

RFID Logistics pilot: launched the first Italian RFID pilot project in the Fast Moving Consumer Goods supply chain

The RFID Lab of the University of Parma, has recently launched the first Italian RFID pilot project in the Fast Moving Consumer Goods (FMGC) supply chain.

The project strives to exploit RFID (Radio Frequency Identification) technology and innovative EPC Network tools, to enable track and trace and product flow plain visibility in the FMCG supply chain.

"The RFID Lab of the University of Parma", says Prof. Antonio Rizzi, founder and head of the center, "started its activities about two years ago. It has been the first Italian center active in RFID research, experiments and applications to the business processes, with a particular focus on Supply Chain Management and industrial logistics in the food and FMCG fields. "After a year of extensive experimental activities", Rizzi says, "RFID Lab has recently formalized the launch of a pilot project, aiming at transferring the Lab know-how on the field, as well as at verifying the technical feasibility of RFID and EPC network implementation and assessing the resulting benefits".

The "RFID Logistics Pilot", officially started in June 2007, is the first Italian example of project which enables tracing the flow of products from the producer to the final consumer by means of RFID technology and EPC Network (the so-called "Internet of things").

Specific project aims include quantifying the benefits resulting from RFID implementation for products traceability throughout the supply chain, and from optimization of supply chain processes thanks to information visibility enabled by the EPC Network.

The supply chain examined during the project involves a manufacturer, its warehouse or a distribution center (DC) of a 3PL service provider, a distributor's DC and one or more retail stores. More than 20,000 product cases will be RFID tagged at the end of the manufacturer's production plants, and will be coded with a unique SGTIN identifier. The flow of cases and pallet, these latter identified thanks to RFID tags and SSCC code, will be monitored throughout the supply chain, and in particular up to the shelf of the retail stores. Pallets/cases data will be then real-time shared between the Informative Systems (IS) of supply chain partners by means of the EPC Network.

"During the pilot project, we will develop Object Name Server and Discovery Services applications, able to connect the EPCIS involved in the project. Thanks to EPC Network functionalities, traceability information can be real-time shared, resulting in both a tremendous improvement of process efficiency and increased product safety and quality for the customer", Rizzi concludes.

More than ten national and multinational companies are involved in the RFID Logistics Pilot; such companies encompass producers, logistic operators and distributors of FMCG, currently adhering to RFID Lab research activities. Among others, they include Auchan, Chiesi, Cecchi Corriere, Conad, Danone, Grandi Salumifici Italiani, Gruppo Goglio, Nestlé, Number1, Lavazza, Parmacotto, Parmalat.

Daniel Costa, Nestlé Supply Chain director, states: "We have been active in RFID topics for a long time, and after having followed the RFID Lab experiments for more than one year, we have enthusiastically joined the RFID project". Piergiorgio Marasi, Nestlé Project Manager, also emphasizes that RFID project represents the evolution of experimental activities performed by the RFID Lab, and allows to verify the outcomes of the "in-field" application of RFID technology and to transfer them to the ice cream and frozen meals areas.

Similarly Ivano Poli, logistic Director of Grandi Salumifici Italiani, highlights that RFID Logistics Pilot will provide Grandi Salumifici Italiani with the directly examine the benefits deriving from the RFID technology

implementation, which has potentials to dramatically change the supply chain processes.

RFID Logistics Pilot is innovative and unique for the methodological approach followed: although some companies will be directly involved in providing the locations for piloting, all participants will be involved in project engineering, both from a technical and from an operational point of view, in the experimental campaigns, and will share the resulting know-how.

"This is highly virtuous mechanism", suggests Marino Vignati, Auchan CIO, "that allows Auchan to debate with suppliers and to benchmark with competitors, at the same time reducing the overall costs of experimental campaigns".

The experimental campaigns will involve the logistics base of Parmacotto, an Italian company leader in the production of sausages, at Marano (PR), the DC of Calcinante (BG) and several retail stores of Auchan, one of the main distributors operating in Italy.

Moreover, the project will involve the technology partners of RFID Lab, which will provide RFID hardware and software equipments, required for the experimental tests. As far as the software equipment is concerned, the technological infrastructure required for data acquisition and management will be developed under Oracle DataBase and Oracle Fusion Middleware; conversely, companies like Intermec, Motorola, Siemens, LXE, Avery Dennison, UPM, Toshiba TEC, Caen RFID, will support the development of hardware equipments. Finally, Universities joining the Global RF Lab Alliance Network will participate to the project.

Id-Solutions, academic spin off of the University of Parma, which has been funding and supporting the RFID Lab research activities, will coordinate the project development and implementation. Marco Devoti, Id-Solutions CEO, says: "The participation to RFID Logistics Pilot represents an important occasion to transfer on the field the RFID know-how developed. Hence, Id-Solutions plans to continue funding the research activities of RFID Lab and to join the project".

RFID Logistics pilot will be concluded in the second quarter of 2008. As a preliminary step, the most appropriate supply chain to perform the experimental test should be identified, and the corresponding processes should be reengineered for RFID adoption. Then, hardware and software infrastructure will be designed and implemented. Experimental campaigns, which will start in 2008, will enable to assess, among other, RFID impact on promotions, out-of-stock and traceability. Based on the results obtained, decision whether to undertake more ambitious projects or to stop the research activities will be made.