

BIO BASED and SMART CROWN CORKS project looking for partners



Objectives

- 1. Development of a **nanotextured composite material** to be used in food and beverage packaging (based on mineral and renewable raw materials)
- 2. **Chemical and physical sensing integrated in the food packaging** based on terahertz signal and spectroscopy in order to have direct access to information through embedded 2D nanomaterials

Research challenges I

Advanced bio materials

- i) To reduce packaging costs through nano-manufacturing.
- ii) To obtain a thin strong material adequate for bottle closures under gas pressure and resisting to pasteurization thermal treatments.
- iii) To develop an efficient process for the manufacturing of the nanotextured composite material.

Research challenges II

Smart crown cork

- i) To identify the best smart sensors to transfer information on the bottle content from the crown cork to a device that could elaborate it.
- ii) To obtain specific sensitivity of the 2D material to the desired chemical and physical environment
- iii) To evaluate the compatibility of the sensors system with the bottle content.
- iv) To evaluate the bottle content quality

Consortium & funding opportunities

- Project initiator:  **Spa (Italy)** – specialist manufacturer of crown corks and caps
- 1 academic and 1 industrial partner (Spain and Italy)
- Potential EU funding opportunities, deadlines Sept 2016 – Feb 2017

Partners sought

- **Academic and industrial** partners who can add **relevant know-how** and experience to the project, e.g.
 - Material development
 - Manufacturing
 - Sensors

Contact person

