

FACULTEIT ECONOMIE EN BEDRIJFSKUNDE

HOVENIERSBERG 24 B-9000 GENT Tel. : 32 - (0)9 - 264.34.61 Fax. : 32 - (0)9 - 264.35.92

WORKING PAPER

The current state of accounting harmonization: impediments to and benefits from harmonization

Vansteeger Veerle¹

August 2005

2005/322

¹ Department of Accountancy and Corporate Finance, Ghent University, Kuiperskaai 55/E, 9000 Ghent, Belgium. Email: Veerle.Vansteeger@UGent.be

Abstract

Although the EU has made progress towards harmonization of accounting law, this cannot hide the fact that the harmonization of the financial accounting information across Europe, through the accounting directives did not reach the intended level of comparability and transparency. Through the adoption of IFRS a higher level of harmonization has been pursued. Up to the present, the implementation of IFRS in many European countries is only required for the consolidated statement of listed companies.

To this day, numerous studies have focused on harmonization and convergence of financial accounting information in Europe, addressing impediments to convergence and providing the level of adoption of IFRS in the consolidated statements of listed European companies. However, less attention has been paid to the impact of implementing IFRS in the consolidated accounts of listed companies on the statutory accounting of listed and non-listed companies.

In this paper, the pros and cons of complete harmonization, i.e. the implementation of IFRS for the statutory accounts is discussed. In the last part, an illustrative case study compares the position taken by the IASB and the related treatments in Belgian GAAP and the fourth directive. Whether national GAAP is to converge towards IFRS, or IFRS will become mandatory for statutory accounts, it is important to highlight the particular differences between both sets of standards. Although we worked on a spot basis, as we only have treated the differences concerning tangible and intangible assets, this gives a good example of the particular harmonization difficulties most European countries will have to cope with.

Key words: harmonization, IFRS, SME, tangibles, intangibles, fiscal neutrality

Introduction

Financial accounting is a means of communicating financial information from the company to users of financial accounting information. The users are external to the management of the company and therefore have no other access to this kind of information. When communicating information it is critical that both the sender and the receiver of the information understand each other perfectly well. If all companies use the same definitions and rules to communicate their financial accounting information, not only the effectiveness of accounting information as a communication device will be increased, but also user's costs of understanding the data will be reduced. Therefore, there has been pressure to harmonize the accounting standards of different countries. While for most of us, it may appear obvious that harmonization is desirable, some authors have expressed criticism on the necessity as well as possibility to achieve international accounting harmonization (Schuetze, 1994 and Goeltz, 1991). Furthermore the question can be posed to what extend harmony should be achieved.

This paper is structured as follows. The next section focuses on the harmonization and standardization process of financial accounting information in Europe. The third section outlines the impediments to and benefits from the current level of harmonization. An overview of arguments in favor and against full harmonization is given. In the fourth section, the accounting treatments of IFRS, Belgian GAAP and the fourth directive are compared.

Harmonization and standardization of accounting within the European Union

The harmonization and standardization process of financial accounting information in Europe started with the fourth and seventh directive, respectively on the annual and the consolidated

accounts of companies, which had to be implemented in the national laws of all Member States.

As Member States had to work towards a common system derived from current practice, it was almost inevitable they ended up compromising through the incorporation of a considerable number of options, which balanced controversial aspects on format and recognition as well as valuation.

Although other factors, such as different uses and interpretation of the true and fair view principle (Van Hulle, 1993b), changes in the legal accounting requirements and purpose of financial statements in many Member States were also important, the existence of too many options finally was the reason for not achieving the intended degree of comparability and transparency of financial statements across Europe (Van Hulle, 1993a; Thorell and Whittington, 1994; Haller, 2002).

Despite these impediments and shortcomings it would not be fair to say that the first large effort of the EU to harmonize financial reporting across Europe, has totally failed. As a minimum, the quality of financial accounting information has considerably improved with the implementation of the accounting directives (Van Hulle, 1993a, p. 390). Indeed, it did a great deal to rationalize the approaches to report accounting information across the Member States. Furthermore, we can state that the impact of the directives was enormous. It led to an obligatory codification of accounting rules, causing over 2 million companies across the EU to change and converge their methods of reporting financial information as a consequence. Due to the directives, national accounting systems have become similar in the EU, in particular concerning the format of the balance sheet and the profit and loss account and disclosure aspects. Also the obligation to present, as well as the definitions and methods how to present consolidated statements have become comparable (Thorell and Wittington, 1994; Haller, 2002; Canibano and Mora, 2000; Van der Tas, 1992a, 1992b, 1995 and Hoarau, 1995).

In recent years, the International Accounting Standards Board (IASB) has acquired greater authority and standing (Meek and Thomas, 2004; Roberts et al., 1998). This was predominantly due to the decision of the EC in 2002, that all listed European companies have to prepare consolidated financial statements based on IFRS² beginning in 2005. This decision was the second step in the harmonization process aimed at increasing the comparability of financial accounting information across Europe.

Impediments to and benefits from the current state of harmonization

To this day, numerous studies have focused on harmonization and convergence of financial accounting information in Europe, addressing impediments to convergence and providing the level of adoption of IFRS in the consolidated statements of listed European companies (Haller, 2002; Larson and Street, 2004; Street and Larson, 2004). However, less attention has been paid to the impact of implementing IFRS in the consolidated accounts of listed companies on the statutory accounting of listed and non-listed companies.

When considering the accounting treatment of statutory accounts there are at least three alternatives. The first one is the coexistence of several financial reporting systems. IFRS is used for the purpose of consolidation only. National GAAP stays mandatory for statutory reporting. The opposite solution is to implement a 'complete' harmonization between national accountancy law and IFRS, meaning that all companies have to use IFRS for the purpose of consolidated accounting and statutory accounting as well. Another alternative is to implement a 'limited' harmonization between national GAAP and IFRS, thereby ensuring that there are at least no contradictions between both. The choice between these alternatives should at least

² The term IFRS covers both IFRSs (International Financial Reporting Standards) as IASs (International Accounting Standards) issued by the IASB (International Accounting Standards Board) and the former IASC (International Accounting Standard Committee).

be based on the particular situation of SMEs. Also the relationship between national GAAP, Income Tax Law and Company Law should play a central role in this decision.

In what follows, the pros and cons of complete harmonization, i.e. the implementation of IFRS for the statutory accounts is discussed. In the last part, the position taken by the IASB and the related treatments in Belgian GAAP and the fourth directive are compared. Whether national GAAP is to converge towards IFRS, or IFRS will become mandatory for statutory accounts, it is important to highlight the particular differences between both sets of standards.

Arguments in favor of complete harmonization

Higher quality

One of the arguments in favor of complete harmonization is the high quality of IFRS. For the accounting quality literature states that IFRS is of higher quality than most local GAAP.

A number of studies show that IFRS-earnings have higher value relevance than earnings based on local GAAP (Niskanen et al., 2000). Auer's (1996) findings suggest that IFRS-based earnings convey a significant higher information content when compared with Swiss GAAP earnings. Ashbaugh and Pincus (2000) show that firms' financial information becomes more predictable after the adoption of IFRS and the reduction in the variation in measurement and disclosure practice as a consequence. In particular, they find that the accuracy of financial analysts earnings forecasts is increasing after adoption of IFRS. Leuz and Verrecchia (2000) find that the information asymmetry component of the cost of capital decreases after IFRS implementation, because of an increase in the level and quality of disclosure. Ball et al. (2000) find that code law accounting income is less timely then common-law accounting income, particularly in incorporating economic losses. As IFRS is widely viewed as reflecting a largely common-law approach, and most of European national accounting laws are code laws, it can again be stated that IFRS is of higher quality than most local GAAP. Furthermore,

IFRS has fewer explicit accounting choices and increases the amount of financial disclosure. Ashbaugh (1999) provides evidence that IFRS requires more disclosures than some local GAAP. Likewise, D'Arcy (2000) finds evidence of fewer accounting choices to be made when applying IFRS in stead of German GAAP. It should also be mentioned that both studies came to this conclusions before the completion of the IASC's comparability and improvement project. Since then, IFRSs have become even more stringent, as alternatives have been cancelled out through the years.

It is argued, by advocates of complete harmonization, that this quality of information should also be provided in individual accounts, as giving reliable and relevant information should be the objective of all accounts.

Lower cost of capital

Another fact that can make a plea for the adoption of IFRS in the statutory statements, is the impact information disclosures could have on the cost of capital, in particular in relation with the capital requirements of banks under the new Basel Capital Accord (Basel II).

Basel II of the Basel Committee on Banking Supervision, effective from 2004 onwards, requires a rating of all debtors to estimate the appropriate equity coverage of the loans of banks. This could have a considerable impact since it is possible that the rating agencies and/or banks 'encourage' companies to apply IFRS (Haller, 2002, p. 182). SMEs tend to have a low capital base and depend heavily on bank financing. If they do not prepare the right documentation, they may find they have a poor rating from their bankers or rating agencies. As IFRS is of higher quality than most local GAAP (more disclosure, fewer choices, more timely, more predictable), companies who disclose information according to IFRS could receive a higher rating and as a consequence obtain a lower cost of capital.

Moreover, in their study of lenders' perception of income-tax-basis financial reporting, Coker and Hayes (1992, p. 75) show evidence that lenders find income-tax-basis financial reports to be less useful than GAAP-basis reports. Furthermore, small companies using income-taxbasis reports are viewed as more risky.

In addition, comparability of economic positions between business entities irrespective of whether they are organized as single enterprises or groups would be reached, which could have a positive effect on the decision usefulness of the financial statements for their users (Ballwieser, 1999, p. 441).

Existence of wide gap

It is undoubtedly that the harmonization of financial accounting across Europe will enhance because of the implementation of IFRS. However, because the implementation is only mandatory for consolidation of listed companies, there also exists a risk of creating a wide gap between the consolidated financial statements (based on economic reality) and the individual reporting (which would continue to be tax driven for most European countries, among whom Belgium), leading to a 'two standard system' within each Member State, creating disharmonization within one country as well as within Europe. This gap will come into existence when Member States decide that individual company accounts should not be prepared in conformity with IFRS, although the Regulation of 2002 by the European Commission (EPC, 2002, p. 5) foresees this option. If the coexistence of several financial reporting systems will be accepted, the individual entity financial statements run the risk of becoming meaningless from an economic and financial perspective, existing for the only purpose of calculating corporate tax.

Practical and efficient

The application of uniform accounting principles and rules for individual and group accounts would ease preparation of group accounts (Hahn, 2001, p. 1268 and Busse von Colbe, 2002, p.168)

Companies who are part of a consolidated group, now have to draw up at least two financial statements, one based on IFRS for the sake of consolidated reporting and one based on national GAAP for the purpose of statutory reporting. Implementing a complete harmonization would mean a cost reduction for these companies.

Arguments against complete harmonization

Cost argument

The Belgian Commission of Banking, Finance and Insurance (CBFA³, 2004) has carried out a survey in 73 listed Belgian companies, which examines the difficulties and costs in relation to convergence with IFRS. Although a majority of the firms (62 per cent) state that they have no problems in obtaining the necessary data to report under IFRS, the respondents find it costly to implement IFRS. The estimated costs of convergence for the BEL-20 companies range between 600 thousand and 6.2 million Euro. Moreover, only 22 per cent of the respondents state that the value added of IFRS financial statements is positive for the majority of users of financial statements.

The relative implementation cost will even be larger for smaller companies. Furthermore there are fewer potential users of the financial information disclosed by small firms, which would result in fewer potential benefits and higher accounting costs per users (Bollen, 1995, p. 39).

³ Commissie voor het Bank-, Financie en Assurantiewezen

Tax accounting

The 2002 GAAP Convergence survey carried out by the six largest accounting firms indicates the reluctance of most EU countries to converge national GAAP with IFRS for individual accounts. This is largely due to the link between tax accounting and financial reporting in Continental Europe. These findings are consistent with prior research that indicates the negative influence of the relationship between tax and financial reporting on accounting harmonization (Guenther and Hussein, 1995 and Lamb et al., 1998).

Furthermore, the question should be asked how tax computation should be organized in the future. As long as the application of IFRS is restricted to consolidated financial statements no problems arise, because in most EU countries corporate tax is based on the individual financial statements. However, as soon as IFRS is also allowed or required for individual statements current tax computations should be abandoned. First, it would not be fair to tax companies based on different financial statements. Second, computation of corporate tax based on IFRS financial statements would mean that the tax inflow of the state would depend on income computation principles which cannot be determined by the state (Haler, 2002, p. 182). The reform of national tax system would therefore be highly necessary to guarantee fiscal neutrality.

On the other hand, the primary objectives of IFRS, as set forth in the IASB Framework, are to serve the needs of the capital markets. As investors have different information needs than the tax authorities, it is time to recognize the diverse purposes of financial reporting and tax accounting. In countries where the two are linked, which is the case in Belgium, it should be strongly recommended that governments consider approaches that will accommodate the differing objectives. Otherwise, convergence with IFRS may not be feasible, particular for SMEs (Street and Larson, 2004, p. 23).

Different user needs

Forcing non-listed SMEs to report in conformity with IFRS, could trigger the problem of those businesses being overburdened by administrative and accounting costs. On the other hand, having a 'two standard system' will lead to divergent income and equity concepts, different definitions of assets and liabilities, and different recognition and valuation principles (Haller, 2002, p. 181). The question is whether this is really so bad. Opponents ask themselves the question whether a large multinational should be comparable with a small local company from around the corner, in the first place. No matter what the answer on this question is, another issue is whether any real differences exist between large and small businesses and among the needs of their respective information users to justify differences in the accounting rules for small and large companies and private and public companies.

The main user groups of SME financial statements identified by the literature are 'employees, managers, providers of loan finance, trade creditors and the Inland Revenue' (Page, 1984; Barker and Noonan, 1996; Collis and Jarvis, 2000). Paolini and Demartini (1997), based on an Italian survey, identify two main user groups: tax authorities and banks (representing the public interest) and management.

Riistama and Vehmanen (2004) argue that the needs of SME accounts' users differ from user needs in large companies. For example, the value of the firms at any point in time is less relevant than their ability to generate positive cash flows, and their profitability and liquidity. Hussey and Hussey (1997), on the other hand, indicate that banks and company directors are the prime users of financial statements of SMEs. Chaveau et al. (1996) found identical evidence. They state that small business financial reports are most relevant to internal management and external bankers and creditors. There are diverging findings on the usefulness of statutory financial statements to the main users (esp. management) of SME accounts. According to John and Healeas (2000) statutory accounts were not perceived as useful for decision making: "very few of the owner-managers have a proper understanding of the contents of statutory accounts. ... They often take the view that the statutory accounts are of no practical use for decision making and prefer to use the management accounts and a cash flow forecast".

Friedlob and Plewa (1992, p. 90) indicate that because financial information is cost-free to users of financial statements, they want more rather than less. Knutson and Wichmann (1984) find that CPAs⁴ have a different opinion about this. They do not feel disclosure requirements are equally important for all types and sizes of firms. In a survey, CPAs contended that disclosure is more important for public than for privately held companies, and significantly more important for large publicly owned companies than for small publicly owned companies. Lippitt and Oliver (1983, p. 56) argue that all information disclosure requirements placed upon firms should be evaluated from a cost-benefit perspective.

McMahon (2001) investigates the impact of financial reporting practices upon business growth and performance outcomes amongst Australian manufacturing SMEs. He finds that SMEs that are larger in terms of employment, that are growing faster in sales, and that have greater sales revenues demand and use more varied and more frequent historical and future-oriented financial reports as a consequence of these circumstances. This again, indicates the difference in accounting information needs of smaller and larger companies.

Lippitt and Oliver (1983) discuss some of the ways in which the financial information needs of small businesses can differ from those of large businesses.

⁴ Certified Public Accountants

First, the lack of large numbers of active buyers and sellers on the capital market of small businesses suggests several differences. Few changes in ownership may make frequent, regular financial reports less appropriate. On the other hand, thinner financial markets may not be efficient. This can require the parties to rely even more strongly on whatever accounting information is available. On the other hand, as privately held companies, in particular SMEs do not act on capital markets, many of these companies are not exposed to market demands in a comparable manner as their global counterparts. For this reason, it remains questionable whether it makes sense to allow such companies, or even force them to establish their financial accounts based on IFRS (Haller, 2002, 181).

Second, the management (usually also the ownership) of a small business is often in hands of one or a few individuals, who perform multiple management roles. Such managers are familiar with most aspects of the business and therefore should be less dependent upon formal financial information than their counterparts in large businesses.

Thirdly, because of the limited access of a small business to capital markets, the role of bankers and other short-term creditors is rather significant. A case can thus be made for making the focus of small business financial reporting the liquidity information needs of their short-term creditors, not general purpose GAAP, which focuses more upon income measurement (Lippitt and Oliver, 1983, p. 54).

An additional and major distinction is that users of public company statements must usually depend on such statements for their sole source of information. However, owners and creditors of privately owned enterprises can often ask and receive additional information whenever requested (Chazen and Benson, 1978, p. 49). Nevertheless, if applying IFRS for SMEs will be obliged, the users will have to wade through extensive disclosures, which may have been prepared at considerable expense but which may be irrelevant.

Harvey and Walton (1996) suggest that financial statements of larger companies reflect more complex transactions and highly aggregated data, are used by a larger set of users, and for a wider set of decisions, than SME accounts, which implies that more extensive disclosures are appropriate. It is also argued that they have a duty of (public) accountability towards their external providers of equity finance. This does not apply to SMEs, whose stakeholders have other means of access to internal information (John and Healeas, 2000).

Compliance

The potential of government regulation to facilitate the use of financial accounting information of small firms often is questioned. Of course, IFRS can become mandatory for all types of firms. "But the enforcement of such regulations in the small firm sector, given the large number and heterogeneity of firms, would provide an immense task for any regulator" (Bollen, 1995, p.34). A number of studies indicate considerable non-compliance with financial disclosure regulations in the small firm sector (Ingram et al., 1977; Robert; Ramsay and Sutcliffe, 1986). Given the relatively minor attention paid to securing compliance with small firm accounting regulations, Bollen (1995) argues that the usefulness of mandatory accounting disclosures by small firms can be questioned.

Case study

In this last part, an illustrative case study compares the position taken by the IASB and the related treatments in Belgian GAAP and the fourth directive. Whether national GAAP is to converge towards IFRS, or IFRS will become mandatory for statutory accounts, it is important to highlight the particular differences between both sets of standards. Although we worked on a spot basis, as we only treat the differences concerning tangible and intangible

assets, this gives a good example of the particular harmonization difficulties most European countries will have to cope with.

The case study is structured as follows. The first section deals with the definitions of tangibles and intangibles. Then the recognition, initial valuation, subsequent measurement and amortization and impairment are discussed in the following sections. Each time, differences and points of convergences between IFRS and Belgian GAAP are given. The sixth section outlines some special topics. In the last section, some concluding remarks are made.

Definitions

IAS 38.8 defines an assets as a " resource controlled by an entity as a result of past events; and from which future economic benefits are expected to flow to the entity". A tangible assets is defined in IAS 16.6 as "property, plant and equipment are tangible items that: (a) are held for use in the production or supply of goods or services, for rental or administrative purposes; and are expected to be used during more than one period". An intangible asset is defined as "an identifiable non-monetary asset without physical substance". In Belgium and in the fourth directive assets in general and tangible and intangible assets in particular are not legally defined. However, it would not take great effort and it would not be in contradiction with Belgian accounting law if these definitions were also adopted in Belgian GAAP.

Recognition

Concerning the recognition of assets, IFRS has made a considerable effort to clarify when an asset should be recognized by indicating that an item should be recognized as a tangible or intangible asset if "it meets the definition of a tangible or intangible asset" as mentioned above. Additionally, "two recognition criteria should be met: it is probable that future

economic benefits associated with the item will flow tot the entity, and the cost of the item can be measured reliably (IAS 16.7, 38.21)". Articles 9 and 10 of the fourth directive on the layout of the balance sheet stipulate that intangible assets consist of "costs of research and development, in so far as national law permits them being shown as assets; concessions, patents, licenses, trade marks and similar rights and assets if they were acquired for valuable consideration and need not be shown under goodwill, or created by the undertaking itself, in so far as national law permits them being shown as assets; goodwill to the extent it was acquired for valuable considerations; and payments on accounts". In the same articles 9 and 10, tangible assets are split up in four categories: "land and buildings; plant and machinery; other fixtures and fittings, tools and equipment; and payments in accounts and tangible assets in construction". Because the fourth directive lacks precision it leaves the Member States room for initiative. In Belgium this part of the directive was turned into a simple rule concerning the format of the balance sheet (RD⁵ art. 88). Thus in contrast with IFRS, which specifically defines stringent recognition criteria, Belgian GAAP only specifies the different items of the balance sheet.

Initial valuation

Tangible assets are initially valued at its cost. Under IFRS the cost of an item of property, plant and equipment comprises the purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates; any directly attributable costs of bringing the asset to its working condition; and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located (IAS 16.16). The cost of a tangible asset is the cash price equivalent at the recognition date. If tangible assets are exchanged, the cost is measured at fair value unless the fair value cannot be

⁵ Royal Degree (RD) of 30 January 2001

measured reliably. In this case the cost is measured at the carrying amount of the asset given up (IAS 16.23, 24).

Also under Belgian GAAP and the fourth directive tangible assets are initially measured at cost, meaning either purchase price, production cost or contribution value (RD. art.35). The purchase price includes ancillary costs, such as non-recoverable taxes and transport costs (RD art. 36). The production cost includes the purchase price of raw materials, consumables and supplies; the production costs directly attributable to the product; and a proportion of the production costs that are only indirectly attributable to the product, providing such direct and indirect costs relate to a normal production period (RD art. 37).

If we look at the accounting policy followed for intangible assets the choice of valuation method depends on the way the assets have been obtained. If they are acquired separately, they have to be capitalized under Belgian GAAP and under IFRS if the general recognition criteria are met. Initially, the cost of a separately acquired intangible asset under IFRS comprises its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates; and any directly attributable costs of preparing the asset for its intended use (IAS 38.27). Under Belgian GAAP separately acquired intangible assets are also valued at purchase cost (RD art. 35). The acquisition cost comprises also additional costs such as transport costs and non-refundable purchase taxes (RD art. 36).

If the assets are internally generated IAS 38.51 points out that it is "sometimes difficult to assess whether an internally generated intangible asset qualifies for recognition". The standard makes a difference between the generation of the asset in the research phase and the development phase (IAS 38.52). Where it is possible to capitalize both development and research costs under Belgian GAAP, IAS 38.54 specifically prohibits "the recognition of an intangible asset arising from research or the research phase of an internal project". Instead, "expenditure on research shall be recognized as an expense when incurred". In the

development phase capitalization is possible if a number of stringent criteria are met. The entity has to demonstrate, among other things, the technical feasibility and intention to complete the intangible asset; its ability to use or sell it; and how it will generate probable future economic benefits (IAS 38.57). Under IAS 38.66 the cost of an internally generated intangible asset comprises "all directly attributable costs to create, produce and prepare the asset to be capable of operating in the manner intended by management". Under Belgian GAAP internally generated intangibles are initially measured at production cost, providing this does not exceed a prudent estimate of the asset's useful value of its future profitability to the entity (RD. art. 60). The production cost includes the purchase price of raw materials, consumables and supplies; the production costs directly attributable to the product; and a proportion of the production costs that are only indirectly attributable to the product, providing such direct and indirect costs relate to a normal production period (RD art. 37). In addition IAS 38.48 and 63 state that internally generated goodwill, brands, mastheads, publishing titles, customer lists and items similar in substance shall not be recognized as intangible assets. Similar under Belgian GAAP internally generated goodwill cannot be recognized as an asset (RD art. 95). Under both standards the borrowing costs may be included in the initial carrying amount, but again there are more stringent rules for capitalization under IFRS (IAS 23.10-11 and RD art. 38).

Subsequent measurement

Subsequently, under Belgian GAAP, tangible and intangible assets are valued at acquisition cost minus accumulated amortizations and write-offs. Revaluation of intangible assets is not allowed (RD art. 35). This is in contrast with IFRS, which allows two alternative treatments. The 'cost model' is similar to Belgian GAAP and requires the asset to be subsequently recognized at its cost less any accumulated amortization and impairment losses. After initial

recognition, a tangible but also an intangible can be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated amortization and impairment losses (IAS 38.75). However, because subsequent revaluation must be based on prices in an active market, it is mostly not possible to use the revaluation model for intangible assets. Furthermore, revaluation must be done on a regular basis and the entire class must be revalued at the same time (IAS 38.74,75,81). When the cost model is followed revaluation is not allowed.

Amortization and impairment

The next step in both Belgian GAAP and IFRS is to define the amortization. Looking at the amortization periods and methods in more detail, even more differences between IFRS and Belgian GAAP become clear. IFRS states "the depreciable amount of an asset with finite useful life shall be allocated on a systematic basis over its useful life" and "the amortization method must reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity" (IAS 38.97 and 16.50, 60). If that pattern cannot be determined reliably, the straight-line method shall be used (IAS 38.97). In contrast, under Belgian GAAP research and development costs shall be amortized over 5 years. Other intangible and also tangible assets should be amortized over their useful lives, as is the case under IFRS. However, in some cases, an accelerated tax-based amortization plan can be used under Belgian GAAP (RD. art. 45, 61). This however, is strongly forbidden under IFRS.

At least each year the useful life assessment and the amortization period and method shall be reviewed under IFRS (IAS 38.104, 109). Belgian GAAP does not mention this. Furthermore the depreciable amount can differ under both standards because the residual value of an asset can sometimes be different from zero in the case of IFRS (IAS 38.100).

An asset with an indefinite useful life shall not be amortized. Instead, it shall be tested for impairment by comparing its recoverable amount with its carrying amount annually and whenever there is an indication that the asset may be impaired (IAS 38.107, 108). Under Belgian GAAP the treatment is similar, fixed assets with unlimited useful lives shall not be written down, except in the case of a permanent diminution in value, which is then called a write-down (RD. art. 61.2). Also in the case of assets with finite life, an entity shall assess at each reporting date whether there is any indication that an asset may be impaired (IAS 36.9). If impairment is indicated, the asset must be written-down to the higher of fair value less costs to sell (net selling price) and the value in use based on the discounted cash flows. Reversal of losses is permitted. Under Belgian GAAP, we find again a similar treatment for assets with a finite useful life. In this case an exceptional depreciation is necessary for assets with limited useful lives, if the carrying amount exceeds the value in use (RD. art. 64.1-2).

Special topics

Goodwill is a special case under IFRS, which determines that goodwill may not be amortized. It should yearly be tested for impairment instead. Furthermore a revision of impairment losses on goodwill is not allowed. Under Belgian GAAP goodwill is treated the same way as the other intangible assets and thus amortized over 5 years.

Formation expenses are those expenses connected with the start-up, the further development or the restructuring of the enterprise (RD art. 95). Formation expenses are seen as a separate item in the balance sheet under the EC Directive and Belgian GAAP. They can be capitalized and amortized over a maximum of 5 years or expensed when incurred (Art. 58-59). In the case of transaction costs incurred by the emission of a loan it is possible to amortize them over the loan term (Art. 59). Under IFRS start-up costs may only be capitalized as part of the cost of an asset when they are necessary to bring the asset to its working condition. All other formation expenses are recognized as an expense when incurred (IAS 38.68), except capital increase expenses and expenses relating to the issuance of loans, which should be deducted from equity and the liability respectively (IAS 32 and 39).

Concluding remarks

When we compare the position taken by the IASB and the related treatments in Belgium and the fourth directive concerning definitions, recognition and valuation of tangible and intangible assets, we show there are many points of convergence. Nevertheless, there are a lot of 'minor' differences between both standards, which could be implemented in Belgian GAAP without a substantial change of the Belgian accounting, Company or Tax law. Table 1 shows a couple of these minor differences.

Table 1: Minor differences between IFRS and Belgian GAAP

The IFRS definition of a tangible asset could easily be inserted in Belgian GAAP		
The IFRS definition of an intangible asset could easily be inserted in Belgian GAAP		
Insert the IFRS recognition criteria in Belgian GAAP		
The principle of impairment has also to be applied under Belgian GAAP, however under		
different names: write-off and exceptional depreciation		

There are however also a lot of 'minor' differences which have a 'major' impact on the fiscal neutrality. As soon as IFRS is also allowed or required for individual statements current tax computations should be abandoned and a reform of Belgian tax system would be highly necessary to guarantee fiscal neutrality. Table 2 presents these 'minor' differences with high impact.

Table 2: Minor differences with major impact on fiscal neutrality

Different cost elements lead to different initial carrying amounts		
In the case of IFRS assets can have a residual value, leading to different amortizations		
Some intangibles (e.g. development costs) must be amortized over 5 years under Belgian		
GAAP, which can differentiate from the assets useful life.		

On the other hand, we also highlight that sometimes both standards have adopted accounting solutions that are very different or even contradictory. Table 3 presents the major differences between Belgian GAAP and IFRS.

	IFRS	Belgian GAAP
Capitalization of research	Not allowed	Allowed
costs		
Capitalization of formation	Not allowed	Allowed
expenses		
Revaluation of intangibles	Allowed if active market	Not allowed
Accelerated amortization	Not allowed	Allowed
(tax-based)		
Amortization of Goodwill	Not allowed	Allowed, over 5 years

Table 3: Fundamental differences between IFRS and Belgian GAAP

We can conclude that although there are many similarities, there are also a lot of minor and major differences. Some of these different treatments can have a major impact. Although we worked on a spot basis, as we only have treated the differences concerning tangible and intangible assets, this gives a good example of the particular harmonization difficulties most European countries will have to cope with. If IFRS will not become mandatory for the statutory financial statements, two different financial accounting treatments will exist, and as we show in this paper there are a number of fundamental differences between both. On the

other hand, if national GAAP will be converted to IFRS, this problem can be reduced as most or all of the contradictions between both standards can be removed. However, the convergence of national GAAP towards IFRS will have a tremendous impact on the fiscal neutrality, which will ask for either a complete disconnection of the determination of accounting profit and taxable profit or a complete reform of Income Tax Law.

Closing comments

Although the EU has undoubtedly made progress towards harmonization of accounting law, this cannot hide the fact that the harmonization of the financial accounting information across Europe, through the accounting directives did not reach the intended level of comparability and transparency. Through the adoption of IFRS a higher level of harmonization has been pursued. To this day the implementation of IFRS in many European countries is only required for the consolidated statement of listed companies. For that reason the risk exists of creating a wide gap between the consolidated and individual reporting. This two standard system could create disharmonization rather than creating harmony within each country and within Europe as a result. An option to resolve this problem is to implement a 'complete' or 'limited' harmonization are among others the high quality of IFRS, a lower cost of capital and some practical and efficiency reasons. However, because the financial information needs of small businesses can differ from those of large businesses, it might not be possible nor wanted to impose full convergence with IFRS on SMEs.

When we compare the position taken by the IASB and the related treatments in Belgium and the fourth directive concerning definitions, recognition and valuation of tangible and intangible assets, we show there are many points of convergence. In summary, it can be stated that there are a number of differences, both minor as well as major differences. As a result

these different treatments can have a huge impacts. Although the case only highlights differences concerning tangible and intangible assets, this gives a good example of the particular harmonization difficulties European countries will have to cope with.

References

- Ashbaugh H.,1999, Non-US firms' accounting standard choices, Journal of Accounting and Public Policy, 20, 129-153
- Ashbaugh H. and Pincus M., 2000, Domestic accounting standards, international accounting standards, and the predictability of earnings, Journal of Accounting Research, 39 (3), 417-434
- Auer K., 1996, Capital market reactions to earnings announcements: empirical evidence on the difference in the information content of IAS-based earnings and EC-Directives-based earnings, European Accounting Review, 5 (4), 587-624
- Ball R., Kothari S. and Robin A., 2000, The effect of international factors on properties of accounting earnings, Journal of Accounting and Economics, 29, 1-51
- Ballweiser W., 1999, HGB-Konzernabschluβbefreiung und privates Rechnungslegungsgremium. In Haller A. and Eierle B., 2004, The adaptation of German accounting rules to IFRS: a legislative balancing act, Accounting in Europe, 1, 27-50
- Barker P. and Noonan C., 1996, Small company compliance with accounting standards: The Irish situation, Dublin city university business school research paper, nr. 10, 42p.
- Bollen L., 1995, Financial reporting regulation for small and medium sized private firms, doctorate thesis Rijksuniversiteit Limburg, Maastricht, 235 pp.
- Busse von Colbe W., 2002, Entwicklungsperspektiven der Rechnungslegung in Deutschland, Zeitschrift für betriebswirtschaftliche Forschung, 54(3), p. 159-172. In Haller A. and Eierle B., 2004, The adaptation of German accounting rules to IFRS: a legislative balancing act, Accounting in Europe, 1, 27-50
- Canibano L. and Mora A., 2000, Evaluating the statistical significance of de facto accounting harmonization: A study of European global players, The European Accounting Review, 9 (3), 349-369

- CBFA, 2004, Commissie voor het Bank-, Financie- en Assurantiewezen, De resultaten van de IAS/IFRS- enquête uitgevoerd door de CBFA bij Belgische beursgenoteerde ondernemingen, Studies en documenten, Juni, 26, 44pp
- Chauveau B., Deartini P. and Moneva J., 1996, Usefulness of small business financial reporting in Europe: the case of Spain, France and Italy. In Joshi P. and Ramadhan S., 2002, The adoption of international accounting standards by small and closely held companies: evidence from Bahrain, The International Journal of Accounting, 37, 429-440
- Chazen C. and Benson B., 1978, Fitting GAAP to smaller businesses: Are small businesses being overburdened by excessive administrative and accounting costs in order to comply with irrelevant rules?, The Journal of Accountancy, February, 46-51
- Coker J. and Hayes R., 1992, Lender's perceptions of income-tax-basis financial reporting by small business, Journal of Small Business Management, July, 66-76
- Collis J. and Jarvis R., 2000, How Owner-Managers Use Accounts. In Evans L. and di Pietra R., 2005, Comment on the IASB discussion paper: Preliminary views on accounting standards for small and medium-sized entities, 24p.
- D'Arcy A., 2000, The degree of determination of national accounting systems an empirical investigation, Schmalenbach Business Review, 52, 45-67
- EPC, European Parliament and Council, 1979, Directive No 78/660/EEC of 25 July 1978 on the annual accounts of companies, L 222 of 14 August 1979
- EPC, European Parliament and Council, 1983, Directive No 83/635/EEC of 13 June 1983 on the consolidated accounts of companies, L 193 of 18 July 1983
- EPC, European Parliament and Council, 2002, Regulation No 1606/2002 of 19 July 2002 on the application of international accounting standards, Official Journal of the European Communities 11.09.2002, L 243/1

- Friedlob T. and Plewa F., 1992, Cost effective financial reporting for small business, Journal of Small Business Management, January, 89-94
- Goeltz R., 1991, International accounting harmonization: the impossible (and unnecessary?) dream, Accounting Horizons, March, 85-88
- Guenther D. and Hussein M., 1995, Accounting standards and national tax laws: The IASC and the ban on LIFO, Journal of Accounting and Public Policy, 14, 115-141
- Hahn K., 2001, Deutsche Rechnungslegung im Umbruch, Deutsches Steuerrecht, 39 (30), p.1267-1272. In Haller A. and Eierle B., 2004, The adaptation of German accounting rules to IFRS: a legislative balancing act, Accounting in Europe, 1, 27-50
- Haller A., 2002, Financial accounting developments in the European Union: past events and future prospects, The European Accounting Review, 11:1, 153-190
- Haller A. and Eierle B., 2004, The adaptation of German accounting rules to IFRS: a legislative balancing act, Accounting in Europe, 1, 27-50
- Harvey D. and Walton P., 1996, Differential reporting: An analysis. In Evans L. and di Pietra R., 2005, Comment on the IASB discussion paper: Preliminary views on accounting standards for small and medium-sized entities, 24p.
- Hoarau C., 1995, International accounting harmonization: American hegemony or mutual recognition with benchmarks?, The European Accounting Review, 4 (2), 217-233
- Hussey J. and Hussey R., 1997, The survivors: private companies' progress since the recession. In Joshi P. and Ramadhan S., 2002, The adoption of international accounting standards by small and closely held companies: evidence from Bahrain, The International Journal of Accounting, 37, p. 429-440
- IASB, 2004, International Financial Reporting Standards (IFRSs): including International Accounting Standards (IASs) and Interpretations as at 31 March 2004, IASCF Publications Departement, London UK, 2250 pp

- Ingram R., Guy D., Merei and Justis R., 1977, Disclosure practices in unaudited financial statements of small businesses, Journal of Acountancy, August 144(2), p. 81-86
- John B. and Healeas S., 2000, Financial reporting standards for smaller entities: a fundamental or cosmetic change?, Certified accountants educational trust: Occasional research paper, nr. 30
- Knutson D. and Wichmann H., 1984, GAAP Disclosures: Problem for Small Business?, Journal of Small Business Management, January, 38-46
- Lamb M., Nobes C. and Roberts A., 1998, International variations in the connections between tax and financial reporting, Accountin and Business Research, 28 (3), 173-188
- Larson R. and Street D., 2004, Convergence with IFRS in an expanding Europe: progress and obstacles identified by large accounting firms' survey, Journal of International Accounting, Auditing and Taxation, 13, 89-119
- Leuz C. and Verrecchia R., 2000, The economic consequences of increased disclosure, Journal of Accounting Research, 38, 91-124
- Lippitt J. and Oliver B., 1983, Big GAAP, Little GAAP: financial reporting in the small business environment, Journal of Small Business Management, July, 52-57
- McMahon R., 2001, Business growth and performance and the financial reporting practices of Australian Manufacturing SMEs, Journal of Small Business Management, 139 (2), 152-164
- Meek G. and Thomas W., 2004, A review of markets-based international accounting research, Journal of International Accounting Research, 3 (1), 21-41
- Niskanen J., Kinnunen J. and Kasanen E., 2000, The value relevance of IAS reconciliation components: empirical evidence from Finland, Journal of Accounting and Public Policy, 19, 119-137

- Page M., 1984, Corporate financial reporting and the small independent company, Accounting and Business Research, Summer, 271-282
- Paolini M. and Demartini P., 1997, Small company financial reporting: users and information needs. In Evans L. and di Pietra R., 2005, Comment on the IASB discussion paper:Preliminary views on accounting standards for small and medium-sized entities, 24p.
- Ramsay A., Sutcliffe P., 1986, Financial reporting by proprietary companies, Australian Accountant, July, p.48-54
- Riistama V. and Vehmanen P., 2004, Globally applicable conceptual framework for small and medium-sized entities. In Evans L. and di Pietra R., 2005, Comment on the IASB discussion paper: Preliminary views on accounting standards for small and medium-sized entities, 24p.
- Roberts C., Weetman P and Gordon P., 1998, International Financial Accounting: A Comparative Approach, Essex, UK: Financial Times, Prentice Hall; Pearson Education, 702 p
- Schuetze W., 1994, What is the future of mutual recognition of financial statements and is comparability really necessary?, The European Accounting Review, 3 (2), 330-334
- Street D. and Larson R., 2004, Large accounting firms' survey reveals emergence of "two standard" system in the European Union, Advances in International Accounting, 17, 1-29
- Thorell P. and Whittington G., 1994, The harmonization of accounting within EU: problems, perspectives and strategies, The European Accounting Review, 3 (2), 215-239
- Van der Tas L., 1992a, Evidence of EC financial reporting practice harmonization: The case of deferred taxation, The European Accounting Review, 1 (1), 69-104
- Van der Tas L., 1992b, Measuring international harmonization and standardization: A comment, Abacus, 28 (2), 211-216

- Van der Tas L., 1995, International accounting harmonization: American hegemony or mutual recognition with benchmarks? A comment, The European Accounting Review, 4 (2), 255-260
- Van Hulle K., 1993a, Harmonization of accounting standards in the EC: Is it the beginning or is it the end?, European Accounting Review, 2, 387-396
- Van Hulle K., 1993b, Truth and untruth about true and fair: a commentary on 'A European true and fair view' comment, European Accounting Review, 1, 99-104



WORKING PAPER SERIES

- 04/259 **D. VANDAELE, P. GEMMEL,** Development of a measurement scale for business-to-business service quality: assessment in the facility services sector, September 2004, 30 p.
- 04/260 **F. HEYLEN, L. POZZI, J. VANDEWEGE,** Inflation crises, human capital formation and growth, September 2004, 23 p.
- 04/261 **F. DE GRAEVE, O. DE JONGHE, R. VANDER VENNET,** Competition, transmission and bank pricing policies: Evidence from Belgian loan and deposit markets, September 2004, 59 p.
- 04/262 **B. VINDEVOGEL, D. VAN DEN POEL, G. WETS,** Why promotion strategies based on market basket analysis do not work, October 2004, 19 p. (forthcoming in *Expert Systems with Applications*, 2005)
- 04/263 G. EVERAERT, L. POZZI, Bootstrap based bias correction for homogeneous dynamic panels, October 2004, 35 p.
- 04/264 R. VANDER VENNET, O. DE JONGHE, L. BAELE, Bank risks and the business cycle, October 2004, 29 p.
- 04/265 M. VANHOUCKE, Work continuity constraints in project scheduling, October 2004, 26 p.
- 04/266 **N. VAN DE SIJPE, G. RAYP,** Measuring and Explaining Government Inefficiency in Developing Countries, October 2004, 33 p.
- 04/267 **I. VERMEIR, P. VAN KENHOVE,** The Influence of the Need for Closure and Perceived Time Pressure on Search Effort for Price and Promotional Information in a Grocery Shopping Context, October 2004, 36 p. (published in *Psychology & Marketing*, 2005).
- 04/268 I. VERMEIR, W. VERBEKE, Sustainable food consumption: Exploring the consumer attitude behaviour gap, October 2004, 24 p.
- 04/269 I. VERMEIR, M. GEUENS, Need for Closure and Leisure of Youngsters, October 2004, 17 p.
- 04/270 I. VERMEIR, M. GEUENS, Need for Closure, Gender and Social Self-Esteem of youngsters, October 2004, 16 p.
- 04/271 **M. VANHOUCKE, K. VAN OSSELAER**, Work Continuity in a Real-life Schedule: The Westerschelde Tunnel, October 2004, 12 p.
- 04/272 **M. VANHOUCKE, J. COELHO, L. V. TAVARES, D. DEBELS**, On the morphological structure of a network, October 2004, 30 p.
- 04/273 **G. SARENS, I. DE BEELDE**, Contemporary internal auditing practices: (new) roles and influencing variables. Evidence from extended case studies, October 2004, 33 p.
- 04/274 **G. MALENGIER, L. POZZI**, Examining Ricardian Equivalence by estimating and bootstrapping a nonlinear dynamic panel model, November 2004, 30 p.
- 04/275 **T. DHONT, F. HEYLEN**, Fiscal policy, employment and growth: Why is continental Europe lagging behind?, November 2004, 24 p.
- 04/276 **B. VINDEVOGEL, D. VAN DEN POEL, G. WETS**, Dynamic cross-sales effects of price promotions: Empirical generalizations, November 2004, 21 p.
- 04/277 J. CHRISTIAENS, P. WINDELS, S. VANSLEMBROUCK, Accounting and Management Reform in Local Authorities: A Tool for Evaluating Empirically the Outcomes, November 2004, 22 p.
- 04/278 H.J. SAPIENZA, D. DE CLERCQ, W.R. SANDBERG, Antecedents of international and domestic learning effort, November 2004, 39 p.
- 04/279 **D. DE CLERCQ, D.P. DIMO**, Explaining venture capital firms' syndication behavior: A longitudinal study, November 2004, 24 p.



WORKING PAPER SERIES

- 04/280 **T. FASEUR, M. GEUENS**, Different Positive Feelings Leading to Different Ad Evaluations: The Case of Cosiness, Excitement and Romance, November 2004, 17 p.
- 04/281 **B. BAESENS, T. VAN GESTEL, M. STEPANOVA, D. VAN DEN POEL**, Neural Network Survival Analysis for Personal Loan Data, November 2004, 23 p. (Forthcoming in *Journal of the Operational Research Society*)
- 04/282 **B. LARIVIÈRE, D. VAN DEN POEL**, Predicting Customer Retention and Profitability by Using Random Forests and Regression Forests Techniques, December 2004, 30 p. (Forthcoming in *Expert Systems with Applications*, 2005).
- 05/283 R. I. LUTTENS, E. OOGHE, Is it fair to "make work pay"?, January 2005, 28 p.
- 05/284 N. A. DENTCHEV, Integrating Corporate Social Responsibility In Business Models, January 2005, 29 p.
- 05/285 **K. FARRANT, G. PEERSMAN**, Is the exchange rate a shock absorber or a source of shocks? New empirical evidence, January 2005, 26 p. (forthcoming *Journal of Money Credit and Banking*, 2005)
- 05/286 **G. PEERSMAN**, The relative importance of symmetric and asymmetric shocks and the determination of the exchange rate, January 2005, 24 p.
- 05/287 C. BEUSELINCK, M. DELOOF, S. MANIGART, Private Equity Investments and Disclosure Policy, January 2005, 44 p.
- 05/288 **G. PEERSMAN, R. STRAUB**, Technology Shocks and Robust Sign Restrictions in a Euro Area SVAR, January 2005, 29 p.
- 05/289 H.T.J. SMIT, W.A. VAN DEN BERG, W. DE MAESENEIRE, Acquisitions as a real options bidding game, January 2005, 52 p.
- 05/290 **H.T.J. SMIT, W. DE MAESENEIRE**, The role of investor capabilities in public-to-private transactions, January 2005, 41 p.
- 05/291 **A. VEREECKE, S. MUYLLE**, Performance Improvement Through Supply Chain Collaboration: Conventional Wisdom Versus Empirical Findings, February 2005, 33 p.
- 05/292 **A. PRINZIE, D. VAN DEN POEL**, Incorporating sequential information into traditional classification models by using an element/position- sensitive SAM, February 2005, 32 p. (Forthcoming in *Decision Support Systems*).
- 05/293 **D. DEBELS, M. VANHOUCKE**, A Decomposition-Based Heuristic For The Resource-Constrained Project Scheduling Problem, February 2005, 25 p.
- 05/294 **D. DEBELS, M. VANHOUCKE**, A Bi-Population Based Genetic Algorithm for the Resource-Constrained Project Scheduling Problem, February 2005, 10 p.
- 05/295 W. VANDEKERCKHOVE, N.A. DENTCHEV Network perspective on stakeholder management: Facilitating entrepreneurs in the discovery of opportunities, February 2005, 31 p.
- 05/296 **N. MORAY, B. CLARYSSE**, Institutional Origin and Resource Endowments to Science-Based Entrepreneurial Firms: A European Exploration, February 2005, 39 p.
- 05/297 B. CLARYSSE, M. KNOCKAERT, A. LOCKETT, How do Early Stage High Technology Investors Select Their Investments?, March 2005, 38 p.
- 05/298 **A. PRINZIE, D. VAN DEN POEL,** Constrained optimization of data-mining problems to improve model performance: A direct-marketing application, March 2005, 32 p. (forthcoming in *Expert Systems with Applications*, 2005).
- 05/299 **B. LARIVIÈRE, D. VAN DEN POEL,** Investigating the post-complaint period by means of survival analysis, March 2005, 25 p.



WORKING PAPER SERIES

- 05/300 D. VANDAELE, P. GEMMEL, Impact of Support Services on End-users' Satisfaction, March 2005, 28 p.
- 05/301 T. DEMUYNCK, L. LAUWERS, Nash rationalizability of collective choice over lotteries, April 2005, 16 p.
- 05/302 **R. BRACKE, M. DE CLERCQ,** Implementing Extended Producer Responsibility in Flemish Waste Policy: Evaluation of the Introduction of the Duty of Acceptance, April 2005, 24 p.
- 05/303 **Ph. DE MOOR, I. DE BEELDE,** Environmental Auditing and the Role of the Accountancy Profession: A Literature Review, April 2005, 34 p.
- 05/304 **G. SARENS, I. DE BEELDE,** Internal Auditor's Perception about their Role in Risk Management Comparison between Belgian and US Companies, April 2005, 25 p.
- 05/305 **Ph. VAN CAUWENBERGHE, I. DE BEELDE,** On the IASB Comprehensive Income Project, Neutrality of Display and the Case for Two EPS Numbers, May 2005, 29 p.
- 05/306 **P. EVERAERT, G. SARENS,** Outsourcing bij Vlaamse Ondernemingen: een Exploratief Onderzoek, May 2005, 36 p.
- 05/307 S. CLAEYS, G. LANINE, K. SCHOORS, Bank Supervision Russian Style: Rules vs Enforcement and Tacit Objectives, May 2005, 60 p.
- 05/308 **A. SCHOLLAERT, D. VAN DE GAER,** Boycotts, power politics or trust building: how to prevent conflict?, June 2005, 34 p.
- 05/309 **B. MERLEVEDE, K. SCHOORS,** How to Catch Foreign Fish? FDI and Privatisation in EU Accession Countries, June 2005, 32 p.
- 05/310 **A. HEIRMAN, B. CLARYSSE,** The Imprinting Effect of Initial Resources and Market Strategy on the Early Growth Path of Start-Ups, June 2005, 38 p.
- 05/311 **A. MAES, G. POELS, J. GAILLY, R. PAEMELEIRE**, Measuring User Beliefs and Attitudes towards Conceptual Models: A Factor and Structural Equation Model, June 2005, 25 p.
- 05/312 S. VANDEVOORDE, M. VANHOUCKE, A Comparison of Different Project Duration Forecasting Methods using Earned Value Metrics, June 2005, 18 p.
- 05/313 **K. BAEYENS, T. VANACKER, S. MANIGART,** Venture capitalists' selection process: the case of biotechnololy proposals, June 2005, 23 p.
- 05/314 **M. VANHOUCKE, D. DEBELS,** The discrete time/cost trade-off problem under various assumptions. Exact and heuristic procedures, June 2005, 32 p.
- 05/315 **G. POELS, A. MAES, F. GAILLY, R. PAEMELEIRE,** User Attitudes towards Pattern-Based Enterprise Information Models: A Replicated Experiment with REA Diagrams, July 2005, 32 p.
- 05/316 **B. MAENHOUT, M. VANHOUCKE,** An Electromagnetic Meta-Heuristic for the Nurse Scheduling Problem, July 2005, 34 p.
- 05/317 **M. VANHOUCKE, S. VANDEVOORDE,** A simulation and evaluation of earned value metrics to forecast the project duration, July 2005, 30 p.
- 05/318 I. VERMEIR, M. GEUENS, Need for Closure and Youngsters' Leisure Time Preferences, July 2005, 25 p.



Tel. : 32 - (0)9 - 264.34.61 Fax. : 32 - (0)9 - 264.35.92

17

WORKING PAPER SERIES

- 05/319 **D. VANTOMME, M. GEUENS, S. DEWITTE,** How to Portray Men and Women in Advertisements? Explicit and Implicit Evaluations of Ads Depicting Different Gender Roles, July 2005, 34 p.
- 05/320 B. WEIJTERS, M. GEUENS, Evaluation of age-related labels by senior citizens, July 2005, 27 p.
- 05/321 **S. STEENHAUT, P. VANKENHOVE,** An Empirical Investigation of the Relationships among a Consumer's Personal Values, Ethical Ideology and Ethical Beliefs, July 2005, 36 p.