

# NUMBER1 LOGISTICS & TRANSPORTATION

NUMBER1 Logistics Group, the leading Italian logistics operator serving companies in the Grocery sector, embarked upon a general renewal project. The aim of the project was to design a personalised warehouse operations model, to be supported in turn by a new WMS Warehouse Management System.

With a particular focus on the difficulties posed by its intricate distribution network, NUMBER1 chose the Click Reply™ WM solution.

The complexity and type of the company's distribution network, combined with the need for the standardisation of its logistics processes, rendered Click Reply™ WM the best solution for NUMBER1's requirements: unified and centralised management of different kinds of stock; versatility of configuration options to keep abreast of the dynamic variations in the company's business processes; a system capable of handling the practical complexities of Grocery stock management.

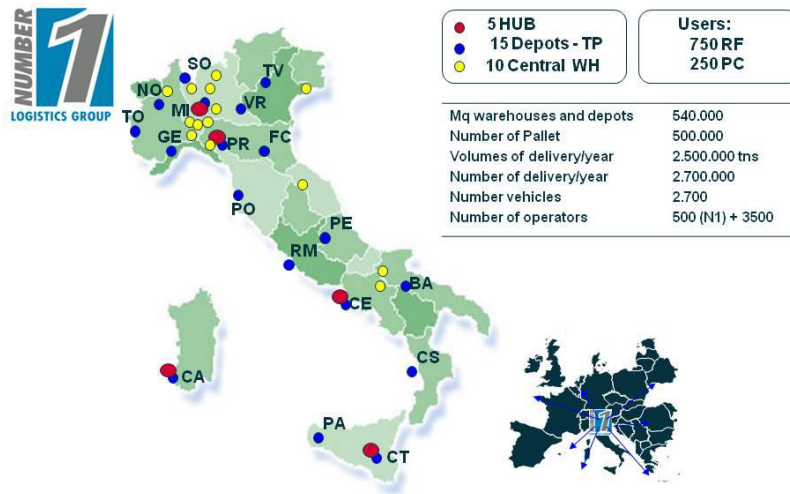
To date, Click Reply™ WM has been implemented in around 30 distribution systems in Italy and covers 60 of NUMBER1's Partners, with a grand total of 250 installations. Meanwhile, the solution is being updated continually to incorporate new functions and other improvements requested by Clients; for example we are currently introducing Voice Picking.

## CONTEXT

NUMBER1 Logistics Group is the leading Italian logistics operator serving companies in the Grocery sector.

NUMBER1's main Partners are some of the most important Food companies in Italy and abroad (Barilla is the largest example of these in terms of stock volume). NUMBER1 supports its Partners in strategic decision-making processes related to Supply Chain management, by interpreting the Client's requirements together with market forecasts, using the "Product and Service" mind-set.

NUMBER1's national distribution network is composed of 5 central warehouses (hubs), 10 factory warehouses and 15 distribution centres: to date it is the largest distribution network in Italy covered by any logistics operator.



In this context, at the beginning of 2006, NUMBER1 embarked upon a general renewal project, with the aim of designing a personalised warehouse model, to be supported in turn by a new WMS *Warehouse Management System*.

## THE CLIENT'S GOALS

The Client's goals focused on the following aspects:

- **Flexibility of the Business Model:** the logistics market is extremely dynamic. To increase its Client base, it is increasingly important for an operator to:
  - offer new services
  - be capable of completing installation and start-up as rapidly as possible
  - react quickly to new retailer requirements

NUMBER1's previous Warehouse Management System was not able to cope with the rising demand for new distribution processes and other features from the company's Clients.

As a result, NUMBER1 decided to renew its own warehousing model and incorporate:

- internal operational processes
- organisational models
- Infrastructures and technologies

- **Introduction of a new WMS: the company had to choose a WMS (based on a**

market Software Package) that would guarantee:

- the renewal (based on a customised solution) of the existing Management System, by then obsolete and costly to maintain
  - the use of reliable technology
  - the opportunity for suppliers and distributors to interact with confidence
  - the option for customising the system's configuration, to fulfil the various specific requirements of Partners and Clients
- **Change Management:** the changeover process was extremely delicate and care had to be taken to avoid loss of performance and guarantee a fast roll-out. To support such a plan, NUMBER1 stressed that it required:
- the support of the company's own IT and operations experts
  - the participation of all employees concerned in the sharing of the solutions
  - a qualified WMS solution supplier with suitable know-how and significant experience in similar projects

## THE CLICK REPLY™ WM PROJECT

### START-UP

The Click Reply™ WM solution was chosen after a careful selection of the most suitable software and a well-researched assessment process. The main aspects evaluated were those relative to:

- Company Data: financial data, staff, references, Application Management services, product guarantees and the reliability of the company's road-map
- Functionality: the range of cover afforded by both the traditional WMS functions and innovative technological integrations (Radio Frequency, Voice Picking)
- Product Technology: product architecture, user interface, reporting and advanced query, internationalisation and localization

The next step was a CRP *Conference Room Pilot*.

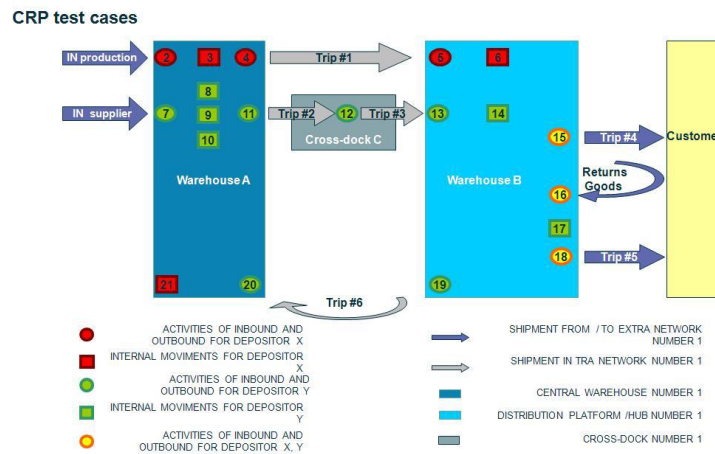
### - **Activities and evaluators**

- The activities relative to the CRP were carried out in Reply laboratories in May 2006
- The Client's staff were present from:
  - o the ICT department
  - o the Logistics Skill Centre
- The in-lab activities in question ran for a total of five days. Following their completion, NUMBER1 carried out new tests and checks on the system verified during the CRP, in a test period of two weeks.

### - **Execution**

- NUMBER1 defined a set of test scenarios relative to its own distribution models, both current (as-is) and potential (to-be) [the following diagram provides us with an overview].

- Click Reply set up Click Reply™ WM and the equipment required (PCs, printers, labels, RF devices)
- The proposed scenarios were tested in order to:
  - o verify the functions of Click Reply™ WM
  - o suggest/evaluate new process models
  - o learn more about the Client’s requirements and provide advice and support relative to the requests for the configuration of processes within Click Reply™ WM.



- **Conclusion**

At the end of the activity, NUMBER1 drew up a check list, allocating a rating to its evaluation of the system’s ability to cover the company’s requirements, based on the CRP.

**CONFIGURATION OF THE SOLUTION**

The complexity and type of the company’s distribution network, as well as the need to standardise its logistics processes, rendered Click Reply™ WM the best solution for NUMBER1’s requirements as it provided:

- a **consolidated, centralised management of different kinds of stock** :
  - Factory warehouses: characterised by
    - o Significant integration with automatic large-volume stock and palletization systems
    - o Distribution support mainly consisting in the restocking of hubs and distribution centres, with mass management of large volume stock (first level distribution)
  - Hubs: characterised by
    - o Stock warehousing
    - o Cross docking
    - o Ventilation of large-volume stocks, repackaging activities and management of distribution to sales points second level distribution)
  - Distribution centres: characterised by

- Cross docking
  - Ventilation of large-volume stocks, repackaging activities
- ***Versatility in terms of configuration*** to sustain the dynamic variations in the company's business processes: the network is evolving continuously, both in terms of the number of Clients served and the range of services offered. To keep up with these changes, the Click Reply™ WM solution provided:
- strictly parametric solutions and functions to enable easy process configuration
  - the identification and definition of functional "clusters" allowing NUMBER1 to operate in line with specific Client or process models, in cases when warehouses in the network are not well inter-connected
  - improved management of storage areas, and the increased flexibility required to avoid problems linked to lack of space, changes in the range of products in storage and fluctuations due to seasonal availability
  - flexibility when setting up new processes, giving NUMBER1 the possibility to offer its Clients customized services.
- A system that is ***capable of handling*** the complexities of ***Grocery stock management on a practical level:***
- Traceability and trackability
    - Sophisticated lot and SSCC management
    - Detection of GS1-128 and SSCC codes in all handling activities
    - SSCC tracking in all handling activities (receipt and shelving, picking, shipping, packaging and packing, composing kits)
    - Possibility to track SSCC movements and all related data
  - Inventory and handling
    - Full management of production dates, sell-by dates and pre-sell-by dates, expiry dates
    - Management of availability status of the goods (Available, Damaged, Dangerous, Quarantine, etc.) with the possibility to set automatic rules for the movement of dangerous stock to segregated areas
    - Management of automatic rules relative to quarantining goods and releasing goods from quarantine
    - FIFO/FEFO product rotation, according to residual shelf life, lot status, availability status, single SSCC status
    - Availability of specific monitors to verify the status of stock
    - Allocation of warehouse space to different types of picking: single-pack picking or picking of entire layers
    - Management of rules for preparation according to Clients' specific requirements: number of layers per shipping pallet, maximum height of shipping pallet, the need to position pieces of wood between layers of different products at the picking stage

The success achieved in managing such a complex project has proved the configurability of the Click Reply™ WM solution, along with the validity of the solution’s project management and project organisation features.

**SOLUTION ROLL-OUT.** Initially NUMBER1 had planned the lead-up to roll-out according to the following critical path:

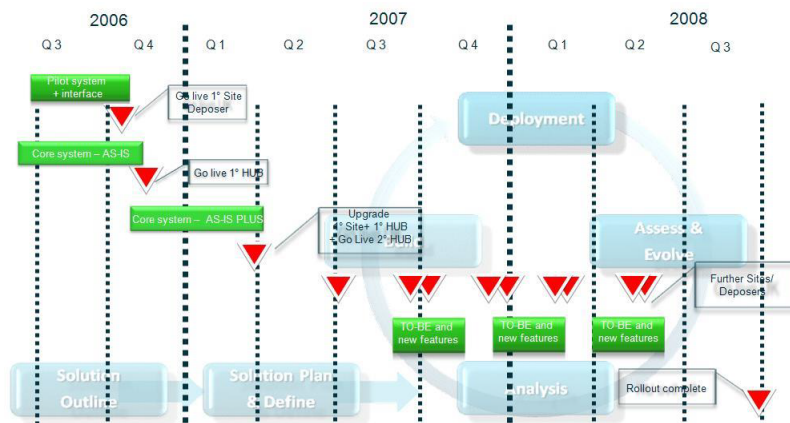
- Configuration of Click Reply™ WM according to an “AS-IS” model, with the same functional coverage as the system being replaced
- Roll-out of the Click Reply™ WM “AS-IS” solution on a Pilot system
- Definition and implementation of the “TO-BE” solution
- Roll-out of the Click Reply™ WM “TO-BE” solution on various systems, progressively phasing out the previous WMS

Following the first significant roll-out (the Caserta hub implemented the system on several stocks warehoused by different clients between November and December 2006), the initial approach has "naturally" changed.

The original difference between “AS-IS” and “TO-BE” did not prove to be as distinct as it had appeared to be: the use of Click Reply™ WM encouraged the introduction of additional new organisational models and provided NUMBER1 with the possibility and the flexibility required to try out new solutions that could be adapted as operational processes changed.

Therefore, after the start-up of the first hub, the solution was further developed in the next roll-outs to be held and when systems that had already undergone start-up were revised. Four types of activities were then carried out, all with one common aim:

- completion of the functions requested by Clients in the phase when the original User Requirements were submitted
- definition, setup, implementation and roll-out of new functions to sustain the increasing number of processes, a number which has kept growing rapidly compared with the number of scenarios originally estimated
- roll-out of the various warehouses as they were progressively integrated into the Click Reply™ WM system
- Application Management services relative to systems that had already undergone start-up



## REPLY VALUE

### TEAMWORK AND ORGANISATION

Teamwork and organisation have held and continue to hold an extremely significant role in the creation and launch of the Click Reply™ WM solution. The vital features that have made the project successful can be summarised as follows:

- Sharing solutions with the IT and Operations departments at NUMBER1, who supported the decisions taken by verifying the requirements of the various systems
- Standardisation of the rules for set-up of the various systems (clear, unquestionable rules regarding the definition of maps, naming conventions, the procedures for registering initial inventory etc.)
- Involving managers of the various systems in the roll-outs of new warehouses, to have them share their choices and goals
- Development of specific procedures for set-up and repetitive data migration in order to:
  - Increase the automation, speed and safety levels of start-up for new accounts and systems
  - reduce start-up time
  - reduce training time
  - reduce potential risks at the start-up stage.

### INTEGRATION

Another of the most important goals in this project was the definition of the Click Reply™ WM integration model with NUMBER1's Legacy IT systems, based on an integrative layer created using Oracle Fusion Middleware.

In particular, the following middleware was used:

- Oracle BPEL for integration with legacy systems for administrative management and transport planning
- Oracle ESB for integration with subsystems in the field (management and control systems for automatic warehouses and palletization equipment)

Furthermore, the design of the BPEL processes has led to the involvement of Technology Reply, a Reply Group company specialising in Oracle technology, that also co-ordinated a spin-off project for the development of a centralised monitor to control integration processes. The solution provides:

- a log detailing all data extraction, handling and delivery activities carried out as part of the BPEL processes
- monitoring of the times needed for implementation of the various phases
- monitoring of irregularities and eventual processes that may present errors
- The management and automatic correction, where possible, of processes presenting errors by use of a solution based on Oracle BPEL WorkList

## NUMBER1 AND CLICK REPLY™ WM TODAY

To date, the Click Reply™ WM solution covers:

- approximately 30 distribution systems in Italy
- around 60 of NUMBER1's Partners
- more than 250 system / Partner set-ups (one Partner can be managed in more than one system)
- more than 200 PC workstations
- more than 800 RF devices

From a practical standpoint, the original project has been fully completed. At the same time, the system is continuously undergoing updates to incorporate new functions and other improvements requested. The development and release of new features is carried out parallel to the system's roll-out with NUMBER1's new partners.



Click Reply is a Reply Group's company leader in advanced solutions for supply chain execution, based on its suite Click Reply™, developed using the most advanced and safe technologies, deployable on traditional environment or in cloud architecture.

Click Reply™ consists of several integrated modules: Click Reply™ Warehouse Management, Click Reply™ Yard Management, Click Reply™ Labor Management, Click Reply™ Warehouse Performance, Click Reply™ Warehouse Billing.

The solutions developed by Click Reply are successfully used worldwide by more than 300 companies and more than 30,000 users.

Click Reply  
[www.reply.com](http://www.reply.com)  
[www.clickreply.eu](http://www.clickreply.eu)