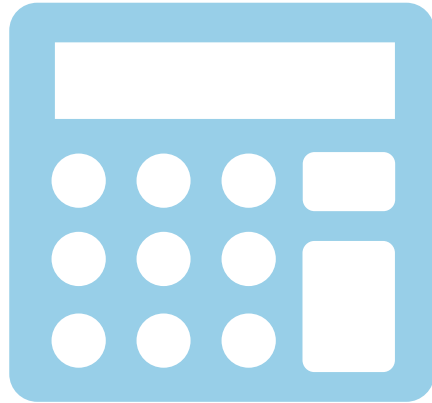


ENBED



ENBED OBJECTIVES

Sources on the perishable good market estimate a loss and damage of freights up to the 33 percent during storage and transportation phases.

The consequences of products deterioration affect the entire supply chain, determining not only the increasing of cost but, a negative impact from the environmental point of view.

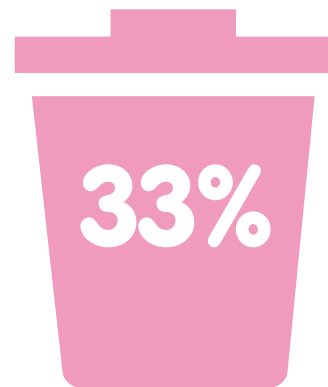
The objective of the ENBED project is to commercialize a solution for the monitoring and control of the cold chain channels for dairy products based on a solution that is already available and is successfully deployed in the post harvest (vegetables and fruits) market.

The technological solution provided by CartaSense allows a sensible waste reduction therefore saving substantial amounts of energy, water and other valuable resources while reducing pollution as a consequence of less traffic and less usage of energy.

CartaSense answer is based on a unique approach that enables the real time monitoring of products using very low energy and very low cost solution, thus providing a cost effective disposable wireless sensors (tags) solution.

CartaSense architecture enables the real time and economical monitoring of the individual pallet from the manufacturing phase all the way to the shelves of the points of sale.

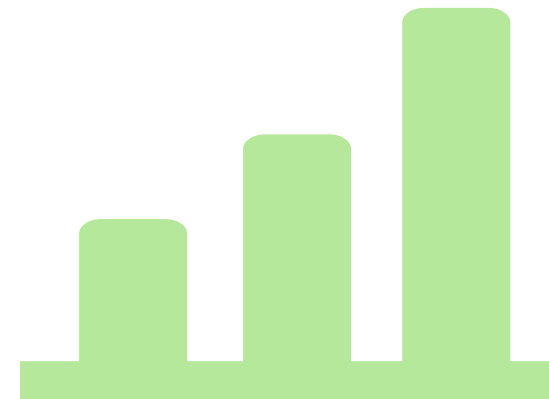
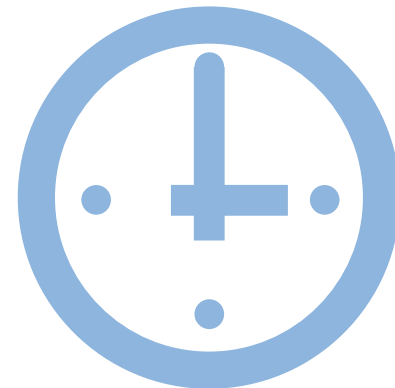
The technology makes possible the implementation proactive corrections, such as rearranging the warehouses to better handle the products, new procedures for handling products and new models for stocks shelf life calculation on a FEFO based model of the different perishable goods.



The CartaSense technology is based in low power transmitters and receivers, low battery and eventually lower price tags providing it of durability and having the characteristic of being disposable.

The use of the technology might result in an overall consolidation of producers' trust along the distribution chains, including retailers and consumers. Actually, while the ROI in term of the European Community is clear, some ROI models and marketing tools will also be developed to serve the commercialization, sale and marketing process to make sure that it will be easier for the end users to understand their own ROI.

During the time of the project, at least 2 companies will be ready to commercially use the solution.



OPTIMIZATION OF THE COLD CHAIN MANAGEMENT BRING BENEFITS

It is very clear that if a food product can be monitored in real time all across the cold chain, it can bring tremendous benefits by enabling the optimization of the Cold Chain to work properly and take correcting actions for those activities that are caused by human error or machine malfunction.

Until lately, such a solution was not widely commercially available because of the high cost that was involved with today's WL sensors. Because of CartaSense technology solution it is now possible to do that in such a low cost that it can be used in the cold chain for every pallet of products.

CartaSense develops a solution that answers the issues above and provides Cold Chain Management companies, shipping companies, distributors and retailers with the core and tools to build the cost effective, real time, total management solution they need.

CartaSense solution is focused on tags, readers/ routers and communication subsystems. Its solution includes:

- Ultra low cost (disposable) smart & active RFID tags (that support variety of sensors)
- Control unit with network interface (reader/router/aggregator)
- Communication Server for the management system
- Basic Web based management application

Cartasense technology is used in the post harvest vegetables and fruits shipments mainly in Europe and Latin America.

This is done by its customer Stepac. More details about the application and the services he offers based on its products can be found in www.stepac.com under Xsense product line description.



PROJECT WORK PLAN

- WP 1: Management
- WP 2: Dairy Cold Chain Analysis
- WP 3: Dairy Cold Chain Tuning
- WP 4: Dairy Products & process implementation
- WP 5: Market Research for the deployment of a Pan European Solution
- WP 6: Exploitation and Business Plan
- WP 7: Priority countries deployment phase
- WP 8: Dissemination Activities



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Participants

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CartaSense
CAISIAL
codap
ENCO
Engineering & Consulting
10 años iniciativas innovadoras

ENBED

Environmental benefits through the decrease of food products loss and waste



eco-innovation 

WHEN BUSINESS MEETS THE ENVIRONMENT