



SEMINÁRIO Segurança Hídrica para a Indústria: eficiência em foco

CASES INTERNACIONAIS - Luiz F. Bezerra M.Sc. / ALADyR & LÁGUAZ

Apoio



Realização

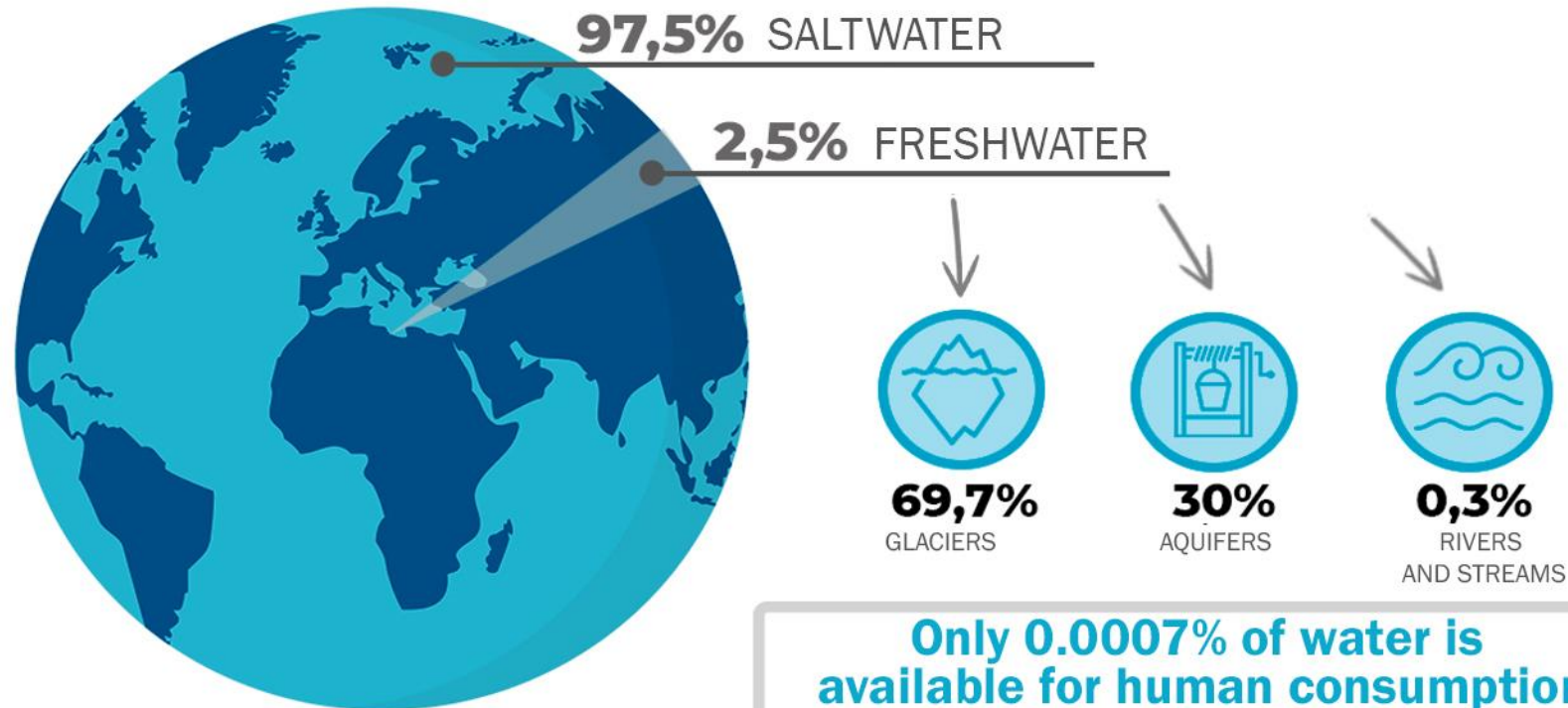




Water

Present

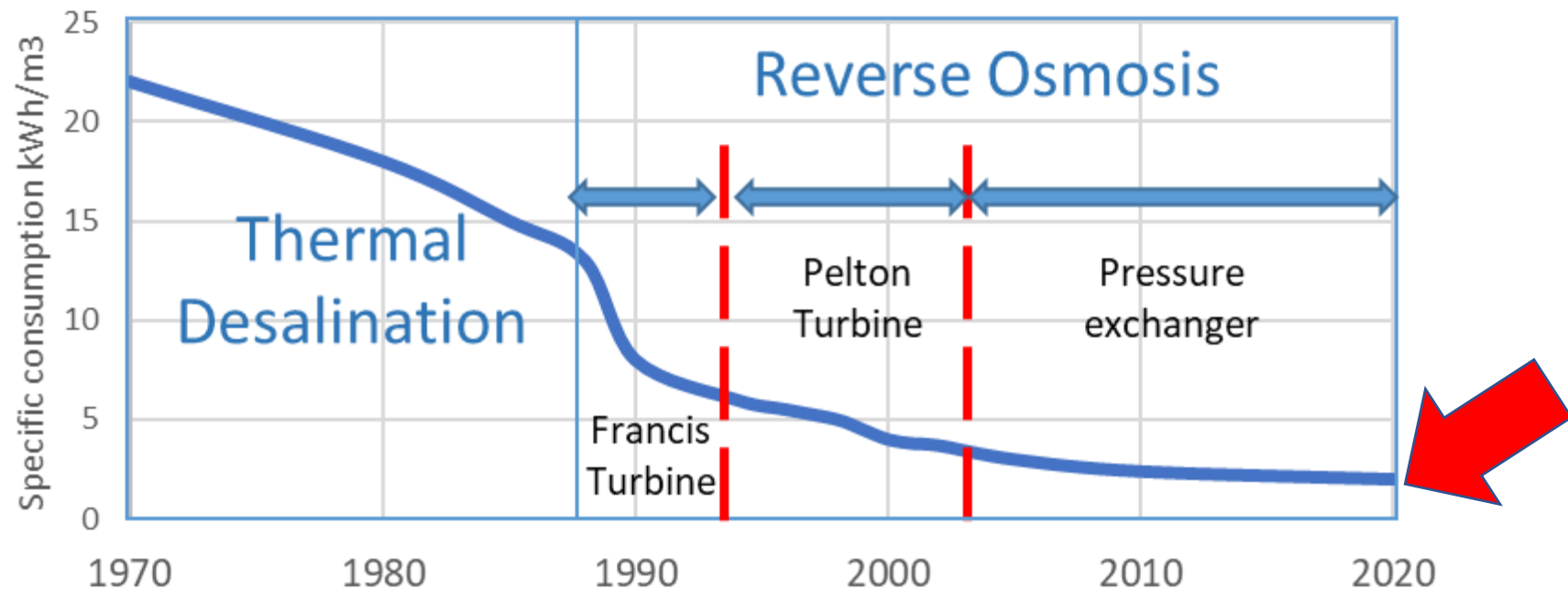
HOW MUCH WATER DO WE HAVE?



FUENTE: FAO | ONU

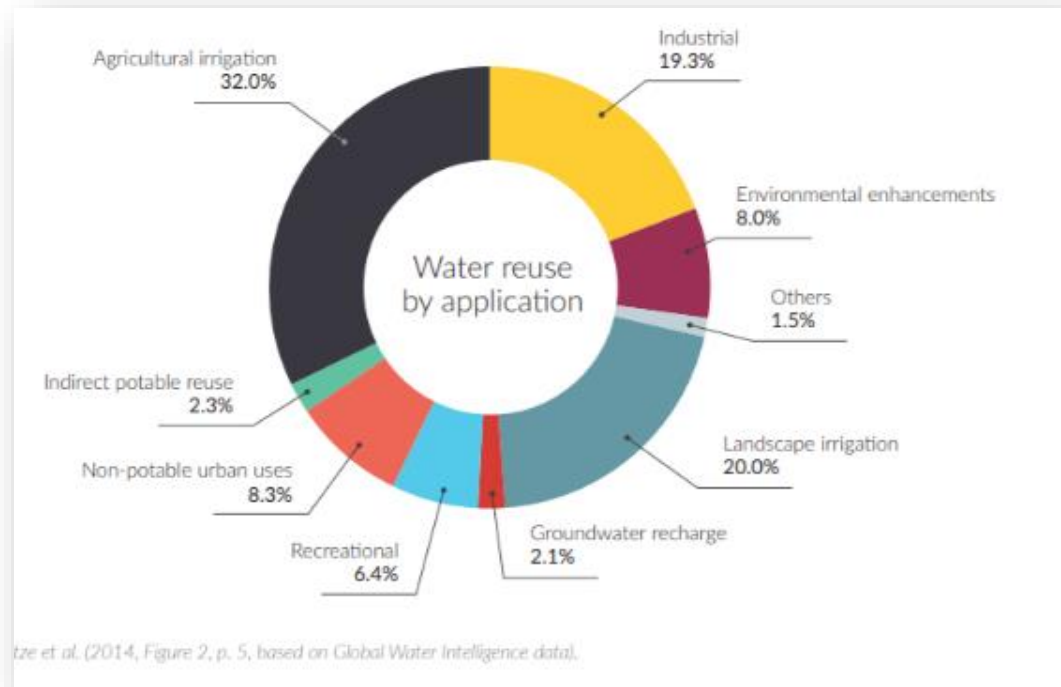
DESALINATION IN THE WORLD

Energy consumption evolution



WATER REUSE

According to the UN World Development Report 2017, only 4% of wastewater is reused globally.



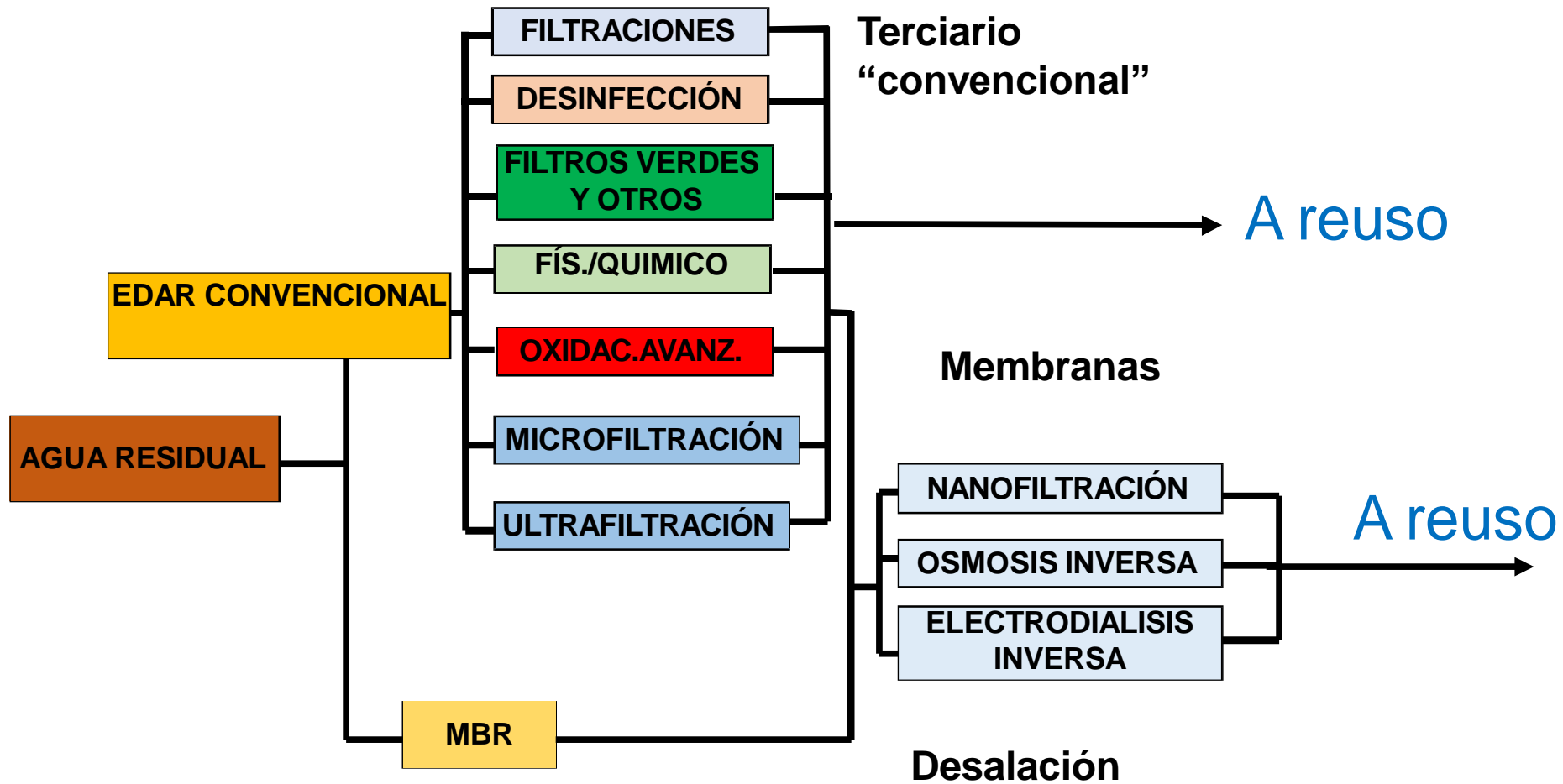
Reuse	Min USD/m3	Drinking Water	Industrial
Argentina	0,3	No	Yes
Brazil	0,2	No	Yes
Chile	0,6	No	Yes
Colombia	0,2	Indirect	Yes
Ecuador	0,2	No	Yes
Peru	0,3	No	Yes
Venezuela	0,5	No	Yes

Source: ALADYR

According to the latest GWI/IDA report, there are currently an estimated 118 million m³/day installed in reuse plants worldwide, with almost half (50.4 million m³/day) installed between the years 2010-2017.

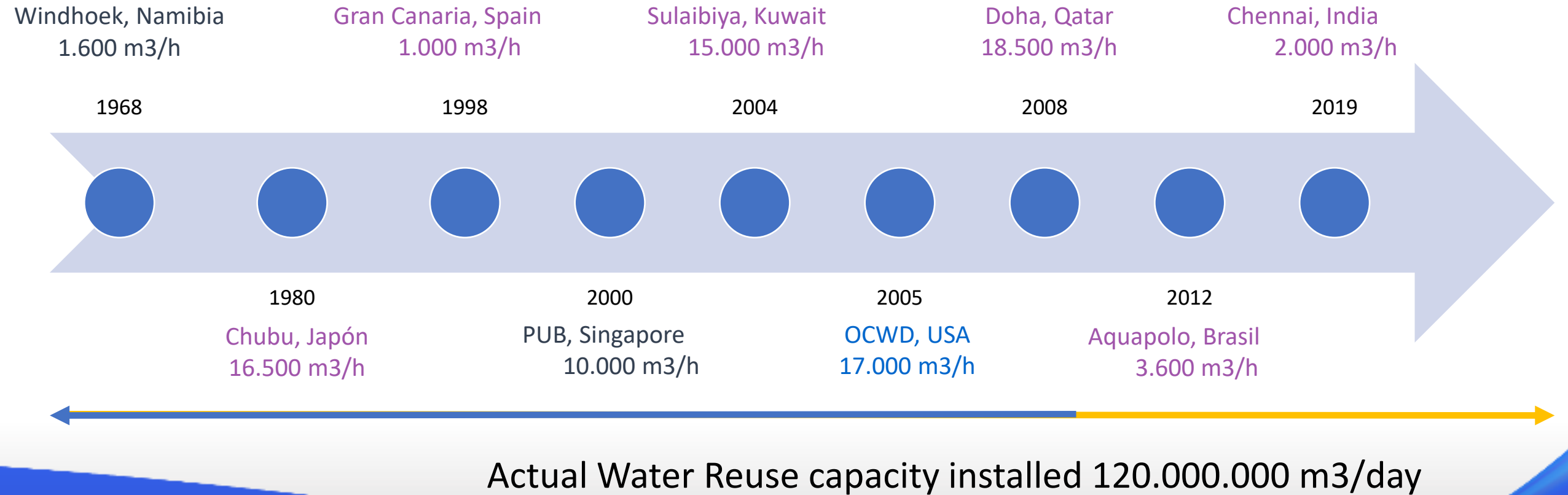
Of the latter almost 30% are due to projects in Asia-Pacific, with Latin America accounting for 10% and Europe for 8%.

TECHNOLOGIES IN REUSE



Source: AEDyR Spain

Past: Famous Water Reuse Plant around the World



Case 01: Municipal WWTP w/ Demineralization

Plant	Valle Guerra WWTP
Location	Tenerife, Islas Canarias, Spain
Process	MBR + EDR
Flowrate	15.000 m ³ /d - 174 L/s
Water Use	Irrigation (agriculture)
Highlight	Reduction of salinity for agriculture irrigation



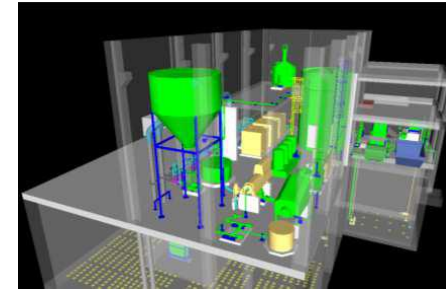
Case 2: Municipal WWTP w/ Advanced Oxidation (AOP)

Plant	La Gavia WWTP
Location	Madrid, España
Process	WWTP + Textile filter + AOP w/ H ₂ O ₂ + O ₃ +UV
Flowrate	129.600 m ³ /d - 1.500 L/s
Water Use	Urban reuse
Highlight	Requirements for low levels in N, P and emergent polutants

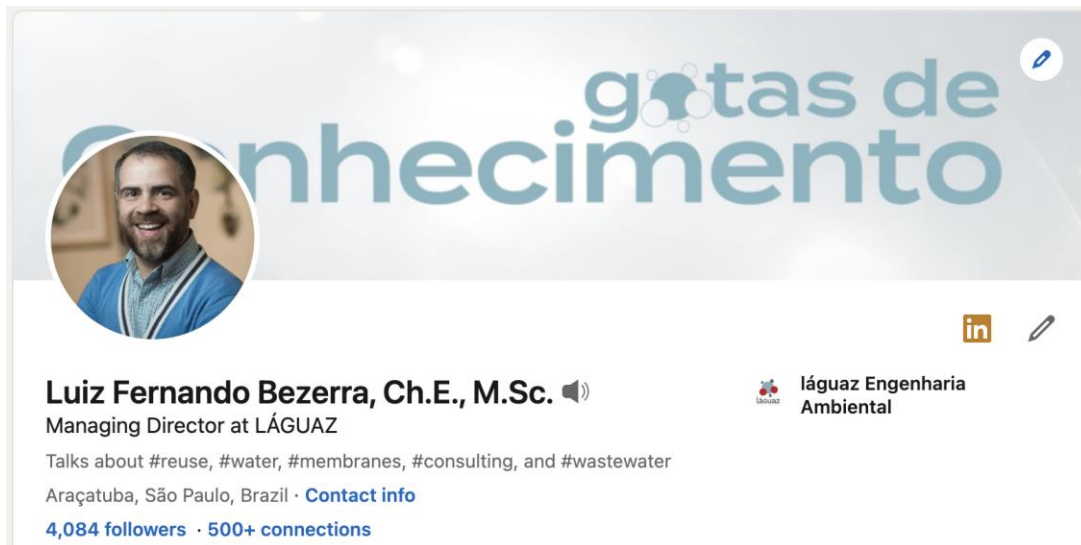


Cases 4. Industrial WWTP (MBR)


Plant	Ice Cream Factory
Location	Alicante, España
Process	DAF+ MBR
Flowrate	800 m ³ /d - 9,3 L/s
Water Use	Garden Irrigation + Utilities
Highlight	High COD wastewater (COD = 10.000 mg/L). Treated WW < 60 mg/L COD - BOT (20 years)




Obrigado!



gotas de conhecimento






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Talks about #reuse, #water, #membranes, #consulting, and #wastewater

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