



# **proton-IQ®**

## **HYGIENE AS A SERVICE**

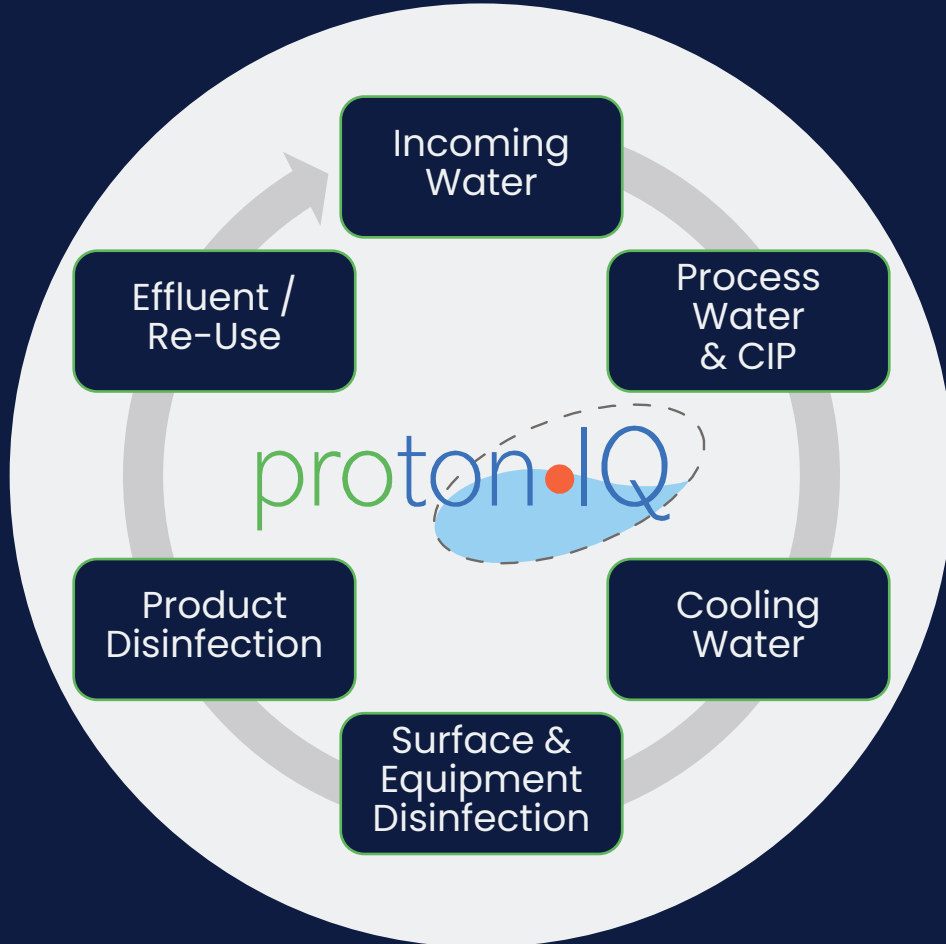
Innovative Environmental Solutions for Industries and  
Municipal Applications



OUR VISION

# **Sustainable revolution in water hygiene**

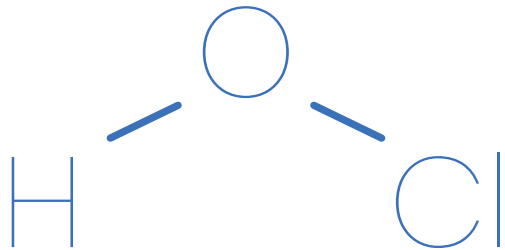
# ONE PLATFORM FOR ALL APPLICATIONS



On-site,  
On-time,  
On-demand,  
integrated solutions with  
Hypochlorous acid.



# ON-SITE, ON-TIME, ON-DEMAND, INTEGRATED SOLUTIONS WITH HYPOCHLOROUS ACID



Hypochlorous acid

- Purely made from **salt and water**
- **Safe to use** and **environmentally friendly**
- Broad **anti-microbial** against **bacteria, viruses** and **biofilm**
- Part of the **human immune system** to fight infections



Certified to  
NSF/ANSI 61-G





# ON-SITE, ON-TIME, ON-DEMAND, INTEGRATED SOLUTIONS WITH HYPOCHLOROUS ACID



**ON  
SITE**



**ON  
TIME**



**ON  
DEMAND**

- Scalable, central product generation platform with minimal footprint and multiple application points and point-of-use dosing stations
- Integrated in existing production process and equipment with options to tap off product for additional applications (cleaning, skin sanitization etc.)

- On-time production to avoid any efficacy loss of active substance and minimize storage space
- Operating times can be flexibly optimized, to cater to varying production hours, shift models, electricity prices, loadshedding etc.

- Proprietary monitoring and control system for real-time measuring of disinfection requirement
- Demand-based generation and application avoids storage costs, transport and ensures independence from external suppliers
- Additional "tap-off" option of the active ingredient on-site for individual disinfection applications (e.g. disinfection of critical surfaces,, skin and hand disinfection)



# WE DELIVER BENEFITS WITH OUR UNIQUE HYGIENE PLATFORM

## SUSTAINABILITY

no environmental requirements, optimized re-use, ensuring supplier independence



## SAFETY

food-safe, non-corrosive, no influence on product taste or odour, non-hazardous, robust



## EFFICIENCY

automated on-demand disinfection, minimal operational cost, low maintenance



## EFFECTIVENESS

on-time, on-site production avoids degradation, no waste materials, seamless process integration



## TRANSPARENCY

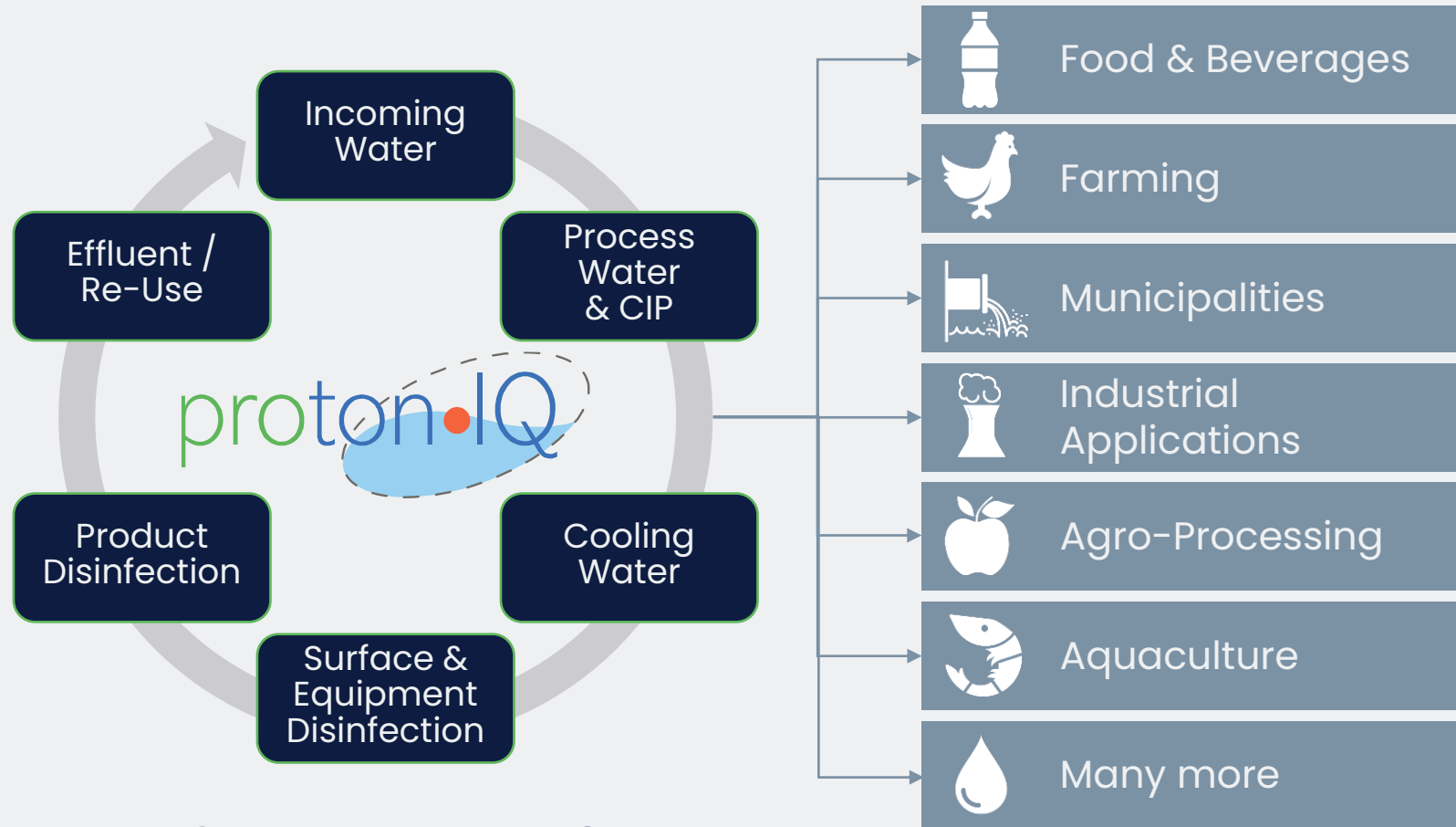
remote real-time monitoring to ensure continuously meeting customer-specific quality requirements



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# SEGMENT TAILORED SOLUTIONS BASED ON ONE INTEGRATED PLATFORM



**INTEGRATED PLATFORM**

- "1-Stop-Shop" to substitute all previous disinfection steps into **one platform**
- "Digital twin" of hygiene processes with full **real-time transparency** of all relevant quality parameters
- **Standardized** "customization" based on developed industry solutions for **maximum scalability** of the business model



# Selected References





South Africa: Municipal Drinking Water

# **Reliable Drinking Water Quality for remote Water Treatment Plant**



## CUSTOMER INITIAL SITUATION

The **municipal water treatment plant (WTP)** in the Western Cape receives its drinking water from several boreholes. **Inconsistent disinfection** together with high ambient and pipe temperatures lead repeatedly to **formation of biofilm** and **harmful microorganisms** in the drinking water system. The plant's **remote location** makes the **manual measuring** and **adjustment** of disinfection substantially **difficult**.

## SOLUTION AND CUSTOMER BENEFITS

- **Reliable water quality** treatment of **municipal drinking water system**
- **On-demand application** of the disinfectant directly **at point-of-use**
- Substantial improvement of **handling safety for plant operations staff** (substitution of Chlorine gas)
- proton-IQ® CONNECT for **real-time online monitoring** of relevant **performance parameters**



## TECHNICAL DATA

- Water source: blend of multiple boreholes
- Drinking water requirement: approx. 130 m<sup>3</sup>/d
- Permanent dosing (24/7)
- Target value in treated water at municipal checkpoint: 0.5 mg/L



South Africa: Fruit Juice Producer

# **Food-safe and Reliable Process Water Quality**



## CUSTOMER INITIAL SITUATION

The **leading fruit juice producer** in South Africa supplies its production with borehole water. The company is faced with the challenge of ensuring **hygiene** throughout the **manufacturing process**, despite **fluctuating quality** of incoming water and varying production volumes.

Additionally, **multiple disinfection steps** in the manufacturing process, which currently require **manual effort**, need to be automated and brought onto a common platform. The targeted scope includes the treatment of **incoming water**, **process water** and **the cooling system**, up to the treatment and **reuse** of wastewater.

## SOLUTION AND CUSTOMER BENEFITS

- proton-IQ® SECURO for **central, demand-driven production** of the disinfectant solution
- **Platform solution** with dedicated dosing points at points-of-use for multiple applications
- Real-time monitoring of **customer-specific quality parameters** with proton-IQ® CONNECT as the control variable for disinfection

## TECHNICAL DATA

- Water demand (process water): 15 m<sup>3</sup>/h
- Target value in treated water: 2 mg/L
- Multiple measuring points for quality parameters after injection and before entering production



# KONTAKT

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