



# Encontro Técnico **AESABESP**

Congresso Nacional  
de Saneamento e  
Meio Ambiente

## *IMPACT OF MICRONUTRIENT TECHNOLOGY IN ODOR CONTROL IN WASTEWATER TREATMENT FACILITIES*

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SciCorp International





# About Us

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SciCorp International is a private-owned company founded in 1989. It is located in Mississauga, ON.

- Business model based on:
  - Product manufacturing and supply.
  - Value added engineering customer support and service.
- Clients include both domestic and industrial wastewater treatment facilities.
- Presence in 25 countries.





# The Challenge

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The wastewater treatment industry is under intense pressure to achieve:

- Odor control in wastewater treatment and biosolids
- Reduce energy consumption and the solids sent to landfill
- Improve treatment performance
- Improve management of fats, oils and grease (FOG)
- Lower carbon emissions and environmental impact





# BIOLOGIC<sup>®</sup> SR2

## What It Is?

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**Proprietary plant-based micronutrients**  
(not an enzyme, bacterial consortium, mineral supplement, or humic acid)

**Stimulates existing bacterial population in aerobic/anaerobic systems**

**Simple infrastructure required for application**

**Applies to a wide range of plant types and sizes, pumping stations, and trunk sewers**

**Low dose 2 ~ 10 ppm based on wastewater quality**





# BIOLOGIC® SR2

## What It Does

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- ↓ Eliminates odours
- ↓ Reduces oxygen demand
- ↓ Reduces biosolid formation
- ↓ Breaks down FOG in sewers and WWTPs
- ↑ Increases plant capacity
- ↑ Improves plant performance
- ↓ Reduces operating costs
- ↓ Reduces CO<sub>2</sub> emissions and carbon footprint by reducing energy demand for aeration and sludge processing/disposal

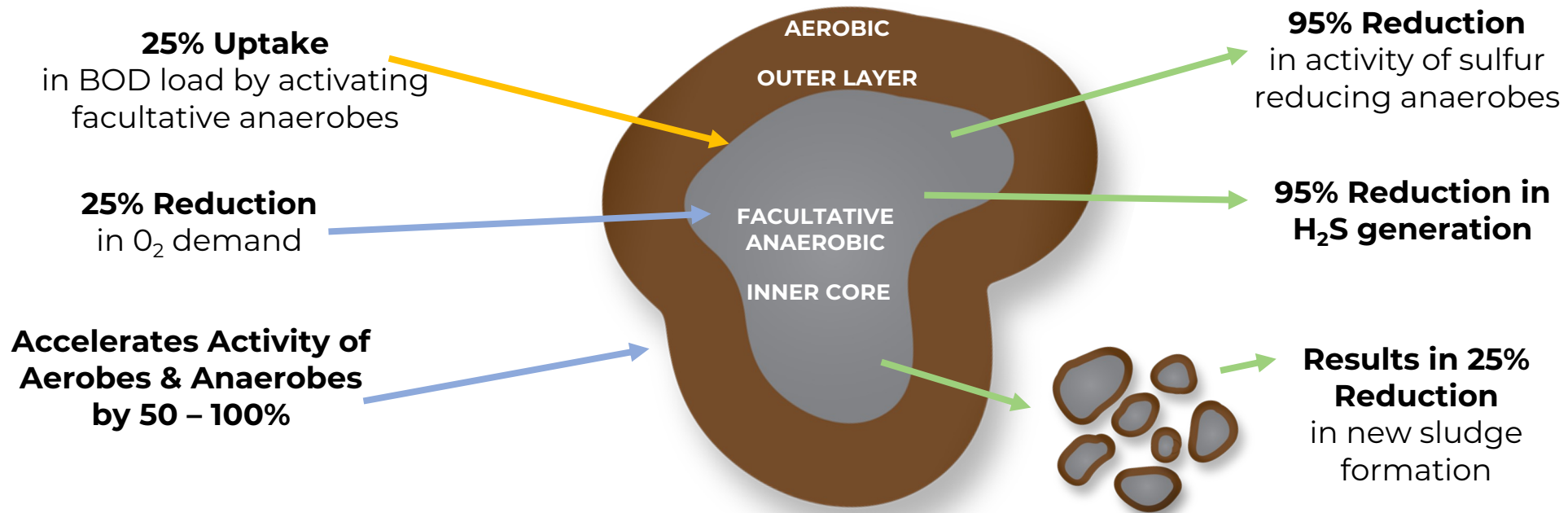




# BIOLOGIC<sup>®</sup> SR2 How It Works

Biological Floc – The engine of every WWTP!

BIOLOGIC<sup>®</sup> SR2 Stimulates the Inner Core of the Floc

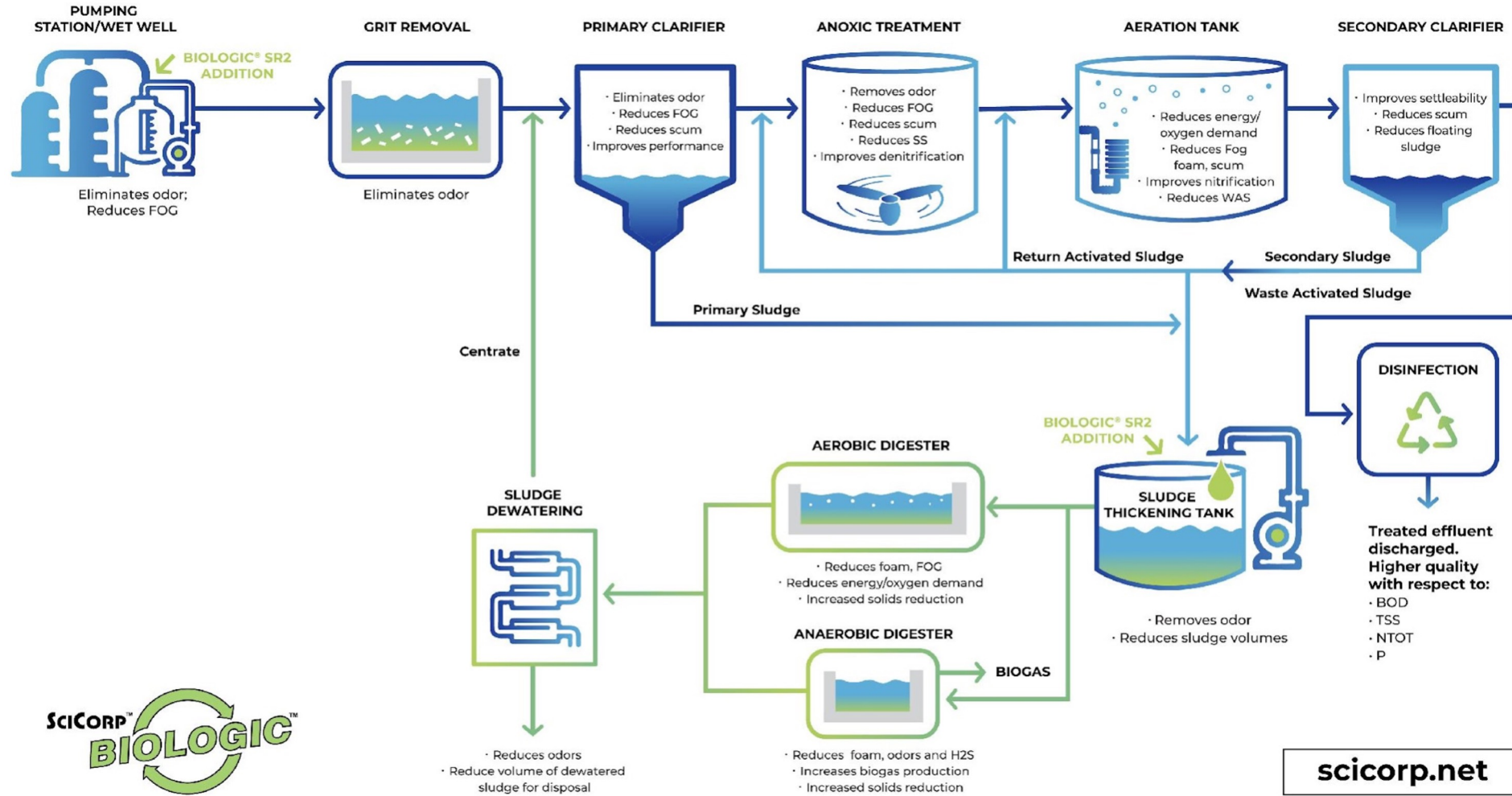


Results in 25% Reduction In CO<sub>2</sub> emissions





# IMPACT OF BIOLOGIC® SR2



scicorp.net





# BIOLOGIC<sup>®</sup> SR2

## Replaces Costly and Ineffective Alternatives

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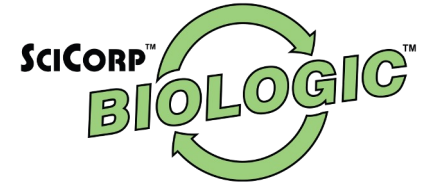
- Chemical Air filtration treatment systems
- Reduces need for costly treatment plant expansions
- Replaces masking agents / toxic chemicals
- Dramatically reduces lagoon dredging
- Much faster return on investment
- Lower cost of implementation







# BIOLOGIC<sup>®</sup> SR2



## Proven Benefits and Scalability:

# 4.700 m<sup>3</sup>/h Municipal WWTP – KAW Point Kansas City

### Success

Long-term benefits included:

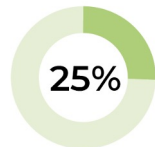
- H<sub>2</sub>S in reduced from 200 to below 5 ppm
- Biosolids sent to landfill reduced by 25%
- Significant reduction in operating costs
- Odour complaints eliminated and landfill resumed receiving waste
- Odour complaints from workers and neighbors were eliminated



Reduction in odours / H<sub>2</sub>S



Reduction in solids sent to landfill



Reduction in operation costs



Reduction in odour complaints

### Problems Avoided

- Requirement to dispose biosolids at a remote out of town landfill
- Odour complaints and enforcement
- Health impact on employees
- Corrosion and toxic inhibition of biological processes



KANSAS CITY



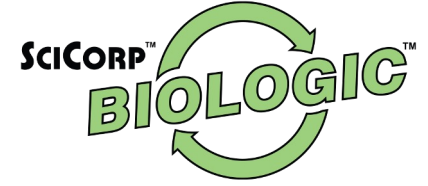
MUNICIPAL WASTEWATER TREATMENT  
**KAW POINT & PLANT 20**  
KANSAS CITY, KS





# BIOLOGIC<sup>®</sup> SR2

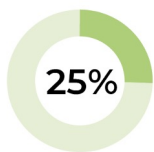
## Proven Benefits and Scalability: 5.800 m<sup>3</sup>/h Pulp & Paper WWTP – South America



### Success

- 25% increase in WWTP load treatment capacity without increasing aeration
- 35% increase in P removal efficiency
- 10% increase in reactor efficiencies
- 10% increase in COD removal efficiency
- >10% decrease in biosolids wasted (dry basis)
- 98% decrease in odour complaints

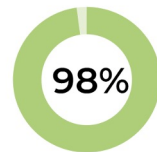
+ Significant reduction in carbon footprint and environmental impact



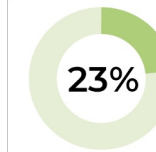
Increase in load treatment capacity



Increase in P removal efficiency



Decrease in odour complains



Decrease in biosolids wasted

### Problems Avoided

- Lost revenue due to decreases in pulp production capacity
- Regulatory enforcement
- Increased operating costs
- Damage to the company brand



INDUSTRIAL WASTEWATER TREATMENT  
**PULP & PAPER**  
LARGE PULP MILL IN SOUTH AMERICA (Kraft Pulp)





# SciCorp International Corp.



## Pathways to enter Brazil Market

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Key partnerships with consultants and designers

Direct sales to water utilities and industrial clients

Collaborating with Canadian trade commissioners to identify clients/distributors

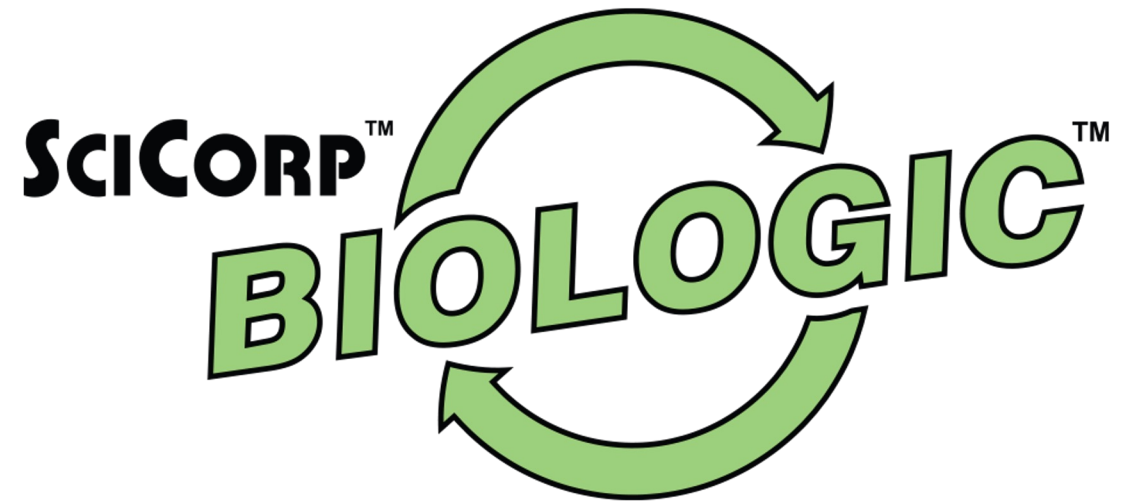
Treatment trials with guaranteed performance for key metrics

**BIOLOGIC® SR2 will reduce WWTP CO<sub>2</sub> emissions by up to 25%**



SciCorp has developed and positioned its technology to assist plants in implementing a clear and measurable CO<sub>2</sub> emission reduction plan that can reduce CO<sub>2</sub> emissions by +/- 25%





## **We Solve Odour!**

Take Back Control Of Odours At Your Facility  
Increase Plant Capacity / Reduce Operating Costs

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Thank you!

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