

# Fortis Experience with the SEPA Testing Programme

## An early adopter perspective

Vincenzo Infosino, SEPA Business Architecture & Testing Manager  
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# Fortis as a Clearing Bank

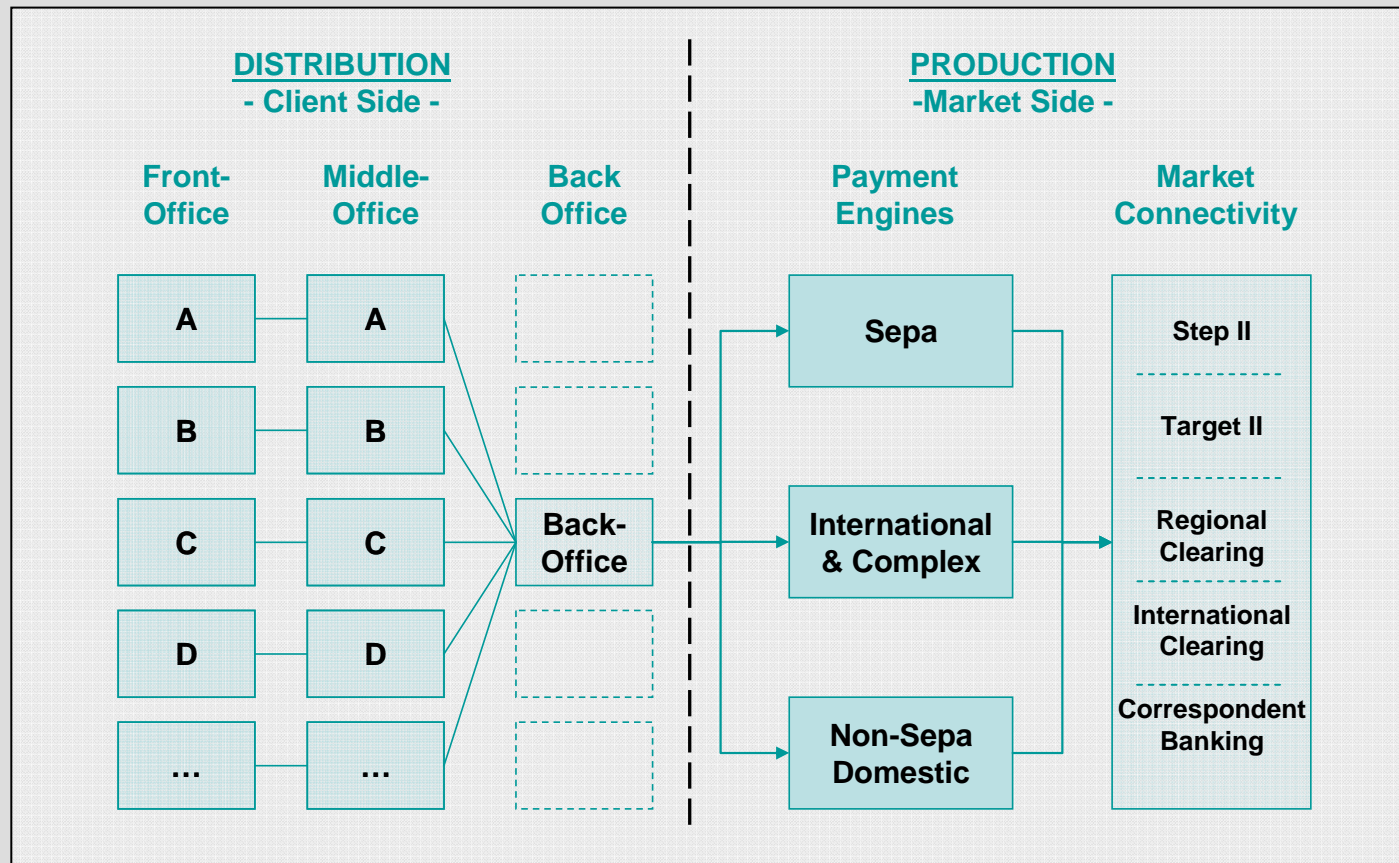


- The PAY Management team involved in ground-breaking cost-efficiency & sourcing initiatives for all payment products during period 2006-2010
  - International payments (operations shared in Belgium, Netherlands & Turkey)
  - Pooling from network of Business Centres in Poland (Hub)
  - SEPA (All Fortis geographies serviced)
  - Cheque & Cash Centre Consolidation (Belgium)
  - Sourcing of Archiving & Imaging
  - SWIFT infrastructure & Correspondents/Nostri consolidation
- The integration of payment flows is one of the key assets within Fortis' Payments SSC

# Fortis Payments Services

## *Business Architecture of PAY Shared Service Center*

- Re-design of operating model with clear-cut separation distribution & production
  - Distribution: focus on individualized offerings with consolidation of client-facing & market-specific activities (if applicable)
  - Production: consolidation shared market connectivity for clearing & settlement

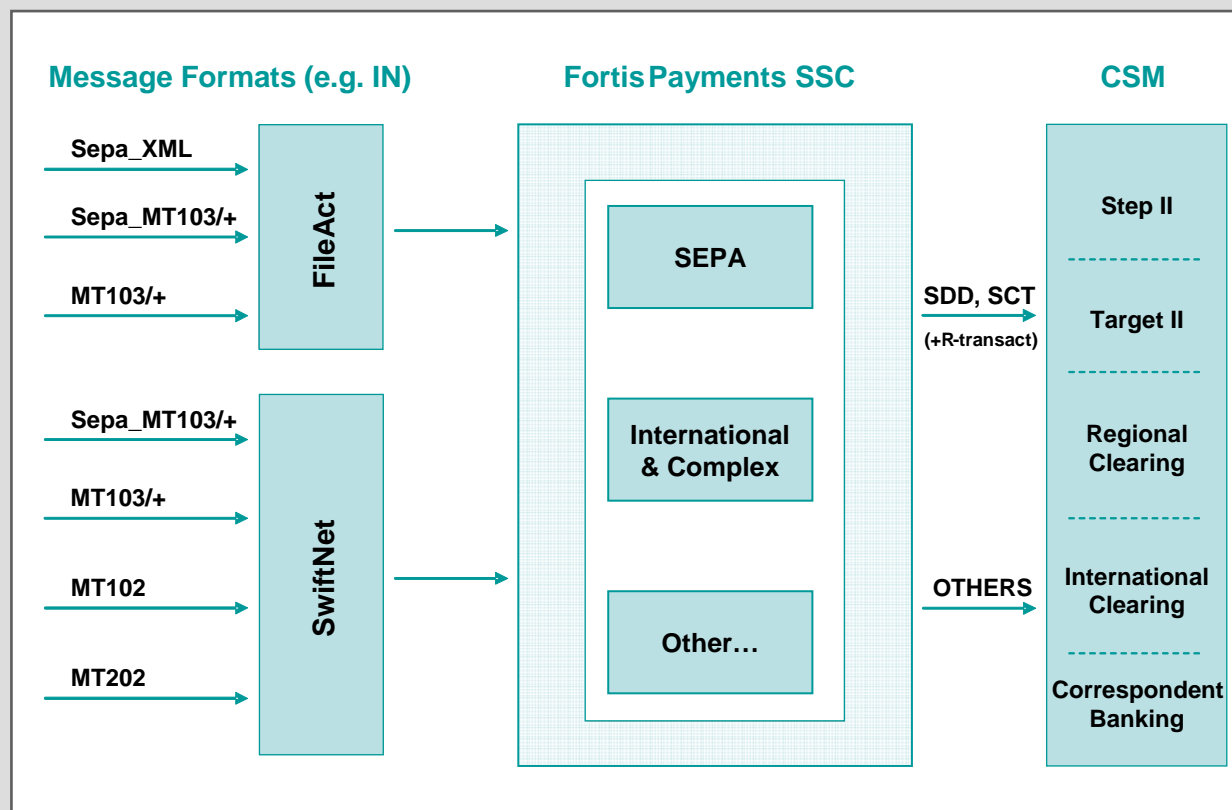


# Fortis' Key Assets

## SEPA format conversion features

- Fortis will be SEPA compliant and offer full SEPA Reachability IN/OUT for all Euro payments
- Flexibility: whatever format sent via XML, MT101, MT102, MT103/+, MT202 and CIRI

- We will be able to translate, if needed, the SWIFT message towards XML messages and vice-versa
- Fortis will cover all R-Transactions for SDD and XCT
- Non-reachable banks via SEPA clearing can be reached via Corresp. Banking, Step2 XCT, Target ..

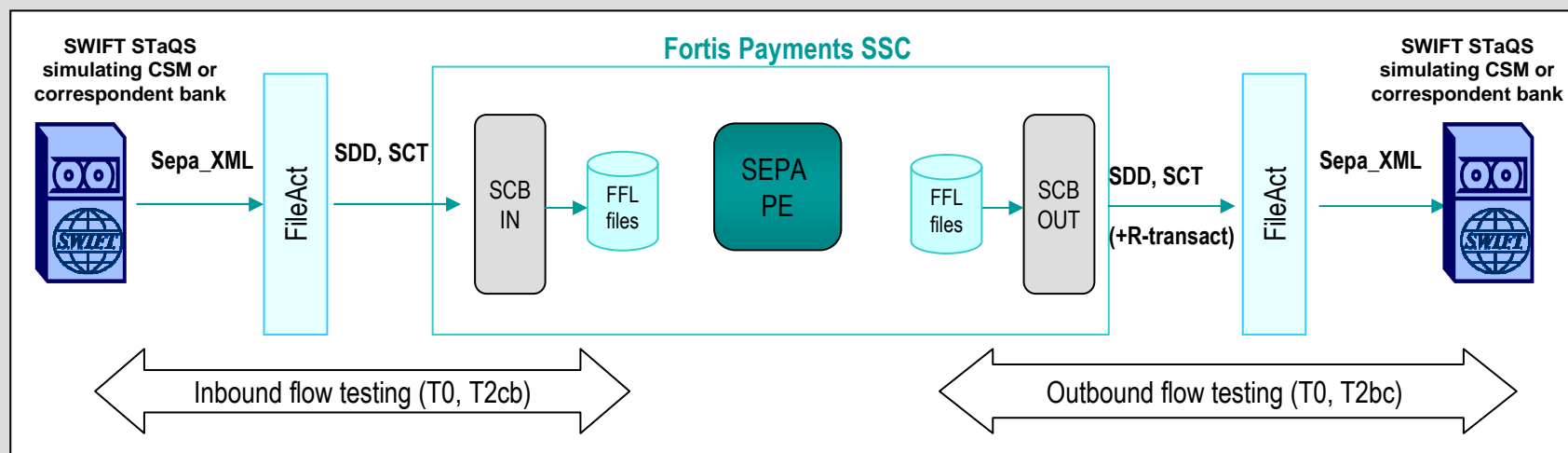


# Fortis Experience with STaQS

## Objectives and scope

- Test cases to cover **native SEPA XML** Standards
- **Complement** end-to-end interactions / business-like scenarios
- Focused on the format of the **individual transactions**
- Guarantee the **adherence to industry standard** definition

Fortis mainly focused on the following CSM Topology Type		
T0	T2BC	T2CB
Bank to Bank flow as described in the EPC Implementation Guidelines	Bank to CSM flow in a centralised ACH topology	CSM to Bank flow in a centralised ACH topology



# Fortis Experience with STaQS

## Planning of Activities

Activities	Workload (Mandays)	June	July	Aug	Sept	Oct
<b>Approach and planning</b>						
<b>Approach and planning</b>	5	■				
<b>Test preparation</b>						
Review / filter test cases	5		■			
Swift Webstation set up	5		■			
<b>Test execution (per stream)</b>						
STAQS stream 1	10			■		
STAQS stream 2	5				■	
STAQS stream 3	10				■	
<b>Incident management and test control</b>	7.5		■	■	■	
<b>Regression runs (ongoing)</b>	5				■	
<b>Test closure and sign off</b>	2.5					■

Legend:  coordination activities  test preparation  test execution

### ➤ Stream 1:

- Successful Credit Transfer Scenarios (23 cases)
- Detection & generation of Returns (9 cases)
- Detection & generation of Rejects (50 cases)

### ➤ Stream 2:

- Successful Credit Transfer Scenarios (28 scenarios)
- Triggering & Reception of Rejects (8 scenarios)
- Triggering & Reception of Returns (7 scenarios)

### ➤ Stream 3:

- Invalid Rejects and Invalid Returns (203 test cases) PE for generation of outbound messages

# External tests with STaQS

## *Test Execution*

### ➤ **SWIFT Standards Smart Test Messages**

- Were mostly used to test the parser
- Partially used due to lack of time. Priority was given to STaQS test cases

### ➤ **STaQS Test Cases**

- Expected results defined by STaQS can be adapted to the bank's context, for example Fortis decided to ignore some fields rather than rejecting the message.
- Test cases were selected mostly to facilitate future testing with our external entities
- Only a significant but limited subset of the recommended test cases due to internal constraints:
  - Unavailability of some functions to test the entire chain (SCB IN–SEPA PE– SCB OUT)
  - In-house tool to simulate incoming CSM payments was already available before the STaQS

### ➤ **STaQS WebStation**

- STaQS customisation options often used to launch test cases
- Limited reporting on STaQS to get a consolidated view of test results (executed & validated cases)

### ➤ **Incident Management**

- Internal defect handling performed daily via the Incident Management Committee
- Incident related to STaQS were quickly resolved by the SWIFT Support Center

# External tests with STaQS



## Test Execution

### ➤ Test progress reporting

- Internal reporting performed on a daily basis
- Test cases declared as 'validated' when meeting Fortis requirements

E2E-STaQS	#	% Executed	% Validated
Stream 1: Reception of CT (Valid & Invalid)	82	100%	100%
Stream 2: Sending of CT (Valid & Invalid)	43	100%	100%
Stream 3: Reception of "R" (Valid & Invalid)	203	100%	100%
Global	328	100%	100%

### ➤ SWIFT Coaching

- Very useful during preparation phase as it gave a very good high level overview
- Less necessary during execution phase due to the important organisation in place at Fortis to manage all the steps of the testing project.

### ➤ Encountered problems

- At that early stage of test, STaQS service was slightly unstable and some updates were performed during our test execution (new version of STaQS test cases, web station...) which slowed down our test execution.
- Due to his "pioneer" position in STaQS testing, Fortis discovered some minor problems on STaQS (incorrect namespace, incorrect test cases...)

# External tests with STaQS

## *Key benefits of the SEPA Testing Programme*

### ➤ **Improve the robustness of our system earlier in the process**

- Validate the response generated by our payments system to incoming B2B payments against the expected results imposed by each STaQS test scenario.

***STaQS testing allowed us to resolve upfront 40% of the incidents in our system (~30 incidents on a of total 73) before the operational business testing***

### ➤ **Guarantee standards interoperability for all our external clearing channels**

- Validate our internal controls on incoming B2B payments against the STaQS validation conditions and rules.

***STaQS testing allowed us to ensure the application can technically switch from one channel to another with no risks of wrong format interpretation***

### ➤ **Enhance significantly the quality of the operational testing with external entities**

- Valuable “rehearsal” before operational and business testing with external entities (EBA, CEC and sub-participants) for tools adaptation, test cases creation, connectivity setup,...

***Without the STaQS, we would have experienced serious overheads and delays in solving basic issues during the operational testing phase***

# External tests with STaQS

## Key benefits of the SEPA Testing Programme

### ➤ Reduce the overall testing effort

- Savings estimated at ~15 – 30 mandays for test analysis on a total of 150 mandays test project (format and operational tests) for all external entities (EBA, CEC and sub-participants)

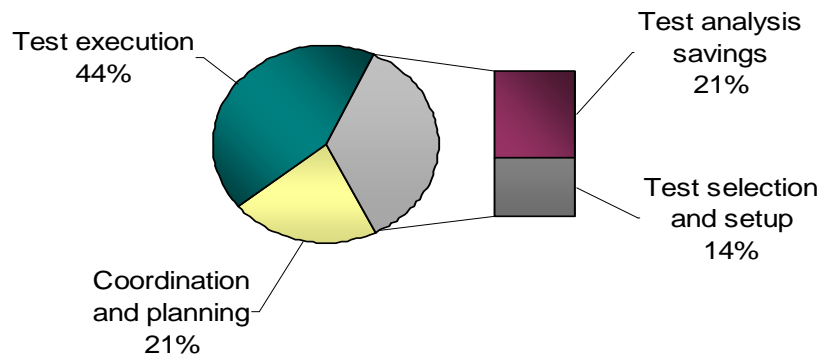
***STaQS allowed us to save ~20% of the total testing effort with external entities***

### ➤ Provide an extensive test coverage

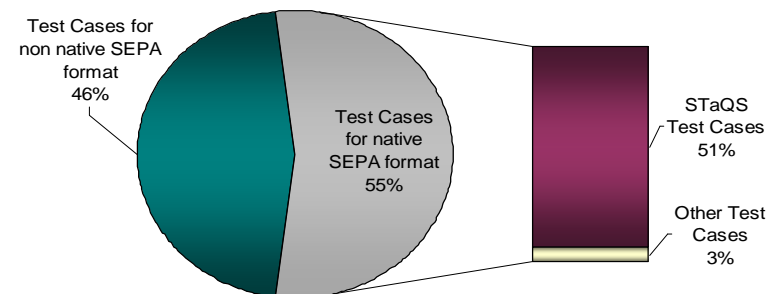
- STaQS provided us a set of test cases that represent ~50% of the required coverage for standard format testing of SEPA B2B messages with all external entities (EBA, CEC and sub-participants)

***STaQS provided +90% of the tests for native SEPA formatted messages (XML)***

### Testing effort savings



### Test coverage per format type (B2B)



# SEPA Testing Programme

## *Conclusion and Next Steps*

- **Fortis has been playing an important role through its involvement as:**
  - An active participant to the SEPA Testing Advisory Group
  - An early adopter of the SEPA Testing Programme tools
- **SEPA Testing Program has been very valuable for the B2B SCT testing to:**
  - Improve the robustness of our system earlier in the process
  - Guarantee standards interoperability across clearing channels
  - Enhance significantly the quality of the operational testing with external entities
  - Reduce the overall testing effort with external entities
  - Provide an extensive test coverage
- **In the future, we plan to**
  - Use the SEPA Testing Program for B2B Direct Debits testing in 2008
  - Assess the use of the tools for C2B testing as soon as the deployment plan is confirmed by SWIFT

**This is not the end...the SEPA testing will last beyond Jan 2008 !**

Thank you

