RES IT

Business case

RES and **Banca Popolare di Sondrio**

BANCA POPOLARE DI SONDRIO, QUALITY BECOMES A CULTURAL FACTOR

"With the double goal of cutting costs by optimising the use of IT resources and supplying a continually improved service to our customers, we have decided to put our trust in RES and aim at a project of Quality Assurance, which has proved to be important and has brought changes in the process and organisation level of the company"

Milo Gusmeroli, Deputy General Manage

RES IT

RES developed the "application quality" project together with Banca Popolare di Sondrio, allowing the Bank to constanly, punctually and optimallymonitor its software processes.

■ Business scenario

The Banca Popolare di Sondrio Banking Group comprises the Group Parent Company Banca Popolare di Sondrio, a co-operative stock company with a registered office in Sondrio, and the subsidiaries Banca Popolare di Sondrio (Suisse) SA, a credit institution governed by Swiss law with a registered office in Lugano (Switzerland), and Factorint Spa, operating in anticipation, collection of trade receivables and related services, based in Milan. Among the investee companies deserves special attention Pirovano Stelvio spa, modern hotel facility on the Stelvio Pass, aimed at summer skiing. The branch network of the Bank Group was composed at the end of 2011 of 323 branch offices. The shareholders' equity, as of 31 December 2011, was 1,619 million Euro, excluding the profit for the financial year.

■ Project challenges

The Banca Popolare di Sondrio, with the goal of improving the quality of software by reducing IT costs, created a verification process to check software application quality over its entire lifecycle: from the moment it is written to the data processing phase. The ultimate goal of the project was to ensure that all processes operated perfectly, in order to guarantee the efficient management of the Institute's procedures.

■ The contributions of RES and the benefits to the bank

From the beginning RES, supported by the experience and knowledge gained over past years from similar projects, identified the critical factors for success and devised an action plan that was built around three main phases in the lifecycle:

- software development, controlling the quality of developed or modified objects
- testing and inspection, verifying and evaluating the impact on modified objects
- software production, evaluating the impact of modified objects on the IT system.

One difficulty for the customer was the need to increase the processing burden on the mainframe while still maintaining high quality levels. A contribution which has proved to be fundamental for the successful outcome of the project is the ability to control quality right from the first stages of software development. This has also been a factor setting RES apart from their competitors and has added value to the entire project.

The result is that the Quality Assurance we have adopted constantly guarantees improved application quality throughout the entire lifecycle and a significant reduction of management costs. But that is not all: the project's benefits can be extended to the entire organisation, because improving applications at lower cost combines with a better approach at the software selection stage and greater control of investments, raising the level of service to the end customer.

Project challenges: THE QUALITY ISS

At present, applications are essential to the business of every organization because problems with them can endanger results. In light of this, Quality Assurance takes on a fundamental role, because it allows the Bank to verify exactly how applications are working, identify any functional and/or organizational problems and correct them in the preliminary stages of the lifecycle so that the release can occur without problems.

For this reason, Banca Popolare di Sondrio has focused on Quality Assurance and turned to RES to define project targets in line with business needs, the objects of control and the macro-stages of the project.

The project goals are to:
- optimize processing capacity at the data processing centre without raising IT costs (i.e. optimize the use of computing resources)
- spread the concept of quality in the management of the software (Development, Testing and Production), working on the optimization of services
- improve software performance in order to supply a timely service to customers
- introduce a new type of relationship, based more on practical collaboration, between the departments that handle different aspects of applications (processing and management).

Objectives of QA control:
- **programs** (90,000), resident in
- **Job Control Language** (33,000) with the function of running the programs through a set of commands supporting the correct functioning of
- **batch schedules** (2,000), within
- **applications** (250).

Competence of RES UE

With its proven experience and specialization in the improvement of the management of complex IT systems based on mainframes, RES has shown that it is the ideal partner for managing developmental and application processes in terms of software evaluation and quality control.

RES is outstanding not only in terms of technical competence but also for its particular approach to consultancy, which focuses on detailed knowledge of customers, their processes and business needs related to the lifecycle of applications. The operational aspect has been combined with environmental analysis and feasibility studies through the implementation of its integrated suite, which provides a tool for the management and control of systems on a daily basis.

The initial stage of consultation (leading to an analysis of the technical, functional and organizational impact of the implemented solutions) is followed by a more operational stage, based on the use of the proprietary suite. This is a highly technologically advanced suite that allows us to make the process revision stage practical and functional and can now provide the daily management and supervision of the Bank's application lifecycles.

RES IT

The following components were used in the case of the Banca Popolare di Sondrio:

Docet: a solution that integrates information deriving from an analysis of the objects in the company information system into a single relational repository. It maps the state of the art of applications

HplQA: automatically performs quality control (and verifies agreement with company standards)

J-Man: supports the management and quality control of the Job Control Language and scheduling networks

QA-Me: measures the management costs of applications.

The project and its stages

We now enter into the specifics of the Quality Assurance project stages in relation to the components of the above-mentioned Suite.

The stages:

- preparation of software mapping and program quality analysis/control
- quality control of the Job Control Language and scheduling networks
- metric Analysis of application objects.

Stage 1:

Preparation of software mapping and program quality analysis/control.
Mapping is performed using the RES Docet solution. Applications, lines of program code, files, DB2 tables, Job Control Language and scheduling networks are loaded into the RES database to provide precise information on what is installed to whoever needs it.

The HplQA product performs quality control, both on already existing and analyzed programs (approximately 90,000), and on programs in

the modification stage (in this case control is performed during their lifecycle).

This solution gives two types of fault alert: a Warning (the program is allowed to continue to function towards production) and a Block, which supplies users with information about software quality and allows them to take corrective action. Object migration is managed by the change management software, and users can find the entire warnings "history", concerning conformity of a certain program (alerts are sent directly to users via e-mail), on a database included in the solution.

Stage 2:

**Quality control of the Job Control Language and the Batch Schedules.**
Quality is applied to production objects (Job Control Language, Data Definition Language, Procedures and Scheduling Networks) utilizing the RES J-MAN solution, which provides a significant reduction in production errors.

The RES solution facilitates entry during the change management process, also for the Job Control Language (JCL). The change management process saves the history of JCL changes and ensures programs are modified in compliance with the rules defined by the installation.

Stage 3:

Analysis of Metrics on application type objects.
In order to verify the compliance of programs to the concepts of quality for the writing of software, applicable both to individual modules and entire applications, and to enable evaluation of the work of entire development areas or external suppliers, the RES QA-Me solution is used to calculate dimensional and complexity metrics, testability and maintainability for individual programs and entire applications.
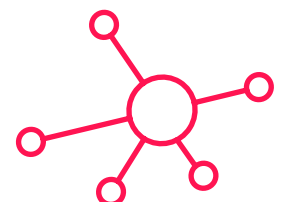
Results: the reasons for success

With this implementation, the Quality Assurance project has been a success in terms of the Bank's business goals, with positive effects on the entire organization. The solution implemented by RES provided a complete answer to the application lifecycle verification requirements in terms of cutting costs, performance measurement, change management and software selection, all of which have ultimately led to improvements in the service delivered to customers.
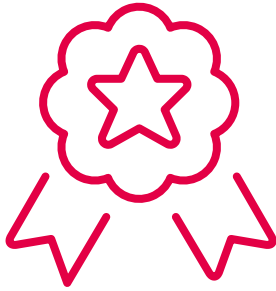
More particularly:

Measurement of IT systems performance in terms of business
Based on Quality Assurance analysis of software, this is considered vital for the Bank's processes. This is because, used on the units and macro-processes, it allows verification of the relation between software costs and benefits. The information processed by the project is valuable for both those who, within the OISS, have the task of routing IT systems towards the ITIL and COBIT directives, and those who work on the EDP audit.

Improved Change Management
Adoption of these tools has allowed the Banca Popolare di Sondrio to improve the performance of its already existing change management path. Although it already had a Change Management tool, the Bank had not made a precise analysis, including data collection in a repository on which to map the software, identify links, faults, inefficiencies and to measure operating cost characteristics. Today, thanks to improved

management of applications and the redesign of processes at the level of architecture to render them more functional, also Change Management has been optimized.

Improved relations with suppliers
Thanks to this project, suppliers are encouraged to maintain high standards of service from the software release to the maintenance stage. That is why the Banca Popolare di Sondrio keeps the supply service level high with the use of Reports within the organization (Purchase Office, IT Area and Area Head).

In parallel with the evaluation of suppliers, the project is also useful in the software selection stage for the selection and testing of new applications before implementation. This process is particularly advantageous since it allows all the modifications to be ordered from the supplier, making it more suitable to the organizational context. This process, for example, was used for the verification of the departmental software being adopted by the new branches soon to be set up by the Bank.

In conclusion, in light of all the above, we can confirm that the Quality project, initially devised to guarantee software quality has, over time, involved the entire organization.
This has given rise to a comprehensive and overall improvement of the banking system. In this sense, it is possible to talk about a "cultural" change pervading the entire organization, which went from "doing good" to "doing good with awareness".