



IT management in the major European banking groups

2010 survey

CIPA, 2011

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Introduction

The survey is aimed at the main European banking groups with operations in Italy and the leading internationally active Italian banking groups.

The information, provided on a voluntary basis and collected by CIPA and ABI, is used exclusively for the purposes of the survey and is released only in aggregate form. The data are processed, without the intervention of third parties, using procedures that ensure their security and confidentiality.

Objectives

The questionnaire is reserved to internationally active Italian banking groups and the main European banking groups with operations in Italy via branches or a subsidiary. The objectives of the survey are to obtain information on:

- groups' IT structures, their location and the predominant organizational model;
- the amount and breakdown of groups' IT costs;
- the tendency towards the integration of IT services and data centres;
- the main trends of technological innovation and the defences adopted to mitigate the risks associated with online banking.

The survey and feedback

As part of a working group, CIPA prepares the questionnaire and distributes it to a sample of European banking groups. The participants in the survey compile the questionnaire and send it to CIPA, which checks the results in close collaboration with the compilers to ensure the homogeneousness and correctness of the data provided. The data acquired in this way are then processed to produce the statistics on the phenomena covered by the survey.

At the end of the processing CIPA makes the statistics and aggregate data available:

- to the public, with the survey report;
- to the individual participant groups, with the "individual feedback".

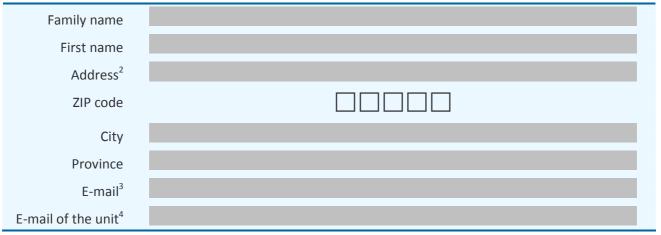
Data on the compiler and the unit

Identity of the bank ABI code¹ Company name

Identity of the international group the bank belongs to

Name

Identity of the compiler of the questionnaire



¹ In the case of an Italian banking group, enter the ABI code (five digits excluding the CIN) of the parent bank; in the case of a foreign banking group, enter the ABI code assigned to the foreign bank branch/subsidiary operating in Italy.

² Enter the company address with all the information requested, so as to permit the delivery of letters and parcels.

³ Address of a person permitting contact to be made, if necessary, to request information and clarifications or to draw attention to compilation errors.

⁴ E-mail address (not linked to a natural person) of the unit involved in the survey or, if not available, of a contact person for the unit to be contacted in the event of difficulty in contacting the person referred to in footnote 4.

1 Indicate the main activities of the group as a percentage of its total business.

Activities	%
Retail banking	$\Box\Box$, \Box
Corporate and investment banking	$\Box\Box$, \Box
Private banking	
Other, specify:	$\Box\Box$, \Box
Total	100%

Indicate the number and geographical distribution of the banks belonging to the group at 31 December 2010⁵.

Geographical area	Number
Greece – Italy – Portugal – Spain	
Great Britain	
France – Germany – Austria – Switzerland – Belgium – Netherlands – Luxembourg	
Scandinavia	
Easter Europe	
North America	
Central and South America	
Asia	
Africa	
Rest of the world	
Total	

⁵ Indicate the number of group banks present in each of the areas specified; the total number of group banks is calculated automatically.

3	Indicate the number and geographical distribution of the IT units used by the group (at
	both banks and instrumental companies).

Geographical area	Number
Greece – Italy – Portugal – Spain	
Great Britain	
France – Germany – Austria – Switzerland – Belgium – Netherlands – Luxembourg	
Scandinavia	
Easter Europe	
North America	
Central and South America	
Asia	
Africa	
Rest of the world	
Total	

4 Indicate the location of the group's IT activities.

- 1. Yes
- 2. No

	Banking component	Non-banking component	EU outsourcing	Non-EU outsourcing
Central systems ⁶ Mainframes and server farms				
Transmission systems ⁷ Data networks, fixed telephony and mobile telephony				
Peripheral systems ⁸ Distributed systems, ATMs, POS				
Applications ⁹ Purchase, development and maintenance				

⁶ Central systems comprise **mainframes** (central computers and centralized input/output units) and **server farms** (batteries of centralized servers and equipment with specialized functions not typical of branches and not directly dependent on mainframes).

 ⁷ Transmission systems comprise data networks (links between the bank's head office and branches, between the central and peripheral subsystems, and with the external environment), fixed telephony (including VoIP) and mobile telephony.

⁸ Peripheral systems comprise distributed systems (systems at the lowest hierarchical level, e.g. personal computers, printers, money exchangers, ticket machines), ATMs (automatic counters, such as banknote dispensers and multifunction kiosks) and POS.

⁹ The IT activity "applications" comprises the purchase, development and maintenance of application software.

5 Which organizational model is primarily used for IT management at group level?

1. Centralized

- 2. Distributed among competence centres
- 3. Decentralized
- 4. Centralized with some competence centres

6 If IT management is primarily distributed among competence centres (Answer 2 or 4 to Question 5), please indicate whether they are specialized by:

- 1. Business area
- 2. Technology
- 3. Customer segment
- 4. Geographical area

7 Who does the Chief Information Officer report to?

- 1. A member of the Board
- 2. The Chief Executive Officer
- 3. The Chief Financial Officer
- 4. The Chief Operating Officer
- 5. Other, specify:

8 What is the amount of total assets, operating costs and gross income at group level (consolidated accounts for 2010, millions of €)¹⁰?

Total assets	
Operating costs	
Gross income	

9 Indicate the total amount of IT costs¹¹ incurred at group level in 2010 and expected in 2011 (in millions of €).

	2010 consolidated accounts	2011 budget
TCO		
Cash-out		

¹⁰ To determine the amounts requested, refer to the corresponding balance-sheet items.

• Gross income: see the consolidated income statement.

• Cash-out: the sum of current and investment expenditure for the year.

Total assets: see the consolidated balance sheet;

Operating costs: see the consolidated income statement;

¹¹ In this questionnaire, in accordance with a firmly established accounting classification, the following definitions are used:

TCO – Total Cost of Ownership: the sum of current expenditure and depreciation for the year (including writedowns);

The TCO of the reference year is used to calculate most of the indices and prepare the feedback on an individual basis. The accuracy of the figure is of key importance for the subsequent processing.

10 Indicate the percentage breakdown of the total IT costs for 2010 (see Question 9, TCO, 2010 consolidated accounts) for each of the productive factors listed below:

Productive factors	% of TCO
Hardware ¹²	$\Box\Box\Box$, $\Box\%$
Software ¹³	$\Box\Box\Box$, $\Box\%$
Group personnel ¹⁴	$\Box\Box\Box$, $\Box\%$
Services received from third parties ¹⁵	$\Box\Box\Box$, $\Box\%$
Other IT costs ¹⁶	$\Box\Box\Box$, $\Box\%$
Total	100%

11 On what fronts are savings (in terms of TCO) mainly being sought? Rank the items in decreasing order of importance (1 – most important, 8 – least important) omitting those not observed and without repeating any values.

Renegotiating contracts with the same supplier	
Replacing a supplier with another	
Rationalizing the use of products/services	
Rationalizing consumption	
System/application consolidation	
Process revisions, internal reorganizations	
Outsourcing initiatives	
Insourcing initiatives	

¹² Equipment that makes up the central systems, transmission systems and peripheral systems managed within the group by banking components or non-bank group companies.

¹³ Software comprises:

- System software needed for the functioning of the apparatus at every level;
- Application software purchased from outside the group in the form of products developed on the basis of specifications identified by the supplier.
- ¹⁴ Group personnel (bank and non-bank) that performs IT functions.
- ¹⁵ Services received from third parties comprise:
 - Facility management for processing services carried out by and on the equipment of non-group suppliers but using application software owned by the group;
 - Outsourcing of information systems for complete processing services provided by non-group suppliers;
 - Services provided by non-group suppliers (e.g. network services, management of distributed systems, disaster recovery services, implementation of application software and/or software maintenance projects, for which payment is based on the product – turnkey projects);
 - Activities performed by personnel of non-group companies, for which payment is calculated on a time and material basis;
 - Professional consultancy services on IT matters.

¹⁶For example:

- Costs borne for buildings or parts thereof used exclusively for IT activities.
- Costs borne for auxiliary equipment, insurance cover, etc.

- 12 Are there any projects already completed, under way or planned for the crossborder¹⁷ integration of the information system?
 - 1. Yes, they have been completed
 - 2. Yes, they are under way or planned
 - 3. No
- 13 If the answer to Question 12 is affirmative, what percentage of total ICT costs (Question 9, TCO, 2010 consolidated accounts) was due to these integrations.

		% of TCO	$\Box\Box\Box$, $\Box\%$
14	Are there any projects – already completed integration/optimization of infrastructures?	d, under way o	r planned – for the
1.	Yes, they have been completed		
2.	Yes, they are under way – or planned		
3.	No		
	Pr	ocessing infrastructu	ures
	Tran	smission infrastructu	ures

¹⁷ Indicate whether activities aimed at unifying the information systems of banks located in different countries have already been completed or are under way or planned.

15 Please indicate the percentage of total cash-out (as given in Question 9, cash-out, consolidated accounts for 2010) for the group cash-out of each of the following functional areas¹⁸.

	Functional areas	% of cash-out
A Management	Management/auditing internal auditing, anti-money-laundering activities, management reporting and operations control. Compliance Compliance management systems. Risk management ALM applications, verification of compliance with capital ratios and other prudential currentiation management rick	□□□,□%
B Support services	supervision quantitative rules, risk control (credit, market and operational risks). Administration and accounting Procurement and supply office, general accounting, shareholder register, real estate management applications, budget. Help desk Internal help desk, trouble ticketing. Reports Reports to the supervisory authorities, judicial enquiries. Human resources Personnel management, management of presences/absences, transfers, reimbursements. Internal organization Mapping of processes, internal rules and regulations. IT management and processes Project management, demand management, etc. Other services Intranet, e-mail, foreign branches.	
C Operations	Credit Overdrafts and guarantees, bad debts and impaired loans, risk reports, leasing, factoring, mortgage, loans. Foreign sector Foreign exchange, international payments, foreign loans. Finance and treasury Securities (own securities, third-party securities, bond issues, derivatives, repos), funds (investment and pension funds, depository/placement bank), performance of tax requirements for securities, portfolio management, treasury services Payments Cheques, credit transfers, taxes and sundry services, direct debit and paper order forms (Ri.Ba, RID, MAV), treasury services for public bodies, utility bills, payment of pensions, payment of taxes, correspondent banking. Plastic money POS, payment cards. Other applications ID records, cash management application, current accounts, deposits, information	
D Marketing, sales and customer service	provided to customers, conditions. Direct customer channels ATM, phone banking, call centres, internet banking/trading on line, corporate banking, mobile banking. Support for sales Marketing information, CRM applications, business intelligence.	
	Total	100%

¹⁸ To facilitate compilation of the questionnaire and make the observations adequately homogeneous, four functional areas have been identified. The breakdown shown in the table is indicative and does not include all the possible components of each area.

16 Please indicate the percentage of total cash-out (as given in Question 9, cash-out, consolidated accounts for 2010) incurred for Run the business (RTB) and Change the business (CTB) for each of the macro functional areas shown below¹⁹. In the last column show the percentage of CTB cash-out used for innovation.

	% of cash-out		Run the business ²⁰		Change the business ²¹	% of CTB used for innovation ²²
Functions area (A Management + B Support services)	nnn,n%	=	□□□,□%	+	□□□,□%	(□□□,□%)
Business area (C Operations + D Marketing, sales and customer service)	nnn,n%	=	□□□,□%	+	□□□,□%	(□□□,□%)
Total	100%	=	nnn,n%	+	nnn,n%	

17 What is the percentage ratio of expenditure on compliance to total cash out (as given in Question 9, cash-out, consolidated accounts for 2010)?

	% of cash-out	$\Box\Box\Box$, $\Box\%$
18	Divide the percentage ratio of expenditure on compliance to to among the following types of compliance intervention ²³ .	tal cash out (Question 17)
	Types of compliance intervention	% of cash-out
	SEPA / PSD	$\Box\Box\Box$, $\Box\%$
	MiFID	$\Box\Box\Box$, $\Box\%$
	Anti-money-laundering	$\Box\Box\Box$, $\Box\%$
	Accounting/tax legislation	$\Box\Box\Box$, $\Box\%$
	Privacy	$\Box\Box\Box$, $\Box\%$
	Supervision legislation	$\Box\Box\Box$, $\Box\%$

Interbank legislation

Total

 $\Box\Box\Box$, $\Box\%$

100%

¹⁹ The percentages of the first column are derived automatically from the responses to the previous question. The percentages of the last row are derived automatically as the sum of the column.

²⁰ Run the business (RTB) is the percentage of cash-out used to keep the current operations running.

²¹ Change the business (CTB) is the percentage of cash-out used in improving and innovating IT systems to support banking operations, including evolutionary maintenance.

²² Innovation is taken to mean changes to IT systems able to create new products and processes, open new markets, etc. (thus excluding evolutionary maintenance interventions). The percentage is to be calculated in relation to the value of CTB in the same row.

²³ The costs to be identified here are those for compliance interventions made necessary by legislative changes. They do not include recurring costs incurred for the maintenance of systems subsequent to compliance interventions made necessary by legislative changes.

19 What percentage of total cash-out (Question 9, cash-out, 2010 consolidated accounts) is spent on technological innovation²⁴?

		% of cash-out	$\Box\Box\Box$, $\Box\%$
20	What is the trend expected for spending out)?	g on technological innova	tion (in terms of cash-
1.	Rising		
2.	Stable		
3.	Falling		
21	Are there any projects – already complet the technological environments listed bel	-	ment in one or more of
1.	Yes, completed in or planned for 2011		
2.	Yes, planned for 2012 – 2013		
3.	No		
	Technological environment	For internal functions	For customer services
	Contactless		
	Biometric recognition systems		
	Mobile applications		
١	Web 2.0 applications (social networking, etc.)		
	Business intelligence		
	Cloud computing		
	VoIP		
	Web conferencing		
	Service-oriented architecture (SOA)		
	Green IT		

²⁴ The technological innovation referred to here does not concern the renewal of existing procedures or equipment but efforts to change the group companies and their functions (cutting edge innovation).

²⁵ For a description of the technological environments, see the table "Technological environments" at the end of the questionnaire.

22 For each channel of contact with customers, indicate the trend of expected use.

- 1. Rising
- 2. Falling
- 3. Stable
- 4. Not available

	ATMs	Call centres / Phone banking	Internet banking ²⁶	Mobile banking	Financial salesmen	Branches
Banking information (e.g. current account balances and movements, cheque situation)						
Banking transactions (e.g. credit transfers)						
Investment information (e.g. prices)						
Investment transactions (e.g trading)						
Marketing services (e.g. product information)						
Non banking accessory services (e.g. topping up prepaid cards)						
Customer care and help desk						

23 Please indicate the percentage ratio of TCO (as given in Question 9, TCO, consolidated accounts for 2010) consisting of IT security expenditure.

% of TCO	$\Box\Box\Box$, $\Box\%$

Are there any projects – already completed or under way – for the adoption of recognized standards or best practices for the management of IT security²⁷?

1. Yes, ad	opted	
2. Yes, un	der way	
3. No		
	ISO 27001, for security	
	ISO 27002, for auditing	
	ISO 27005	
	Service Organization Control (SOC) Report (formerly SAS70 Report)	
	PCI / DSS, for financial transactions	
	Best practices (e.g. NIST, SANS)	
	OWASP standard for the secure development of applications	
	COBIT	
	BS7799	
	Group policy	
Other, spec	cify:	

²⁶ The Internet banking channel includes remote access to banking systems via networks other than the Internet.

²⁷ Report the adoption of rules used and referred to in the management of IT security. A group may adopt more than one standard.

25 Rank the following risk scenarios – in increasing order of expenditure, from "1" to "6" – on the basis of the investments made or planned in the budget.

Risk scenarios	Expenditure incurred	Expenditure planned
Retail customers' authentication credentials stolen or compromised		
Corporate customers' authentication credentials stolen or compromised		
IT attacks (viruses, denial of service, etc.)		
Data altered by an outsourcer		
Internal violations by employees		
Malware attacks on customers		

26 Have initiatives been adopted, or planned, vis-à-vis customers to reduce the risk of fraud in the supply of IT services?

- 1. Yes, such initiatives are adopted once a year or more than once a year
- 2. Yes, such initiatives are adopted at intervals of more than one year
- 3. No

Initiative	Internet banking	Mobile banking
Initiatives aimed at increasing customers' awareness of the risks associated with online banking		
Initiatives aimed at describing how customers should behave to reduce the risks		
Initiatives aimed at describing the technical devices that customers can adopt to reduce the risks		
Initiatives aimed at describing the main measures adopted to increase the security of the services supplied		

27 Indicate, for IT and group employees, the number employed at 31.12.2010 and the average FTE value²⁸ for the year 2010.

	Total number	Average FTE value
IT employees (banks and instrumental companies)		
Group employees		

²⁸ The Full Time Equivalent (FTE) value adjusts for particular situations, such as part-time workers, temporary hirings, etc. The average value must be calculated as the average of the FTE values for the thirteen months from December 2009 to December 2010.

28 With reference to 31.12.2010, indicate the percentage breakdown of group IT staff by category and sex²⁹.

	Men	Women	Total by category
Clerks	$\Box\Box$, \Box %	□□,□%	nn,n%
Middle management	$\Box\Box$, \Box %	$\Box\Box$, \Box %	nn,n%
Senior management	$\Box\Box$, \Box %	□□,□%	nn,n%
		Total IT employees	100%

29 Again with reference to 31.12.2010, indicate the percentage breakdown of group IT staff by category and age³⁰.

	Less than 35 years	From 35 to 50 years	More than 50 years	Total by category
Clerks	□□,□%	□□,□%	$\Box\Box$, \Box %	nn,n%
Middle management	□□,□%	□□,□%	□□,□%	nn,n%
Senior management	□□,□%	□□,□%	□□,□%	nn,n%
		Т	otal IT employees	100%

30 Are standards referred to for IT skills and professional profiles?

1. Yes

2. No

_	Selection of personnel	Training of personnel	Acquisition of external resources
EUCIP			
e-CF			
ECDL			
AITTS			
SFIA			
CIGREF			
Other, specify:			

²⁹ The sum of all the percentages must be 100%.

³⁰ The sum of all the percentages must be 100%.

Technological environments (Question 21)

Contactless

Technologies that permit the interaction of two or more entities without physical contact, for example for recognition applications. Typical contactless technologies are RFID (Radio Frequency IDentification) and the more recent NFC (Near Field Communication). The response to this question must be assessed regardless of whether the technology is integrated in mobile devices (e.g. an NFC smart card integrated in a smartphone).

Biometric recognition systems

Systems able to identify people by recognizing biological or behavioural features (e.g. fingerprints, colour and size of the iris, physiognomy of the face, voiceprints, signatures).

Mobile applications

Mobile is taken to mean all devices known as handheld, that is small mobile terminals that allow users to carry out operations previously possible only with PCs (e.g. cellular phones, smartphones, palmtops and PDAs but not portable PCs). Mobile applications can be used from either inside or outside the company and be aimed at either customers or staff.

Web 2.0 applications

The term Web 2.0 refers to the recent development of software able to increase the interactivity of using the web and communication between the providers and users of services. In the questionnaire the term "Web 2.0" identifies an interactive approach permitting use of the connection with the bank to meet information or transaction needs. For example, a web "Digital assistant" that provides customers with information by responding to questions like a human assistant, and a social networking system developed for the bank's employees. The term Web 2.0 does not include a FAQ page or a page of an external social network devoted to the bank.

Business intelligence

The set of corporate and technological processes for gathering and analyzing strategic information, transforming data and information into "knowledge". In general, data are collected and analyzed in order to inform management decisions – Decision support systems – in the various business sectors and for management control.

The following are examples of business intelligence: benchmarking internal operations, data presentation applications for customer interfaces, management dashboards.

Cloud computing

The term cloud computing indicates a set of information technologies enabling the use of resources – hardware (storage, CPUs) and software – accessed remotely as if they were implemented by "standard" systems (servers or peripheral devices). The actual allocation of the resources is not defined in detail; rather, the idea is precisely that the implementation is a heterogeneous and dispersed set of resources whose characteristics are not known to the user. The following are various types of cloud computing:

- SaaS (Software as a Service) Consists in the remote use of programmes, often through a web server.
- PaaS (Platform as a Service) Similar to SaaS, but rather than the remote use of a single programme, allows that of a software platform that can comprise various services, programmes, libraries, etc.).
- laaS (Infrastructure as a Service) Consists in the remote use of hardware services the resources are used on request, when required.

VoIP

A technology that makes it possible to have a telephone conversation over the Internet or some other dedicated network based on IP. For example, VoIP telephony for the staff, VoIP software on employees' PCs (in place of traditional telephonic communications), interactive customer service via VoIP.

Web Conferencing

A system of videoconferencing via the Internet using software installed on participant's terminals or a web application with additional functions, such as the presentation of slides, the projection of videos, voting among the participants, web tours, etc. The presence of this technology is to be reported only when it is considered an organizational tool.

Service Oriented Architecture (SOA)

SOA technologies stress the presentation of functionalities via standardized interfaces so that individual applications can be used as components of internal or business processes and users' requests satisfied in an integrated and transparent manner. An example of a SOA application is a home banking portal connected to a "customer and/or order acquisition" service, regardless of how this is done (languages, vendors, standards, etc.).

Green IT

The use of environmental criteria to assess and select IT services and equipment. The environmental criteria examine the impact of IT equipment and services on the environment for their entire life cycle; the evaluative parameters include direct and indirect energy consumption - primary energy and air conditioning – and the possibility of recycling the components. The following are examples of green IT: investment in energy-efficient hardware and the virtualization of servers and storage.