

# **Carnot institutes network**

Research and innovation for industry

Partnership with Irstea Carnot Institute - Pellenc ST

# Pellenc ST sold 20 machines to the biggest European waste treatment facilities

R&D strategy for the PellencST Carnot partnership becomes export triumph.

## **Supporting Innovation**

**Near-infrared spectroscopy (NIRS)** enables the **optical analysis** of various dry materials. In-depth analysis is needed to be able to discriminate between natural timber and painted wood, or between organic wastes and plastics. Innovation is above all about the ability to identify with a limited margin of error water-containing compounds. The colour-analysis / maximum-specimen-referencing / complex-algorithm-development combination has made it possible to put high-precision and high-performance optical sorting equipments onto the market.



### The client needs

As of 2001 French start-up Pellenc ST has drawn on its analytical approach to describe the fruit ripening stages to tackle the very promising market for waste treatment. In 2009 the company responds to this challenge with the TRI+ project addressing food waste processing and wood recovery for recycling. Technological research and development effort is vast and essential for the very capable small and medium-sized Vaucluse-based robotics and infrared-processing specialist service provider. Completed in 2014 the project has culminated in a large number of sales, an Export Award as well as the selling of 20 machines to the biggest European waste treatment facilities in Naples.

### **Partnership**

Irstea at Montpellier has been a long-standing partner of **Pellenc SA**, then clearly of **Pellenc ST**. The unique expertise of the lab is used to build a comprehensive knowledge base, therefore contributing to the Institute's opportunity to publish significant articles in accordance with the contract's confidentiality provisions. **The research unit** has been instrumental in promoting efforts to make the TRI+ project a success. Such en **deavour could not have been supported by the start-up alone** no matter how forceful. Concerned by the direct economic benefits of such partnership the teams have delegated 35 person-months over 4 years.



