



**EUROPEAN  
KEY IT AND  
MANAGEMENT  
ISSUES**



**TRENDS FOR  
2012**



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**T**he importance of the impact of IT on organizations around the world, especially in light of the global economic crisis, has amplified the need to provide a better understanding of the specific geographic similarities and differences of important IT managerial and technical trends. The economic conundrum is especially harsh in Europe, and like in the U.S. it is having a profound impact on decisions pertaining to IT. Going beyond identifying these economic implications is the need to understand the considerations for leveraging the impact of transformational new technologies, especially in light of operating in a globally-linked environment. By comparing Europe to the United States (U.S.), this paper presents the important information management and technology trends (e.g., management concerns, emerging technologies, budgets/spending, organizational considerations) necessary to prepare IT leaders for the challenges that await them.

While the research initiative collected data from four geographic regions (United States, Europe, Asia, and Latin America), this paper focuses on the analysis comparing Europe and the U.S. The same questionnaire (albeit translated for the respective respondents), based on the lead authors well-respected and long-running Society for Information Management (SIM) IT Trends survey, was applied across geographies. In Europe the data was collected among the CIONet membership.

This paper presents the major findings based on survey responses from 375 organizations (275 U.S. and 100 European (mainly West Europe)) in mid-2011. The top IT management concerns within Europe were:

1. Business agility and speed to market
1. Business & IT alignment
3. Business productivity and cost reduction
4. IT reliability and efficiency
5. Business Process Management / reengineering
6. IT cost reduction

The five most influential technologies for Europe are Business Intelligence, Enterprise Resource Planning, Customer Relation Management, Collaborative & Workflow tools, and Business Process Management Systems.



# Introduction

Since 1980, the Society for Information Management (SIM), in a joint effort with different academic leaders, has conducted an annual survey of the key issues facing IT executives in the United States. In 2010 the results of the Society for Information Management and the Dutch survey results on Business & IT Trends (since 1995) were combined providing a global benchmark (other groups were engaged to collect data from Asia and Latin America). One of the important strengths of this research is in its ability to identify important trends by comparing survey data based on a similar sample from previous years. The 2011 survey, conducted in the summer of 2011, focused on three important areas:

1. Management concerns
2. Application and technology investments
3. Organizational issues (IT budgets, IT staff salaries, CIO roles, IT organization structure)

Participants were asked to rate the importance of 39 managerial concerns, 52 application and technology opportunities, and 18 organizational issues.

The recognition of the global reach of IT, especially in light of the impact of both the European and global economic crisis, has amplified the necessity to obtain responses from organizations around the globe to understand similarities and difference across geographies. Hence, this year the same survey was conducted in four major geographies, namely, U.S., Europe, Asia, and Latin America.

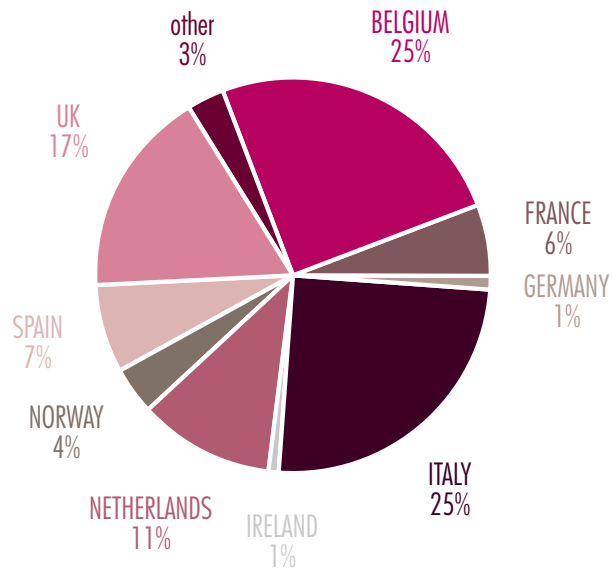


FIG. 1 : PERCENTAGE OF RESPONDENTS BY INDUSTRY

This paper focuses on the major insights gained from this survey in Europe 2011-2012, and compares the results to the results from the U.S. It is based on IT

executives that are members of CIONet Europe. This paper is based on the responses from IT executives representing 100 Western European organizations

TABLE 1: PERCENTAGE OF RESPONDENTS BY INDUSTRY

Industry Classification	percentage Europe	percentage U.S.
Manufacturing	30	15
Finance	13	16
IT	11	14
Construction/utilities/engineering	8	3
Government	6	3
Consulting	5	9
Pharmaceutical	5	15
Transportation	5	1
Retail	4	4
Publishing	3	1
Real State & construction	3	2
Travel & Tourism	3	-
Chemicals	2	-
Entertainment & sports	1	1
Marketing	1	-
Education	0	7
R&D/VAR/VAD	0	3
External service provider / data processing services	0	2
Executive placement / search aerospace	0	2

## Top Ten IT Management Concerns

contributing to the Strategic Information Management survey (See figure 1 and table 1 for participant demographics). The important management concerns are shown in Table 2. Figure 1 provides a breakdown of respondents based on their geography and Table 1 provides a breakdown of the respondents by industry.

The four areas focused on in the survey are:

- A. Top IT Management Concerns
- B. Top Application and Technology Investments
- C. IT Budget Allocation
- D. IT Organizational Considerations

The top 10 management concerns tend to evolve slowly albeit the severe recession begun in 2007 continue to impact some of the management priorities projected for 2012. Two European and U.S. concerns that have traditionally remained on the top ten list are: IT and business alignment, and Business Process Management and Reengineering (Luftman and Ben-Zvi, 2010b). This year the two most important European management concerns are: business agility & speed to market as well as IT and business alignment. Interestingly IT cost reduction is typically increasing in importance within Europe while it is decreasing in importance in the U.S. This is a result of the current European based economic discussions with regards to the

European nation, and the current strong negative economical impact of countries such as Greece, Spain, and Italy. When compared with other management concerns (business productivity & cost reduction, IT cost reduction, and revenue generating IT innovations) Europe tends to be more cost oriented in comparison with the U.S. IT cost reduction is ranked 5th in Europe, as opposed to the U.S. (ranked 10th). The discussion below elaborates on this finding.

**TABLE 2: TOP IT MANAGEMENT CONCERNS**

	Europe 2011	Europe 2010	U.S. 2011	U.S. 2010
Business agility & speed to market	1	3	2	2
IT and business alignment	1	4	1	3
Business productivity and cost reduction	3	1	4	1
IT reliability and efficiency	4	6	6	3
Business process management/reengineering	5	2	3	3
IT cost reduction	6	8	10	8
IT strategic planning	7	7	5	6
Security and privacy	8	15	8	9
Change management	9	5	12	12
Enterprise architecture/infrastructure capability	10	10	7	13

**TABLE 2a : TOP IT MANAGEMENT CONCERNS (COUNTRIES)**

Europe 2011 top 5 mgt. Concerns compared with European countries	Europe 2011	Belgium	France	Italy	Netherlands	Norway	Spain	UK	Other
Business agility & speed to market	1	3	2	1	4	11	1	3	1
IT and business alignment	1	4	7	4	2	2	11	4	5
Business productivity and cost reduction	2	1	2	3	4	6	2	1	1
IT reliability and efficiency	3	6	1	6	3	12	11	12	10
Business process management/reengineering	4	2	6	2	4	4	1	2	9

From a country perspective the European management concerns varies. This is partly because of the limited responses per country. Interestingly IT and business alignment is of lesser importance in Spain which is more focused on business agility & speed to market as well as business process management. This is related to the economic crisis which affected Spain stronger than the other countries surveyed. In Norway the number 1 IT management concern is revenue generating IT innovations which implies that Norway wants to leverage IT innovations. This is also true for the Netherlands. Both Netherlands and Norway have IT and business alignment ranked 2nd supporting the view that a mature level of IT and business alignment is important to realize revenue generating IT innovations. Examples of these are TomTom and Nokia where both are facing difficulties due to the fast rising completion from Apple and Google.

### 1. Business agility and speed to market

Business agility and speed to market is ranked 1 (tied with IT business alignment) in Europe and is 2nd in the U.S (IT business alignment is No.1 ranked in U.S.). Business agility and speed to market is essential for business survival in an uncertain and volatile economy, and the improved ranking of business agility and speed to market is testimony to that. Known examples of business agility and speed to market are of course Apple (iPad) and Google (Chrome). Regional business agility and speed to market is fundamental. Both the European and U.S. results demonstrate this well because the past couple of years business agility and speed to market has moved up from the mid-teens to the

number 1 European management concern. It is noted that business agility and speed to market along with business productivity and cost reduction are the foundation for long term competitive advantage, and therefore it is anticipated that these concerns will improve their ranking.

### 1. IT and business alignment

Alignment of IT and business continues to be elusive, and in all of the geographies it ranks in the top ten management concerns; ranking 1st. in both the U.S. and Europe. The importance of IT and business alignment is often seen in return on investment. IT business alignment maturity can be measured (Luftman, 2003) and higher maturity in this measurement model results in better return on IT investment (Poels, 2006, Luftman 2012, under review). Demonstrating a significant positive correlation between alignment and company performance both European and U.S. organizations are proceeding to work at higher alignment levels. Despite this effort, IT and business alignment remains a top 10 IT management concern for 30 years. Looking at the ranking of IT and business alignment management concern there is no excuse for not reaching to higher levels of alignment and supporting the perception that IT and business alignment is a constant process. IT leaders in most demographics see IT as an integral driver/enabler of efficiency/effectiveness in other parts of the business and therefore focus on initiatives that enhance the maturity of alignment between IT and business. While IT business alignment has been recognized for over 30 years as a persistent problem, it is clear that it is pervasive and persistent.

### 3. Business productivity and cost reduction

Business productivity and cost reduction also appears as a top concern in all geographies (ranked 2nd within Europe). It has recently gained momentum with a number 1 position universally in 2010, It dominated the top management concerns globally last year and is currently ranked 4th within the U.S. The IT cost reduction, and the importance of improving business productivity is in line with the findings of Luftman and Ben-Zvi that the current trend seems to be unique in this recession (Luftman and Ben-Zvi, 2010b); instead of simply cutting IT budgets, IT leaders seem to be responding to this recession by focusing on IT as an enabler/driver of business productivity for the rest of the business. Even though data for individual countries are not reported in this paper, it is interesting to note that this trend is present in all geographies. Within Europe business productivity and cost reduction are ranked second but IT cost reduction is also among the top 5 management concerns. Having both IT cost reduction and business productivity & cost reduction within the top 5 management concern might create conflicts in managing both concerns if not managed effectively.

#### 4. IT reliability and efficiency

The growing complexities of IT systems, along with the need to consider costs, have brought IT reliability, availability and efficiency to the forefront. IT reliability and efficiency is ranked 3th in Europe and 6th in the U.S. This management concern has been rising in Europe since 2009. In the U.S. IT reliability and efficiency was 3rd in 2010 but traded places with the European ranking and is now 6th in the U.S.

IT reliability and efficiency refers to the accuracy, timeliness, and reliability of data and information services delivered by IT (Luftman and Ben-Zvi, 2010b). The relatively higher ranking of IT reliability and efficiency in Europe is based on two distinct explanations. To have a reliable and efficient IT, stored data and information need to be pristine, and European IT leaders are often concerned about the quality and accuracy of data/information in their organizations. Secondly European organizations are preparing for the fast IT changes due to the rise of tablets and strategies such as Bring Your Own Device (BYOD). Based on the current platforms and implemented integrated applications the IT reliability and efficiency is often not ready to support a stable environment for developments based on BYOD and others. A second reason for the displayed ranking and also based on the technology developments is the increasing usage of IT reliability and efficiency statements such as SAS70 and ISEA3402 (cloud security alliance, 2009).

#### 5. Business process management and reengineering

Business process management (BPM) and business process reengineering (BPR) are ranked in the list of top ten concerns in all of the geographies (ranked 4th in Europe and 3rd in the U.S.). Since the '90s large corporations leveraged the BPR tools that analyze, design, and automate workflows and processes within an organization, and as a result, BPM and BPR have appeared every year in the list of top concerns in Europe. In global perspective BPM/BPR slowly moved to the 18th place in 2008 and returned to the top 5 management concerns in 2009.

BPR by definition is 'process-centric'. More recently BPM has emerged as a more holistic approach focusing on integrating all aspects of the organization. It has become an important tool to take advantage of BPR initiatives. BPM is utilized to streamline end-to-end management of the whole enterprise (enterprise-centric).

During the economic downturn as organizations focus on leveraging IT to reduce expenses by enhancing business processes and as the recovery from the recession gets underway, corporations large and small need to compete in a globally-linked market place, it is expected that business process management and reengineering will remain a top management concern globally. The high ranking of ERP as an important application and technology (discussed later in this paper) provides further support for this important consideration.

**TABLE 3. IT BUDGET AS PERCENT OF REVENUE BY INDUSTRY CLASSIFICATION**

Industry Classification	Europe 2011	U.S. 2011
Information Technology	14.75%	13.67%
Finance/Banking/insurance	14.25%	8.12%
Consulting	8.67%	
Publishing	5.50%	
Transportation	4.00 %	6.1%
Manufacturing	3.30 %	2%
Government	3.00%	-
Pharmaceutical/Healthcare	1.75%	-
Government-State/Local	-	2.75%
Business Services	-	12.12%
Education	-	4.78%
Aerospace	-	9.37%
Data Processing Services	-	11.5%

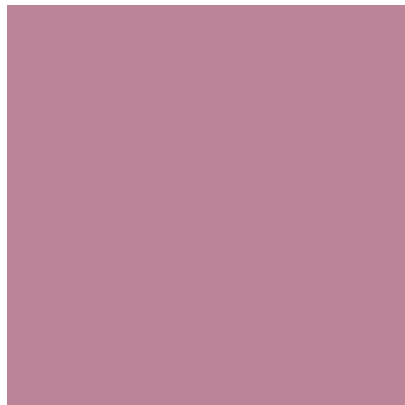
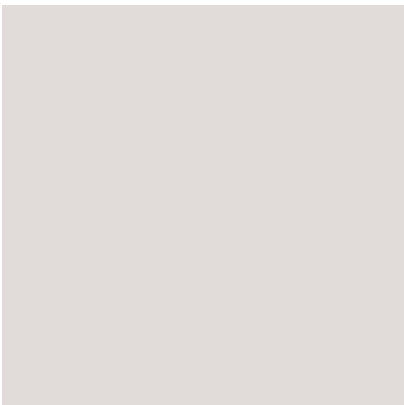
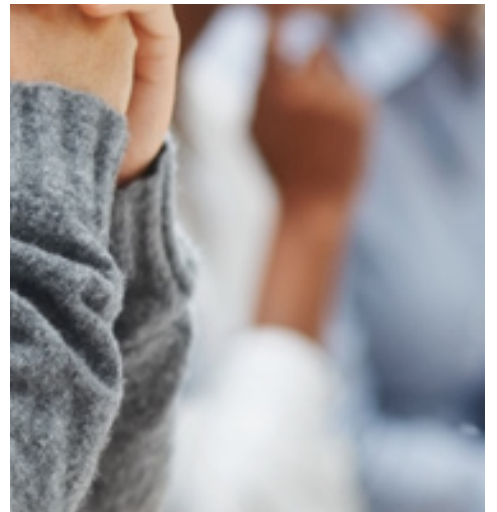
6. IT cost reduction

The top 5 IT management concerns ends with IT cost reduction from the European perspective. IT cost reduction remains a top IT management concern within Europe focusing on reducing the costs of IT whereas this management concern is decreasing in the IT management concern ranking within the U.S (10th). The current European based economic discussion with regards to the European nation is expected to be the cause of this differentiation as described earlier.

IT cost reduction refers to the costs of realizing, implementing and managing IT. One of the most used comparison methods is the usage of Total Cost of Ownership methods starting with measuring the percentage of revenues spend on IT shown in Table 3 (blanks indicate that there is not enough valid responses). We will elaborate on the top five.

Both the European based information technology (14.75%) and finance / banking / insurance industry (14.25%) have a higher

IT budget as percent of revenue in comparison with the U.S. (13.67 and 8.12%). The majority of the responses came from EU union based organizations which did invest heavily in integration across country borders. It is likely that the IT budget as percent of revenue by industry classification will be "corrected" in the next few years to become closer to the U.S. percentages.



# Top Five Applications and Technology Investments

The top five applications and technologies does not differ much between Europe and U.S. Interestingly cloud computing is not within the top 5 ranking of Europe but is 2nd in the U.S. This is related to the top 3 application and technology investments in Europe (business intelligence, enterprise resource planning, collaborative and workflow tools, and customer relationship management). Based upon the investments and organizational change needed to realize these application and technology investments it is to be expected that these initiatives are mostly in-house projects. Despite this finding cloud computing is ranked 8th in Europe and second in U.S., and we expect growth in this ranking in the future. A typical example of a successful cloud computing applications is Salesforce.com which is customer relationship management related. The top five applications and technologies for 2011 are discussed

(and illustrated in the Tables) below with comparisons across the surveyed geographies.

Looking from a country perspective the ranking of collaborative and workflow in Italy is remarkable (14th). An explanation can be found in a more internal organizational focus instead of looking beyond the organizational borders. For Belgium the ranking of mobile and wireless application (11th) is interesting. Belgium is historically a country which is highly cooperative with other countries. Also the European Union main headquarters are based in Belgium (Brussels) which can be an indicator that Belgium is ahead of this trend and already implemented most of the needed mobile and wireless applications.

## 1. Business Intelligence

European companies ranked business intelligence as their top application and technology development, like the U.S. where it has also been ranked 1st in 2009 and 2010, and 2nd in 2006, 2007, and 2008 (Luftman and Ben-Zvi, 2010b, Luftman and Ben-Zvi, 2010a). Since business intelligence leverages data mining to identify valuable insight, this high ranking across these geographies suggests that IT leaders believe their organizations are data rich and insight poor (Luftman and Ben-Zvi, 2010b). Another reason for the business intelligence number 1 rank is the increasing role of best practices such as COBIT (Control Objectives IT). Having business intelligence supporting reports with regards to the best practices supports management control objectives as well as discovering and correcting errors in the business.

	Europe 2011	Europe 2010	U.S. 2011	U.S. 2010
Business intelligence	1	3	1	1
Enterprise resource planning (ERP) systems	2	1	3	3
Collaborative and workflow tools	3	-	8	7
Customer Relationship Management (CRM)	3	6	5	9
Business Process Management (BPM) systems	5	5	3	12
Mobile and wireless applications	5	18	4	9

Europe 2011 top application and technology development per country	Europe 2011	Belgium	France	Italy	Netherlands	Norway	Spain	U.K.	Other
Business intelligence	1	1		1	1		1	2	1
Enterprise resource planning (ERP) systems	2	4	2	3	2		2	2	1
Collaborative and workflow tools	3	2	3	14	8	1		1	
Customer relationship management (CRM)	3	5	4	2	8		3	5	
Business process management systems	5	2	5	5	2	1			
Mobile and wireless applications	5	11	5	3	3		4	4	



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## 2. Enterprise resource planning (ERP) systems

Enterprise Resource Planning (ERP) systems is ranked 2nd in Europe and 3rd in U.S. The thought of having an integrated system has existed for a long time and remains high on the IT application & technology list. Despite the high level of implementation within Europe, ERP is still one of the top ranked applications & technology trends. This is based largely because of upgrades and realizing less demonstrable value from the ERP implementations within organizations whereas having more instances of ERP within a company is significantly more expensive than having one instance.

The ERP trend in light of the anticipated growth of cloud computing systems (currently ranked 8th in Europe and 2nd in U.S.) will be interesting to observe. Cloud computing solutions are typically less client based and are currently more 'best of breed' focused. A earlier used example of a successful cloud computing solution is Salesforce.com.

## 3. Customer Relationship Management (CRM)

Customer relationship management (CRM) was 6th in Europe in 2010 but 3rd in 2011. The increased ranking might be a response from organizations on the economic downturn investing more in customer relations/intimacy (Treacy, 1992). Related to this response are the IT management concerns business agility & speed to market as well as business productivity & cost reduction. The CRM application investment is often related to ERP both as module of ERP or interfaced with ERP. Another related top 5 ranked IT application & technology is business process management

systems managing the workflow between the systems such as CRM, ERP and business intelligence.

## 3. Collaborative and workflow Tools

Collaborative and workflow tools are ranked as one of the top application and technology developments as IT managers try to embrace highly successful social media tools into workflows. On the other hand, these tools are relative new-comers in that area and language barriers have traditionally limited mass adoption of tools such as Facebook, Google+, LinkedIn and Twitter. Google+, for example, is expanding extraordinarily Globally.

## 5. Business Process Management (BPM) Systems

Business Process Reengineering and continuously improving business processes is an area receiving attention since 1900 (Taylor). In the constant challenge for getting the business processes in control, monitored, and managed the BPM systems also remain an important IT Trend. BPM tends to work with a holistic view based on organization, information and processes. Within Europe this technology is fifth in rank for the second year (2010 /2011). In the U.S. this trend is ranked 3rd. BPM is often seen as the construct for relating other technologies such as ERP and CRM managing both the business flows via business rules as well as the technology interfaces using enterprise application integration (Ravesteijn & Derksen, 2011). BPM is also a development related to the management concern business process management / reengineering which is a top 5 IT management concern for both Europe and U.S.

## 5. Mobile & Wireless Applications

Also a 5th place in the ranking of IT application and technology is mobile & wireless applications. In the past year it is relatively easy to say that Apple has made a huge impact in the European market with its introduction of the iPad; followed by Google (Android) and later by Microsoft/Nokia. Results from this revolution is that European organizations started to introduce a 'Bring-Your-Own-Device' policy and placing major applications behind an Apple-iOS and/or Google-Android App (Derksen, 2011). With this development other trends such as security started a new phase as well.

Interestingly is that Apple is most popular (ChangeWave research, 2011) impacting the mobile & wireless applications because of the platform used (iOS). This change to the platforms of Apple (iOS) and Google (Android) is expected to impact business architecture as well as the applications and technology used within organizations. Another aspect is the implication towards the previously discussed application and technology investments for which interfaces to mobile & wireless applications will be key to support the employees as well keeping a competitive level of doing business.





# Budget Allocation

This section discusses the survey findings related to the overall allocation of IT budgets with a further discussion on staffing and compensation matters.

## 1. Overall Budget Allocation Considerations

The rebound from the recession is clearly underway, albeit at different rates in different geographies. European CIOs reported increased IT budgets in 2012 compared to 2011 with 38% of the companies in Europe and 51% in the U.S. indicating increases. Just 8% of Europe and 15% of U.S. respondents indicated that their IT budgets would decrease in 2012. 54% of the European companies will keep the same IT budget in 2012 as used in 2011 whereas this is just 34% for the U.S. organizations. The IT budget forecasts are better for U.S. companies in comparison with the European organizations.

## 2. Percentage of 2011 budget allocated to Cloud computing

One of the current application & technology trends is cloud computing. We evaluated the budget allocated to cloud computing. On average 5.7% of the IT budget was allocated to internal cloud computing (using cloud technology within the organization). 20% of the companies researched allocated over 10% of the IT budget to internal cloud.

Usage of external cloud computing is relatively low with 57% of the European companies spending less than 1% of their IT budget on external cloud usage. Only 3% of the European companies have allocated IT budget to external cloud with 25% supporting

the ranking of cloud computing in the application & technology investments; indicating a lower level of cloud application & technology implementation in Europe compared with U.S. in the next few years.

## 3. IT Budget as a Percent of Revenues

While the often-benchmarked average IT budget as a percentage of revenue for the U.S. was 3.87 in 2010 (relatively the same as in the previous SIM surveys), it was 3.31 in Europe. In 2011 the European IT budget as percent of revenues increased to 6.36 whereas U.S. decreased to 3.55. An examination by industry reveals that some sectors, such as Information Technology business services, entertainment/sports, banking/finance, and education/publishing, have IT budgets of more than 5% of their revenue. On the other hand, sectors with IT budgets which are less than 5% of their revenue are manufacturing, Government, Transportation and Pharmaceutical / healthcare. Especially Finance/Banking and Information Technology industries use a percent of revenue above 10%.

The industry breakdown is comparatively consistent across geographies implicating that the IT support is mostly industry based instead of geographic or organization specific. This also implies that usage of benchmark for IT budget as percent of revenues is globally valid but industry specific (table 3).

## 4. IT Staffing and Compensation Considerations

It is clear that staffing (internal and external) remains the largest component of IT budgets (56% in Europe and the U.S.).

The domestic sourcing budgets for internal staff are 28% in Europe compared with 38% in the U.S. Offshore internal staff accounts for only around 2% of the IT budget in the U.S., and Europe. Europe has a relatively high percent of their staff outsourced domestically (8%) when compared with the U.S. (3%). The European outsourced staff domestic is projected to grow to 9% in 2012 and the European outsourced staff offshore to 4% (currently 3%).

When it comes to the allocated percentage of the IT budget for training/education growth is anticipated. The percentage of budget allocated for training/education declined in 2011 from 2.8 in 2010 to 2.65 in 2011, but is now expected to be 2.99 in 2012. Despite this growth the European continent spends less on training and education than U.S. spending 3.48 in 2010, 3.23 in 2011 and expected to be 3.55 in 2012.

Regarding IT staff salaries, 44% of the European IT employees earned more in 2011 in comparison with 2010, 28% earned less. The increase in IT staff salaries is less than the U.S. in which 66% earned more in 2011 in comparison to 2010. But still 2011 was a better year with regards to actual IT staff salaries in comparison with 2010, where 62% of the European IT staff salaries was either fixed or less. 2012 is projected to be a better year in which 55% of the IT staff can expect to have an increase in salary.

# IT Organization Considerations

Lastly, with regards to the rate of IT staff turnover there is surprisingly good staff retention rates across the globe during the economic downturn. In Europe staff turnover in 2011 was 5.56% in comparison with 5.82% in 2010. In the U.S. staff turnover was 5.5% both 2011 and 2010 (getting stabilized after a consistently decrease from 7.2% in 2006). This staff retention rate is likely due to the recession making it difficult for staff to find more lucrative positions elsewhere, as well as the difficulty boomers are having in retiring.

This section discusses the survey findings related to IT organizational structure and CIOs.

## 1. IT Organization Structure

The organization structure of IT can have a major impact on the performance of the company. IT organization structure is the degree to which it is centralized, decentralized, or federalized. 65.6% (see figure below) of European and 68% of the U.S. respondents indicated centralized in 2010. IT organization structure, where all IT reports to a single IT executive (the CIO). Centralized IT organization structure can better attain more IT standardization across the organization; for example, a centralized email system ensures the same email features across the enterprise (same look and feel, same capabilities, centralized archive and back up policies, etc.). Often costs are a major reason to centralize IT aiming for scale of economics.

On the other end of the spectrum, there are decentralized organizational structures where each business unit has its own IT organization without much coordination across business units (for example, each unit having their own email system, or their own standards for database administration). There is not much economy of scale in the decentralized structure, but each business unit has the full flexibility to focus on the unit's particular IT needs (applications and infrastructure). This can be of most value in large organizations where IT needs across some business units vary greatly. Some universities, for example, can benefit from decentralized IT structure, as each school or department might have vastly different IT requirements. 0% of the investigated European companies indicated a decentralized IT structure. 5% of U.S. respondents indicated a decentralized IT structure, a big drop from 9.5% in 2009 (Luftman and Ben-Zvi, 2010a). This drop could be the result of a radical response to the recession, in which many of the U.S. CIOs have opted for economies of scale over flexibility of business units in order to rein in their IT expenditures. For European companies this might be correct as well.

A federated (or hybrid) structure can realize the benefits from both centralized and decentralized structures. Corporate-wide standards are enforced in an effort to maximize the benefits of economies of scale, while providing flexibility to business units to maximize unique application opportunities at the business unit level. 34% of the European companies and 26% of the U.S. companies were reported as federated in 2011. Organizations with a federated structure tend to have a higher alignment maturity assessment than those that are centralized or decentralized (Luftman et al., 2010). With both

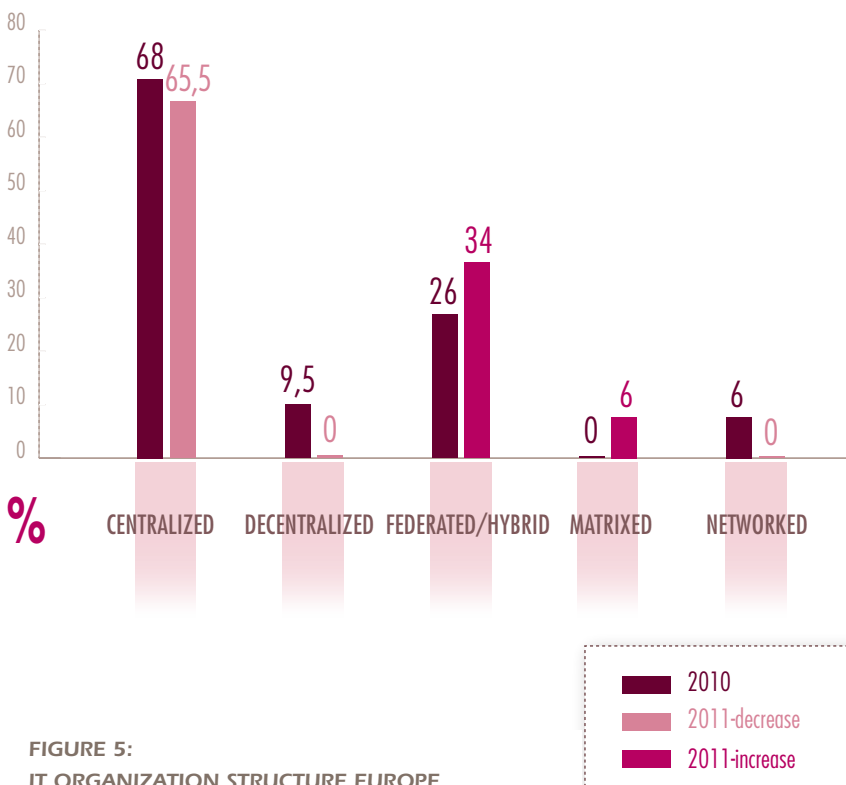
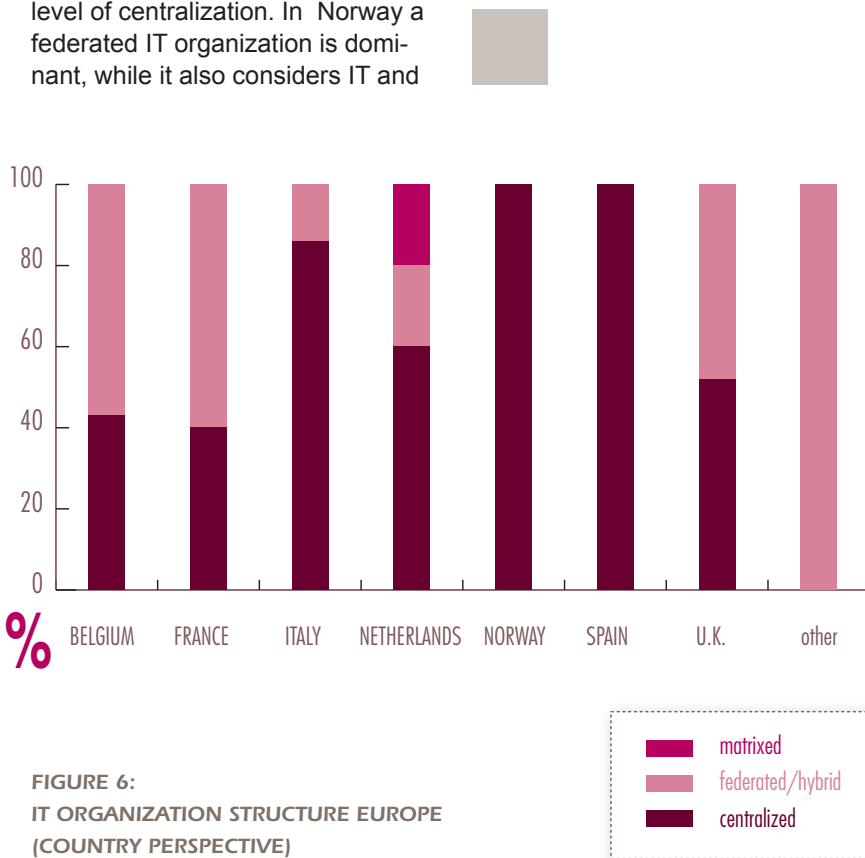


FIGURE 5:  
IT ORGANIZATION STRUCTURE EUROPE

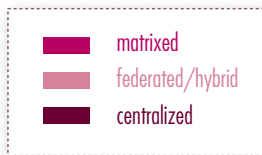
the economic crisis as well as the opportunity to gain a higher level of alignment it should not come as a surprise to see these numbers increase over in the last few years.

The IT organizational structures currently used per country are displayed as well. Interesting is that both Norway and Spain have a high level of centralization. In Norway a federated IT organization is dominant, while it also considers IT and

business alignment a higher ranked IT management concern (ranked 2nd ). Spain ranked IT and business alignment 11th . Both Belgium and France placed IT and business alignment in the top 3 management concerns and both countries do use federated/hybrid IT organizational structures.



**FIGURE 6:**  
IT ORGANIZATION STRUCTURE EUROPE  
(COUNTRY PERSPECTIVE)



## 1. CIO Reporting Structure and Role of CIO

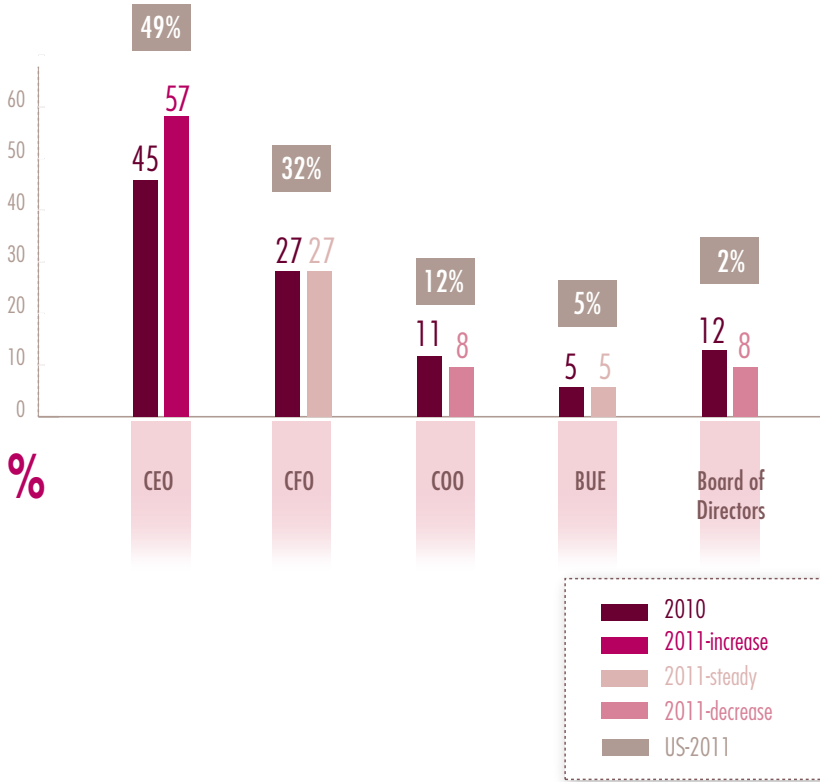
As the majority of time of CIOs is spent in dealing with non-technical issues, the roles of CIOs vary between the geographies surveyed.

Figure 7 shows where CIOs (or senior IT executives) report. Previous research has shown that, on average, organizations in which CIOs report to CEOs have higher alignment maturity than those reporting to non-CEO executives (Luftman and Ben-Zvi, 2010b, Luftman et al., 2010). CIO reporting to the CEO is the highest in Asia (68%-2010). Europe come is on the rise for direct reporting to CEO (57% in comparison with 45% in 2010) which implies the CEO recognizes the importance of IT for the organization. Historically IT was seen as a cost center and more often the CIO reported to the CFO.

## 2. CIO Tenure

The average CIO tenure is on the rise in Europe as well as abroad. This trend has been clearly illustrated in previous SIM surveys with the average CIO tenure of 4.6 years in 2009, 4.3 years in 2008, 4.1 years in 2007, and 3.6 years in 2006. In 2011, the respondents reported in Europe that CIOs held their positions on average 5.04 years in comparison with 4.3 years in 2010.

FIGURE 7: CIO REPORTING STRUCTURE EUROPE



The survey also asked respondents to indicate where CIOs were hired from.

Figure 8 below shows a significant change in hiring the CIO from within the companies IT organization to hiring from an external IT organization. This change might be a consequence of the economic downturn as well. This is likely because an externally hired CIO is more willingly to implement more dramatic changes during the economic downturn.

Even though it is believed that high CIO turnover (short tenure) makes it difficult for CIOs to address any long-term changes to the business or IT organization (Luftman and Ben-Zvi, 2010b), other research shows executive performance peaks between four and five years of tenure, after which the performance is likely to dip before another performance increase for executives with tenure of more than eight years (O'Shannassy, 2011). The same research shows the optimum executive tenure to be either between four to six years, or tenures longer than eight years (O'Shannassy, 2011). It is noted that this recent study was for CEOs and board of directors, with an average tenure of 8 years, and not specifically for CIOs. A similar study focusing on IT executives would be an interesting and welcome addition to the body of literature in this area.

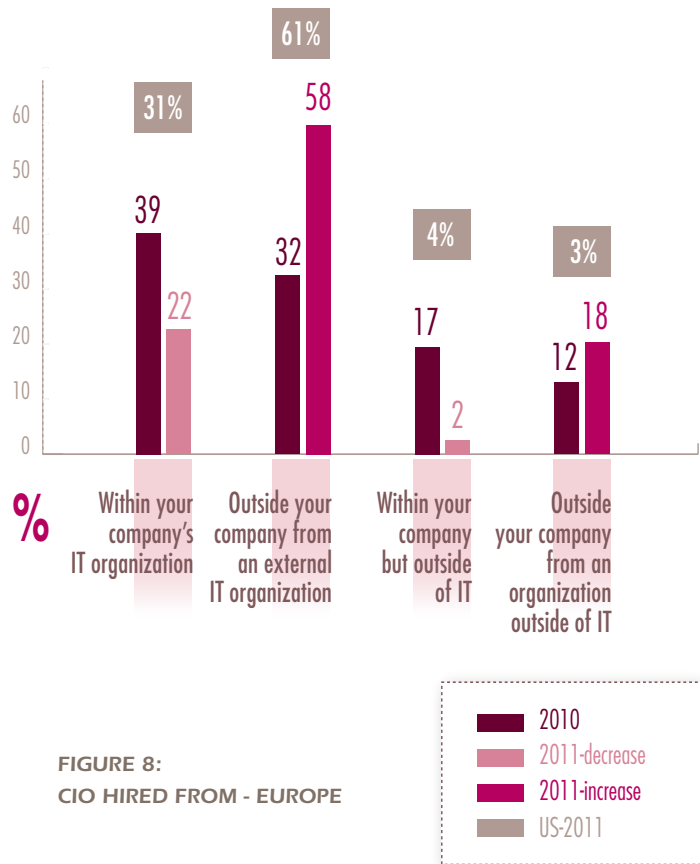


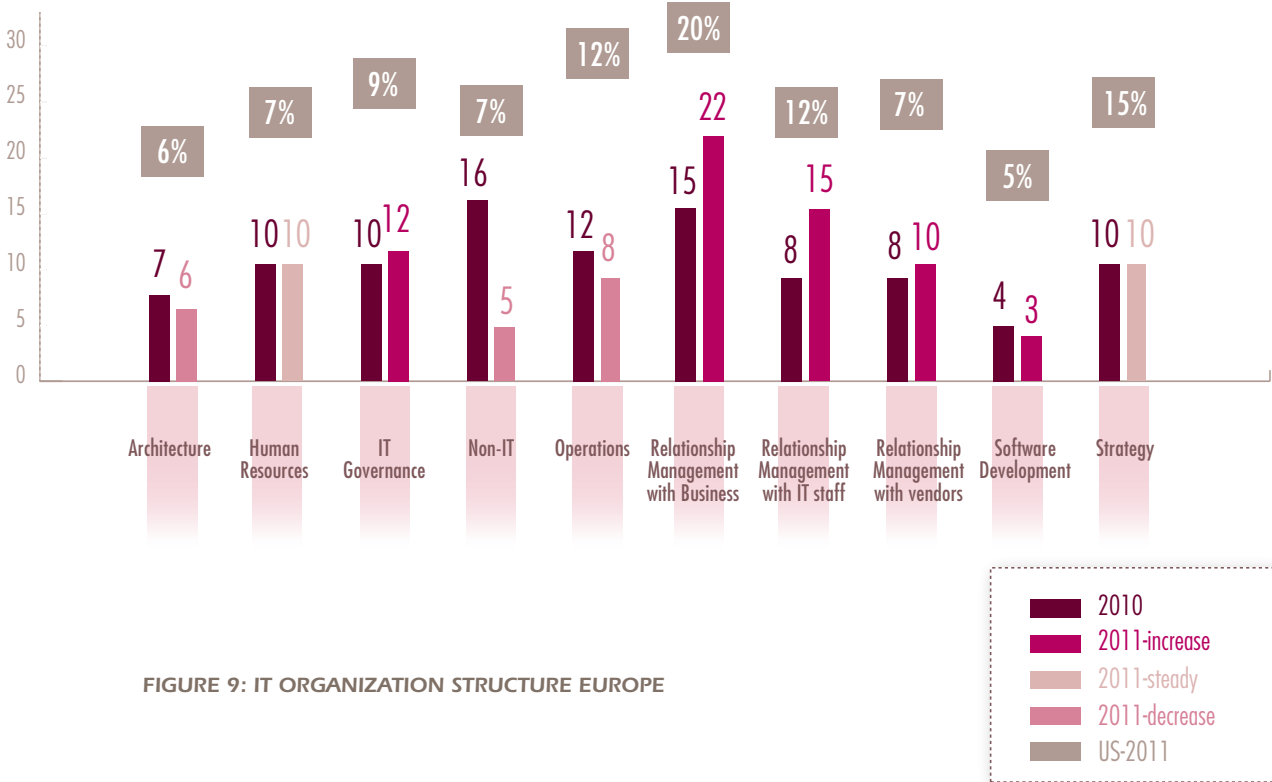
FIGURE 8: CIO HIRED FROM - EUROPE

### 3. CIO Time on Activities

Predictably CIOs spend most of their time dealing with non-technical issues; 83% in 2011. Interestingly, CIO time spent on software development issues is around 3%-6% across all the geographies. Relationship management is most time consuming for the European CIO's and is 37% of the CIO time of which 22% towards business and 15% towards IT staff. Within the European area Human Resource Management & Strategy the needed CIO time is consistent in 2011 in comparison to 2010.

U.S. CIOs spend 18% of their time on operations and architecture; the European CIOs spend even less time, only 14% in 2011. The time spend is significantly lower in both Europe and U.S. in comparison with other regions. The time spend on operations and architecture might be a good indicator of the maturity of this area where it is expected that U.S. and Europe have a high level of maturity as a result of implementing ITIL / ISO 20,000.

Also interesting is the increase of CIO time spent in both IT governance and vendor relationship management. This might indicate a first shift to other IT governance structures using cloud computing.



# IT Outsourcing

IT outsourcing has been defined as “handing over the management of some or all of an organization’s IT assets, resources and related services to a third party” (Willcocks et al., 1995). Over the last two decades, IT outsourcing has not only been an attractive option for many corporations, but also subject of much academic research.

IT leaders globally have long been looking to outsourcing as a means to reduce costs as well as to fill skills gaps. The recent recession has fueled this even further; the overall increase in outsourcing in all of the areas is a testimony to that, considering total outsourcing, which includes offshoring, near-shoring, and consulting of non-internal staff. The No-onshore outsourcing in Europe is expected to decrease from 60% to 57% as displayed below. For all investigated activities except helpdesk (running existing systems applications, building new systems applications and running infrastruc-

ture the IT offshore outsourcing allocation is to be expected higher in 2012 in perspective to 2011. This indicates that building and running systems applications as well as running infrastructure are activities of which a growing number of organizations look for opportunities to offshore outsource.

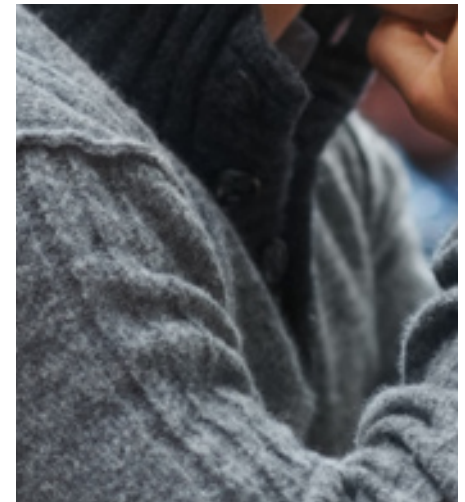
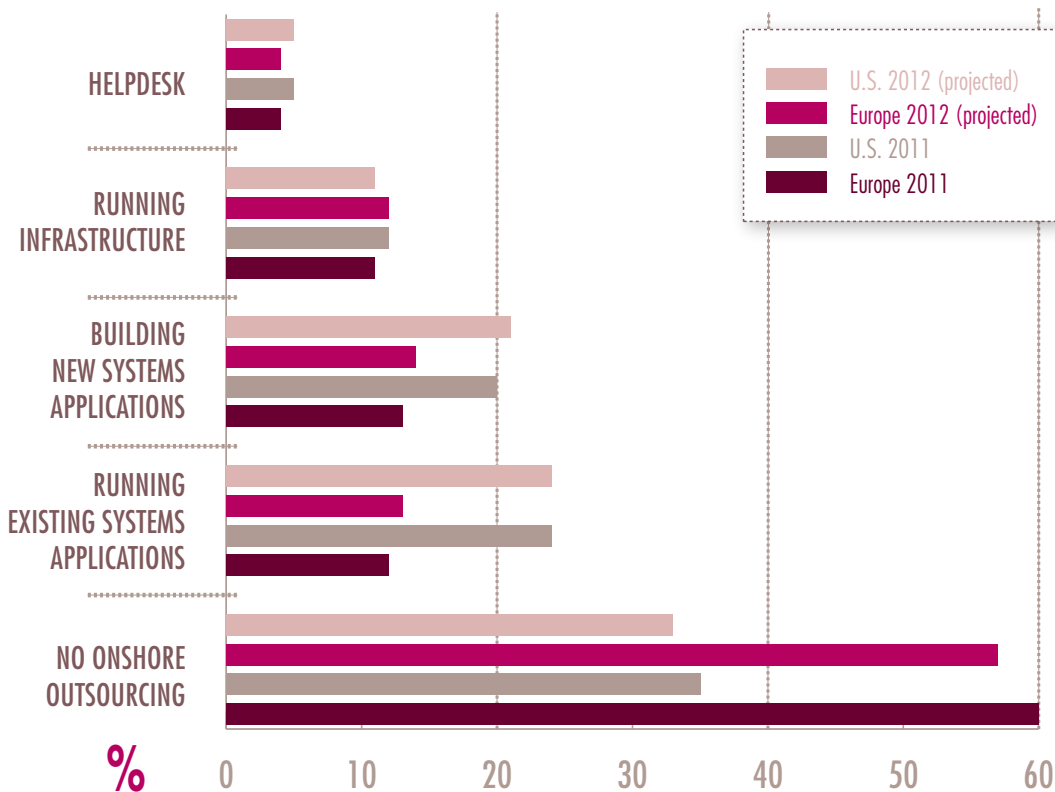


FIGURE 10: IT OUTSOURCING 2011 - 2012



## Concluding Remarks .....

The rather slow recovery from the relatively persistent recession poses new challenges to IT executives around the globe. The relatively consistent top managerial concerns cannot simply be addressed through identical responses in different geographies; each area has its own set of characteristics, and appropriate response to management concerns. In other words, unique characteristics of the local markets influence management responses of enterprises operating in a globally-linked environment. While the expected recovery from the recession presents new challenges and opportunities for IT executives in 2012 and 2013, IT executives are set to leverage

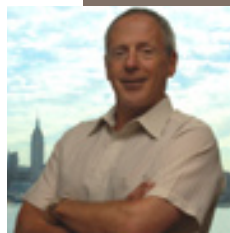
both global and local IT opportunities (such as increased spending and hiring, business intelligence, virtualization, and outsourcing) to overcome not only global challenges but also local IT and business challenges.

By comparing and contrasting Europe and U.S., this research has identified the many similarities and dissimilarities that confront managers. Clearly there are regional influences that are powerful enough to reduce the influence of global trends such as nearshore versus offshore and the investments in applications & technologies with regards to IT reliability and efficiency.

In closing, it is important to point out that IT managers are working in a highly inter-connected world, and therefore certain patterns in different geographic locations are evident. However, this research found while there are many similarities there are also important local trends that managers must be sensitive to.



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