

KitoSano s.l.

High-quality Chitosans from Crayfish waste

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The Problem

- **The lack of high-quality chitosans is hampering innovation in emerging key industries**

Chitosan and derivatives are found in

- **wound healing dressings**
- **orthopaedic scaffolds**
- **nerve regrowth and protection tubes**
- **Dental / bracket protection coatings**
- **...**

The Problem

- **Bio-degradable solutions are needed for plastic ban**

- **Chitosan based materials are promising alternatives to plastics (e.g. food packaging foils)**

The Problem

- **EU's dependency from a critical raw material**

- **Chitosan is mostly produced in South East Asia**

- **no EU manufacturer covering the whole process chain**

The Problem

- **Illegal crayfish waste disposal risks at creating severe environmental problems at the outskirts of the Doñana National Park**



The Solution

- KitoSano aims at producing bio-based, high-end chitosan in economic competitive and eco-friendly way.
- The production will be Andalusia, one of Europe's region with the highest unemployment rate

The value proposal



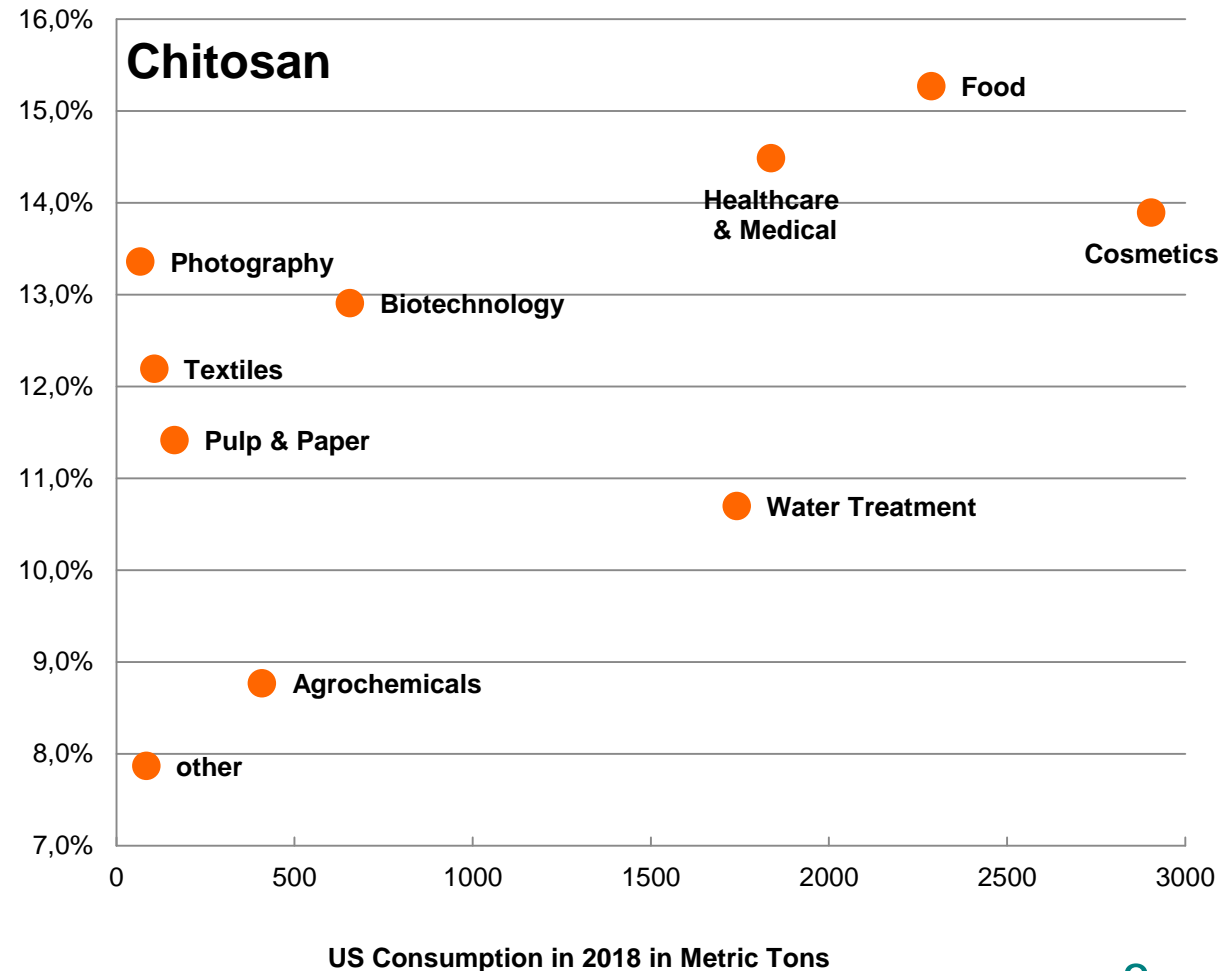
This value chain has been established with the support of



The Market

- World: market for Chitosan \$2000 million in 2015, two digit annual growth rates over the past five years
- Europe: 10.6% of the global production or 3896 metric tons
- food, healthcare & medical and cosmetics are the sectors with the highest growth rates

Average Growth Rate (period 2010 - 2018)



The Project

○ **Phase 1: R&D**

○ **completed**

○ **Phase 2: Scale-Up**

○ **In progress**

○ **Phase 3: Production**

○ **Under planning**

What we are looking for



Unicorn

Purpose: Exponential growth

Outcome: Monopoly

Focus: Quantity

Method: Competition

Measure: User acquisition



Zebra

Purpose: Sustainable prosperity

Outcome: Community

Focus: Quality

Method: Collaboration

Measure: User success

Thank you for you attention

KitoSano acknowledges the support of

