One line pitch:
The first biodegradable, water-soluble, edible and biosourced plastic made of protein from milk.

Market Analysis:
We target in priority the packaging market for soluble films for detergents for laundry, dishwashers, water treatment and agrochemicals. Currently, the only plastic soluble in water is polyvinyl alcohol (PVA), which is poorly soluble below 30°C. This limitation prevents any use in the water treatment and agrochemicals markets where water is not heated. Similarly some Asian markets (Japan and China noticeably) cannot be addressed with single doses because laundry is done at cold temperatures (below 20°C). Lactips’ material is disruptive as it opens up new markets. We forecast a potential multiplication by 5 from 360M€ (20.6 thousand tons) to 2B€ (100 thousand tons).

Value proposition:
Our unique material is made of casein, a protein coming from milk industry and biodegradable additives. It is the result of 8 years of R&D. This material is disruptive since it is the only one to be soluble at room temperature, usability through usual industrial processes without developing new process, biodegradability in order not to pollute water, information can easily be printed on it, gas barriers and mechanical resistances are sufficient. This material and its manufacturing process are patented on relevant international markets. Lactips is the only one worldwide to be able to produce this raw material, whatever its market applications. Formulations can be optimised to fit market needs.

Business Model:
We are an industrial company and our plastic granules are usable as raw material. Our plastic price will be comparable to PVA’s ones in the premium range (about 20€/kg), thus facilitating our market entry. Final users will further add the margin of the film manufacturers (about 1€/kg). Our production costs are of 5€/kg. This situation is propitious to win and maintain a position in this market. We will produce 85 tons in 2018 from planned orders. This volume is very low compared to normal plastic productions. Yet, it almost represents a 1.7M€ revenue. The totality of our production will be dedicated to powder tablets. In 2020, we plan to reach a 1.000 tons production a year.

IP and Regulatory situation:
Lactips has full right of licence (no specific sector or application) on the patent from the University of Saint Etienne. We protect our solution through three types of action : if the innovation is hardly patentable but could be patented by someone else we disclose the information through publications ; if the innovation is not patentable and is strategic we keep it secret or if the innovation is patentable, we patent it. Two patents will be registered before the end of the year in Europe and Worlwide. Material in contact with dishes might need to be certified for contact with food, depending on countries. If needed, Lactips’ product can be made with edible protein in order to be certified.