Financial Accounting

How to harmonize the Intercompany Matching process in UPM?

HAMK
UNIVERSITY OF APPLIED SCIENCES

Bachelor's thesis

International Business

HAMK Valkeakoski 12.11.2012

Katja Haase

Katja Haase

HAMK
UNIVERSITY OF APPLIED SCIENCES

Valkeakoski
Degree programme in International Business

Author	Katja Haase **Year** 2012
Subject of Bachelor's thesis	How to harmonize the Intercompany Matching process in UPM?

ABSTRACT

This thesis is focusing on financial accounting and in particular on the process of intercompany matching in one of the biggest companies in forest industry-UPM. It gives an overall overview of the meaning of accounting for a company and of the importance of intercompany matching. The thesis describes the current situation of how the process is done and what kinds of hiccups exist within the process of intercompany matching. The aim of this thesis is to harmonize the process for all involved parties and to make the process easier and faster. This aim is achieved with a harmonized work instruction, which also will help to ease the introduction into this subject for non-experienced employees concerning this field. The theory that is used, is from accounting point of view. The information is based on an accounting book, internal controls from UPM, knowledge of colleagues and the author's own knowledge. The result is a work instruction with a harmonized way of working concerning this process and harmonized documentation with help of a new create Excel reconciliation file. Furthermore some more suggestions for harmonizing and improving the IC-Matching process has developed which still have to be investigate more deeply by the company.

Keywords   Intercompany matching, development, documentation

Pages   39p.

CONTENTS

1   INTRODUCTION

This thesis will focus on intercompany matching process within a bigger company – in this case UPM. Intercompany matching belongs into the subject of financial accounting. This thesis will have a look on the company's background, the theory of accounting and all intercompany matching related subjects. The main goal of this paper is to harmonize the whole process and the result is a work instruction with all relevant material and information for all employees who have to work with this process.

2   UPM

To make it easier to understand the context of this thesis, it is advisable to introduce the commissioner/ company. The background information helps to conceive the environment in which the company is operating and gives a general overview.

2.1   In general

UPM is one of the biggest companies in the forest business, operating worldwide. The company uses paper fibre, biomass and recyclable raw materials for producing their products. UPM contains of six different business areas: energy, pulp, forest and timber, paper, label and plywood. All of these six business areas are independent and set high value on lasting and innovative products, which are sold to customers all over the world.

UPM's history started in 1995where three companies: Kymmene Corporation, Repola Ltd and United Paper Mills Ltd decided to merge to one big company. One year after the merger, the company officially started its business. During the years, UPM developed to an international enterprise with several departments and mills all over the world. Meanwhile UPM's mills are distributed in sixteen different countries: Finland, Germany, Russia, USA, France, UK, Australia, Malaysia, Austria, Estonia, China, Spain, Uruguay, South Africa, and Poland. As the location of the mills has a broad variation, the wide product range varies from different kind of papers, wallboards, different kind of label materials, lumber, different kind of pulp, energy and biofuel. All these products are used in several productions and can be found in packaging, magazines, flyers, notebooks, buildings, furniture, food labels, security labels at luggage etc. (upm.com)

2.2   UPM organization

UPM has around 24,000 people employed in total. The main business area is the paper industry where around 14,000 people are working. Most employees are working in Finland and Germany. The organization has, besides the already mentioned business areas, also a global function depart-

ment. The department 'Global Functions' is offering financial services, human resources services and other services to all the other businesses within UPM.

'Global Functions' includes the following departments: Communication, Corporate Relations and Development (CRD), Finance and Control, Human Resources, Internal Audit, Investment Management, Research and Development, Sourcing and Information Technology.

This thesis is focusing on the financial service area and that is why this area will be introduced in more detail.

The Financial Services contain several departments: Global Transaction Services (GTS), Closing and Reporting (CAR) and Local Country Finance (LCF). These different departments have different responsibilities and tasks. To understand the departments better, it is good to have a closer look at the several divisions individually.

2.2.1 Global Transaction Services (GTS)

GTS is mostly handling different kinds of invoices. It is dealing with purchase invoices processes, which contain not only receiving invoices but reconciles them with existing purchase orders and vouchers. It is also looking after the recurring entries concerning this matter. Next to purchase invoices, GTS is handling also travel expenses claims by keeping track on follow the Global Travel rule, correct postings with correct tax codes for different countries and entering the data to SAP systems. Other tasks are checking, maintaining and making postings to accounts payable related items. Cash management and accounts receivables are also tasks, which GTS takes responsibility for.

Purchase Invoice Handling (PI)

PI is a part of the GTS department. PI is closely working with CAR, LCF and also with the unit. PI is reconciling the incoming invoices with the POs (purchase orders) and also with the receipts. They are sending invoices which need to be approved to the responsible persons. After they receive the approved invoices, they are putting the invoice data into accounts payable module in SAP. Furthermore PI is reporting the accruals and they are checking the Good Received and Invoice Received account on regularly basis. CAR is supporting them with information from booking principles. But not only Car is supporting PI also LCF and the unit itself helping them by offering them information concerning law requirements (e.g. taxes) and also punctual and correct made POs and Good Receipts.

2.2.2 Closing and Reporting (CAR)

CAR is the second division is located in Tampere and in Shanghai. It is working closely with GTS together.

The tasks are different in comparison to GTS but they are going along with each other. CAR is focusing on financial accounting processes.

Next to it, it is handling all processes concerning asset accounting. This means, everything a company is purchasing for their business and which are classified as asset will be recorded. In other words, CAR is creating all kinds of assets for the company. Not only new assets are in CAR's interest but also all already acquired ones. Here, CAR takes the responsibility for the depreciation of purchased items. And when an asset gets broken, the asset will be scrapped and thereby eliminated from the inventory of the company. This is an important point for the company because it gives a correct overview of the existing assets and therefore it gives an accurate picture of the resources and the need of purchasing new assets to do successful business.

Another important task, which CAR is responsible for, is the cost accounting. In cost accounting all the costs, which are occurring while performing business, are getting allocated to different cost centres. These costs could be for example traveling costs of employees for business trips. In this case, the costs are handled and paid from one financial service company, which is invoicing these expenses. CAR's role here is to verify and allocate the costs to the right cost centres to have an overview of the occurring costs in this sector. In general, cost accounting is an important tool to support managerial decisions that are essential for carrying on a business.

And finally, CAR is responsible for an accurate reporting of the company's performance to the management. This is important for the decision making process of managers for conducting successful and sustainable business.

2.2.3 Local Country Finance (LCF)

LCF are divisions working worldwide and therefore they are located in different countries. All departments have the same tasks but they can vary in several areas due to different laws, for example tax rules. LCF is responsible for all tax related processes for example tax calculations, tax reports, etc. Next to it, it is responsible for referring all issues within the statutory and statistical areas.

2.2.4 Group Account Reporting (GAR)

Group account reporting department is located in Helsinki head office and is responsible for group consolidation. This department is doing the final checks before publishing the reports.

3 THEORY

Theory is the foundation for the apprehension of every possible subject. Notably in accounting, it is necessary to understand the background and the meaning of several terms to use the knowledge correctly. This is crucial to ensure correct and reliable figures for financial reporting.

For a better understanding and to explain certain issues with examples, it is useful to introduce two example companies. Company A is manufacturer of wood furniture and company B is a producer of different kind of wooden goods.

3.1 Accounting

3.1.1 Definition of Accounting

Accounting is a process where financial data from an organization are analysed and reported to several persons who are interested in these data. These persons could be organization's personnel, managers, lenders, regulatory entities, shareholders and financial analysts. All of these per-sons have an interest in the financial status of the organization because they are somehow connected to it. (Walther 2009, 9.)

The employees do not only want to know how "healthy" their company is and therefore how secure their jobs are but also what perspectives and opportunities the company can offer. They need the information to plan their own future careers whether in the same company or in another one. Managers are basing their decisions on this information, which are essential for a good business performance of an organization. And of course the owners always want to know how the company is doing and they are made decisions for the future. Lenders need to know if the company is able to pay its debts back or if there has to be done some other actions according to this issue. But also regulatory entities need to know the financial situation for tax related issues and also for regulation reasons. In addition to this, financial analysts are doing their suggestions of investments based on these financial data. (Walther 2009, 9.)

As it is mentioned above, accounting has more than one purpose. It is not only crucial for internal use but also for external. Hence, accounting is divided into two parts: Financial Accounting and Management Accounting.

3.1.2 Financial Accounting

Financial accounting is conceived for external reporting. That means the information is summarized for all parties which have no or just limited admission to these figures. As mentioned before these parties are lenders, governmental entities, shareholders and analysts. Here it is important that the reports have all equal standards. Why is it important? The reports are not made for different groups but should be useful for all parties at the

same time. And the comprehension is dependent on the standards, which are used for these reports. The standards are defined in the 'International Financial Reporting Standards' which are used all over the world except in the Unites States. In U.S.A, the general accepted accounting principles (GAAP) are in use. The result is that the reports are all neutral and therefore usable for every interest group. (Walther 2009, 9.)

3.1.3   Management Accounting

In contrast, management accounting is conceived for internal purposes. That means the financial information is reported to the management and therefore the reports are more detailed than these in financial accounting. The figures are not only needed for making decisions but also for controlling and planning matters. Compared to financial accounting reports, managerial accounting reports are prepared without any defined standards and the management decides in which form the financial data is reported to external parties. That does not mean that the figures can be incorrect, that means that the figures are mostly presented in accumulated form. But as it is known, the management is not allowed to publish any confidential information to external groups. (Walther 2009, 9.)

No matter if it is for internal or external purposes, the financial data should be correct and this is simply regulated by law.

3.1.4   Balance Sheet

A Balance Sheet contains the financial data of a company within a certain period. It is mostly showing the equity, liabilities and assets at the current closing month. This statement is giving a clear overview how the company was performing during this period. And that is from interest for suppliers, any kind of investors, management, governmental institutions, competitors and customers. (AccountingCoach.com)

The figure 1 shows how a balance sheet could look like. This is an example from SAP. The balance sheet usually contains the company's name, the company code, the accounts, the period of reporting, the period of compared period, the difference between these periods, also the percentage of the change and of course the actual amounts.

```
 Financial Statements


                          UPM-Kymmene's FSV Group structure              Time 10:44:33    Date 13.09.2012
                                                                                          Page          1
 Company code     Business area    ****                                 Amounts in EUR

 C Comp Bus. Texts                                    Reporting period  Comparison period    Absolute   Rel  Sumtn
 F code area                                          (01.2012-08.2012) (01.2011-16.2011)   difference  dif  level
             A S S E T S
             .
             Property, plant & equipment
             Land and water areas
             0131000    H  Land and water areas, acquisitions
             Land and water areas                                                                            *4*
             .
             Buildings
             0132000    H  Buildings, acquisitions
             0132050    H  Buildings, accumulated depreciation
             Buildings                                                                                       *4*
             .
             Machinery and equipment
             0133000    H  Machinery and equipment, acquisition
             0133050    H  Machinery and equipment, accumulated
             Machinery and equipment                                                                        *4*
             .
             Other tangible assets
             0134000    H  Other tangible assets, acquisitions
             0134050    H  Other tangible assets, accumulated d
             Other tangible assets                                                                          *4*
             .
             Property, plant & equipment                                                                    *3*
             .
             Intangible assets
             Other capitalized expenditure
             0116000    H  Other capitalized expenses, acquisit
             0116050    H  Other capitalized expenses, accumul.
             Other capitalized expenditure                                                                  *4*
             .
             Intangible assets                                                                              *3*
             .
             Shares, subsidiaries
             0141700    H  Shares and participations, intercomp
             Shares, subsidiaries                                                                           *3*
             .
             Available for sale investments
             Unlisted shares
             0141100    H  Shares and participations, third par
             Unlisted shares                                                                                *4*
             Available for sale investments, total                                                          *3*
             .
```

Figure 1   Example for a Balance Sheet from SAP

3.1.5 Accruals

Accruals are used to provide more accurate information in financial statements. Before accruals have been in use, only cash entries have been recorded but these transactions do not give a whole picture of all important business activities. An example would be a company's revenue which is based on credit and also on future liabilities. The benefit of using accruals for a company is that it can see how much it owes another organization even over a longer period of time and on the other hand also how much revenue the company expects to receive from other parties. Furthermore the accruals enable a company to show assets which usually do not have any cash value. (Investopedia 2012)

3.1.6 Manual Accounts

A manual account is an account where the accountant can post accruals manually. These accounts are not blocked for postings and the content can be seen. The opposite would be an automated account where no direct postings are possible.

3.1.7 Consolidated accounts/ Group accounts

3.1.7.1. Group definition

A group is cooperation between companies concerning finance to manage the businesses of these companies. The group contains of one main company and one or more subsidiaries. A subsidiary is a company, which is managed by the main company. The main company owns at least 50% of the votes within another company. If the main company has less than 50% of the votes, it depends on the influence it has within the other company. For example, it has the rights to elect or dismiss the board of the subsidiary. (Sabel 2010)

3.1.7.2. Definition of consolidated accounts

If the company is a group of more than one entity, then it is necessary to create accounts for this group. This is needed to show the company as one unit which is especially in the investor's interest because it is not only showing the whole picture of the group but also showing its position. Another purpose is, that these accounts also display how much of its earnings the main company is able to distribute. This supports the decision about the payment of dividends to its shareholders. It also eliminates the intercompany transactions. (Sabel 2010)

3.2 Account Payable & Account Receivable

3.2.1 Definition of Accounts Receivable

Accounts receivable belongs to the category assets.
Assets are resources of a company, which will bring benefits for the company in the future. Assets including cash, buildings, land, several
pieces of equipment, patents etc.
Accounts receivable are defined as amounts that the customers have to pay to the company. In other words, if a printing company needs paper for its business performance than it is buying the needed paper from a company, which is manufacturing paper. The paper producing company is the party that has to send the invoice with the payable amount to the printing company. In the records of the paper manufacturing company this amount will be shown as accounts receivable. The money owed by a customer will turn later to cash when it is paid. The due date for payment is depending on the agreed conditions.
Now it is clear why accounts receivable belong to assets because it will turn into cash later and cash will bring future benefits to the company.
(Walther 2009, 16.)

3.2.2   Definition of Accounts Payable

In contrast to accounts receivable, accounts payable belong to the category liabilities.

Liabilities are amounts the company has to pay to other parties. These amounts usually occur while doing business. Liabilities could be loans, renewal of a credit or other debentures. So accounts payable are amounts that have to be paid to other parties. They are mostly paid in a certain time limit. For example, the paper producing company needs raw materials to produce its paper. That is why it orders these from the refer-ring company. The invoice including the price of the raw materials will be shown on the liability side of the paper company. So it is the company's duty to pay this amount to the other company, therefore accounts payable can be seen as short- term debt. (Choudhary 2011)

3.3   Goods Receipt and Invoice Receipt (GR/IR) account

3.3.1   Definition of GR/IR account

A GR/IR account is a "buffer" account between AP accounts. On this account all items which the company orders are recorded.(Clare 2011)

3.3.2   Process

To understand how the Good Receipt and Invoice Receipt account is related to AP and consequently related to intercompany matching process, it is useful to have a look on the GR/IR process. The figure 2 is showing the process when a purchase is made by a party and how the single steps are related to accounting.

A company A is buying some goods from company B. The purchase process starts with creating a purchase order for company B by company A. If the company A agrees with this purchase order then it will be a binding contract between both companies.

The creation of this purchase order creates a commitment in company A's financial records. When the goods are received from company B than a good receipt is recorded on company A's side. This transaction is going to the general ledger where the goods are entered and accordingly an accrual is made to the GR/IR account. This entry is shown then on the AP side.

The entry on GR/IR account shows this item as open as long as the invoice is received.

When the invoice is coming in, this transaction is noticed it general ledger and there the invoice is entered. This invoice is now matched with the accrual which was created beforehand in GR/IR account. If the invoice and the accrual are matching then the invoice is paid from the account payables side. If they don't match, the payment will not be made. This means that there have to be some investigations for the reasons. There can be different reasons for it. For example, the amount from the delivered goods is

different than the amount is written in the invoice. Or the invoice is missing and the accrual cannot be matched. In these cases there have to be made some corrections. (UPM Intranet)
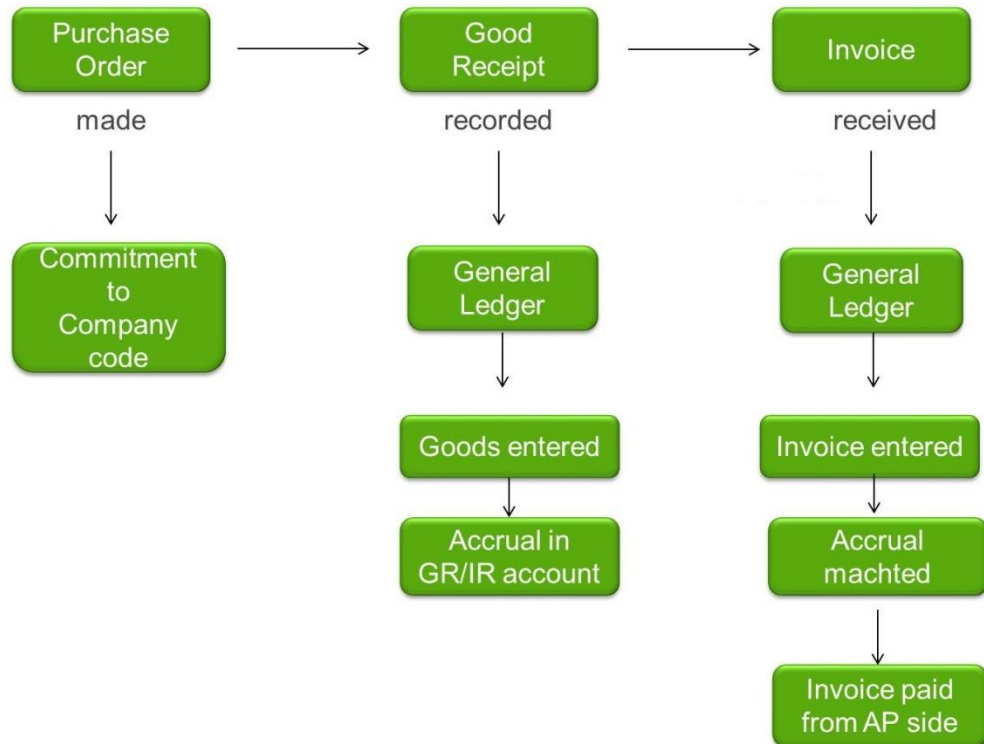

Figure 2   Purchase process

3.4   Trading Partner

Trading partners are an important topic when it comes to do business. Every company has at least one but mostly more. A trading partner is a party, which can be another company or even a country with whom the company is doing business together. This business is mostly trade in various ways. (Investopedia 2012)

The trading partners can act as buyers, sellers or exchangers of goods or services. The number of trading partners is depending on the business where the company is operating and on the company's size. A small company operating in the logistic business has probably less trading partners than a bigger company which is operating as manufacturer.

In SAP the trading partner is a different issue. Here it is used for intercompany postings and it is also used for follow up aims.

3.5   Company Code (CoC)

A company code is a code that represents a real legal entity in a system like SAP. This code consists of four digits and is used for multiple financial reports in accounting.

3.6   Tools

Tools are important aids to achieve the company's targets. Tools are not only tangible items like hammer and chisel but also computer programs and other intangible items. For example, Photoshop is software to edit different kinds of pictures and for a promotion agency, it is an important tool to create different promotional materials to achieve the goal of advertising a certain product.

No matter what kind of nature the tools are, they all have the same purpose to support the users with reaching the desired targets.

3.6.1   SAP

SAP is Enterprise Resource Planning software, which was invented to help to manage a business. It enables to collect data from different departments and make it easier to rotate the data between each other. This in turn helps to improve the communication between the single departments and offer accurate results for decision-making processes. This software offers multiple solutions for different kind of enterprises and every company can ad-just it for their own needs.
Although the information can be shared easily it is still possible to restrict the access within the departments due to different user rights to different platforms within SAP. This guarantees that confidential data can just be seen from parties who are authorized. Figure 3 shows the main menu of SAP. It has several options and it can be customized to the different needs of a company. (Oracle Corporation 2010)
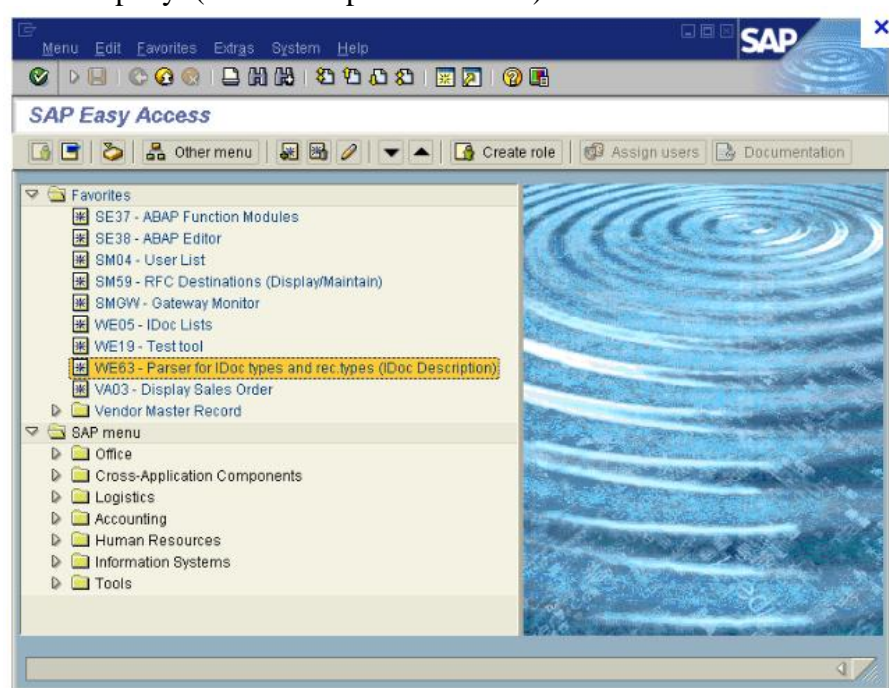
Figure 3   SAP main menu

3.6.2 Work instruction

Work instructions are a powerful tool, which is not only used in UPM but also in other companies. Who think it is just necessary for new employees, is mistaken. Especially in Closing and Reporting it is an extremely important tool.

Given that in CAR is centred on general ledger and bookkeeping, the most tasks are done only in the beginning of the month for couple days. These are the busiest days and require a lot of focus and concentration. Although the teamwork is an important tool within the company but due to the tight time schedules, independency is indicated and the work instruction is a great help in this situation. Even though the tasks are repeated every months end, it is difficult to remember every step and corresponding transaction codes. Due to the fact that in the different modules (general ledger, asset accounting and cost accounting) over 100 steps/tasks are existing and also changes in these processes are happening, it is crucial to have a reliable source of information to perform the tasks adequate and punctual. Above all a work instruction is a guide, which helps to harmonize the way of working and this avoids double work and makes the performance even more efficient. On the other hand, it is also relevant for audit purposes and it makes this process easier and faster. This supports not only the auditing process but it also keeps the daily work routine running during the auditing. In the end it guarantees an unobstructed progress and the company's efficiency will be unharmed.

3.6.3 Trading Partner Report

A trading partner report is a useful tool to get an overview about the trade with other companies. The trading partner report shows the trading partner, the amounts and the accounts where the receivables are posted. You have several options to run this report whether sorted by accounts or sorted by partner. Which version is chosen is depending for which need it is needed the report. It is also possible to see the company as a customer from the company's trading partner. There you can see the payables, which the company has to pay to their partners.

3.6.4 IC-Matching Tool in SAP

The IC-Matching tool in SAP is a tool, which shows the differences on the AP/AR sides for different company codes. The tool is quite helpful because the invoice or other proofs for open balances can be attached and also the accrual file (csv-file) can be created there. This is useful if the whole process is decentralized and more parties are involved. The information sharing between the different departments is fast and easy.
(UPM Intranet)

3.6.5   HFM- Hyperion

HFM is an abbreviation for Hyperion Financial Management and is an online application to provide a platform for financial consolidation, financial reporting, management reporting and also for financial analysis. It has several components and it can be customized for the relevant needs of the companies. The picture 3 shows the general log in page. The picture 4 shows the main menu from where it is easy navigate through the previous used programs. Picture 5 shows an example for analysis reports and in this case about costs and sales. (Cody 2010)
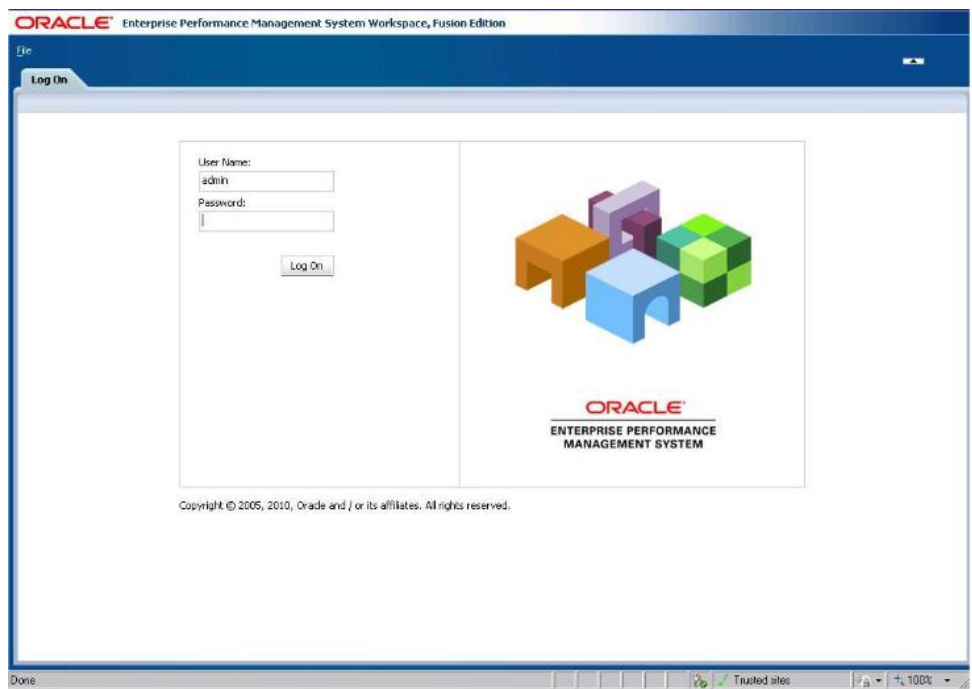
Figure 4   HFM log on page
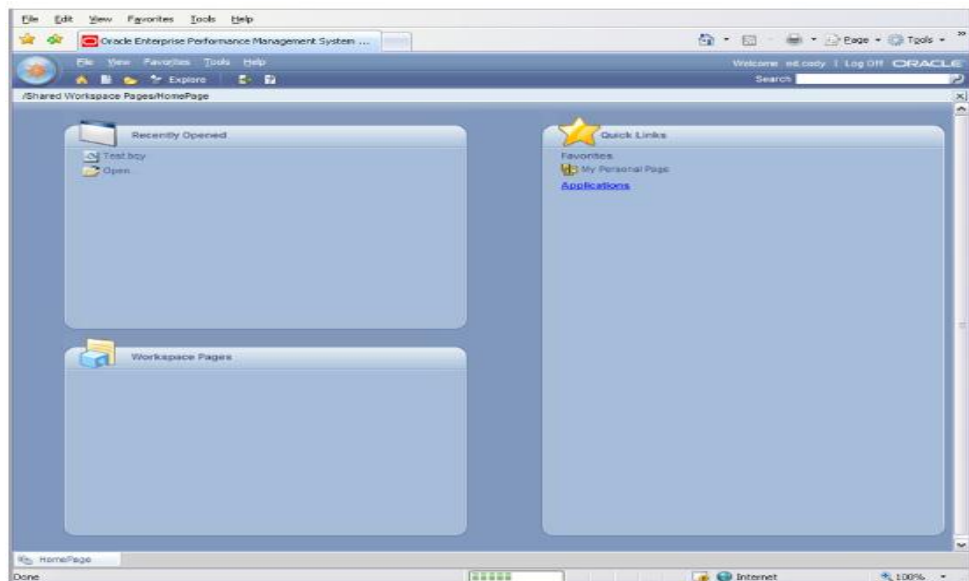
Figure 5   HFM main menu
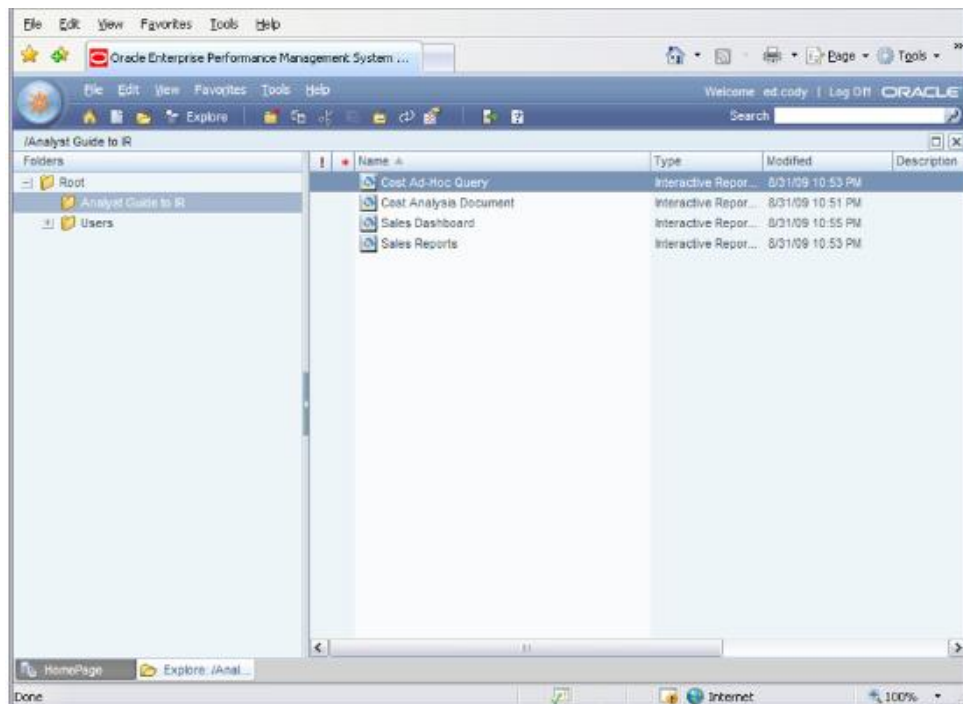
Figure 6   Example of analysis reports for costs and sales

3.7   Internal Controls

3.7.1   Definition of Internal Controls

Internal controls are a set of rules that helps to monitor several tasks and how they are performed. This is important to ensure that the results of the financial analysis are correct and trustworthy reported. The importance of accurate reports is fundamental for business decisions and decides about the future of the company. The rules are defined by COSO Framework (Committee of Sponsoring Organizations of Treadway Commission). This framework is worldwide accepted and has been developed to improve the company's performance and also to reduce the fraud. (The Committee of Sponsoring Organizations of the Treadway Commission 1985-2012)

3.8   Auditing

3.8.1   Definition of Auditing

Auditing is a process where the conduction of internal controls and other operations are monitored and appraised regarding to the reliability and accuracy of the reported information. In this process, the auditors checking

that the documentations of the performed tasks comply with the established criteria. It is conducted by an irrespective party either an internal or external one.

"The Institute of Internal Auditors" (IIA) has established a worldwide acknowledged definition of 'internal auditing':

"Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes."

*(*The Institute of Internal Auditors)

3.8.2   Process

The auditing takes place mostly one time in a year. The procedure can be carried out by internal auditors, external auditors or self-testing. Both auditors groups are independent although the internal auditors coming from the company but from another department. The external auditors are coming from an auditing/consulting company- in UPM's case from PWC. PWC is one of the biggest auditing/consulting organizations worldwide. It has offices in 158 countries. The auditors notify the company when they are having the auditing.

This is necessary because this process is influencing in one way or another the daily routine within the company. The auditors are sending a questionnaire to the responsible persons mostly financial controllers. This has to be filled and sent or handed out back to the auditors. After this, the auditors are going to the several persons in charge and ask them to show the documentation for sundry internal controls and they ask what the responsible person was doing for this control. The auditor makes notes and comments on the documentation. If the documentation is satisfactory, no further action is needed. When the auditor disagrees with the way how the control was performed or the documentation is not complete then there have to be a corrective action. This is mostly discussed with the financial controller or other authorized person.
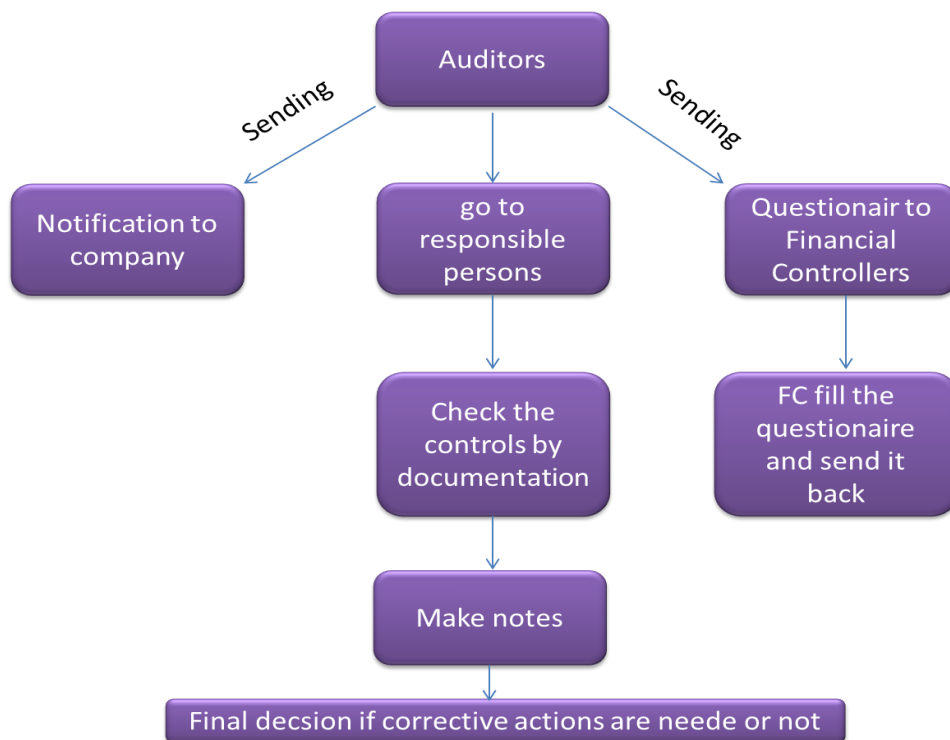
Figure 7   Auditing process

3.9   Intercompany Matching

3.9.1   Definition of Intercompany Matching (IC-Matching)

Intercompany matching is a process where the amounts on the AR side are matched with the amounts on AP side. As already mentioned on the AR side are all items recorded which another party is owing to the company. And on the AP side are all items recorded which the company owes to other parties. In other words is the company buying some raw materials from another party than these expenses are recorded in AP accounts. Other way around if the other party is buying goods from the company it will be recorded on the AR accounts. The seller is responsible to send an invoice for the purchased goods and the buyer is responsible to pay these. This simple process can bring up some problems. The reasons for these problems could be missing invoices or errors in the bookings. (UPM Intranet)

3.9.2   Importance of IC-Matching

To provide accurate figures to the management and to outstanding parties, it requires that all financial data is correct.
So what would happen when the intercompany matching is not performed?
The financial status of the company would not be correct and that draws a wrong picture to the management and to the other outstanding parties. The consequences are that the management is possibly making a decision for

an investment because the figures show that the company has enough money for this investment. But what if the figures show more available funds than there actually is? The decision would be wrong and for the company it will be a problem, which will have an effect on it the whole following year and maybe further. . Another aspect is coming from the Group consolidation point of view. It is important that the balances are the same on both sides so that the eliminations, which are made by the elimination program, are correct. Moreover, the Group's balance will be also correct without the intercompany items.

Example:

Company A is purchasing raw materials of worth of €60 000 from company B, €60 000 is recorded on the accounts receivable side of company's B side and usually company B is now in charge to send an invoice to company A. But it can happen that the company forget to send the invoice for this purchase and that means the €60 000 are not recorded on the accounts payable side from company A. This leads to a mismatch between company A's accounts payable side and company B's accounts receivable (see figure 7).

Figure 8   Example for importance of IC-Matching part 1

What does it now mean for the companies? Company A is not aware of the payment of €60 000 because it did not receive any invoice from company B. It is also not shown in the balance sheet as a liability of company A's side. And that gives an inaccurate picture of company A's financial situation. Therefore, company A would have less liability in the balance sheet than it really has. The inaccurate picture what the financial report is giving affects not only the decisions of the company's management but also these from external parties like investors etc. In company A's case it would mean that it has more money to use than it actually has according to the reported figures.
In company B's case it looks different. The company has already an entry on the asset side in accounts receivable. Consequently, the report will show that the company is receiving €60 000 in this month but actually will

not get it because it failed to send the corresponding invoice to company A. In the end, the financial reports will be inaccurate on both sides. To avoid the impreciseness in the reports and to provide correct figures for all parties it is necessary to make corrections. The easiest way to do this is that company B is sending an invoice concerning this €60 00 purchase and company A is doing an accrual in the amount of €60 000. Company B's entry on accounts payable would be correct and company A will record the €60 000 in accounts payable on liability side. The whole picture of the financial report is correct and the decisions from internal and external parties are based on the right figures and therefore the risk of miscalculations is on a minimum level.

3.9.3 IC-Matching process

Before the intercompany matching is starting and to make the current situation more clear, the mismatches were discovered and analysed why they are existing. If the reasons for the mismatches are easy to fix then they are fixed before the periods for accounts payable (AP) and accounts receivable (AR) are closed. This is not always possible because not all cases are clear because not all entities are in SAP. That means it is not so easy to compare the balances on both sides like it is with entities in SAP. While the comparison between SAP entities is done via SAP reports and they can directly be reconciled. This is not working with the reconciliation between a SAP company and a Non-SAP company. The reason is simple; there is no data available in SAP to use for the reconciliation. For this reason it is necessary to get the balances separately confirmed by the Non-SAP company. This is mostly done by using confirmation letters, which are filled in and signed in order to make sure that both parties have the same balances in their books. This ensures that the postings later will be correct.

After all of the confirmations are received, accruals are made for the already investigated mismatching items. In UPM's case, these are made in SAP with the so called IC-Matching tool. This tool shows the mismatching items with the related companies. The tool also contains the needed Csv-files and invoices as attachments. Furthermore an Excel- file is prepared to list all existing items and supporting documents are saved separately into the database which the IC-Matching tool is not able to cover. Another important step in this process is to compare the AP and AR on intercompany level with the general ledger and sub ledger and the findings are reported to the responsible team mostly via an Excel file.

The responsible team is in charge to do the needed accruals. Therefore, it is needed to contact the business controller of the units to ask the right accounts, cost centres or profit centres for the postings. After these postings are made, it is necessary to document that all parties have the same balances in their books. This documentation is defined in internal controls and is regularly controlled by auditors. To document intercompany matching, different kind of reports are used and reconciled with each other. (Wan, e-mail 14.08.2012)
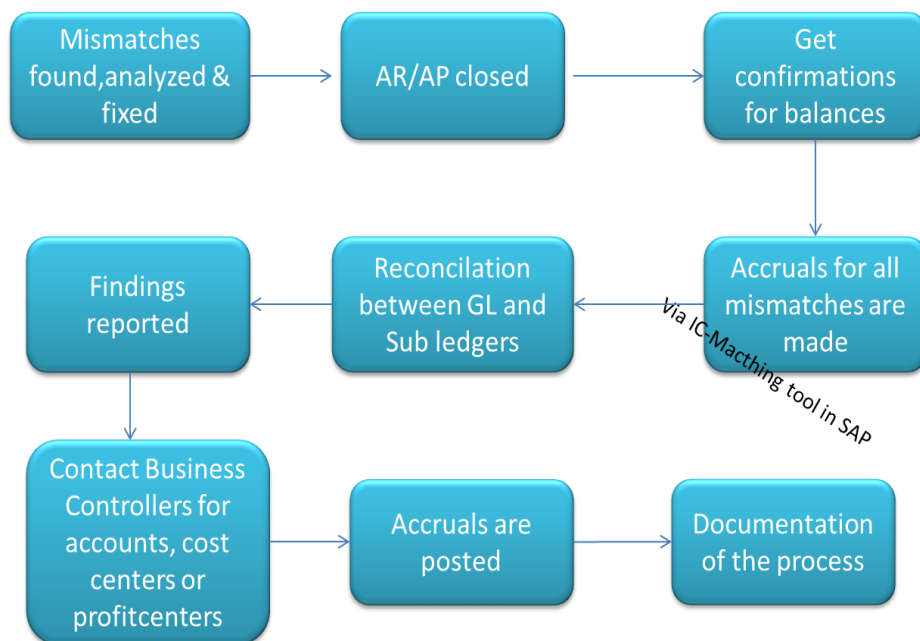
Figure 9   IC-Process

4   CURRENT SITUATION IN UPM

As mentioned in the instruction UPM is a big and global operating company due to this fact the company has a big number of employees and a quite big personnel turnover.

This is mostly caused by parental leaves or also by other issues e.g. personal situation changes of the employees. This fast changing environment within the company requires a fast reaction and good preparation not only from Human Resources side but also from the work place itself.

4.1   Importance of work instructions in UPM

A company wants to work efficient and effective to be comparative and successful. Therefore it is necessary to cover personnel changes as fast as possible and also to train the necessary tasks in adequate time frame. To realize this in a fast way, it is important to have several tools, which can be used for the trainings. Thereby it is not only enough to have a person as trainer for the new comer but also a good work instruction. New comers are not only people who enter the company for the first time but they also can come from within the company from another department or even just from another responsible area. For example can the new comer be a person who worked in CAR but his/her field of experience was only asset accounting so far, now he/she is getting additional tasks in another field. So

he/she is a new comer in this field. Another example would be that a person from supply chain department is changing his/her position to another one in another department. Here he/she is also a new comer. Moreover, in accounting the quarter-ends and year- end are important. These tasks are just performed within these periods of a year. Due to the heavy workload, the huge number of tasks and the tight schedule, it is not easy to remember how to perform the task and also to remember the correct transaction codes. Another aspect is, as already mentioned, the changes in responsibilities. For example some tasks are transferred to another department in another country where the staff has never performed these kinds of tasks earlier and the training from the former location is quite difficult, it is important to have a reliable tool which can be used from all personnel in the same way. That is why a work instruction is an important tool within an organisation.

In UPM the case is that period end tasks have been transferred to Shanghai. So how to train them these tasks over this distance and time difference without influence the daily routine in their work and avoiding extra work ? The solution is to provide a ready-made work instruction for these tasks and distribute it within the organisation. In UPM the working language is English therefore the instructions are written in English and all employees are able to read them. The distribution is handled by saving these in according folders in the global network. The global network can be the global drive or also some company internal web sides. The advantage is that everyone with viewing rights has access to the data, no matter where they are located. This method reduces travelling cost, training costs and eliminates the time difference as an issue. Of course there could be some obstacles like the right understanding of the instructions. Although the language is here not an issue but the constitution of the written text and illustrations within the instructions can be misunderstood or misinterpreted. This can lead to incorrect results or the performance of the task will take longer which also can slow the closing process. As a consequence of this, meeting the deadlines and avoiding overworking hours cannot be guaranteed and these are crucial points to work efficiently.

4.2   Current Intercompany Matching process in UPM

At the moment the process in UPM is decentralized. The responsibilities of this process are split within three departments: ICR team Shanghai, CAR Tampere team and GAR team Helsinki.

ICR team is responsible of the AR/AP intercompany matching. They are checking the AP and AR accounts from 69 companies and analyse the reasons for mismatches. This is mostly working within SAP. But not all companies are in SAP, therefore they have to get confirmations from companies which are not in the SAP system. In their responsibilities are also to prepare a CSV- file for accruals of the mismatching items. This CSV- file is a part of the IC-Matching tool in SAP. The CSV-file is not complete

and has to be checked from CAR team. Moreover, they are providing a separated Excel- file to give an overview for all companies which items are missing and on which side it is missing. This should assure that CAR can choose the right accounts for the accruals. The ICR team is sending all these information to CAR team. ICR is not checking the items on GR/IR accounts and the manual accounts that can cause double work.

CAR is receiving the information via e-mail and IC-Matching tool in SAP. The responsible person for His/her company code is checking from both resources and also from trading partner report in SAP the mismatching items. This checking is necessary because it could be possible that there have been made already correcting entries for AP or AR. After that step CAR has to find the correct manual accounts to post the missing amount to. The account depends on the nature of the missing item that means whether it belongs to an item of maintenance or transport costs etc. The contra-account is depending if it is an accounts payable or accounts receivable posting. But to be sure about the accounts, it is necessary to ask confirmation from the business controller of the particular unit. After the confirmation is received, the posting can be made and can be posted.

This posting is seen immediately in SAP and especially in the trading partner report. CAR is also responsible to document the IC-Matching and proof that all balances are matching. After this matching the data is uploaded to HFM where the final check is made after sending the data to the group head office in Helsinki. GAR is doing the final check according to the submitted reports of all units.

4.3   Problems with the current process

Although the process is clearly split between the three departments, there are arising several problems during this process. These are time consuming to solve and also problems with the on-time reporting. IC-Matching is not the only task which has to been done in a quarter closing. And on-time reporting is an essential issue within the company.
The following pictures show the problems, which the different units in different business areas had have in the IC-Matching process.

4.3.1   Problems within the Paper Business area

The French unit had several problems. The first point was that the provided information from ICR team just considers the items on AP/AR side and not the items in GR/IR accounts. This means that CAR has to analyse and match the item in GR/IR and that takes more time within this process.
Another problem was that the lists for the postings from ICR team were not correct and they had been corrected which means in this case double work. That double work has also an effect on the efficiency.

The Finnish unit had some similar problems like these in France like the incorrect lists with the postings. In addition, the intercompany payments came too late that effects the whole matching and can lead to late reporting. The Finnish unit has also a problem with the huge amount of invoices on both sides AR and AP. It is difficult and time consuming to find the right items and also to find the right accruals for these ones.

The German units had the same problem as France had with the missing GR/IR items which the ICR team has not in scope.

IC-Matching in different units

	Unit	Problems during the process
	France	ICR team just concentrate on non GR/IR items -> Trade receivables and Trade payables There were wrong postings from ICR team China. ICR team have no contact persons for questions about CCs, PCs and right accounts (e.g. for special items etc…)?
PPEF	Finland	ICR list was not correct and was corrected later IC payments were notb in time. Invoice were paid to late Big effort to find the right items and accruals. Too many invoices in AR/AP IC-matching tool was not useful due to the fact that not all items could be found there. TP- Report was okay, but too long lists and no possibility to compare directly. HFM ICP Report really helpful tool.
	Germany	Maybe two mistakes in past Problems with GR/IR accounts which are outside ICR team scope Some work done beforehand with "problem partners" -> helped a lot
	Austria	Done monthly between Ausrtian company codes Small amounts to accrue but needed to be accrued. Reason why difference? Also could be agreed 1 person to do instead of 4. Or to have a "cycle"= everyone matches 1 cc instead of 4 people matching each 3 company codes

Figure 10   Excel file about the situation in Paper units

Other business areas have different kind of problems.
In Forest/ Timber/ Plywood had not been any problems. Therefore in Label units has been the problem that the provided Excel was not as user friendly as expected and that there was no possibility to check the matching of the balances by themselves. Sales companies had the problem that not all of their units are in SAP and therefore it is difficult to compare the balances.

FORTIMPLY	Tilhill	Print tp-report AR and AP, NO PROBLEMS, nothing printed from the IC matching tool. Checked the IC-Matching tool in the closing but not printed anything from there. Printed just trading partner report.NO PROBLEMS
Label &Sco	Label companies	Access rights, not possible to check yourself whether balance matches Some problems with the IC-matching tool not creating correct accrual reports. Should be solved by now. Excel not as user-friendly as the trading partner report **IC-matching executed every month end between Raflatac companies!**
	Sales companies	TP report useful when possible to check balances from both sides. Variant "IC MATCHING" is used, very practical in matching balance sheet accounts Especially small offices that are not in SAP. Also used with parties where the access rights to view balances are missing (internal banks, German parent company) IC-Matching tool user interface could be improved. The mix between Notes Database, SAP and e-mail should be possible to combine somehow into one platform. Not usable for non-SAP entities.

Figure 11 Excel file about the situation in Forest/Timber/Plywood, Label units and Sales units

After analysing not only the Excel file from quarter two but also the gathered information from colleagues and the author's own experiences, the result showed that there are the same problems for all units according this process. But not only problems have been figured out but also a different way of working and documentation of this process has been revealed.

The similar problems for UPM concerning IC-Matching are: incomplete CSV-file in IC-Matching tool, the incorrect lists ICR team is providing, the too narrow scope of the ICR team analysis and also the unclear Excel-file.

The IC-Matching tool is actually a good tool for this process but due to the incomplete CSV-files the people do not use it and if they do they just use it for viewing the invoices, which are attached on the CSV-files. But in general this tool should be used for IC-Matching therefore it is invented and that would also assure a harmonised way of performing this task.
The scope of the ICR investigations is too narrow. They only are investigating the AP and AR items. This analysis is not enough because possible corrections cannot be seen after AP/ AR are closed. This leads to double work and also more work for the CAR team which has to investigate the GR/IR items.

And the Excel- file with all accruals that have to be made is not as clear as it should be. To understand this file takes time and is confusing.
All these aspects make the process slow and time consuming. This process has to be harmonized and developed. Therefore, it is not only a harmonized work instruction is needed but also some other changes within the process.

5 SOLUTION

One way to harmonize the process of IC-Matching is to have a work instruction. In this chapter, the work instruction is introduced. The layout of this instruction is based on the usually used structure for work instructions in UPM. Therefore the person "you" is used here. Due to the confidential information the company codes and the actual amounts are garbled.

5.1 IC-Matching work instruction

5.1.1 Purpose

Intercompany matching is important to avoid incorrect figures in financial reporting to financial accounting and management accounting level. This will ensure that all decisions are based on accurate figures and the whole

financial picture is trustworthy for external parties like investors. . Intercompany matching should be reconciled quarterly due to Group consolidation purposes.

5.1.2   Reconciled group accounts

The following figures are showing the consolidate accounts which are reconciled.
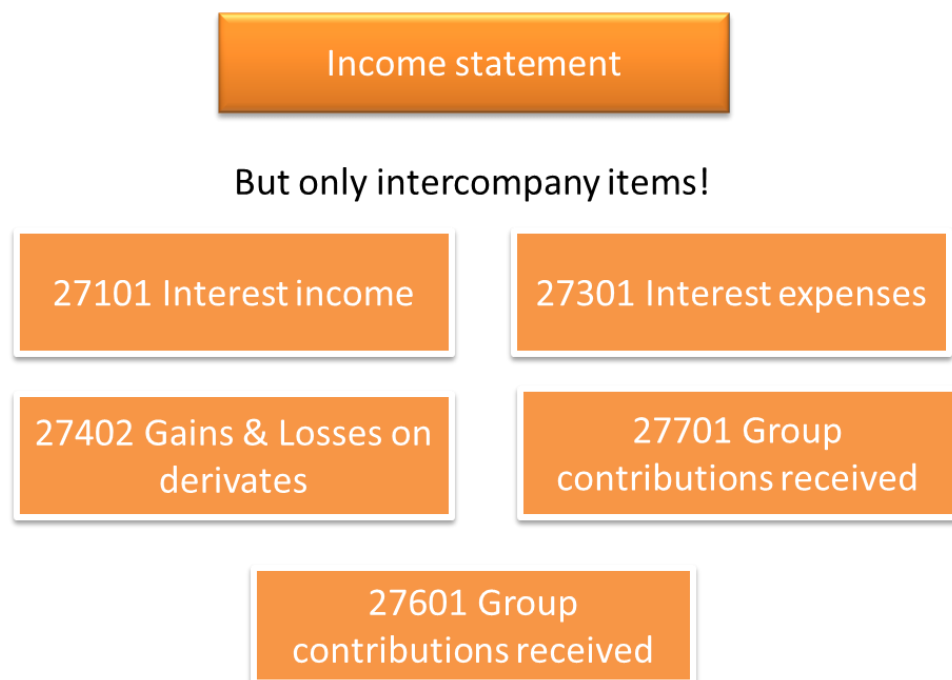
Figure 12   Group accounts in income statement

Assets

But only intercompany items!

50362 Loan receivables	50101 Trade receivables
50141 Prepayments & accrued income	50181 Other financial assets
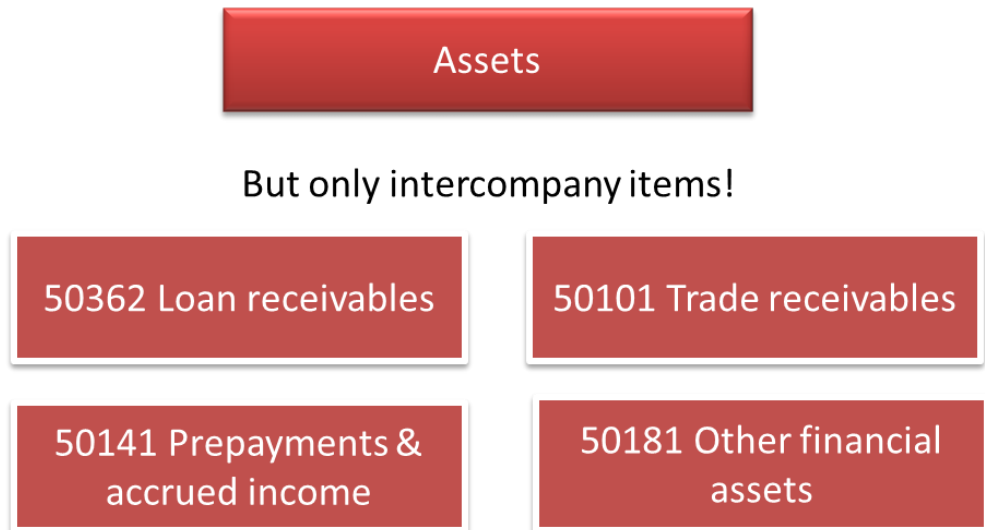
Figure 13   Group accounts on asset side

Liabilities

But only intercompany items!

80651 Other long-term liabilities	80511 Advanced received
80501 Trade payables	80521 Accrued expenses & deferred income
80561 Other current liabilities (internal bank)	
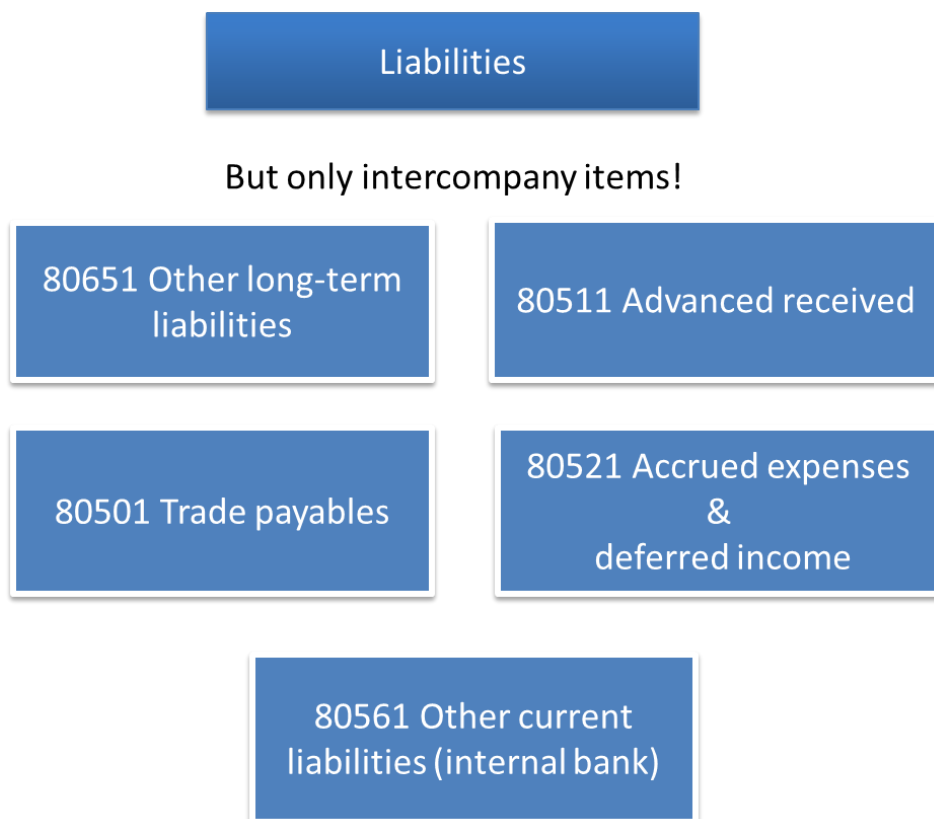
Figure 14   Group accounts on liability side

It is possible that not all accounts are necessary and it is possible to check the relevant accounts with the following transaction in SAP: ZACCHYP

5.1.3 ICR-Team

ICR team is reconciling the following automated intercompany accounts within SAP.

Accounts receivables:

Figure 15   Automated accounts on AR side

Accounts payables:
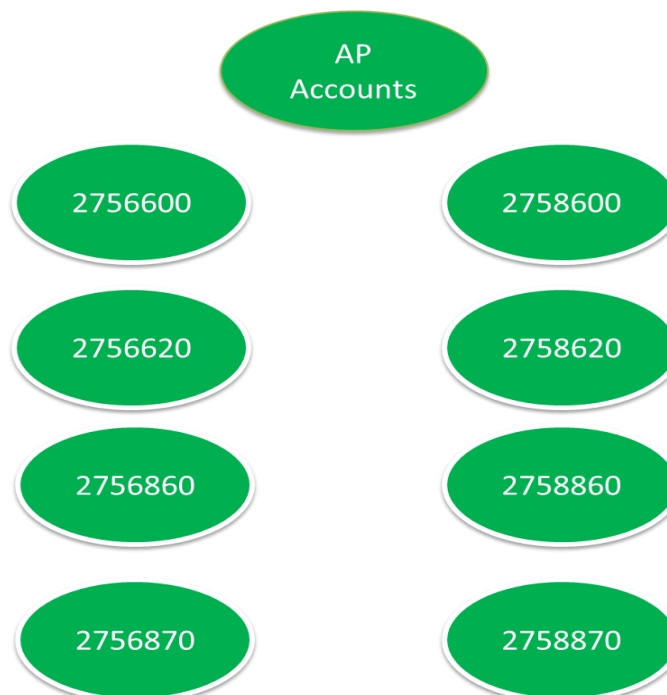
Figure 16   Automated accounts on AP side

CAR is responsible to make accruals for the missing items, which has been identified and informed by ICR team. These accruals are posted to accounts, which are ending with -810, e.g. 1816810 or 2756810.

Attention! These balances are reconciled from ICR team and therefore it is not needed to send any confirmation request for them.
Check only the balances in IC- Matching tool, the balances in trading partner report and also in the balance sheet.

After receiving the confirmation of the finished matching from ICR team, start to check the balances.

5.1.4   Checking automated AR accounts

Transaction ZFI_IC_MATCH is used.

You have to select the following variant: IC MATCHING -Excluding non-UPM cocos AP.
Add your company code.
Change the date to the closing date.

Run the report for : ☑Matching balances and ☑Mis-match balances.

The matching balances have a green light behind the item.

If you double click in the total line you get this following screen.

This screen shows all matching items in the currency which is used in the document. These are matching and no other actions needed.

Mismatching balances have a red light behind the item.

If you double click in the totals you get the following screen.

This screen is showing the difference in this currency which is used in the document. And here is also a red light shown for the mismatching.

After ICR finished their matching you can also find the invoices as attachments.

Now reconcile the total amounts of both reports with the trading partner report.
Therefore, transaction Y_UD2_51000172 is used.

Select following variant: /ICR AR- Check AR
Add your company code.
Change the date to closing date.
Run the report.

Furthermore, compare the total amount of this report to the balance in the balance sheet for following accounts: 1816600-1816620, 1818600-1818620.

5.1.5   Checking automated AP accounts

Transaction ZFI_IC_MATCH is used.

You have to select the following variant: IC MATCHING -Excluding non-UPM cocos AP.
Add your company code.
Change the date to the closing date.

Run the report for : ☑Matching balances and ☑Mis-match balances.

From here the procedure is the same like on AR side. So see the instructions above.

Reconcile the total amounts of both reports with the trading partner report. Therefore transaction Y_UD2_51000172 is used.

Select following variant: /ICR AP- Check AP
Run the report.
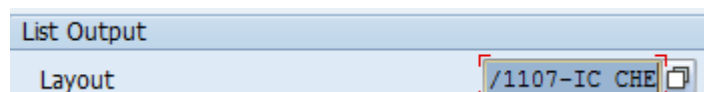
Export the report from IC-Matching tool into Excel.
Calculate the differences and check the manual accruals.

Afterwards run following report:

FBL3N - Account -> Display/Change Line Items

Choose the following Layout:

List Output	
Layout	/1107-IC CHE

With this report you can check if all invoices are accrued.

5.1.6   CAR Team

CAR team is responsible to reconcile, investigate and correct manual accruals of intercompany accounts. As evidence for this reconciliation use the ICREC-Excel file where you also can put the confirmations in. How to use this you can find in the documentation part.
As a common rule in IC-Matching the seller's book entries are correct and the other party has to correct its book entries by accruing the missing items. The company with the receivables in its balance sheet has to ask for the confirmation.

Print the balance sheet and check all other intercompany balances than already mentioned:

- ✓ AR/AP accounts ending with -820
- ✓ Non-current receivables
- ✓ Account groups 17x6
- ✓ Other current receivables
- ✓ Account groups 1826,1836,1856
- ✓ Corresponding accounts in liability side
- ✓ GR/IR accounts 2759600 and 2759700

Run trading partner report Y_UD2_51000172.
Choose one of these variants:

Variant name	Short description
/CAR CHECK AP	AP Balances to rec. by CAR
/CAR CHECK AR	AR Balances to rec. by CAR

Attention! /CAR CHECK AP includes also the GR/IR accounts.

Print out the report and attach some kind of confirmation of the counter parties' balance to your report. The confirmation can be an e-mail showing the balance, a confirmation form or a print out from SAP trading partner report.

5.1.7   Documentation

For the documentation an Excel file has been created by the author and a co-worker of CAR. The reasons for it were too many different ways of documentation (comment from auditors) and too many papers. The Excel

file should help to harmonize the documentation and should avoid to waste paper.

5.1.7.1. Excel file ICREC

The file consists of different sheets. The first one is a short instruction how to use it but in this work instruction, you can find a more detailed one.
The second sheet is the trading partner report of your company. The other following are sheets for your trading partners. After these, you have a sheet with exchange rates and the last one is the reconciliation sheet.
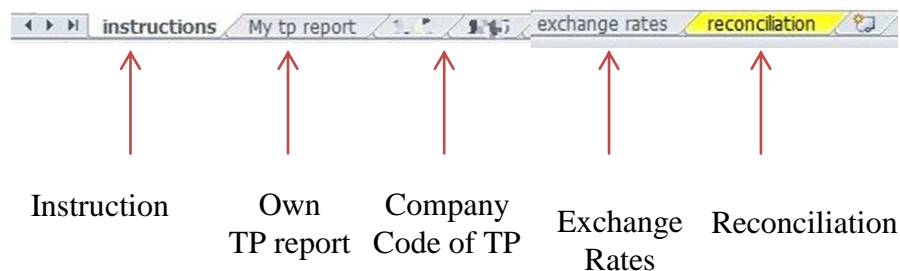

Figure 17   Sheets in Excel file ICREC

5.1.7.2. Instruction for the ICREC template file

First run the trading partner report for your own company code.
There is a variant you can use. This variant includes all necessary accounts.
Variant: 1008 IC-MATCH

Just adjust the company code, fiscal year and also the period. Important is here to **sort by partners**. Execute.

After running the report, export the report as spreadsheet and copy the report into the sheet "My tp report". It is **important** to copy it in the **cell B1** because of the formulas. The formulas are also the reason why the column A is hidden.

Now run the trading partner report for all you trading partners.
The variant is the same like above: 1008 IC-MATCH

In the field "Company code" you put your trading partner and in the field" Trading partner" you put your own company code in.
Adjust the fiscal year and also the period. And again choose **sort by partner**. Execute.

After running the report, export the report as spreadsheet and copy the report into the corresponding sheet (separate sheet for each company code). **Important** is to paste the data into **cell A1.**

The data is shown in the reconciliation sheet. There you can see the difference directly and also in the currency of your company code.

For companies which use another currency than EUR, there is the sheet "exchange rates". This has to be up dated with the current exchange rates. The column G and H are locked for editing.

Exchange rates

Interim closing of 30 September, 2012

UPM

	End rates at 28.9.2012	Average rates 7-9/2012
AED	4,7461	4,5964
ARS	6,0642	5,7447
AUD	1,2396	1,2035
BGN	1,9558	1,9558
BRL	2,6232	2,5359
CAD	1,2684	1,2447
CHF	1,2099	1,2035
CNY	8,1261	7,9410
CZK	25,141	25,082
DKK	7,4555	7,4457
EUR	1,0000	1,0000
GBP	0,79805	0,79153
HKD	10,0258	9,6962
HUF	284,89	283,05
IDR	12380,86	11876,24
INR	68,3480	68,9706
JPY	100,37	98,30
KRW	1439,33	1416,52

Figure 18   Exchange rates example

The reconciliation sheet helps to have a fast overview about all the balances in the 18…starting accounts and the 27…starting accounts.

The left side of the table represents your company code and shows the total balance of all18- accounts and 27-accounts. In the first table, the total balance is shown on the one side in EUR and on the other side in CNY.

In this case, the other company is a Chinese company and the currency is CNY.

The middle column shows the difference between both entities in the currency of your own company.

The right side of the table shows the other party and its total balances of all 27- accounts and 18-accounts.

The second table is the same except that the currency is the same in both entities.

my cocd						counter side cocd
my cocd currency	my cocd balance in EUR	my cocd balance in CNY	Diff EUR	counter side balance in CNY	counter side balance in EUR	counter side currency
EUR						CNY
18-accounts 18..	17.570,76	146.584.86	0,00	412.584,25	-17.572,76	27-accounts 27..
27-accounts 18..	0,00	0,00	0,00	0,00	0,00	18-accounts 18..
	17.570,75	146.584,86	0,00	-142.584,86	17.570,76	

my cocd						counter side cocd
my cocd currency	my cocd balance in EUR	my cocd balance in EUR	Diff EUR	counter side balance in EUR	counter side balance in EUR	counter side currency
EUR						EUR
18-accounts 18..5	14.523,93	14.551.93	0,00	-14.568,53	14.568,93	27-accounts 1517
27-accounts 18..	-5.711.561,56	3.734.981,85	0,00	3.734.861,85	3.734.981,86	18-accounts 18..
	-5.786.902,33	-5760.932,93	0,00	3.730.002,93	9.700.902,63	

Figure 19   Reconciliation sheet

The tables consists formulas and you can copy the whole table for each of your trading partners.
Change the company code to the trading partner's company code in column G (red circle).

As mentioned the table includes formulas and therefore you have to make some adjustments.

The SUMIF formulas refer to several sheets. The formulas in column F need adjustments: Therefore, you need to change the trading partner cocd in the SUMIF formula which is the same like in column G.

Figure 20   Table from reconciliation sheet

And also check if the totals at the end are the same. This ensures that the total balance in your trading partner report is matching with the total sum of the other separate sheets from your trading partners.
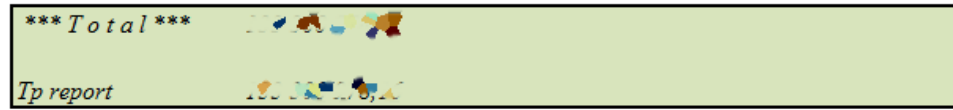
After you have made the changes once for your company code it is easy to make just small adjustments if they are needed. Please make sure that you have prepared the file for Q4/2012. You can also test it beforehand with Q3 figures.

This file should be saved on G-Drive in your company files. It is enough to document it digital. There is no need to print it out. Please make sure that the date and the name of the responsible person is entered in the reconciliation sheet.
You can print out the reconciliation sheet for the final check with ICP Report from HFM.

5.1.7.3. Final check in HFM with ICP report

First step is to log into HFM.
Then choose: Administration/Manage Documents
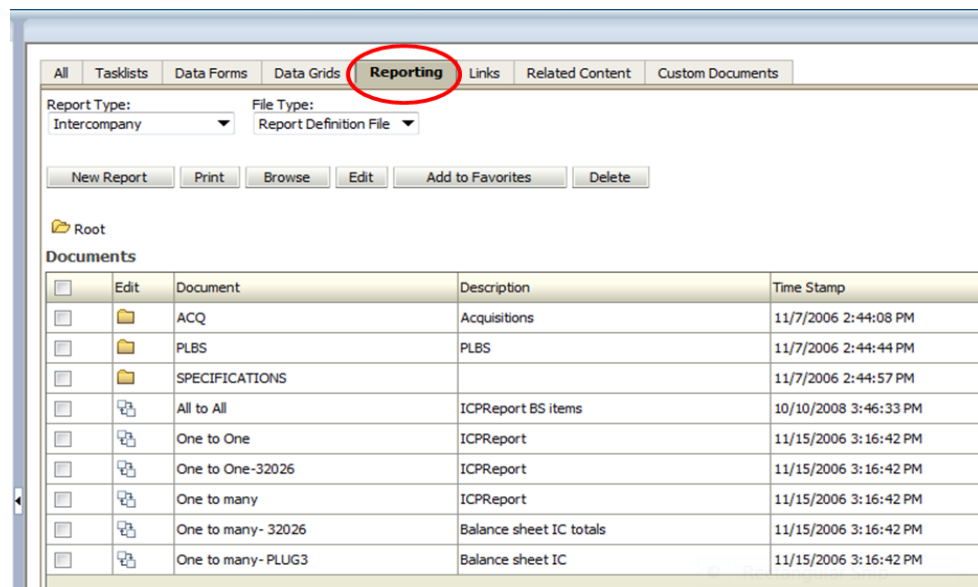Click on the reporting sheet:

Figure 21   HFM Reporting sheet

Select "Intercompany" as report type (red circle).
Then click on "One to many" (blue circle).
The report "One to many" is useful for single units. For more detailed accounting information you can use "All to all" report which shows all entities of UPM.

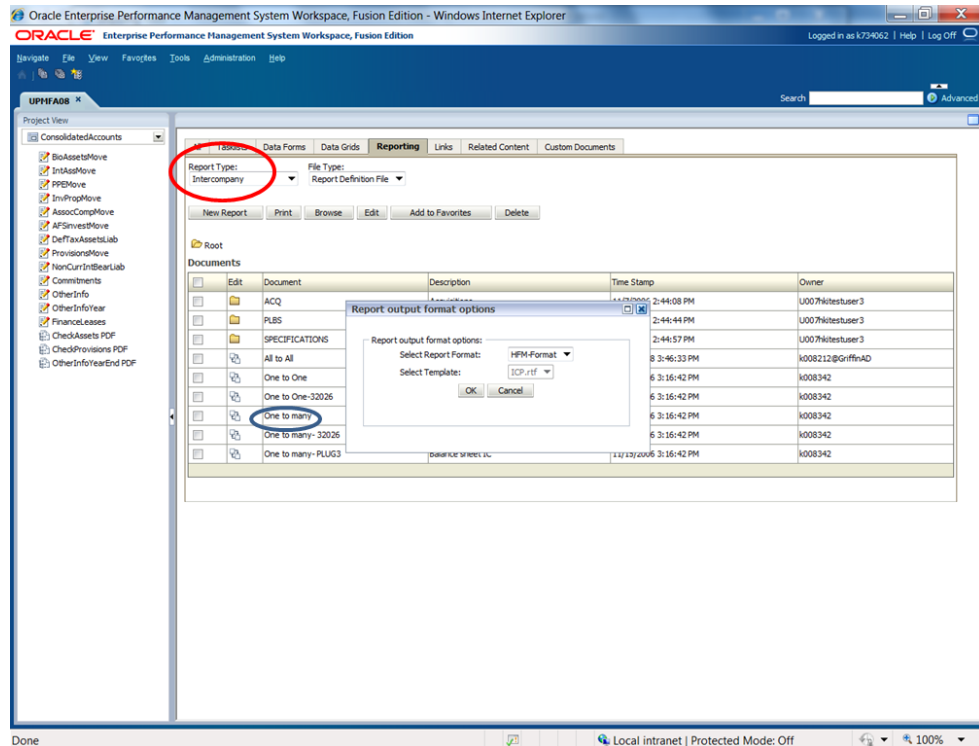Then click on "Ok".

Figure 22   Report selection screen in HFM

After you clicked "ok" you get the following screen.
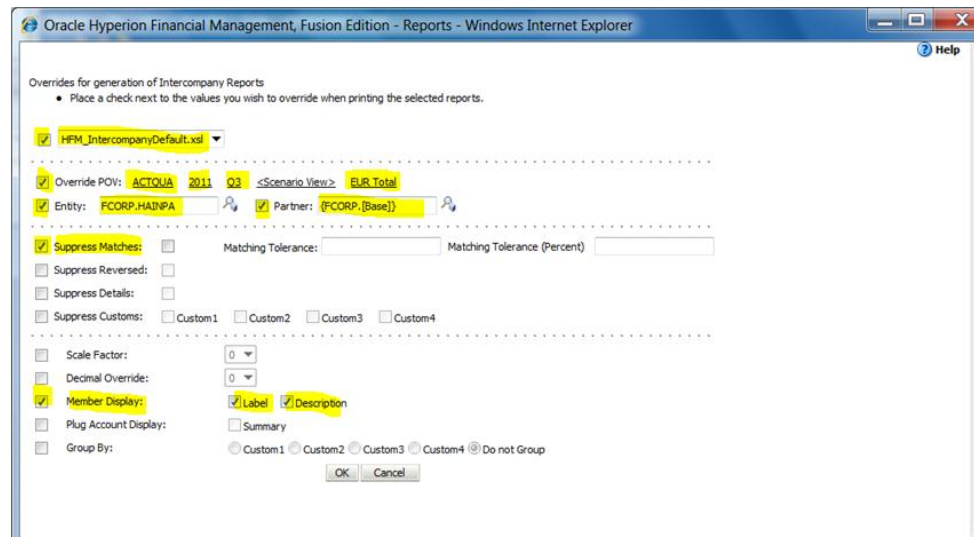Choose following criteria:

Figure 23   Criteria screen in HFM

Please make sure you choose 'EUR Total' because otherwise it will give
you the difference in different currencies like GBP etc.
Select your unit as entity.
Note! If you are running the "All to all" report, please select
{FCORP[Base]} for Entity and also for Partner.

Now to find the right partner make following selections:
Partner: {FCORP[Base]}: select FCORP, then click the little folder icon
beside it (orange circle). Select [Base] for Selector field & click the
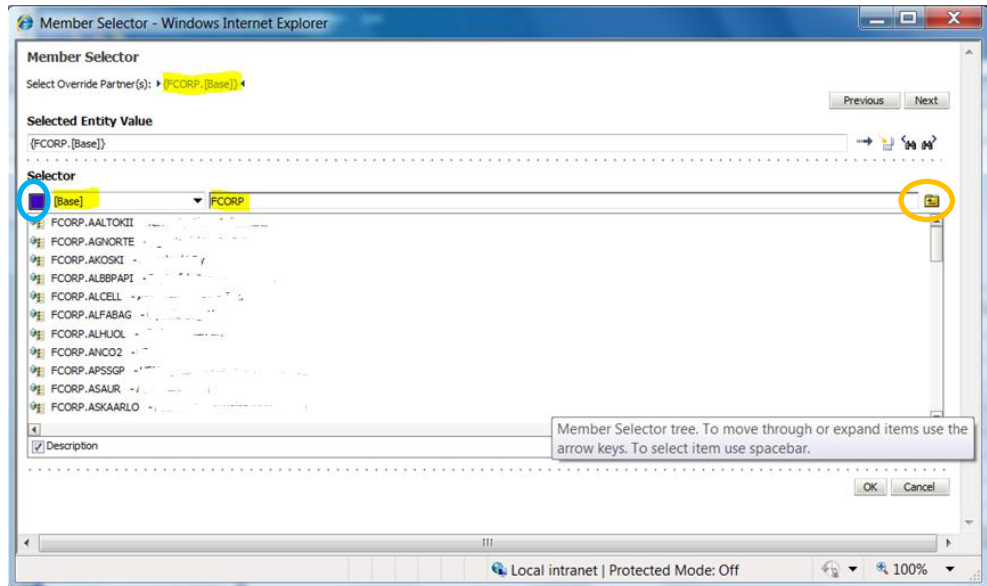square besides it (blue circle).

Figure 24   Member Selector screen

Then click on "ok".

This is how the report looks like:

Figure 25   ICPReport

Please note that this final check can be made after you and all other units
have uploaded their figures to HFM FA. In case there appears a 0 on the
partner's side, it is possible that the figures are still coming. So please wait
and please avoid unnecessary questions during this busy time.

The ICP report from HFM has to be printed, dated and signed.

6 CONCLUSION

During the research of this topic, it became clear that the process of IC-Matching is not too complex at least not in the theory. In practice, it looks a little bit different.
Due to the decentralization of the IC-matching process within UPM, it became a complex and time-consuming process. Because of this complex process, there is more than one possible solution for harmonizing this procedure. The work instruction is only one solution to make this process faster and easier for everyone.

After the research there have been some more ideas developed. One idea would be to reassess the responsibilities within the different departments. Due to the current split of responsibilities between the departments, the process is a bit slow. One reason is the incomplete Csv-files in IC-matching tool provided by the ICR team. This leads to a time consuming search of the correct accounts and the confirmations from business controllers in this busy period of time. The idea is that ICR team in Shanghai would complete the Csv-files with all needed information like accounts, cost centers or profit centers. Therefore, that CAR is just quickly checking the file and uploading them immediately.

Another idea is to ask from business controller to send a list of possible accounts with corresponding cost centers/ profit centers. That would make the process also faster because no matter who is responsible for the filling in the information for the postings- ICR team or CAR team .This list can be provided already before the quarter closings and have to be up dated quarterly or if major changes will happen.

Nevertheless, these two ideas have to be investigated and discussed further within the departments. The harmonization in UPM is not impossible but it will take a while to get the changes working. Several factors have to be considered concerning these changes. One big factor is the question how to implement these changes with the current resources in the different departments.

SOURCES

AccountingCoach, LLC 2004-2012. Site editor Harold Averkamp.
http://www.accountingcoach.com/

Choudhary,R.2011. Accounts Payable. SlideShare Inc.
http://www.slideshare.net/ramendrachoudhary/sap-accounts-payable

Clare,V.2011.Guidiance on…clearing GR/IR accounts. University of Sheffield
http://www.shef.ac.uk/polopoly_fs/1.5561!/file/clearing_GRIR_account.pdf

Cody,E.J. 2010 An overview of Oracle Hyperion interactive reporting. Enterprise Articles Oracle
http://www.packtpub.com/article/overview-of-oracle-hyperion-interactive-reporting

Investopedia US, A Division of ValueClick, Inc. 2012
http://www.investopedia.com/terms/a/accruals.asp#ixzz29NBNYA7B

Oracle Corporation. 2010
http://docs.oracle.com/cd/E19509-01/820-4380/dsgn_sap-ale-otd_t/index.html

Sabel, N.2010. Consolidated accounts. University Akelius
http://university.akelius.de/library/pdf/consolidat_sabel_nata1010.pdf

The Committee of Sponsoring Organizations of the Treadway Commission 1985-2012
http://www.coso.org/

The Institute of Internal Auditors 2012
https://na.theiia.org/Pages/IIAHome.aspx

UPM 2012
www.upm.com

UPM Intranet 2012

Walther,L.M. 2009.The Accounting Cycle.Christopher J. Skousen & Ventus Publishing ApS
http://bookboon.com/

Wan, Tony. Sent 14.08.2012. RE: IC-Matching Process. [e-mail message]. Recipient Katja Haase. Viewed 14.08.2012