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We already covered the challenges of Plug & Play solutions (S1E8) and the way to foster water innovation (S1E2) with Ravid.

Check it out!

Today, we'd like to solve a puzzle: how to build a sustainable frame to overcome water scarcity?

And to illustrate this, we're going to seek some inspiration from a country living it firsthand: Israel.

Israel is indeed an excellent example for innovative and successful water management

(DON'T!)

WASTE

TER

Now, this starts in a blind spot of the water sector:

irrigation.

Agriculture and Irrigation is the most important consumer of water - 70% of the global water use and we hardly talk about it.

70%

These needs are fertile ground for innovation.

Challenged by water scarcity?

(DON'T!) WASTE WATER

Netafim invented drip irrigation in the 60s. And this solution, which aimed first at the south of Israel, is now widely used worldwide!

> What if energy goes scarce? Solar water heaters, mandatory in the country since the 70s,

> > save 6-8% of the national power use.

We keep referring to the water-energy nexus. I don't think we've realized enough how closely those things are related!

Israel adopted an unusual approach in the capitalistic world to identify challenges and solutions:

central planning

There are two basic pillars to the entire Israeli water miracle. The first was built in the fifties, and that's the national water law.



WASTE

TER

The second pillar is the central planning

and management system of this national resource!

This enables worldwide unique reuse figures, with almost

90% of municipal wastewater being reused for agriculture.



Toilet-to-tap approaches don't apply in Israel - yet every fruit and vegetable produced in the country probably has been irrigated with reclaimed wastewater.

(DON'T!) WASTE WATER

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So you don't *drink* reused wastewater, but you probably *eat* it 🙂

Central planning also brings everyone on an equal level.

The national water law does not differentiate between big cities and isolated villages. Everybody should get the same quality of water!

> This is an enabler and an incentive for

distributed treatments. An approach now deployed worldwide (think of our conversation with Gilad Yogev by S2E7!)

Can Israel's central water approach be taken to the world?

Maybe not one to one in water-rich countries such as France, Switzerland, or the UK. But in many arid countries, for instance, in the Middle East, these Ideas and Principles would be a good fit! The world may then also be an inspiration: advanced reuse fast-movers such as Orange County or Singapore might be a future influence for Israel.

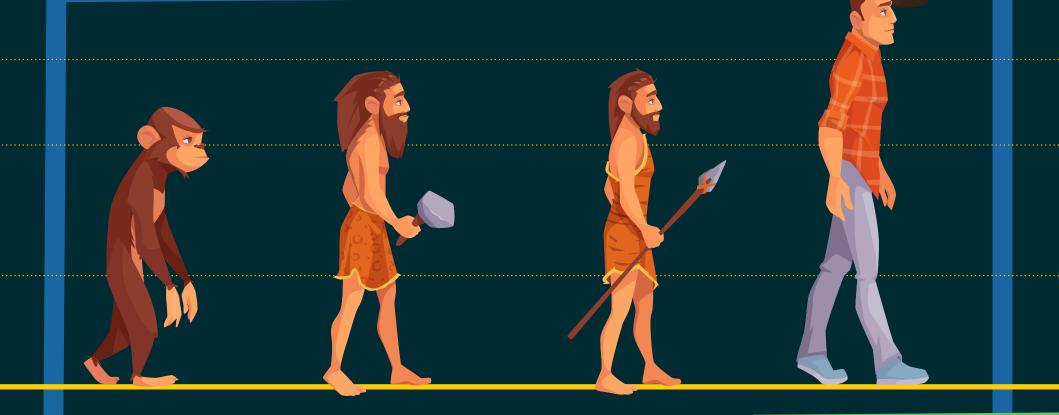


Before potable reuse, there is so much freshwater used in industries that could be replaced by wastewater reuse with not too much investment!

On that path, there is still a nice untapped potential in resource recovery. Is it the next horizon?

If yes, Ravid's vision of the evolution towards *Homo Circularis* may finally be completed.

The human evolution of wastewater handling



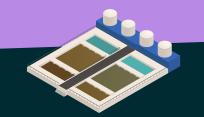
Homo pollutius

Dispose 100%, treat and recycle nothing.



Homo ecologicus

Treat 100%, recycle nothing.



Join the evolution:

dww.show

Homo reuseis

Treat 100%, recycle 80-90% as water, reuse some energy as biogas, safely dispose or decompose the rest.

Homo circularis (aka Sapiens)

Reduce at source, treat 100%, recycle everything as water, energy, biosolids & nutrients. Dispose nothing

Concept: Ravid Levy