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# **Normativity and R&D IFRS Accounting in France: A study of joint disclosures by managers and auditors**

## **Abstract :**

Anchored in an institutional perspective, the concept of 'normativity' refers to the idea that a rule can be seen as more or less binding by actors and that accordingly they do not comply always in full. We apply this concept to the study of compliance with the standard IAS38 particularly in development expenditure in France. The empirical study is conducted on the basis of 1190 annual reports from 225 companies over the period 2005-2011 (post adoption of IFRS). We observe that apparent compliance with the requirements of the standard is lower than that expected in an environment of perfect markets.

**Mots clés : Institutional theory, Normativity, IAS38, R&D expenditures, audit report.**

## 1. Introduction

The idea that financial accounting is an institutional activity is not new in the literature of the field (Young 1996). Away from the paradigm of perfect markets, institutional analysis offers an alternative framework recognizing that the economy is embedded in society (Granovetter 1985). Anchored in this alternative paradigm, a stream of research sets out to show that accounting practices are listed in cognitive scripts and normative frameworks are a level more general than the accounting rule, which are particular to the institutional context in which the actors evolve. The adoption of the international repository within Europe offers an opportunity to review accounting practices with regard to new standards in such a framework. This adoption in 2005 indeed could be a brutal change while social, historical and cultural factors lead to relative stability and therefore to a certain contin...

The French accounting has often been analyzed as quite remote in its tradition of the culture conveyed by international standards. France is referred to be a code law country, while IFRS are impregnated with the principles of the common law countries (Richard 2012). In this perspective, we aim to examine in the post-adoption of IFRS period, the manner in which the french firms have implemented this new regulation. In particular, we focus our attention on the accounting for R&D expenditures. This topic has already been adressed extensively within the frame of the positive accounting theory. These prior works mainly document practices of firms for earning management without, to our knowledge, exploring the reporting strategies what enable such outputs. Notwithstanding such practices of earning management, firms are presumed to comply with the accounting standard.

Positive accounting theory from studies indeed focus (and thus limit) their observation to a binary choice of the firm (RD as an expense or as an asset). Exceeding this binary reading, we seek to deepen the knowledge of communication strategies that enable listed firms, that have to display an audit report, to create a operating margin and implement their discretionary latitude. To do this, we conduct a content analysis of annual reports regarding the justifications for accounting choices related to IAS 38, and we jointly study the auditor's report. Our goal is to include the role that plays the auditor's report in the interpretation of the standard in France jointly to the disclosure of the company and if, for example, the auditor draws the attention of the reader on a strict application of the IAS standard error. In this way, our goal is to better understand how actors in France comply with an international standard (IAS38), given the regulatory background and habits in the institutional context.

According to the French accounting standards (PCG), accounting for R&D expenditures as an asset is optional. The company has the choice to account these expenses as an asset when the creteria are satisfied, knowing that the method is preferential. It can nevertheless choose to keep these costs as an expense. However, French companies listed on regulated

markets apply IFRS and as such have to comply with IAS 38. Theoretically, this standard requires that, once the criteria are met, accounting these expenditures as an asset becomes mandatory. For other situations, such expenditures are maintained in the profit and loss account. In theory therefore, once a situation is given, there is no possible choice of accounting. In addition, the compulsory audit report is likely to strengthen the confidence of the users in the extent of compliance to the accounting standard.

Notwithstanding this regulatory context (ie absence of choice), a significant body of works within the frame of the positive accounting theory tend to support the idea that investors better assess R&D expenditures when accounted as assets (for example, Shah et al. 2013), prompting even some companies to make accounting choices in this sense there. Other studies demonstrate that these practices reveal accounting choice de facto (i.e., even there is no accounting option and a single mode of accounting is required for a given situation) and are to be explained by (Dumas and Martinez 2015) results management strategies.

Taking into account this prior empirical results, we consider that they raise questions about communication strategies that are developed by firms in order to appear however compliant to the standard. These prior mainstream results invite indeed to consider that companies find leeway to decide in reality of what is accounted as an asset rather than maintained as an expense. It is therefore through the evocation of the activation criteria required by IAS 38, or through the audit report, that external users must find all the guarantees that the retained treatment is reliable and relevant. Seeking to explore how firms appear compliant to a mandatory standard fits into the perspective of the theory institutional and relates to the issue of "normativity", defined as the set of "ways in which stakeholders perceive as binding within a regime of financial reporting rules" (Bebbington et al. 2012 p.78).

In this perspective, we jointly examine the disclosed accounting information under the responsibility of the management and in addition the audit report within the annual report. The empirical study is conducted on the basis of 1190 annual reports from 225 companies over the period 2005-2011 (post adoption of IFRS) on the French financial market. The result firstly shows that a majority of firms in the sample account for RD as an asset. Among these firms, 15% have however no argument justifying such posting (40% for firms who maintain in PL). Always among those who account RD as an asset, only 4.6 criteria 6 required by IAS 38 are on average evoked. In this same subsample, only 43% of the annual reports present at the same time a mention in the audit report. In synthesis, we observe that apparent compliance with the requirements of the standard is lower than that expected in an environment of perfect markets. The comprehensive study of the content of annual reports through the verbatim provides such numerous illustrations.

The reminder is organized as follows. After this introduction, we develop the theoretical framework of this research and interpret the issues selected as a study on normativity in the domain of financial accounting. The third section describes the methodology of the research. The fourth section presents the empirical results according to our hypotheses, and deepens them through verbatim. The fifth and last section develops elements of discussion and conclusion.

## **2. The research framework**

### **2.1. Institutional Theory and Normativity**

There are several definitions of the notion of an institution, some rooted in Economics (as developed by Williamson for example) and others rooted in sociology. For Young (1986, p.107) it is "accepted practices consisting of easily identifiable roles, coupled with sets of rules and conventions that govern the relations between the occupants of these roles ».

At an interdisciplinary level, Holligsworth (2003) identifies five fields of study on the institutions: (1) the institutions as norms, standards, conventions, usages and values, (2) institutional arrangements such as markets or States, (3) the institutional sectors such as education or even the world of accounting and auditing (4) as organizations and finally (5) institutions as organizational or societal productions such as laws or administrative rules.

Regarding this mapping, Arnold (2009) holds three levels of analysis : micro, mezzo and macro. Institutional microanalysis examines how economic decisions are listed in standards and shared behavioural structures. The mezzo-analysis focuses on the study of institutional sectors such as the financial sector or the audit. Macro is interested about it more widely to the institutions that govern the economy in a long term perspective. Illustrating the first level of analysis (micro), the report of the World Bank on the compliance of standards and codes for example, show that, despite a massive adoption by Governments of international standards, these standards are actually little applied in practice (Hegarty et al. 2004).

The issue of the greater or lesser compliance of practices with the rules in force, made over the recent years, a subject of empirical research in the field for example of environmental accounting. Examination of the enforcement within companies disclosures to new laws enacted in the field in Spain and France has led to the introduction of a concept of 'normativity' production (Bebbington et al. 2012, Chauvey et al. 2015).

The production of normativity is defined as "the ways in which stakeholders perceive rules as binding within a financial reporting regime" (Bebbington et al. 2012 p.78). In the case of a comparison between Spain and United Kingdom for example, Bebbington and al. 2012

have shown that in Spain, countries of written rules, the regulation was less applied than in United Kingdom, where CSR disclosures regime is mainly driven on principles.

In France, Chauvey et al. 2015 also showed that between 2004 and 2010, listed firms do not comply in full to the New Regulation in Economics (NRE Law) requiring CSR disclosures while in the same period, the volume of the CSR publications had drastically increased.

Relying on the same perspective but applied to financial accounting, our project is to examine through the annual report and the joint audit report, to what extent the IAS 38 is perceived as binding by the actors. In cas of full compliance of the standard, our main hypothesis is that these two reports provide all evidence of this compliance.

This issue is by nature lies in the theoretical framework referred above. Whereas empirical research in positive accounting shows that firms do earning management despite a restrictive standard on accounting for intangibles, our research plans to explore how such a disclosure management is made visible in their annual report.

It is here show how actors (managers and auditors) co-produce accounting information which does not guarantee third parties good compliance with IAS 38, without that this challenge questioned the use made. At a macro-economic level, we would interpret such « non compliance » in apparence whereas recipients of this information does not challenge it that financial statements are in this case somehow ritualized.

## **2.2. The purpose of the research: accounting of R&D expenditures**

IAS 38 distinguished two phases in the research and development activity. Research is the "original and planned investigation undertaken to acquire an understanding and scientific knowledge of new technologies" (IAS 38, § 8). The development "is the application of the results of research or other knowledge to a plan or a model for the production of materials, devices, products, processes, systems or new or substantially improved services, prior to the commencement of their commercial or use production" (IAS 38, § 8).

Nevertheless, IAS 38 specifies that "Although the terms "research" and "development" are defined, the terms "research phase" and "development phase" have in this standard a wider meaning" (IAS 38, § 52) and gives some examples. In doing so, standard gives way to some degree of interpretation in determining what are research and development. If the company is unable to distinguish what is of one or other of these phases, the expenses must be treated as if they were in the phase of research (IAS 38, § 53).

To separate the phases of research and development has a strong impact on accounting for R&D expenditures: expenditures for research must be recorded as an expense. On the contrary, development expenditure shall be accounted as an asset if several conditions are met.

*IAS 38, 2008, § 57: "an intangible asset arising from development (or from the development phase of an internal project) should be recognised if, and only if, an entity can demonstrate all of the following:*

- (a) the technical feasibility of necessary for the completion of the intangible asset for the purpose of commissioning or sale);*
- (b) his intention to complete the intangible asset and the commissioning or sell;*
- (c) its ability to implement or sell the intangible asset;*
- (d) how the intangible asset will generate probable future economic benefits. The entity must demonstrate, among other things, the existence of a market for production from the intangible asset or the intangible asset itself or, if it is to be used internally, its usefulness;*
- (e) the availability of technical, financial and other resources, appropriate to complete the development and commissioning or sell the intangible asset;*
- (f) its ability to assess reliably the expenditure attributable to the intangible asset during its development. »*

In practice, the respect of all of these criteria is submitted by definition to an internal analysis inside the organization. Therefore, managers have to appreciate if the activation criteria are met. In this context, it may be difficult, if not impossible for the auditors to challenge the opinion formulated by the managers. For example, the validation of the criterion "intention to complete the intangible asset and put it into service or to sell" (IAS 38, § 57) is subject to the complete discretion of the manager and the auditor makes sure of that through a discussion with him. As it depends on private information and knowing that users could face an overstatement of the value of the firm (Dumas and Martínez, 2015, Shah et al. 2013 and see annex 1 for the identification of key studies on the field), we hypothesis that the manager and his auditor consent a special effort of information to justify that the firm comply with the criteria in their reports. In the case of absence of such justification, the risk of earning management to overstate the value of the firm would not be excluded.

In case of activation, IAS 38 (§ 118) requires specific information, namely the amounts recorded in assets, durations of utility (or depreciation), the amortization method... This information should be broken down by category of intangible assets, and in particular those internally generated (i.e. internal R & D projects). However, if the company recognises all R&D expenditures as an expense, it "*must indicate the total amount of expenditure on research and development recognised as an expense of the period*» IAS 38 (§ 126). In other words, the accounting disclosures are much more restricted when companies account for R&D as an expense.

## **2.3. Research hypotheses**

Taking into account the perspective and our focus, we have two types of assumptions:

**H1 : When R&D is accounted as an asset, the company justifies explicitly in its financial report that it meets all of the criteria set out by IAS 38.**

**H2: When full justification for accounting as an asset is not given by managers, the auditor gives a mention in his report.**

## **3. Methodology**

### **3.1. Sample**

The sample is composed of French companies listed on a regulated market in the period 2005-2011 from the NYSE - Euronext website and for which accounting data relating to R&D are available. The sample then finally encompasses all listed companies that display R&D accounting data recorded during the year.

The appendice 2 provides the detailed list of these companies, classifying them according to their behavior during the period (assets recorders, profit and loss recorder, those for which there is a change over the period). The final sample consists of 225 companies, representing a total of 1190 annual reports. Observations are then annual reports and not the companies because on the one hand, 31 companies change of accounting behavior during the study period and on the other hand, the activation criteria set out by the firms may change from one year to the other.

### **3.2. Data collect and analysis**

Two categories of data are collected : those of the financial report (consolidated) group under the responsibility of the manager and those of the report of the statutory auditors on the consolidated accounts. It has to be noticed that in France, the consolidated accounts are subject to a co-commissariat.

Concerning the disclosures conveyed by the company within the financial report, the chapter dedicated to the "accounting principles" generally addresses the need to satisfy with criteria of IAS38 to justify the activation of R&D expenditures. The paragraphs displaying (i) the intangible assets and (ii) expenses related to R&D activities gives more details. Relying on the content of these two paragraphs, we thus collect the method of accounting for R&D

expenditures, but also the reasons put forward by the companies to justify this method of accounting.

Concerning the audit report, our observation focuses on the reaction of the auditors to the choices made by the company regarding accounting for R&D expenditures. We look at the first two parts of the audit report (regulated by the NEP 700): (i) opinions on the consolidated accounts and (ii) the justification of the assessments. We observe if auditors emit a reserve related to the accounting for R&D expenditures (in their opinion) and if the topic requires a mention, within the part of justification of the assessments. Indeed, following the NEP 705, auditors should mention in justifications all relevant accounting elements on "-the options selected in the choice of accounting policies or their terms of implementation when they have a major impact on the result, the financial situation or the overall presentation of the accounts of the entity; -Critical accounting estimates, including those missing objective data and involving professional judgement in their assessment; -The overall presentation of the annual and consolidated accounts whether content of the notice or the presentation of the summary statements"(NEP 705, § 8).

Appendix 3 shows the matrix of data collection. Once the data collected, we carry out tests of comparison of averages between the number of criteria met for activation as opposed to accounting as an expense. Then we compare the proportion of audit reports that mention the accounting for R & D in each of the two cases (activation and expense). Since the variable relates to proportions of observation, the test for assessing the significance of the comparison is a chi-squared test. When the variable is on an average number of factors, the test used is student.

A last step in our analysis is a more comprehensive analysis of the content of the reporting (through the verbatim) in cases considered as aberrant from the point of view of standard IAS 38, i.e. seem farthest from compliance to the standard.

## 4. Empirical results

### 4.1. Method of accounting for R&D expenditures by industry

Table 1 presents the methods of accounting for R & D expenditures by industry.

**Table 1 : Number of annual reports according to the method of accounting of R&D expenditure by industry**

	<b>Total</b>	<b>% total</b>	<b><i>RD as asset</i></b>	<b><i>RD as expense</i></b>
<b>Tous secteurs</b>	1190	100%	691 (58,1%)	499 (41.9 %)
<b>Secteur 0</b> « oil and gas »	21	1,8%	7 (33%)	14 (67 %)
<b>Secteur 1</b> « raw material »	76	6,4%	15 (20%)	61 (80 %)
<b>Secteur 2</b> « manufacturing »	246	20.7%	144 (58 %)	102 (42 %)
<b>Secteur 3</b> « consumer goods »	243	20,3%	146 (60 %)	97 (40 %)
<b>Secteur 4</b> « health »	122	10,3%	37 (30 %)	85 (70 %)
<b>Secteur 5</b> « consumer services »	76	6,3%	49 (64 %)	27 (36 %)
<b>Secteur 6</b> « télécommunication »	15	1,2%	12 (80 %)	3 (20 %)
<b>Secteur 7</b> « community services »	19	1,6%	19 (100 %)	0 (0 %)
<b>Secteur 9</b> « technologies »	372	31,3%	262 (70 %)	110 (30 %)

Some areas display a low number of annual reports (0, 6 and 7). For example, in the oil and gas sector, we have only three companies, that is to say 21 annual reports (CGG veritas, total and technip). Only one company account for R&D as an asset. Similarly, in industry 6, we find only two companies (France Telecom and multimedia Index) and four firms belonging to the sector 7 (Areva, theolia, suez and veolia).

Concerning the industries in which the number of observations is significant (representing at least 6% of the total number of observations), industry behaviors emerge from the table. Indeed industries 2 « manufacturing », 3 "consumer goods", 5 'services to consumers' and 9 'technologies' commonly account for R&D expenditures as an asset. On the contrary, industry 1 « raw materials' and 4 'health' (pharmaceutical companies) commonly maintain R&D expenditures as expenses.

## 4.2. Comparative analysis according to the method of accounting

Our analysis focuses first on activation criteria as firms do present in the notice of the consolidated financial statements (5.1). Then we observe the reasons mentioned by companies to explain why R&D is maintained in the P&L account (5.2). Finally, we observe the reaction of the auditors to these accounting practices (5.3).

### 4.2.1. Analysis of activation criteria

Regarding how companies justify their way of posting, two elements stand out. First, a significant number of them display no activation criteria. For those who display expected criteria, it appears that these firms do not mention all of the six criteria of the IAS38.

#### Total lack of justification (no mention of criteria)

Table 2 shows the percentage of firms with no criteria to justify the selected recording mode. Test Khi - 2 compares the frequencies of this situation according to the method of accounting for R & D expenditures.

**Table 2 : Number of annual reports without citing any criteria of IAS38**

	<i>Asset</i>	<i>Expense</i>
Number of annual reports	691	499
Number of annual reports without any criteria	103 (14.9 %)	209 (41.9 %)
Pearson Khi-2 (signification)	111.832 (0.000) ***	

Test Khi - 2 highlights the fact that firms that register all R & D expenditures as an expense are more likely to give no justification of which kind of activation criteria they fail to meet.

Such an accounting practice is very close to what is used to do under the French standards, as the accounting of R&D expenditures is only an option. For example, Technofan is a listed company which uses the PCG to prepare its financial statements as it has no subsidiary (so no consolidated financial statements). The firm simply states that "all development expenditures are recorded as an expense in the period in which they are incurred" (Technofan, 2011, p. 29).

According to IAS 38, the basis of accounting is not an accounting choice. Activation is required in the restrictive case where the company actually meets all the criteria. However we found that accounting in assets is a common practice among firms in our sample. A total lack

of information for some companies on the fulfilment of these criteria can create the doubt of the reader of the financial statements concerning the arbitrariness of this posting.

Thus for example, TF1 (Television group) does not make any mention of the activation criteria met by the group. The Group nevertheless mentions the existence of more than 7 million euros in R&D expenses (2011, p. 188) relating to seven R&D projects and surely five more completed in the following year (2011, p. 21) corresponding to the creation of websites and platforms of video on demand generating revenue for the group.

**Evoked criteria by companies**

Two elements are presented in this section (i) the average number of criteria mentioned by firms and (ii) the frequency of presentation of each of the criteria.

*(i) Average number of mentioned criteria*

Table 3 shows the average number of activation criteria mentioned by the firms. A test of comparison of average number of criteria is carried out according to the mode of accounting for R&D expenditures. We here include in this subsample annual reports displaying at least one criteria.

**Table 3 : Average number of activation criteria mentioned by annual report (N=880)**

	<i>Asset</i>	<i>Expense</i>
Number of annual reports	590	290
Average number of evoked criteria (mean)	4,63	4,08
Number of evoked criteria (standard deviation)	1,49	1,75
Test of comparison of means (T test)	4.607 (0.000) ***	

On average, companies activating part of R&D expenditures have around 4.6 criteria, that is to say a little more than 4 criteria for firms registering all R&D expenditures as an expense. This difference between these average number of criteria is then significant. Furthermore, it appears that the average number of criteria is more homogeneous (less dispersed) for « Asset » firms.

A detailed reading of the reports prompts to consider that certain criteria are inappropriate according to the R&D projects driven by the considered firms, in particular that of the technical feasibility. When R&D projects are non-technological (in the sense of the Oslo manual, 2005), the probability of failure is almost zero, explaining without doubt that the criteria is not mentioned. Take the opposite cases of two companies in the clothing industry.

For example, Kindy develops a range of medical socks for diabetics (technological innovations). The firm indicates that «Development expenditures [...] are recognised as an asset if the group can demonstrate, among other things, the technical and commercial feasibility of the product or process and the availability of resources to complete the development "(Kindy 2011, p. 55). In contrast, Dior considers that the cost of design of the new collections are R&D (non-technological innovations) and indicates that «the costs of developing a new product are capitalized only if the decision to launch this product is actually taken» (Dior 2011, p. 96).

Next to the subject of R & D, the firm characteristics may influence the selection of the criteria explained in the financial report. For example, a small business that is likely to encounter funding problems will present the availability of financial resources criterion while this criterion will be non-critical for larger companies. Take the example of two companies of the chemical industry. Ink Dubuit SA, ratio expenditures R & D reported to turnover is equal to 0.04. This same ratio is greater than 11 for Metabolic explorer. The issue of the financing of R&D projects is more pronounced in the case of Metabolic Explorer justifying that criterion "resource availability" is presented by the company. Conversely, Burelle and couturier MGI have a comparable ratio R& reported to the turnover: 5%. Burelle has a turnover and higher 10 times to MGI operating cash flow. However, only Burelle introduces the criterion of "availability of resources". Factors that could be the size and financial resources remain to be taking into account more systematically.

#### *(ii) Frequency of each of the criteria*

Table 4 presents the frequency with which companies refer to each of the six criteria. Test Khi - 2 compares these frequencies depending on the mode of accounting for R&D expenditures.

Regardless of the method of accounting for R&D expenditures, the two most mentioned criteria are in order of frequency :

- (1) the ability to generate future economic benefits,
- (2) the ability to assess reliably the expenditure.

Here, we find the general criteria for the recognition of the category of intangible assets (IAS 38, §21). Follows then the criteria of intention to complete (3), (4) feasibility, ability to implement or sell (5) and (6) resource availability. With the exception of the criterion of availability of resources, it appears that the frequency of presentation of each of the criteria is lower for companies registering all R & D expenditures as an expense.

**Table 4 : Frequency of each activation criteria**

	<i>Asset</i>	<i>expense</i>
Number of annual reports (N=880)	590	290
% evoking « technical feasibility... »	74.2 %	61.8 %
Pearson Khi 2 (significance)	4.271 (0.039) **	
% evoking « intent to achieve... »	71,5 %	52.7 %
Pearson Khi 2 (significance)	30.237 (0.000) ***	
% evoking « ability to produce ... »	60.8 %	47.9 %
Pearson Khi 2 (significance)	13.205 (0.000) ***	
% evoking « future economic benefits..... »	98.3 %	90.3 %
Pearson Khi 2 (significance)	29.819 (0.000) ***	
% evoking « available funding... »	58.1 %	53.4 %
Pearson Khi 2 (significance)	1.739 (0.187)	
% evoking « ability to asses expenditures reliably ... »	85.8 %	75.9 %
Pearson Khi 2 (significance)	13.201 (0.000) ***	

Regarding the formulation of the criteria for activation, we have seen two types of reformulation. First, "software developed for internal use or commercial development costs are recognised as intangible if they meet the criteria in IAS 38 standard, namely: -serious chance of technical success; -probable future economic benefits associated with the use or marketing of the asset; -the costs can be measured reliably"(Sodifrance, 2005, p. 21). The use of the PCG formulation (wholly or partially) for accounts published in IFRS is also found in several other companies (diagnosis mediacl Parsys, Sartorius...).

Secondly, some companies specify activation criteria adapting them to their business model or business sector. This is the case for example of Dassault Aviation (2011, p. 82) "in the context of the application of IAS 38 "Intangible assets"[...]" development costs are enabled if they meet all of the three decisive criteria for the Group:-the technical test is met when the time of validation of the results after the first flight has elapsed without that the project has been called into question; -the economic criterion is validated by the order or obtained options the day the technical test is deemed satisfied; -the reliability of the financial information criterion is satisfied on major programs, because information system distinguishes the phases of research and development.

If activation criteria are subject to redrafting, applies similarly to the definition of research and development activities. Thus, several undertakings shall specify the activities in the research and development phases (Guy Degrenne, Montupet, Somfy, Peugeot...). For example, Alcatel Lucent indicates that (2011, p. 75) "capitalized software development costs are those incurred during the programming, coding and testing phases. Enterprises with the research and development phases are often those in which R & D projects are relatively standardized such as for example the creation of software (Alcatel Lucent), a new model of car (Peugeot, Renault), of new auto parts (e.g. Montupet) or even new furniture (e.g. Somfy).

A final source of discretionary latitude of the managers comes from the non-restrictive definition of the phases of research and development by IAS 38 (§ 52). For example, Renault (2011, p. 202) says that ' development costs incurred between the decision to enter the development and industrialization of a new vehicle or a new body (engines, gearboxes, etc.) and the manufacturing agreement in series vehicle or of this body are recognised as intangible assets.» [...] Costs incurred before the formal decision to enter into the development of the product, as well as research costs, are saved in the costs of the period in which they are incurred".

In synthesis, the comprehensive analysis of the content of financial reports highlights the latitude areas that managers grant themselves regarding the accounting for R & D expenditures. These latitude zones are based on which criteria of IAS38 they want to mention, the reformulation of the activation criteria, the contextual definition phases of research and development and finally the removal of activation criteria not suitable for the activity of the company.

#### *4.2.2. Further analysis of the reasons for accounting of R & D expenditures as an expense*

In addition to the direct analysis of justifications by the activation of R & D spending firms, it appears interesting to identify among those who keep them as an expense if the non-fulfilment of certain criteria is specifically mentioned. Table 5 presents the reasons put forward to explain the inscription of all amount as an expense.

**Table 5 : Number of annual reports referring to unsatisfied criteria**

Number of annual reports (firms accounting all in expense)	499
Number of AR with no mentioned criterion	165 (33 %)
Number of AR evoking which criterion is not satisfied	245 (49 %)
Number of AR saying criteria are not satisfied without evokein which one	85 (17 %)

#### **Absence of justification for accounting as an expense**

Reading figure 5, it appears that in 33% of cases, the annual reports do not indicate explicitly that R&D expenditures are recorded as an expense on the ground that activation criteria are not met.

This lack of justification can be explained when the company only presents a criterion of activation (e.g., Lacroix, plastic omnium PSB industry). For example, Lisi (2011, p. 36) indicates that « Under IFRS standards, development expenditures, [...] are accounted for as

capital if the group can demonstrate the existence of probable future economic benefits including". The fact that Lisi never account for R&D as an asset suggests that the company does not have the certainty that R&D expenditures lead to future economic benefits. On the opposite, LVMH (2010, p. 126) indicates that « the costs of developing a new product are capitalized only if the decision to launch this product is actually taken ». However, over the period 2005-2011, there were no increase of intangible assets generated internally. This would mean that no product has been on the market on the part of LVMH ? It goes the same for Christian Dior. This accounting decision can be explained by paragraph 71 of IAS 38: "expenditure on an intangible item that was initially recognised as an expense should not be incorporated into the cost of an intangible asset at a later date. Therefore, if the decision to launch at LVMH and Dior is taken after recorded R&D expenses, we understand that they do not activate. However, it is difficult to believe that LVMH and Dior is not convinced to put on the market a number of products each year.

#### **Annual reports indicating that the R&D projects do not meet the criteria of IAS 38 but did not specify the criteria not met**

Table 5 shows that in 17% of cases, companies justify the maintaining in expense without specifying which criteria is not met. We identified several formulations: "the cost of R&D is accounted in the income statement because it does not match the criteria for activation amounted to 368 k€" (Prismaflex 2011, p. 82). "The costs of research and development expenses are recognised as an expense to the extent that the criteria for recognition as an asset are not filled according to the Direction" (Robertet 2011, p. 32).

#### **Annual reports indicating that R&D projects do not meet the criteria of IAS 38 and that specify the criteria not met**

In almost half of cases (49%), the firm mentioned the reasons which lead it to register as an expense in R & D expenditures. After analysis of the entire annual reports, we were able to note 7 reasons to justify the inclusion of R & D expenditures in the income statement (table 6).

**Table 6 : Criteria for maintaining all R&D expenditures as an expense**

Criteria	N
Reason (A) <b>costs incurred between the time the company is confident of completing the project and the placing on the market are weak (or nonexistent)</b> "taking into account the strong uncertainty attached to development projects carried out by the group, those conditions are met when the regulatory procedures for the marketing of products have been finalised. The bulk of the expenditure being incurred before this step, development costs are recognised in expenses for the year in which they are incurred. ' (BioMérieux, 2011, p. 149).	166
Reason (B) <b>the company is not able to assess the costs of the projects</b> 'development costs incurred by the Group may not be individualized because very short product cycles and many common to several projects, resulting in a posting in costs in accordance with IAS 38» (Guillemot 2008, p. 108)	38
Reason (C) <b>the company is not able to assess future economic benefits</b> "it is often very delicate demonstrate how the project developed will generate future economic benefits and measure these last. " (Evalis 2008, p. 98)	11
Reason (D) <b>there is uncertainty as to the completion of the projects</b> "Given the very large number of development projects and the hazards related to the decision of the launch of the products concerned by these projects, l ' Oréal considers that some activation criteria are therefore not completed." (L'oréal, 2011, p. 95)	37
Reason (E) <b>there is uncertainty regarding the use or the sale of the project outputs</b> «the conditions required by IFRS standards for the capitalisation of development costs are not met since work materialize not systematically by the completion of an intangible asset to be used or sold specifically» (Air liquide 2011, p. 179).	43
Reason (F) <b>R &amp; D expenditures are low</b> 'development costs likely to be restrained in accordance with IAS 38 (intangible asset) are not significant, they are recognised as an expense when they are incurred. (Illog, 2008, p. 62).	28
Reason (G) <b>R&amp;D expenditures correspond to expenditure of research within the meaning of IAS 38</b> « After analysis, it appears that the frequency of the updates to versions of the groupware (every 6 months) led the group to count these costs as an expense.» (Metrologic groupe 2011, p. 40).	23

N : Number of annual reports citing at least a specific reason explaining accounting as an expense.

These arguments can be grouped into two categories.

The first category includes the C, D and E reasons that relate to the inability of the firm to estimate correctly if the project will generate future economic benefits, will be completed, or will be continued until the placing on the market. These situations fall under managerial decisions that it is a priori impossible to appreciate by external users, outside what the company discloses. For example, Air Liquide (see reason E in the table) suggests that none of the projects of R & D is completed. This argument, taken each year from 2005 to 2011, seems to be in contradiction with other information contained in the same annual report. Indeed, Air Liquide, which is investing more than 100 million euros in R&D each year, said that some of these innovations are already on the market and are therefore necessarily

completed and used. A similar argument is advanced by Dior and l'Oréal to explain the accounting of all R&D expenditures as an expense.

Other evoked reasons (A, B, F and G) might appear in contradiction to IAS 38 as it is enacted. For example, 26 annual reports motivate the accounting in expense by the fact that each project individually has an insignificant amount from the point of view of the company ("development costs are not capitalized unless they involve a significant investment", Securidev, 2011, p. 39). However, such an interpretation of the standard IAS 38 seems little admissible. It must rely on more general reasoning conveyed by the conceptual framework through the concept of arbitration-cost advantage could be invoked to justify this practice. Indeed, observing if the conditions are met project-by-project can be expensive (Markanian et al. 2008). In this context, it is understandable that firms undertake this cost accounting only for projects of large scale. However, the conceptual framework of IFRS has not been adopted by the EU.

The A criterion is very similar to the one that we have just mentioned. This criterion, very widespread (166 annual reports), indicates that costs are low between the time when the criteria are met and the placing on the market. The argument is used by the firms for which the marketing of new products requires authorization for placing on the market (denoted « AMM »). This authorization is needed to be sure to generate future economic benefits. However, the majority of costs are incurred before the AMM. Among the companies using this argument, we find those in the agri-food industry (Unibel, Danone...), the manufacture of equipment of protection (Seprian) and the pharmaceutical industry (bioMérieux, Sanofi, Stallergènes, Véroquinol, Nicox, Virbac...). Moreover, it is the main reason for which firms of the 4 industry (health) activate shortly (see table 1). This argument is also used by companies heavily dependent of their clients (for example Michelin, MGI couturier which is an automotive supplier). Future economic benefits is certain only after validation by the customers. However, R&D costs are committed previously to this validation.

Furthermore, other companies justify the inscription as an expense indicating that the delay between the certainty to complete the project (technical feasibility test) and the placing on the market is short. This argument is particularly made by different companies in the IT industry (Digigram, Hologramm, Illog, Itesoft, Radiall). Once again, it is difficult for an external user to determine the point from which the company is confident of completing the project.

In all cases, the weakness of the costs between the time when the criteria are met and the placing on the market is not something proposed by IAS 38 to justify the inclusion of R&D expenditures as an expense.

The B argument is to say that the company is not able to assess the costs of R&D (observed in 38 annual reports) projects. The longitudinal study of the Guillemot group is

very symptomatic of the difficulty that may have businesses to assess these costs. In 2005, the company Guillemot (computer hardware industry) decided to change its method of accounting for R&D expenditures : "development costs incurred in the last quarter were not immobilized following a change of internal procedures regarding the follow-up of the projects. This change entails a non-individualisation of development costs which led to a posting as an expense in accordance with IAS 38, the group is not able to reliably measure expenditures relating to these assets during the development phase » (Guillemot, 2005, p. 92). A similar argument is made in 2006 and 2007. Starting from 2008, the speech changes slightly (see table 6). The same argument is made from 2008 to 2011. The reading of annual reports from 2008 to 2011 suggests that the activity of the company (entailing a multiplicity and a certain timeliness of projects) prevents individualized tracking the costs of R&D projects. The longitudinal analysis reveals that the absence of assessing the costs of development projects is a managerial decision in 2005.

This example illustrates the fact that the decision to include R&D expenditures as an expense is a managerial choice (the manager wanting no more to track individual costs of each project). It also reveals a difficulty inherent in IAS 38. If the number of projects is high, identifying the costs attributable to each project requires an expensive cost calculation system. The multiplicity of projects resulting in the inability to track the costs of these projects is an argument that is also found in large companies with substantial resources (Dior, L'oreal).

Finally, in 23 annual reports, firms indicate that all costs are considered as research expenditures, which justifies the inscription as an expense. For example, this is the case of Alti which indicates that its expenses are related to the acquisition of new knowledge and to the technological watch which are by nature considered as expenses of research (IAS 38, § 56). However, Dassault system (2011, p. 127) indicates that the expenses might be activated are those committed only after obtaining the prototype. However, IAS 38 clearly indicates that the cost of prototyping are development expenses and can be activated as such (IAS 38, § 59).

In summary, the reasons for the inclusion in expenses are either hardly refutable by an external user of accounting information, or likely to be in contradiction with the standard IAS 38. In these situations, it can be expected that statutory auditors conduct more due diligence to ensure the soundness of the accounting decisions and attract the attention of external users by mentioning the topic in their report.

#### *4.2.3. Analysis of the reaction of the auditors*

Having observed that disclosures related to IAS 38 by companies appear in many cases to be driven by a managerial decision, more than an unambiguous application of the

standard, the second step of our research is to consider references to item « R&D expenditures » in the audit report to supplement or clarify the treatment chosen by the company. In this case, we can indeed assume that the reliability of accounting information will be restored, as expected in a theoretical framework based on efficient markets.

The reaction of the auditors to accounting for R&D expenditures is apprehended by counting the references in the paragraph of assessments of justification in their report. Table 7 presents these statistics and compares the frequency of this reference according to the method of accounting.

**Tableau 7 : Reference to the accounting for R & D expenditures in the audit report**

	expense	assets
Number of annual reports	499	691
Number of AR mentioning the accounting for R&D	17	270
% of AR mentioning the accounting for R&D	3 %	39 %
Pearson Khi-2 (Significance)	201,414 (0,000) ***	

The frequency of references to the accounting for R&D is nearly 40% in the annual reports, when companies account part of R & D expenditures as an asset. This frequency is much lower (3%) when companies maintain as an expense the entire R&D expenditures. This difference is significant and helps validate our second hypothesis.

About 17 mentions by the auditor when firms account as an expense, 7 references are relative to firms changing method of accounting for R&D (see appendix 2). The 10 remaining mentions are relative to companies in the pharmaceutical industry invoking the AMM to not activate their R&D expenditures. The formulation of the justification of the assessments is quite invariable insofar as auditors follow the recommendations of the NEP 705: "We examined the terms of registration for the assets of development expenditures, [...]. We have ensured that the notes 2 ('research and development' paragraph) and 4 to the consolidated financial statements provide appropriate information"(medical diagnosis 2011, p. 119).

The NEP 705 prompts Auditors to identify the elements of accounting difficulty having allowed him to base his opinion. These elements are related to the « -options selected in the choice of accounting policies or their terms of implementation [...]; -significant accounting estimates, including those missing objective data and involving professional judgement in their assessment; [...] overall presentation of the annual and consolidated accounts whether content of the notice or the presentation of the financial statements ».

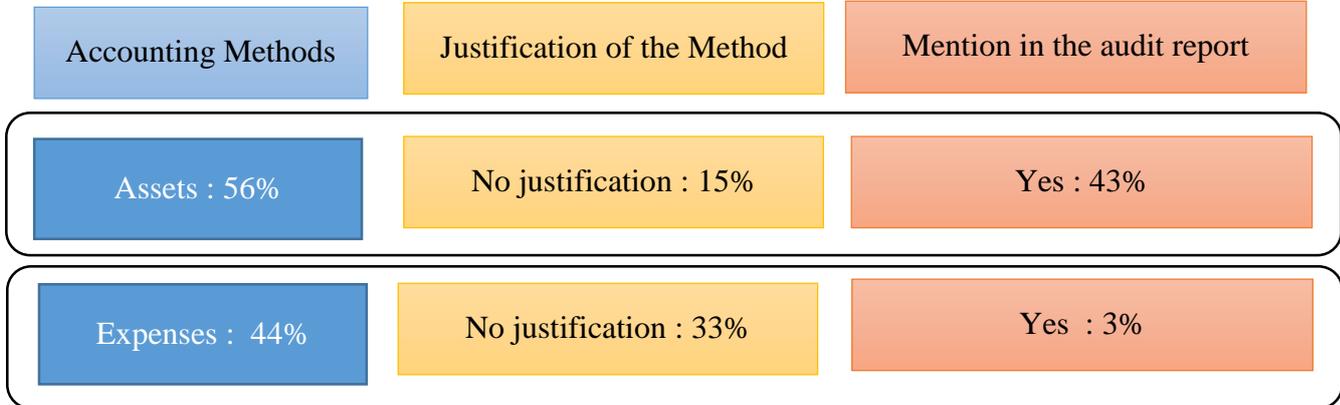
## 5. Discussion and conclusion

The starting point of this work was inspired by the empirical findings of positive accounting research, demonstrating earning management practices under IAS38. Considering that, a priori, there is no option for a given R&D project, we have raised questions about the level of compliance of the accounting disclosures under this standard. Given that concerned company appear to provide only partial justification to compliance to IAS38, we observe if the audit report gives additional legitimation that guarantee compliance to external users. Such a research focus has been formulated using the concept of normativity, introducing the idea that a standard or rule can be actually seen as more or less binding on the part of the actors. With this in mind, we sought to examine the joint disclosures of the company and of the auditor as a "discourse" that confirms to the users that IFRS (specifically IAS38) were well satisfied.

At the end of the empirical study, we observed that far from being a quasi-derogatory situation (as a result of the very restrictive conditions of the standard), the main part of annual reports displays development expenditures as assets. Among the situations of activation of these expenses, 15% have however no argument justifying such posting (40% for firms maintaining as an expense). Among the firms that activate these expenditures, only 4.6 criteria among the 6 required by IAS 38 are on average evoked. In this same subsample, only 43% of the annual reports present at the same time a mention in the audit report.

In synthesis, we observe that apparent compliance with the requirements of the standard is lower than that expected in an environment of perfect markets. The comprehensive study of the content of annual reports through the verbatim helps to refine these quantitative results and highlighted that room was taken by companies to adapt and ultimately manipulate the formulation of criteria.

**Figure 1 : synthesis of main results**



These findings call several observations and add new questions. Taking into account the significant number of situations in which the IAS38 disclosures seems remote from the requirements of the standard, and also knowing that earning management practices are demonstrated even in the absence of option, our findings suggest that financial markets thrive to ritualized disclosures and do not seek to remove ambiguities. However, if the main risk is an overstatement of the firm if accounting as an asset was inappropriated (legitimizing the IAS38 orientation which lists the restrictive conditions on this activation), how to interpret that such ambiguous disclosures with regard to the standard are observed over a long period?

The empirical findings regarding the practices of non activation are also of interest. The question which arises is why the frequency of mention of R&D in the audit reports was so low when companies account all R&D expenditures as expenses. It could be argued that in this way, it reveals the French conception of conservatism principle.

Finally, it appears that firms disclosures may be in contradiction with the standards (low amount of costs, costs of prototypes as an expense, non following the costs of R&D projects). Yet once, why audit reports do not mention accounting in expenditures for R&D costs in these cases ?

This research is innovative by the institutional context in which the question of accounting disclosures is asked. The introduction of the concept of normativity led indeed not to consider the issue as a binary choice (activate or do not activate) but to deepen the analysis by considering that there might be an more or less strict compliance to the standard.

Of course, this version of the article is not without its limitations. In particular, a more systematic exploitation of the verbatim for each subsample should enable us to refine the findings. We did not undertake a study of determinants explaining the different situations encountered. The comprehensive study of content allowed nevertheless to suggest some tracks that will be explored in a further step (effect of industry and size including, or identity of the auditor). Our purpose was here to open a new avenue of research which remains unexplored in the field of financial accounting, but which could provide further insights in addition to the positive accounting research works.

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## Annexe 1 : Review of the literature on the determinants and value relevance of the activation of R & D expenditures

Studies of the determinants of the activation of R & D expenditures		
Aboody et Lev (1998)	163 firms (software) ; USA ; 1987-1995	SFAS 86
Cazavan-Jeny et Jeanjean (2006)	197 firms ; France ; 1993-2002	PCG
Cazavan-Jeny <i>et al.</i> (2011)	228 firms ; France ; 1992-2001	PCG
Daley et Vigeland (1983)	313 firms ; Etats-Unis ; 1972-1976	Pré-SFAS 2
Ding <i>et al.</i> (2004)	76 firms ; France ; 2000	PCG
Dumas et Martinez (2015)	662 individus ; France ; 2005-2011	IAS 38
Inoue et Thomas (1996)	1500 firms ; Japon ; 1990-1991	Japan GAAP (avant 2001)
Landry et Callimaci (2003)	181 firms ; Canada ; 1997-1999	CICA 3450
Mande <i>et al.</i> (2000)	123 firms ; Japon ; 1987-1994	Japan GAAP (avant 2001)
Oswald (2008)	3230 individus ; Royaume-Uni ; 1996-2004	SSAP 13
Percy (2000)	152 firms ; Australie ; 1993	AASB 1011
Smith <i>et al.</i> (2001)	45 firms ; Canada ; 1992-1997 63 firms ; Australie ; 1992-1997	AASB 1011 CICA 3450
Study of value relevance of the activation of R & D expenditures		
Aboody et Lev (1998)	163 firms ; Etats-Unis ; 1987 - 1995	SFAS 86
Abrahams et Sidhu (1998)	167 firms; Australie ; 1994-1995	AASB 1011
Ahmed et Falk (2006)	347 firms; Australie ; 1992-1997	AASB 1011
Callimaci et Landry (2004)	573 individus ; Canada ; 1997-1999	CICA 3450
Cazavan-Jeny et Jeanjean (2005)	93 firms; France ; 1998-2000	PCG
Cazavan-Jeny et Jeanjean (2006)	197 firms; France ; 1993-2002	PCG
Cazavan-Jeny <i>et al.</i> (2011)	228 firms; France ; 1992-2001	PCG
Chan <i>et al.</i> (2007)	3392 individus ; Australie ; 1991-2002	AASB 1011
Chalmers <i>et al.</i> (2008)	599 individus ; Australie ; 2004-2006	AASB 1011 et IAS 38
Han et Manry (2004)	3191 individus ; Corée du Sud ; 1988-1998	Normes coréennes
Oliveira <i>et al.</i> (2010)	354 individus ; Portugal ; 1998-2008	DC 7 et IAS 38
Shah <i>et al.</i> (2013)	3233 individus ; Royaume-Uni ; 2001-2011	SSAP 13 et IAS 38
Smith <i>et al.</i> (2001)	45 firms; Canada ; 1992-1997 63 firms; Australie ; 1992-1997	CICA 3450 AASB 1011
Thi <i>et al.</i> (2009)	152 firms ; Allemagne ; 2001-2006.	IAS 38
Tsoligkas et Tsalavoutas (2011)	418 individus ; Royaume-Uni ; 2006-2008	IAS 38

Concerning accounting standards, IAS 38, SFAS 86 standards, and the CICA 3450 requires to enable R & D expenditures when conditions are met. In other cases, the activation is optional when the conditions are met (Dumas 2014).

## Annexe 2 : Description de l'échantillon

Companies enabling each year over the period (2005-2011) (109 companies)	Companies registering as an expense the costs of R & D (2005-2011) (85 companies)	Companies changing method of accounting (31 companies)
<b>Company name (years of data collection)</b>		
Actia groupe (2005-2011)	JC Deceaux (2005-2011)	AB sc. (2010-2011)
Alcatel Lucent (2005-2011)	Keyyo (2007-2009)	Accor (2005-2011)
Alphamos (2010)	Legrand (2006-2011)	Air li. (2005-2011)
Alstom (2005-2011)	Lexibook (2009-2011)	Alti (2005-2007)
Altran tech.(2005-2011)	Linedata svc (2008-2011)	Arkema (2006-2011)
Anovo (2008-2010)	Lisi (2005-2011)	Arkopharma (2005-2006)
	Maintou BF (2006-2011)	Money Line (2005)
		Naturex (2005-2011)
		Nergeco (2009-2011)
		Nexans (2005-2011)
		Nicox (2005-2011)
		NSC Group (2008-
		Actéos (2005-2011)
		Boiron (2005-2011)
		Caméléon software (2005-2011)
		Cesar (2005-2010)
		Chargeurs (2005-2011)
		Dassault aviation (2006-2011)

Archos (2005-2010)	Mauna Kea (2010)	BCI Nav.(2005-2011)	2011)	Dynaction (2006-2011)
Areva (2005-2011)	Mecelec (2009-2011)	Biomérieux (2005-2011)	Orapi (2005-2011)	Gameloft (2005-2011)
Atari (2005-2011)	Medasys (2005-2011)	Bull (2005-2011)	Outside living (2006-2010)	GECl intl (2005-2011)
Auféminin.com (2005-2011)	Meetic (2006-2009)	Buisness obj. (2005-2006)	Overlap gp. (2011)	Groupe Arès (2005-2009)
Automatech (2005-2006)	Memscap (2005-2011)	Cerep (2005-2011)	Poujoulat (2008-2011)	Guillemot Corp. (2005-2011)
Avanquest (2005-2010)	Metabolic Explorer (2007-2011)	CFR recycling (2005-2006)	Precia (2007-2011)	Hi-Média (2005-2011)
Baccarat (2008-2011)	Neopost (2005-2011)	Christian dior (2005-2011)	PSB Industrie (2007-2011)	High Co. (2008-2010)
Bouygues (2005-2011)	Netgem (2005-2011)	Colas (2005-2011)	Robertet (2007-2011)	Index Multimédia (2005-2011)
Burelle (2005-2011)	Oberthur (2005-2007)	Cyberdeck (2005-2006)	Recyclex (2005-2011)	Innate pharma (2007-2011)
Business déc.(2005-2011)	Orchestra (2009-2011)	Dana Elec (2007-2011)	Sam (2007-2011)	Ipsos (2005-2011)
Business interactive (2005-2006)	Pages jaunes (2005-2011)	Danone (2005-2011)	Securidev (2009-2011)	Lacie (2005-2011)
Cast (2005-2011)	Parrot (2006-2011)	Dassault sys. (2005-2011)	Sequana (2006-2011)	Lafarge (2005-2011)
Cegedim (2005-2011)	Parsys (2009-2011)	Delachaux (2010)	Signaux Girod (2007-2011)	Le Bélier (2005-2011)
Cegid (2010-2011)	Peugeot (2005-2011)	Digigram (2005-2011)	Softway Med. (2005)	Montupet (2005-2011)
CGG veritas (2005-2011)	Pharmagest (2005-2011)	Egide (2005-2011)	Sopra (2005-2011)	Naturex (2005-2011)
Clarins (2005-2007)	Plastic Omnium (2005-2011)	Encres dubuit (2006-2011)	Sqli (2005-2011)	PCAS (2005-2011)
Coheris (2005-2010)	Prismaflex (2005-2011)	Eramet (2005-2011)	Sperian (2005-2009)	Radiall (2005-2011)
Cnim (2010-2011)	Prologue (2005-2011)	Espace prod. (2006-2011)	Stallergenes (2005-2011)	SII (2005-2011)
CS communication (2005-2011)	Prosodie (2005-2006)	Essilor Intl (2005-2011)	Stentys (2010-2011)	Soitec (2005-2011)
Cybergun (2006-2011)	Provimi (2005-2008)	Evalis (2005-2008)	Systran (2005-2011)	Sungard (2005-2007)
Cybernetics (2006-2010)	Quantel (2005-2011)	Florea medical (2005)	Technip (2005-2011)	Sylis (2005-2008)
Dalet (2005-2010)	Quotium (2005-2011)	Fromagerie bel (2006-2011)	Technofan (2006-2011)	Teamlog (2005-2007)
Delfingen (2008-2011)	Renault (2005-2011)	GDF Suez (2005-2011)	TF1 (2005-2011)	Thermocompact (2007-2011)
Delta plus gp. (2007)	Rhodia (2005-2010)	Gpe Guerbet (2005-2011)	Tipiak (2006-2011)	Trigano (2005-2011)
Devernois (2008-2010)	Riber (2008-2011)	Graines Voltz (2009-2011)	Total (2005-2011)	Vivendi (2005-2011)
Diagnostic med. (2005-2011)	Risc Groupe (2005-2011)	Grands moulins de Strasbourg (2007-2011)	Transgenes (2005-2011)	
Duran (2007-2009)	Safran (2005-2011)	Groupe Guillin (2008-2010)	Unibel (2005-2011)	
ECA (2005-2011)	Saint Gobain (2005-2011)	Hologram (2005-2011)	Vallourec (2005-2011)	
ESI groupe (2005-2011)	Sanofi (2005-2011)	llog (2005-2008)	Vetoquinol (2006-2011)	
Esker (2005-2010)	Sartorius (2005-2011)	IMV tech. (2005-2006)	Vicat (2005-2011)	
Faiveley (2007-2011)	Schneider (2005-2011)	Infovista (2005-2008)	Virbac (2005-2011)	
Faurecia (2005-2011)	SEB (2005-2011)	Installux (2005-2011)		
France telecom (2005-2011)	Société BIC (2005-2011)	ITesoft (2005-2011)		
Generix (2007-2011)	Sodifrance (2005-2011)	Kindy (2007-2011)		
Gevelot (2005-2010)	Soft Computing (2005-2008)	Lacroix (2005-2011)		
GFI (2005-2011)	Somfy (2005-2011)	Lafuma (2005-2011)		
Groupe Gorgé (2005-2011)	Steria (2009-2011)	Lectra (2006-2011)		
Guy Degrenne (2008-2011)	Store Electronic (2007-2011)	L'oréal (2005-2011)		
Haulotte (2007-2011)	Suez Env. (2005-2007)	LVMH (2005-2011)		
HF company (2005-2011)	Sword Groupe (2005-2011)	Mersen (2005-2011)		
Hubwoo (2006-2011)	Systar (2005-2011)	Metrologic (2005-2011)		
ID future (2005)	Technicolor (2005-2011)	MGI Couturier (2007-2011)		
IGE + Xao (2005-2011)	Thalès (2005-2011)	Michelin (2005-2011)		
Illiad (2005-2011)	Théolia (2008-2010)			
Infotel (2005-2011)	Ubisoft (2008-2011)			
Ingenico (2005-2011)	Valeo (2005-2011)			
	Veolia (2005-2011)			
	Vilmorin (2005-2011)			
	Wavecom (2005-2007)			
	Zodiac (2007-2011)			

### Annexe 3 : Data collection grid

	Entr. a Année t	..	Entr. z année t+X
<b>Accounting for R &amp; D expenditures and types of expenditure</b>			
Accounting (1 if activation of part of R & D expenditures, 0 otherwise)*	1/0		
Presentation of the accounting standard for accounting for R & D expenditures (annex to the consolidated accounts, topic accounting principle)			
Company explicitly observe the criteria "... the technical feasibility. »	1/0		
Company explicitly observe the criteria « intent to achieve... »	1/0		
The company explicitly observe "ability to service or for sale...". »	1/0		
The company indicates explicitly observe the test "how the asset will generate future economic benefits...". »	1/0		
The company explicitly observe the criterion "technical, financial resource availability and other...» »	1/0		
The company indicates explicitly observe the test ability to assess reliably the expenditure.... »	1/0		
The company indicates explicitly observe the test "the asset is identifiable.	1/0		
<b>Presentation of the rationale for the accounting for R &amp; D expenditures (annex to the consolidated financial statements, note accounting principle or intangible or charges)</b>			
The company advances a reason explaining the non-activation of R & D expenditures	1/0		
Element justifying the accounting decision	Quali.		
<b>Content of the audit report</b>			
The auditor mentioned accounting for R & D expenditures in the justification of assessments.	1/0		
The auditor formulates a reservation related to the accounting for R & D expenditures	1/0		
*In the absence of explicit information on the activation of R & D expenditures, we look at the array of intangibles. If there is no increase of intangible assets generated internally (in accordance with IAS 38, § 118), we consider that no expense has been enabled.			