

# Resilience in Retail Payments Systems

The point of view of a domestic system operator



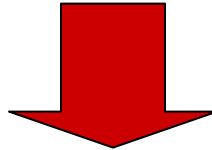
**SIA**

# Towards a new paradigm of “domestic”

- SIA was founded in 1977 by a group of companies including Bank of Italy, Italian Banking Association (ABI), some Italian banks and financial institutions
- In the 80s SIA developed and implemented Italy's interbank payment system, as proposed by Bank of Italy's “White paper on payment systems” thereby becoming the Italian payment system service provider
- Until 2000 domestic was referred to as meaning Italy.....

# SEPA

New European Legislation, concentrates on the creation of a  
**Single European Payment Area**  
with the aim to bring European cross-border payments  
prices and services in line with the domestic ones



The Eurozone is the new Domestic Border

*"Directive on cross-border credit transfer" (97/5/EC)*

*"Regulation on cross border payment in euro" (2650/2001)*

*"Towards An Integrated Infrastructure For Credit Transfers In Euro" (ECB 11/2001)*

# The ECB's Vision of SEPA 2010

“a real SEPA will be achieved [for citizens in the Euro area] when they can make payments throughout the whole area from a single bank account, using a single set of payment instruments, as easily and safely as in the national context today”

“.....by 2010 the transformation of infrastructures should be fully underway, either by the conversion of national infrastructures into pan-European infrastructures (i.e. such that there are no-longer parallel domestic and cross-border systems), or by their elimination as several PE-ACH operators gradually absorb payment volumes across Europe.”

# EBA - STEP2 Pan-european ACH



**EBA** (EURO Banking Association),  
representing the major international commercial banks,  
created - together with SIA -  
the first PE-ACH (Pan-European Automated Clearing House)  
for retail payments in Euro (STEP 2).

STEP 2 is aimed at processing high volumes of retail payments,  
sent to the system by means of files through a secure network,  
addressed to banks located all over the European Union

This will allow European banks to meet the SEPA 2004-2010 roadmap objectives

# SEPA

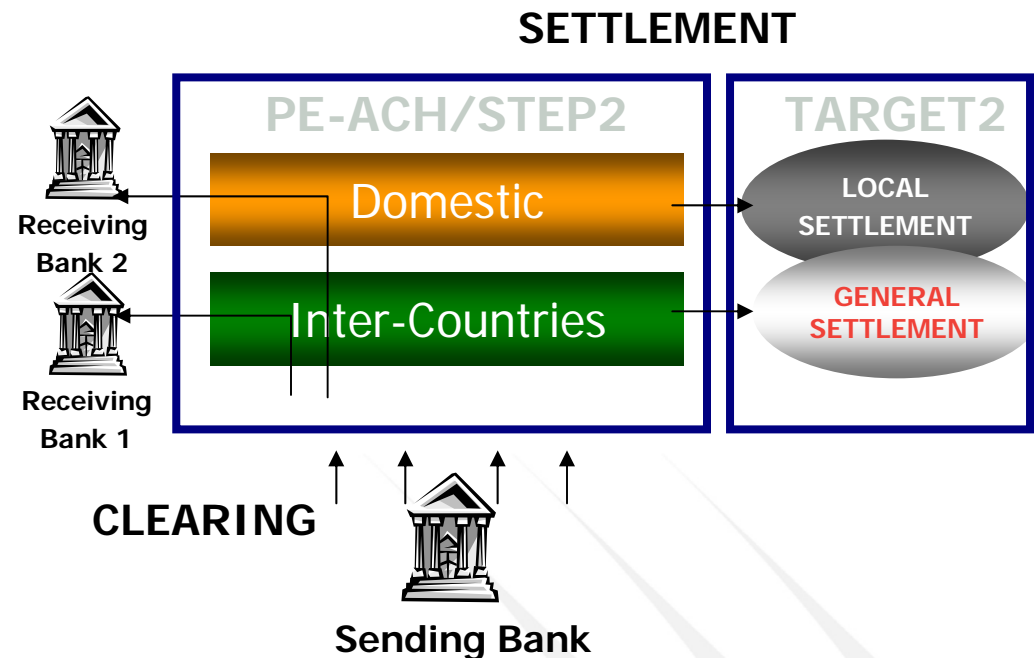
## Euro payments as domestic payments

In Eurozone the harmonisation of business and technical standards is fostering the integration process towards the creation of a Single Euro Payments Area (SEPA): a shared, stable and secure euro area enabling economic and financial co-operation and increased competitiveness.



SEPA = change

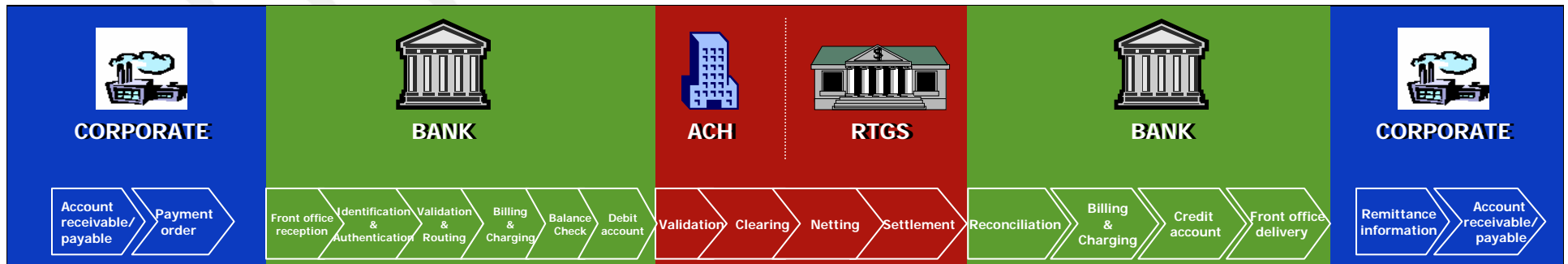
- Transformation from local to European
- Removal of barriers
- Standardization
- PE-ACH, Target2, SWIFTnet



*End-to-End STP services as a renewed drive within the SEPA community to increase the level of automation, **reduce operational risks**, reduce costs and improve customer service.*

# Towards end-to-end STP Payments Life Cycle

*Payments are becoming a commodity: payment process exists for the purpose of the end-to-end transaction and not the reverse.*



The payments industry needs to offer more than bank-to-bank STP services: it shall ensure radical STP improvements in the customers, from payment generation to receivable matching.

*"Connected, distributed systems, from power grids to business firms to even entire economies are both more fragile and more robust than populations of isolated entities"*

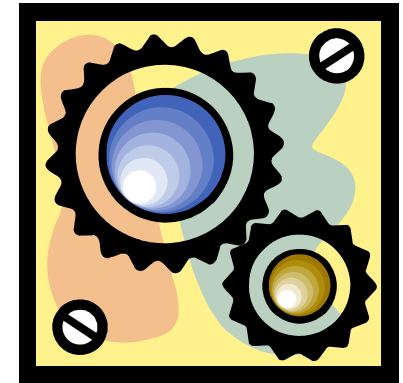
Duncan J. Watts

# Towards a new paradigm of resilience

In the era where the enterprise as “macro-process” lives thanks to the parallelisation of multiple interconnected processes

It's not enough to reduce the “**single points of failure**” but we need to extend the resilience concept to the “**intangible**” components

in particular to the processes themselves  
and among all processes, the management decision processes



... as consequence the new paradigm is focussed on the concept of:  
**Enterprise Resilience**



# Payment Resilience vs. Enterprise Resilience

**Resilience** ( in business terms) is the ability of an organization, resource, or structure to sustain the impact of a business interruption and recover and resume its operations to continue to provide minimum services.

But guaranteeing **resilience in Payment processes** requires always more than a business continuity approach.

Requires **enterprise resilience** seen as the capacity for complex industrial systems to survive, adapt, and grow in the face of turbulent change ..... .. much like living systems.

**Enterprise Resilience –  
“the enterprises that want to be successful  
must be in the position to absorb market  
entreaty without going in a state of crisis**

# Payment Resilience

*Resilience is therefore a service logic and not just a business continuity logic*

the payments resilience rely on the equilibrium/coherence between  
**organisational flexibility, infrastructure reliability** and  
the ability to make the most of **human heritage**

*Under a strong overall risk management governance*

PROCESSES/RULES



INFRASTRUCTURES

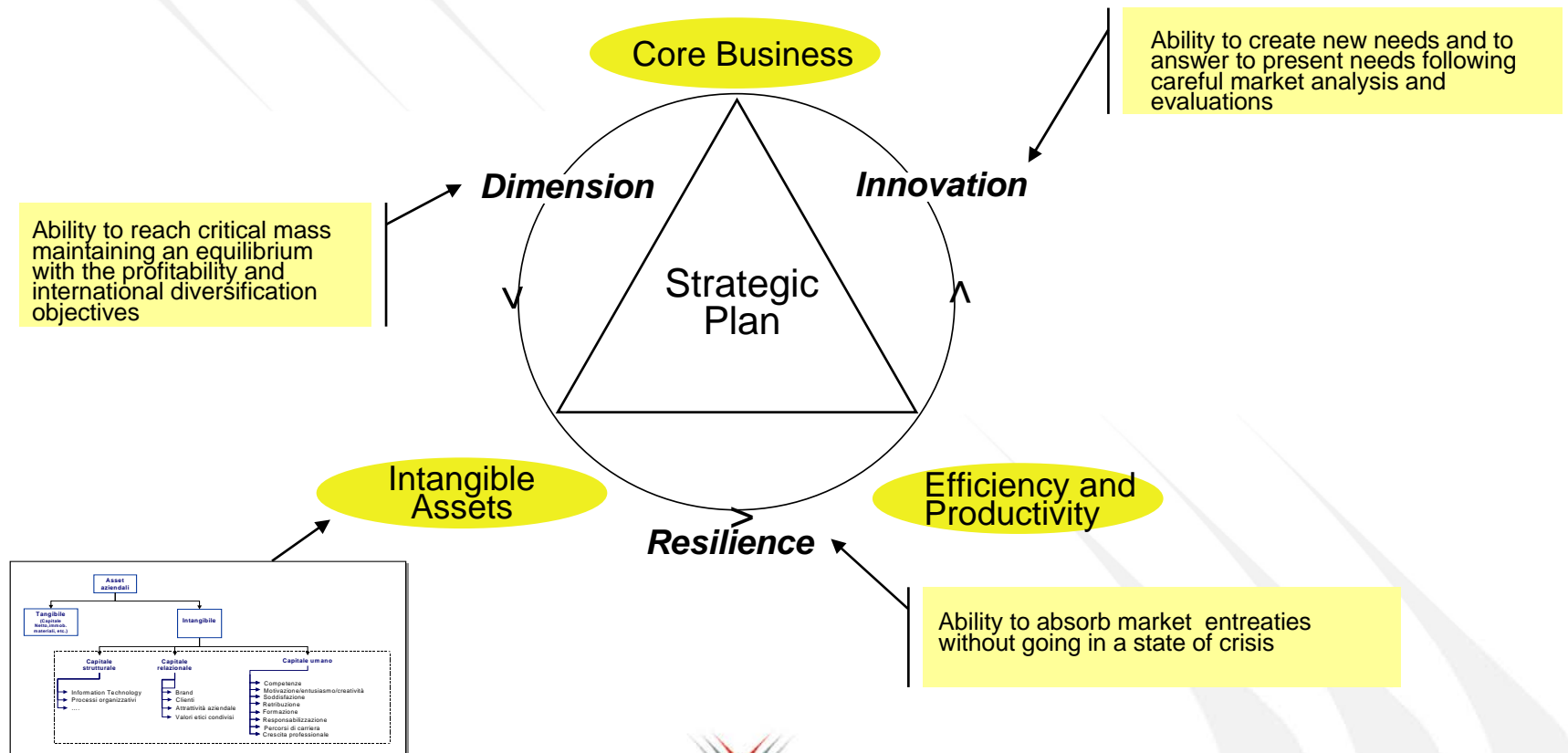
PEOPLE

**Resilience involves:**

- *Infrastructures (HW, SW, Network,..)*
- *Processes/Rules (Operating supporting structures,...)*
- *People*

# Enterprise resilience as key point of the SIA Group Strategy towards SEPA

- » Resilience as a key direction pursued in the SIA Strategic Plan
- » SIA strategy of an integrated process of growth is based on three key assets to create value for the stakeholders:



# Resilient Infrastructure

- » IT:
  - » Most robust technologies
  - » High redundancy
  - » Disaster Recovery facilities
  - » Extensive R&D
  - » Extensive use of people reachable technologies
- » Application Design:
  - » High modularity
  - » High flexibility
  - » Driven by extensive business knowledge
  - » Driven to guarantee low risk integration for customer
  - » High parameterisation to comply with different local business needs
- » Help Desk:
  - » The best and knowledgeable resources in front line to quickly react to customer stress
  - » Utilising latest solutions for service support

# Resilient People

A resilient person could be thought of as someone who has the ability to bounce back after experiencing stressful events or who is able to cope despite the adverse conditions they live in

People spend the most of their time working.  
The resilience of a person is becoming more and more influenced by their working conditions rather than personal conditions

# People resiliency management

## Health management:

- » Personal programs
- » Periodical checks

## Social responsibilities

- » People directly involved in social responsibility programs
- » Charity programs to be funded, driven by the employees

## Management style

- » Collaborative management
- » Coaching management

## Working environment

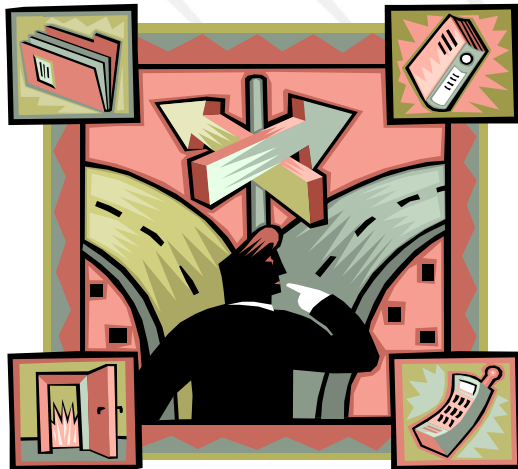
- » Ergonomic equipments
- » Open spaces (with enough space)

## Internal communication

- » Strong and open communication on Corporate Strategy
- » Internal on-line news on corporate life and achievements
- » Social event for employee's families

# Resilient processes: operation supporting organization

- » For SIA crisis is .....an emergency related to the “decisional process” of company Management

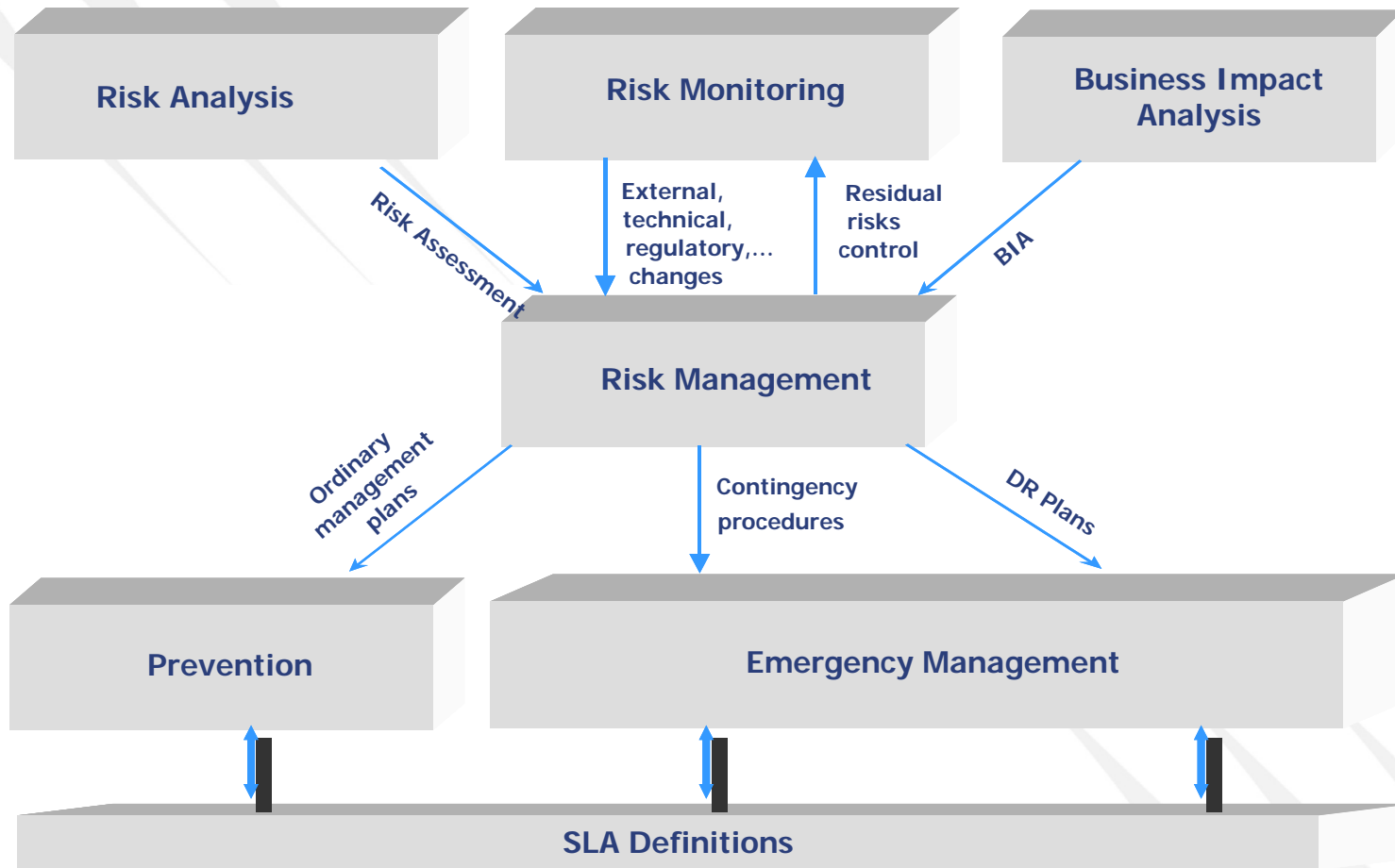


SIA is organized in order to be able to make a good decision:

under all conditions in order to preserve

- » business assets,
  - » clients' assets
  - » and thus company assets
- 
- » decide in an informed way (information)
  - » decide promptly (simple, complete and correct information)
  - » decide effectively (risk knowledge, competence)
  - ...
- and possibly
- » decide efficiently and calmly in all circumstances

# Resilient processes: Management models integration





# Resilient processes: SIA's equipment

- ✓ A crisis management plan
- ✓ Two fully equipped crisis rooms
- ✓ (one for each site)
- ✓ A series of tools, equipment and facilities in the crisis rooms:
  - workstations
  - network connections
  - satellite phones
  - money (€ cash)
  - cars
  - cameras and video recording devices



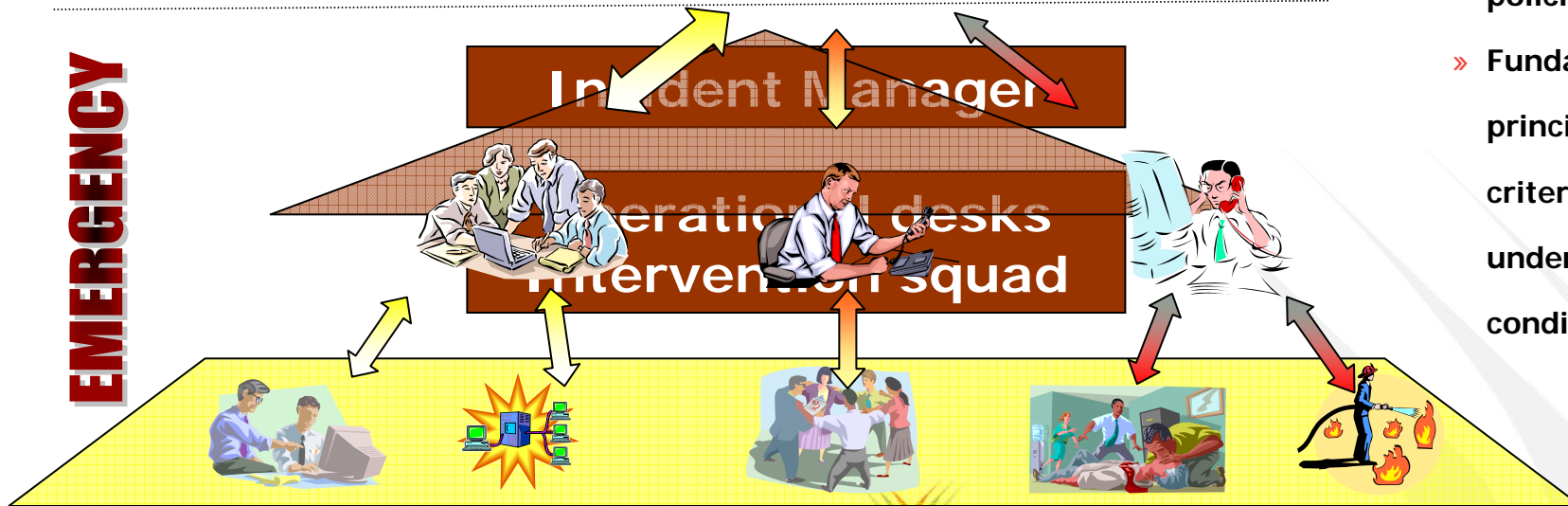
# Resilient processes: Crisis governance framework

**CRISIS**



- » Engagement rules
- » Escalation rules
- » Employee availability rules
- » Communication policies
- » Fundamental principles and criteria for acting under crisis conditions

**EMERGENCY**



# STEP2 System Global Overview



# Resilient Infrastructure: migration of Domestic Payments towards SEPA

In 2007, 60% of the Italian credit transfers will migrate to STEP 2 Clearing House, adopting the CredEURO standard

Several design principles were followed to strengthen the resilience despite the increasing complexity and interdependencies, achieving the minimum impact on the existing central and banks infrastructures:

- » **Conversion mechanism** to overcome co-existing different standards
- » **Networks independent system** to cope with existing connectivity infrastructures
- » Flexible **concentric model** to fit each country's business needs
- » **Mother tongue support** to accommodate different languages
- » **Country governance models**
- » Centralised **duality management for smoothing migration** according to different degrees of readiness
- » **Decouple bank system and the central infrastructure** with participants system
- » .....

# Excellence in managing complexity

## Payments and Clearing in perspective

### » EBA STEP 2

- » number of transactions in 2005: **45 million**
- » value of transactions in 2005: **104 billion euro**
- » daily average: **176,000 transactions at 400 million euro**
- » direct participants: **97**
- » indirect participants: **1,664**

### » “domestic” ACH

- » number of operations processed in 2005: **4.3 billion for 2,500 billion euro**

# Excellence in services

The level of complexity of the technological infrastructure and the highly mission-critical services require maximum efficiency.

Excellence is an absolute must

- » compliance with all major international security and quality standards which apply to enterprise-wide processes and procedures
  - » ISO 9001:2000 (Vision 2000)
  - » Tick it
  - » BS 7799
- » about 7 trillion bytes transported in 2004 on SIAnet, a service level agreement close to 99,999%
- » Help Desk 24x7x365



CONCEPTION, DESIGN, IMPLEMENTATION, AND OPERATION OF NETWORKING AND INFORMATION TECHNOLOGY INFRASTRUCTURES, DATA BASES, TRAINING AND



# The SIA Group: a resilient company

**SIA is the technological partner for financial institutions, banks and financial operators.**

Thanks to a 30 years experience in running financial systems,

SIA provides a complete infrastructure for retail and high value payment systems, securities settlement and custody, trading systems.

**Our Mission**

**Our new Vision**

**Accelerating and integrating the flow  
of information to create a global financial system.**

**Know How and innovation drive development**

SIA has created a group of companies with a **common philosophy**,  
**diversified know-how** and a **high degree of specialisation**



# Conclusion: turbulence ahead

**“The world is becoming turbulent faster than most companies are becoming resilient ....**

**Few companies seem prepared for a world that is all punctuation and no equilibrium”**

*Gary Hamel*

*SIA is working to win the SEPA challenge*





Value

For 30 years we have been raising value to bring you value: competitiveness, security and reliability make SIA the evolution centre and convergence point of today's financial systems, as well as the undisputed protagonist in the new technological challenges. After contributing to transforming the international financial and banking system brand today represents a Group which is continuously moving towards evolution.

**SIA Group: value makers.**



**SIA**

expanding value