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# LaLiga

### HYDRALOOP<sup>®</sup> USE WATER TWICE

How decentralized water reuse saves 25-45% on water and wastewater in La Liga training facilities

### Water is life – without it, we have no future

The impact of climate change and demographic change are shaping the future of Spain – water scarcity is now a fact of life, in society as well as in sports.

Water scarcity: Spain's new drought measures threaten mass job losses

### Emerging water stress

Over the last few years, climate change is causing severe droughts in Spain. The hydrologic cycle provides insufficient supply for demand. Water stress is an emerging challenge in Spain and in many countries over the world.



### Ongoing urbanization

In 30 years with 2 billion more people, 60% of the world will be living in urban areas. Without changing our behavior, we will need 55% more water than today. This leaves future generations insufficient water supply for any acceptable comfort of living.



### La Liga challenge

La Liga and its clubs are looking for innovations that meet EU standards for environmental sustainability in sports. Lowering water consumption and realizing sustainable new-builds or retrofits are core goals that Hydraloop can help reach.

### Act wise, use water twice



### Every building has its own water source



Click photo for video 'Hydraloop Introduction'



### How Hydraloop works

#### Collect lightly contaminated greywater

Hydraloop collects water from baths, showers and washing machines as well as condensation water from tumble dryers, heat pumps and air conditioners.

#### Clean the greywater at the source

Hydraloop's sustainable technology treats the greywater in six cleaning steps, resulting in clean, clear, safe, certified and disinfected reusable water for nonpotable use.

#### Reuse the cleaned water

Reusable water is distributed to toilets and washing machines and used for irrigation of pitches and gardens and/or topping up swimming pools.

# The treatment process

### Without the use of chemicals, filters or membranes

Controlled by a central processor and the smart use of air pressure to stimulate the law of communicating vessels, the following sequential treatment processes apply:



#### Sedimentation

Sediment is collected at the bottom of tank



Floatation

Floating dirt (hair, soap) is purged via the central skimmer into the sewer

### 3 Dissolved air floatation

Tiny air bubbles will travel upwards, collecting small particles

#### Foam fractionation

Soap and suspended solids are skimmed off

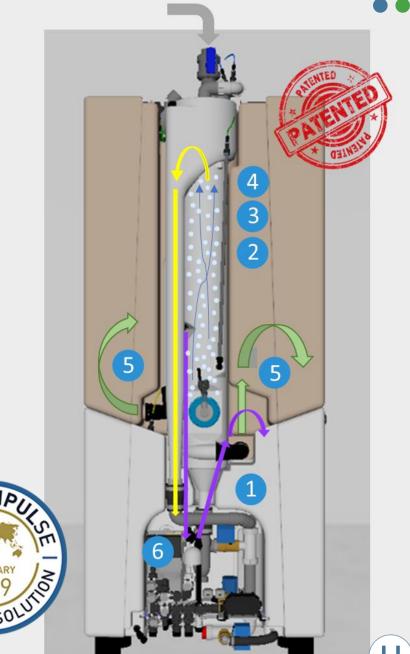
### 5 MBBR

Biological treatment by aerobic bioreactor



UV disinfection Every 4 hour by UV-light





# Hydraloop's solution principles



Leverage extreme decentralized water reuse

#### Safety first



At any time, Hydraloop delivers reuse water that meets the highest safety standards, like NSF/ANSI 350 Class R and European Standard EN16941-2

#### Minimal footprint



Extreme decentralization implies installation in buildings with high square meter costs. Devices are compact, affordable, and include storage capacity.

#### Low maintenance



The device is self-cleaning and sustainable, demanding treatment without filters or membranes, or use of chemicals.

#### Internet connectivity



Each device has a connected Electronic Control Unit (ECU), offering user-friendly controls per app, remote support, and over-the-air software updates.



#### Modular design

A stylish design as well as a modular approach for scaled-to-measure supply.



#### Automatic backup procedure

All processes are controlled electronically. The device switches to use of tap water when running out of reuse water, or system disturbance.



#### Safe air gap

Tap water switch via a safe air gap according to EU, USA & AU standards

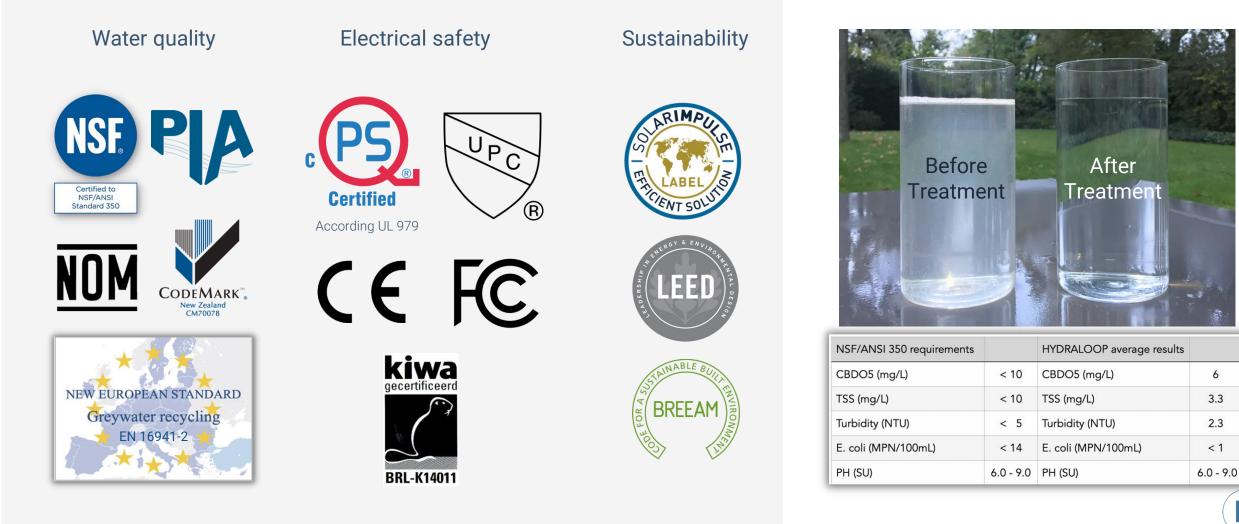


#### Distribution

Treated water is distributed by a low noise water pump and controlled valves

# Hydraloop water quality and certifications

Reuse water meets stringent international quality standards for reuse as non-potable water



# Product portfolio

For residential and commercial real estate



#### **Hydraloop 300** For single-family housing with 4-5

persons

#### Hydraloop 600

For larger communities up to 10 persons

#### Hydraloop Cascade

For multi-family housing, hotels, offices, launderettes, student housing, sports facilities, airports, and more

#### Hydraloop Concealed

For 1-3 person households, apartments, tiny houses and retrofitting



# Hydraloop in sports facilities

Football club VV ONT, Opeinde, Netherlands





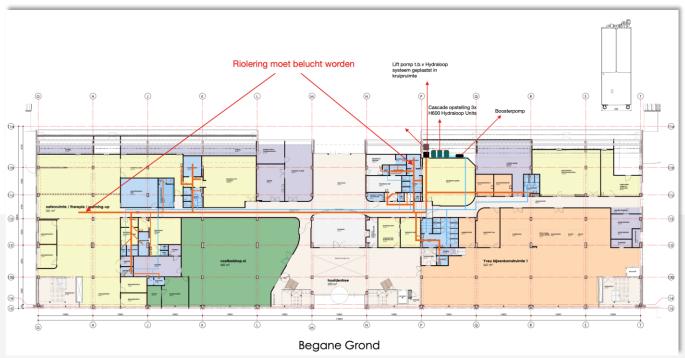
Click photo for video 'Greening the Sports with Hydraloop'

Amateur football club with 600 members. Board is dedicated to sustainability and member equality. Hydraloop Cascade 1800/6 collects water from showers for reuse in toilets. Water savings January 2023: 16.000 liter Awarded 'Sports Facility of the Year' 2023 by NOC\*NSF for sustainability and greywater recycling.

# Hydraloop in sports facilities

Premier League club Cambuur, Leeuwarden, Netherlands





Professional football club from Leeuwarden, playing in the Dutch Premier League. New build of stadium and training facilities in 2023/2024. Under development: Hydraloop Cascade 1800/3 collects water from showers for reuse in toilets. Projected water savings: 2.000 liter per day, up to 600.000 liter per year.

H

# Hydraloop in sports facilities

ater needed for toile ater needed for washing machin ater needed for gard

mount of water available for reuse is

oor snace needed for installation (in m3)

ROI number

NaN

water would you like to take into account?

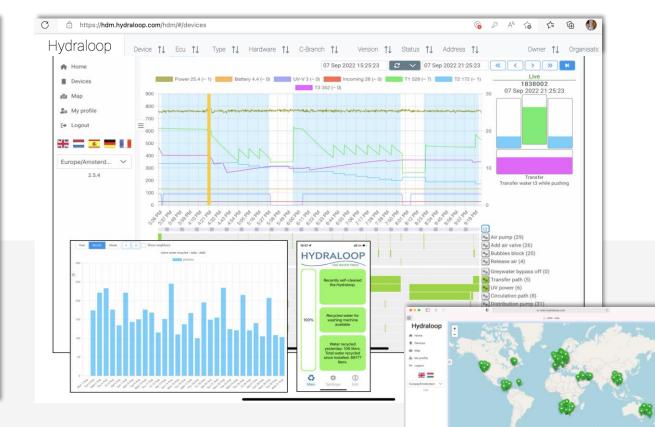
Values (per dav

### Modular, scalable and made to measure

Calculator	=	What output water would you like to take		
H Welcome		<ul> <li>Toilet</li> </ul>		
	Which input water will be cleaned and recycled by Hydraloop? ()	<ul> <li>Washing machine</li> </ul>		
▼ Commercial: Other Project	Water from shower	Garden irrigation		
	Water from bath	Swimming pool		
Variabel water price: <b>3</b>	Water from hand basins	Variables		
0,00€	Condensation water from tumble dryer	Water input from shower		
		Water input from bath		
Variabel waste water price: 🚯	Condensation water from air conditioning unit	Water input from handbasins		
0,00€	Condensation water from heat pump	Water input from tumble dryer		
	What model do you want to use for this calculation?	Water input from air conditioning unit		
		Water input from heat pump		
0,00€	O H300	Total input water		
	H600	Recycled water needed for toilet		
	Back to Welcome page	Recycled water needed for washing ma		
0,00€	buok to Heldome page	Recycled water needed for garden		
		Recycled water needed for pool		
		Total output water		
Liters		The total amount of water available for		
Licio		Amount of H600 units needed		
		Maximum weight of installation (in kg)		
Choose a valuta		Minimum floor space needed for installa		
Euro (€) 🔻		Energy usage per day (in kWh)		
		Variables		
HYDRALOOP		Potential water saving in m3 per year		
CALCULATOR		Money saving per year in EUR		
CALCOLATOR		Pay back time in years		
		,		

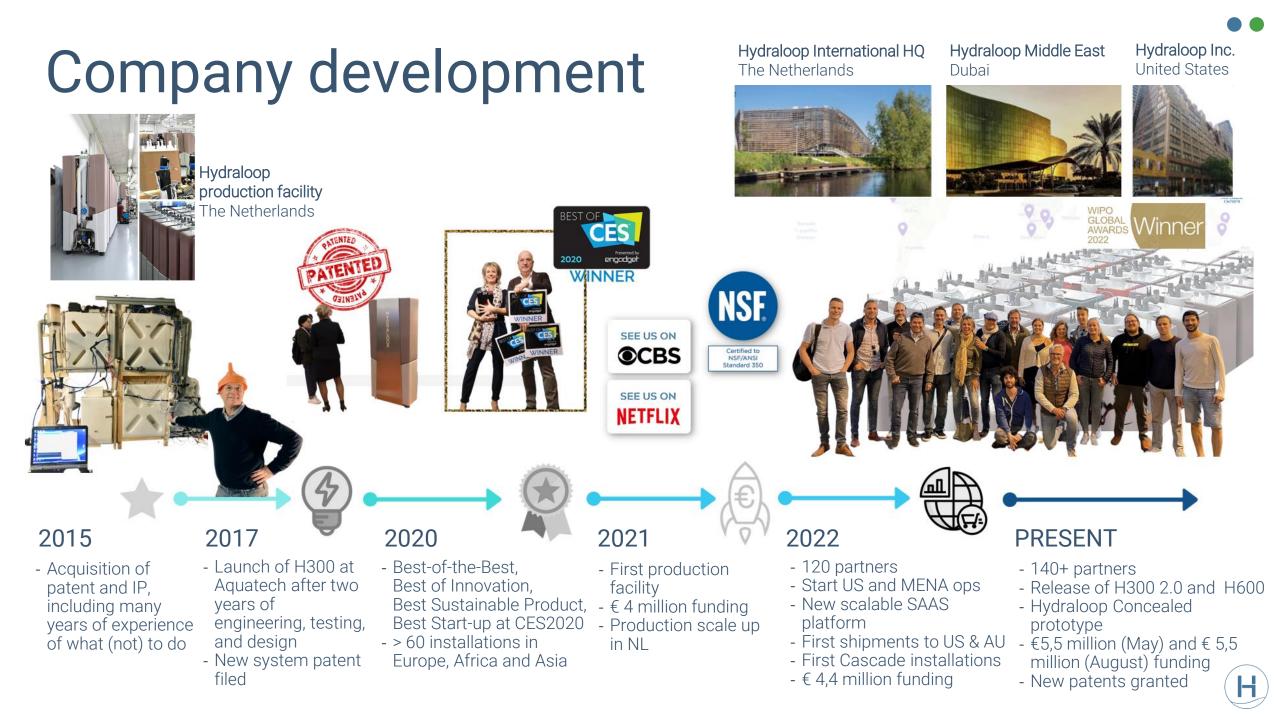
#### Hydraloop Calculator

Software enables made-to-measure projections based on individual needs and specific metrics (input, output, local water prices, etc).



#### Hydraloop Device Manager

A sophisticated IoT driven platform to activate, monitor and support each Hydraloop device, enabling 3rd line support and over-the-air software updates by Hydraloop.



## **Competitive position**

Hydraloop vs. alternative solutions for water supply and water savings

SUSTAINAI DEVELOPMI		Hydraloop	Do nothing	Rainwater harvesting	Desalination	Blackwater recycling	Direct competition
<b>7</b> 6	Clean water	$\checkmark$	X			$\checkmark$	
<b>11</b>	Sustainable cities and communities	$\checkmark$	×	±	±	$\checkmark$	$\checkmark$
<sup>CO</sup> 12	Responsible consumption and production	$\checkmark$	×	±	×	X	$\checkmark$
<b>2</b> 13	Climate action	$\checkmark$	X	±	X	X	$\checkmark$
	Low Maintenance	$\checkmark$	n/a	±	X	X	X
	Small footprint	$\checkmark$	n/a	X	X	X	X
	Home application design	$\checkmark$	n/a	X	n/a	n/a	X
	Return on Investment	±	n/a	±	X	±	±
It always ma	<b>akes sense to use water twice</b> Hydraloop can be used in combinatio			\$ <u>}</u> }			filters, chemicals

# The benefits of water recycling

Comparing Hydraloop with alternative solutions



Water savings Hydraloop saves 25-45% on tap water and wastewater



Energy savings Minimum of 400 kWh per device per year



**Climate independency** Water savings are independent of rainfall



Increasing value of real estate Buildings with double piping and water reuse are future-proof



Unburdening existing infrastructure Water utilities can serve more customers with existing infrastructure, so less need for investments for expansion



**Requiring less investments in new infrastructure** New precincts need smaller infrastructures for water and wastewater



Lowering environmental impact Environmental impact of reuse water is lower than tap water

#### Saving energy with Hydraloop



No import of cold water for toilet flushing



Less electricity usage for laundry



Shower water gives off residual heat

# Value proposition and business model

#### A perfect storm driving demand

Ongoing urbanization and housing shortage are challenging more and more regions around the world, many of them already at their limits of water supply. We see initial cases where building permits are subject to implementing to water efficiency solutions like Hydraloop.

#### Building Water Recycle Ready by design

Water reuse requires a slightly different piping network than currently used in conventional buildings. When implemented by design, extra costs are negligible.

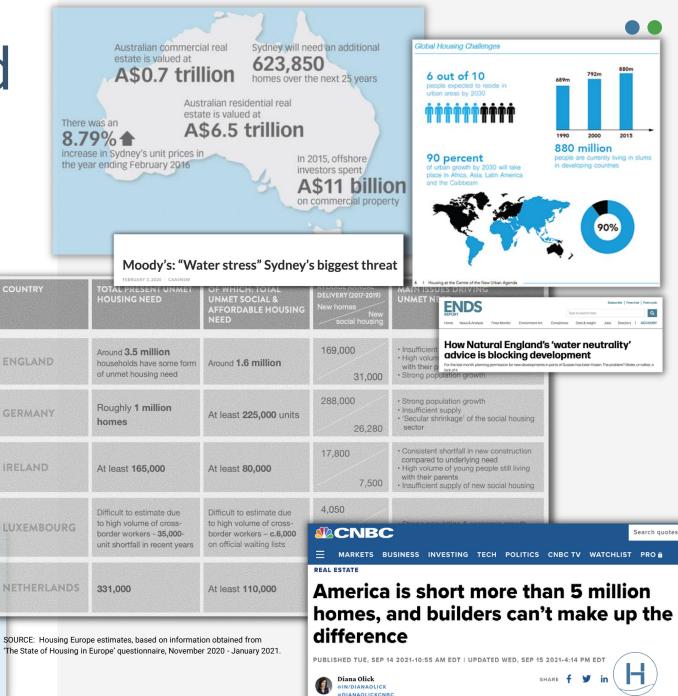
#### Retrofit market will follow

It is only a matter of time until existing buildings need structural retrofitting to become sustainable for future generations.

#### **Compelling Case for Water Neutrality**

Most of the government's targeted 300,000 homes will be constructed in the South and East of England. These areas have high populations and greatest economic activities. Significant developments are also earmarked for these regions; the Oxford - Cambridge ARC with an enormous target of 1 million homes, the 10,000 homes Tewkesbury Garden City, North Essex Garden city; but the list goes on with many less prominent developments that are required to meet demand.

Natural England and the Environment Agency have indeed taken a precautionary approach in considering the potential adverse impact on the Arun Valley ecosystems and protected habitats. But applying the "Precautionary Principle" is a tenet of the Environmental Law and so it must be as we cannot afford to lose habitats, flora and fauna first then act after the event. There is a strong case for taking this stance as technology is readily available at reasonable cost for new developments to actively offset their "new" water demand requirements. SOURCE: Water Offsets UK



@DIANAOLICK

### Internationalization, scalability and growth

#### Think global, act local

Hydraloop delivers a global product. Decentralized production lines will empower scalability, reduce transport costs, minimize carbon footprint, and increase local commitment, acceptance and employability.

Today, we collaborate with 140+ local sales, distribution, and service partners, in a rapidly extending network. Our partners have access to Hydraloop's sophisticated digital partner relationship platform. Every partner scales our reach and secures local support and services.

#### 'Powered by Hydraloop'

Multiple well-established national and international brands have requested to provide Hydraloop technology under their own brand name. A known brand with a new product will move faster than a new brand with a new product. We expect to set up a few of these deals in the forthcoming year.

#### 'Hydraloop Inside'

Leading global white good brands, who know all about low-cost, high-quality production and distribution, are exploring if Hydraloop can be added to their portfolio. We will advance discussions about IP license deals while retaining control with Hydraloop's proprietary software on each unit.



Click image for overview 140+ partners worldwide



# Hydraloop in motion

### A few examples



Brave Blue World Netflix Documentary



Innovation Nation CBS, United States



7 News 7 Network, Australia



Energy Observer United Nations



WIPO Global Award Ceremony United Nations



The 8 O'clock news NPO1, The Netherlands



Ecolndia Deutsche Welle



Founded in Friesland NPO1, The Netherlands



Addressing World Leaders Hydraloop at COP26



Expresso SABC, South Africa

### Awards and Recognition



2023 CES Awards Innovation Award category Smart Home



**2022 EU Proptech Awards** Sponsored by the European Commission Third place



2022 (WIPO) World Intellectual Property Organization Global Award United Nations Award for patented technology with social impact



**2020 CES Awards** Best Startup, Best of Innovation, Best Sustainable Product, Best of the Best



BEST FEATURED INNOVATION ISH 2021 \* \* \* DIGITAL BATHROOM ASSOCIATION







WINNER INNOVATION AWARD INTERNATIONAL WATER SUMMIT



GLOBAL WATER CHALLENGES PRIZE 2019

Water

Europe

