Global Guide*, June 2022). In some jurisdictions, theft of trade secrets may be a criminal matter (jail sentence) in addition to being civil matter (fine). Additional NFI risks may include cyber security risks, cloud storage and the impact of employee mobility, e.g., need for non-disclosure agreements and restraint of trade clauses in employment contracts.

In general, publishing more NFI on intangibles will likely create additional legal risks in connection with the disclosure itself, since these qualitative narrative descriptions may be challenged. From a corporate governance perspective, the main objective of relevant corporate is to present the principle risks the company faces and to complement, supplement and provide context for the related financial statements. Other non-material disclosures would be voluntary disclosures, held to the same legal standard as material disclosures.

As a final consideration, the philosophies and accounting principles that underpin debates on corporate transparency suggest that more 'open' disclosures about a company's business model type and innovation, whilst preserving competitive advantage, are necessary so that shareholders and stakeholders have something to read, evaluate, react to and question in terms of corporate performance (Denouncourt, 2018).

8.3. ***Are there additional issues than those listed in Chapter 6 you think should be taken into account when considering how to provide better information on intangibles?***

A) Consistency and connectivity with sustainability information

A relevant issue that is not explored in the EFRAG DP, which is based on the IASB Framework, is the coordination with the intangibles-related information that are and will be disclosed in sustainability reporting as well as in integrated reporting.

In particular, according to the International Integrated Reporting (IR) Framework (2021) the latter form of reporting encompasses six categories of capital, of which three deal explicitly with intangibles (intellectual/organisational; human; relational/social). Today, ca. 2,200 organisations, of which 1,700 listed (source: Value Reporting Foundation, 2022) produce some form of integrated reports around the world.

The above delineated vision according to which intangibles are to be associated also with information on sustainability sheds light on another important feature of these resources, i.e., their prominent role in bridging financial numbers and ESG disclosures, because of the capacity intangibles have to form the "connecting glue" of an organisation and its activities. In other words, intangibles can be considered the living link.

By slightly amending the WICI Intangibles Reporting Framework figure (Fig. 1.1., p. 7, 2016), the connectivity function of intangibles between financial and non-financial information can be clarified and visualised as in Figure 1. As previously mentioned, intangibles are defined as 'non-physical resources that generate value to the organization in the short, medium and long term' (WICI Intangibles Reporting Framework, 2016, p. 11).

Figure 1 - Connectivity function of intangibles between financial and non-financial information

* Organisational Capital according to WICI Framework

Source: Adapted from the WICI Intangibles Reporting Framework (2016), p. 7

This poses a strong question of consistency and interoperability between these two sets of information, i.e., financial and sustainability reports, and the need to construct an effective connectivity between them that will be largely based on intangibles. The EFRAG DP is not addressing this critical issue in an explicit way.

Linking intangibles to sustainability begins with disclosure of the company's business model type and activities and identifying which intangibles support growth and which support or underpin sustainable development at different points in the business and innovation lifecycle (Denouncourt, 2019).

Accordingly, there is a need for corporate intangibles records to be kept for the same corporate reporting reasons and objectives as accounting records.

B) Auditing

With respect to intangibles-related information disclosed, ensuring accurate disclosures and representations of intangibles through NFI and taking reasonable care to avoid misleading, false or deceptive disclosures without omitting anything likely to affect the import of the NFI, raises the issue of auditing. Who shall audit and on which criteria?

The question may not be answered easily, but more specialization will likely be required. For example, nationally registered patent and trademark attorneys may contribute expertise on the characteristics of IP related assets. Companies that wish to make 'new' or 'breakthrough' claims by way of NFI will need sound research data to substantiate the strategic impact of such claims (e.g., properly controlled experimental studies). Opinions expressed regarding future value creation of a patent portfolio for example or individual patents should be supported with independent evidence of accuracy.

The need for auditing intangibles-related information may well generate the need for specialised branches of auditors with differentiated professional backgrounds.

- **Question 9 – Placement of the information**

Ideally, all information regarding intangibles should be usefully positioned in one place or at least in well determined places of corporate annual report.

Another element we would like to underline is the need that this information should be subject to audit to make it more credible for investors.

A further element is the scarcity of academic literature on this particular point, especially referring to the location of intangibles-related information. Only in Zambon et al. (2022) a specific question in a survey can be found about the preferences of users and preparers about the location of intangibles-linked information. The responses have been, in the frequency order, 'Supplementary notes to financial statements', 'Non-Financial reporting statement according to the Non-Financial Reporting Directive', 'Integrated Report', and, lastly, 'Management Commentary'.

Considering the above, we think that the notes could be the most logical place for disclosures on intangibles, also because in this case these disclosures should be assured. As a second best, the Management Report could be a suitable place for this type of information, even though a lighter form of audit would apply.

Another interesting possible development for the future could be the elaboration and inclusion of a "Company Intangibles Statement" in order to collect all the information on intangibles and associated risks and opportunities, which would make it easier to give consistency to all these disclosures. This special statement could be positioned in the Management Report, following also the indication from the new Corporate Sustainability Reporting Directive (CSRD) approved in 2022 (art. 19, new subparagraph 20c).

A possible overall solution will likely be provided by the digitisation of IFRS (and sustainability) annual reports, which will allow users to assemble intangibles-related data in the way they consider most useful for their analyses and decision making processes. In this respect, the placement of this category of information can be seen as a second-order issue owing to the widespread use of XHTML digital format together with the XBRL as mark-up language.

• References

Abad, C., Barone, E., Gullkvist, B.M., Hellman, N., Marques, A., Marton, J., Mason, S., Menezez Silva, R.L., Morais, A., Moya Gutierrez, S., Quagli, A., and Vysotskaya, A. (2020). On the 'Disclosure Initiative – Principles of Disclosure': the EAA Financial Reporting Standards Committee's View. *Accounting in Europe* 17(1), 1-32.

Adrem, A. H. (1999). *Essays on disclosure practices in Sweden-Causes and Effects*. Lund University.

Ahmed, A. S., Billings, B. K., Morton, R. M., & Stanford-Harris, M. (2002). The role of accounting conservatism in mitigating bondholder–shareholder conflicts over dividend policy and in reducing debt costs. Accounting Review, 77(4), 867–890.

Amir, E., & Lev, B. (1996). Value-relevance of nonfinancial information: The wireless communications industry. *Journal of accounting and economics*, *22*(1-3), 3-30.

Andronoudis, D., Dargenidou, C, Konstantinidi, E, and Pope, P.F., 2019. Conservative accounting and risk: the case of research & development. Working Paper, Bocconi University.

Ball, R., Li, X., & Shivakumar, L. (2015). Contractibility and transparency of financial statement information prepared under IFRS: Evidence from debt contracts around IFRS adoption. *Journal of Accounting Research*, *53*(5), 915-963.

Ball, R., & Nikolaev, V. V. (2022). On earnings and cash flows as predictors of future cash flows. *Journal of Accounting and Economics*, *73*(1), 101430.

Banghøy, J., Marton, J., Plenborg, T., & Runesson, E. (2022). Revisiting pay-performance sensitivity around IFRS adoption in Europe: The dominant role of Germany. *Accounting and Business Research* (forthcoming).

Barker R., Lennard A., Penman S., Teixeira A. (2021). Accounting for intangible assets: suggested solutions, *Accounting and Business Research*, 1-30.

Barth, M.E., Li, K., McClure Ch. (2022). Evolution in Value Relevance of Accounting Information. *The Accounting Review*, doi.org/10.2308/TAR-2019-0521

Bayer, E., Tuli, K.R., Skiera, B. (2017). Do Disclosures of Customer Metrics Lower Investors' and Analysts' Uncertainty but Hurt Firm Performance? *Journal of Marketing Research*. April, Vol. 54, Issue 2, 239-259.

Beattie, V., and Pratt, K. (2002). Voluntary annual report disclosures: What users want, Edinburgh: Institute of Chartered Accountants in Scotland (ICAS).

Black, D. E., Christensen, T. E., Ciesielski, J. T., & Whipple, B. C. (2018). Non-GAAP reporting: Evidence from academia and current practice. *Journal of Business Finance & Accounting*, *45*(3-4), 259-294.

Bontis, N. (2003). Intellectual capital disclosure in Canadian corporations. *Journal of Human Resource Costing & Accounting*.

Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *The Accounting Review*, 323-349.

Bratten, B., Choudhary, P. and Schipper, K. (2013), Evidence that market participants assess recognized and disclosed items similarly when reliability is not an issue. *The Accounting Review*, 88(4), 1179-1210.

Bukh, P. N., Nielsen, C., Gormsen, P., & Mouritsen, J. (2005). Disclosure of information on intellectual capital in Danish IPO prospectuses. *Accounting, Auditing & Accountability Journal*.

Chen, E., Gavious, I., & Lev, B. (2017), The positive externalities of IFRS R&D capitalisation: enhanced voluntary disclosure. *Review of Accounting Studies*, Vol. 22, No. 2, 677–714.

Ciftci, M., & Darrough, M. (2016). Does the riskiness of R&D outweigh its benefits? The perspective of US private lenders. *Journal of Business Finance & Accounting*, 43(5-6), 654–692

Ciftci, M., & Zhou, N. (2016), Capitalising R&D expenses versus disclosing intangible information. *Review of Quantitative Finance and Accounting*, Vol. 46, No. 3, 661–689.

Clor-Proell, S. M., Proell, C. A., & Warfield, T. D. (2014). The effects of presentation salience and measurement subjectivity on nonprofessional investors' fair value judgments. *Contemporary Accounting Research*, 31(1), 45–66.

Cooke, T. E. (1989). Voluntary corporate disclosure by Swedish companies. *Journal of International Financial Management & Accounting*, *1*(2), 171-195.

Dargenidou, C., Jackson, R. H., Tsalavoutas, I. and Tsoligkas, F. (2021), 'Capitalisation of R&D and the Informativeness of Stock Prices: Pre-and Post-IFRS Evidence', *The British Accounting Review*, 53(4), 100998.

Defliese, P. L. (1971). The APB and its recent and pending Opinions. *The Journal of Accountancy,* February, 66-69.

DeFond, M., Hu, J., Hung, M., & Li, S. (2020). The effect of fair value accounting on the performance evaluation role of earnings. *Journal of Accounting and Economics*, *70*(2-3), 101341.

Denoncourt, J. (2016). True and fair intellectual property information: a corporate governance issues. *Journal of Business Law* (1), 47-72.

Denoncourt, J. (2018). *Intellectual Property, Finance and Corporate Governance*. Routledge Research in Intellectual Property Series, London, UK.

Denoncourt, J. (2019) Companies and UN 2030 Sustainable Development Goal 9 Industry, Innovation and Infrastructure. *Journal of Corporate Law* Studies, 20:1, 199-235

Denoncourt, J. (2021) Patent-rich firms and corporate restructuring: Patent signalling, valuation and governance in: Gant, J. (Ed.) *Research Handbook on Corporate Restructuring.* Edward Elgar Publishing.

Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *Journal of Finance*, *46*(4), 1325-1359.

Eccles, R. G., & Mavrinac, S. C. (1995). Improving the corporate disclosure process. *MIT Sloan Management Review*, *36*(4), 11.

Eccles, R., Herz, R., Keegan, M., & Phillips, D. (2001). The risk of risk. *Balance sheet*.

Edvinsson, L., & Malone, M. S. (1997). *Intellectual capital*. HarperBusiness,.

Fuglister, J., and Paxton, W. (1990). Accounting For Future-Oriented Expenditures: Change Is Needed. *American Journal of Business*, Vol. 5, No. 1, 13-18.

Garcia, C. (2022). National Differences in the Disclosure of Intangible Assets**.** AGISSS Research Series No. 3.

Gibbins, M., Richardson, A., & Waterhouse, J. (1990). The management of corporate financial disclosure: opportunism, ritualism, policies, and processes. *Journal of Accounting Research*, *28*(1), 121-143.

Gopalan, R., Milbourn, T., Song, F., & Thakor, A. (2014). Duration of executive compensation. *Journal of Finance*, 69(6), 2777–2817.

Grüber, S. (2015). The Fundamentals of Financial Accounting and Reporting. In *Intangible Values in Financial Accounting and Reporting* (pp. 7-34). Springer Gabler, Wiesbaden.

Guo, Y., & Zhou, J. (2016). Experimental tests of the salience theory: Disaggregated income statements under two economic states. *Asia-Pacific Journal of Accounting & Economics, 1–15.*

Petty, R., & Guthrie, J. (2000). Intellectual capital literature review: measurement, reporting and management. *Journal of Intellectual Capital*, *1*(2), 155-176.

Haskel, J., & Westlake, S. (2017). Capitalism without capital. Princeton University Press.

Hayn, C. (1995). The information content of losses. *Journal of Accounting and Economics*, *20*(2), 125-153.

Hunter, L., Webster, E. and Wyatt, A. (2012). Accounting for Expenditure on Intangibles, *Abacus*, Vol. 48, No. 1, pp. 104-145.

Kahle, K. M., & Stulz, R. M. (2017). Is the US public corporation in trouble? *Journal of Economic Perspectives*, *31*(3), 67-88.

Kim, M., & Ritter, J. R. (1999). Valuation IPOs. *Journal of Financial Economics*, *53*(3), 409-437.

Kreß, A., Eierle, B., & Tsalavoutas, I. (2019). Development costs capitalization and debt financing. *Journal of Business Finance & Accounting*, 46(5e6), 636-685.

LaFond, R., & Watts, R. (2008). The information role of conservatism. *The Accounting Review*, *83*(2), 447-478.

Lawrence, A., Sloan, R., & Sun, E. (2018). Why are losses less persistent than profits? Curtailments vs. conservatism. *Management Science*, *64*(2), 673-694.

Lev, B. (2001). Intangibles: Management, Measurement and Reporting, Brookings Institute Press.

Lev, B. (2019). Ending the Accounting-for-Intangibles Status Quo, *European Accounting Review*, Vol. 28, No. 4.

Lev, B., and Gu, F. (2016). *The End of Accounting and the Path Forward for Investors and Managers*. Wiley

Lewellen, J., & Resutek, R. J. (2016). The predictive power of investment and accruals. *Review of Accounting Studies*, *21*(4), 1046-1080.

Luft, J., & Shields, M. (2001). Why does fixation persist? Experimental evidence on the performance effects of expensing intangibles. *The Accounting Review*, 76(4),561–587.

Marton, J., & Starica, C. (2021). The relative informativeness of earnings and cash flows. Working paper.

Mazzi, F. et al. (2019). *The capitalisation debate: R&D expenditure, disclosure content and quantity, and stakeholder views*, ACCA and Deloitte Report, February (available at: https://www.accaglobal.com/content/dam/ACCA_Global/professional-insights/Intangibles/pi-intangibles-R%26D.pdf).

McInnis, J., & Monsen, B. (2021). The Usefulness of Acquired Intangible Asset Fair Values in Predicting Future Payoffs, working paper.

McNichols, M., Rajan, M.V. & Reichelstein, S. Conservatism correction for the market-to-book ratio and Tobin's q. *Review of Accounting Studies*, 19, 1393–1435 (2014).

Mouritsen, J., (1997). Marginalizing the Customer: Customer Orientation, Quality and Accounting Performance, *Scandinavian Journal of Management*, Vol. 13, No. 1.

Müller, M. A., Riedl, E. J. and Sellhorn, T., (2015). Recognition versus disclosure of fair values. *The Accounting Review*, 90(6): 2411-2447.

Nelson, M. W., & Tayler, W. B. (2007). Information pursuit in financial statement analysis: Effects of choice, effort, and reconciliation. *The Accounting Review*, 82(3),731–758.

Penman, S., & Zhang, X. J. (2020). A theoretical analysis connecting conservative accounting to the cost of capital. *Journal of Accounting and Economics*, *69*(1), 101236.

Penman, S. H., & Zhang, X. J. (2021). Connecting book rate of return to risk and return: the information conveyed by conservative accounting. *Review of Accounting Studies*, *26*(1), 391-423.

Prencipe, A. (2022). Speech at the EFRAG Outreach on "Better Information on Intangibles – What's Next?", 30 May (available at: https://www.efrag.org/News/Meeting-418/Reminder---Join-EFRAGs-next-outreach-event-Better-Information-on-Intangibles--Whats-next).

Rajan, M.V., Reichelstein, S. & Soliman, M.T. (2007). Conservatism, growth, and return on investment. *Review of Accounting Studies*, 12, 325–370.

Richardson, A. J., & Welker, M. (2001). Social disclosure, financial disclosure and the cost of equity capital. *Accounting, organizations and society*, *26*(7-8), 597-616.

Rimmel, G. (2003). Human resource disclosures. A Comparative Study of Annual Reporting Practice AboutInformation, Providers and Users in Two Corporations, Göteborg University.

Robb, S. W., & Zarzeski, L. E. S. T. (2001). Nonfinancial disclosures across Anglo-American countries. *Journal of International Accounting, Auditing and Taxation*, *10*(1), 71-83.

Shi, C. (2003). On the trade-off between the future benefits and riskiness of R&D: A bondholders' perspective. *Journal of Accounting and Economics*, 35(2), 227–254

Sonnier, B.M. (2008). Intellectual capital disclosure: high-tech versus traditional sector companies. *Journal of Intellectual Capital*. *9*(4), 705-722.

Srivastava, A. (2014). Why have measures of earnings quality changed over time? *Journal of Accounting and Economics*, *57*(2-3), 196-217.

Starica, C., & Kang, J. (2021). Financial development, intangible investments, and the evolution of earnings quality. working paper.

Ström, N. (2006). Essays on Information Disclosure: Content, Consequence and Relevance. PhD Thesis. Uppsala University.

Stulz, R. M. (2020). Public versus private equity. *Oxford Review of Economic Policy*, *36*(2), 275-290.

Su, W. H., & Wells, P. (2015). The association of identifiable intangible assets acquired and recognised in business acquisitions with post-acquisition firm performance. *Accounting and Finance*, 55(4), 1171–1199.

Sveiby, K. E. (1997). The intangible assets monitor. *Journal of Human Resource Costing & Accounting*.

Swartz, G., Swartz, N. and Firer, S. (2006), “An empirical examination of the value relevance of intellectual capital using the Ohlson (1995) valuation model”, *Meditari Accountancy Research*, Vol. 14, No. 2, pp. 67-81.

Young, A. (1998). Measuring Intangible Investment: Towards an Interim Statistical Framework: Selecting the Core Components of Intangible Investment, OECD Discussion Paper.

Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of Accounting and Economics*, *5,* 179-194.

Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, *32*(1-3), 97-180.

Watts, R. (2003). Conservatism in accounting part I: Explanations and implications. *Accounting Horizons*, *17*(3), 207-221.

WICI (2016). *WICI Intangibles Reporting Framework*, WICI

Wyatt, A. (2008). What financial and non-financial information on intangibles is value-relevant? A review of the evidence. *Accounting and Business Research*, *38*(3), 217-256.

Zambon S, Girella L., Abela M., Marzo G., D’Albore M. (2020). A literature review on the reporting of intangibles. EFRAG, February.

Zambon, S., Marzo, G., Bonnini, S., and Girella, L. (2022). *The production and consumption of information on intangibles: an empirical investigation of preparers and users*, ICAS, EFRAG, EFFAS and University of Ferrara Research Report.

Zhang, J. (2008). The contracting benefits of accounting conservatism to lenders and borrowers. *Journal of Accounting and Economics*, 45(1), 27–54.