



**PEF**  
Technologies

Innovative way to preserve  
liquid foods

## Our team

Innovation coming from diverse perspectives



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CTO

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Financial Controller

# Benefits of nanoPEF



## No compromise on quality

Retains original quality, taste and flavour.  
In 20% higher yield of milk-based proteins compared to pasteurization.



## Less CO<sub>2</sub>-emissions

Environmentally friendly technology. Saves up to 50% of energy and utilizes less water for cleaning.



## Food safety

Same bacteria inactivation level as after HTST.  
Extended shelf life up to 1 month.

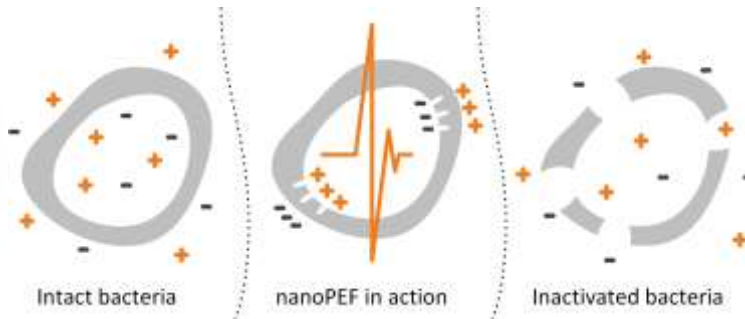


# How it works

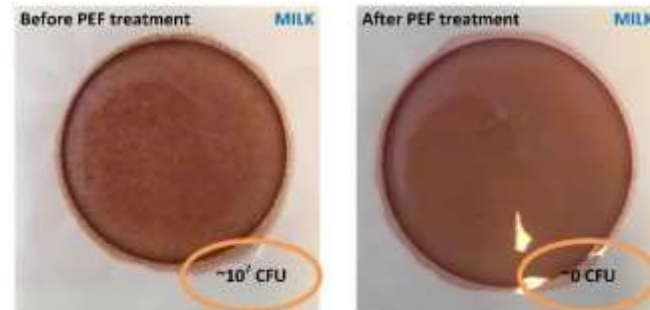
- The nanoPEF treatment causes bacteria death due to the electroporation of cell membranes.
- The nutrients, such as vitamins, minerals, lipids and proteins are not affected.
- The bio load inactivation rate increases in proportion with electric field intensity.



## Electroporation effect



## E. Coli bacteria inactivation rate in milk after nanoPEF is $10^7$



# Technology



- Highly versatile nanoPEF machine 500-1000 l/h for preservation of various liquid foods
- Scalable for production up to 10.000 l/h
- Technology was validated with leading food producers
- Plug-in external units
- Processing temperature below 65°C
- Compact design (<2m<sup>2</sup>)
- Best suited for heat-sensitive products

**Thank you for your attention!**



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